



CUKUROVA
9TH INTERNATIONAL SCIENTIFIC
RESEARCHES CONFERENCE
October 9-11, 2022
ADANA



ABSTRACT BOOK

EDITORS
Dr. Çağrı ÜN
Merve KIDIRYUZ

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CUKUROVA 9th INTERNATIONAL SCIENTIFIC RESEARCHES CONFERENCE

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CONFERENCE ID

CONFERENCE TITLE

CUKUROVA 9th INTERNATIONAL SCIENTIFIC RESEARCHES CONFERENCE

DATE AND PLACE

October 9-11, 2022/ Adana, TURKEY

ORGANIZATION

Economic Development and Social Research Institute

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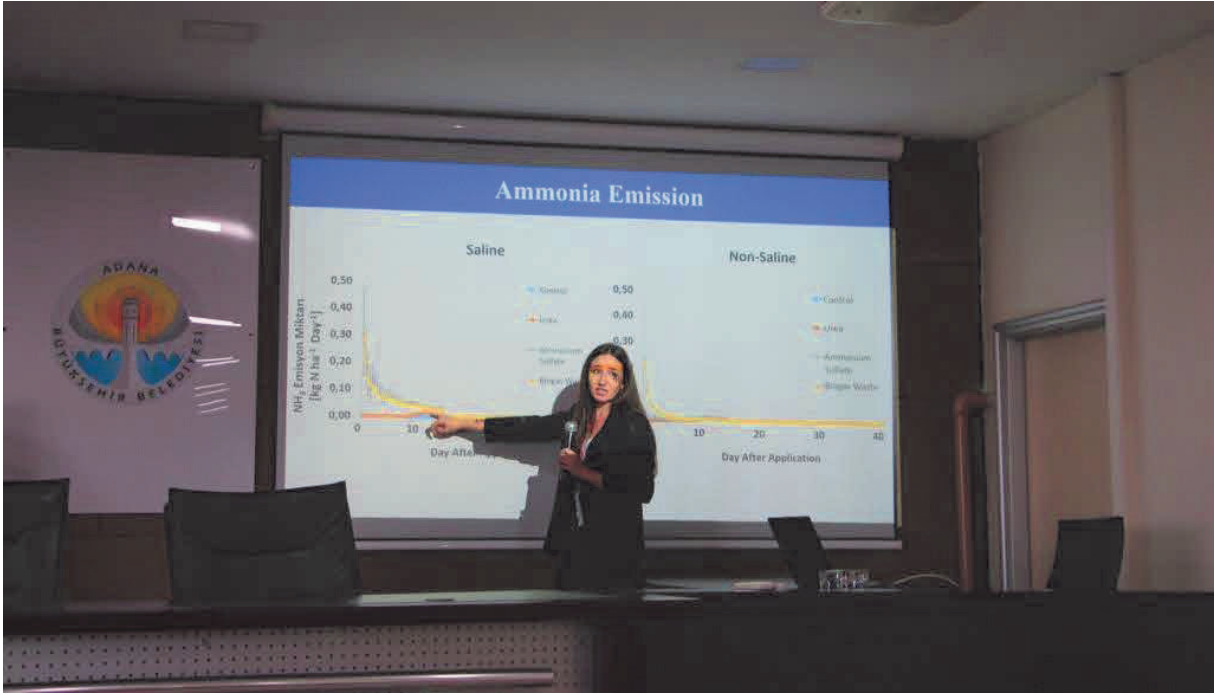
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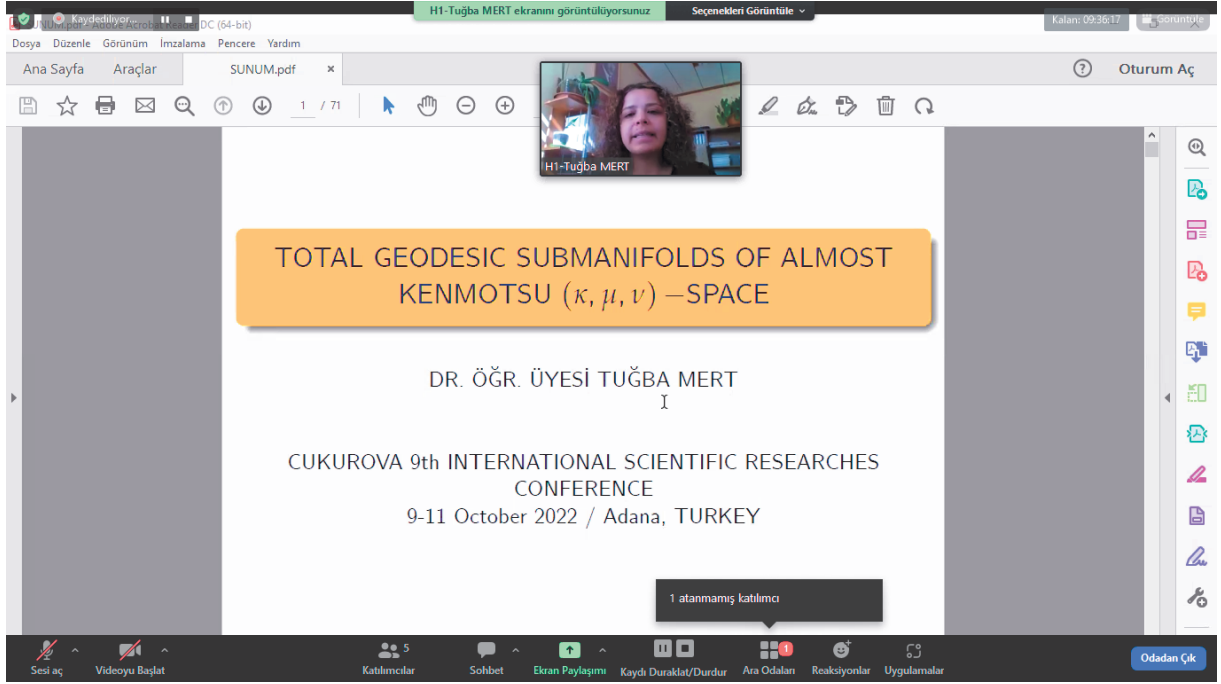
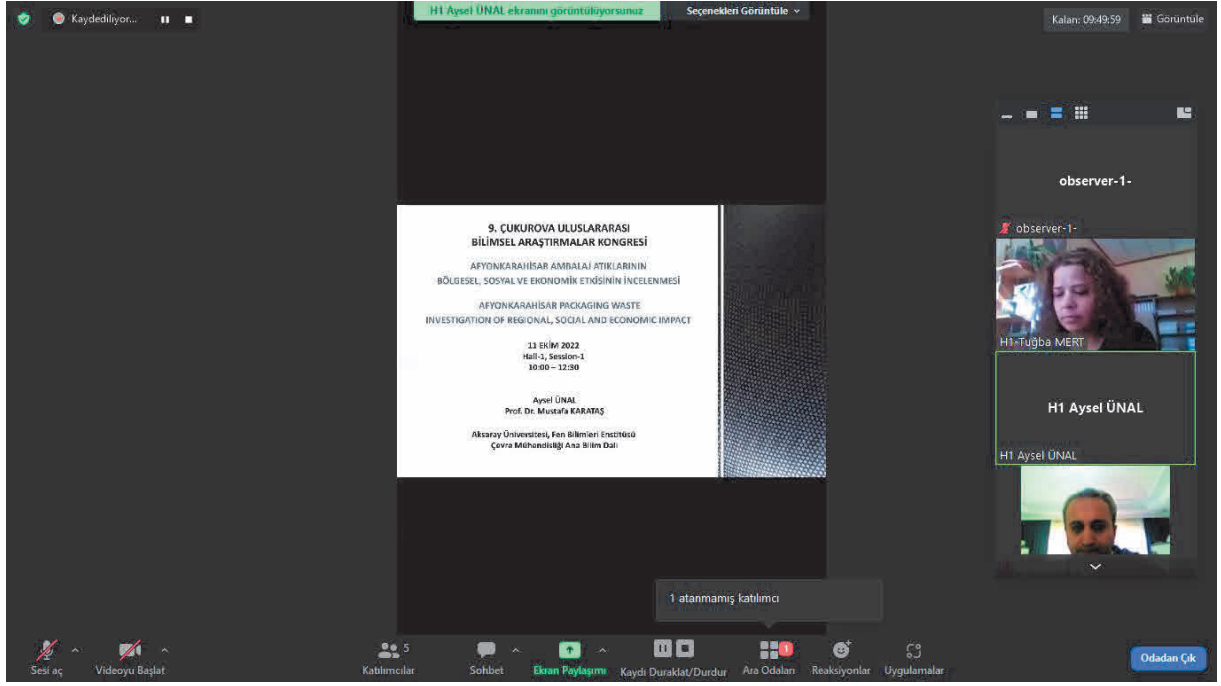













Kaydediliyor... Kalan: 08:45:41

PRATİK İÇİN HARCANAN ZAMANIN MİKTARI + KALİTESİ
=
ÇALGI EĞİTİMİNDE BAŞARI

Disiplin, Düzen, Çaba, Pratik
Çalışma Alışkanlıkları



Amount of time spent on practice + practice quality
=
SUCCESS in INSTRUMENT TRAINING

Discipline, Order, Effort, Practice
Study Habits

observer-1-
observer-1-

H-1 Moderator-Özle...
H-1 Moderator-Özle...

H1 - S3 - Gökhan Öztürk...
H1 - S3 - Gökhan Öztürk...

H1 Sezin Türk K...
H1 Sezin Türk Kaya

H1 - Halil İbrahi...
H1 - Halil İbrahim Polat

Lachin Hasanova
Lachin Hasanova

H-1, Borgia Kartürk...
H-1, Borgia Kartürk...

H1 - Z.Mehlika ULUÇA...
H1 - Z.Mehlika ULUÇA...

H1 - Oğuz Tunçel
H1 - Oğuz Tunçel

muazzez çetiner
muazzez çetiner

Kaydediliyor... Kalan: 08:01:37

BANKLEVELERDE KAMUSAL ALAN VE DÖNÜŞİM POTANSİYELLERİNE BİR YAKLAŞIM: SİRİNYERLER ULU ÇAM VE KEYRESE

Dr. Halil İbrahim POLAT
Mektepe Çarşısı, İstanbul
ORCID İD NO: 0000-0002-4300-4343

ÖZET

Türkiye'de banklevesi, deryasızlık, kuraklık, toprak erozyonu, yerel bitki yitimi gibi problemler ile mücadele edilerek, bu problemlerle mücadele için, banklevesi alanları, banklevesi alanları ve banklevesi alanları için yapılan çalışmaların sonuçları değerlendirilmiştir. Banklevesi alanları, banklevesi alanları ve banklevesi alanları için yapılan çalışmaların sonuçları değerlendirilmiştir. Banklevesi alanları, banklevesi alanları ve banklevesi alanları için yapılan çalışmaların sonuçları değerlendirilmiştir.

Anahtar Kelimeler: Kamusal Alan, Çevre, Banklevesi, Banklevesi Alanları

observer-1-
observer-1-

H-1 Moderator-Özlem Öztürk
H-1 Moderator-Özlem Öztürk

H1 - Z.Mehlika ULUÇAM KIRBAĞ
H1 - Z.Mehlika ULUÇAM KIRBAĞ

H1 - S3 - Gökha...
H1 - S3 - Gökhan Öztürk

H-1, Borgia Kartürk - Session 3
H-1, Borgia Kartürk - Session 3

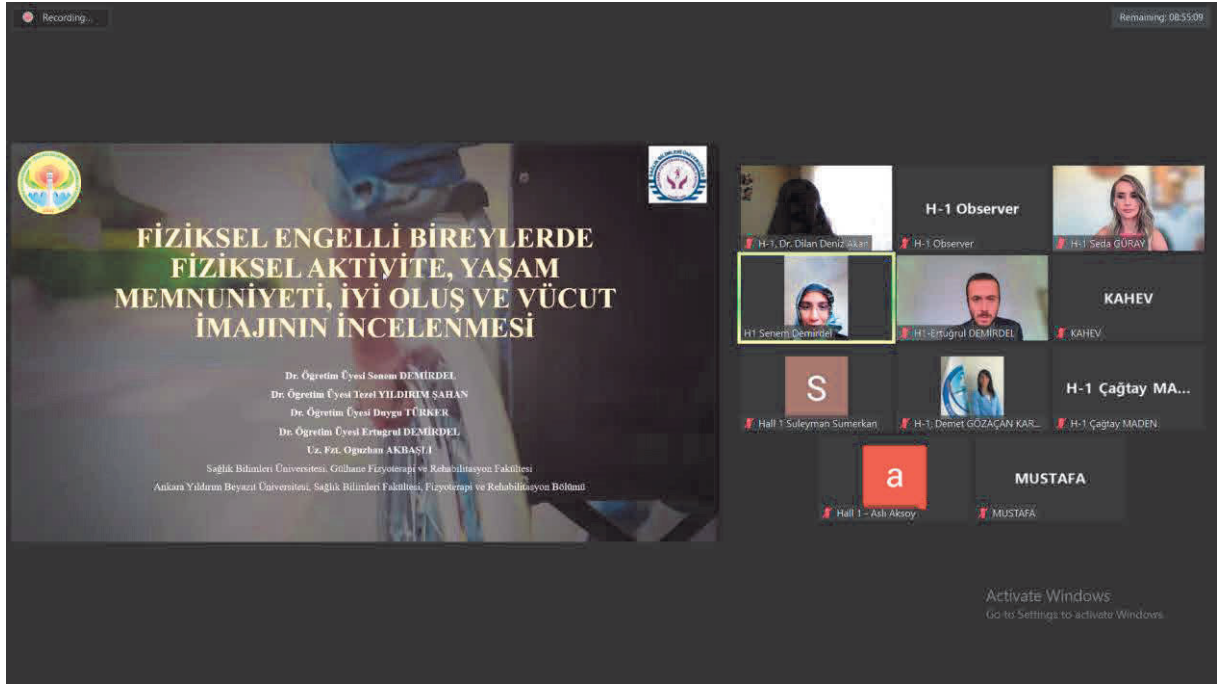
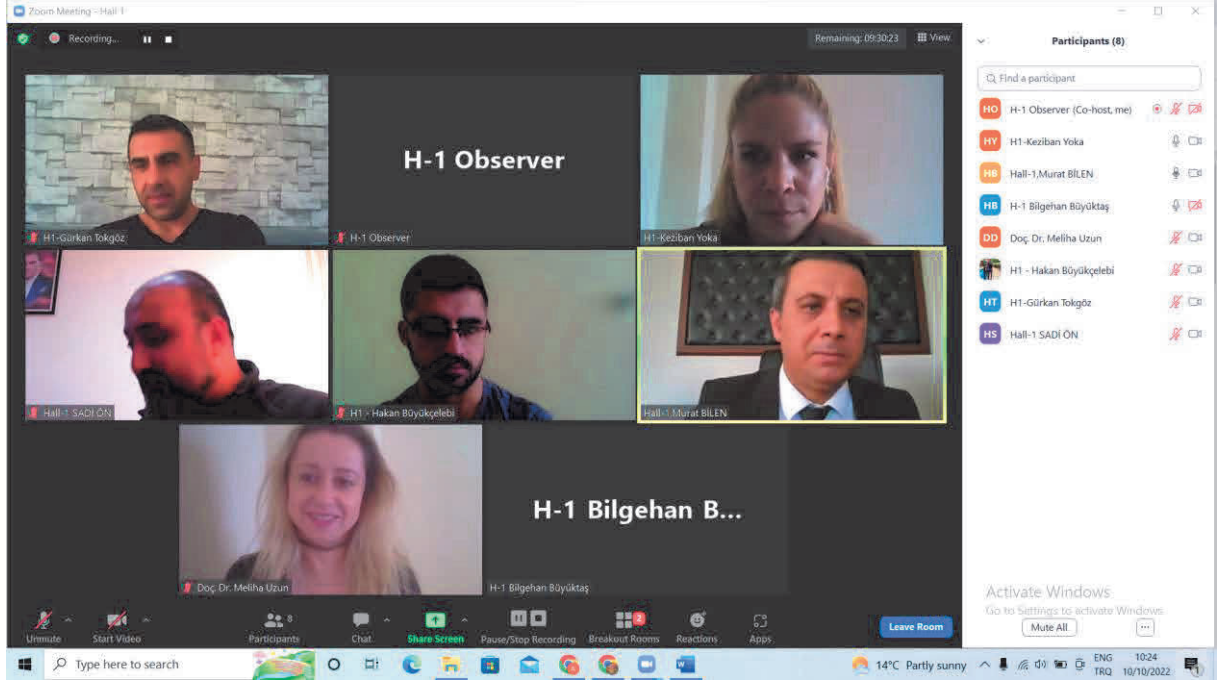
H-1 Session 3- Ebru Aracı
H-1 Session 3- Ebru Aracı

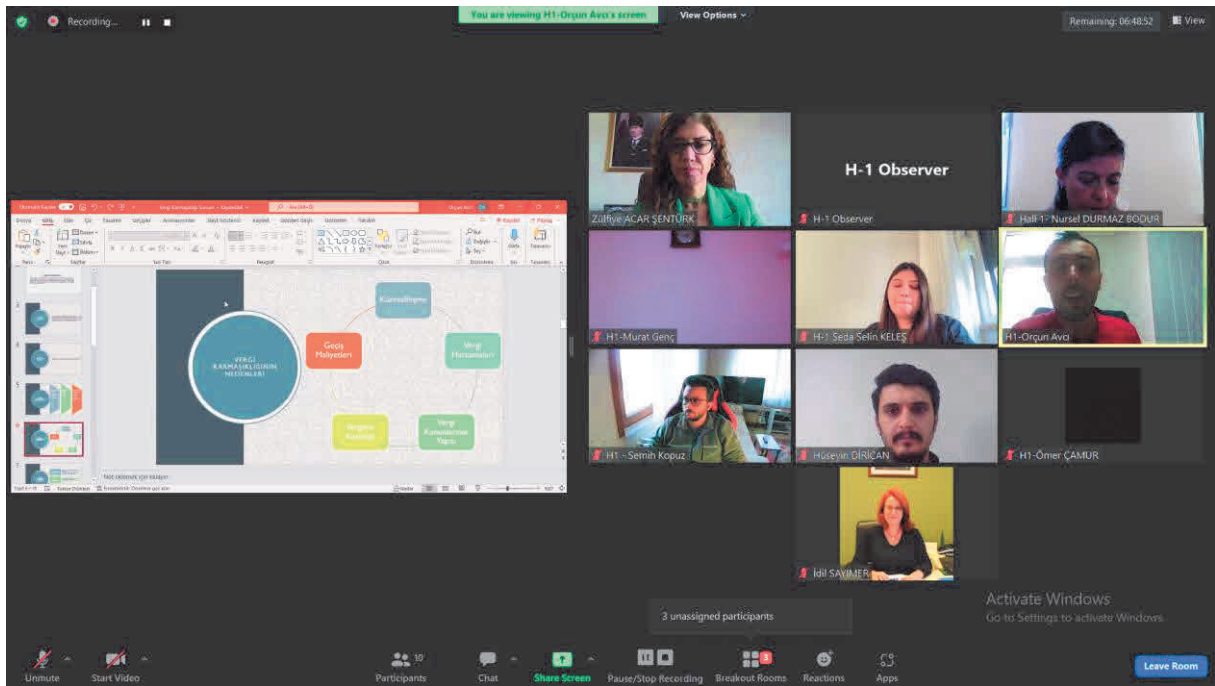
Admin
Admin

H1 - Oğuz Tunçel
H1 - Oğuz Tunçel

H1 - Sezin Türk Kaya
H1 - Sezin Türk Kaya

H1 - Halil İbrahim Polat
H1 - Halil İbrahim Polat





Zoom Toplantı - Hall-3

Original Ses: Kapalı Kaydediliyor Görüntüle

Hall-3, Observer

H3-OKAN SARIĞÖZ H3-Emre EV ÇİMEN

AYSEL ARSLAN H3-Balkan Ozan Öngel Hülya Dede

H-3 Kibar Evren... H3- Tuba Yavaş

H-3 Kibar Evren BOLAT H3- Tuba Yavaş

Sesi aç Videoyu Başlat Katılımcılar Sohbet Ekran Paylaşımı Kaydı Duraklat/Durdur Reaksiyonlar Uygulamalar Daha fazla Odadan Çık

Katılımcılar (8)

Q Katılımcı bul

- HO H... (Ortak oturum sahibi, ben)
- H3-Emre EV ÇİMEN
- HS H3-OKAN SARIĞÖZ
- Hülya Dede
- AYSEL ARSLAN
- HK H-3 Kibar Evren BOLAT
- HT H3- Tuba Yavaş
- H3-Balkan Ozan Öngel

Tümünü Sessize Al

Zoom Toplantı - Hall-3

Original Ses: Kapalı Kaydediliyor Görüntüle

Hall-3, Observer

MODERATOR H 3- M... H3- Halil Akkuş H3 Mehmet DENLİ

H3- Gazi Baran... H3-Sümevra Topal H3- Gazi Baran CAM...

Hall 3 Oktay YANIK H3-Süreyya Nur

Prof. Dr. Şükrü KARAT... H3- Malahat Abdullayeva

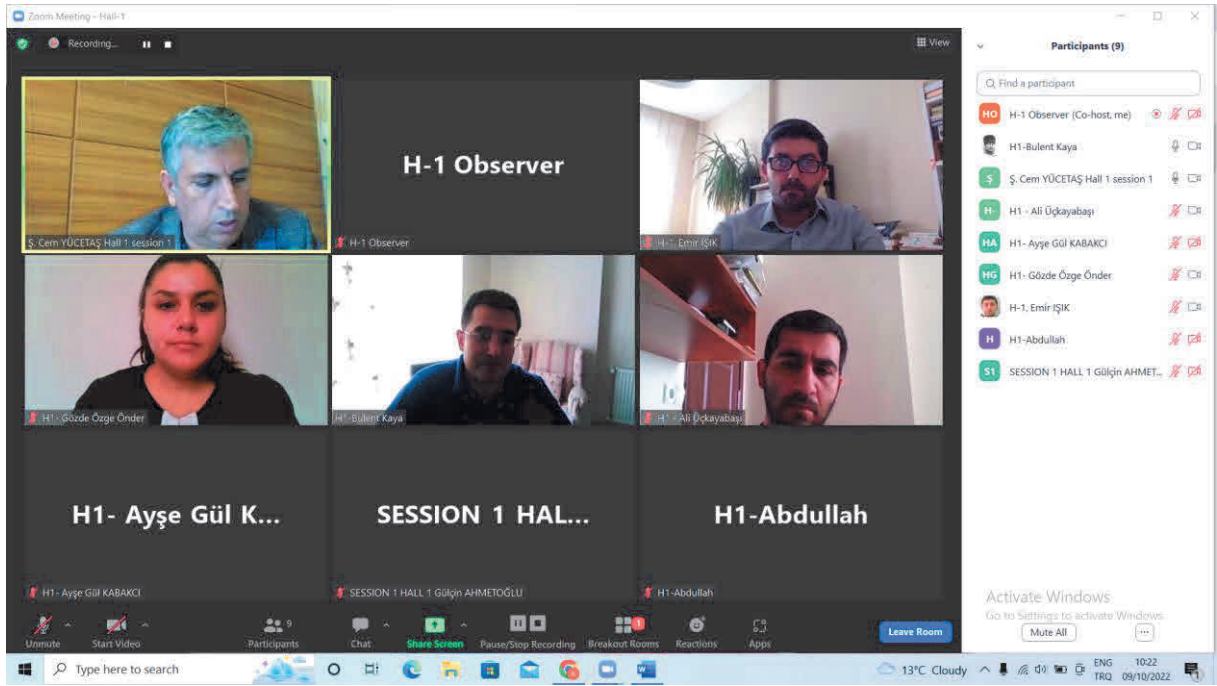
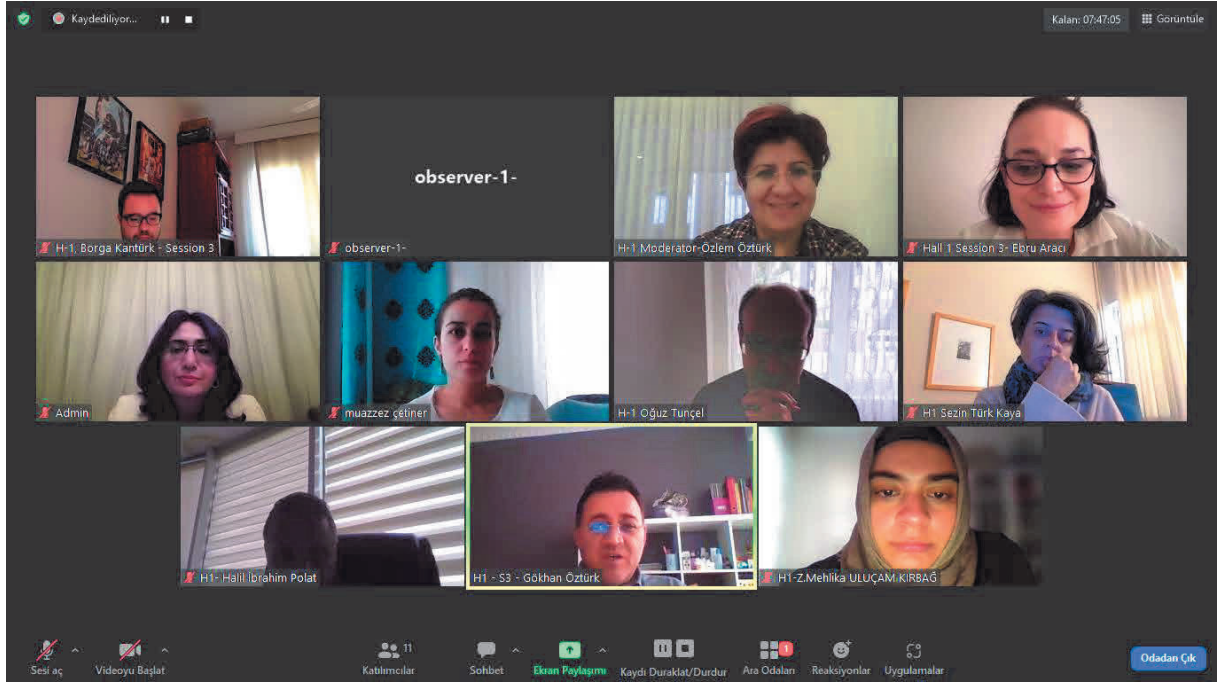
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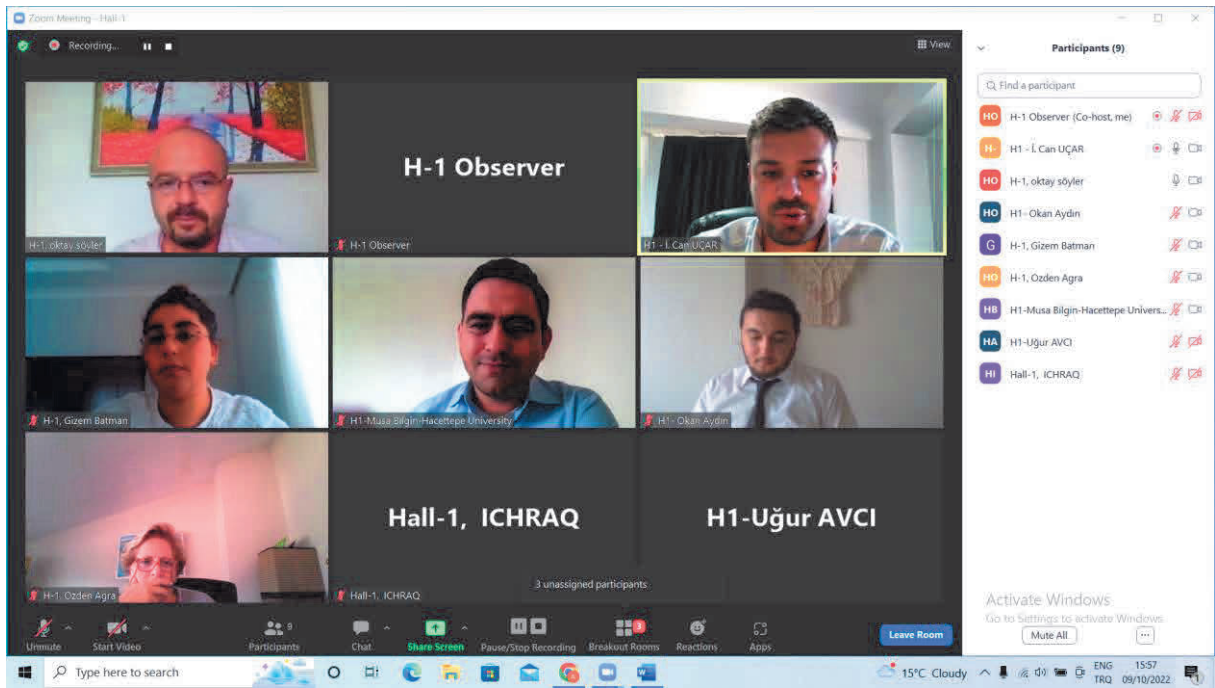
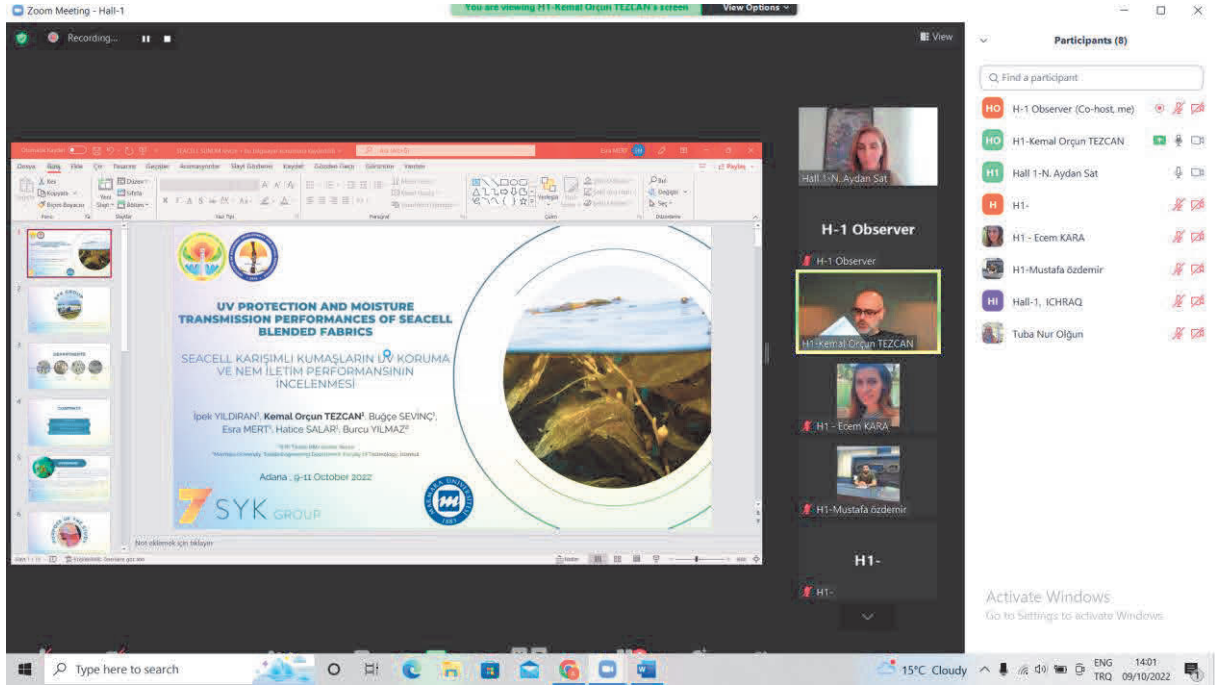
Katılımcılar (12)

Q Katılımcı bul

- HO H... (Ortak oturum sahibi, ben)
- H-3, Malahat Abdullayeva
- EK Esin Kavuran
- HÇ H-3 Çağatay ESİN
- HG H3- Gazi Baran CAMCI- Esin Kav...
- H3- Halil Akkuş
- H3 Mehmet DENLİ
- H3-Süreyya Nur
- HT H3-Sümevra Topal
- Hall 3 Oktay YANIK
- MH MODERATOR H 3- Mesut TELEŞ
- PD Prof. Dr. Şükrü KARATAŞ-Hall-2

Tümünü Sessize Al





CUKUROVA

9th INTERNATIONAL SCIENTIFIC RESEARCHES CONFERENCE

October 9-11, 2022
ADANA, TURKEY



CONFERENCE PROGRAM

Meeting ID: **787 585 7978**

Passcode: **010101**

Participant Countries: **50 countries**

Türkiye, Philipine, Indonesia, Romania, Azerbaijan, Pakistan, Malaysia, Libya, Iraq, India, Portugal, Albania, Vietnam, Nigeria, Kazakhstan, Spain, Ukraine, Kosovo, Saudi Arabia, Ghana, Brazil, Austria, Russia, Denmark, Sweden, Lithuania, Morocco, Algeria, Slovakia, Iran, USA, China, Hungary, Kenya, Slovenia, Ethiopia, Italy, Yemen, Poland, Serbia, Cameroon, Uganda, France, Georgia, Oman, Benin, Sri Lanka, Mexican, Croatia, Jordan

Onəmli, Xahiş edirik diqqətlə oxuyasınız

- ❖ Konfransımızda Yazı Qaydalarına uyğun göndərilmiş və elmi komissiyadan keçən məruzələr üçün online (video konfran şəklində) çıxış imkanı veriləcəkdir.
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- ❖ ZOOM tətbiqi qeydiyyatdan keçmədən istifadə edilə bilər
- ❖ Tətbiq planşet, telefon və kompyuterlərdə mümkündür
- ❖ Hər iclasda məruzəçilər məruzə saatından 5 dəqiqə əvvəl konfransa bağlanmış olmaları lazımdır
- ❖ Bütün konfrans iştirakçıları canlı qoşularaq bütün məruzələri izləyə bilərlər.
- ❖ Moderator – iclasdakı çıxış və elmi diskussiyalar (sual-cavab) hissəsindən məsuldurlar

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- ◆ Sertifikatlar konfransdan sonra sizlərə PDF olaraq göndəriləcəkdir.
- ◆ Konfrans programında yer və saat dəyişikliyi kimi tələblər nəzərə alınmayacaqdır.

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- ❖ Kongremizdə Yazım Kurallarına uyğun göndərilmiş və bilim kurulundan keçən bildiriilər için online (video konfrans sistemi üzərindən) sunum imkanı sağlanmışdır.
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- ❖ Zoom uygulaması kaydolmadan kullanılabilir.
- ❖ Uygulama tablet, telefon ve PC'lerde çalışıyor.
- ❖ Her oturumdaki sunucular, sunum saatinden 5 dk öncesinde oturuma bağlanmış olmaları gerekmektedir.
- ❖ Tüm kongre katılımcıları canlı bağlanarak tüm oturumları dinleyebilir.
- ❖ Moderator – oturumdaki sunum ve bilimsel tartışma (soru-cevap) kısmından sorumludur.

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- ◆ Kongre programında yer ve saat değişikliği gibi talepler dikkate alınmayacaktır

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- ❖ All congress participants can connect live and listen to all sessions.
- ❖ Moderator is responsible for the presentation and scientific discussion (question-answer) section of the session.

Points to Take into Consideration - TECHNICAL INFORMATION

- ◆ Make sure your computer has a microphone and is working.
- ◆ You should be able to use screen sharing feature in Zoom.
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- ◆ Requests such as change of place and time will not be taken into consideration in the congress program.

**Before you login to Zoom please indicate your name surname and hall number,
exp. H-1, Ayşe YILMAZ**

09.10.2022, Sunday

Ankara Time
10⁰⁰ : 12⁰⁰

Adana Büyükşehir Belediye
Meclisi

HEAD OF SESSION: Assoc. Prof. Dr. Hakan KAVUR

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Dr. Öznur ÇETİN Dr. Nurengin METE Hülya KAYA Dr. Mehmet HAKAN Dr. Nurcan ULUÇAY Hükümran GÜL Dr. Songül ACAR	<i>Olive Research Institute (Türkiye) Ministry of Agriculture and Forestry (Türkiye) West Mediterranean Agricultural Research Institute (Türkiye)</i>	ESTABLISHMENT AND MANAGEMENT OF HYBRID POPULATIONS FOR GENETIC RESEARCH IN OLIVES
Vasan ALMARIE, Emrah RAMAZANOĞLU Prof. Dr. Mehmet Ali ÇULLU Assoc. Prof. Dr. Mehmet ŞENBAYRAM	<i>Harran University (Türkiye)</i>	INTERACTIVE EFFECT OF FERTILIZER AND SOIL TYPES ON NH ₃ VOLATILIZATION
Ferit KIRAY Vasan ALMARIE, Emrah RAMAZANOĞLU Emin ERDİNÇ Prof. Dr. Mehmet Ali ÇULLU Assoc. Prof. Dr. Mehmet ŞENBAYRAM	<i>Harran University (Türkiye)</i>	DETERMINATION OF RATE AND TIMING OF NITROGEN FERTILIZATION VIA MULTISPECTRAL IMAGING IN IRRIGATED AND NON-IRRIGATED WHEAT
Emrah RAMAZANOĞLU Vasan ALMARIE Prof. Dr. Mehmet Ali ÇULLU Assoc. Prof. Dr. Mehmet ŞENBAYRAM	<i>Harran University (Türkiye)</i>	EFFECT OF SOIL SALINITY ON N ₂ O EMISSIONS
Assist. Prof. Dr. Halil ÖZKURT Assoc. Prof. Dr. Hakan KAVUR Prof. Dr. Davut ALPTEKİN	<i>Çukurova University (Türkiye)</i>	STATISTICAL ANALYSES OF ULTRASONIC SOUND EFFECT ON MUSCA DOMESTICA (DIPTERA: MUSCIDAE) ADULTS
Assist. Prof. Dr. Erdal BAYIR Prof. Dr. İsmet KAYA	<i>Çanakkale Onsekiz Mart University (Türkiye) Osmaniye Korkut Ata University (Türkiye)</i>	SYNTHESIS, CHARACTERIZATION AND ADSORPTION APPLICATIONS OF POLY 3-((2- PHENYLHYDRAZINEYLLEDE)METHYL)BENZENE- 1,2-DIOL
Assist. Prof. Dr. Erdal BAYIR	<i>Çanakkale Onsekiz Mart University (Türkiye)</i>	INVESTIGATION OF THE SYNTHETIC CHARACTERIZATION AND ADSORPTION PROPERTIES OF POLY(4-((2- PHENYLHYDRAZINEYLLEDE)METHYL) BENZENE1-3-DIOL

09.10.2022, Sunday



Ankara Time
12³⁰ : 14³⁰

Adana Büyükşehir Belediye
Meclisi

HEAD OF SESSION: Assoc. Prof. Dr. Mustafa KILIÇ

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Dr. Çağdaş ALLAHVERDİ	<i>Toros University (Türkiye)</i>	QUANTUM CONFINEMENT EFFECT AT II-VI QUANTUM DOTS
Mücahit ÇAĞDAŞ Tark UĞUREL	<i>Tectone Teknoloji Sanayi ve Ticaret A.Ş (Türkiye)</i>	SOLVING THE OVER TEMPERATURE PROBLEM IN THE ROTATING SPIT MOTOR USED IN THE MINI OVEN BY NUMERICAL ANALYSIS
Mücahit ÇAĞDAŞ Gencay YİĞİT Fehmi OGUZTÜRK	<i>Tectone Teknoloji Sanayi ve Ticaret A.Ş (Türkiye)</i>	DETERMINE POSSIBLE PROBLEMS AS NUMERICAL ANALYSING OF 60 CM BUILT-IN OVENS BEFORE PRODUCTION
Ilyas DAGLI Büşra AVCI Dr. İlkey ATAR Prof. Dr. Fatih MENGELOĞLU	<i>Kahramanmaraş Sütçü İmam University (Türkiye)</i>	PRODUCTION OF CHIPBOARD USING RED PINE CONES AND WOOD CHIPS
Kerem SERINKAYA Büşra AVCI Dr. İlkey ATAR Prof. Dr. Fatih MENGELOĞLU	<i>Kahramanmaraş Sütçü İmam University (Türkiye)</i>	DETERMINATION OF MECHANICAL PROPERTIES OF LOW DENSITY POLYETHYLENE COMPOSITES FILLED WITH RED PINE CONE FLOUR
Assoc. Prof. Dr. Serhat Orkun TAN Assoc. Prof. Dr. İlker TÜRKER	<i>Karabuk University (Türkiye)</i>	EXAMINATION AND STATISTICAL ANALYSIS OF THIN FILM DEPOSITION TECHNIQUES IN DISTINCT METAL-SEMICONDUCTOR STRUCTURES
Assoc. Prof. Dr. İlker TURKER Assoc. Prof. Dr. Serhat Orkun TAN	<i>Karabuk University (Türkiye)</i>	SCIENTIFIC IMPACT OF GRAPH-BASED APPROCHES IN DEEP LEARNING STUDIES - A BIBLIOMETRIC COMPARISON
Assoc. Prof. Dr. Mustafa KILIÇ Res. Assist. Mahir ŞAHİN	<i>Adana Alparslan Turkes Science and Technology University (Türkiye)</i>	EXPERIMENTAL INVESTIGATION OF THE EFFECT OF DIFFERENT PARAMETERS ON HEAT TRANSFER PERFORMANCE OF THE SHELL-AND-TUBE HEAT EXCHANGER
Assoc. Prof. Dr. Mustafa KILIÇ Res. Assist. Mahir ŞAHİN	<i>Adana Alparslan Turkes Science and Technology University (Türkiye)</i>	NUMERICAL INVESTIGATION OF THE HEAT TRANSFER EFFECT OF DIFFERENT NANOFLUIDS IN A SHELL-AND-TUBE HEAT EXCHANGER

09.10.2022, Sunday



Ankara Time
15⁰⁰ : 17⁰⁰

Adana B y k ehir Belediye
Meclisi

HEAD OF SESSION: Assist. Prof. Dr. Abbas KARAAGAÇLI

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Assoc. Prof. Dr. Mehibe �AHBAZ	�ukurova University (T�rkiye)	WEDDING IN PRE-ISLAMIC TURKISH STATES (AL DUVAK)
Assoc. Prof. Dr. Mehibe �AHBAZ	�ukurova University (T�rkiye)	FELT IN PRE-ISLAMIC TURKISH STATES
Alican �İM�EK Assoc. Prof. Dr. Arif �ER�I	Gaziantep University (T�rkiye)	TYPES OF MISTAKES AND ERRORS THAT TURKISH TEACHERS FOCUS ON WHILE EVALUATING STUDENTS' WRITTEN EXPRESSIONS
Assist. Prof. Dr. Abbas KARAAGAÇLI	Giresun University (T�rkiye)	WHAT HAPPENED IN THIS COUNTRY WHEN THE TALIBAN ORGANIZATION WAS DOMINATED AFGHANISTAN
Dr. �ađrı �N	�ukurova University (T�rkiye)	INNOVATIVE TECHNOLOGICAL APPLICATIONS IN FIRE-FIGHTING VEHICLES, T�RKIYE EXAMPLE

09.10.2022, Sunday

Ankara Time
10⁰⁰ : 12³⁰

Hall-1
Session-1

HEAD OF SESSION: Assoc. Prof. Dr. Şeyho Cem YÜCETAŞ

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Assoc. Prof. Dr. Şeyho Cem YÜCETAŞ	Adiyaman University (Türkiye)	EFFECT OF EMG ON SURGICAL SUCCESS IN CERVICAL HERNIATED DISCS
Dr. Bülent KAYA	Çukurova University (Türkiye)	A CASE REPORT ON A PATIENT SUCCESSFULLY TREATED OF MEMBRANOUS GLOMERULONEPHRITIS WITH TREATMENT OF MALIGNANT DISEASE
Dr. Bülent KAYA	Çukurova University (Türkiye)	NEPHROTIC SYNDROME-RELATED INFERIOR VENA CAVA OBSTRUCTION: A CASE REPORT
Res. Assist. Dr. Ozge GOKTEPE Demet BOLAT Assist. Prof. Dr. Gözde Özge ÖNDER Prof. Dr. Arzu YAY	Erciyes University (Türkiye)	EFFECT OF VITAMIN B3 (NICOTINAMIDE) ON CELL DEATH MECHANISMS IN MDA-MB-231 BREAST CANCER CELL LINE
Assist. Prof. Dr. Gamze TAŞKIN ŞENOL Prof. Dr. İbrahim KÜRTÜL Abdullah RAY Gülçin AHMETOĞLU	Bolu Abant İzzet Baysal University (Türkiye)	MORPHOMETRY OF THE CRURAL BONES AND THEIR CLINICAL SIGNIFICANCE
Res. Assist. Dr. Ayşe Gül KABAKCI Uzm. Dr. Koray ÇOĞUL Prof. Dr. Memduha GÜLHAL BOZKIR	Çukurova University (Türkiye) Exp. Dr. Koray Plural Clinic (Türkiye) Çukurova University (Türkiye)	INVESTIGATION OF THE EFFICIENCY OF OZONE THERAPY IN THE TREATMENT OF GANGLION CYST; CASE REPORT
Ph.D. Ali ÜÇKAYABAŞI Assist. Prof. Dr. Emel EKER Assist. Prof. Dr. Toğrul NAĞIYEV Prof. Dr. Fatih KÖKSAL	Çukurova University (Türkiye) Beykent University (Türkiye) Çukurova University (Türkiye) Çukurova University (Türkiye)	DETERMINATION OF DISTRIBUTION OF NONTUBERCULOUS MYCOBACTERIA (NTM) SPECIES IN CLINICAL SAMPLES SENT TO A RESEARCH CENTER
Uzm. Dr. Duygu VURALLI Assoc. Prof. Dr. Sema POLAT Assist. Prof. Dr. Emir İbrahim İŞİK	Çukurova University (Türkiye)	INVESTIGATION OF THE RELATIONSHIP BETWEEN HEAD AND NECK RANGE OF MOTION AND BODY MASS INDEX

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Session-1

HEAD OF SESSION: Assist. Prof. Dr. Pakize OBAN KARABULUT

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Proj. Assist. Mehmet IEK	<i>Bursa Uludağ University (Türkiye)</i>	THE PROBLEM OF EVIL IN AUGUSTINUS AND IBNI SINA
Sultan FİDAN KARAATA	<i>Burdur Mehmet Akif Ersoy University (Türkiye)</i>	THE EVALUATION OF TAHSİN YUCEL'S BOOK TITLED "ANATOLIAN TALES" IN TERMS OF THE ROOT VALUES IN THE TURKISH TEACHING PROGRAM
Assist. Prof. Dr. Mehmet Fetih YANARDAĞ Azize BATI	<i>Kahramanmaraş Sütçü Imam University (Türkiye)</i>	SOCIAL LIFE IN THE MUSTAFA KUTLU'S STORIES
Assist. Prof. Dr. Mehmet Fetih YANARDAĞ Ferhat ALTUN	<i>Kahramanmaraş Sütçü Imam University (Türkiye)</i>	WOMEN IN THE STORIES OF ERENDİZ ATASÜ
Assist. Prof. Dr. Pakize OBAN KARABULUT	<i>Bitlis Eren University (Türkiye)</i>	THE MAARIF CONGRESS AND ITS IMPORTANCE FOR TURKISH EDUCATIONAL HISTORY
Assist. Prof. Dr. Gülsüm TÜTÜNCÜ	<i>Dokuz Eylül University (Türkiye)</i>	THE SOUTHERN WORKERS FEDERATION OF TRADE UNIONS AND ITS EFFECT ON THE DEVELOPMENT OF UKUROVA UNIONS (1950-1960)
Assoc. Prof. Dr. Cengiz ŞAVKILI Zeynep ERGEN	<i>Kahramanmaraş Sütçü Imam University (Türkiye)</i>	STRUCTURE AND ACTIVITIES OF ADANA NATIONALS SCHOOLS (1929-1935)
PHD on History Mayıs Valimammad oğlu Jafarov Guliyev Amrah Jabir oğlu	<i>Lankaran State University (Azerbaijan)</i>	HISTORIOGRAPHY OF TEACHING THE YOUNG GENERATION OF HEYDAR ALIYEV'S LEGACY

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Hall-3
Session-1

HEAD OF SESSION: Assist. Prof. Dr. Zekeriya TEMIRCAN

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Assist. Prof. Dr. Gizem AKCAN Assoc. Prof. Dr. Ayfer BAYINDIR ÇEVİK	<i>Bartın University (Türkiye)</i>	THE ROLE OF ANGER MANAGEMENT, COPING WITH STRESS AND SELF- EFFECTIVENESS IN DIABETES MANAGEMENT: A REVIEW
Assist. Prof. Dr. Zekeriya TEMIRCAN	<i>Kapadokya University (Türkiye)</i>	TEACHER PERCEPTIONS OF TEACHING STUDENTS WITH EXECUTIVE DYSFUNCTION - PRIMARY SCHOOL
Sumeja HODZIC	<i>Ondokuz Mayıs University (Türkiye)</i>	A CURRENT OVERVIEW OF DEPRESSION IN PATIENTS WITH MULTIPLE SCLEROSIS
Assist. Prof. Dr. Berna ERSOY ÖZCAN Assist. Prof. Dr. Yadigar ÇEVİK DURMAZ	<i>Sinop University (Türkiye) Tunceli University (Türkiye)</i>	THE RELATIONSHIP BETWEEN LONELINESS, MEANING OF LIFE AND HAPPINESS IN UNIVERSITY STUDENTS DURING THE COVID-19 PANDEMIC
Dr. Can MAVRUK	<i>Niğde Ömer Halisdemir University (Türkiye)</i>	THE EFFECTS OF SOCIO-ECONOMIC FACTORS ON ACADEMIC PERFORMANCE OF UNIVERSITY STUDENTS
Assist. Prof. Dr. Mehmet Fatih ELMAS	<i>Karamanoğlu Mehmetbey University (Türkiye)</i>	ETHICS AT THE INTERSECTION OF PHYSICS AND METAPHYSICS

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HEAD OF SESSION: Prof. Dr. Felix HIMMELSTOSS

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Dr. Rui J.C. FERNANDES Prof. Dr. Raul D.S.G. CAMPILHO Dr. Rui B.P.M. MARQUES Dr. Bruno AUGUSTO	<i>ISEP – School of Engineering (Portugal)</i> <i>INEGI – Pólo FEUP (Portugal)</i>	TESTING SETUP PROPOSAL FOR PERMEABILITY CALCULATION OF COMPOSITE MATERIALS
Dr. Miguel J.R. QUEIRÓS Dr. Raul D.S.G. CAMPILHO Dr. Paulo J.R.O. NÓVOA	<i>ISEP – School of Engineering (Portugal)</i> <i>INEGI – Pólo FEUP (Portugal)</i>	CONSTITUENT MATERIAL EFFECT ON THE FLEXURAL BEHAVIOUR OF SANDWICH STRUCTURES
Aniekan Essienubong Ikpe Emem Okon Ikpe Imo Akpan Jacob	<i>Akwa Ibom State Polytechnic (Nigeria)</i>	BIO-THERMAL ANALYSIS OF HEAT DISTRIBUTION IN ENGINEERED LANDFILL SYSTEM AT MESOPHILIC TEMPERATURE REGIME IN RELATION TO LANDFILL GAS PRODUCTION IN NIGERIA
Ramesh VATAMBETI	<i>VIT-AP University (India)</i>	TEMPORARY ORDERED ROUTE ENERGY MIGRATION (TOREM): PROTECTION OF THE COMMUNICATION CHANNEL FROM MALICIOUS BEHAVIOURS IN MOBILE ADHOC NETWORK USING
Assoc. Prof. Dr. Aftandil MAMMADOV Prof. Dr. Rasim NABIYEV	<i>Azerbaijan National Aviation Academy (Azerbaijan)</i>	RESEARCH OF MICROELECTROMECHANICAL GYROSCOPE AND ACCELEROMETER
FH- Prof. Dr. Felix HIMMELSTOSS	<i>University of Applied Sciences Technikum Wien (Austria)</i>	CONCEPT TO CHANGE THE VOLTAGE TRANSFORMATION RATIO OF A DC/DC CONVERTER
Dr. Jacqueline Zonichenn REIS	<i>Paulista University (Brazil)</i>	THE RELEVANCE OF DATA SCIENCE FOR THE MATURITY OF INDUSTRY 4.0

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Session-1

HEAD OF SESSION: Prof. Dalal Adnan Amer MATURI

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Babayemi, A. W. Onwuka, G. I. James, T. O. Isah, A. E. Okeleke, S. U. Dago, M. M.	<i>Kebbi State University of Science and Technology (Nigeria)</i> <i>Central Bank of Nigeria (Nigeria)</i>	IMPACT OF FINANCIAL DEEPENING ON ECONOMIC GROWTH IN NIGERIA
Prof. Dr. Petro KOSOBUTSKYY Anastasiia YEDYHAROVA	<i>Lviv Polytechnic National University (Ukraine)</i>	HISTOGRAM AND CRITERION STATISTICAL ANALYSIS OF FREQUENCY DISTRIBUTION OF LETTERS IN THE TEXT SUBJECTED TO ENCODING
Ameera Moatiq Aljuhani Prof. Dalal Adnan Amer Maturi Hashim Mohammed Alshehri	<i>Mathematical Modeling and Applied Computation (MMAC) Research Group (Saudi Arabia)</i> <i>King Abdulaziz University (Saudi Arabia)</i>	ADOMIAN DECOMPOSITION METHOD FOR SOLVING BOUSSINESQ EQUATIONS USING MAPLE
Ebenezer Yeboah OWUSU Seth Kwadwo ANTWI Dr. Moses Abdulai ABUKARI	<i>Nazarbayev University (Kazakhstan)</i> <i>Nazarbayev University (Kazakhstan)</i> <i>C. K. Tedam University of Technology and Applied Sciences (Ghana)</i>	TRACING THE IMPLICATIONS OF SCIENCE, TECHNOLOGY, AND INNOVATION POLICY ON EDUCATIONAL POLICIES AND PRACTICES IN GHANA: APPLICATION OF KINGDON'S MULTIPLE STREAMS FRAMEWORK FOR POLICY ANALYSIS AND NICHOLSON'S CRITICAL QUESTIONS TO UNDERSTANDING THE PHILOSOPHY OF EDUCATION
Prof. Dalal Adnan Amer MATURI Hashim Mohammed ALSHEHRI Dalal HADRE Al-BOGAMI	<i>Mathematical Modeling and Applied Computation (MMAC) Research Group (Saudi Arabia)</i> <i>King Abdulaziz University (Saudi Arabia)</i>	ADOMIAN DECOMPOSITION METHOD FOR SOLVING KLEIN-GORDON EQUATIONS USING MAPLE
Fayza ABDULLAH ALWEHEBI Prof. Dalal Adnan Amer MATURI Aatef HOBINAY	<i>King Abdulaziz University (Saudi Arabia)</i>	ADOMIAN DECOMPOSITION METHOD FOR SOLVING BURGER EQUATIONS USING MAPLE
Ishaq Ajimoti ADAM Otaide Ikechukwu JACKSON Oyedepo TAIYE Ayinde Muhammed ABDULLAHI	<i>Al-Hikmah University (Nigeria)</i> <i>Micheal and Cecilia Ibru University (Nigeria)</i> <i>Federal College of Dental Technology and Therapy (Nigeria)</i> <i>Modibbo Adama University (Nigeria)</i>	SOLUTION OF 9 th ORDER BOUNDARY VALUE PROBLEMS USING VARIATIONAL ITERATION TECHNIQUE WITH SHIFTED LEGENDRE POLYNOMIALS AS TRIAL FUNCTION
B. Shehu Okeleke, S. U. S.U. Gulumbe G. I. Onwuka A. W. Babayemi. James, T. O. Dahiru S.	<i>Kebbi State University of Science and Technology (Nigeria)</i> <i>Usmanu Danfodiyo University Sokoto (Nigeria)</i>	FURTHER SOLUTIONS OF THE MULTIVARIATE BEHRENS FISHER PROBLEM
Assoc. Prof. Dr. Şerife Burcu BOZKURT ALTINDAĞ	<i>Karamanoğlu Mehmetbey University (Türkiye)</i>	AN IMPROVED UPPER BOUND FOR THE NUMBER OF SPANNING TREES OF BIPARTITE GRAPHS
Assoc. Prof. Dr. Şerife Burcu BOZKURT ALTINDAĞ	<i>Karamanoğlu Mehmetbey University (Türkiye)</i>	ON THE LOWER BOUND FOR DEGREE KIRCHHOFF INDEX OF GRAPHS

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Hall-6
Session-1

HEAD OF SESSION: Dr. Oltiana PETRI

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Dr. Oltiana PETRI Assoc. Prof. Erjona ABAZAJ Dr. Albana DAKA Dr. Esmeralda ANGJELI Dr. Arjana MARKU	<i>American Laboratory Network (Albania)</i> <i>Laboratories Institute of Public Health (Albania)</i>	MANAGEMENT OF LABORATORY DIAGNOSIS OF COVID-19 AND LABORATORY PRIORITIES AFTER THE PANDEMIC
Asieh MAKHLOUGH Hassan Nasrollahzadeh SARAVI Mehdi Naderi JELODAR Fereshteh ESLAMI Ahad AHMADNEJAD	<i>Caspian Sea Ecology Research Center (Iran)</i> <i>Iranian Fisheries Science Research Institute (Iran)</i> <i>Agricultural Research, Education and Extension Organization (Iran)</i> <i>Iranian Fisheries Science Research Institute (Iran)</i> <i>Agricultural Research, Education and Extension Organization (Iran)</i>	DETERMINING THE SCOPE OF WATER USE BASED ON ALGAL AND ABIOTIC INDICES IN SIRVAN RIVER (IRAN)
BADERINWA-ADEJUMO, Adejoke O. ADENEGAN-ALAKINDE, Taiwo A.	<i>Adeyemi Federal University of Education (Nigeria)</i>	VEGETATIVE ANATOMY OF FIVE DOMESTICATED MEMBERS OF THE GENUS CUCURBITA (LINN.) IN SOUTHWESTERN NIGERIA
ADENEGAN-ALAKINDE TaiwoAyomipo	<i>Adeyemi Federal University of Education (Nigeria)</i>	A REPORT ON YELLOW SPOT DISEASE IN BASELLA LINN IN ONDO NIGERIA
Aasma HASHMI Munawwer RASHEED Saira YASMEEN Muhammad SAAD Samina PARVEEN	<i>Jinnah University for Women (Pakistan)</i> <i>University of Karachi (Pakistan)</i> <i>University of Karachi (Pakistan)</i> <i>University of Science and Technology (China)</i>	GREEN SYNTHESIS OF SILVER NANOPARTICLES USING SEAWEED AND THEIR ANTIBACTERIAL ACTIVITY
Munawwer RASHEED Afshan YASMEEN	<i>University of Karachi (Pakistan)</i> <i>Bahria University Karachi (Pakistan)</i>	PHYCOCHEMICAL AND BIOLOGICAL ANALYSES OF SEAWEEDS FROM PAKISTAN COAST (NORTH ARABIAN SEA)
Dr. Aysel Nuhbala AGHAYEVA Dr. Aida Yarish GAHRAMANOVA Gulnara Yasar ALAKBARLI	<i>Sumgayit State University (Azerbaijan)</i>	DISTRIBUTION OF NEMATODES IN SHEEP ALONG THE ALTITUDINAL ZONES OF THE APSHERON REGION
Shumaila NAZ Munawwer RASHEED Pirzada Jamal AHMED SIDDIQUI Muhammad NADIR Amir AHMED Muhammad Noman SYED	<i>University of Karachi (Pakistan)</i> <i>Government Degree Boys College (Pakistan)</i> <i>University Road (Pakistan)</i>	LIPIDS AND CONTAMINANTS IDENTIFIED BY GCMS TECHNIQUE OF THE LIVER OIL OF SHORT FIN DEVIL RAY (MOBULA KUHLII)

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Hall-1
Session-2

HEAD OF SESSION: Prof. Dr. N. Aydan SAT

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Prof. Dr. N. Aydan SAT	<i>Gazi University (Türkiye)</i>	POLYCENTRIC SPATIAL DEVELOPMENT: CONCEPTUAL EVALUATION
Assist. Prof. Dr. Tuba Nur OLGUN Assoc. Prof. Dr. Nihal Arda AKYILDIZ	<i>Firat University (Türkiye) Balıkesir University (Türkiye)</i>	EXAMINATION OF INTANGIBLE CULTURAL HERITAGE TRACES ON MONUMENTAL BUILDINGS THROUGH SPACE FORMATION
Assoc. Prof. Dr. Nihal Arda AKYILDIZ Assist. Prof. Dr. Tuba Nur OLGUN	<i>Balıkesir University (Türkiye) Firat University (Türkiye)</i>	AN ASSESSMENT ON THE IMPORTANCE OF INTANGIBLE CULTURAL HERITAGE IN HOLISTIC CONSERVATION OF ARCHITECTURAL HERITAGE
Mustafa ÖZDEMİR Assoc. Prof. Dr. Ayça GÜLTEN	<i>Firat University (Türkiye)</i>	THE EFFECT OF PHASE CHANGEOVER MATERIALS USED IN BUILDING COMPONENTS ON THE BUILDING COOLING LOAD
İpek YILDIRAN Prof. Dr. Burcu YILMAZ Kemal Orçun TEZCAN Hatice SALAR Esra MERT Buğçe SEVİNÇ	<i>SYK Tekstil R&D Center (Türkiye) Marmara University (Türkiye) SYK Tekstil R&D Center (Türkiye) SYK Tekstil R&D Center (Türkiye) SYK Tekstil R&D Center (Türkiye) SYK Tekstil R&D Center (Türkiye)</i>	UV PROTECTION AND MOISTURE TRANSMISSION PERFORMANCES OF SEACELL BLENDED FABRICS
Lect. Güner DÖNMEZ	<i>Sakarya University (Türkiye)</i>	THE EFFECTS OF TECHNICAL DRAWING AND INDUSTRIAL CERAMIC PRODUCTION ON PROFESSIONAL DRAWING
Res. Assist. Dr. Ecem KARA	<i>Adana Alparslan Türkeş Science and Technology University (Türkiye)</i>	VISIBILITY OF RESIDENTIAL PROPERTIES IN TURKEY IN THE INTERNATIONAL ARCHITECTURAL ARCHIVES; CHANGING ARCHITECTURAL AND CONCEPTUAL PRIORITIES

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Hall-2
Session-2

HEAD OF SESSION: Assoc. Prof. Dr. Servet ARAS

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Res. Assist. Ecem KARA Res. Assist. Yeter ÇİLEŞİZ Prof. Dr. Tolga KARAKÖY Assist. Prof. Dr. Gökhan BAKTEMUR	<i>Sivas Science and Technology University (Türkiye)</i>	THE EFFECTS OF DIFFERENT HEAVY METAL LEVELS ON THE DEVELOPMENT OF LETTUCE (<i>Lactuca sativa</i>) GROWED IN VITRO CONDITIONS
M. Sc. Cengiz TURKAY Assist. Prof. Dr. Ruziye KARAMAN	<i>Isparta University of Applied Sciences (Türkiye)</i>	RESEARCHS ON QUALITY CHARACTERISTICS OF SWEET CORN COB DURING STORAGE OF DIFFERENT HUSK QUANTITIES
Assist. Prof. Dr. Hacer TÜFEKÇİ	<i>Yozgat Bozok University (Türkiye)</i>	GOAT MEAT AND QUALITY CHARACTERISTICS
Assoc. Prof. Dr. Servet ARAS	<i>Yozgat Bozok University (Türkiye)</i>	EFFECTS OF IRON DEFICIENCY ON FRUIT TREES
Assoc. Prof. Dr. Servet ARAS	<i>Yozgat Bozok University (Türkiye)</i>	EFFECTS OF PLANT GROWTH PROMOTER BACTERIA ON FRUIT TREES
Assist. Prof. Dr. Burcu Begüm KENANOĞLU Buket DEMİR	<i>Uşak University (Türkiye)</i>	EFFECTIVENESS OF OZMO AND HYDROPRIMING TREATMENTS ON SEED VIGOR IN ONION SEEDS (Poster)

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Session-2

HEAD OF SESSION: Assoc. Prof. Dr. Mesut TELEŞ

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Assoc. Prof. Dr. Oktay YANIK	<i>Yuksekk İhtisas University (Türkiye)</i>	STRUCTURAL AND MANAGEMENT EVALUATION OF HEALTH INSTITUTIONS WITHIN THE SCOPE OF ENVIRONMENTAL AND TECHNOLOGICAL FACTORS DURING THE COVID-19 PANDEMIC PROCESS
Assoc. Prof. Dr. Mesut TELEŞ	<i>Niğde Ömer Halisdemir University (Türkiye)</i>	EVALUATION OF COVID-19 FEAR AMONG HEALTH STAFF WORKING IN PRIMARY CARE
Mehmet DENLİ Assist. Prof. Dr. Zehra ÖZBULUT	<i>Van Yüzüncü Yıl University (Türkiye)</i>	THE SAMPLE OF THE DOWN SYNDROME IN INDIVIDUALS OF VAN CASTLE MOUND SOCIETY
Halil AKKUŞ Assoc. Prof. Dr. İsmail ŞİMŞİR	<i>Sakarya University of Applied Sciences (Türkiye)</i>	INFORMATION LITERACY OF HEALTH SCIENCES STUDENTS
Assist. Prof. Dr. Esin KAVURAN Res. Assist. Gazi Baran CAMCİ	<i>Atatürk University (Türkiye) Kahramanmaraş İstiklal University (Türkiye)</i>	DETERMINATION OF NURSES' COMPLIANCE WITH STANDARD PRECAUTIONS DURING COVID 19 PANDEMIC
Assist. Prof. Dr. Süreyya NUR Assist. Prof. Dr. Güneş AÇIKGÖZ	<i>Hatay Mustafa Kemal University (Türkiye)</i>	KNOWLEDGE LEVELS OF ANESTHESIA AND MEDICAL IMAGING TECHNIQUES STUDENTS ABOUT SCOPY AND RADIATION SAFETY USED IN THE OPERATING ROOM
Assist. Prof. Dr. Sinem YALNIZOĞLU ÇAKA Assist. Prof. Dr. Sümeyra TOPAL	<i>Kocaeli University (Türkiye) Kahramanmaraş İstiklal (Türkiye)</i>	RISK ASSESSMENT SCALES USED TO PREVENT PRESSURE SOULS IN CHILDREN INTENSIVE CARE UNITS
Assist. Prof. Dr. Sümeyra TOPAL Assist. Prof. Dr. Sinem YALNIZOĞLU ÇAKA	<i>Kahramanmaraş İstiklal (Türkiye) Kocaeli University (Türkiye)</i>	REFLECTIONS OF IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE IN DIABETES EDUCATION AND MANAGEMENT ON THE NURSING PROFESSION

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Hall-4
Session-2

HEAD OF SESSION: Assist. Prof. Dr. Živa ZUPIN

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Eric Ting Sie MING Azman Mohamed Mohd Nur ASMAWISHAM ALEL Nur Hafizah A. KHALID Ahmed ELTWATI Zaid AL-SAFFAR	<i>Universiti Teknologi Malaysia (Malaysia) Bright Star University (Libya) Northern Technical University (Iraq)</i>	APPLICATION OF INTERNET OF THINGS IN INTERLOCKING CONCRETE BLOCK PAVEMENT FOR PERFORMANCE MONITORING
Simon FURBO Bengt PERERS Janne DRAGSTED João GOMES Sahand HOSOULI Mário GOMES Paulo COELHO Hasan YILDIZHAN Alper BOZKURT Ercan ZENGIN Mehmet Emin DINÇKURT Diogo CABRAL Abolfazl HAYATI Evaldas SAPELIAUSKAS Remigijus KALIASAS	<i>Technical University of Denmark (Denmark) MG Sustainable Engineering AB (Sweden) Smart Cities Research Center (Ci2), Polytechnic Institute of Tomar (Portugal) Adana Alparslan Turkes Science and Technology University (Türkiye) Kurttepe Şehit Ali Öztaş Mesleki ve Teknik Anadolu Lisesi (Türkiye) University of Gävle (Sweden) Panevezys University of Applied Sciences (Lithuania)</i>	PVT TRAINING MODULE FOR VOCATIONAL SECONDARY EDUCATION: A FINAL VERSION
Putturu Manoj KUMAR Japthi SRAVANI	<i>Pulla Reddy Engineering College (India)</i>	PARTIAL REPLACEMENT OF FINE AGGREGATE WITH SAW DUST IN CONCRETE
Msc. Liliam Sayuri SAKAMOTO Dr. Jair Minoro ABE Aparecido Carlos DUARTE José Rodrigo CABRAL	<i>Paulista University (Brazil)</i>	OVERVIEW OF DPOS IN THE USE OF LGPD COMPLIANCE SOFTWARE WITH EVIDENTIAL ANNOTATED PARACONSISTENT LOGIC $E\tau$ AND DLP – DATA LOSS PREVENTION
Assist. Prof. Dr. Ziva ZUPIN Urša CERAR Asist. Prof. Dr. Tanja PODBEVŠEK	<i>Educational Institute of the Republic of Azerbaijan (Azerbaijan)</i>	GARMENT DESIGN ACCORDING TO ZERO WASTE DESIGN PRINCIPLE
Abderrahmane AQACHTOUL Karam KHAOULA El Mejdi ASMA Youssef AIT KHOUYA	<i>Moulay Ismail University (Morocco)</i>	AN OVERVIEW OF REGION-BASED DESCRIPTORS WITH APPLICATION TO FACE RECOGNITION
Bennouar S. Abdi S.	<i>Laboratoire Central (Algeria)</i>	UTILITY OF PROCALCITONIN AS A DIAGNOSTIC TOOL FOR SEPSIS IN INTENSIVE CARE UNITS

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Session-2

HEAD OF SESSION: Dr. Shan GAO

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Dr. A. M. MIKHAILIDI Dr. N. E. KOTELNIKOVA	<i>St. Petersburg State University (Russia) Russian Academy of Sciences (Russia)</i>	NANOCELLULOSE FROM RECYCLED PAPER OF LOW GRADES PREPARED BY A SIMPLE AND ECO-FRIENDLY METHOD. A SHORT REVIEW
Vasilichia ANTOCI Dorina AMĂRIUCĂI-MANTU Dumitrela DIACONU Liliana ONIČIUC Ramona DĂNAC Cătălina CIOBANU Violeta MANGALAGIU Ionel MANGALAGIU	<i>Alexandru Ioan Cuza University of Iasi (Romania)</i>	ANTICANCER ACTIVITY OF NEW HYBRID DERIVATIVES WITH BENZO[f]QUINOLINE SKELETON
BEN JADDI Mountassira AHARI M'hamed	<i>Abdelmalek Essaadi University (Morocco)</i>	REMOVAL OF BPA BY ADSORPTION BY USING ORGANOCCLAYS AND BIO- ADSORBENT
Behluli EMIR Spahiu LIDVANA Temaj GAZMEND	<i>University of Prishtina (Kosovo) College UBT (Kosovo)</i>	ROLE OF VITAMIN IN ASTHMA PATIENTS
Seemab IQBAL	<i>Government College Women University (Pakistan)</i>	IN VITRO EVALUATION OF TWO WAYS SYNTHESIZED MANGANESE DOPED CERIUM OXIDE NANOCOMPOSITES AS A POTENTIAL THERAGNOSTIC AGENT AND AN ANTIBIOTIC DRUG
Assist. Prof. Dr. Sevda FATULLAYEVA SURKHAY Assist. Prof. Dr. Shamo TAPDIQOV ZÖHRAB Assist. Prof. Dr. Ulviyya MAMMADOVA AHMED PhD. candidate. Rahimli NARGIZ TAHMASIB PhD. candidate. Shikhverdieva NIGAR TAGHI PhD. candidate. Guliyeva CAMILA ELSHAN Junior researcher. Racabli AYTAC RAHIB	<i>Institute of Catalysis and Inorganic Chemistry named by academician of M. Nagiev (Azerbaijan)</i>	INDUSTRIALLY IMPORTANT BIOPOLYMERS
Dr. Shan GAO Dr. Ting PAN Dr. Xiaoyu CUI Prof. Dr. Lili WANG Prof. Dr. Shunping YAN	<i>Hubei Hongshan Laboratory (China) Huazhong Agricultural University (China) Shenzhen Branch, Guangdong Laboratory for Lingnan Modern Agriculture (China) Agricultural Genomics Institute at Shenzhen, Chinese Academy of Agricultural Sciences (China)</i>	WEE1 REGULATES TWO ANTAGONIZING E3 UBIQUITIN LIGASES TO ACTIVATE REPLICATION STRESS RESPONSES
Mouad MOUHSIN Mustapha OUBENALI Samir CHITTA Mohamed MBARKI Malika ECHAJJA Tarik El OUFY Ahmed GAMOUH	<i>University of Casablanca (Morocco) Slimane University (Morocco)</i>	2D-QSAR STUDIES OF THIADIAZOLE DERIVATIVES AGAINST LUNG CANCER
ABDELJALIL HAMDI Mhamed AHARI M. KOUDAD Hassan AMHAMDI	<i>Abdelmalek Essaadi University (Morocco) Mohamed first University (Morocco)</i>	SYNTHESIS, CHARACTERIZATION AND COMPARATIVE STUDY OF NEW 2-PHENYLMIDAZO[1,2-a]PYRIDINE-3-CARBALDEHYDE DERIVATIVES

A. EL AATIOUI
M. Azzouzi

09.10.2022, Sunday

Ankara Time
13⁰⁰ : 15³⁰

Hall-6
Session-2

HEAD OF SESSION: Dr. Sander KOLA

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Dr. Sander KOLA Irena KOLA Denis MATA Esmeralda NOVRUZAJ Rea SHERIFI	University Medical Center of Tirana "Mother Teresa (Albania) Rheumatology Service University Hospital "Mother Teresa" (Albania) University of Medicine in Tirana (Albania)	DIAGNOSIS AND TREATMENT OF FROZEN SHOULDER WITH SHOCK-WAVE THERAPY
Dr. Sander KOLA Irena KOLA Kristina GJOKA Anxhela GJINI	University Medical Center of Tirana "Mother Teresa (Albania) Rheumatology Service University Hospital "Mother Teresa" (Albania) University of Medicine in Tirana (Albania)	CORRELATION OF VITAMIN D WITH OSTEOPOROSIS
Edon BEHLULI Blerim KAMBERI Donika DRAGIDELLA Mirsada BEHLULI Anila KAMBERI	University of Prishtina (Kosovo) University Clinic Center of Kosovo Prishtina (Kosovo) Alma Mater Europaea Campus College "Rezonanca" (Kosovo)	INFLUENCE OF Ca, pH AND PHOSPHATES AT THE SALIVA, OF ORAL HEALTH AMONG WOMEN IN THE FIRST AND THIRD TRIMESTERS OF PREGNANCY
Igli KOKALARI Sokol BUBA Arben DHIMA Teona BERDICA-BUSHATI Leart BERDICA	Surgeon at Regional Hospital of Gjirokastra (Albania) Surgeon at Mother Teresa University Hospital Centre (Albania) Radiologist, American Hospital (Albania) Anatomopathologist, Mother Teresa University Hospital Centre (Albania)	MANAGEMENT APPROACH TO THYROID CANCER IN ALBANIA
Irena KOLA Sander KOLA Erinda FRROKU Luljeta STANAJ	University of Medicinem (Albania)	DIAGNOSIS AND REHABILITATION OF SMALL MUSCULAR RUPTURES IN THE LOWER SIDE
Irena KOLA Sander KOLA Erinda FRROKU	University of Medicinem (Albania)	DIAGNOSIS AND REHABILITATION OF LOWER BACK PAIN WITH MANUAL THERAPY AND ELECTROTHERAPY
Dr. Oltiana PETRI Assoc. Prof. Erjona ABAZAJ Dr. Albana DAKA Dr. Esmeralda ANGJELI Dr. Arjana MARKU	American Laboratory Network (Albania) Laboratories Institute of Public Health (Albania)	ANTIMICROBIAL RESISTANCE OF URINARY TRACT INFECTION BEFORE AND DURING THE COVID-19
Dr. Muhammad FAKHAR-E- ALAM Hassan RAZA	Government College University (Pakistan)	SYNERGISTIC RESPONSE OF PEG COATED BLACK TIO 2 COMPOSITE WITH DOXORUBICIN FOR BREAST CANCER TREATMENT
Yong-Guo ZHANG Jun SUN	University of Illinois Chicago (USA)	THE NOVEL ROLE OF INTESTINAL EPITHELIAL HIGH MOBILITY GROUP BOX PROTEIN 1 IN PREVENTING ENTERIC PATHOGEN INFECTION

09.10.2022, Sunday

Ankara Time
16⁰⁰ : 18³⁰

Hall-1
Session-3

HEAD OF SESSION: Assist. Prof. Dr. Musa BILGIN

I. Can UÇAR Assoc. Prof. Dr. Şefika KASMAN Assoc. Prof. Dr. Sertan OZAN	Dokuz Eylül University (Türkiye) Dokuz Eylül University (Türkiye) Yozgat Bozok University (Türkiye)	EVALUATION OF THE EFFECTS OF PARAMETERS IN LASER MACHINING OF AISI 316LVM ALLOY
I. Can UÇAR Assoc. Prof. Dr. Şefika KASMAN Assoc. Prof. Dr. Sertan OZAN	Dokuz Eylül University (Türkiye) Dokuz Eylül University (Türkiye) Yozgat Bozok University (Türkiye)	FIBER LASER MACHINING OF CoCr28Mo ALLOY: ASSESSING THE EFFECTS OF PARAMETERS ON SURFACE ROUGHNESS
Assist. Prof. Dr. Uğur AVCI	Kahramanmaraş Sütçü İmam University (Türkiye)	INVESTIGATION OF CHANGES IN FERRITE GRAIN STRUCTURE AFTER BENDING LOW CARBON STEEL AT DIFFERENT ANGLES
Assist. Prof. Dr. Musa BILGIN	Hacettepe University (Türkiye)	THE EFFECT OF ENVIRONMENTAL TEMPERATURE ON TENSILE STRENGTH IN 3D PRINTERS
Assist. Prof. Dr. Oktay SÖYLER	Iskenderun Technical University (Türkiye)	DETERMINATION OF ENERGY USE EFFICIENCY OF LEMON PRODUCTION IN TÜRKİYE: A CASE STUDY OF HATAY PROVINCE
Gizem BATMAN Prof. Dr. Özden AĞRA	Yildiz Technical University (Türkiye)	OPTIMIZATION OF THE VOLUTE TONGUE IN THE CENTRIFUGAL FAN IN WASHER/DRYERS
Okan AYDIN Prof. Dr. Özden AĞRA	Yildiz Technical University (Türkiye)	PERFORMANCE COMPARISON OF R32 AND R410A REFRIGERANTS IN HEAT PUMP
Assist. Prof. Dr. Özgür VERİM	Afyon Kocatepe University (Türkiye)	BIOMECHANIC OPTIMIZATION OF CIRCULAR EXTERNAL FIXATORS USED IN ORTHOPEDICS
Hüseyin CURA Prof. Dr. Derya Burcu ÖZKAN	Yildiz Technical University (Türkiye)	THE EFFECT OF CAPILLARY TUBE PARAMETERS AND USE OF MULTI CAPILLARY ON ENERGY CONSUMPTION IN VAPOR COMPRESSION CYCLE

09.10.2022, Sunday

Ankara Time
16⁰⁰ : 18³⁰

Hall-2
Session-3

HEAD OF SESSION: Prof. Dr. Şükrü KARATAŞ

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Prof. Dr. Şükrü KARATAŞ	<i>Kahramanmaraş Sütçü İmam University (Türkiye)</i>	INVESTIGATION OF BARRIER HEIGHTS OF Au/n-TYPE Si SEMICONDUCTOR STRUCTURES WITH SNS:PVC INTERFACES AT LOW TEMPERATURES
Prof. Dr. Şükrü KARATAŞ	<i>Kahramanmaraş Sütçü İmam University (Türkiye)</i>	INVESTIGATION OF SERIES RESISTANCES OF TEMPERATURE DEPENDENT Au/(SnS:PVC)/n-Si METAL SEMICONDUCTOR STRUCTURES
Assoc. Prof. Dr. Aysel GÜVEN Assoc. Prof. Dr. Ulviye BUNYATOVA	<i>Baskent University (Türkiye)</i>	NANOPARTİKÜLLER(NP): SELİLOZ, DEKSTRAN VE KİTASON İLE İŞLEVLEŞTİRİLMİŞ GÜMÜŞ NANOPARTİKÜLLERİN(NP) ANTIÖKSİDAN ETKİLERİ
Assist. Prof. Dr. Sema KURTARAN	<i>Eskişehir Osmangazi University (Türkiye)</i>	CHARACTERIZATION OF Pb DOPED CdS FILMS OBTAINED BY SPRAY PYROLYSIS TECHNIQUE
Assist. Prof. Dr. Onur İNAN Lect. Kazım KUMAŞ Assoc. Prof. Dr. Ali Özhan AKYÜZ	<i>Mehmet Akif Ersoy University (Türkiye)</i>	DETERMINATION OF PRECIPITATION DATA OF BURDUR PROVINCE WITH FUZZY LOGIC MODEL
Assist. Prof. Dr. Onur İNAN Lect. Kazım KUMAŞ Assoc. Prof. Dr. Ali Özhan AKYÜZ	<i>Mehmet Akif Ersoy University (Türkiye)</i>	DETERMINATION OF GREENHOUSE GAS EMISSIONS RELATED TO ANIMAL HUSBANDRY IN ADANA PROVINCE
Assist. Prof. Dr. Ezman KARABULUT	<i>Bitlis Eren University (Türkiye)</i>	A THEORY FASTER THAN DFT FOR MOLECULAR DYNAMICS SIMULATIONS: DFTB
Dr. Ahmet BIÇER Assoc. Prof. Dr. Nurettin KÖROZLÜ Prof. Dr. Ahmet ÇİÇEK	<i>Burdur Mehmet Akif Ersoy University (Türkiye)</i>	ACOUSTIC LIQUID CONCENTRATION SENSOR BASED ON A POINT DEFECT SIDE COUPLED TO SEPARATED WAVEGUIDES

09.10.2022, Sunday


Ankara Time
16⁰⁰ : 18³⁰


Hall-3
Session-3

HEAD OF SESSION: Assoc. Prof. Dr. Okan SARIGÖZ

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Assoc. Prof. Dr. Okan SARIGÖZ	<i>Mustafa Kemal University (Türkiye)</i>	THE EXAMINATION OF TEACHERS' ATTITUDES TO GRADUATE EDUCATION
Assoc. Prof. Dr. Okan SARIGÖZ	<i>Mustafa Kemal University (Türkiye)</i>	THE EXAMINATION OF STUDENT OPINIONS ON SCIENTIFIC KNOWLEDGE AND THE NATURE OF SCIENCE
Assist. Prof. Dr. Aysel ARSLAN Assist. Prof. Dr. Sebahattin KARTAL	<i>Sivas Cumhuriyet University (Türkiye)</i>	EDUCATION-BASED SENSORY INTEGRATION MATERIALS DEVELOPMENT TO DEVELOP PRESCHOOL CHILDREN'S SENSE OF SMELL
Assist. Prof. Dr. Sebahattin KARTAL Assist. Prof. Dr. Aysel ARSLAN	<i>Sivas Cumhuriyet University (Türkiye)</i>	EDUCATION-BASED SENSORY INTEGRATION MATERIALS DEVELOPMENT TO DEVELOP PRESCHOOL CHILDREN'S SENSE OF TASTE
Assist. Prof. Dr. Hülyla DEDE	<i>Kilis 7 Aralık University (Türkiye)</i>	EXAMINATION OF SECONDARY SCHOOL STUDENTS' ANXIETY ON SCIENCE IN TERMS OF SOME DEMOGRAPHIC VARIABLES
Balkan Ozan ÖNGEL Assist. Prof. Dr. Emre EV ÇİMEN	<i>Eskişehir Osmangazi University (Türkiye)</i>	EXAMINATION OF SECONDARY SCHOOL MATHEMATICS TEXTBOOKS IN THE CONTEXT OF MATHEMATICAL LITERACY AND PISA
Assist. Prof. Dr. Tuba YAVAŞ	<i>Hatay Mustafa Kemal University (Türkiye)</i>	WHY IS THE TEACHER'S ARTISTIC ASPECT NEEDED? A REVIEW FOR EDUCATIONAL ENVIRONMENTS
Assist. Prof. Dr. Kibar Evren BOLAT	<i>Anadolu University (Türkiye)</i>	OPINIONS OF PROSPECTIVE VISUAL ARTS TEACHERS ON ARTWORK ANALYSIS

09.10.2022, Sunday


Ankara Time
16⁰⁰ : 18³⁰


Hall-4
Session-3

HEAD OF SESSION: Assoc. Prof. Dr. Farhad YUSIFOV

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Asso. Prof. Dr. Duong Ngoc Thanh	Cantho University (Vietnam)	YIELD GAPS, PRODUCTION LOSSES AND PRIORITY RESEARCH PROBLEM AREAS IN THE MEKONG DELTA OF VIETNAM
Assoc. Prof. Dr. Bahadır ERGÜN Bertan AŞŞIK	Adana Alparslan Türkeş Science and Technology University (Türkiye)	FOREIGN DIRECT INVESTMENTS AND TOURISM SECTOR: A LITERATURE REVIEW
Solimar GARCIA Rimena CANUTO Irenilza de ALENCAR NÄÄS	Universidade Paulista – UNIP (Brazil) Instituto Federal de Educação do Piauí – IFPI (Brazil) Universidade Paulista – UNIP (Brazil)	TRAINING ENGINEERS FOR THE CIRCULAR ECONOMY
Assist. Prof. Dr. Levent YILMAZ	Turkish-German University (Türkiye)	JOB AND LIFE SATISFACTION OF THE TEMPORARY WORKER
Mohamad RABAI Irenilza de ALENCAR NÄÄS	Universidade Paulista – UNIP (Brazil)	ESTIMATION OF LOSSES IN THE TEXTILE INDUSTRY: A CASE STUDY
Assoc. Prof. Dr. András SZEBERÉNYI Leanard Otworì JUMA Assist. Prof. Dr. Izabella Mária BAKOS	Budapest Metropolitan University (Hungary) Kimathi University of Technology (Kenya) Hungarian University of Agriculture and Life Sciences (Hungary)	EXAMINING THE PROGRESS OF HUNGARY IN GREEN AND SUSTAINABLE ENERGY SOURCES
Assoc. Prof. Dr. Farhad YUSIFOV	Institute of Information Technology (Azerbaijan)	ANALYSIS OF DEMOGRAPHIC INDICATORS OF SCIENTIFIC PERSONNEL ON E-DEMOGRAPHY PLATFORM
Anekwe RITA IFEOMA Nwanah CHIZOBA PATIENCE Nwatu IFEANYICHUKWU	Nnamdi Azikiwe University (Nigeria) University of Nigeria (Nigeria) Ibiam Federal Polytechnic (Nigeria)	WORKPLACE DISCIPLINE AND STAFF PERFORMANCE OF MONEY DEPOSIT BANKS IN ANAMBRA STATE, NIGERIA.

09.10.2022, Sunday


Ankara Time
16⁰⁰ : 18³⁰


Hall-5
Session-3

HEAD OF SESSION: Prof. Dr. Salikhov Talgat Kumarovich

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Irwan Irwan Mariyana Herlisa Nola Putri Froilan D. Mobo Sepriandison Saragih Kevin William Andri Siahaan Fitria Lestari	PGRI University (Indonesia) Philippine Merchant Marine Academy (Philippine) HKBP Nommensen University (Indonesia)	RESILIENCE OF RURAL COCONUT FARMERS IN TANJUNG RAJA VILLAGE, KATEMAN DISTRICT, INDRAGIRI HILIR REGENCY
Prof. Dr. Salikhov Talgat Kumarovich Prof. Dr. Elubaev Sagyntay Zekenovich	Abay Myrzakmetov Kokshetau University (Kazakhstan)	THE EFFECT OF THE TIMING OF THE APPLICATION OF MANURE WITH MINERAL FERTILIZERS AND THE DENSITY OF POTATO PLANTING ON THE NUTRITIONAL REGIME OF THE SOIL OF THE WEST KAZAKHSTAN REGION
Abdurrahman, U. D Bunza, M. D. A Isyaku, N. T Kamaluddeen, A	Keppi University of Science and Technology (Nigeria) Federal University (Nigeria)	STATUS OF GASTROINTESTINAL NEMATODE INFECTIONS AMONG RUMINANTS SLAUGHTERED IN YAURI EMIRATE, KEBBI STATE, NIGERIA
Ioana OPREA Loredana F. LEOPOLDA Florina-Violeta SCURTU Cristina COMANA Sonia ANCUTA SOCACI	University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca (Romania)	GREEN SYNTHESIS OF COLLOIDAL GOLD NANOPARTICLES USING CITRUS ESSENTIAL OILS - MORPHOLOGY, PHYSICO- CHEMICAL CHARACTERIZATION AND MICROBIOLOGICAL PROPERTIES
Abdulameer A. Hatem Mohammad T. Naqi Qisma A. Saleh	University of Kufa (Iraq)	IN-VITRO INHIBITORY EFFECT OF CYPERMETHRIN ON LACTIC ACID DEHYDROGENASE LDH ENZYME IN SHEEP GOAT
Acc. Res. Fell. Ivan PAVLOVIĆ DVM Vlada ANTIĆ DVM Dragana PETKOVIĆ DVM Nikola NEDELJKOVIĆ BSc Vladimir TERZIN DVM Dragana TERZIN	Scientific Veterinary Institute of Veterinary Medicine of Serbia (Serbia) Veterinary Ambulance Djole and Prle (Serbia) Veterinary Ambulance Pet Wellness Eva (Serbia) Veterinary Ambulance Djole and Prle (Serbia) Veterinary Ambulance Terzin Pet & Vet (Serbia) Veterinary Ambulance Terzin Pet & Vet (Serbia)	HELMINTH INFECTIONS OF PETS CATS IN BELGRADE AREA
Alim ŞENTÜRK	Azerbaijan University (Azerbaijan)	REPLACING CHEMICAL INPUTS WITH ORGANIC MATERIALS
Mercy R. WAANI Dr. Selvie Diana ANIS Judy M. TUMEWU	University of Sam Ratulangi (Indonesia)	ENHANCING LAND UTILIZATION EFFICIENCY OF COCONUT BASED FARMING THROUGH INTEGRATION OF <i>Brachiaria humidicola</i> PASTURE AND CATTLE
Syed Mohsan Raza Shah	University of Education (Pakistan)	PHYSIO-ANATOMICAL AND MORPHOLOGICAL MODIFICATION IN <i>IPOMOEA CARNEA</i> JACQ. IN DIVERSE HABITATS FROM PAKISTAN
Assist. Prof. Dr. Egemen FOTO Assist. Prof. Dr. Fatma ZİLİFDAR FOTO Dr. Aslı KAYMAZ Prof. Dr. Asude Dilek NALBANT Prof. Dr. Gülçin AKÇA	Necmettin Erbakan University (Türkiye) Selçuk University (Türkiye) Gazi University (Türkiye) Gazi University (Türkiye) Gazi University (Türkiye)	EVALUATION OF IN VITRO BIOCOMPATIBILITY OF 3 DIFFERENT ADHESIVE RESIN CEMENTS WITH DIFFERENT POLYMERIZATION PATTERNS AND USED CLINICALLY ON HUMAN GINGIVAL FIBROBLASTS

09.10.2022, Sunday

Ankara Time
16⁰⁰ : 18³⁰

Hall-6
Session-3

HEAD OF SESSION: Dr. Habte Tadesse Likassa

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Dr. Badmus NOFIU IDOWU Dr. Faweya OLANREWAJU Dr. Agboola SUNDAY. O	University of Lagos (Nigeria) Ekiti State University (Nigeria) Nigerian Army University (Nigeria)	ASYMMETRIC MODEL FOR SKEWED DATA
Dr. Habte Tadesse Likassa	Addis Ababa University (Ethiopia)	ROBUST PCA WITH AFFINE TRANSFORMATION, L2,1 NORMS AND REGULARIZATION PARAMETER FOR HIGH DIMENSIONAL IMAGE RECOVERY: APPLICATION IN CRIME DETECTION
Akinseye Oluwaseyitan Charles Eregha Iguniseigha Victor Edmund Enyinnia Chiemeziem	Afe Babalola University (Nigeria)	DEVELOPMENT OF A MANAGEMENT SYSTEM FOR REAL ESTATE AGENCIES
Devinder SINGH PATHANIA Pardeep KUMAR	Guru Nanak Dev Engineering College (India) CT University Ludhiana (India)	THERMAL STRESSES EVALUATION IN TRANSVERSELY ISOTROPIC PIEZOELECTRIC DISC WITH ROTATION AND INTERNAL PRESSURE
Driss MENTAGUI	Ibn Tofail University (Morocco)	REGULARIZATION, OPTIMIZATION AND APPROXIMATION IN GENERAL HAUSDORFF TOPOLOGICAL SPACES
Mehsin Jabel Atteya	Al-Mustansiriyah University (Iraq)	COMMUTATIVITY WITH DERIVATIONS OF PRIME NEAR-RINGS
Mehsin Jabel Atteya	Al-Mustansiriyah University (Iraq)	(α, α) - DERIVATIONS WITH SEMIGROUP IDEAL IN SEMIPRIME NEAR - RINGS
Oualid RHOLAM	University Ibn Tofail (Morocco)	OME HERMITE-HADAMARD INEQUALITIES FOR P-CONVEX STOCHASTIC PROCESS USING FRACTIONAL INTEGRAL
B. Shehu. Okeleke, S. U. S.U. Gulumbe G. I. Onwuka A. W. Babayemi. James, T. O. Dahiru S.	Kebbi State University of Science and Technology (Nigeria) Usmanu Danfodiyo University (Nigeria)	FURTHER SOLUTIONS OF THE MULTIVARIATE BEHRENS FISHER PROBLEM
Dr. Surajo Isa GAYA Tanimu BALA	Kano University of Science And Technology Wudil (Nigeria)	THE INFLUENCE OF MATHEMATICAL REASONING ON PROBLEM SOLVING SKILLS AND COMPETENCE IN CRITICAL THINKING AMONG SECONDARY SCHOOL STUDENTS

10.10.2022, Monday

Ankara Time
10⁰⁰ : 12³⁰

Hall-1
Session-1

HEAD OF SESSION: Assist. Prof. Dr. Sadi ÖN

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Keziban YOKA Assist. Prof. Dr. İbrahim Ü. AKDAĞCIK	<i>Niğde Ömer Halisdemir University (Türkiye)</i>	INVESTIGATION OF THE OPINIONS OF ATHLETES PLAYING IN DIFFERENT BRANCHES ON THE 6222 LAW ON PREVENTION OF VIOLENCE AND IRRORITY IN SPORTS
Dr. Gürkan TOKGÖZ	<i>Ministry of Education (Türkiye)</i>	INVESTIGATION OF THE EFFECT OF STRENGTH TRAININGS OF DIFFERENT INTENSITY ON BODY POSTURE STRUCTURES OF YOUNG ATHLETES
Dr. Gürkan TOKGÖZ	<i>Ministry of Education (Türkiye)</i>	INVESTIGATION OF THE EFFECT OF VOLLEYBALL SUMMER COURSES ORGANIZED BY THE PROVINCIAL DIRECTORATE OF YOUTH AND SPORTS ON SOME PERFORMANCE VALUES OF ATHLETES
Assist. Prof. Dr. Sadi ÖN	<i>Kırşehir Ahi Evran University (Türkiye)</i>	SEASONAL CHANGE OF SOME ANAEROBIC- BASED ACTIVITIES IN YOUNG FOOTBALL PLAYERS
Prof. Dr. Mahmut AÇAK Assist. Prof. Dr. Kemal KURAK Reş. Assist. Hakan BÜYÜKÇELEBİ	<i>Çanakkale Onsekiz Mart University (Türkiye) Çanakkale Onsekiz Mart University (Türkiye) İnönü University (Türkiye)</i>	CHANGE IN THE ROLE OF PLAYERS IN BASKETBALL: MOST VALUABLE PLAYERS
Assist. Prof. Dr. Kemal KURAK Prof. Dr. Mahmut AÇAK Reş. Assist. Hakan BÜYÜKÇELEBİ	<i>Çanakkale Onsekiz Mart University (Türkiye) Çanakkale Onsekiz Mart University (Türkiye) İnönü University (Türkiye)</i>	CHANGE OF DEFENSE IN EUROPEAN BASKETBALL: EUROLEAGUE EXAMPLE
Assist. Prof. Dr. Cenab TÜRKERİ Barışcan ÖZTÜRK Bilgihan BÜYÜKTAŞ	<i>Çukurova University (Türkiye)</i>	INVESTIGATION OF THE ACUTE EFFECT OF LIFE KINETIC EXERCISE ON ALFA AND BETA BRAIN WAVES OF TENNIS PLAYERS
Assist. Prof. Dr. Hasan OSMANOĞLU Assoc. Prof. Dr. Meliha UZUN	<i>Şırnak University (Türkiye)</i>	A RESEARCH ON SECONDARY STUDENTS' MOTIVATIONS TO PARTICIPATE IN SPORTS
Assist. Prof. Dr. Hasan OSMANOĞLU Murat BİLEN Assoc. Prof. Dr. Meliha UZUN	<i>Şırnak University (Türkiye) Ministry of Education (Türkiye) Şırnak University (Türkiye)</i>	INVESTIGATION OF THE PROFESSIONAL PROFESSIONALITY LEVELS OF SCHOOL MANAGERS WHO DO AND DO NOT DO SPORTS

10.10.2022, Monday


Ankara Time
10⁰⁰ : 12³⁰


Hall-2
Session-1

HEAD OF SESSION: Assist. Prof. Dr. Şeyda BERK

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Dr. Ayşe Nur PEKTAŞ	<i>Sivas Cumhuriyet University (Türkiye)</i>	QUALIFICATION OF GPC/GFC/SEC ANALYSIS IN BIOLOGICAL SYSTEMS
Assist. Prof. Dr. Şeyda BERK	<i>Sivas Cumhuriyet University (Türkiye)</i>	INSULIN-LIKE GROWTH FACTOR SYSTEM AS A THERAPEUTIC TARGET IN COLORECTAL CANCER
Ayşegül Aybüke KARACİF Dr. Berat ÇINAR ACAR Prof. Dr. Zehranur YÜKSEKDAĞ	<i>Gazi University (Türkiye)</i>	DETERMINATION OF EPS PRODUCTION IN DIFFERENT PHYSICAL CONDITIONS BY <i>LIGILACTOBACILLUS SALIVARIUS</i> KC27L AND <i>LIMOSILACTOBACILLUS REUTERI</i> KC21L BACTERIA
Assist. Prof. Dr. Gülüzar ÖZBOLAT	<i>Sinop University (Türkiye)</i>	OVERVIEW OF IRON CHELATION THERAPY
Assoc. Prof. Dr. Konul MAHMUDOVA	<i>Azerbaijan State Pedagogical University (Azerbaijan)</i>	THE ROLE OF PROBLEM SOLUTION IN BIOLOGY TEACHING
Dilek Nur EKİNOĞLU	<i>Firat University (Türkiye)</i>	OPTIMIZING THE SURFACE STERILIZATION OF ORCHIS SANCTA
Assist. Prof. Dr. Melek ÇAM Prof. Dr. Yıldırım Hakan BAĞIŞ	<i>İstanbul Okan University (Türkiye)</i> <i>Ankara University (Türkiye)</i>	INVESTIGATION OF THE EFFECT OF SALIVA CONTAMINATION ON DIFFERENT DENTIN BOND STRENGTHS OF DIFFERENT ADHESIVE SYSTEMS
Lect. Dr. Dilek SÖNMEZER Prof. Dr. Fatma LATİFOĞLU	<i>Çukurova University (Türkiye)</i> <i>Erciyes University (Türkiye)</i>	INVESTIGATION OF THE EFFECT OF TEMPERATURE CHANGING ON DECELLULARIZED PERICARDIAL FLUID (dPF) AND USING IN TISSUE ENGINEERING APPLICATION
Münevver DEMİR Prof. Dr. Selçuk ÇÖMLEKÇİ Prof. Dr. Ecir Uğur KÜÇÜKSİLİ	<i>Süleyman Demirel University (Türkiye)</i>	PREDICTION OF DRUG TARGET INTERACTION: OVERVIEW OF DATABASES AND METHODS
Dr. Sümeyya SERİN	<i>Inonu University (Türkiye)</i>	QUANTUM CHEMICAL ANALYSIS OF PENTAZOCINE

10.10.2022, Monday

Ankara Time
10⁰⁰ : 12³⁰

Hall-3
Session-1

HEAD OF SESSION: Prof. Dr. M. Fatih AKAY

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Dr. Mehmet ÇINAR Dr. Yıldırım ÖZÜPAK	Bitlis Eren University (Türkiye) Dicle University (Türkiye)	PHASE LAG COMPENSATOR DESIGN WITH ROOT LOCATION CURVE METHOD IN CONTROL SYSTEMS
Dr. Mehmet ÇINAR Dr. Yıldırım ÖZÜPAK	Bitlis Eren University (Türkiye) Dicle University (Türkiye)	THE EFFECTS OF COMMUNICATION OVER ENERGY LINES (PLC) TECHNOLOGY IN ELECTRIC NETWORKS ON LEAK ELECTRICITY USE
İbrahim Volkan DEMİREL Sertan TOKTAŞ	AES Elektronik A.Ş. Arge Merkezi (Türkiye)	AN APPROACH FOR TO REDUCTION OF SOUND LEVEL ON WOODWORKING MACHINES
Seda ODABAŞ Assist. Prof. Dr. Abdurrahman GÜNDAY	Bursa Uludağ University (Türkiye)	ANALYSIS OF EFFECTS OF RANDOM WHEEL SLIP VARIATIONS ON WHEEL AND ENGINE VELOCITIES IN MECANUM WHEELED UNMANNED TERRESTRIAL VEHICLES
Dr. Ali Sinaç CABUK Assoc. Prof. Dr. Özgür ÜSTÜN Elif ŞAHİN	Istanbul Technical University (Türkiye)	EFFECT OF AXIAL PARTIAL DESIGN OF PERMANENT MAGNETS OF RADIAL FLUX PERMANENT MAGNET SYNCHRONOUS MOTOR ON EFFICIENCY
Gözde SÜNER Prof. Dr. Ali AKDAĞLI	Mersin University (Türkiye)	28/38 GHZ DUAL BAND MICROSTRIP PATCH ANTENNA DESIGN USING DGS AND SLOT LOADING TECHNIQUES FOR 5G WIRELESS COMMUNICATIONS SYSTEMS
Prof. Dr. Aysun COŞKUN Assist. Prof. Dr. Orhan ECEMİŞ	Gazi University (Türkiye) Gaziantep University (Türkiye)	COMPARISON OF OFFICIAL WEBSITE PERFORMANCES OF METROPOLITAN MUNICIPALITIES IN TURKEY WITH MULTI- CRITERIA DECISION MAKING METHODS
Şahin BATMAZ Oğuzhan KARAHAN Ayşegül Ceren KOÇ Üsâme DURAK Hüseyin DAŞ Z. Sude SARI Prof. Dr. M. Fatih AKAY	Biges Güvenli Hayat Teknolojiler A.Ş. (Türkiye) Biges Güvenli Hayat Teknolojiler A.Ş. (Türkiye) Biges Güvenli Hayat Teknolojiler A.Ş. (Türkiye) Biges Güvenli Hayat Teknolojiler A.Ş. (Türkiye) Biges Güvenli Hayat Teknolojiler A.Ş. (Türkiye) Cukurova University (Türkiye) Cukurova University (Türkiye)	FACE IDENTIFICATION IN SECURITY SYSTEMS
Assist. Prof. Dr. Ebubekir KAYA	Nevşehir Hacı Bektaş Veli University (Türkiye)	COMPARISON OF PERFORMANCE OF SOME VARIANTS OF THE ABC ALGORITHM IN NEURAL NETWORK TRAINING FOR THE ESTIMATION OF THE NUMBER OF COVID-19 CASES

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Hall-4
Session-1

HEAD OF SESSION: Prof. MOAMMED BARMAKI

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Amiru SULE Mohammed BABA ABDULLAHI	<i>Federal University Gusau (Nigeria) Kampala International University (Uganda)</i>	NUMERICAL SOLUTION OF FRACTIONAL ORDER OF MONKEYPOX DISEASE
Mohammad FAREED AHMAD Nadeem Ur REHMAN	<i>Aligarh Muslim University (India)</i>	REVERSIBLE CYCLIC CODES OVER $F_q + uF_q + u^2F_q$
NADEEM Ur Rehman JUNAID Nisar	<i>Aligarh Muslim University (India)</i>	IDENTITIES RELATED TO A PAIR OF GENERALIZED SKEW DERIVATIONS ON LIE IDEALS
L.R.H. Prabhasha MIDELLAWALA Jayani Mewandya GAWARAMMAÑA Rochana CHATHURANGA Hashan SENARATNE	<i>University of Moratuwa (Sri Lanka)</i>	NIGHTTIME LIGHT INTENSITY FOR ASSESSING THE SRI LANKAN REGIONAL ELECTRICITY DEMAND UNDER COVID-19 RESTRICTIONS: AN IMAGE BASED STATISTICAL ANALYSIS
Noor Khalil Shawkat	<i>University of Baghdad (Iraq)</i>	SOME RESULTS ON GRACEFUL LABELING GRAPHS
Oualid RHOLAM	<i>University Ibn Tofail (Morocco)</i>	SOME HERMITE-HADAMARD INEQUALITIES FOR QUASI-CONVEX STOCHASTIC PROCESS USING FRACTIONAL INTEGRAL
Prof. MOAMMED BARMAKI Mr. Oualid RHOLAM	<i>University Ibn Tofail (Morocco) Hassan II University (Morocco)</i>	HERMITE-HADAMARD INEQUALITIES FOR STOCHASTIC PROCESSES OF DIFFERENT TYPES OF CONVEXITY

10.10.2022, Monday


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10⁰⁰ : 12³⁰


Hall-5
Session-1

HEAD OF SESSION: Assist. Prof. Dr. Madan Lal Regar

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Assist. Prof. Dr. Madan Lal Regar	<i>National Institute of Fashion Technology (India)</i>	PATTU WEAVING: A CRAFT OF RAJASTHAN INDIA
Ar. Sristi MEHRA Ar. Darsan KUMAR PJ	<i>School of Planning and Architecture Vijayawada (India)</i>	DETERMINING THE TRANSIT ORIENTED DEVELOPMENT (TOD) POTENTIAL OF STATIONS IN A SUBURBAN RAILWAY CORRIDOR
Darsan KUMAR PJ Sristi MEHRA	<i>School of Planning and Architecture (India)</i>	A FRAMEWORK FOR PRIORITIZING LOCATIONS FOR CYCLING INFRASTRUCTURE INVESTMENTS IN A CITY
Pushkar PANDEY Aditi ORAON	<i>Indian Institute of Technology (India)</i>	HUMAN-CENTRIC UX DESIGN PRINCIPLES AND DESIGN THINKING: AN EMPIRICAL STUDY USING DESIGN CHALLENGES
Pushkar PANDEY Renu KUNDU	<i>Indian Institute of Technology (India)</i>	UX STUDY ON HANDHELD AUGMENTED REALITY GAMES BY APPLYING SPRADLEY'S NINE DIMENSIONS DESIGN PRINCIPLE
Dr. Pham Duc THUAN Le Van HIEU	<i>Can Tho University (Vietnam)</i>	TRAINING NEEDS OF HISTORY – GEOGRAPHY TEACHERS IN HIGH SCHOOLS IN THE MEKONG DELTA
Ola-Buraimo A.O. Oladimeji R.G. Auwal U.	<i>Federal University Birnin Kebbi (Nigeria) Osun State University (Nigeria)</i>	SIEVE ANALYSIS AND PETROGRAPHIC EVIDENCES OF TYPICAL NERITIC MARINE JODU SILTSTONE DEPOSIT, GWANDU FORMATION, SOKOTO BASIN, NORTHWESTERN NIGERIA

10.10.2022, Monday

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Hall-1
Session-2

HEAD OF SESSION: Dr. Dilan DENİZ AKAN

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Dr. Dilan DENİZ AKAN	<i>Manisa Celal Bayar University (Türkiye)</i>	STUDIES BASED ON THE HEALTH BELIEF MODEL IN ACUTE CORONARY SYNDROM: A SYSTEMATIC REVIEW
Assoc. Prof. Dr. Eylem TOKER Assist. Prof. Dr. Tuğçe SÖNMEZ Assist. Prof. Dr. Gülüzar SADE Res. Assist. Zeynep Seyyide KAYA Res. Assist. Seda GÜRAY	<i>Tarsus University (Türkiye)</i>	THE EFFECT OF MENOPAUS EDUCATION AND SCREENINGS GIVEN TO WOMEN ON MENOPAUS ATTITUDE
Assist. Prof. Dr. Sedat ÖZDEMİR Mustafa Şahin MORCALI	<i>Oğuzeli State Hospital (Türkiye)</i>	INVESTIGATION OF THE CONVERSION OF THESE RELATED TO OBESITY DISEASE AND OBESIC INDIVIDUALS
Assist. Prof. Dr. Demet GÖZAÇAN KARABULUT Assist. Prof. Dr. Çağtay MADEN	<i>Gaziantep Islamic Science and Technology University (Türkiye)</i>	SLEEP IN CHILDREN WITH CEREBRAL PALSY: A REVIEW
Assist. Prof. Dr. Senem DEMİRDEL Assist. Prof. Dr. Tezel YILDIRIM ŞAHAN Assist. Prof. Dr. Duygu TÜRKER Assist. Prof. Dr. Ertuğrul DEMİRDEL Uz. Fzt. Oğuzhan AKBAŞLI	<i>University of Health Sciences (Türkiye)</i> <i>University of Health Sciences (Türkiye)</i> <i>University of Health Sciences (Türkiye)</i> <i>Ankara Yıldırım Beyazıt University (Türkiye)</i> <i>Ankara Yıldırım Beyazıt University (Türkiye)</i>	EXAMINATION OF PHYSICAL ACTIVITY, LIFE SATISFACTION, WELL BEING AND BODY IMAGE IN PHYSICALLY DISABLED INDIVIDUALS
Assist. Prof. Dr. Çağtay MADEN Assist. Prof. Dr. Demet GÖZAÇAN KARABULUT	<i>Gaziantep Islamic Science and Technology University (Türkiye)</i>	THE EXAMINATION OF GRADUATE DISSERTATIONS THAT APPLIED VIDEO-BASED EXERCISE TRAINING IN THE FIELD OF PHYSIOTHERAPY AND REHABILITATION IN TURKEY
Res. Assist. Süleyman Can SÜMERKAN Assist. Prof. Dr. Aslı AKSOY	<i>Halic University (Türkiye)</i>	A OVERVIEW OF EDIBLE INSECTS IN TERMS OF GASTRONOMY AND NUTRITION

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Hall-2
Session-2

HEAD OF SESSION: Assoc. Prof. Dr. İsmail Cengiz YILMAZ

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Assist. Prof. Dr. Arda Burak EKMEN	<i>Harran University (Türkiye)</i>	PREDICTING THE SETTLEMENT VALUES OF RAFT FOUNDATIONS UTILIZING ARTIFICIAL NEURAL NETWORKS
Civil Engineer Ezgi ÖRKLEMEZ Assist. Prof. Dr. Serhan İLKENTAPAR	<i>Erciyes University (Türkiye)</i>	INVESTIGATION OF THE EFFECT OF DIATOMITE SUBSTITUTION ON MECHANICAL PROPERTIES AND ELEVATED TEMPERATURE RESISTANCE OF GEOPOLYMER MORTARS
Res. Assist. Dr. Bahadır ŞENGÜN Assoc. Prof. Dr. Yavuz GÜL	<i>Sivas Cumhuriyet University (Türkiye)</i>	AN INVESTIGATION OF EXISTING SUPPORT IN AN UNDERGROUND CHROME MINE
Assist. Prof. Dr. Muhammet Fethi GÜLLÜ	<i>Harran University (Türkiye)</i>	INVESTIGATING THE EFFECT OF MATERIAL PROPERTIES ON THE NATURAL VIBRATION PERIOD OF REINFORCED CONCRETE BUILDINGS WITH DIFFERENT STORY NUMBERS
Dr. Vesile Hatun AKANSEL Res. Assist. Ali İkbal TUTAR Dr. Muhammed Alperen OZDEMİR Prof. Dr. Ferit ÇAKIR	<i>Muğla Sıtkı Kocman University (Türkiye)</i> <i>Gebze Technical University (Türkiye)</i> <i>Iğdır University (Türkiye)</i> <i>Gebze Technical University (Türkiye)</i>	ASSESSMENT OF STRUCTURAL PERFORMANCE OF RED BASILICA OF PERGAMON, TURKEY
Dr. Muhammed Alperen OZDEMİR Res. Assist. Ali İkbal TUTAR Dr. Vesile Hatun AKANSEL Dr. Bora AKSAR Prof. Dr. Ferit ÇAKIR	<i>Iğdır University (Türkiye)</i> <i>Gebze Technical University (Türkiye)</i> <i>Muğla Sıtkı Kocman University (Türkiye)</i> <i>Isik University (Türkiye)</i> <i>Gebze Technical University (Türkiye)</i>	STRUCTURAL PERFORMANCE EVALUATION OF TRADITIONAL TURKISH HOUSES
Assoc. Prof. Dr. İsmail Cengiz YILMAZ Assist. Prof. Dr. Hamdi TEKİN	<i>İstanbul Arel University (Türkiye)</i>	AN ASSESSMENT ON THE FACTORS AFFECTING THE CONSTRUCTION SECTOR IN THE LIGHT OF CURRENT DEVELOPMENTS
Ali Berat ÖZTEMEL Prof. Dr. Hüseyin ÜNAL	<i>Sakarya University of Applied Sciences (Türkiye)</i>	TRIBOLOGICAL TEST SPECIMENS TO BE PRODUCED BY INJECTION MOLDING METHOD
Alican İPEK Prof. Dr. Osman ÇULHA Fatma Nur GÜLALAN	<i>Şafak Döküm Makina Parça San. ve Tic. A.Ş. (Türkiye)</i> <i>Manisa Celal Bayar University (Türkiye)</i> <i>Manisa Celal Bayar University (Türkiye)</i>	DESIGN AND DEVELOPMENT OF A PAINT MIXER TO INCREASE THE EFFICIENCY OF THE PAINTING PROCESS ON CASTING WORKPIECES
Kağan ZORLUOĞLU Assist. Prof. Dr. Saffet VATANSEVER	<i>Bursa Technical University University (Türkiye)</i>	A STUDY ON DETECTING THE FAKE IN AUDIO AND VIDEO USING ENF

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Hall-3
Session-2

HEAD OF SESSION: Assoc. Prof. Dr. Nevbahar EKİN

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Assist. Prof. Dr. Gonca DÜZKALE SÖZBİR	<i>Kahramanmaraş Sütçü İmam University (Türkiye)</i>	THE EFFECT OF VACUUM HEAT TREATMENT MODIFICATION OF LARCH (PINUS NIGRA) WOOD ON SOME MECHANICAL RESISTANCE VALUES
Assist. Prof. Dr. Gonca DÜZKALE SÖZBİR	<i>Kahramanmaraş Sütçü İmam University (Türkiye)</i>	EFFECT OF VACUUM HEAT TREATMENT MODIFICATION ON SCREW AND HARDNESS RESISTANCE OF BLACK ACACIA (ROBINIA PSEUDOACACIA) WOOD
Dr. Deniz Devrim TAŞDEMİR Assoc. Prof. Dr. Leyla Fırzuze ARDA ÖZALP Prof. Dr. Mehmet KARA	<i>Amasya University (Türkiye)</i>	IN THE DIGITAL AGE AN ETHIC MODEL PROPOSAL FOR ARTIFICIAL INTELLIGENCE SYSTEMS AS A SECURITY PRACTICE
Osman DOLMAZ Assist. Prof. Dr. Engin ÖZDEMİR	<i>İnönü University (Türkiye)</i>	DETERMINATION OF DUST AND NOISE EXPOSURE OF WORKERS IN MARBLE QUARRY
İsmail Buğra BÖLÜKBAŞI Prof. Dr. Betül YAĞMAHAN	<i>Bursa Uludağ University (Türkiye)</i>	DIAGNOSIS OF DIABETES DISEASE USING MACHINE LEARNING METHODS IN AN IMBALANCED DIABETES DATASET
Assist. Prof. Dr. Oğuzhan DAŞ	<i>National Defense University (Türkiye)</i>	PARAMETRIC VIBRATION ANALYSIS OF THE GULL-SHAPED WINGS HAVING VARIATIONAL SWEEP ANGLES AND WINGLET DIHEDRAL ANGLES
Dr. Erol İMREN	<i>Bartın University (Türkiye)</i>	MANAGEMENT AND ORGANIZATIONAL PROBLEMS IN FURNITURE ENTERPRISES: A FURNITURE ENTERPRISE APPLICATION
Assoc. Prof. Dr. Nevbahar EKİN Assoc. Prof. Dr. Osman UYANIK	<i>Süleyman Demirel University (Türkiye)</i>	DETERMINATION OF ANISOTROPY IN CONCRETES BY RESISTIVITY METHOD
Assoc. Prof. Dr. Nevbahar EKİN	<i>Süleyman Demirel University (Türkiye)</i>	DETERMINATION OF REINFORCEMENT IN CONCRETE WITH TIME- FREQUENCY ANALYSIS

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Hall-4
Session-2

HEAD OF SESSION: Major Gheorghe GIURGIU

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Major Gheorghe GIURGIU Prof. Dr. Manole COJOCARU	<i>Deniplant-Aide Sante Medical Center (Romania) Titu Maiorescu University (Romania)</i>	THE ASSOCIATION BETWEEN THE CUTANEOUS MICROBIOME AND HIDRADENITIS SUPPURATIVA
Major Gheorghe GIURGIU Prof. Dr. Manole COJOCARU	<i>Deniplant-Aide Sante Medical Center (Romania) Titu Maiorescu University (Romania)</i>	DENIPLANT NUTRITIONAL INTERVENTION TO TARGET GUT MICROBIOME IN PSORIASIS
Abdul Hanan TARIQ	<i>Lithuanian Sports University (Lithuania)</i>	ELECTRICAL STIMULATION IN REHABILITATION PATIENTS WITH FACIAL PALSY
Balasubramani G L Rinky RAJPUT Manish GUPTA Pradeep DAHIYA Jitendra K THAKUR Rakesh BHATNAGAR Abhinav GROVER	<i>Jawaharlal Nehru University (India) National Institute of Plant Genome Research (India) Banaras Hindu University (India)</i>	STRUCTURE-BASED DRUG REPURPOSING TO INHIBIT THE DNA GYRASE OF MYCOBACTERIUM TUBERCULOSIS
Dr. Irena SHALA Griselda BRACAJ Toni SHALA	<i>University of Shkodra “ Luigj Gurakuqi” (Albania) Medical Representative CFO Pharma (Albania)</i>	THE RELATIONSHIP BETWEEN ILLNESS UNCERTAINTY AND ANXIETY IN CANCER PATIENTS
Liljana RAMASACO Dr. Erjona ABAZAJ	<i>University Alexander Xhuvani (Albania) Institute of Public Health (Albania)</i>	IMPACT OF COVID-19 ON MENTAL HEALTH AMONG BALKAN HEALTHCARE WORKERS, A RAPID SYSTEMATIC REVIEW
Liljana RAMASACO Dr. Erjona ABAZAJ	<i>University Alexander Xhuvani (Albania) Institute of Public Health (Albania)</i>	IMPACT OF DIABETES MELLITUS ON THE RISK OF CARDIOVASCULAR DISEASES
Rabiu MUSA Abdullahi DAHIRU Halima MUHAMMAD Zainab ALIYU LAWAN	<i>Lincoln University College Malaysia (Malaysia) Bayero University Kano (Malaysia)</i>	ASSESSMENT OF PROBLEM AND PROSPECT OF NURSING EDUCATION AS IT AFFECT NURSE ANAESTHESIA PROGRAM IN NIGERIA

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Hall-5
Session-2

HEAD OF SESSION: Prof. Dr. Mehrunisa MEMON

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Asmae CHARKI Hossain ELOUARGHI M'hamed AHARI	<i>Abdelmalek Essaâdi University (Morocco)</i>	SYNTHETIC LEACHATE TREATMENT USING BENTONITE CLAY
Milena NIKODIJEVIC Apita SADIKOVIĆ Čedomir DIMIĆ Dragan ĐORĐEVIĆ	<i>University of Niš (Serbia)</i>	IMPORTANT PROPERTIES OF POLYESTER AND POLYAMIDE FABRIC FOR THE PRODUCTION OF AIRBAGS IN CARS
Eptesam ALZALAEI Katim ALAOUI Zouhra DOUKKALI Souad HAJJAJI	<i>Mohammed V University (Morocco) Amran University (Yemen) Mohammed V University (Morocco)</i>	STUDY OF THE ANTI-ANXIETY EFFECT OF CARALLUMA QUADRANGULA IN BALB/c mic
Dr. Muhammad NAEEM FAISAL Nabeel AHMAD Aiza KAMAL KHAN Alishbah ROOBI Usman HAIDER	<i>University of Agriculture Faisalabad (Pakistan)</i>	UNDERSTANDING THE EXPRESSION LEVEL OF AKT AND PTEN GENES IN FEMALE BREAST CANCER
Mohanad KHAIRI Prof. Dr Peter BAUMLI	<i>University of Miskolc (Hungary)</i>	STUDY INFLUENCE OF THE CHROMIUM ON THE OIL'S WETTABILITY
Wania NASIR Muhammad NAEEM FAISAL Bilal ASLAM Usman HAIDER Jannat SALEEM Ayesha JAVED Ayesha AHMAD Humaira MUZAFFAR Nabeel AHMAD	<i>University of Agriculture Faisalabad (Pakistan)</i>	INVESTIGATION OF ACETOAMINOPHEN INDUCED ACUTE HEPATITIS IN MICE AND STUDY OF IMMUNE PARAMETERS
Prof. Dr. Mehrunisa MEMON	<i>Sindh Agriculture University (Pakistan)</i>	DISTILLERY SPENT WASH AS A SOURCE OF POTASSIUM IN COTTON
Dr. Mouffouk SOUMIA Dr. Mouffouk CHAIMA Pr. Haba HAMADA	<i>Batna 1 University (Algeria)</i>	CHEMICAL COMPOSITION, ANTIOXIDANT AND ANTIBACTERIAL ACTIVITIES OF THE PLANT ERINACEA ANTHYLLIS LINK
Dr. Mouffouk SOUMIA Dr. Mouffouk CHAIMA Pr. Haba HAMADA	<i>Batna 1 University (Algeria)</i>	CYTOTOXIC EFFECT, ANTI-CHOLINESTERASE AND ANTIBACTERIAL ACTIVITIES OF THE PLANT SCABIOSA STELLATA L.
Sana GHAYAS Rabia BUSHRA Rubab HUSSAIN	<i>Dow University of Health Sciences (Pakistan)</i>	MITIGATION OF PARACETAMOL-INDUCED HEPATOTOXICITY BY DICLIPTERA BUPLEUROIDES NEES' THROUGH OXIDATIVE STRESS MODULATION

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Hall-1
Session-3

HEAD OF SESSION: Assoc. Prof. Dr. Zülfiye ACAR ŞENTÜRK

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Assist. Prof. Dr. Orçun AVCI Res. Assist. Hüseyin DİRİCAN	<i>Aksaray University (Türkiye)</i>	EXAMINATION OF THE TURKISH TAX SYSTEM IN TERMS OF TAX COMPLEXITY
Assist. Prof. Dr. Rukiye SAYGILI	<i>Selçuk University (Türkiye)</i>	INTIMIDATING TO OPPOSITION THROUGH GERRYMANDERING: THE CHANGING THE ADMINISTRATIVE BOUNDARIES OF KIRŞEHİR PROVINCE DURING THE DEMOCRATIC PARTY ERA
Okan BODUR Res. Assist. Dr. Nursel DURMAZ BODUR	<i>Pamukkale University (Türkiye)</i>	INDIVIDUAL AND JOB CHARACTERISTICS IN OCCUPATIONAL ACCIDENTS: ANALYSIS OF TURKSTAT HEALTH SURVEY MICRO DATASET
Assist. Prof. Dr. Ömer ÇAMUR	<i>Bingöl University (Türkiye)</i>	CONFLICT OF INTEREST IN PUBLIC ADMINISTRATION AND UNETHICAL BEHAVIORS CAUSED BY CONFLICT OF INTEREST
Res. Assist. Seda Selin KELEŞ	<i>İstanbul University (Türkiye)</i>	THE RELATIONSHIP BETWEEN ECOLOGICAL FOOTPRINT, GLOBALIZATION AND INCOME INEQUALITY- PANEL CAUSALITY ANALYSIS
Assist. Prof. Dr. Murat GENÇ	<i>Tarsus University (Türkiye)</i>	A STUDY ON THE USE OF ARTIFICIAL NEURAL NETWORKS IN HOUSE PRICE MODELING
Semih KOPUZ Prof. Dr. İdil SAYIMER	<i>Kocaeli University (Türkiye)</i>	ANALYSIS METHODS AND IMAGE MANAGEMENT IN DESTINATION MARKETING: THE CASE OF DUBAI
Assoc. Prof. Dr. Zülfiye ACAR ŞENTÜRK	<i>Uşak University (Türkiye)</i>	SUSTAINABILITY: AN EVALUATION OF JOB POSTINGS
Assoc. Prof. Dr. Zülfiye ACAR ŞENTÜRK Lect. Onur TOS	<i>Uşak University (Türkiye) Tarsus University (Türkiye)</i>	THE EFFECT OF BRAND IMAGE ON COUNTRY IMAGE: AN ASSESSMENT ON THE FACTORS THAT INCREASE THE BRAND VALUE OF COUNTRIES

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Hall-2
Session-3

HEAD OF SESSION: Assoc. Prof. Dr. Sema POLAT

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Orhan TERZİOĞLU Muhammet KARA	<i>Elatek Kauçuk Sanayi Tic. A.Ş. (Türkiye)</i>	INVESTIGATION OF EFFECT OF RECYCLED CARBON BLACK OBTAINED FROM WASTE RUBBERS ON EPDM RUBBER COMPOUNDS WITH PEROXIDE CURING SYSTEM
Assoc. Prof. Dr. Sema POLAT Dr. Mahmut ÖKSÜZLER Dr. Fatma Yasemin ÖKSÜZLER Researcher Samet KARA	<i>Çukurova University (Türkiye) Bozyaka Education and Research Hospital (Türkiye) İstiklal Medical Center (Türkiye) Çukurova University (Türkiye)</i>	RADIOLOGIC FEATURES OF GORLIN-GOLTZ SYNDROME: A RARE CASE AND LITERATURE REVIEW
Dr. Mahmut ÖKSÜZLER Assoc. Prof. Dr. Sema POLAT Dr. Fatma Yasemin ÖKSÜZLER Researcher Samet KARA	<i>Bozyaka Education and Research Hospital (Türkiye) Çukurova University (Türkiye) İstiklal Medical Center (Türkiye) Çukurova University (Türkiye)</i>	RADIOLOGIC FINDINGS OF TUBEROUS SCLEROSIS BOURNEVILLE SYNDROME: A CASE AND LITERATURE REVIEW
Fatma Nur ACAR Muhammet KARA	<i>Elatek Kauçuk Sanayi Tic. A.Ş (Türkiye)</i>	INVESTIGATION OF THE EFFECT OF USING POLYETHYLENE TEREPHTALATE YARN INSTEAD OF ARAMID ON THE PERFORMANCE OF RADIATOR HOSES
Mert ÖZCAN Muhammet KARA	<i>Elatek Kauçuk Sanayi Tic. A.Ş (Türkiye)</i>	INVESTIGATION OF THE EFFECT OF PEROXIDE VULCANIZATION SYSTEM ON CRYSTALIZATION IN EPDM RUBBER MIXTURE
Lect. Dr. Cengiz KEŞMER Assoc. Prof. Dr. Ayhan GENÇER	<i>Çukurova University (Türkiye) Bartın University (Türkiye)</i>	UV PERFORMANCE OF MORDANT MADE FROM ALOE VERA PLANT ON NATURAL DYED PAPER
Lect. Dr. Cengiz KEŞMER Assoc. Prof. Dr. Ayhan GENÇER	<i>Çukurova University (Türkiye) Bartın University (Türkiye)</i>	THE EFFECT OF USING NATURAL MORDANT ON PAPER DYEING WITH DYESTUFF MADE FROM WASTE ONION SKIN
Res. Assist. Dr. Mehtap BAYRAK	<i>Istanbul University (Türkiye)</i>	ECOLOGICAL RISK PROBLEMS CUKUROVA DELTA COASTAL LAGOONS
Dr. Seyhun DURMUŞ	<i>Balikesir University (Türkiye)</i>	AIRFOIL SELECTION FOR OUTER WINGS OF BLENDED WING BODY MALE UAV

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Hall-3
Session-3

HEAD OF SESSION: Dr. Nassima RIOUCHI

AUTHOR(S)	ORGANISATION	TOPIC TITLE
ZAKI Najlae AHARI M'hamed	<i>Abdelmalek Essaâdi University (Morocco)</i>	STUDY OF THE PERFORMANCE OF A LOCAL BENTONITE AS A COAGULATION ADDITIVE ON THE QUALITY OF WATER
Dr. Nassima RIOUCHI Dr. Oussama RIOUCHI Prof. Dr. Mohamed LOUTOU Prof. Dr. Mohamed ABOU-SALAMA	<i>Mohamed 1st University (Morocco)</i>	STUDY OF THE ELIMINATION OF CHROMIUM AND METHYLENE BLUE IN AQUEOUS MEDIA BY ADSORPTION ON TREATED AND UNTREATED PYROPHYLLITE
Dr. Nassima RIOUCHI Dr. Oussama RIOUCHI Prof. Dr. Mohamed LOUTOU Prof. Dr. Mohamed ABOU-SALAMA	<i>Mohamed 1st University (Morocco)</i>	ADSORBENT PROPERTIES OF BRIDGED ORGANOPHILIC CLAYS: SYNTHESIS AND CHARACTERIZATION
IWUOZOR, CHIAMA ROSEMARY MAIRIGA, JAMES PETERS CHUKWU-EZE, U. S MAIVA, E. P. KASAR, S. A.	<i>Nasarawa State University keffi (Nigeria)</i>	HEPATOPROTECTIVE EFFECT OF METHANOLIC EXTRACT OF PSIDIUM GUAJAVA LEAVES AGAINST PARACETAMOL INDUCED HEPATOTOXICITY IN ALBINO RATS
Bhavna SAROHA Gourav KUMAR Suresh KUMAR	<i>Kurukshetra University (India)</i>	DESIGN SYNTHESIS AND EVALUATION OF SOME NOVEL AURONES AS CATHEPSIN B INHIBITORS
Mohanad KHAIRI Prof. Dr. Peter BAUMLI	<i>University of Miskolc (Hungary)</i>	AN EXPERIMENTAL ANALYSIS OF MIXTURE OIL WETTABILITY ON THREE TYPES OF STEEL SURFACES
S.N.T.I. SAMPATH Dr. Susanthi JAYASINGHE Prof. A.P. ATTANAYAKE Prof. V. KARUNARATNE	<i>University of Peradeniya (Sri Lanka) University of Peradeniya (Sri Lanka) University of Ruhuna (Sri Lanka) University of Peradeniya (Sri Lanka)</i>	CHEMICAL INVESTIGATION ON ANTIDIABETIC ACTIVITY OF GARCINOL ISOLATED FROM <i>Garcinia quaesita</i> : EXPLORATION THROUGH IN VITRO AND IN VIVO ANTIDIABETIC MECHANISM
Fatima EN-NAHLI Soukayna BAAMMI Halima HAJJI Marwa ALAQARBEH Abdellah EL AISSOUQ Tahar LAKHLIFI Mohammed BOUACHRINE	<i>Moulay Ismail University (Morocco) Sultan Moulay Sliman University (Morocco) Mohammed VI Polytechnic University (Morocco) National Agricultural Research Center (Jordan) Sidi Mohamed Ben Abdellah University (Morocco)</i>	STRUCTURE-BASED VIRTUAL SCREENING AND MOLECULAR DYNAMICS OF NATURAL COMPOUNDS TO IDENTIFY POTENTIAL MALARIA THERAPEUTICS
Prashant SAXENA Dr. Rahul TRIPATHI	<i>Amity University (India)</i>	AN INVESTIGATION INTO TECHNICAL PROGRESS AND ITS DISSEMINATION DURING THE TRANSITION FROM SAILING SHIPS TO STEAMSHIPS
Mohd. Hasan Ansari Prekshi Garg Prachi Srivastava	<i>Amity University (India)</i>	INTEGRATION OF REVERSE DOCKING APPROACH TO IDENTIFY THE THREAT OF NEUROLOGICAL DISORDERS CAUSED BY CAFFEINE OVERCONSUMPTION

10.10.2022, Monday


Ankara Time
16⁰⁰ : 18³⁰


Hall-4
Session-3

HEAD OF SESSION: Assist. Prof. Dr. Rajesh RAMADASS

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Hadjira NAOUI Mohamed BENALIA Mohamed YOUSFI	<i>University of Laghouat (Algeria)</i>	COMPARATIVE STUDY OF THE ANTIOXYDANT ACTIVITY BETWEEN THREE SAMPLES OF FRUITS LIPIDS FROM ALGERIAN <i>Ficus carica</i> .L
Arshia ZIA	<i>University of Agriculture (Pakistan)</i>	APPLICATION OF PROLINE AS PRE-SOWING SEED TREATMENT ON OKRA UNDER WATER DEFICIT CONDITIONS
Bashir, Mohammed Bawuro Haruna, Idris Nuhu, Farida Luqman, Musa Mohammed Jauro, Friday Cletus	<i>Ahmadu Bello University (Nigeria) Rice Farmers Association of Nigeria office (Nigeria) Taraba State University (Nigeria)</i>	ASSESSMENT OF FACTORS INFLUENCING TOMATOES PRODUCTION IN NORTHERN TARABA STATE, NIGERIA
Lawal, W. S. Agunbiade S. A. Salami M. O. Dagba B. I.	<i>Kwara State Polytechnic (Nigeria)</i>	PERFORMANCE OF BROILER BIRDS FED VITEX DONIANNA AND HIBISCUS FLOWER
Maria KANWAL Rao Arsalan KHUSHNOOD Abdul Ghafar WATTOO	<i>NUST Institute of Civil Engineering (Pakistan) NUST Institute of Civil Engineering (Pakistan) Khawaja Farid University of Engineering and Information Technology (Pakistan)</i>	BIO-INSPIRED SELF-HEALING AND CORROSION RESISTANT CONCRETE
Paschal Chidi Nwonu Cynthia Ebere Nwobodo Elizabeth Amechi Onwubuya Sunday Alagba Obazi	<i>University of Nigeria (Nigeria)</i>	FARMERS USE OF SUSTAINABLE PRODUCTION PRACTICES ON YELLOW PEPPER CROP IN NSUKKA AGRICULTURAL ZONE, ENUGU STATE, NIGERIA
Peter O. OLUBIYO	<i>Adeyemi College of Education (Nigeria)</i>	APPLICATION OF ELECTRONIC RESOURCES TO LIBRARY INFORMATION PROCESSING IN ACADEMIC LIBRARIES IN NIGERIA
Assist. Prof. Dr. Rajesh RAMADASS Aravind J S	<i>PSG College of Technology (India)</i>	LIFE IMPROVEMENT OF SEALING CAP IN A USB CHARGER
Acc. Res. Fell. Ivan PAVLOVIĆ DVM Vlada ANTIĆ DVM Dragana PETKOVIĆ DVM Nikola NEDELJKOVIĆ BsC Vladimir TERZIN DVM Dragana TERZIN	<i>Scientific Veterinary Institute of Veterinary Medicine of Serbia (Serbia) Veterinary Ambulance Djole and Prle (Serbia) Veterinary Ambulance Pet Wellness Eva (Serbia) Veterinary Ambulance Djole and Prle (Serbia) Veterinary Ambulance Terzin Pet & Vet (Serbia) Veterinary Ambulance Terzin Pet & Vet (Serbia)</i>	HELMINTH INFECTIONS OF PETS CATS IN BELGRADE AREA

10.10.2022, Monday

Ankara Time
16⁰⁰ : 18³⁰

Hall-5
Session-3

HEAD OF SESSION: Assist. Prof. K.R. Padma

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Dr. HAMDI Wassila Dr. BENAÏSSA Atika KHLIEF Feriel Prof. Dr. OULD EL HADJ Mohamed Didi	<i>Amine Elokka El hadj Moussa Eg Akhamouk University (Algeria) Kasdi Merbah University (Algeria)</i>	ISOLATION AND IDENTIFICATION OF SOME STRAINS OF INDIGENOUS ACETIC ACID BACTERIA OF TRADITIONAL DATE VINEGAR FROM THE BASIN OF OUARGLA (NORTHERN SAHARA EAST ALGERIA)
Assist. Prof. K.R. Padma K.R. Don	<i>Sri Padmavati Mahila Visva Vidyalyayam (Women's) University (India) Bharath University (India)</i>	MORINGA OLEIFERA LAM (DRUMSTICK TREE) BIOACTIVE COMPOUNDS AGAINST CURRENT PANDEMIC: AN UPDATE
Mannir KABIR Zubairu Umar DARMA Kamaluddeen KABIR	<i>Umaru Musa Yar'adua University (Nigeria)</i>	ISOLATION AND CHARACTERIZATION OF PLANT GROWTH PROMOTING RHIZOBACTERIA (PGPR) FROM AGRICULTURAL SOIL OF UYU, KATSINA, NIGERIA, FOR POTENTIAL APPLICATION AS BIOFERTILISERS
Youssef KHACHTIB Lalla Hasna ZINELABIDINE Said BOUDA Youssef AIT BELLA Hanane HAMDALI Soumaya HAMMADA Abdelmajid HADDIOUI	<i>Sultan Moulay Slimane University (Morocco)</i>	GENETIC DIVERSITY AND RELATEDNESS AMONG 27 APPLE GENOTYPES (MALUS X DOMESTICA BORKH.) FROM FOUR GEOGRAPHICAL REGIONS IN CENTRAL MOROCCO REVEALED BY MICROSATELLITE (SSR) MARKERS
Elmira Yektadoust Amin Janghorbani Ahmad Farhad Talebi	<i>Semnan University (Iran)</i>	CLASSIFICATION OF COVID-19 VARIANTS USING CHAOS GAME REPRESENTATION AND RECURRENCE QUANTIFICATION ANALYSIS
Bahar Hashemi Ahmad Farhad Talebi Amin Janghorbani	<i>Semnan University (Iran)</i>	DIAGNOSIS OF DEPRESSION BASED ON TWITTER COMMENTS USING TWO RECURRENT NEURAL NETWORK ARCHITECTURES
Mariya KADIRI Meryem IDBOUMLIK Majid DRIOUCH Mohammed LACHKAR Mouhcine SFAIRA	<i>University of Sidi Mohamed Ben Abdellah (Morocco)</i>	ANTOCORROSION ACTIVITY OF A NEW INORGANIC COMPOUND ON MILD STEEL IN ACIDIC MEDIUM 1M HCL
Atiya Kaleem Aisha Sana Rafia Usman Khan Fatima Qamar	<i>Jinnah University for Women (Pakistan) NED University of Engineering and Technology Diagnosis Of Diabetes Disease Using Machine Learning Methods In An Imbalanced Diabetes Dataset (Pakistan)</i>	FERULIC ACID SYNTHESIZED GOLD NANOPARTICLES AND ITS CATALYTIC APPLICATIONS
Assist. Prof. Dr. İbrahim UYSAL	<i>Dicle University (Türkiye)</i>	ENDODONTIC TREATMENT AND LONG TERM FOLLOW-UP OF A MANDIBULAR MOLAR WITH A LARGE CYST-LIKE PERIAPICAL LESION

11.10.2022, Tuesday


Ankara Time
10⁰⁰ : 12³⁰


Hall-1
Session-1

HEAD OF SESSION: Assist. Prof. Dr. Tuğba MERT

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Ayhan KHALID Prof. Dr. Ahmet DEMİR	<i>Karabük University (Türkiye)</i>	DIFFERENT SOLUTION APPROACHES FOR COMPLEX INTEGRALS OF CERTAIN TYPES
Aysel ÜNAL Prof. Dr. Mustafa KARATAŞ	<i>Aksaray University (Türkiye)</i>	AFYONKARAHISAR PACKAGING WASTE INVESTIGATION OF REGIONAL, SOCIAL AND ECONOMIC IMPACT
Assist. Prof. Dr. Tuğba MERT	<i>Sivas Cumhuriyet University (Türkiye)</i>	TOTAL GEODESIC SUBMANIFOLDS OF ALMOST KENMOTSU SPACE
Assoc. Prof. Dr. Malahat ABDULLAYEVA	<i>Azerbaijan State Pedagogical University (Azerbaijan)</i>	USING THE GRAPH SOFTWARE IN FORMING STUDENTS' GRAPHIC SKILLS WHILE TEACHING MATHEMATICS IN GENERAL EDUCATION SCHOOLS
Prof. Dr. Beisenbi MAMYRBEK A. Dr. Suleimenova SALAMAT T. Dr. Kissikova NURGUL M. Dr. Shukirova ALIYA K.	<i>L.N. Gumilyov Eurasian National University (Kazakhstan)</i>	SELF-ORGANIZING CONTROL SYSTEMS IN THE CLASS OF THREE-PARAMETER STRUCTURALLY STABLE MAPPINGS
Cemil ENGİN Prof. Dr. Ali DELİCEOĞLU	<i>Erciyes University (Türkiye)</i>	HOPF BIFURCATION IN TIME DELAYED FRACTIONAL-ORDER BUSINESS CYCLE MODEL
Çağdaş YILMAZ Prof. Dr. Ali AKDAGLI	<i>Mersin University (Türkiye)</i>	PREDICTING THE AVERAGE FIBER DIAMETER OF ELECTROSPUN POLY(ε- CAPROLACTONE) SCAFFOLD USING MODEL BASED ON ARTIFICIAL NEURAL NETWORK

11.10.2022, Tuesday

Ankara Time
10⁰⁰ : 12³⁰

Hall-2
Session-1

HEAD OF SESSION: Prof. Dr. İsmail ŞİK

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Prof. Dr. Arif AYTEKİN	<i>Duzce University (Türkiye)</i>	HUMAN RESPONSIBILITY, THE CONCEPT OF FREE WILL AND KESB
Hamit KAMER Assoc. Prof. Dr. Adnan ALGÜL	<i>Gaziantep University (Türkiye)</i>	THE ROLE OF METAVERSE TECHNOLOGY IN THE NEAR FUTURE IN TERMS OF İBADÂT AND MUAMELÂT
Prof. Dr. İsmail ŞİK	<i>Çukurova University (Türkiye)</i>	ANTI-RELIGIOUS CURRENTS, THEIR COMMON FEATURES AND THEIR PARADOXES
Prof. Dr. İsmail ŞİK	<i>Çukurova University (Türkiye)</i>	TAKFİR AND ITS CRITICISM IN THEOLOGICAL CONTEXT IN ISLAMIC THOUGHT
Dr. İlyas KARA	<i>Ministry of Education (Türkiye)</i>	OPINIONS OF SOCIAL STUDIES TEACHERS ON THE CONTRIBUTION OF OUTSIDE LEARNING ENVIRONMENTS TO THE TEACHING PROCESS
Dr. İlyas KARA	<i>Ministry of Education (Türkiye)</i>	EXAMINATION OF HISTORY AND GEOGRAPHY TEACHING PROGRAMS TAUGHT IN SECONDARY SCHOOLS IN SWITZERLAND IN THE CONTEXT OF CITIZENSHIP EDUCATION
Fatma KÖSEGLU Assoc. Prof. Dr. Yaşar BARUT	<i>Ondokuz Mayıs University (Türkiye)</i>	INVESTIGATION OF THE EFFECT OF FOREST SCHOOL PRACTICES ON THE DEVELOPMENT OF PRESCHOOL CHILDREN
Prof. Dr. Mustafa KARABULUT	<i>Adıyaman University (Türkiye)</i>	LANGUAGE AND STYLE IN İHSAN OKTAY ANAR'S TIAMAT NOVEL
Assoc. Prof. Dr. Başak KARAKOÇ ÖZTÜRK Res. Assişt. Bilge DESTEĞÜLÖĞLU	<i>Çukurova University (Türkiye)</i>	CULTURAL ELEMENTS AS A TYPE OF COMMUNICATIONAL TRANSMISSION IN COMICS IN TURKISH TEXTBOOKS

11.10.2022, Tuesday

Ankara Time
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Hall-3
Session-1

HEAD OF SESSION: Assoc. Prof. Dr. Hülya ŞEREFİLİŞAN

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Res. Assist. Çağatay ESİN	<i>Ondokuz Mayıs University (Türkiye)</i>	IVERMECTIN AND SELAMECTIN TREATMENT IN RABBITS INFESTED WITH SARCOPTIC MANGE
Res. Assist. Çağatay ESİN	<i>Ondokuz Mayıs University (Türkiye)</i>	ABDOMINAL DOPPLER ULTRASONOGRAPHY IN CATS AND DOGS
Res. Assist. Gökhan BOYNO Dr. Hasret GÜNEŞ Assoc. Prof. Dr. Emre DEMİREK DÜRAK Prof. Dr. Semra DEMİR	<i>Van Yüzüncü Yıl University (Türkiye)</i>	INTERACTION OF <i>Saccharomyces cerevisiae</i> WITH SOME ARBUSCULAR MYCORRHIZAL FUNGI (AMF) IN STRAWBERRY
Assoc. Prof. Dr. Hülya ŞEREFİLİŞAN Erkan UĞURLU	<i>Iskenderun Technical University (Türkiye)</i>	EVALUATION of WET MEAT EFFICIENCY in MALE and FEMALE INDIVIDUALS of FRESHWATER MUSSEL (BIVALVIA: UNIONID) ACCORDING to LENGTH GROUPS
Erkan UĞURLU Assoc. Prof. Dr. Hülya ŞEREFİLİŞAN	<i>Iskenderun Technical University (Türkiye)</i>	SEM, FT-IR AND XRD: MOLLUSC SHELLS
Res. Assist. Zeynep YILMAZ Assist. Prof. Dr. Cemal SEVİNDİ	<i>Atatürk University (Türkiye)</i>	THE IMPORTANCE OF ORGANIC AND GOOD AGRICULTURAL PRACTICES FOR SUSTAINABLE AGRICULTURE IN ERZİNCAN
Res. Assist. Zeynep YILMAZ Assist. Prof. Dr. Cemal SEVİNDİ	<i>Atatürk University (Türkiye)</i>	DEVELOPMENT OF THE YOUNG AND OLD DEPENDENT POPULATION IN ERZURUM
Assoc. Prof. Dr. Mesude ÜNAL	<i>Kocaeli University (Türkiye)</i>	SUSTAINABLE CROP PRODUCTION METHODS
Assist. Prof. Dr. Yadigar POLAT Lect. Kübra YAVUZ	<i>Kilis 7 Aralık University (Türkiye)</i>	CORPORATE STRUGGLE WITH VIOLENCE AGAINST WOMEN: VPCM, WSA, CALL 183, LAW ENFORCEMENT AND HEALTH ORGANIZATIONS TO SUPPORT YOUR CHOICE AHP AND TOPSIS ANALYSIS
Assist. Prof. Dr. Didem ÖZGÜR	<i>Kafkas University (Türkiye)</i>	DISTRIBUTION AND ANTIFUNGAL SUSCEPTIBILITY OF CANDIDA SPECIES ISOLATED FROM CLINICAL SAMPLES
Asst. Prof. Mehmet Fatih ORHAN Prof. Dr. Behzat ÖZKAN	<i>Sakarya University (Türkiye)</i>	CHARACTERISTICS OF VITAMİN D DEFICIENCY IN EARLY INFANCY

11.10.2022, Tuesday


Ankara Time
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Hall-4
Session-1

HEAD OF SESSION: Assoc. Prof. Dr. Daniel SEABRA

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Assoc. Prof. Dr. Cecilia LATORRE-COSCELLUELA Assoc. Prof. Dr. Alejandro QUINTAS-HIJOS	<i>University of Zaragoza (Spain)</i>	EXPERIENTIAL AND COMPETENCE LEARNING IN HIGHER EDUCATION: A STRUCTURAL EQUATIONS MODEL TO MEASURE PERCEIVED EDUCATIONAL QUALITY
Prof. Dr. Laura IBRAYEVA	<i>KazGUU University (Kazakhstan)</i>	TEACHERS' BELIEFS ABOUT DEVELOPING STUDENTS' CREATIVITY AND PRACTICES IN SCIENCE AND HUMANITIES SUBJECTS IN KAZAKHSTAN
Woldeab, D. Henos, E. Tiruwork, T.	<i>Bahir Dar University (Ethiopia)</i>	VALUING OF EDUCATION AND IMPLICATIONS IN UNDERGRADUATE STUDENTS' LEARNING
Hirza SHABBIR Huma JAVED Lect. Ghuncha NAQVI	<i>University of Management and Technology (Pakistan)</i>	SOCIOCULTURAL ATTITIDES TOWARDS APPEARANCE, BODY CONSCIOUSNESS AND SELF-EFFICACY IN UNIVERSITY STUDENTS
Assoc. Prof. Dr. Daniel SEABRA	<i>Fernando Pessoa University (Portugal)</i>	THE IMPORTANCE AND MEANING OF ULTRA GROUPS FOR THE YOUNG PEOPLE WHO ARE PART OF THEM
Aamna IMRAN Ramsha NAEEM Shahzadi Razia SULTANA Rida ARIF Sumaira AYUB	<i>University of Management and Technology (Pakistan)</i>	WORKING ENVIRONMENT, EMPATHIC CONCERN, AND PROFESSIONAL QUALITY OF LIFE AMONG FEMALE STAFF NURSES
Assist. Prof. Dr. Humaira LATIF And Motasem MIRZA	<i>Bahauddin Zakariya University (Pakistan)</i>	PREDICTING TRAUMATIC STRESS USING RESILIENCE BY
Fatimazahrae MOUTIA	<i>University of Milan Bicocca (Italy)</i>	THE IMPACT OF BREAST CANCER ON BODY IMAGE AMONG MOROCCAN WOMEN
Zahra BATOOL Rabia KHADIM	<i>University of Management & Technology (Pakistan)</i>	INTERPERSONAL DIFFICULTIES IN MIGRAINE PATIENTS: PREDICTING RISK FACTORS
Lect. Yılmaz KILAVUZ	<i>Muş Alparslan University (Türkiye)</i>	EXAMINATION OF VARIABLES EFFECTIVE ON HIGHER EDUCATION PREFERENCES OF SECONDARY EDUCATION STUDENTS

11.10.2022, Tuesday


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Hall-5
Session-1

HEAD OF SESSION: Assist. Prof. Dr. Sheeba SARDAR ALI

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Assoc. Prof. Dr. Mohammed Basil ALAZZAWI Asst. Prof. Lazgin BARANY	<i>Al-Noor University College (Iraq) University of Nawroz (Iraq)</i>	TYPES OF ORAL CORRECTIVE FEEDBACK STRATEGIES USED BY EFL TEACHERS AT SECONDARY SCHOOL
Assoc. Prof. Dr. Abbas ALI REZAAE	<i>University of Tehran (Iran)</i>	CRITICAL THINKING ABILITY AND EFL LEARNERS' LANGUAGE LEARNING STRATEGY USE
Irin SULTANA	<i>King Khalid University (Saudi Arabia)</i>	EXPERIENCE AND MYSTERY OF THE MARABAR CAVES IN A PASSAGE TO INDIA
Jamila AL SIYABI Dr. Jamila AL SIYABI Dr. Victoria TUZLUKOVA	<i>Sultan Qaboos University (Oman)</i>	ASSISTIVE TECHNOLOGY IN HIGHER EDUCATION ENGLISH LANGUAGE CLASSROOM: PERSPECTIVES AND EXPERIENCES
Assist. Prof. Dr. Sheeba SARDAR ALI	<i>Majmaah University (Saudi Arabia)</i>	DIFFICULTIES FACED BY EFL LEARNER IN LEARNING ENGLISH GRAMMAR
Haleema SADIA Ansa LIAQUAT Hira FARHAN	<i>University of Management and Technology (Pakistan)</i>	SOCIAL MEDIA ADDICTION, MORAL VALUES AND MENTAL HEALTH AMONG UNIVERSITY STUDENTS
Tinatin MSHVIDOBADZE	<i>Professor Gori State University (Georgia)</i>	ELECTRONIC TRANSLATIONS OF MEXICAN LITERARY WORKS
Tinatin MSHVIDOBADZE	<i>Professor Gori State University (Georgia)</i>	TRANSLATIONS OF MEXICAN LITERARY WORKS
Vlada SYTNYK	<i>H.S. Skovoroda Kharkiv National Pedagogical University (Ukraine)</i>	THE EMOTIONAL UKRAINIAN TRADITIONAL CONCEPT OF «LOVE» IN THE POETRY OF MYKOLA VINGRANOVSKY

11.10.2022, Tuesday


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Hall-1
Session-2

HEAD OF SESSION: Prof. Emad Ahmed ELSAYYAD

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Dr. Hergie Alexis Séguédémè	<i>Université d'Abomey Calavi (Benin)</i>	CRITICAL SCRUTINY OF FEMALE LEADERSHIP IN MARY BEARD'S WOMEN AND POWER
Dr. BOSSOUN Koumabé	<i>Université d'Abomey Calavi (Benin)</i>	CRITICAL ASSESSMENT OF RELIGION AND HUMAN IN JEANNETTE WINTERSON'S ORANGES ARE NOT THE ONLY FRUIT
ABODOHOUI Orierien Olivier	<i>Université d'Abomey Calavi (Benin)</i>	CRITICAL INTERPRETATION OF ISOLATION IN GEORGE ELIOT'S SILAS MARNER
Assist. Prof. Dr. Humaira LATIF	<i>Bahauddin Zakariya University (Pakistan)</i>	SOCIAL APPEARANCE ANXIETY AND PSYCHOLOGICAL DISTRESS AMONG TIKTOK USERS
Assist. Prof. Ali GOLMOHAMMADI	<i>University of Tehran (Iran)</i>	FROM A REHABILITATIVE TO AN EXPLOITER INSTITUTION
Prof. Emad Ahmed ELSAYYAD	<i>King Khalid University (Saudi Arabia)</i>	THE ANCIENT EGYPTIAN REFLECTIONS IN THE DILMUNIAN SEALS IN THE ARABIAN GULF
Prof. Abdelaziz RAMADAN	<i>King Khalid University (Saudi Arabia)</i>	THE EMERGENCE OF CHRISTIANITY IN SOUTH ARABIA ACCORDING TO THE BYZANTINE AND EASTERN CHRISTIAN SOURCES
Prof. Saeed AL-QAHTANI	<i>King Khalid University (Saudi Arabia)</i>	THE POPULARITY OF COFFEE AND ITS SPREAD AMONG THE MECCAN COMMUNITY DURING THE TENTH CENTURY AH / SIXTEENTH CENTURY AD
Assoc. Prof. Dr. Monica GAROIU	<i>University of Tennessee-Chattanooga (USA)</i>	NOSTALGIA AND THE GREAT RETURN IN MILAN KUNDERA'S WRITING

11.10.2022, Tuesday


Ankara Time
13⁰⁰ : 15³⁰


Hall-2
Session-2

HEAD OF SESSION: Prof. Nataliya PANASENKO

AUTHOR(S)	ORGANISATION	TOPIC TITLE
PaedDr. Eva Habiňáková, PhD.	<i>University of St. Cyril and Methodius in Trnava (Slovakia)</i>	INTERCULTURAL COMPETENCE AND PERFORMANCE IN FOREIGN LANGUAGE TEACHING
PaedDr. Andrej Habiňák, PhD.	<i>University of St. Cyril and Methodius in Trnava (Slovakia)</i>	THE RELATIONS BETWEEN IDIOMS AND LANGUAGE CULTURE IN THE MASS MEDIA SPACE
Prof. Nataliya PANASENKO	<i>University of SS Cyril and Methodius in Trnava (Slovakia)</i>	WAYS TO REPRESENT KNOWLEDGE OF THE WORLD
Kalsoom YASIN Dr. Prof Saleem ABBAS	<i>Riphah International University (Pakistan)</i>	BURNOUT, JOB SATISFACTION AND SUBJECTIVE WELL-BEING IN TEACHERS WORKING IN SPECIAL EDUCATION AND GENERAL EDUCATION SCHOOLS
Aqsa REHMAN Mamoona MUSHTAQ	<i>Riphah International University (Pakistan)</i>	THE CHARACTERIZATION OF MENTAL HEALTH IN TRANSGENDERS ACROSS LIFE SPAN
Enida KUME	<i>"Aleksander Moisiu" University (Albania)</i>	STUDY ON DETERMINANT FACTORS OF WORK ENGAGEMENT ON KINDERGARTEN TEACHERS IN ALBANIA
Assist. Prof. Dr. Carmen Gabriela LAZĂREANU PhD. Candidate Vlad LEONTIE	<i>Alexandru Ioan Cuza University (Romania)</i>	DISCRIMINATORY ETHNIC PROFILES. THE CHALLENGES OF DIVERSITY
Dr. Oleh RUMAJI	<i>Management–University of YPPI Rembang (Indonesia)</i>	ANALYSIS OF MARKETING STRATEGY FOR PORT COMPETITIVENESS IN INDONESIA UNDER CONTAINER SHIPPING DYNAMICS
Lect. Dr. Irina-Ana DROBOT	<i>Technical University of Civil Engineering Bucharest (Romania)</i>	HOSPITALITY IN DIFFERENT CULTURES
Dr. Yeliz BOLAT	<i>Hitit University (Türkiye)</i>	DETERMINING TEACHERS' DRAMA APPLICATION PERCEPTIONS
Dr. Yeliz BOLAT	<i>Hitit University (Türkiye)</i>	THE OPINIONS OF THE STUDENTS TAKING THE PRESCHOOL EDUCATION PROGRAMS ON THIS COURSE
Mgr. Andrea Tománková, PhD. PaedDr. Eva Habiňáková, PhD.	<i>University of St. Cyril and Methodius in Trnava (Slovakia)</i>	SIGNIFICANT CHANGES IN MARKETING COMMUNICATION AND CONSUMER MOVEMENTS IN THE SPORTS INDUSTRY

11.10.2022, Tuesday


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Hall-3
Session-2

HEAD OF SESSION: Koutar Ben Chekroun Mzaouri

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Kauthar KABIR Abubakar AMINU MU'AZU	<i>Umaru Musa Yaradua University (Nigeria)</i>	A STUDY OF HYBRID LSB-MSB AND OTHER STEGANOGRAPHY TECHNIQUES USED FOR INFORMATION HIDING
Sholadoye, I. O Aliyu I Bitrus E. A.	<i>Federal Polytechnic Kaura Namoda (Nigeria) Ahmadu Bello University Zaria (Nigeria)</i>	EFFECT OF BANANA LEAVE ASH ON THE MICRO, PHYSICAL, AND MECHANICAL PROPERTIES OF CEMENT PASTE AND CONCRETE
Idayat O. SHOLADOYE Sani MAGAJI Bridget Orekwu OJOBO	<i>Federal Polytechnic Kaura Namoda (Nigeria)</i>	MODIFICATION OF LATERITIC SOIL BANANA LEAVES ASH
Assoc. Prof. Dr. Alina KIM Prof. Dr. Mikhail DOUDKIN Mr. Valery ROGOVSKY Mrs. Yelena DOUDKINA Prof. Hab. Dr. Marek MLYNCZAK	<i>D. Serikbaev East Kazakhstan Technical University (Kazakhstan) Wroclaw University of Science and Technology (Poland)</i>	ANALYSIS OF EXISTING DESIGNS OF SEEDING MACHINES
Sandeep BANDARWADKAR	<i>Kaunas University of Technology (Lithuania)</i>	INVESTIGATION OF THERMAL ENERGY ACCUMULATION USING SOIL LAYER FOR BUILDINGS' ENERGY EFFICIENCY
Dr. Abdikerova Uliya Baktybaevna Zhapakhova Akmaral Uteshevna Aben Gulayna Erkinbaykyzy	<i>Korkyt Ata Kyzylorda University (Kazakhstan)</i>	DEFECTS IN THE ASSEMBLY OF THE ATTIC FLOOR
Harshita DEVGAN	<i>Independent Researcher (India)</i>	COMPUTER SCIENCE
Archana KUMARI Assoc. Prof. Dr. Rahul DESAI Assist. Prof. Yuvraj GHOLAP	<i>Army Institute of Technology (India)</i>	PATIENT RISK IDENTIFICATION USING MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE
Koutar Ben Chekroun Mzaouri	<i>Hospital Comarcal (Spain)</i>	RAPID IDENTIFICATION OF VAGINAL INFECTION BY USING IN SITU HYBRIDIZATION
K. Sampath KN. Thirumalaivasan	<i>Kumaraguru College of Technology (India)</i>	SALAL - THIOSEMICAZONE COMPLEXES OF RUTHENIUM(II): SYNTHESIS AND CHARACTERIZATION

11.10.2022, Tuesday


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13⁰⁰ : 15³⁰


Hall-4
Session-2

HEAD OF SESSION: Dr. Kristina DEVČIĆ

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Nwosu, E. NANCY	<i>Federal College of Education (Nigeria)</i>	INFLUENCE OF OTME-INDUSTRY PARTNERSHIP ON SUSTAINABLE NATIONAL DEVELOPMENT AS PERCEIVED BY LECTURERS IN FEDERAL COLLEGE OF EDUCATION (TECHNICAL) AKOKA, YABA, LAGOS STATE
Md. Nazmul HOSSAIN Barek HOSSAIN MHM Musaddique Syod Ahsanul ISLAM ASHIK Sahariya AFROJE	<i>RUDN University (Russia)</i> <i>RUDN University (Russia)</i> <i>The Moscow State University of Technology "STANKIN" (Russia)</i> <i>Peoples' Friendship University of Russia (Russia)</i> <i>Peoples' Friendship University of Russia (Russia)</i>	INTERNATIONAL TRADE: PRESENT AND FUTURE
Assist. Prof. Dr. Azam SAFARABADI	<i>Shiraz University (Iran)</i>	RANKING OF SELECTED CULTURAL TOURISM SITES IN SHIRAZ (IRAN)
Assist. Prof. Dr. Azam SAFARABADI Pegah RAHIMI	<i>Shiraz University (Iran)</i>	INVESTIGATION OF SOCIAL HARMS AND THEIR EFFECT ON SECURITY PERCEPTION OF TOURISTS, CASE STUDY OF SHIRAZ (IRAN)
Abdul-karim, I. F. Subair, S. K. Adefalu, L. L. Yusuf, O. J. Olooto, F. M.	<i>Cocoa Research Institute of Nigeria (Nigeria)</i> <i>Kwara State University (Nigeria)</i> <i>University of Ilorin (Nigeria)</i> <i>Kwara State University (Nigeria)</i> <i>Kwara State University (Nigeria)</i>	PERCEIVED EFFECT OF ADOPTION OF EXPORT STANDARD PRACTICES (ESP) IN COFFEE FARMERS' PRODUCTIVITY IN KOGI STATE, NIGERIA
Dr. Miguel PONCE-CAMACHO Josue Aaron LOPEZ-LEYVA	<i>CETYS University (Mexican)</i>	RAPID PROTOYPING AND INNOVATION IN MULTINATIONAL ENTERPRISES
Assist. Prof. Nagaraja O. Assist. Prof. Jagannath R.	<i>KLES's Jagadguru Tontadarya Arts, Sc., & Com. College (India)</i>	AN ANALYSIS OF MICRO, SMALL AND MEDIUM ENTERPRISES AND ECONOMIC DEVELOPMENT: CASE STUDY OF GADAG DISTRICT IN KARNATAKA
Dibyendu NANDY	<i>ICFAI University (India)</i>	MASSTIGE MARKETING IN COMMODITY MARKET: FACTORS INFLUENCING PURCHASE OF PRODUCTS

11.10.2022, Tuesday


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Session-2

HEAD OF SESSION: Assoc. Prof. Dr. Muhammad JAVAID AFZAL

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Ichraq El YAAKOUBY Miloudi HLAIBI Nourredine KAMIL	<i>Hassan II University of Casablanca (Morocco)</i>	SEPARATION AND PURIFICATION OF POLYUNSATURATED FATTY ACIDS: A CRITICAL REVIEW
Redouane EN-NADIR Haddou EL-GHAZI	<i>University of Sidi Mohamed Ben Abdullah (Morocco) Hassan II University of Casablanca (Morocco)</i>	OPTICAL ABSORPTION IN SINGLE AND MULTIPLE QUANTUM WELLS FOR ELECTRONIC AND OPTOELECTRONIC APPLICATIONS
Kuzmishkin ANDREW	<i>Bauman Moscow State Technical University (Russia)</i>	PRINCIPLES OF THE DETECTOR OF HIGHLY CHARGED PARTICLES IN SPACE
Fabrice PATAUT	<i>Centre National de la Recherche Scientifique (France)</i>	POSTULATED THEORETICAL ENTITIES vs. TECHNOLOGICAL REAL ENTITIES : REMARKS ON HACKING AND GIERE
Farouk SALAMI	<i>Federal University Lokoja (Nigeria)</i>	PROLIFERATION OF SMALL ARMS AND LIGHT WEAPONS
Assoc. Prof. Dr. Muhammad JAVAID AFZAL Assist. Prof. Dr. Farah JAVAID	<i>Govt. Islamia Graduate College Civil Lines Lahore (Pakistan)</i>	FUZZY TECHNIQUE SIMULATION OF MOBILE PHONE HEATSINK
Nnodim JOHNKENNEDY Nwaokoro JOAKIN CHIDOZIE	<i>Imo State University (Nigeria) Federal University of Technology – Owerri (Nigeria)</i>	ALTERATION OF IMMUNOMODULATING AGENTS AND HEPICIDIN IN DIABETIC PATIENTS

11.10.2022, Tuesday

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HEAD OF SESSION: Assoc. Prof. Dr. Özlem ÖZTÜRK

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Prof. Dr. Sezin TURK KAYA Assoc. Prof. Dr. Berna COŞKUN ONAN Assoc. Prof. Dr. Meryem UZUNOĞLU	<i>Bursa Uludağ University (Türkiye)</i>	ALTERNATIVE SEARCHES and PRACTICE EXAMPLES in COLLAGRAPHY TECHNIQUE
Assist. Prof. Dr. Borga KANTÜRK	<i>Dokuz Eylül University (Türkiye)</i>	THE RELATIONSHIP BETWEEN ARCHAEOLOGICAL SİTES AND CONTEMPORARY ART IN HÜSEYİN BAHRI ALPTEKİN'S WORKS, WITHIN THE FRAMEWORK OF PUBLIC SPACE, CULTURAL HERITAGE, CULTURAL ANTHROPOLOGY, SOCIOLOGY OF ART DEBATES
Assist. Prof. Dr. Oğuz TUNÇEL	<i>Zonguldak Bülent Ecevit University (Türkiye)</i>	THE IMAGE OF WOMEN REFLECTED ON THE PROPAGANDA POSTERS OF THE FAR RIGHT PARTIES IN EUROPE
Assist. Prof. Dr. Ebru ARACI	<i>Mimar Sinan Fine Arts University (Türkiye)</i>	ISTANBUL PICTURE AND SCULPTURE MUSEUM" AS A HETEROTOPIA IN THE EXHIBITION OF "MUSEUMS, STORIES"
Dr. Zeynep Mehlika ULUÇAM KIRBAĞ	<i>Independent Researcher (Türkiye)</i>	SHOES OF GOD AND GODDESS IN ROME: SIMILARITIES AND DIFFERENCES
Assoc. Prof. Dr. Lachin HASANOVA	<i>Azerbaijan State Pedagogical University (Azerbaijan)</i>	ON INNOVATION PROCESSES IN MODERN HUMANITIES EDUCATION IN HIGER EDUCATION
Assoc. Prof. Dr. Gökhan ÖZTÜRK Assoc. Prof. Dr. Özlem ÖZTÜRK	<i>Bolu Abant İzzet Baysal University (Türkiye)</i>	THE RELATIONSHIP OF STUDY HABITS WITH VARIOUS VARIABLES IN INDIVIDUAL INSTRUMENT TRAINING
Assoc. Prof. Dr. Ozlem ÖZTÜRK	<i>Bolu Abant İzzet Baysal University (Türkiye)</i>	OVERVIEW OF MUSIC TEACHER TRAINING CURRICULUMS APPLIED IN TÜRKİYE
Lect. Dr. Muazzez ÇETİNER	<i>Isparta University of Applied Sciences (Türkiye)</i>	POSTMODERN MODA
Dr. Halil İbrahim POLAT	<i>Maltepe University (Türkiye)</i>	AN APPROACH TO PUBLIC SPACE AND TRANSFORMATION POTENTIALS IN BAHÇELİEVLER: ŞİRİNEVLER ULU MOSQUE AND SURROUNDINGS

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HEAD OF SESSION: Assoc. Prof. Dr. Ahmet Şükrü DEMİRCİ

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Prof. Dr. Serap GÖNÇÜ Dr. Gökhan GÖKÇE Ezgi ŞENSES	Çukurova University (Türkiye)	INVESTIGATION OF LIVESTOCK FARMS IN TERMS OF FIRE SAFETY
Prof. Dr. Serap GÖNÇÜ Dr. Gökhan GÖKÇE Ezgi ŞENSES	Çukurova University (Türkiye)	CALF RAISING PRACTICES IN DAIRY FARMS IN THE EASTERN MEDITERRANEAN REGION
Assist. Prof. Dr. Derya OGUT YAVUZ Assist. Prof. Dr. Nurdoğan TOPAL	Uşak University (Türkiye)	ALLELOPATHIC EFFECT OF L-DOPA on THE GERMINATION of SOME WEED SEEDS
Assoc. Prof. Dr. Ahmet Şükrü DEMİRCİ	Tekirdağ Namık Kemal University (Türkiye)	CURRENT APPROACHES TO THE PRODUCTION OF NEW NON-DAIRY PROBIOTIC FOODS
Saad Mohamed Haji Nour Assist. Prof. Dr. Sümer HORUZ	Erciyes University (Türkiye)	EFFICACY OF PHOSPHITES ON TOMATO BACTERIAL SPECK DISEASE CAUSED BY PSEUDOMONAS SYRINGAE PV. TOMATO
Vet. Erdem TAÇYILDIZ Assist. Prof. Dr. Buket BOĞA KURU Assoc. Prof. Dr. Mushap KURU	Taçyıldız Veterinary Clinic (Türkiye) Kafkas University (Türkiye) Kafkas University (Türkiye)	THE EFFECT OF SHORT-TERM OR LONG-TERM PROGESTERONE-BASED ESTRUS SYNCHRONIZATION ON LAMBING RATE, LAMB YIELD AND SURVIVOR RATE IN TUJ EWES DURING THE NON-BREEDING SEASON
Dr. Nimet TURGUT	Selçuk University (Türkiye)	MORPOMETRIC ANALYSIS OF AXIS IN CATTLE

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HEAD OF SESSION: Assist. Prof. Dr. İhsan AYTEKİN

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Res. Assist. Duygu ÖZTÜRK	<i>Mersin University (Türkiye)</i>	A CRITICAL ASSESSMENT OF THE DEBT CRISIS OF PERIPHERY COUNTRIES
Res. Assist. Dr. Abdullah ERKUL Res. Assist. Dr. Kumru TÜRKÖZ Assist. Prof. Dr. İbrahim Murat BİCİL	<i>Bahkesir University (Türkiye)</i>	ENERGY EFFICIENCY IN INTERNATIONAL ENERGY AGENCY COUNTRIES: EFFICIENCY ANALYSIS UNDER UNDESIRABLE OUTPUT
Assist. Prof. Dr. İhsan AYTEKİN	<i>Social Sciences University of Ankara (Türkiye)</i>	THE RELATIONSHIP BETWEEN SOCIAL AND HUMAN CAPITAL OF STARTUP FOUNDERS AND ORGANIZATIONAL PERFORMANCE: THE MEDIATING ROLE OF TRANSFORMATIONAL LEADERSHIP AND WORK ENGAGEMENT
Res. Assist. Mustafa Özgün ATALAY	<i>Karadeniz Technical University (Türkiye)</i>	INVESTIGATION THE RELATIONSHIP BETWEEN BURNOUT AND INTENTION TO LEAVE THROUGH META-ANALYSIS: A STUDY IN TURKISH CONTEXT
Res. Assist. Mustafa Özgün ATALAY	<i>Karadeniz Technical University (Türkiye)</i>	INVESTIGATION OF THE RELATIONSHIP BETWEEN ORGANIZATIONAL JUSTICE AND ORGANIZATIONAL CYNICISM THROUGH META-ANALYSIS: A STUDY IN TURKISH CONTEXT
Res. Assist. Dr. Safa HOŞ	<i>Hitit University (Türkiye)</i>	A STUDY ON DATA ENVELOPMENT ANALYSIS IN QUANTITATIVE DECISION- MAKING TECHNIQUES
Lect. Merve KAPLAN Assist. Prof. Dr. Bülent DEMİRAG Assoc. Prof. Dr. Sinan ÇAVUŞOĞLU	<i>Gaziantep University (Türkiye)</i> <i>Gaziantep University (Türkiye)</i> <i>Bingöl University (Türkiye)</i>	THE EFFECT OF ORGANIZATIONAL CYNISM ON ORGANIZATIONAL PRIDE: A RESEARCH ON INDUSTRIAL COMPANIES
Assist. Prof. Dr. Özgür Mustafa ÖMÜR	<i>Giresun University (Türkiye)</i>	EVALUATION OF THE TAX EXCEPTION FOR THE MINIMUM WAGE IN INCOME TAX IN TURKEY
Dr. Abdulsamet GÜNEK	<i>Muş Alparslan University (Türkiye)</i>	SOFT POWER AS A MANAGEMENT STRATEGY: POWER AND CONSENT IN MICHEL FOUCAULT AND JOSEHP S. NYE
Res. Assist. Gözde GÜSAN KÖSE Alaz BILGIN Prof. Dr. Gülpınar KELEMCI	<i>Marmara University (Türkiye)</i> <i>Mercedes-Benz Türk A.Ş. (Türkiye)</i> <i>Marmara University (Türkiye)</i>	THE PERCEPTION OF MASS PRESTIGE VALUE OF BRANDS AND ITS INTERACTION WITH BRAND LOYALTY – A FIELD STUDY IN THE SMART PHONE INDUSTRY

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HEAD OF SESSION: Assist. Prof. Dr. Suantak DEMKHOSEI VAIPHEI

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Assist. Prof. Dr. Suantak DEMKHOSEI VAIPHEI	<i>Assam Downtown University (India)</i>	SPIRITUAL PSYCHOTHERAPEUTIC MODEL IN INDIAN PALLIATIVE END-OF-LIFE CARE
Vorya SHABRANDI	<i>University of Guilan (Iran)</i>	DEVELOPMENTS OF THE INTERNATIONAL SYSTEM MANAGEMENT OF THE INTERNATIONAL CRISIS MANAGEMENT OF THE GREAT POWER OF THE RUSSIAN FEDERATION AND US AMERICA AFTER THE COLD WAR IN THE UKRAINIAN CRISIS
Ernest TAMBO Oluwasogo A OLALUBI	<i>Africa Disease Intelligence (Nigeria)</i> <i>Universite des Montagnes (Cameroon)</i> <i>Kwara State University (Nigeria)</i>	CHAOTIC VACCINATION DIPLOMACY AND GLOBAL HEALTH SECURITY INEQUITY IMPACT OF GLOBAL COVID-19 AND MONKEYPOX GLOBAL HEALTH EMERGENCIES
I. AMEZIANE EL HASSANI H. ASSILA K. KARROUCHI F. LAZRAK Y. RAMLI M. ANSAR	<i>Mohammed V University (Morocco)</i>	SYNTHESE DE NOUVEAUX DERIVES PYRAZOLIQUES A ACTIVITÉS PHARMACOLOGIQUES POTENTIELLES
Assist. Prof. Dr. Izabella Mária BAKOS Assoc. Prof. Dr. habil. Anikó KHADEMI-VIDRA Assoc. Prof. Dr. András SZEBERÉNYI	<i>Hungarian University of Agriculture and Life Sciences (Hungary)</i> <i>Hungarian University of Agriculture and Life Sciences (Hungary)</i> <i>Institute of Marketing, Budapest Metropolitan University (Hungary)</i>	RELATIONSHIPS BETWEEN ENVIRONMENTAL EDUCATION AND COMMUNITY-SUPPORTED AGRICULTURE IN HUNGARY
Mădălina Lorena MEDELEANU Anca Corina FĂRCAȘ Loredana LEOPOLD Cristina COMAN Zorița DIACONEASA Sonia Ancuța SOCACI	<i>University of Agricultural Sciences and Veterinary Medicine (Romania)</i>	METHOD OPTIMIZATION AND CHARACTERIZATION OF ESSENTIAL OILS NANO-EMULSIONS
Fanny Iriany GINZEL Diah Permata WIJAYANTI Petrus SUBAGIYO Agus SABDONO	<i>Diponegoro University (Indonesia)</i>	POPULATION DYNAMICS OF FRINGESCALE SARDINELLA (<i>Sardinella fimbriata</i> , Cuvier and Valenciennes, 1847) IN SAVU SEA MARINE NATIONAL PARK, EAST NUSA TENGGARA, INDONESIA

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**ZEYTİNDE GENETİK ARAŞTIRMALAR İÇİN MELEZ POPÜLASYONLARININ
OLUŞTURULMASI VE YÖNETİMİ**

ESTABLISHMENT AND MANAGEMENT OF HYBRID POPULATIONS FOR GENETIC
RESEARCH IN OLIVES

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ÖZET

Bu çalışma 2014 yılında İzmir Zeytincilik Araştırma Enstitüsü'nde başlatılmış olup halen devam etmektedir. Zeytin genetiği hakkında yapılacak araştırmalarda materyal olarak kullanılmak üzere melezleme çalışmaları yapılmış ve F1 bitkileri elde edilmiştir. Domat x Gemlik, Kilis yağlık x Edincik su, Girit zeytini x Karamürsel su, Girit zeytini x Edincik su, Gemlik x Çilli zeytin çeşitlerinden oluşan kombinasyonlarda melezleme çalışmaları gerçekleştirilmiştir. Melezlemelerden elde edilen F1 bitkileri İzmir/Kemalpaşa'da araziye dikilmiştir.

Elde edilen F1 popülasyonları zeytinde linkage haritalarının oluşturulması, Kantitatif Özellik Lokuslarının belirlenmesi ve zeytin genomu ile ilgili yapılacak çalışmaların materyalini oluşturacaktır. Belirlenen QTL'lerin ileride markır destekli seleksiyonda kullanılması ile erken generasyonlarda daha verimli ve karlı zeytin yetiştiriciliğinin yapılabilmesi, yüksek kaliteli ve sağlık açısından daha yararlı zeytinyağlarının elde edilebileceği zeytin çeşitlerinin elde edilebilmesi mümkün olacaktır.

Bu çalışma Tarımsal Araştırmalar ve Politikalar Genel Müdürlüğü TAGEM/BBAD/14/A08/P06/03 nolu proje olarak desteklenmektedir.

Anahtar kelimeler: Zeytin, ıslah, melezleme, erken seleksiyon, QTL.

ABSTRACT

This study was started at İzmir Olive Research Institute in 2014 and is still ongoing. Hybridization studies have been carried out and F1 plants have been obtained in order to be used as materials in olive genetics. Domat x Gemlik, Kilis yağlık x Edincik su, Girit zeytini x Karamürsel su, Girit zeytini x Edincik su, Gemlik x Çilli olive varieties of hybridization studies were carried out in combinations. F1 plants obtained by crossbreeding were planted in the field in İzmir/Kemalpaşa.

F1 populations obtained will constitute the material of the studies to be done about olive genome and the creation of linkage maps in olive, determination of quantitative feature loci and olive genome. With the use of marker based identified QTLs in the future, it will be possible to obtain more productive and profitable olive cultivation in early generations and to obtain olive varieties with high quality and healthier beneficial olive oil.

This study is supported by the project numbered TAGEM/BBAD/14/A08/P06/03 of the General Directorate of Agricultural Research and Policies.

Keywords: Olive, breeding, hybridization, early selection, QTL.

INTERACTIVE EFFECT OF FERTILIZER AND SOIL TYPES ON NH₃ VOLATILIZATION

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ABSTRACT

Fertilizer use in agriculture is recognized as a major source of ammonia emissions (NH₃) causing not only yield loss but also indirect emissions of other greenhouse gases. Emissions of NH₃ from N fertilized soils is a volatilization from the soil surface controlled by the concentration gradient and resistance to NH₃ transport between atmosphere and soil surface. Soil pH, moisture and the state of nitrification are the key factors controlling the rate of volatilization. Here fertilizer and soil type interaction may play key role on controlling the emission rates. In our study, we compared two soil type (saline and non-saline soils) and three fertilizer types (ammonium sulphate, urea and biogas waste) and measured NH₃ losses in a robotized continuous flow incubation system over 20 days. Additionally, nitrification rate and related soil enzymes were measured to better interpret the data observed. Preliminary data clearly showed that highest NH₃ losses were observed when soils treated with ammonium sulphate and biogas waste as compared to urea fertilizer.

Keywords: Soil salinity, Ammonia emission, Denitrification, Biogas waste

**DETERMINATION OF RATE AND TIMING OF NITROGEN FERTILIZATION VIA
MULTISPECTRAL IMAGING IN IRRIGATED AND NON-IRRIGATED WHEAT**

**AZOTLU GÜBRELEME ORANININ VE ZAMANLAMASININ MULTİSPEKTRAL
GÖRÜNTÜLEME İLE BELİRLENMESİ MULTİSPEKTRAL GÖRÜNTÜLEME İLE
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ÖZET

Tarımsal verimliliğin artırılabilmesi, kaynakların daha ekonomik kullanılması ve çevreye verilen zararın azaltılabilmesi bakımından dijital tarım tekniklerinin geliştirilmesi büyük önem arz etmektedir. Multispektral kameralar gibi ışığın farklı dalga boylarındaki yansıma veya absorpsiyon değerlerini yaprak veya kanopi ölçüğünde ölçebilen cihazlar bitkilerde anomali tespiti için sıkça kullanılmaktadır. Tamamlanan bu çalışmada multispektral kamera takılı dron görüntüleri ile bitkilerde özellikle azot miktarı/ihtiyacı ve verimlilikle ilgili parametrelerin ne ölçüde tahmin edilebileceği sulu ve kuru tarım yapılan buğday arazisinde araştırılmıştır.

Çalışma sonucunda sulu ve kuru şartlarda yetiştirilen buğday bitkisinde yetiştirme sezonu boyunca azotlu gübreleme miktarını ve zamanının dronlarla belirlenebilmesi için farklı algoritmalar geliştirilmesi hedeflenmiştir. Bu amaçla multispektral kameraya sahip dron kullanılmış (Parrot Bluegrass, France) ve çeşitli vejetasyon indeksleri hesaplanarak, bitki azot miktarı, SPAD değerleri ve bazı agronomik parametreler karşılaştırılmıştır. Bitkilerde yüzde azot ile korelasyon değerleri analiz edildiğinde vejetasyon indeksleri sulanan arazilerde kuru arazilere göre daha yüksek korelasyon vermiştir. Burada Klorofil Red Edge sulu koşullarda $R^2=0,97$ kuru koşullarda $R^2=0,21$, Klorofil Green (Cl_Green) sulu koşullarda $R^2=0,97$ kuru koşullarda $R^2=0,31$ ve Normalize Edilmiş Yeşillik indexi (GNDVI) sulu koşullarda $R^2=0,94$ kuru koşullarda $R^2=0,37$ oranlarında bitkide yüzde azotu tahmin edebilmiştir. Toplam birim alandan bitkiler tarafından alınan azot değerleri incelendiğinde de benzer oranların elde edildiği görülmüştür. Burada kaldırılan azot miktarı ile Cl_Rededge sulu koşullarda $R^2=0,75$ kuru koşullarda $R^2=0,63$, Cl_Green sulu koşullarda $R^2=0,72$ kuru koşullarda $R^2=0,74$ ve GNDVI sulu koşullarda $R^2=0,69$ kuru koşullarda $R^2=0,023$ oranlarında ilişkili bulunmuştur. Hazırlanacak sunulu bildiride uydu ve dron multispektral görüntü verilerinin özellikle azotlu gübreleme zamanı ve miktarı belirlenmesinde nasıl kullanılabileceği tartışılacaktır.

Anahtar kelimeler: Multispektral görüntü, insansız hava aracı, uzaktan algılama, azotlu gübreleme

ABSTRACT

Digital agriculture aims to optimize agricultural management practices that increase sustainability, productivity and decrease environmental impacts during production. Multispectral cameras can measure the canopy reflection or absorption values of different wavelengths of light which used frequently for canopy anomaly detection. In our study, we investigated the potential use of multispectral camera attached drones on nitrogen fertilizer management in irrigated and non-irrigated wheat fields. Our major goal was to develop new algorithms for timing and rate management of nitrogen fertilizers. We used Parrot Bluegrass (Parrot, France) and determined several indices at 6 different vegetation stages. Additionally, we determined plant nitrogen content, SPAD values and key agronomic parameters and performed correlation analysis with multispectral data. Highest correlation values between indices values and plant N content (%) were observed in irrigated fields as compared to non-irrigated soils. Here, correlation values for chlorophyll Red Edge (Cl_Redge) were $R^2=0,97$ and $R^2=0,21$ under irrigated and rainfed conditions. Similarly total N uptake values also showed high correlation specifically with Cl_Redge and Chl_Green indices under irrigated conditions. In our presentation we will discuss how drone and satellite multispectral data can be used to manage timing and rate of N fertilizers.

Keywords: Multispectral imagery, unmanned aerial drone, remote sensing, nitrogen fertilizer.

EFFECT OF SOIL SALINITY ON N₂O EMISSIONS

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ABSTRACT

Soil salinity do not only affect plant growth but also causes significant changes in soil microbial dynamics such as nitrogen cycle and nitrogenous greenhouse gas emissions. Nitrous oxide (N₂O) is a potent greenhouse gas and N fertilizer use is known to be the major source of soil born N₂O in agricultural soils. It is known that N fertilizer types affects N₂O emissions in different soils in various ways, thus for sustainable agricultural production, it is crucial to optimize nitrogen fertilizer management for specific soil types. In our present work, we compared three N fertilizer source in two contrasting soil type (saline and non-saline soil) for N₂O emissions in a robotized continuous flow incubation system. Urea, ammonium sulfate and biogas waste were used as nitrogen fertilizer sources in the experiment. Emission of N₂O remained relatively low and almost constant in nonfertilized saline and non-saline soils throughout the experiment. Overall, N₂O emissions were almost as twice as high in saline compared to the non-saline soil. When compared N fertilizer types in non-saline soils, N₂O emissions were highest in biogas waste treatment (7.26 kg N₂O day⁻¹ ha⁻¹) and lowest in ammonium sulfate treatment (6.11 kg N₂O day⁻¹ ha⁻¹). In saline soil type however, the highest N₂O emissions were observed when soil treated with ammonium sulfate as compared to other fertilizer types. In the presentation we will discuss key nitrogen cycling processes are affected by soil salinity and how that corresponds to the greenhouse gas emission.

Keywords: Soil salinity, Denitrification, Nitrous oxide emission, Nitrogen fertilizer

**MUSCA DOMESTICA (DIPTERA: MUSCIDAE) YETİŞKİNLERİ ÜZERİNDE
ULTRASONİK SES ETKİSİNİN İSTATİSTİKSEL ANALİZLERİ**
STATISTICAL ANALYSES OF ULTRASONIC SOUND EFFECT ON MUSCA DOMESTICA
(DIPTERA: MUSCIDAE) ADULTS

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ÖZET

Musca domestica L. (Diptera: Muscidae), tahrişe neden olan, yiyecekleri bozan ve birçok patojenik organizma için vektör görevi gören önemli bir zararlıdır. Bu sinekler, insanların yaşadığı her yerde bulunabilir ve hayvancılıkla da ilişkilidir. Modern entegre haşere yönetimi (IPM) programları, bu haşere popülasyonlarını kontrol etmek için biyolojik, kültürel ve/veya kimyasal kontrolü birleştirmektedir.

Bu çalışmada, insan için 20 kHz olarak tanımlanan ultrasonik limitin altında ve üstünde olan ses frekanslarının, karasinek yetişkinlerinde neden olduğu mortalite değerleri belirlenmiştir. 20 adet ergin karasinek, 3 kez, 24 saatlik bir süre boyunca, dört farklı ses frekansı aralığına (6,00 kHz, 14,30 kHz, 20,00 kHz ve 25,50 kHz) maruz bırakılmıştır. Sonuç olarak, karasineklerin maruz kaldığı tüm frekanslar arasında, 25,50 kHz'in (ultrasonik sınırın üzerinde) %75,00'lik bir ölüm oranıyla en etkili olduğu bulunmuştur. Ayrıca *M. domestica*'ya uygulanan ultrasonik ses dalgalarının 24. saatte en yüksek ölüm oranına (%95,00) ulaştığı belirlenmiştir.

İstatistiksel analizlerde *M. domestica* erginlerine uygulanan ultrasonik ses frekans değerlerinin ve maruz kalma süresinin mortaliteyi doğrudan etkilediği belirlenmiştir.

Genel olarak, sonuçlar ultrasonik sınırın üzerindeki ultrasonik frekansların yetişkin *M. domestica* popülasyonunu azaltmak için alternatif bir araç olabileceğini göstermiştir.

Anahtar Kelimeler: *Musca domestica*, Ultrasonik, Ses dalgası, Mortalite, Vektör Kontrol

ABSTRACT

Musca domestica L. (Diptera: Muscidae), the house fly, is a major domestic, medical and veterinary pest that causes irritation, spoils food and acts as a vector for many pathogenic organisms. These flies can be found everywhere people live and are also associated with animal husbandry.

Modern integrated pest management (IPM) programs combine biological, cultural, and/or chemical control to control populations of this pest. In this paper we determined the effects of exposure time and sound frequencies that are below and above the ultrasonic limit, characterized as 20 kHz for human, on house fly adult mortality. We exposed 3 replicates of 20 house fly adults to each of four different sound frequency ranges (6.00 kHz, 14.30 kHz, 20.00 kHz and 25.50 kHz) for a 24 h period. Results show that among all frequencies to which house flies are exposed, 25.50 kHz (above the ultrasonic limit) was found to be the most effective with a mortality of 75.00%. We also determined that ultrasonic sound waves applied on *M. domestica* have the highest mortality (95.00%) at 24 hours.

In statistical analyses, it was determined that the ultrasonic sound frequency values applied to the *M. domestica* adults and the exposure time directly affected the mortality.

Overall, results indicated that the ultrasonic frequencies above the ultrasonic limit can provide an alternative tool to reduce adult population of *M. domestica*.

Keywords: *Musca domestica*, Ultrasonic, Sound waves, Mortality, Vector control

SYNTHESIS, CHARACTERIZATION AND ADSORPTION APPLICATIONS OF POLY 3-((2- PHENYLHYDRAZINEYLILEDE)METHYL)BENZENE-1,2-DIOL

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ABSTRACT

Poly(phenoxy-imine)s, which have conjugated bond system, are a family of polyphenols and can be prepared by oxidative polycondensation reaction from a monomer containing both hydroxyl (-OH) and aldehyde side groups. In this context, a novel poly(phenoxy-ketimine), poly(3-((2-phenylhydrazineylilede)methyl)benzene-1,2-diol) poly(3-PHBD), including a system of conjugated bonds and active hydroxyl groups, were synthesized in % 76.44 yield and spectroscopically characterized by elemental analysis, FTIR (Fourier transform infrared), NMR (nuclear magnetic resonance) absorption and adsorption have been tested. Among them, one of the simplest, cheap, and effective physical processes is adsorption that has also simple design requirements for the treatment of wastewater. Also, the adsorption technique provides an attractive alternative treatment, especially if the adsorbent expensive and readily available. Activated carbon is the most popular adsorbent but it is expensive. So, many researchers have studied the feasibility of using low-cost substances such as plum kernels, chitin, chitosan, perlite, and natural clay as an adsorbent for the removal of dyestuffs from wastewater [1]. Afterwards, polymer device was fabricated and its rectifying behaviors, depending on some parameters including ideality factor, barrier height and series resistance values at room temperature, were examined. Poly (3-PHBD) was prepared via oxidative polycondensation. Poly(3-PHBD) and (3-PHBD) was characterized by FT-IR, CV, UV, TGA, NMR and adsorption parameters. Furthermore, the zero point charge of poly(3-PHBD) was determined. Poly(3-PHBD) was used as an adsorbent for the removal of methylene blue (MB) from an aqueous solution. The adsorption of MB onto the poly(3-PHBD) from aqueous solution was studied both thermodynamically and kinetically.

Keywords: Polymers, polymerization of polyphenols, double base condensation, Adsorption

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INVESTIGATION OF THE SYNTHETIC CHARACTERIZATION AND ADSORPTION PROPERTIES OF POLY(4-((2- PHENYLHYDRAZINEYLILEDE)METHYL) BENZENE1-3-DIOL

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ABSTRACT

Poly(phenoxy-imine)s, which have conjugated bond system, are a family of polyphenols and can be prepared by oxidative polycondensation reaction from a monomer containing both hydroxyl (-OH) and aldehyd side groups. In this context, a novel poly(phenoxy-ketimine), poly(4-((2-phenylhydrazineylilede)methyl)benzene,1-3-diols poly(4-PHBD), including a system of conjugated bonds and active hydroxyl groups, were synthesized in % 64.33 yield and spectroscopically characterized by elemental analysis, FTIR (fourier transform infrared), NMR (nuclear magnetic resonance) absorption and polymers, which can be utilized as a semiconductor material.9 Another class of conjugated polymers related to the polyphenols is namely poly(phenoxy-imine) and poly(phenoxyketimine), which have imine and ketimine groups in pendant groups [1]. Optical band gap of the polymer is determined as 3.14 eV. In addition, electrical conductivity, solubility and thermal properties of poly(4-PHBD) were determined. Its electrical conductivity was found to be $\sim 7.04 \times 10^{-2} \text{ Scm}^{-1}$, which was the typical level for semiconductors. Afterwards, polymer device was fabricated and it rectifying behaviors, depending on some parameters including ideality factor, barrier height and series resistance values at room temperature, were examined In this study, a new magnetic activated carbon was prepared from a coconut shell. poly(4-PHBD) and (4-PHBD) was characterized by BET, SEM/EDX, FT-IR, CV, UV, TGA, analysis. Furthermore, the zero point charge of poly(4-PHBD) poly(4-PHBD was determined. poly(4-PHBD)s was used as an adsorbent for the removal of methylene blue (MB) from an aqueous solution. The adsorption of MB onto the poly(4-PHBD) from aqueous solution was studied both thermodynamically and kinetically.

keywords: polymers, polymerization of polyphenols, double base condensation, adsorption

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QUANTUM CONFINEMENT EFFECT AT II-VI QUANTUM DOTS

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ABSTRACT

Since the early 1980s, quantum dots have attracted much attention [1]. Quantum dots are also known as semiconductor nanocrystals. Quantum dots are tiny crystals made of semiconductor material. Their sizes are between roughly 2 nm and 10 nm. They have been used in a variety of applications such as fast optical switching, in vivo cancer targeting and imaging, and increasing color rendering index of light emitting diodes. Quantum dots are unique nanostructures to observe quantum confinement effect at three space dimensions. Herein, the quantum confinement means limitation of motion of electrons and holes inside the quantum dot at three space dimensions. Quantum confinement effect or in other words quantum size effect causes continuous bands (valence and conduction) of bulk semiconductor to divide into discrete bands and so the optical properties of the quantum dots differ from those of their bulk semiconductor materials.

In this study, binary and ternary II-VI quantum dots, for example CdSe and Cd_xZn_{1-x}Te quantum dots, have been produced by using some bottom-up techniques such as hot-injection and, melt-quenching and heat treatment. These quantum dots have been shown via transmission electron microscopy. Their average sizes have been found to be smaller than ~8.0 nm. Quantum confinement effect has appeared for these quantum dots at this size scale. Approximately up to 100 nm redshift in wavelength with increasing average size has been observed at their photoluminescence spectra due to the quantum confinement. Time dependent photoluminescence intensity has also been measured for these quantum dots. Their photoluminescence lifetimes have ranged from some hundreds of picoseconds to a few nanoseconds.

Keywords: Quantum Dots, Nanocrystals, Quantum Confinement, Photoluminescence

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**MİNİ FIRINDA KULLANILAN PİLİÇ ÇEVİRME MOTORUNDAKİ AŞIRI ISINMA
SORUNUN SAYISAL ANALİZ YAPILARAK ÇÖZÜLMESİ**
SOLVING THE OVER TEMPERATURE PROBLEM IN THE ROTATING SPIT MOTOR USED
IN THE MINI OVEN BY NUMERICAL ANALYSIS

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ÖZET

Günümüzdeki yaşam koşulları kolay taşınabilen ve basit cihazları ön plana çıkartmaktadır. Toplumun büyük bölümünün evde yemek yapmak yerine hazır gıdalara yöneldiği gözlemlenmektedir. Bu durumun neticesi olarak hazır gıdaları pratik bir şekilde hazırlanabileceği mini fırın ve mikrodalga gibi ürünler ön plana çıkmaktadır. Mini fırınlar kullanılarak ankastre ve tamboy fırınlarda yapılabilen tüm yemekler yapılabilmektedir. Bu kapsamda mini fırınlarda bütün piliç pişirme gibi işlevlerin yerine getirilebilmesi için piliç çevirme motoru bulunmaktadır. Mini fırınlar oldukça kompakt yapıda oldukları için bileşenler birbirlerine oldukça yakındır. Buda sistem bileşenlerinin fazla ısınmasına ve standartlarda güvenlik testi olan komponent ısı testlerinden kalmasına neden olmaktadır. Bu ve bunun gibi sorunların belirlenmesi ve çözülmesi için hesaplamalı akışkanlar dinamiği programlarından faydalanılarak sayısal analizler yapılmıştır. Piliç çevirme motorunda oluşan fazla sıcaklığın kaynağının belirlenebilmesi için yapılan analizlerde fan motorunun etkileri, iletim ısı transferi ve zorlanmış ısı transferi analiz edilerek sonuçları incelenmiştir. Piliç çevirme motorunun montajlandığı sacın yüksek sıcaklıklara çıkması ve montaj ayaklarından iletim ile ısı transferinin gerçekleşiyor olmasıdır. Hem zorlanmış hem de iletim ile olan ısı transferini azaltmak için yapılan değişiklikler ile istenilen sonuçlara ulaşılmıştır. İstenilen sonuçlara ulaşılmasının ardında ürün üzerinde tasarımsal ve sistemsel değişikliklere gidilerek sorun çözüme kavuşturulmuştur. Bu değişiklikler mini fırınlarda yenilik olarak ortaya koyulacağından Fikri Sınai Mülkiyet Haklarının alınması amacıyla patent, faydalı model ve tasarım tescil başvuruları yapılmaktadır.

Anahtar Kelimeler: Mini Fırın, Piliç Çevirme Motoru, HAD, Sayısal Analiz

ABSTRACT

Today's living conditions bring easily transportable and simple devices to the forefront. It is observed that a large part of the society turns to ready-made foods instead of cooking at home. As a result of this situation, products such as mini ovens and microwaves, where ready-made foods can be prepared in a practical way, come to the forefront. All meals that can be made in built-in and full-size ovens can be made by using mini ovens. In this context, mini ovens have a rotating spit motor to perform functions such as cooking whole chicken. Since mini ovens are very compact, the components are very close to each other. This causes the system components to overheat and remain in the heat of component tests, which are safety tests in standards. In order to identify and solve these and similar problems, numerical analyzes were made by using computational fluid dynamics programs. In order to determine the source of the excess heat generated in the rotating spit motor, the effects of the fan motor, conduction heat transfer and convection heat transfer were analyzed and the results were examined. The sheet on which the rotating spit motor is mounted rises to high temperatures and heat transfer takes place by transmission from the mounting feet. The desired results were achieved with the changes made to reduce the heat transfer by both forced and conduction. After achieving the desired results, the problem was solved by making design and systemic changes on the product. Since these changes will be put forward as innovations in mini ovens, patent, utility model and design registration applications are made in order to obtain Intellectual Industrial Property Rights.

Keywords: Mini Oven, Rotating Spit Motor, CFD, Computational Analysis

**ÜRETİM ÖNCESİNDE 60CM ANKASTRE FIRINLARIN SAYISAL ANALİZ YAPILARAK
OLASI SORUNLARIN ÖNCEDEN BELİRLENMESİ**
DETERMINE POSSIBLE PROBLEMS AS NUMERICAL ANALYSING OF 60 CM BUILT-IN
OVENS BEFORE PRODUCTION

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ÖZET

Günümüzdeki yaşam koşulları eskiye oranla daha hızlıdır. Toplumun büyük bölümünün evde yemek yapmak, temizlik yapmak gibi ihtiyaçlara harcadığı sürelerin azaldığı görülmektedir. Bu durumun neticesi olarak ev aletlerinin kullanımının arttığı görülmektedir. Bu ev aletlerinin sayısının artması hem güvenlik hem de enerji sarfiyatında olası sıkıntılara sebep olması istenmemektedir. Bu nedenle kullandığımız tüm ev aletleri hem güvenlik hem de enerji yönünden pek çok standartları sağlaması gerekmektedir. Bu standartlar ülke veya ülke gruplarına göre değişmektedir. Bu ev aletlerinden olan ankastre fırınlar için bu standartlar kapsamında pek çok test yapılması gerekmektedir. Fırınlar hem firma bünyesinde hem de test kuruluşlarında test yapılarak standartlara uygunlukları kontrol edilmektedir. Ankastre fırının testlerde olumsuz sonuç alması durumunda üretilen fırın üzerinde revizyonlar yapılması gerekmektedir. Bu durumda tüm kalıp, aparat ve üretim süreçlerinde yeniliklere ve/veya revizyonlara neden olacaktır. Hem maliyet hem de sistemlerin ömürleri açısından sakıncalı bir süreci beraberinde getirmektedir. Değişen ve gelişen teknoloji ile beraber bu testler bilgisayar ortamında modellenerek simüle edilebilmektedir. Ankastre fırın üretilmeden önce kalıp, aparat ve diğer süreçleri devam ederken hesaplamalı akışkanlar dinamiği programlarından faydalanılarak yüzey sıcaklığı, pişirme ve enerji testleri simüle edilmiştir. Tepsi yüzeyindeki ve fırının içindeki sıcaklık dağılımları incelenerek pişirme test sonuçları gözlemlenmiştir. Fırında kullanılan materyaller programda tanımlanarak ısı transferi modellenmiş ve yüzey sıcaklıkları belirlenmiştir. Yapılan analiz sonuçlarına bakıldığında mevcut tasarımın yüzey sıcaklıkları testlerinden geçerken, pişirme ve enerji testlerinden kalacağı belirlenmiştir. Bu noktalarda sorunların çözülmesi için ya tasarımsal değişikliğe ya da sistemsel değişikliğe gidilmiştir. Bu değişiklikler fırınlarda yenilik olarak ortaya koyulacağından Fikri Sınai Mülkiyet Haklarının alınması amacıyla patent, faydalı model ve tasarım tescil başvuruları yapılmaktadır.

Anahtar Kelimeler: Ankastre, Fırın, HAD, Sayısal Analiz

ABSTRACT

Today's living conditions are faster than in the past. It is seen that the time spent by the majority of the society on needs such as cooking and cleaning at home has decreased. As a result of this situation, it is seen that the use of household appliances has increased. It is not desirable that the increase in the number of these household appliances will cause possible problems in both safety and energy consumption. For this reason, all household appliances we use must meet many standards in terms of both safety and energy. These standards vary by country or country groups. For built-in ovens, which are among these household appliances, many tests must be carried out within the scope of these standards. Ovens are tested both within the company and in the test institutions and their compliance with the standards is checked. If the built-in oven gets negative results in the tests, revisions should be made on the produced oven. In this case, it will cause innovations and revisions in all mold, apparatus and production processes. It brings with it an inconvenient process both in terms of cost and the life of the systems. With the changing and developing technology, these tests can be modeled and simulated in the computer environment. Before the built-in oven was produced, surface temperature, cooking and energy tests were simulated by using computational fluid dynamics programs while molding, apparatus and other processes were continued. The temperature distributions on the tray surface and inside the oven were examined and the cooking test results were observed. The materials used in the furnace were defined in the program, heat transfer was modeled and surface temperatures were determined. When the results of the analysis were examined, it was determined that the current design would remain from cooking and energy tests while passing surface temperature tests. At these points, either design changes or systemic changes have been made to solve the problems. Since these changes will be put forward as innovations in bakeries, patent, utility model and design registration applications are made in order to obtain Intellectual Industrial Property Rights.

Keywords: Built-in, Oven, CFD, Computational Analysis

KIZILÇAM KOZALAĞI UNU DOLGULU ALÇAK YOĞUNLUKLU POLİETİLEN KOMPOZİTLERİN MEKANİK ÖZELLİKLERİNİN BELİRLENMESİ

DETERMINATION OF MECHANICAL PROPERTIES OF LOW DENSITY
POLYETHYLENE COMPOSITES FILLED WITH RED PINE CONE FLOUR

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ÖZET

Ülkemizde ve dünyada Odun Plastik Kompozit (OPK) malzemeye olan talep ve kullanım alanları her geçen gün artmaktadır. OPK' ye olan talebin artması ürünün sağlık açısından, çevrede bozunma süresinin plastik malzemeye göre daha kısa olmasından ve tasarımı gibi etmenlerinden dolayı meydana gelmektedir. Odun plastik kompozitler (OPK) lignoselülozik malzemeler (lifsel yapıya sahip malzemeler) ile plastiklerin (termoset, termoplastik) karıştırılması sonucunda oluşan malzemelerdir. İnşaat sektöründe; kapı, pencere ve çerçeve, havalandırma, çatı, merdiven, bina içinde; dekoratif profiller, raf, yer kaplaması, tırazan, tabla, otomotivde kapı, iç panel, karoseri, arka raflar, bardak tutacakları, park ve bahçede; çit, park-bahçe mobilyası, kamelya, yürüyüş parkurları, çocuk parkı, bank, ıslak zeminlerde yer döşemeleri endüstriyel olarak ise ambalaj, palet, iskele, uyarı levhaları, sandık gibi kullanım alanları bulunmaktadır. Odun plastik kompozit üretiminde daha önceki çalışmalarda, birçok lifsel kaynak (ayçiçeği sapı, buğday sapı, pirinç kavuzu, yer fıstığı kabuğu,ceviz kabuğu, hurma çekirdeği, ayçekirdeği kabuğu, fındık kabuğu, mobilya fabrikası atıkları, çay fabrikası atıkları, şeker pancarı küspesi, mısır koçanı vb.) dolgu malzemesi olarak kullanılmıştır. Türkiye' de geniş bir alan kaplayan Kızılcım ormanlarında mevsimsel olarak dökülen kozalakların odun plastik kompozit içerisinde dolgu malzemesi olarak kullanılması malzeme üretim maliyetinin düşmesine hem de odun dışı orman ürünlerinden olan kozalağın yakacak bir malzemedan katma değerli bir ürün haline dönüşmesi sağlanmaktadır. Bu çalışmada, öğütölmüş haldeki Alçak yoğunluklu polietilen (AYPE) ve % 10-20-30 oranlarında 60 mesh kızılcım kozalağı unu kullanılarak kompozitler üretilmiştir. Kompozitler iki üretim yöntemi kullanılarak yapılmıştır. Birinci üretim yönteminde tek vidalı ekstruder ve enjeksiyon kalıplama yöntemiyle, ikinci üretim yönteminde elde edilen karışım doğrudan enjeksiyon kalıplamayla OPK'ler üretilmiştir. Üretilen kompozit örnekler üzerinde çekme ve eğilme direnci, elastikiyet modülü ve darbe direnci değerleri ASTM standartlarına göre belirlenmiştir.

Anahtar kelimeler: Kızılcım kozalağı, Polietilen, Mekanik özellikler

ABSTRACT

Demand and usage areas for Wood Plastic Composite (OPK) material are increasing day by day in our country and in the world. The increase in the demand for OPK occurs due to factors such as the product's health, the shorter degradation time in the environment than the plastic material, and its design. Wood plastic composites (OPK) are materials formed as a result of mixing lignocellulosic materials (materials with fibrous structure) and plastics (thermoset, thermoplastic). In the construction industry; door, window and frame, ventilation, roof, stairs, inside the building; decorative profiles, shelf, floor covering, handrail, table, automotive door, interior panel, bodywork, rear shelves, cup holders, park and garden; There are areas of use such as fences, park-garden furniture, camellias, walking tracks, playgrounds, benches, flooring on wet floors, and industrial packaging, pallets, scaffolding, warning signs, crates. In previous studies in wood plastic composite production, many fiber sources (sunflower stalk, wheat stalk, rice husk, peanut shell, walnut shell, palm kernel, sunflower seed shell, hazelnut shell, furniture factory waste, tea factory waste, sugar beet pulp, corn cob etc.) was used as filling material. The use of seasonally shed cones in wood-plastic composites in the Red Pine forests, which cover a large area in Turkey, reduces the cost of material production and turns the cone, which is one of the non-wood forest products, into a value-added product from a fuel material. In this study, composites were produced by using ground low density polyethylene (LDPE) and 60 mesh red pine cone flour at 10-20-30%. The composites were made using two production methods. In the first production method, OPKs were produced by single screw extruder and injection molding method, and the mixture obtained in the second production method was produced by direct injection molding. Tensile and bending strength, modulus of elasticity and impact resistance values on the produced composite samples were determined according to ASTM standards.

Keywords: Red pine cone, Polyethylene, Mechanical properties

EXAMINATION AND STATISTICAL ANALYSIS OF THIN FILM DEPOSITION TECHNIQUES IN DISTINCT METAL-SEMICONDUCTOR STRUCTURES

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ABSTRACT

Thin films, one of the most important structures in electronic device technology, attract the attention of the scientific community thanks to the developments and differences in production technology. Thin films, especially deposited in different environments and using different techniques, are various layer materials whose thickness can be expressed in micrometres and nanometres. The selection and application of different deposition techniques for solid, liquid and gas phases for different device structures have a significant impact on performance and reliability.

Semiconducting, metallic, or other kind of films are grown on a specific substrate by using distinct techniques such as Physical Vapor Deposition (PVD), Chemical Vapor Deposition (CVD), drop casting, spin coating and printing. Beside transistors, sensors and other semiconducting films, metal-semiconductor structures are also utilized from these thin film deposition techniques. It is important to improve the quality of metal-semiconductor (MS) structures, which have an important place in better understanding of solid electronic devices, and to control device parameters in metal-insulator-semiconductor (MIS) structures formed by adding an insulator or organic interface layer. Therefore, the growth techniques to be applied at the predicted thickness for the thin films to be grown on the semiconductor substrate used in these structures may affect the device quality and performance.

In this study, an examination and statistical analysis were made on thin film deposition techniques in different metal-semiconductor structures and the frequency of use and preference of these techniques on these structures. The academic studies on thin film deposition techniques at different types of MS structures were scanned in Web of Science database and have also been statistically analysed through automatic data collection methods and data mining.

Keywords: Thin film deposition, Metal-Semiconductor Structures, Data Mining, Statistical Analysis

**SCIENTIFIC IMPACT OF GRAPH-BASED APPROCHES IN DEEP LEARNING STUDIES -
A BIBLIOMETRIC COMPARISON**

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ABSTRACT

Applying graph-based approaches in deep learning receives more attention over time. This study presents basic statistical analyzes on the use of graph-based approaches in deep learning and examines the scientific impact of the related articles. In the light of the data obtained from the Web of Science database, metrics such as the type of the articles, funding availability, indexing type, annual average number of citations and the number of access were analyzed to quantitatively reveal the effects on the scientific audience.

As a result of the study, it's outlined that deep learning-based studies gained momentum after year 2013, and the rate of graph-based approaches in all deep learning studies showed a linear increase from 1% to 4% within the following 10 years. On the deep learning side, book publications indexed by the Book Citation Index (BKCI) have received relatively more citations. Contrarily, conference publications scanned in the Conference Proceeding Citation Index (CPCI) on the graph-based approaches receive significantly more citations. The citation numbers of the SCI-Expanded and Emerging SCI indexed publications of the two streams are close to each other. While the citation performances of the supported and unsupported publications of the two sides were similar, pure deep learning studies received more citations on the journal publication side and graph-based approaches received more citations on the conference side. One of the striking differences between two streams is that despite their similar performance in recent years, graph-based studies show twice more citation performance as they get older, compared to traditional approaches. Annual average citation performance per article for all deep learning studies emerges as 11.051 in 2014, while it is 22.483 for graph-based studies. Also, despite receiving 16% more access, graph-based papers get almost the same overall citation over time with the pure counterpart. This is an indication that graph-based approaches need a greater bunch of attention to follow, while pure deep learning counterpart is relatively simpler to get inside.

Keywords: Deep Learning, Graph-based Learning, Bibliometric Analysis, Graph Representations

**GÖVDE BORULU ISI DEĞİŞTİRİCİSİNİN ISI TRANSFER PERFORMANSINA, FARKLI
PARAMETRELERİN ETKİSİNİN
DENEYSEL İNCELENMESİ**

EXPERIMENTAL INVESTIGATION OF THE EFFECT OF DIFFERENT PARAMETERS ON
HEAT TRANSFER PERFORMANCE OF THE SHELL-AND-TUBE HEAT EXCHANGER

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ÖZET

Bu çalışmanın amacı, gövde borulu bir ısı değiştiricisinde, farklı Reynolds sayılarının ve farklı akışkan giriş sıcaklıklarının toplam ısı transfer katsayısına etkisi laminar akış şartlarında deneysel olarak incelenmesidir. Çalışmada kullanılan parametreler; farklı Reynolds sayıları ($Re=1000, 1500, 2000, 2200$) ve farklı akışkan giriş sıcaklıklarıdır ($T_{h,in}= 40^{\circ}C, 50^{\circ}C$ ve $60^{\circ}C$). Deneysel veriler değerlendirildiğinde; $Re=1000$ değerinde $40^{\circ}C$ 'deki saf suyun toplam ısı transfer katsayısı $60^{\circ}C$ 'deki saf suya göre %28 oranında daha yüksektir. Re değeri 2200 değerine yükseltildiğinde bu fark %39'a yükselmiştir. Aynı şekilde farklı Re sayılarında akışkan giriş sıcaklığı $40^{\circ}C$ 'den $60^{\circ}C$ 'ye artırıldığında, toplam ısı transfer katsayısının her Re değeri için ortalama %28 oranında düştüğü belirlenmiştir. Giriş sıcaklığı sabit tutulduğunda, $Re=1000-2200$ aralığında arttırıldığında toplam ısı transferi katsayısının %120 değerinde arttığı belirlenmiştir. Tüm Re sayılarında akışkan giriş sıcaklığı arttıkça, toplam ısı transfer katsayısının (U) azaldığı tespit edilmiştir. Bu çalışmadan elde edilen sonuçlar kullanılarak, ileride daha yüksek ısı transferi etkinliğine sahip, daha verimli ısı değiştiricilerin tasarlanabileceği değerlendirilmiştir.

Anahtar Kelimeler: Gövde borulu ısı değiştiricisi, ısı transferi, toplam ısı transfer katsayısı.

ABSTRACT

The aim of this study is to experimentally investigate the effect of different Reynolds numbers and different fluid inlet temperatures on the overall heat transfer coefficient in a shell-and-tube heat exchanger under laminar flow conditions. Parameters used in the study are different Reynolds numbers ($Re=1000, 1500, 2000, 2200$) and different fluid inlet temperatures ($T_{h,in}= 40^{\circ}C, 50^{\circ}C$ and $60^{\circ}C$). When the experimental data are evaluated; at $Re=1000$, the overall heat transfer coefficient of distilled water at $40^{\circ}C$ is 28% higher than that of distilled water at $60^{\circ}C$. This difference increased to 39% when the Re number was increased to 2200. Likewise, when the inlet temperature of the fluid is increased from $40^{\circ}C$ to $60^{\circ}C$ at different Re numbers, the overall heat transfer coefficient decreased by an average of 28% for each Re value. It was determined that the overall heat transfer coefficient increased by 120% when the inlet temperature was kept constant and Re number increased in the range of 1000-2200. It has been determined that the overall heat transfer coefficient (U) decreases as the fluid inlet temperature increases for all Re numbers. Using the results obtained from this study, it was evaluated that more efficient heat exchangers with higher heat transfer efficiency could be designed in the future.

Keywords: Shell-and-tube heat exchanger, heat transfer, overall heat transfer coefficient.

GÖVDE BORULU BİR ISI DEĞİŞTİRİCİSİNDE FARKLI NANOAKIŞKANLARIN ISI TRANSFER ETKİSİNİN NÜMERİK İNCELENMESİ

NUMERICAL INVESTIGATION OF THE HEAT TRANSFER EFFECT OF DIFFERENT NANOFLUIDS IN A SHELL-AND-TUBE HEAT EXCHANGER

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ÖZET

Gelişen teknoloji ile birlikte artan ısı yükleri, ısı değiştiricilerin performansının artırılmasını zorunlu kılmaktadır. Bu maksatla, bu çalışmada; Cu-H₂O nanoakışkanının, farklı parametreler için gövde borulu ısı değiştiricisi performansına etkisi sayısal olarak incelenmiştir. Bu çalışmada kullanılan parametreler; nanoakışkan giriş sıcaklığı ve partikül çapıdır. Ayrıca Cu-H₂O nanoakışkanı, TiO-H₂O ve Al₂O₃-H₂O nanoakışkanları ile farklı Re sayıları için karşılaştırılmış ve ısı değiştiricisi ısı performansına etkisi incelenmiştir. Çalışmada, ANSYS Fluent Hesaplamalı Akışkanlar Dinamiği programı kullanılmış ve parametreler laminer akışta incelenmiştir. Sonuç olarak; % 0,1 hacimsel oranda, 40 nm partikül çaplı Cu-H₂O nanoakışkanının Re=400 değerinde gövde borulu ısı değiştiricisinde farklı sıcaklıklar için (T_{giriş}=30, 40, 50, 60°C) ısı transfer etkinliği incelenmiştir. Giriş sıcaklığı 30°C'den 40°C'ye artarken ısı transfer etkinliğindeki artış %3,05; 40°C'den 50°C'ye artarken %1,94 ve 50°C'den 60°C'ye artarken % 0,4 olarak gerçekleşmiştir. Giriş sıcaklığının 30°C'den 60°C'ye yükselmesi ısı transfer etkinliğini toplamda % 5,4 oranında artırmıştır. Cu-H₂O nanoakışkanı, 40°C sıcaklıkta ve Re=400 değerinde farklı partikül çapları (D_p=20, 40, 60 ve 80 nm) için incelenmiştir. Partikül çapı 20 nm'den 40 nm'ye artması ısı transfer etkinliğini % 0,2 oranında azaltmıştır; 40 nm'den 60 nm'ye artması % 0,3 ve 60 nm'den 80 nm'ye artması ise ısı transfer etkinliğini % 0,5 oranında azalmasına sebep olmuştur. Partikül çapının 20 nm'den 80 nm'ye artması ısı transfer etkinliğinde toplamda % 1 oranında azalmaya sebep olmuştur. Ayrıca, farklı tipteki nanoakışkanların farklı Re sayılarında ısı transfer performansını incelemek için, gövde borulu ısı değiştiricisinin gövde tarafında saf su ve boru tarafında nanoakışkan karşıt akış düzeninde incelenmiştir. 40°C'ta, 20 nm partikül çapında Cu-H₂O, TiO-H₂O, Al₂O₃-H₂O nanoakışkanları, farklı Reynolds sayıları için (Re=100, 200, 300, 400) karşılaştırılmıştır. Sonuç olarak; Re sayısının 100'den 400'e artması Cu-H₂O nanoakışkanının toplam ısı transfer katsayısını %23 oranında; Al₂O₃-H₂O için %20 oranında ve TiO-H₂O için ise %19,5 oranında artırmıştır. Toplam ısı transfer katsayısındaki en yüksek artış Cu-H₂O nanoakışkanında olduğu belirlenmiştir. Bu çalışmadan elde edilen sonuçlarla, gelecekte daha yüksek ısı transfer performanslı ısı değiştiricilerin tasarlanabileceği değerlendirilmiştir.

Anahtar Kelimeler: Isı transferi, nanoakışkan, partikül çapı, ısı transfer etkinliği

ABSTRACT

Increasing thermal loads with the developing technology necessitate increasing the performance of the heat exchangers. For this purpose, in this study; the effect of Cu-H₂O nanofluid on shell-and-tube heat exchanger performance for different parameters was numerically investigated. The parameters used in this study are nanofluid inlet temperature and particle diameter. Furthermore, Cu-H₂O nanofluid was compared with TiO-H₂O and Al₂O₃-H₂O nanofluids for different Re numbers and its effect on heat exchanger thermal performance was investigated. In the study, ANSYS Fluent Computational Fluid Dynamics program was used and parameters were examined in laminar flow. As a result, heat transfer effectiveness of Cu-H₂O nanofluid 0.1% volumetric concentration with 40 nm particle diameter was investigated for different temperatures ($T_{inlet}=30, 40, 50, 60^{\circ}\text{C}$) in a shell-and-tube heat exchanger with $Re=400$ value. As the inlet temperature increases from 30°C to 40°C, the increase in heat transfer effectiveness is 3.05%; 1.94% while increasing from 40°C to 50°C and 0.4% while increasing from 50°C to 60°C. Increasing the inlet temperature from 30°C to 60°C increased the heat transfer effectiveness by 5.4% in total. The Cu-H₂O nanofluid was investigated for different particle diameters ($D_p=20, 40, 60$ and 80 nm) at 40°C and $Re=400$. Increasing the particle diameter from 20 nm to 40 nm decreased the heat transfer effectiveness by 0.2%; an increase from 40 nm to 60 nm caused a decrease of 0.3% and an increase from 60 nm to 80 nm caused a 0.5% decrease in heat transfer effectiveness. Increasing particle diameter from 20 nm to 80 nm caused a 1% decrease in heat transfer effectiveness in total. In addition, to examine the heat transfer performance of different types of nanofluids at different Re numbers, distilled water on the shell side and nanofluid on the tube side of the shell-and-tube heat exchanger were investigated in counterflow arrangement. Cu-H₂O, TiO-H₂O, Al₂O₃-H₂O nanofluids with 20 nm particle diameter at 40°C were compared for different Reynolds numbers ($Re=100, 200, 300, 400$). As a result; increasing Re number from 100 to 400 increased the overall heat transfer coefficient of the Cu-H₂O nanofluid by 23%; increased 20% for Al₂O₃-H₂O and 19.5% for TiO-H₂O. It was determined that the highest increase in the overall heat transfer coefficient was in Cu-H₂O nanofluid. With the results obtained from this study, it has been evaluated that heat exchangers with higher heat transfer performance can be designed in the future.

Keywords: Heat transfer, nanofluid, particle diameter, heat transfer effectiveness

ABSTRACT

Species established a state in a region called Central Asia and formed their own traditions in this region over a period of time. These traditions reflect the inner world of the Turkish nation, their view of life, their way of life, their art, their law, in short, their culture. One of the features that distinguishes pre-Islamic Turkish states from other states is traditions. These traditions help us learn the history, views and ideas of the Turks. This is why traditions provide important information in the application of phenomena such as birth, marriage and death, which are the transition periods of the Turkish states established in history. While some of these cultural structures in the pre-Islamic Turkish states have undergone some changes with the acceptance of Islam by the Turks, some of them are still in existence today. However, this change in the Turks has been at different levels in the Turkish states with the effect of the socio-economic and political structures of the wide geography they spread after the Turks accepted Islam. In our study, while trying to give information about "Al Duvak", one of the wedding traditions, which is a concept related to marriage rather than birth and death traditions in the Pre-Islamic Turkish states, we will also try to dwell on the wedding terms that have settled in Turkish culture. The realization of marriage, which is one of the three important transition periods of human beings, is performed with certain ceremonies in all known civilizations. These ceremonies are called with different names meaning wedding in different cultures. Wedding traditions are very important in pre-Islamic Turkish culture, they were shaped according to nomadic (semi-nomadic) lives in wedding traditions, and the traces of these traditions continue in the Turkish world even today. In addition, it is to transfer the rituals related to weddings (Al Duvak), which has a very important place in Turkish culture since the Ancient Turks, to present and future generations.

Keywords: Turkish Culture, Traditions, Wedding, Al Duvak.

İSLAM ÖNCESİ TÜRK DEVLETLERİNDE KEÇE
FELT IN PRE-ISLAMIC TURKISH STATES

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ÖZET

Dünya'nın en kadim milletlerinden olan Türkler, farklı coğrafyalarda yaşayarak gittikleri yerlerde birçok devletler kurmuşlardır. Türkler gittikleri bu coğrafyalarda yarı göçebe tarzı bir yaşam biçimi sergilemişlerdir. İslamiyet Öncesi Türk devletlerinin yaşam biçimlerini gittikleri yerlerin jeopolitik konumu, coğrafi koşulları ve iklimi belirlemiştir. Türklerin ilk ana yurdu olan Orta Asya'da Türkler hayatlarını hayvancılık ve yerleşik hayata geçmeceleriyle birlikte tarımla uğraşarak Bozkır kültürünü oluşturmuşlardır. Türkler, bozkır coğrafyasını yaşanabilir hale getirmeyi başararak, hâkim oldukları geniş Bozkırlarda geçim kaynaklarından dolayıdır ki yazın hayvanlarını otlatılmak için yaylalara kışında kışlaklarda yaşamaktaydı. Eski Türkler bu hayat tarzları gereği sürekli olarak yer değiştirmek zorunda kalıyordu. Bu sebeplerdendir ki Türklerin yaşantılarına en uygun yerler çadırlar olmuştur. Türkler yerleşik düzene geçinceye kadar çadırlarda yaşamışlardır. Bozkır kültürünün temel unsuru olan çadır kültürü Türk topluluklarının vazgeçilmez bir yaşam biçimi olmuştur. İslamiyet Öncesi Türk devletleri ve sonraki dönemlerde bu çadırların yapımında coğrafi ve iklim şartları esas alınarak keçe kullanılmıştır. Bozkır kültürünün bir parçası olan keçe, köklü bir geçmişe sahiptir. Eski Türkler için keçenin öncelikle çadır yapımında tercih edilmesinde ana etken taşınabilir olması ve hayvan derisinden yapıldığı için dayanıklı olması gerekmektedir. Türkler Orta Asya Hun devletlerinden itibaren keçeyi sadece çadır yapımında kullanmamıştır. Aynı zamanda Eski Türkler günlük hayatlarında kullanmış oldukları eşyalarda ve kıyafetlerinde de keçeyi kullanmışlar ve kendilerinden sonra gelen Türk devletleri de keçenin işleme tekniğini daha da geliştirerek keçeyi birçok eşyanın yapımında kullanmışlardır. Ayrıca da İslamiyet Öncesi Türk devletlerinde Keçe kağanların tahta çıkış törenlerinde hukuk ve devlet sembolü olarak karşımıza çıkmaktadır.

Anahtar Kelimeler: Çadır, Keçe, Bozkır, Kültür, Türkler, Konargöçer.

ABSTRACT

Turks, one of the most ancient nations of the world, lived in different geographies and established many states in the places they went. Turks exhibited a semi-nomadic lifestyle in these geographies. The geopolitical location, geographical conditions and climate of the places they went to determined the lifestyles of the Pre-Islamic Turkish states. In Central Asia, which was the first homeland of the Turks, the Turks created the steppe culture by dealing with agriculture and living their lives with animal husbandry and settled life. Turks, by succeeding in making the steppe geography livable, lived in the highlands in the winter to graze their animals in the summer because of their livelihood in the wide steppes they dominated. Due to this lifestyle, the old Turks had to constantly change places. It is for these reasons that the most suitable places for the lives of the Turks have been tents. Turks lived in tents until they settled down. Tent culture, which is the basic element of steppe culture, has become an indispensable way of life for Turkish communities. In the pre-Islamic Turkish states and later periods, felt was used in the construction of these tents based on geographical and climatic conditions. Felt, which is a part of steppe culture, has a deep-rooted history. For the ancient Turks, the main factor in the preference of felt for tent construction was that it should be portable and durable because it was made of animal skin. Turks have not used felt only in tent construction since the Central Asian Hun states. At the same time, the Old Turks used felt in the goods and clothes they used in their daily lives, and the Turkish states that came after them further developed the processing technique of felt and used it in the production of many goods. In addition, in the pre-Islamic Turkish states, Felt appears as a symbol of law and state in the enthronement ceremonies of the Khagans.

Keywords: Tent, Felt, Steppe, Culture, Turks, Nomad.

**TÜRKÇE ÖĞRETMENLERİNİN ÖĞRENCİLERİN YAZILI ANLATIMLARINI
DEĞERLENDİRİRKEN ODAKLANDIKLARI HATA VE YANLIŞ TIPLERİ**
TYPES OF MISTAKES AND ERRORS THAT TURKISH TEACHERS FOCUS ON WHILE
EVALUATING STUDENTS' WRITTEN EXPRESSIONS

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ÖZET

Yazma becerisi; bilişsel, duyuşsal ve devinişsel yönü olan çok boyutlu bir süreçtir. Bu sürecin nitelikli işlenmesi için planlı bir eğitim-öğretim ortamı gereklidir. Eğitim-öğretim faaliyetlerinin planlanmasında ölçme ve değerlendirme çalışmaları pusula işleviyle sürece yön vermektedir. Bu yön verme işlevini ise Türkçe Dersi Öğretim Programı'nda da yer alan süreç ve sonuç odaklı geri bildirim çalışmaları ile yerine getirmektedir. Yazma becerisini ölçmeye yönelik sınav durumlarında öğrencilere uygun geri bildirimler verilmeli, hataların düzeltilmesi ve yanlışların doğrusunun öğretilmesi bu yolla sağlanmalıdır. Bu nedenle yazma becerisini ölçme değerlendirmede öğretmenlerin odaklandıkları hata ve yanlış türleri önem taşımaktadır.

Bu çalışmada Türkçe öğretmenlerinin öğrencilerin yazılı anlatımlarını değerlendirirken odaklandıkları hata ve yanlış tiplerinin belirlenmesi amaçlanmıştır. Bu amaç doğrultusunda nitel araştırma ilkelerine uygun olarak doküman incelemesi yoluyla veriler elde edilmiştir. Veri seti amaçlı örnekleme yöntemiyle 2021-2022 Eğitim – Öğretim yılında Gaziantep'te bulunan ortaokullardaki Türkçe öğretmenlerinin yaptıkları yazılı sınavlar arasından seçilmiştir. Türkçe öğretmenlerinin uygulayıp değerlendirdiği 239 yazılı sınav kağıdında, yalnızca yazma becerilerini ölçen açık uçlu sorular incelenmiştir. İncelenen 239 yazılı kağıdında Türkçe öğretmenlerinin öğrencilerin yazılı anlatımlarında aldıkları notlar, puan kırdıkları yerler ve işaretledikleri alanlar tespit edilmiştir. Bu bölümler içerik analizi ilkeleri dikkate alınarak kodlanmış ve bu kodlar benzerliklerine göre kategorilere ayrılmıştır.

Kategorilerden hareketle biçim ve içerik olmak üzere iki farklı temaya ulaşılmıştır. Biçim temasında bulunan hata ve yanlış tiplerinin %94,81'inin tespit edildiği ve %5,19'unun görmezden gelindiği; içerik temasında bulunan hata ve yanlışların %37,03'ünün tespit edildiği ve %62,97'sinin görmezden gelindiği belirlenmiştir. Dolayısıyla Türkçe öğretmenlerinin öğrencilerin yazılı anlatımlarını incelerken biçime odaklandıkları söylenebilir. Biçim temasındaki kategoriler dikkate alındığında Türkçe öğretmenlerinin ölçüt olarak öğrencilerin yazılı anlatımlarında en fazla yazım ve noktalama kurallarına dikkat ettikleri görülmüştür. Çalışmada en düşük oran içerik temasında tespit edilmiştir. Türkçe öğretmenlerinin yazılı anlatımları değerlendirirken öğrencilerin ifade becerilerine fazla odaklanmadıkları ve içerik temasını önemli bir ölçüt olarak görmedikleri anlaşılmıştır.

Anahtar Kelimeler: Türkçe eğitimi, yazılı anlatım, ölçme ve değerlendirme

ABSTRACT

Writing skill is a multidimensional process with cognitive, affective, and psychomotor aspects. A planned education-teaching environment is required for this process to guide in a qualified manner. In the planning of educational activities, measurement and evaluation studies direct the process with the compass function. It fulfills this guiding function with the process and result-oriented feedback studies, which are also included in the Turkish Language Curriculum. In test situations, in order to assess writing skills, students should be given appropriate feedback, moreover correction of mistakes, and teaching the right of mistakes should be provided in this way.

For this reason, the types of errors and mistakes that teachers focus on are important in measuring and evaluating writing skills. In this study, it is aimed to determine the types of mistakes and errors that Turkish teachers focus on while evaluating the written expressions of students. For this purpose, data were obtained through document analysis in accordance with the principles of qualitative research. The data set was selected from among the written exams made by Turkish teachers in secondary schools in Gaziantep in the 2021-2022 academic year, with a purposive sampling method. In 239 written exam papers applied and evaluated by Turkish teachers, only open-ended questions measuring writing skills were examined. In the 239 written papers examined, the grades that the Turkish teachers took in the written expressions of the students, the areas they marked, and the points the students scored were determined. These sections were coded considering the principles of content analysis and these codes were categorized according to their similarities.

Based on the categories, two different themes were reached, namely form and content. 94.81% of the mistake and error types found in the form theme were detected and 5.19% were ignored; whereas it was determined that 37.03% of the errors and mistakes in the content theme were detected and 62.97% of them were ignored. Therefore, it can be said that Turkish teachers focus on form while examining students' written expressions. Considering the categories in the form theme, it was seen that the Turkish teachers paid attention to the spelling and punctuation rules the most in the written expressions of the students as a criterion. The lowest rate was found in the content theme in the study. It was understood that Turkish teachers did not focus much on students' expression skills and did not consider content theme as an important criterion when evaluating written expressions.

Keywords: Turkish education, written expression, assessment and evaluation

TALİBAN ÖRGÜTÜNÜN AFGANİSTAN'A HÂKİM OLDUĞU BİR YIL ZARFINDA BU ÜLKEDE YAŞANANLAR

WHAT HAPPENED IN THIS COUNTRY WHEN THE TALIBAN ORGANIZATION
WAS DOMINATED AFGHANISTAN

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ÖZET

Bundan bir yıl önce 15 Ağustos 2021 günü Amerika Birleşik Devletleri ve müttefiklerine bağlı askerler Afganistan'ın başkenti Kabil'de bulunan Begram Hava Üssü'nden kaçarcasına bu ülkeyi terk etmişlerdir. Yıllardan beri tüm hazırlığını bunun için yapan Körfez Emirliklerinden Katarın Başkenti Doha'da Afganistan'ın yasal hükümetinin yokluğunda süren ikili görüşmelerde, ABD ile Taliban Örgütü arasında, adeta danışıklı dövüş diyebileceğimiz şekilde geçiş süreci için gerekli mutabakat sağlanmıştır.

Afganistan, bundan önce başta Birleşmiş Milletler, Amerika ve pek çok uluslararası kuruluş tarafından terör örgütü olarak nitelendirilen Taliban Örgütü'ne altın tepside sunulmuştur. Müzakereler sürecinde değişim mesajları veren örgüt, Afganistan yönetimini ele geçirir geçirmez, hayata geçirdiği şeriat kuralları, otoriter yönetim şekli ve koyduğu katı kurallarla asla değişmediğini ve bundan sonrada değişmeyeceği gerçeğini açıkça ortaya koymuştur.

Bu araştırma ve incelemede bir yıl içerisinde Taliban Örgütü'nün iktidarı ele geçirdiğinden beri, demokrasi, insan hakları, kadın hakları, sosyal haklar, çevre ve benzer konularda uygulamaya koyduğu katı ve sert dini kuralları mercek altına almaya gayret edeceğiz. Bir yıla aşkın bu sürede, aydınlar, kadınlar, yazarlar, sanatçılar, sporcular, kız öğrenciler, dini ve etnik azınlıklar ile dezavantajlı grupların maruz kaldıkları şiddete, ayrımcılığa ve baskılara değineceğiz.

Her ne kadar Taliban Örgütü ve paydaşı diğer aşırı fundamentalist Selefi – Vahabi örgütlerin hâkimiyeti sonucunda bağımsız ve tarafsız basın susturulmuş ve Afgan Halkının özgülük haykırışı susturulmaya çalışılmışsa da, yine de dışarıya sızan gerçek haber ve bilgilerle bu döneme ışık tutmaya gayret edeceğiz.

Anahtar Kelimeler: Afganistan, Taliban, El-Kaide, Selefilik, Vahabilik, NATO , ABD

ABSTRACT

A year ago, on August 15, 2021, the soldiers of the United States and its allies left this country as if they were escaping from Begram Air Base in Kabul, the capital of Afghanistan. In the bilateral negotiations, which continued in the absence of the legal government of Afghanistan in Doha, the capital of Qatar, one of the Gulf Emirates, which has been making all its preparations for this for years, the necessary agreement was reached between the USA and the Taliban Organization for the transition process, which we can almost call collusion.

Afghanistan was presented on a gold platter to the Taliban Organization, which was previously described as a terrorist organization by the United Nations, the United States and many international organizations. The organization, which gave messages of change during the negotiations, made it clear that as soon as it took over the administration of Afghanistan, it had never changed and will never change, with the sharia rules, authoritarian management style and strict rules it had put into practice.

In this research and analysis, we will try to scrutinize the strict and harsh religious rules that have been put into practice by the Taliban in democracy, human rights, women's rights, social rights, environment and similar issues since the Taliban took power in a year. In this period of more than a year, we will touch on the violence, discrimination and oppression faced by intellectuals, women, writers, artists, athletes, female students, religious and ethnic minorities and disadvantaged groups.

Although the independent and impartial press was silenced as a result of the dominance of the Taliban Organization and other extreme fundamentalist Salafi-Wahhabi organizations, and the cry of Afghan people's freedom was tried to be silenced, we will still try to shed light on this period with the real news and information leaking out.

Keywords: Afghanistan, Taliban, Al-Qaeda, Salafism, Wahhabism, NATO, USA,

**YANGIN SÖNDÜRME İLE MÜCADELE EDEN TAŞITLARDAKİ YENİLİKÇİ
TEKNOLOJİK UYGULAMALAR, TÜRKİYE ÖRNEĞİ**
INNOVATIVE TECHNOLOGICAL APPLICATIONS IN FIRE-FIGHTING VEHICLES, TÜRKİYE
EXAMPLE

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ÖZET

Yangın kavramı; belirli şartlarda yanıcı maddelerin, oksijen veya diğer oksitleyici maddelerle birlikte kontrolsüz bir şekilde meydana getirdiği kararlı bir ekzotermik zincir reaksiyondur.

Yangın söndürme taşıtları; orman yangınları, fabrika yangınları, bina yangınları vb. birçok yangın türüne müdahale ederler. Bu müdahale sırasında itfaiye araçları genellikle su veya köpük kullanırlar.

Üretim ve bilgi teknolojilerinde yaşanan olağan üstü ilerleme, toplumlarda daha nitelikli bir kamu ve yerel yönetim hizmeti alma isteğini güçlendirmiştir. Teknolojinin hayatımızın her alanında kendini daha da hissettirmesi ile birlikte yerel yönetimlerde de sürekli gelişim artık bir zorunluluk haline gelmiştir. Yerel yönetimler; kentte yaşayanların ihtiyaç ve beklentilerine göre yeniden organize olmak zorundadırlar. Belediyelerin Birleşmiş Milletler Sürdürülebilir Kalkınma Amaçlarını (SKA) önemseyen, şeffaflık, hesap verebilirlik, katılımcılık gibi değerleri temel alan, kırılğan grupların erişimini hesaba katan ve işbirlikleri arttıran yeni tasarım ve iyi uygulama modellerini hayata geçirmesi gerekmektedir.

Türkiye’de Büyükşehir olan illerde itfaiye teşkilatı diğer illere göre daha farklı şekillenmektedir. 5393 Sayılı Belediye Kanunu’na tabi olan il ve ilçe belediyeleri kendi sınırları için itfaiye teşkilatı kurmakla görevli iken, 5216 Sayılı Büyükşehir Belediye Kanunu’na tabi olan büyükşehir belediyeleri, bünyesindeki merkez ve çevre ilçeleri de kapsayacak şekilde itfaiye hizmetlerini planlamak ve uygulamakla yükümlüdür. Bu durum Türkiye açısından itfaiye hizmetlerinin sunumunda iki farklı uygulama ortaya çıkarmaktadır. Büyükşehirlerde itfaiye belediye teşkilatı içerisinde daire başkanlığı seviyesinde konumlanırken, diğer il ve ilçelerde müdürlük seviyesinde faaliyet yürütmektedir.

Türkiye genelinde teşkilatlanmış durumda olan itfaiye mekanizmalarında; değişimleri görebilmek, farklı aktörlerle iş birliği yaparak yeni uygulama modellerini hayata geçirebilmek önem arz etmektedir.

Yangınlara karşı daha etkili uygulamaların araştırıldığı bu çalışmada; yangın söndürme cihazlarında termal kamera uygulamaları ile tespitler ve ayrıca yeni bir söndürme maddesi olan bor bazlı kimyasallar yangın simülasyonlarında test edilmiştir. Yapılan deneylerde termal kameranın, yangın alevi oluştuğu andan itibaren hızlı bir tespit yaptığı ortaya konmuştur. Bu tip termal kameraların her türlü itfaiye aracına (köpük kamyonu, su tankeri, kurtarma aracı vb.) montesi uygundur. Bu tip uygulamalar itfaiye araçlarının taşıt teknolojilerinde modern bir uygulama olarak göze çarpmaktadır. Kullanılan bor bazlı yangın söndürücülerin de özellikle orman yangını simülasyonunda suya göre daha iyi söndürme ve soğutma etkisine sahiptir. İtfaiye ekiplerinin yangın söndürme çalışmaları sırasında, yenilikçi uygulamalar olarak termal kamera uygulamasını ve yenilikçi bor kimyasalını kullanmasının önümüzdeki dönemde verimli bir yangın söndürme yapacağı gözlemlenmiştir.

Anahtar Kelimeler: Yangın, İtfaiye, Taşıt Teknolojileri, Termal Kamera

ABSTRACT

The meaning of fire can be defined as; it is a stable exothermic chain reaction in which flammable substances occur in an uncontrolled manner together with oxygen or other oxidizing substances under certain conditions.

Fire fighting vehicles interfere with many types of fire like; forest fires, factory fires, building fires and etc. During this response, fire trucks usually use water or foam.

The extraordinary progress in production and information technologies has strengthened the desire of societies to receive a more qualified public and local government service. With technology making itself felt more and more in every aspect of our lives, continuous development has become a necessity in local governments as well. Local governments have to be reorganized according to the needs and expectations of the people living in the city. Municipalities need to implement new design and good practice models that care about the United Nations Sustainable Development Goals (SDGs).

In Türkiye; fire departments in metropolitan provinces are shaped differently than in other provinces. While the provincial and district municipalities, which are subject to the Municipal Law No. 5393, are responsible for establishing a fire department for their own borders. The metropolitan municipalities subject to the Metropolitan Municipality Law No. 5216 are responsible for planning and implementing fire services, including the central and surrounding districts. This situation reveals two different practices in the presentation of fire services for Türkiye. While the fire department is located at the level of department within the municipal organization in metropolitan areas, it operates at the level of directorate in other provinces and districts.

In fire department mechanisms, which are organized throughout Türkiye; it is important to see the changes and to be able to implement new application models by cooperating with different actors.

In this study, which investigated more effective applications against fires; detections with thermal camera applications in fire extinguishers and also boron-based chemicals, a new extinguishing agent, were tested in fire simulations. In the experiments, it has been revealed that the thermal camera makes a rapid detection from the moment the fire flame occurs. This type of thermal cameras are suitable for mounting on any fire truck (foam truck, water tanker, rescue vehicle, etc.). Such applications stand out as a modern application in the vehicle technologies of fire trucks. Boron-based fire extinguishers used also have a better extinguishing and cooling effect than water, especially in forest fire simulation. It has been observed that the use of thermal camera application and innovative boron chemical as innovative applications during the fire extinguishing works of the fire brigades will provide an efficient fire extinguishing in the coming period.

Keywords: Fire, Fire-Fighters, Vehicle Technologies, Thermal Camera

EFFECT OF EMG ON SURGICAL SUCCESS IN CERVICAL HERNIATED DISCS

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INTRODUCTION AND PURPOSE:

Our aim in this study was to emphasize the effect of EMG (Electromyography) on preoperative evaluation and postoperative surgical success in patients attending for cervical herniated discs.

METHOD:

This study was conducted by analyzing the records of those patients followed up between January 2016 and July 2022 at the Training and Research Hospital of Adıyaman University Faculty of Medicine. All patients had been operated for cervical disc herniations. The patients were divided into 2 groups. Group 1 included 25 patients who were operated upon only MR imaging and neurologic examination findings. Group 2 included 30 patients who were operated upon MRI, neurologic findings and EMG results. This study excluded cervical fractures, radiculopathies due to cervical infections, metastatic cervical pathologies and recurrent disc herniations. This study included those patients operated for single level cervical herniated discs.

RESULTS:

This study included 55 patients operated for cervical herniated discs. The patients included 32 women and 23 men. The youngest patient was 35 years old and the oldest was 65 years old making the mean age 46. All patients had been diagnosed with cervical extruded or sequestered disc herniations. The patients in Group 1 were operated based on the MRI and neurologic examination results. Group 2 involved those patients with radiculopathy who underwent MRI, neurologic examination and EMG. In Group 1, the complaints fully recovered in 17 patients whereas complaints did not fully recover in 8 patients and these 7 patients were later referred to physical therapy. In Group 2, the complaints substantially recovered in 27 patients whereas in 3 patients, the complaints partially persisted and the patients were referred to physical therapy in the continuation of the treatment. The assessment of the results revealed that performing cervical EMG on the patients in Group 2 in addition to MRI and neurologic examination was more useful.

Keywords: Cervical herniated discs, microdiscectomy, EMG

DISCUSSION AND CONCLUSION:

Cervical herniated discs are the most common form of herniated discs following lumbar herniated discs. Cervical herniated discs are frequently observed at the C5-6/C6-7 level.

In conclusion, we aimed to emphasize that performing EMG in addition to MRI and neurologic examination before cervical herniated disc surgery will significantly increase surgical success.

**A CASE REPORT ON A PATIENT SUCCESSFULLY TREATED OF MEMBRANOUS
GLOMERULONEPHRITIS WITH TREATMENT OF MALIGNANT DISEASE**
MALİGN HASTALIĞIN TEDAVİSİYLE DÜZELEN MEMBRANÖZ GLOMERULONEFRİT
OLGU SUNUMU

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ABSTRACT

Numerous primary and systemic diseases may cause severe proteinuria with or without nephrotic syndrome. A systemic disease, such as diabetes, amyloidosis, or systemic lupus erythematosus, affects approximately 30% of adults. The remaining cases are often caused by primary kidney disorders such as minimal change disease, focal segmental glomerulosclerosis, and membranous glomerulonephritis. The etiology of membranous glomerulonephritis includes drugs, infection, connective tissue disease, vasculitis, and malignancies. Serological tests such as phospholipase A2 receptor antibody can be used in the diagnosis of primary membranous glomerulonephritis. A kidney biopsy is the gold standard for diagnosing kidney disease. We diagnosed membranous glomerulonephritis by serological methods in a patient with rectal adenocarcinoma who presented with proteinuria. We found a tumor metastasis in the lung when we looked into why proteinuria was getting worse, and proteinuria got better after the tumor was removed and chemotherapy was given.

Keywords: Membranous glomerulonephritis, malignancy, proteinuria

ÖZET

Nefrotik sendromlu veya nefrotik sendromsuz ağır proteinüri, çok çeşitli birincil ve sistemik hastalıklarla birlikte ortaya çıkabilir. Yetişkinlerde yaklaşık yüzde 30'unda diabetes mellitus, amiloidoz veya sistemik lupus eritematozus gibi sistemik bir hastalık vardır; kalan vakalar genellikle minimal değişiklik hastalığı, fokal segmental glomerüloskleroz ve membranöz glomerülonefrit gibi birincil böbrek bozukluklarına bağlıdır. Membranöz glomerülonefrit etyolojisinde ilaçlar, enfeksiyon, bağ dokusu hastalığı, vaskülit ve maligniteler rol oynar. Ancak en sık neden primer (idiopatik) membranöz glomerülonefrittir. Primer membranöz glomerülonefrit tanısında fosfolipaz A2 reseptör antikoru gibi serolojik tetkiklerden yararlanılabilir. Tanı için altın standart böbrek biyopsisidir. Biz burada proteinüri ile başvuran rektum adenokarsinomlu hastada serolojik yöntemlerle membranöz glomerülonefrit teşhisi konulduktan sonra aralıklı takip edilirken, proteinüride artış nedeniyle yapılan araştırmalarda akciğerde tümör metastazı saptanan, tümör rezeksiyonu ve takiben kemoterapi tedavisi ile proteinüride düzelme tespit ettiğimiz hastayı sizlerle paylaşıyoruz.

Anahtar Kelimeler: Membranöz glomerülonefrit, malignite, proteinüri

NEPHROTIC SYNDROME-RELATED INFERIOR VENA CAVA OBSTRUCTION: A CASE REPORT

NEFROTİK SENDROMA BAĞLI VENA CAVA İNFERİOR OBSTRÜKSİYONU: OLGU SUNUMU

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ABSTRACT

The term "nephrotic syndrome" describes a specific cluster of kidney clinical manifestations and laboratory tests. It is defined by the presence of severe proteinuria (excretion of more than 3.5 g of protein in 24 hours), hypoalbuminemia (less than 3.5 g/dL of albumin in the serum), and peripheral edema. Thrombotic illness and hyperlipidemia are also frequent. Numerous primary and systemic diseases may result in severe proteinuria with or without nephrotic syndrome. The most common cause in children is minimal change disease. Approximately 30% of cases of NS in adults are caused by a systemic disease such as diabetes mellitus, amyloidosis, or systemic lupus erythematosus. Primary kidney disorders such minimal change disease, focal segmental glomerulosclerosis, membranous glomerulonephritis, and membranoproliferative glomerulonephritis usually responsible for the remaining 70% of cases. Nephrotic syndrome patients are at a high risk for venous thrombosis, especially deep vein thrombosis and renal vein thrombosis. Furthermore, arterial thrombosis appears more frequently than in general population. We present to you a patient with membranoproliferative glomerulonephritis who developed inferior vena cava obstruction as a complication of nephrotic syndrome.

Keywords: Nephrotic syndrome, membranoproliferative glomerulonephritis, inferior vena cava obstruction.

ÖZET

Nefrotik sendrom terimi, böbrek hastalığının klinik ve laboratuvar özelliklerinin ayrı bir birlikteliğini ifade eder. Spesifik olarak ağır proteinüri (3,5 g/24 saatten fazla protein atılımı), hipoalbuminemi (3,5 g/dL'den az) ve periferik ödem varlığı ile tanımlanır. Hiperlipidemi ve trombotik hastalık da sıklıkla görülür. Nefrotik sendromlu veya nefrotik sendromsuz ağır proteinüri, çok çeşitli birincil ve sistemik hastalıklarla birlikte ortaya çıkabilir. Minimal değişiklik hastalığı çocuklarda en önemli nedendir. Yetişkinlerin yaklaşık yüzde 30'undan diabetes mellitus, amiloidoz veya sistemik lupus eritematozus gibi sistemik bir hastalık sorumludur. Geriye kalan vakalar genellikle minimal değişiklik hastalığı, fokal segmental glomerüloskleroz, membranöz glomerülonefrit, membranoproliferatif glomerülonefrit gibi birincil böbrek bozukluklarına bağlıdır. Nefrotik sendromlu hastalar venöz tromboz, özellikle derin ven trombozu (DVT) ve renal ven trombozu açısından yüksek risk altındadır. Arteriyel trombozlar da genel popülasyona göre daha sık görülür. Membranoproliferatif glomerülonefritli bir hastada nefrotik sendroma sekonder gelişen vena cava inferior obstrüksiyonu olgusunu sizlerle paylaşıyoruz.

B3 VİTAMİN (NİKOTİNAMİD)'İN MDA-MB-231 MEME KANSERİ HÜCRE HATTINDA HÜCRE ÖLÜMÜ MEKANİZMALARI ÜZERİNE ETKİSİ

EFFECT OF VITAMIN B3 (NICOTINAMIDE) ON CELL DEATH MECHANISMS IN MDA-MB-231 BREAST CANCER CELL LINE

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ÖZET

B3 vitamini (nikotinamid) piridin adlı bileşiğin türevidir. B3 vitamini, hücrelerin oksijeni kullanabilmesi için gerekli solunum enzimlerinin işlemlerini sağlar. Son dönemde yapılan çalışmalar, B3 vitamininin kemopreventif bir ajan olarak kullanılabilirliğine dikkat çekmektedir. Bu çalışmada, B3 vitamini'nin MDA-MB-231 meme kanseri hücre dizisi üzerine olası etkilerinin gösterilmesi amaçlanmıştır.

Çalışmamızda, B3 vitamini'nin MDA-MB-231 meme kanseri hücre dizisi üzerinde, hücrelerin %50 canlılık gösterdiği inhibisyon konsantrasyonları (IC50 dozu) MTT [3-(4,5-dimetiltiazol-2-il)-2,5-difeniltetrazolium bromid] analiz metodu ile gösterildi. B3 vitamini'nin MDA-MB-231 hücreleri üzerine apoptotik etkisi TUNEL metodu ile, otofajik etkisi Beclin-1 immünfloresan boyama metodu ile değerlendirildi. Elde edilen veriler Graphpad analizi kullanılarak istatistiksel olarak hesaplandı.

Çalışmadan elde edilen veriler ışığında B3 vitamini'nin doz ve zamana bağlı olarak MDA-MB-231 hücrelerinin çoğalmasını inhibe ettiği saptandı. MTT sonuçlarına göre 24 saat inkübasyon süresince, IC50 dozu 250 µM olarak belirlendi. Hücreler üzerine uygulanan B3 vitaminini kontrol grubuna kıyasla TUNEL ve Beclin-1 ekspresyonlarını arttırdığı tespit edildi.

Çalışmadan elde edilen bulgulara göre, B3 vitamini'nin MDA-MB-231 meme kanseri hücrelerini hem apoptoz, hem de otofaji yolakları üzerinden hücre ölümüne neden olduğu gözlemlendi.

Anahtar Kelimeler: B3 Vitamini, meme kanseri, apoptoz, otofaji

ABSTARCT

Vitamin B3 (nicotinamide) is a derivative of a compound called pyridine. Vitamin B3 ensures the functioning of respiratory enzymes necessary for cells to use oxygen. Recent studies draw attention to the use of vitamin B3 as a chemopreventive agent. In this study, it was aimed to show the possible effects of vitamin B3 on MDA-MB-231 breast cancer cell line.

In our study, inhibition concentration (IC50 dose) of vitamin B3 on MDA-MB-231 breast cancer cell line, which cells were viable 50%, was demonstrated by the MTT [3-(4,5-dimetiltiazol-2-il)-2,5-difeniltetrazolium bromid] analysis method. The apoptotic effect of vitamin B3 on MDA-MB-231 cells was evaluated by TUNEL method, and its autophagic effect was evaluated by Beclin-1 immunofluorescent staining method. Obtained data were statistically calculated using Graphpad analysis.

In the light of the data obtained from the study, it was determined that vitamin B3 inhibited the proliferation of MDA-MB-231 cells depending on dose and time. According to the MTT results, the IC50 dose was determined as 250 μ M during the 24 hour incubation period. It was determined that the expression of TUNEL and Beclin-1 increased when the vitamin B3 applied on the cells compared to the control group.

According to the findings of the study, it was observed that vitamin B3 caused cell death in MDA-MB-231 breast cancer cells through both apoptosis and autophagy pathways.

Key words: Vitamin B3, breast cancer, apoptosis, autophagy

OSSA CRURIS MORFOMETRİSİ VE KLİNİK ÖNEMİ

MORPHOMETRY OF THE CRURAL BONES AND THEIR CLINICAL SIGNIFICANCE

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Çalışma alanı: Anatomi

ÖZET

Femurdan sonra vücudun en uzun kemiği olan tibia, proksimal ve distal uçlarda bulunan iki, gövdede bulunan bir merkezden kemikleşir. Fibula'nın ossifikasyonu ise diğer kemiklerden farklıdır ve distal epifiz korpus ile yaklaşık olarak kadınlarda 15, erkeklerde 17 yaşında birleşir. Proksimal epifiz ise yaklaşık olarak kadınlarda 17, erkeklerde 19 yaşına kadar korpus ile tam olarak birleşmez. Tibia ve fibula'nın korpus kırıkları uzun kemik kırıkları arasında en çok görülenlerdendir. Tibia'da çok farklı kırık tipleri görülmektedir ve bu kırıklar sonuçta çeşitli nedenlerden dolayı ciddi bir klinik tabloya dönüşebilir. Tibia'nın anteromedial bölgesi, yumuşak dokunun diğer bölgelere göre daha az olması nedeniyle, tüm kırıklar içinde 1/3'e yakın oranla açık kırığın en fazla meydana geldiği bölgedir. Fibula'nın baş kısmında oluşan kırıklarda peroneal sinir hasarı görülebilir. Bu bölge kırıklarında en önemli komplikasyon erken gonartroz görülmesidir. Bölgenin kırık patolojileri bakımından bu düzeyde aktif olması, bölgedeki kemiklerin detay morfolojisinin, klinik açıdan başarılı ve doğru analizler yapılabilmesine zemin teşkil etmesi açısından, ortaya konması önem arz etmektedir. Bu doğrultuda bu çalışmada, Bolu Abant İzzet Baysal Üniversitesi Tıp Fakültesi Anatomi Anabilim Dalına ait kemik koleksiyonunda bulunan yaşı ve cinsiyeti bilinmeyen 32 adet tibia ve 21 adet fibula kemiği kullanılarak belirli parametreler değerlendirilmiştir. Değerlendirilen parametreler: Tibia uzunluğu (TU), tibia proksimal genişliği (TPG), tibia distal genişliği (TDG), medial malleol genişliği (MMG), medial malleol yüksekliği (MMY), corpus tibia anterior posterior çapı (CTAPÇ), corpus tibia transvers çapı (CTTÇ), fibular incisura genişliği (FIG), fibula uzunluğu (FU), talus eklem genişliği (TEG), talus eklem yüksekliği (TEY), fibula genişliği (FG). Parametrelerin normal dağılıma uygunluğu Anderson Darling testi ile incelenmiştir. İnceleme sonucunda normal dağılıma uyan TU, TPG, TDG, MMG, CTAPÇ, CTTÇ, FIG, FU, TEG ve TEY parametreleri için sırasıyla ortalama ve standart sapma değerleri 353.7±25.2, 48.7±3.6, 70.1±5.2, 14±1, 26.6±0.7, 31.2±0.7, 21.4±1.4, 343.6±27.1, 24.2±2.8, 26.7±2.3 olarak hesaplanmıştır. Normal dağılıma uymayan FG ve MMY parametresi için ise min., max. ve median değerleri sırasıyla 10.2, 19.8, 13.9 ve 23.7, 32.7, 26.6'dır. Çalışmada belirlenen parametrelerin analiz sonuçlarının tibia ve fibula kırıklarının daha doğru analiz edilmesine, yumuşak dokularda meydana gelen strain ve tendinopatiler, ekleme ait labrum yırtıkları, osteokondral hastalıklar, bağ yaralanmaları, menisküs yaralanmaları gibi birçok klinik tablonun değerlendirilmesine derinlik katacağı düşünülmektedir.

Anahtar Kelimeler: Tibia, fibula, morfometri.

ABSTRACT

The tibia, the second longest bone in the body after the femur, ossifies from three centers: the proximal and distal edges, and the body. Ossification of the the fibula, however, differs from that of other bones, and the distal epiphysis and corpus fuse approximately at the age of 15 in women and 17 in men. No fusion occurs between the proximal epiphysis and the corpus until the age of 17 in women and 19 in men. Fractures at the corpus of the tibia and fibula are among the most common long bone fractures. Among all fractures, the most common open fracture, with the ratio of 35%, is the anteromedial region of the tibia. The reason for this is that the amount of soft tissue in this region is less than in other regions. There are many different types of fractures in the tibia, and these fractures can lead to serious consequences for various reasons. The most important complication in fractures is early gonarthrosis. Peroneal nerve damage is likely to occur in fractures around the head of the fibula. Knowing detail morphometry of the region which displays such high ratio on fracture pathologies, is of essential for accurate and successful clinical analyses. Therefore, this study aims to reveal the detail morphometry of the tibia and fibula to form a basis for clinically successful and accurate analyzes. With that in mind, certain parameters were evaluated by using 32 tibia and 21 fibula bones of unknown age and sex found in the bone collection of Bolu Abant İzzet Baysal University, Faculty of Medicine, Department of Anatomy. Evaluated parameters are as follow: Tibia length (TL), tibia proximal width (TPW), tibia distal width (TDW), medial malleolus width (MMW), medial malleolus height (MMH), anterior-posterior diameter of the corpus tibia (CTAPD), transverse diameter of the corpus tibia (CTTD), fibular incisura width (FIW), fibula length (FL), talus joint width (TJW), talus joint height (TJH), fibula width (FW). The suitability of the parameters to the normal distribution was examined using the Anderson Darling test. As a result of the examination, mean and standard deviation values for TL, TPW, TDW, MMW, CTAPD, CTTD, FIW, FL, TJW and TJH parameters, in normal distribution, were 353.7 ± 25.2 , 48.7 ± 3.6 , 70.1 ± 5.2 , 14 ± 1 , 26.6 ± 0.7 , 31.2 ± 0.7 , 21.4 ± 1.4 , 343.6 ± 27.1 , 24.2 ± 2.8 , 26.7 ± 2.3 . The min., max. and median values for the FW and MMH parameters that do not follow the normal distribution are 10.2, 19.8, 13.9 and 23.7, 32.7, 26.6, respectively. It is of valuable to mention hereby that the results of the analysis of the parameters determined in the study will surely contribute to the evaluation of several clinical cases such as strain and tendinopathies in soft tissues, labrum tears of the joint, osteochondral diseases, ligament injuries, meniscus injuries in more accurate analysis of tibia and fibula fractures.

Keywords: Tibia, fibula, morphometry.

GANGLION KISTI TEDAVISİNDE OZON TERAPİNİN ETKİNLİĞİNİN ARAŞTIRILMASI; OLGU SUNUMU

INVESTIGATION OF THE EFFICIENCY OF OZONE THERAPY IN THE TREATMENT OF
GANGLION CYST; CASE REPORT

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ÖZET

Amaç

Ganglion kistleri, eklem ve tendon kılıflarının sinoviyasının fıtıklaşmasıyla oluşan, lokal şişlik ve el gelen kitle ile karakterize kistik oluşumlar olup, el ve el bileğinin en yaygın yumuşak doku tümörleridir. Ganglion kistinin yerleşiminin atipik olması, iğne aspirasyonu ile ulaşım zorluğu ve tekrarlama riski nedeni ile cerrahi eksizyon önerilmektedir. Fakat cerrahi ve konservatif tedavinin en önemli komplikasyonu ganglion kistinin tekrarlama riskidir. Bu çalışmamızın amacı günümüzde yaygın olarak kullanılmaya başlanan ozon terapinin ganglion kisti üzerinde etkisini incelemektir.

Gereç ve Yöntem

Çalışmaya ganglion kisti tanısı almış 28 yaşında kadın hasta dahil edilmiştir. Hastadan gönüllü onam formu alınmış ve çalışmamız içinde Çukurova Üniversitesi Tıp Fakültesi Girişimsel olmayan Klinik Araştırmalar Etik Kurulundan onay alınmıştır. Hastanın demografik verileri alınıp, ağrı skalası ve ganglion kisti büyüklüğündeki değişimler kaydedilmiştir. Hastaya iki hafta aralıklarla üç seans ozon terapi uygulanmıştır. Her seans öncesi ve sonrasında ganglion kisti üzerinde işaretlemeler yapılarak fotoğraflama yapılmış ve aşağı yukarı, sağ sol çapları ölçülmüştür. Ayrıca "Patient-Rated Wrist Evaluation" skalası ve "QuickDASH" skalası kullanılarak da tedavinin etkinliği tedavi öncesi ve sonrasında değerlendirilmiştir.

Bulgular: El bileği değerlendirme skalasında tedavi öncesi skor 116 puan iken tedavi sonrasında 22 puan olarak kaydedildi. Quick Dash değerlendirme skalasında ise tedavi öncesi toplam skor 78 puanken tedavi sonrasında 31 puan olarak değerlendirildi. Ganglion kisti çapları incelendiğinde ise tedavi öncesinde 12 mm ve 15 mm olan çaplar tedavi sonrasında azalma göstererek 4 mm ve 3 mm olarak ölçülmüştür.

Sonuç

Ozon terapinin ganglion kisti tedavisinde etkili olduğu bulunmuştur. Kişi sayısı artırılarak benzer çalışmaların yapılmasını önermekteyiz.

Anahtar Kelimeler: Ganglion kisti, konservatif tedavi, ozon terapi.

ABSTRACT

Aim

Ganglion cysts are cystic formations characterized by local swelling and palpable mass, formed by herniation of the synovium of the joint and tendon sheaths, and are the most common soft tissue tumors of the hand and wrist. Surgical excision is recommended because of the atypical location of the ganglion cyst, difficulty in accessing with needle aspiration, and the risk of recurrence. However, the most important complication of surgical and conservative treatment is recurrence of ganglion cyst. The aim of this study is to examine the effect of ozone therapy, which is widely used today, on ganglion cyst.

Materials and Method

A 28-year-old female patient diagnosed with ganglion cyst was included in the study. A voluntary consent form was obtained from the patient and approval was obtained from the Çukurova University Faculty of Medicine Non-Invasive Clinical Research Ethics Committee for our study. Demographic data of the patient were obtained, and changes in pain scale and ganglion cyst size were recorded. Three sessions of ozone therapy were applied to the patient at intervals of two weeks. Photographs were made by making markings on the ganglion cyst before and after each session, and the diameters of from up to down and from right to left were measured. In addition, the effectiveness of the treatment was evaluated before and after the treatment using the "Patient-Rated Wrist Evaluation" scale and the "QuickDASH" scale.

Results

In the wrist evaluation scale, the pre-treatment score was 116 points, while it was recorded as 22 points after the treatment. In the Quick Dash evaluation scale, the total score was 78 points before treatment and 31 points after treatment. When the ganglion cyst diameters were examined, the diameters that were 12 mm and 15 mm before the treatment decreased after the treatment and were measured as 4 mm and 3 mm.

Conclusion

Ozone therapy has been found to be effective in the treatment of ganglion cysts. We suggest that similar studies be carried out by increasing the number of people.

Key Words: Ganglion cyst, conservative treatment, ozone therapy.

**BİR ARAŞTIRMA MERKEZİNE GÖNDERİLEN KLİNİK ÖRNEKLERDEKİ
TÜBERKÜLOZ DIŞI MİKOBAKTERİ (TDM) TÜR DAĞILIMININ BELİRLENMESİ**

DETERMINATION OF DISTRIBUTION OF NONTUBERCULOUS MYCOBACTERIA (NTM)
SPECIES IN CLINICAL SAMPLES SENT TO A RESEARCH CENTER

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ÖZET

Atipik mikobakteriler veya tüberküloz dışı mikobakteriler (TDM), bağışıklık sistemi baskılanmış bireylerde çevreden ya da hastaneden doğrudan bulaş yolu ile veya kolonizasyon sonucu ciddi hastalıklara neden olan mikroorganizmalardır. *Mycobacterium tuberculosis* kompleksinden (MTBK) ayrımındaki zorluklarından dolayı bu mikroorganizmalar yanlış tanı ve tedavilere yol açmaktadırlar. Son yıllarda İnsan İmmünyetmezlik Virüsü (HIV) gibi immün sistemi zayıflatan hastalıkların insidansındaki artış ile TDM enfeksiyonlarının önemini giderek artırmaktadır. Bu mikroorganizmaların üretilmesi ve fenotipik açıdan tür ayrımının yapılması oldukça zor ve zaman alıcıdır. Bu sebeple, günümüzde TDM'lerin tür ayrımında ters hibridizasyon, polimeraz zincir reaksiyonu (PCR) - restriksiyon fragment uzunluk polimorfizmi (RFLP), DNA dizi analizi gibi moleküler yöntemler önem kazanmıştır. Son çalışmalar atipik mikobakterilerin iyi korunmuş olan *hsp65*, *16S rRNA* ve *16S-23S rRNA* gen bölgelerinin dizi analizinin tür tanımlanmasında fenotipik testlerden daha duyarlı olduğunu göstermiştir. Bütün mikobakterilerde mevcut olan *hsp65* geni *16S rRNA*'ya göre daha değişken yapıya sahip olduğu için genetik olarak yakın olan türlerin tanımlanmasında daha kullanışlıdır. Bu çalışmanın amacı Covid-19 pandemisi süresinde gönderilen (Mart 2020-2022) Çukurova bölgesindeki TDM tür dağılımı hakkında bilgi sahibi olmaktır. Bu çalışmada Mart 2020 – 2022 tarihlerinde Adana ve çevre illerde pulmoner tüberküloz klinik tanısı almış ve/veya şüpheli temas öyküsü olan kişilerden alınan ve *Mycobacterium tuberculosis* tanısı için değerlendirilmek üzere Çukurova Üniversitesi Tropikal Araştırma ve Uygulama Merkezi (THAUM) ve Bölge Tüberküloz Laboratuvarına gönderilen 14837 klinik örnekten izole edilen 75 TDM suşu spesifik *hsp65* gen bölgesini hedef alan DNA dizi analizi yöntemi ile tür düzeyinde tanımlandı. Bölgemizde en sık izole edilen TDM türünün %28,0 ile *Mycobacterium abscessus* (21/75) olduğu bunu *Mycobacterium intracellulare* %22,0 (15/75) ile *Mycobacterium smiae* %18,7 (14/75) türlerinin izlediği belirlenmiştir. Sonuç olarak, DNA Dizi Analizi veya tür identifikasyonunda kullanılabilir duyarlı ve özgül bir moleküler yöntemle tür tayininin

yapılmasının özellikle de Covid-19 pandemisi döneminde dirençli mikobakteri infeksiyonlarının sürveyansı açısından çok önemli olacağı kanaatindeyiz.

Anahtar kelimeler: DNA dizi analizi, *hsp65*, tüberküloz dışı mikobakteriler (TDM)

ABSTRACT

Nontuberculous mycobacteria (NTM) are microorganisms that cause serious infections, especially in immunosuppressed patients by direct transmission from the environment or after colonization. Difficulties in identification of these species from *Mycobacterium tuberculosis* complex (MTBC) may lead false diagnosis and treatments. In recent years, increased incidence of immunosuppressing diseases as Human Immunodeficiency Virus (HIV) have further increased the prevalence and importance of NTM infections. The culturing and phenotypic identification of these bacteria at the species level is complex and time consuming. Therefore, nowadays molecular methods such as reverse hybridization, polymerase chain reaction (PCR) - restriction fragment length polymorphism (RFLP), DNA sequence analysis have gained importance. Recent studies have shown, that sequence analysis of well-conserved gen regions such as *hsp65*, *16S rRNA*, 16S–23S rRNA intergenic spacer region is more sensitive than phenotypic tests for species identification. The *hsp65* gene, which is present in all mycobacteria, is more variable than the *16S rRNA* gene sequence and is therefore potentially useful for the identification of genetically related species. The aim of this study is to have information about the NTM species distribution in the Cukurova region, which was sent during the Covid-19 pandemic (March 2020-2022). In this study, 75 NTM strains isolated from 14837 clinical materials of patients that have pulmoner tuberculosis and/or suspected contact from Adana and the neighboring provinces have been identified to species level by DNA sequence analysis method targeting the specific *hsp65* gene region in the Cukurova University Tropical Diseases Research and Application Center (TDRAC) and Regional Laboratory for Tuberculosis from March 2020-2022. It was determined that the most common type of NTM isolated in our region was *Mycobacterium abscessus* 28.0% (21/75), followed by *Mycobacterium intracellulare* 22.0% (15/75) and *Mycobacterium smiae* 18.7% (14/75). In conclusion, considering the great number of the examined samples, besides determining the distribution and antibiotic susceptibility of NTM species in the Cukurova region, the movement of the known species in the population have been also monitored especially during the Covid-19 pandemic.

Key Words: DNA sequence analysis, *hsp65*, nontuberculous mycobacteria (NTM).

**BAŞ-BOYUN NORMAL EKLEM HAREKET AÇIKLIĞI VE BEDEN KİTLE İNDEKSİ
İLİŞKİSİNİN İNCELENMESİ**
INVESTIGATION OF THE RELATIONSHIP BETWEEN HEAD AND NECK RANGE OF
MOTION AND BODY MASS INDEX

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ÖZET

Amaç: çalışmamızda Yaşları 18-32 yıl arasında değişen 60 sağlıklı kişi (30 kadın, 30 erkek) üzerinde, baş-boyun normal eklem hareket açıklığı (NEH) ölçümlerine ait referans değerlerinin elde edilmesi ve bu ölçümlere beden kitle indeksinin etkisinin incelenmesi amaçlandı. Gereç ve Yöntem: Çalışmaya 30 erkek ve 30 kadın olmak üzere 60 sağlıklı birey dahil edildi. Başları Frankfurt horizontal düzleme uygun olarak pozisyonlanmış katılımcıların inklinometre kullanılarak baş boyun fleksiyon, ekstensiyon, lateral fleksiyon (sağ-sol) ve rotasyon (sağ-sol) normal eklem hareket açıklıkları ölçüldü. İstatistiksel analiz Statistical Package for the Social Sciences (SPSS) versiyon 21.00 programı kullanılarak yapıldı. Bu ölçümlerden ortalama ve standard sapma (SS) değerleri elde edilerek sonuçların cinsiyet ve beden kitle indeksine göre dağılımı değerlendirildi. Bulgular: Baş boyun fleksiyon, ekstensiyon, lateral fleksiyon (sağ-sol), rotasyon (sağ-sol) ölçümleri erkeklerde sırasıyla; 59,08°, 37,13°, 30,26° (sağ), 32,13° (sol), 58,29° (sağ) ve 60,05° (sol) olarak bulundu kadınlarda sırasıyla; 59,34°, 36,10°, 34,17° (sağ), 36,64° (sol), 61,91° (sağ) ve 60,99° (sol) olarak bulundu. Ölçümler analiz edildiğinde, baş boyun lateral fleksiyon NEH ölçümü ve baş boyun rotasyon (sağ) NEH açıklığı ölçümü cinsiyetler arasında anlamlı farklılık gösterdi ($p<0,05$). Ayrıca, beden kitle indeksinin (BKI) baş boyun ekstensiyon ve rotasyon NEH açıklığı parametrelerinde anlamlı farklılık oluşturduğu bulunmuştur ($p<0,05$). Sonuç: Elde edilen bu veriler omurganın düzgünlüğünün, postürün ve dengenin sağlanmasında önemli olduğu ayrıca baş boyun ile ilgili cihazların tasarımlarında yol gösterici olacağını düşünmekteyiz. Ayrıca, baş-boyun NEH değerleri ile ilgili referans değerler elde edilirken, bu değerlerin cinsiyet ve beden kitle indeksi ile ilişkili olduğu bulundu.

Anahtar Kelimeler: Eklem hareket açıklığı, Beden kitle indeksi, Gonyometre, Eklem hareketi

ABSTRACT

Objective: In our study, it was aimed to obtain reference values for head-neck normal range of motion (ROM) measurements on 60 healthy individuals (30 females, 30 males) aged between 18-32 years and to examine the effect of body mass index on these measurements. **Materials and Methods:** 60 healthy individuals, 30 men and 30 women, were included in the study. Head-neck flexion, extension, lateral flexion (right-left) and rotation (right-left) normal range of motion were measured using an inclinometer of the participants whose heads were positioned in accordance with the Frankfurt horizontal plane. Statistical analysis was performed using the Statistical Package for the Social Sciences (SPSS) version 21.00 program. The mean and standard deviation (SD) values were obtained from these measurements, and the distribution of the results according to gender and body mass index was evaluated. **Results:** Head and neck flexion, extension, lateral flexion (right-left), rotation (right-left) measurements were respectively in men; It was found as 59.08°, 37.13°, 30.26° (right), 32.13° (left), 58.29° (right) and 60.05° (left) in women; It was found as 59.34°, 36.10°, 34.17° (right), 36.64° (left), 61.91° (right) and 60.99° (left). When the measurements were analyzed, the measurement of head and neck lateral flexion NEH and head and neck rotation (right) NEH span measurement showed significant differences between genders ($p<0.05$). In addition, it was found that body mass index (BMI) created a significant difference in head and neck extension and rotation ROM parameters ($p<0.05$). **Conclusion:** We think that the obtained data are important in maintaining the straightness of the spine, posture and balance, and will guide the design of devices related to the head and neck. In addition, while the reference values for head and neck NEH values were obtained, and these values were found to be correlated with gender and body mass index.

Keywords: Range of motion, Body mass index, Goniometer, Joint movement

AUGUSTİNUS VE İBNİ SİNA'DA KÖTÜLÜK PROBLEMİ

THE PROBLEM OF EVIL IN AUGUSTINUS AND IBNI SINA

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ÖZET

İnsanlık tarihinin başladığı yerde kuşkusuz dinlerin de tarihi başlamaktadır. Dolayısıyla Tanrı veya üstün bir gücün varlığına olan inanç, insanlık tarihi kadar eskidir. Çeşitli şekillerde betimlenmiş Tanrı ancak arkaik çağlarda ve ilahi dinlerle birlikte mutlak iyilik olarak tanımlanmıştır. Bu durum, kötülüğün Tanrı ile olan ilişkisi problemini beraberinde getirmiştir. Kötülük konusunun işlenmesi yalnızca din alanı ile sınırlı kalmamış, sanat ve felsefe gibi çeşitli etkinliklerin de önemli bir konusu haline gelmiştir. Literatürde *teodise* olarak adlandırılan bu problem, felsefe alanı söz konusu olduğunda, ilk kez Epiküros tarafından mantıksal bir formülasyon haline getirilmişti. Bu metnin odağa aldığı ilk filozof olan Augustinus için kötülük herhangi bir tözsel niteliğe veya ontolojik anlamda bir varlığa sahip değildir. O sadece iyiliğin yokluk halidir. İnsanlar arasında kötülük olarak adlandırılan durumlar ise, evrensel harmoninin uyumsuz görünen ancak Tanrı'ya yakınlık ölçüsü ve hiyerarşisiyle uyumlulukları kavranan parçalardır. Öte yandan İbni Sina'ya göre, var olanlar söz konusu olduğunda mutlak kötülükten söz edilemez. Onlar zaten var oldukları için iyilikten pay almışlardır. Mutlak kötülük bu bağlamda yokluktur. Bununla birlikte, var olan her şey bir yanı ile eksik oldukları, değişime maruz kaldıkları ve "mümkün" varlık oldukları için mutlak iyilik sahibi de değillerdir. Bu eksik nitelikleri nedeniyle bir yanlarıyla kötülüğü (eksikliği) de içlerinde barındırırlar. Bu noktada İbni Sina'nın kötülüğü ilk olarak, yokluk ve tam yetkin varlık gibi iki kutuplu varoluş eksininde yer alan bir şey olarak tanımlar. Bu çalışma söze edilen iki filozofun kötülük problemi hakkındaki düşüncelerine değinerek; bu düşünceler arasındaki benzerlik ve farklılıkları ortaya çıkarmayı amaçlamaktadır. Öte yandan kötülük probleminin çağdaş dönemdeki tartışmalarda ne türden ele alındığına da değinilecektir.

Anahtar Kelimeler: Tanrı, Kötülük Problemi, Teodise, Augustinus, İbni Sina

ABSTRACT

Undoubtedly, the history of religions begins when the history of humanity begins. Therefore, belief in the existence of God or a superior power is as old as human history. God, who is depicted in various ways, was defined as absolute goodness only in archaic ages and with divine religions. This situation brought with it the problem of the relationship of evil with God. The treatment of evil has not only been limited to the field of religion, but has also become an important subject of various activities such as art and philosophy. This problem, which is called theodicy in the literature, was first put into a logical formulation by Epicurus when it comes to the field of philosophy. For Augustine, the first philosopher that this text focuses on, evil does not have any substantive quality or an ontological existence. It is simply the absence of goodness. The situations that are called evil among people are parts of the universal harmony that seem to be incompatible, but whose compatibility with the measure and hierarchy of closeness to God is grasped. On the other hand, according to Avicenna, there is no absolute evil when it comes to existing things. Since they already exist, they have received a share of the good. Absolute evil, in this context, is non-existence. However, since everything that exists is incomplete, subject to change, and being a "possible" being, they do not have absolute goodness. Due to these deficient qualities, they also contain evil (deficiency) within them. At this point, Ibn Sina first defines evil as something that takes place in the negative of bipolar existence, such as non-existence and fully perfect existence. This study touches on the thoughts of the two mentioned philosophers about the problem of evil; It aims to reveal the similarities and differences between these ideas. On the other hand, it will also be mentioned how the problem of evil is handled in contemporary discussions.

Keywords: God, Problem Of Evil, Teodise, Augustinus, İbni Sina

TAHSİN YÜCEL' İN “ANADOLU MASALLARI” ADLI KİTABININ TÜRKÇE
ÖĞRETİM PROGRAMINDAKİ KÖK DEĞERLER AÇISINDAN
DEĞERLENDİRİLMESİ

THE EVALUATION OF TAHSİN YÜCEL'S BOOK TITLED “ANATOLIAN TALES”
IN TERMS OF THE ROOT VALUES IN THE TURKISH TEACHING PROGRAM

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ÖZET

Bu çalışmanın amacı Tahsin Yücel'in “Anadolu Masalları” adlı masal kitabında geçen değerleri tespit etmek, öğretim programlarında yer alan on kök değer açısından incelemek ve Anadolu masalları aracılığı ile değerlerin eğitsel iletilerini belirlemektir. Öğretim programlarında yer alan kök değerler; “*adalet, dostluk, dürüstlük, öz denetim, sabır, saygı, sevgi, sorumluluk, vatanseverlik, yardımseverlik*” tir. Bu çalışma Tahsin Yücel'in “Anadolu Masalları” adlı masal kitabının değerler açısından incelenmesine yönelik ilk çalışma olması ve masalların zengin bir içeriğe aynı zamanda pek çok eğitsel değere sahip olması, bu alanda çalışacaklara yol göstermesi bakımından son derece önemlidir. Çalışmanın materyali Tahsin Yücel 'in 152 sayfadan oluşan ve 1957 yılında kaleme alınmış “Anadolu Masalları” adlı kitabıdır. Nitel araştırma yönteminin benimseneceği bu çalışmada veri toplama amacıyla doküman analizi tekniği kullanılmıştır. Çalışmada doküman incelemesine göre elde edilen veriler, içerik analiziyle çözümlenmiş, değerlere göre kategorilenmiş, frekansları belirlenmiş ve yorumlanmıştır. Çalışmanın sonunda, eserde, 2018 yılında yayımlanan öğretim programlarında yer alan on kök değerlerin yer aldığı tespit edilmiştir. Bunlardan Sevgi(75), Yardımseverlik(31), Sabır(21), Özdenetim(16), Sorumluluk(14), Dostluk(13) değerleri, eserde en çok yer alan değerler olmuştur. Eserde, on kök değerden en az geçenleri ise Dürüstlük(6), Saygı(6), Adalet(5), Vatanseverlik(4) değerleridir. Buna göre eserin değerler açısından zengin olduğu, değerler eğitimi açısından önemli olduğu söylenebilir. Çalışmanın sonunda çeşitli önerilere yer verilmiştir.

Anahtar Sözcükler: Tahsin Yücel, Anadolu Masalları, Değerler Eğitimi, on kök değer

ABSTRACT

The aim of this study is to determine the values in Tahsin Yücel's fairy tale book "Anatolian Tales", to examine them in terms of ten root values in the curriculum and to determine the educational messages of values through Anatolian tales. Root values in curricula; justice, friendship, honesty, self-control, patience, respect, love, responsibility, patriotism, benevolence. This study is extremely important in that it is the first study to examine Tahsin Yücel's fairy tale book "Anatolian Tales" in terms of values and that the tales have a rich content and many educational values at the same time, and guide those who will work in this field. The material of the study is Tahsin Yücel' s book "Anatolian Tales", which consists of 152 pages and was written in 1957. In this study, in which qualitative research method will be adopted, document analysis technique was used for data collection. In the study, the data obtained according to document analysis were analyzed by content analysis, categorized according to values, frequencies were determined and interpreted. At the end of the study, it was determined that there are ten root values in the curriculum published in 2018 in the work. Among them, Love(75), Helpfulness(31), Patience(21), Self-Control(16), Responsibility(14), Friendship(13) values were the most common values in the work. In the work, the values that pass at least ten root values are Integrity (6), Respect (6), Justice (5), Patriotism (4). Accordingly, it can be said that the work is rich in values and important in terms of values education. Various suggestions are given at the end of the study.

Keywords: Tahsin Yücel, Anatolian Tales, Values Education, ten root values.

MAARİF KONGRESİ VE TÜRK EĞİTİM TARİHİ AÇISINDAN ÖNEMİ
THE MAARIF CONGRESS AND ITS IMPORTANCE FOR TURKISH EDUCATIONAL
HISTORY

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ÖZET

TBMM'nin kuruluşuyla birlikte başlatılan eğitim hamlesi Türkiye'nin modernleşmesine ciddi katkısı olmuştur. Cumhuriyet'in ilk yıllarında önemli sosyal gelişmeler yaşanmıştır. Bu gelişmeler içerisinde Maarif Kongresi'nin yeri ayrıdır.

Hamdullah Suphi'nin girişimleriyle Sakarya Savaşı'ndan kısa bir süre önce 15 Temmuz 1921'de Ankara'da Türkiye Muallime ve Muallimler Birliği tarafından bir kongre düzenlenmişti. Bu toplantı Cumhuriyet eğitimi tarihimize Maarif Kongresi olarak geçmiştir. 6 gün boyunca kongre devam etmiştir. Bu toplantıda Türkiye'nin o günkü eğitim sorunları eğitimciler ve öğretmenler tarafından tartışılmıştır. Ayrıca kongrenin düzenlenmesi millî bir eğitim sistemi oluşturma çabasının yanı sıra diğer ülkelerin eğitim alanındaki gelişmelerinin de takip edilmesi açısından önemlidir.

Atatürk bu kongrede ilk defa "Türkiye'nin millî maarifinin kurulmasını" istemiştir. Çünkü biri İstanbul'da diğeri Ankara'da olmak üzere iki farklı idari teşkilat bulunmaktaydı ve bu iki teşkilat arasında ciddi görüş ayrılıkları vardı. Ayrıca, Atatürk aynı zamanda bu kongrede Millî Maarifin içeriğini de açıklamıştır. Cumhuriyetin ilk yıllarında eğitimle ilgili açılan kurumlar ve gerçekleştirilen yenilikler dikkatle incelendiğinde, benimsenen eğitim anlayışının ulus devlet karakterine uygun bir Cumhuriyet eğitimi olduğu görülmektedir. Mustafa Kemal ve arkadaşları tarafından yeni kurulan Türkiye Cumhuriyeti Devleti'ni sağlam temeller üzerine oturtmak ve ona sahip çıkan kuşaklar yetiştirmek için bunun gerekli görüldüğü de açıktır. Ayrıca Maarif Kongresi'nin devletin kurumsallaşması sürecindeki diğer önemi ise kongreye kadın öğretmenlerin katılımının sağlanması ve millî mücadelenin kazanılmasının ardından devrimin kadınlı erkekli hemen tüm kesimlerde fikri yayılışına kaynaklık eden karma sınıflar ve buralarda görev alan ilkokul öğretmenlerinin oluşturulmasına da kaynaklık etmesidir.

Maarif Kongresi'nin düzenlenişi ve içeriği özellikle millî mücadelenin başarıyla sonuçlanmasının ardından Türkiye Cumhuriyeti Devleti'nin kurumsallaşması sürecinde de önemli gelişmelerin yaşanmasını sağlayarak hem eğitim hem de hukuk alanındaki devrimlerin temelini oluşturmuştur.

Anahtar Kelimeler: Maarif Kongresi, Millî Mücadele, Eğitim, Devrimler.

ABSTRACT

The education move initiated with the establishment of the Turkish Grand National Assembly has made a serious contribution to the modernization of Turkey. In the first years of the Republic, important social developments took place. Among these developments, the Educational Congress has a special place.

With the initiatives of Hamdullah Suphi, a congress was held by the Turkish Teachers' Association on July 15, 1921, shortly before the Battle of Sakarya, in Ankara. This meeting has passed into our Republican education history as the Education Congress. The congress continued for 6 days. In this meeting, the educational problems of Turkey at that time were discussed by educators and teachers. In addition, the organization of the congress is important in terms of following the developments of other countries in the field of education as well as the effort to create a national education system.

For the first time in this congress, Atatürk demanded the establishment of Turkey's national education. Because there were two different administrative organizations, one in Istanbul and the other in Ankara, and there were serious differences of opinion between these two organizations. In addition, Atatürk also explained the content of the National Education at this congress. When the educational institutions opened and the innovations made in the first years of the Republic are examined carefully, it is seen that the education approach adopted is a republican education suitable for the nation-state character. It is also clear that this was deemed necessary in order to establish the newly established Republic of Turkey by Mustafa Kemal and his friends on solid foundations and to raise generations that would take care of it. In addition, the other importance of the Education Congress in the institutionalization process of the state is that, after the participation of female teachers in the congress and the victory of the national struggle, it also became a source for the creation of mixed classes and primary school teachers who took part in the revolution, which was the source of the spread of ideas in almost all segments, both men and women.

The organization and content of the Education Congress, especially after the successful conclusion of the national struggle, provided important developments in the institutionalization process of the Republic of Turkey and formed the basis of both education and legal reforms.

Keywords: Educational Congress, National Struggle, Education, Revolutions.

MUSTAFA KUTLU'NUN HİKÂYELERİNDE TOPLUMSAL HAYAT

SOCIAL LIFE IN THE MUSTAFA KUTLU'S STORIES

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ÖZET

Edebiyat, sözlü ve yazılı ürünler aracılığıyla bir toplumun kültürel değerlerinin, sosyal hayatının ve düşüncelerinin sergilendiği bir sahadır. Toplumun her haline ayna tutan yazar ise içinde yaşadığı toplumun tanığıdır. Yazar eserini meydana getirirken toplumdaki uzak kalamadığı gibi yazmış olduğu eserinin içinde yaşadığı dönemin toplumsal hayatının özelliklerini bulmak mümkündür. Anlatmaya bağlı kurmaca metinlerden biri olan hikâye birçok dilde farklı sözcüklerle ifade ediliyor olsa da hikâyenin temelinde bir olayı veya bir durumu anlatma vardır. Türk edebiyatında hikâye, Tanzimat'tan günümüze kadar hem teknik hem de muhteva bakımından pek çok değişime uğramıştır. Türk Toplumunda yaşanan kültürel ve sosyal değişimler hikâyede de etkisini gösterecektir.

Güncel hayatı hikâyelerinin esin kaynağı gören Mustafa Kutlu ilk hikâyelerini 1970'li yıllarda yayınlamaya başlar. Kutlu, Türk toplumunda yaşanan değişimlerin yakın tanığı olmuş ve hikâyelerinde realist bir gözlemci olarak toplumdaki bu değişim ve dönüşümü anlatmaya çalışmıştır.

Bu çalışmada Türk hikâyelerinde toplumun yerine değindikten sonra çağdaş hikâye yazarlarımızdan biri olan Mustafa Kutlu'nun *Yokuşa Akan Sular*(1979), *Ya Tahammül Ya Sefer*(1983), *Bu Böyledir*(1987), *Sır* (1990), *Uzun Hikâye*(2000) adlı eserlerinde toplumsal hayatın izlerini farklı konu başlıkları altında irdelenmeye çalışıldı. Bu bildiride yapılan araştırmalar sonucunda Mustafa Kutlu'nun hikâyelerinde toplumsal hayatın izleri hakkında bilgi verilecektir.

Anahtar Kelimeler: Mustafa Kutlu, Hikâye, Toplumsal hayat

ABSTRACT

Literature is a field where the cultural values, social life and thoughts of a society are exhibited through oral and written products. The author, who mirrors every state of society, is the witness of the society in which he lives. While the author could not stay away from the society while creating his work, it is possible to find the characteristics of the social life of the period in which he lived. Although the story, which is one of the fictional texts dependent on narration, is expressed with different words in many languages, there is a narrative of an event or a situation at the heart of the story. The story in Turkish literature has undergone many changes in terms of both technique and content from the Tanzimat to the present. The cultural and social changes experienced in Turkish society have also shown their effect in the story.

Mustafa Kutlu, who started to publish his first stories in the 1970s, saw current life as a source of inspiration for his stories and wrote his works in this context. As a close witness of the changes experienced in Turkish society, Kutlu, tried to explain the change and transformation in Turkish society in the 20th century with a realistic observer style in his stories.

In this study, after mentioning the place of society in the Turkish stories, we tried to examine the traces of social life under different subject headings in one of our contemporary story writers, Mustafa Kutlu, Yokuşa Akan Sular (1979), Ya Tahammül Ya Sefer (1983), Bu Böyledir (1987), Sır (1990), and Uzun Hikâye. As a result of the research done in this paper, information will be given about the traces of social life in Mustafa Kutlu's stories.

Keywords: Mustafa Kutlu, Story, Social life

**GÜNEY İŞÇİ SENDİKALARI KONFEDERASYONU VE ÇUKUROVA'DA SENDİKAL
GELİŞİME ETKİSİ (1950-1960)**

THE SOUTHERN WORKERS FEDERATION OF TRADE UNIONS AND ITS EFFECT ON THE
DEVELOPMENT OF ÇUKUROVA UNIONS (1950-1960)

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ÖZET

Türkiye’de işçi hareketleri ve sendikacılığın gelişimi geç sanayileşmenin etkisi altında gelişim gösterdi ve bu gelişim çoğunlukla yasal düzenlemelerin etkisi altında kaldı. Sendika kurma hakkı, 1946 Cemiyetler Kanunu ile tanınmıştı ve 1950’li yıllar Türkiye’de sendikacılığın temellerinin atıldığı yıllar oldu. Özellikle 1952 yılında Türkiye İşçi Sendikaları Konfederasyonu’nun (Türk-iş) kurulması ile hız kazandı. 1950-1960 arasındaki bu gelişim; İstanbul, Bursa, İzmir, Zonguldak, Çukurova gibi özellikle sanayi temellerinin olduğu bölgelerde ilerleyebildi.

Çukurova, 19.yü yıldan itibaren Doğu Akdeniz limanlarına olan yakınlığı nedeniyle ekonomik olarak dışa açılmaya başlamıştı, bölgede 19.yüzyılda pamuk üretiminin başlaması, tarıma dayalı bir önsanayileşme döneminin Çukurova’da yaşanmasına neden oldu. Çukurova bölgesi bu ekonomik temele dayanarak Cumhuriyet döneminde sanayileşmenin hızlı geliştiği bölgelerden biri oldu. Özellikle tarım işçisi sayısının Türkiye’de en yüksek olduğu bölge Çukurova’ydı. Buna bağlı olarak Çukurova bölgesinde önemli bir sendikal gelişim yaşandı. Bölgede, 1946-1960 yılları arasında toplam 77 sendika kuruldu ve 77 sendikanın 9’u tarım sendikalarıydı. Tarım işçilerinin sendikalaşması en zor olan grup olduğu düşünüldüğünde Çukurova bölgesi, tarım sendikalarının gelişiminde de önemli bir temel sağlamıştır.

Çukurova’da 1923-1945 döneminde sendikalaşma faaliyetlerinde belirgin bir Türkiye Komünist Partisi (TKP) etkisi görülmektedir. Ayrıca 1946 sendikacılığı dahilinde Türkiye Sosyalist Emekçi ve Köylü Partisi, Rasih Nuri İleri öncülüğünde Adana İplik ve Dokuma İşçileri Sendikası, Adana İnşaat İşçileri Sendikası, Adana Terziler Sendikası ve Adana Deri İşçileri Sendikasını kurmayı ve bu sendikaları bünyesinde toplayan Adana Sendikalar Birliğini gerçekleştirmeyi amaçlamıştı. Bu faaliyetlerin karşısında Hasan Özgüneş; Nadir Kanaç, Ali Tokmak ve Halim Türkmen ile birlikte Adana İplik ve Dokuma Fabrikaları İşçileri Sendikası kurdu. 1946 yılından sonra Çukurova’daki sendikalaşma faaliyetleri hızla sosyalistlerden uzaklaşarak milliyetçiliğe doğru kaydı.

Hasan Özgüneş, Nusret Anafarta, Şevki Erençan gibi isimler farklı görüşlere sahip olsalar da 1946 sonrasında başta Adana olmak üzere Çukurova’da sendikal faaliyetler içinde yetiştiler ve “profesyonel” sendikacılar olarak 1950’li yıllar boyunca işçilere yönelik çıkardıkları süreli yayınlarla sendikacılığın gelişiminde ve işçilerin sendikalara üye olmaları konusunda önemli katkılar yaptılar.

28 Ağustos 1950 İlk üst örgütlenme olarak Adana’da Çukurova İşçi Sendikaları Birliği kuruldu. Rekabet, sendikanın üye sayısının sürekli değişmesine ve beklendiği kadar etkili olamamasına neden oldu. 24 Nisan 1951’de Nusret Anafarta ve kendisine bağlı 7 sendika, birlikten ayrıldı. 27 Nisan 1952 tarihinde yapılan kongrede Güney İşçi Sendikaları Federasyonu’na (Güney-iş Federasyon) dönüştü. Başkanlığa Hasan Özgüneş seçildi. Türk-iş’in kuruluş çalışmalarına katıldı, kurucu federasyonlardan biri oldu. Çukurova’daki diğer üst örgütlenme ise Mersin merkezli Akdeniz Bölgesi İşçi Sendikaları Birliği’dir.

Bu çalışma 1950-1960 arasında Çukurova bölgesindeki sendikal gelişmelerin bir portresini çizmeye çalışarak profesyonel sendikacıların etkinliğini ve katkılarını; başta Hasan Özgüneş olmak üzere değerlendirecektir. Kuruluş amacı “Adana ilinin çapraşık iş ve işçi sorunları ile dağınık işkolları arasında eşgüdümlü bir işçi hareketi yaratabilmek” olan Güney İşçi Sendikaları Federasyonu’nun faaliyetlerinin amacını gerçekleştirmeye olan katkısı değerlendirilerek, sendikal gelişmelere olan etkisi açıklanacaktır.

Anahtar Kelimeler: Çukurova, Güney İşçi Sendikaları Konfederasyonu (Güney-iş), Hasan Özgüneş

ABSTRACT

The development of labour movements and trade unionism in Turkey developed under the influence of late industrialization and this development was mostly under influence of legal regulations. The right to establish trade unions was recognized by the 1946 legal regulation and the 1950s were the years when the foundations of trade unionism were laid in Turkey. It gained momentum especially with the establishment of the Confederation of Turkish Trade Unions (Türk-iş) in 1952. This development between 1950-1960; it was able to advance especially in regions with industrial bases such as Istanbul, Bursa, Izmir, Zonguldak, Çukurova.

Çukurova started to open up economically due to its proximity to the 'Levant' ports since the 19th century, and the beginning of cotton production in the region same time caused a pre-industrialization period based on agriculture to be experienced in Çukurova. Based on this economic basis, Çukurova became one of the regions where industrialization developed rapidly during the Republican period. In particular, Çukurova was the region with the highest number of agricultural workers in Turkey. Accordingly, an important union development took place in the Çukurova region. A total of 77 unions were established in the region between 1946 and 1960, and 9 of the 77 unions were agricultural unions. Considering that agricultural workers are the most difficult group to unionize, Çukurova region also provided an important basis for the development of agricultural unions.

In the period of 1923-1945 in Çukurova, a significant influence of the Communist Party of Turkey (TKP) is observed in the unionization activities. In addition, within the unionism of 1946, the Socialist Workers and Peasants Party of Turkey, under the leadership of Rasih Nuri İleri, aimed to establish Adana Thread and Weaving Workers' Union, Adana Construction Workers' Union, Adana Tailors' Union and Adana Leather Workers' Union and to realize the Adana Union of Trade Unions, which gathered these unions. Against these activities, Hasan Özgüneş; together with Nadir Kanaç, Ali Tokmak and Halim Türkmen, he founded the Adana Thread and Weaving Factory Workers' Union. After 1946, unionization activities in Çukurova rapidly moved away from socialists and towards nationalism.

After 1946, although names such as Hasan Özgüneş, Nusret Anafarta, Şevki Erençan had different opinions, they grew up in union activities, in Çukurova primarily in Adana and as “professional” trade unionists, they made significant contributions to the development of trade unionism and to the membership of workers to unions with the periodicals they published for workers throughout the 1950s.

August 28, 1950 Çukurova Workers' Trade Unions was established in Adana as the first supreme organization. Competition caused the union's membership to constantly change and not be as effective as expected. On April 24, 1951, Nusret Anafarta and 7 unions affiliated to him left the union. In the congress held on April 27, 1952, it was transformed into The Southern Workers Federation of Trade Unions (Güney-İş Federation). Hasan Özgüneş was elected as the chairman. Güney-iş participated in

the establishment of Türk-İş and became one of the founding federations. The other top organization in Çukurova is the Mersin-based Mediterranean Region Trade Unions.

This study tries to draw a portrait of the trade union developments in Çukurova and the effectiveness and contributions of professional trade unionists especially Hasan Özgüneş between 1950 and 1960. The contribution of the activities of The Southern Workers Federation of Trade Unions, whose founding purpose is *"to create a coordinated labor movement between the intricate business and worker problems of Adana province and scattered business lines"*, will be evaluated and its impact on union developments will be explained.

Keywords: Çukurova, Southern Workers Federation of Trade Unions (Güney-iş), Hasan Özgüneş

ADANA MİLLET MEKTEPLERİNİN YAPISI VE FAALİYETLERİ (1929-1935)
STRUCTURE AND ACTIVITIES OF ADANA NATIONALS SCHOOLS (1929-1935)

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ÖZET

Alfabenin değiştirilmesi konusu Tanzimat Dönemi ile beraber başlamış, İkinci Meşrutiyet ve Cumhuriyet Döneminde de devam etmiştir. Cumhuriyetin ilan edilmesiyle beraber Türkiye’yi çağdaş medeniyetler seviyesine getirebilmek amacıyla önemli inkılâp hareketleri gerçekleştirilmiştir. Bu gelişmelerden birisi de 1 Kasım 1928’de ‘Türk Harflerinin Kabul ve Uygulanması Hakkında Kanun’ adıyla Latin harflerinin kabul edilmesidir. Harf İnkılâbı, kültürel devrimlere zemin hazırlamış, dil ve tarih çalışmalarını da hızlandırmıştır. Böylece atılan bu adım sayesinde, toplumsal ve kültürel açıdan Türk toplumunun daha ileri bir seviyeye taşınması hedeflenmiştir. Arap harflerinin öğrenilmesinin zor olması, kültür bütünlüğünün bozulması, okuma-yazmanın daha anlaşılır bir hale getirilmek istenmesi, modern ve akılcı bir dil kullanarak yeni bir düzenin kurulması gibi sebeplerden dolayı, işin uygulanma alanında halka yönelik kurs merkezleri açılmıştır. Harf inkılâbının kabul edilmesinden sonra 1 Ocak 1929 tarihinden itibaren millet mekteplerinin açılması ile beraber harfler mekteplerde öğretilmeye başlanmıştır. Ülkenin birçok merkezinde olduğu gibi Adana il, ilçe ve köylerinde de kadın-erkek, genç-yaşlı ayırt etmeksizin açılan A ve B dershanelerinde halk yeni harfleri tanıyarak öğrenmiş ve mekteplerde yapılan imtihanlar sonucunda katılımcılar “Millet Mektebi belgeleri” almışlardır. Dönemin yerel gazeteleri de logolarını yeni ve eski harflerle yazılmış şekilde kullanmaya başlamışlar, kamu kurum ve kuruluşları da hızlıca yeni harflere uyum sağlamaya çalışmıştır. 1935 yılına gelindiğinde millet mekteplerinin işlerliği oldukça azalmış ve bu boşluğu doldurmak için ise yeni okuma-yazma seferberlikleri başlatılmıştır. Bu çalışmada, Adana Millet Mekteplerinin kuruluşu, faaliyetleri ve mekteplerin karşılaştıkları sorunların ele alınması hedeflenmiştir. Çalışmada arşiv belgeleri, konuya dair araştırma inceleme eserleri, istatistik raporları ve Adana’da yayımlanan süreli yayınlardan yararlanılmıştır.

Anahtar Kelimeler: Adana, Harf İnkılâbı, Millet Mektepleri, Latin Harfleri

ABSTRACT

The issue of changing the alphabet started with the Tanzimat Period and continued in the Second Constitutional Period and the Republic Period. With the declaration of the Republic, important reform movements were carried out in order to bring Turkey to the level of contemporary civilizations. One of these developments was the adoption of Latin letters on November, 1, 1928, under the name of “ Law on the Adoption and İmplementation of Turkish Alphabets’ The Alphabet Revolution lead up to cultural revolutions and accelerated language and History Studies. Thus, it is aimed to move the Turkish society to a higher level in terms of social and cultural aspects. Online cources were launched for public access in terms of application area because of the reasons like the difficulty of learning Arabic alphabet, the cultural unity breakdown, the aim of making literacy beter, creating a new regulation by using a modern and rational language. The alphabet was taught in schools after the approval of alphabet revolution on 1st of January 1929 with the starting of national schools. As in many points in the country, in Adana province, districts and villages, people learned the new alphabet and received “ National Schools Certificates’ in A and B training centers opened for everyone regardless of woman or man, old or young too. The logos of the newspapers of that period were created with the old and new letters and public establishments and institues tried to adapt to the new alphabet quickly. İn 1935, the function of the public schools decreased and new literacy regulations were started to be thought through to make up fort he decrease. The study encompasses the establishment of Adana National Schools, their activities and the problems they faced. İts based on the archive resources, study pieces related to the topic, statistical reports, periodicals published in Adana.

Keywords: Adana, Alphabet revolution, National Schools, Latin alphabet

HISTORIOGRAPHY OF TEACHING THE YOUNG GENERATION OF HEYDAR ALIYEV'S LEGACY

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ABSTRACT

The national leader of the Azerbaijani people H.A.Aliyev played a great role in the history of 20 th century Azerbaijan, with his wide and comprehensive activity created a fundamental turn in the sociopolitical life of Azerbaijan. One of the important tasks facing our society at the time of Azerbaijan's independence was to protect and further develop national and moral values, as well as orientation towards universal values in social, political and cultural development. In this regard, the study of the heritage of H.A.Aliyev, the study of various issues of the history of Azerbaijan based on his scientific and theoretical analysis is of great scientific and socio-political importance.

Although the topic "Historical issues of Azerbaijan in the legacy of Heydar Aliyev" during the years of independence is not a separate object of research in historiography, a number of points related to the topic in the recently published literature attract attention. Academician R.A Mehdiyev's works comment on the political activity of H.A.Aliyev, his philosophy of independence, the moral problems of modernization, the idea of Azerbaijanism, which forms the basis of national ideology, and issues related to our history.

Historian I.Huseynova's monographs "Founder of the Independent State of Azerbaijan", "Guarantor of our Independence" examine the main aspects and stages of the political and state heritage of the founder of the independent state of Heydar Aliyev on the basis of rich archival materials.

Professor Y.Mahmudov's works dedicated to the study of H.A.Aliyev's legacy in recent years, along with his state activity, his great contribution to the development of Azerbaijan's historical science, his attention and care for the study and promotion of our history, his assessment of various stages of our great past and prominent personalities.

F.Safarli's work "Heydar Aliyev's legacy and historical issues of Azerbaijan" tells about the life and activity of the great leader Heydar Aliyev, the teaching of the historical heritage of political and statehood to the younger generation.

A. Jabbarli's work "Heydar Aliyev and the historical issues of Nakhchivan" explores the teaching of the heritage of the national leader of the Azerbaijani people H.A.Aliyev to the younger generation and the historical issues of Nakhchivan.

The essay "Way of Victory" by writer-publicist H.Miralamov glorifies the glorious life and activity of the great son of our people, President H.A.Aliyev.

Thus, the above-mentioned works of I.Huseynova, Y.Mahmudov, R.A.Mehdiyev, H.Miralamov, F.Safarli and A.Jabbarli can be considered as reliable sources in teaching the heritage of Heydar Aliyev to the younger generation.

Keywords: Azerbaijan, independence, heritage, history, people.

DİYABET YÖNETİMİNDE ÖFKE KONTROLÜNÜN, STRESLE BAŞA ÇIKMA STRATEJİLERİNİN VE ÖZ- ETKİLİLİK DÜZEYİNİN ROLÜ: BİR GÖZDEN GEÇİRME
THE ROLE OF ANGER MANAGEMENT, COPING WITH STRESS AND SELF-EFFECTIVENESS IN DIABETES MANAGEMENT: A REVIEW

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ÖZET

Bu geleneksel derleme çalışmasının amacı, diyabet hastalarında öfke kontrolü, stresle başa çıkma stratejileri ve öz etkililik arasındaki ilişkinin incelenmesidir. Diyabetli bireylerde öfke düzeyinin artmasıyla birlikte metabolik değişkenler olumsuz yönde etkilenmektedir (Butekin, 2017). Düzenlenen çalışmalarda, insülinin yükselmesine veya hipogliseminin indüklenmesine öfke düzeyinde artışın eşlik ettiği görülmektedir (De Sonnaville et al., 1998; McCrimmon, Ewing, Frier, & Deary, 1999). Bireylerin kullandıkları başa çıkma mekanizmaları, diyabet kaynaklı stres düzeyinin etkili bir şekilde yönetilmesi ve glisemik kontrolün sürdürülmesi açısından büyük önem taşımaktadır (Attari, Sartippour, Amini ve Haghighi, 2006). Stres, diyabette metabolik kontrolü doğrudan ve dolaylı olmak üzere iki şekilde etkilemektedir. En basit psikososyal zorlanma ve çatışmada dahi kortizol, serbest yağ asitleri ve kan şekeri artar; bu da hiperglisemiye yol açabilir (Güven, 2007). Stres durumunda yükselen kortizol, bireylerde iştahı artırmakta ve bunun sonucunda kan şekeri ve tansiyon yükselmektedir. Kan şekerinin yükselmesi, fizyolojik olarak bireyin stresini daha da artmaktadır (Kumcağız ve ark., 2009). Bu doğrultuda, öfke ve stres yönetiminin diyabet yönetiminde oldukça etkili olduğu görülmektedir. Bunların yanı sıra, diyabet gibi kompleks tedavi ve bakım gerektiren sağlık sorunlarına sahip bireylerin, yaşam biçimlerinde değişiklikler yapmak üzere adımlar atmaları ve hastalık süreciyle başa çıkma becerileri öğrenmelerinde öz-etkililik inançları ve sonuçtan beklentileri önemli rol oynamaktadır (Van der Wen vd, 2003; Kurtoğlu, 2020). Özetle, diyabet yönetiminde öfke kontrol becerilerinin, stresle başa çıkma yöntemlerinin ve öz etkililiğin büyük önem taşıdığı görülmektedir.

Anahtar Kelimeler: Diyabet yönetimi, öfke kontrolü, stresle başa çıkma, öz-etkililik

ABSTRACT

The aim of this traditional review study is to examine the relationship between anger control, coping strategies and self-efficacy in diabetic patients. Metabolic variables are negatively affected when anger level increases in diabetics (Butekin, 2017). Conducted studies showed that an increase in the level of anger accompanies the rise of insulin or the induction of hypoglycemia (De Sonnaville et al., 1998; McCrimmon, Ewing, Frier, & Deary, 1999).

Coping mechanisms used by individuals have great importance on effectively managing diabetes-induced stress level and glycemic control (Attari, Sartippour, Amini, & Haghighi, 2006). Stress affects metabolic control in diabetes in two ways, directly and indirectly. Even in the simplest psychosocial stress and conflict, cortisol, free fatty acids and blood sugar increase; this may lead to hyperglycemia (Güven, 2007). Cortisol, which rises in case of stress, increases appetite in individuals, and as a result, blood sugar and blood pressure rise. The increase in blood sugar increases the stress level of the individuals physiologically (Kumcagiz et al., 2009). Accordingly, anger and stress management seems to be quite effective in diabetes management. Moreover, self-efficacy beliefs and outcome expectations play an important role in individuals with health problems such as diabetes that require complex treatment and care to take steps to make changes in their lifestyles and to learn skills to cope with the disease process (Van der Wen et al, 2003; Kurtoğlu, 2020). In summary, it is seen that anger management skills, stress coping styles and self-efficacy have great importance on diabetes management.

Keywords: Diabetes management, anger control, coping with stress, self-efficacy

ERENDİZ ATASÜ'NÜN HİKÂYELERİNDE KADIN
WOMEN IN THE STORIES OF ERENDİZ ATASÜ

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ÖZET

Edebiyat, toplumu ilgilendiren her hareketten, olaydan ve gelişmeden etkilenmiş ve bunlardan etkilendiği gibi bu gelişmeleri de etkilemiş bir disiplindir. Öyle ki sanatçıların içerisine doğduğu toplumdan etkilenmeleri, bu doğrultuda onun estetiğini aldığı gibi onun dertlerini, tarihi serüven içerisinde yaşadığı vakaları ve buna paralel olarak da bu süreç içerisinde tezahür eden aksak yönlerini dile getirmesi gayet tabiidir. Edebiyatımızda hemen hemen her dönem toplumsal meseleleri dile getiren, bu meselelerin ortaya çıkış sebeplerini ve tesirini anlatan ve buna binaen bu sorunlara çözüm üreten yazarlar olmuştur. Bu yazarlar yaşadıkları dönemin belirgin sorunlarına işaret etmişlerdir. Bu, edebiyatın toplumla ve fikir hareketleri ile olan sıkı bağının somut bir delilidir. Toplumsal hayatta kadın ve erkeğin eşitliğini savunan Feminist hareketten etkilenmesi de edebiyatın ve doğal olarak sanatçının toplumsal olaylar ile iç içe oluşunun sonucu olarak karşımıza çıkar. Türk edebiyatında kadın sorununa dair fikir üreten ve bu fikirlerini eserleri aracılığı ile okura ulaştıran pek çok yazar vardır. Bu yazarların amacı kadınların yaşadığı sorunlara dikkat çekmek ve bu konudaki sorunlara ilişkin bir bilinç oluşturmaktır. Feminist hareketin temel amacı olan kadını ikincil konumundan kurtarma, edebi eserlerde kendine büyük bir yer kazanmıştır. Eserlerinde Feminist hareketleri ve kadın sorunlarını işleyen yazarlardan biri de Erendiz Atasü'dür. Erendiz Atasü'nün romanları, denemeleri ve hikâye kitaplarında bu soruna sıklıkla yöneldiği görülür. Bu çalışmada, kadına dair her türlü konuya temas eden Erendiz Atasü'nün hikâye kitaplarındaki kadın incelenmiştir. Ele alınan hikâyelerdeki kadınların hangi boyutlarda ve nasıl işlendiği, öne çıkan temalar çerçevesinde ortaya koyulmuştur. Bunlar; ev hanımları ve çalışan kadınlar, evli ve bekâr kadınlar ve cinsellik ve kadın temaları olarak belirlenmiştir.

Anahtar Sözcükler: Erendiz Atasü, Hikâye, Kadın Sorunu, Feminist Kuram, Tema.

ABSTRACT

Literature is a discipline that has been affected by every movement, event and development that concerns the society and has been affected by these developments as well. So much so that it is quite natural for artists to be influenced by the society they were born into, and to express their problems, the cases they lived through in the historical adventure and, in parallel, the faulty aspects that manifested in this process, as well as taking its aesthetics in this direction. In almost every period in our literature, there have been writers who expressed social issues, explained the reasons for the emergence of these issues and their effects, and produced solutions to these problems accordingly. These writers pointed out the obvious problems of the period in which they lived. This is a concrete proof of the close connection of literature with society and intellectual movements. The fact that he was influenced by the Feminist movement, which advocates the equality of women and men in social life, appears as a result of the fact that literature and naturally the artist are intertwined with social events. There are many writers in Turkish literature who produce ideas about the women's problem and convey these ideas to the reader through their works. The aim of these authors is to draw attention to the problems experienced by women and to raise awareness about the problems in this issue. The main aim of the feminist movement, liberating women from their secondary position, has gained a great place in literary works. Erendiz Atasü is one of the writers dealing with feminist movements and women's issues in his works. It is seen that Erendiz Atasü often turns to this problem in his novels, essays and story books. In his study, the woman in the story books of Erendiz Atasü, who touches on all kinds of issues about women, has been examined. The dimensions and how the women in the stories discussed are handled within the framework of prominent themes. These; housewives and working women, married and single women, and sexuality and women.

Keywords: Erendiz Atasü, Story, Women's issue, Feminist theory, Theme.

**YÖNETİCİ İŞLEV BOZUKLUĞU OLAN ÖĞRENCİLERİN ÖĞRETİMİNE İLİŞKİN
ÖĞRETMEN ALGILARI- İLKOKUL ÖRNEĞİ**
TEACHER PERCEPTIONS OF TEACHING STUDENTS WITH EXECUTIVE DYSFUNCTION -
PRIMARY SCHOOL

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ÖZET

İlkokul öğretmenlerinin, artan sayıda yürütücü işlev eksiklikleri (EFD) sergileyen öğrencilere öğretim desteği vermekte zorlandıkları görülmüştür. Sınıf ortamında uygun öğretim stratejileri uygulamakta zorlanan öğretmenlerinin bu sorunu gidermedeki sınırlılıkları her geçen gün artmaktadır. Bu araştırmanın amacı yerel ilkokul sınıf öğretmenlerinin yürütücü işlev eksikliği olan öğrenciler için kullandıkları öğretim stratejileri hakkındaki deneyimlerini ve algılarını araştırmaktır. Nitel olarak tasarlanan bu çalışmaya Ürgüp ilçesinde bulunan ilkokullardan 8 ilkokul öğretmeni katılmıştır. Yarı yapılandırılmış görüşme sorularından elde edilen verilerde öğretmenlerin mesleki eğitim ihtiyaçları, farklı öğretim stratejilerini öğrenme gereksinimleri ve deneyim başlıklı temalar oluşturulmuştur. Ortaya çıkan temalar açık kodlama yöntemi ile belirlenerek analiz edilmiştir. Bulgular, işbirlikli öğretim stratejilerinin ve bilgisayar destekli eğitimin yürütücü işlev eksikliği olan öğrencilerin öğrenme süreçlerinde yardımcı olduğunu göstermiştir. Yürütücü işlev eksikliği olan öğrencilerin derslerde kendilerini derse motive edecek meşguliyetlerin ve aktivitelerin geliştirilmesi gerektiği vurgulanmıştır. Yürütücü işlev eksikliği olan öğrencilerin grup içinde arkadaşları ile çalışmasına imkan verilmesi, düzenlenmiş ders program uygulanması ve daha fazla uygulamalı ders anlatılması önerilmiştir. Sonuç olarak yürütücü işlev eksikliği olan öğrencilerin akademik performansını artırmak ve iyileştirmek için farklı öğretim stratejilerinin geliştirilmesi önerilmiştir.

Anahtar kelimeler: ilkokul, yürütücü işlevler, eksiklik, öğretmen

ABSTRACT

It has been found that primary school teachers have difficulty in providing instructional support to students who exhibit an increasing number of executive function deficits (EFDs). The limitations of teachers, who have difficulties in applying appropriate teaching strategies in the classroom environment, are increasing day by day. The purpose of this research is to investigate the experiences and perceptions of local primary school classroom teachers about the teaching strategies they use for students with executive dysfunction. Eight primary school teachers from primary schools in Ürgüp participated in this qualitative study. In the data obtained from the semi-structured interview questions, the themes of teachers' vocational training needs, learning needs of different teaching strategies and experience were created. The resulting themes were determined and analyzed by open coding method. The findings showed that cooperative teaching strategies and computer-assisted education helped students with executive function deficits in their learning processes. It has been emphasized that students with executive function deficiency should develop activities and activities that will motivate them to the lesson. It has been suggested that students with executive function deficiency should be allowed to work with their friends in the group, a regulated lesson program should be implemented, and more practical lessons should be taught. As a result, it has been suggested to develop different teaching strategies to increase and improve the academic performance of students with executive dysfunction.

Keywords: primary school, executive functions, deficiency, teacher

MULTİPL SKLEROZ HASTALARINDA DEPRESYONA GÜNCEL BİR BAKIŞ
A CURRENT OVERVIEW OF DEPRESSION IN PATIENTS WITH MULTIPLE SCLEROSIS

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ÖZET

Multipl skleroz (MS), sıklıkla genç yetişkinleri etkileyen ataklar ve düzelmelerle seyreden, akson hasarının oluşumuna sebep olan bir nörodejeneratif hastalıktır. MS hastalığının kadınlarda görülme sıklığının erkeklere oranla 2- 1.5 kat daha fazla olduğu saptanmıştır. MS'in genetik yatkınlığı olan kişilerde çevresel koşulların merkezi sinir sisteminin otoimmün bozukluğuna sebep olduğunu ortaya koysa da, nedeni hala araştırılmaktadır. Multipl skleroz hastalığının, belirti ve bulguları merkezi sinir sisteminin etkilenen bölgenin işlevine göre farklılıklar görülmektedir. Hastalarda sık görülen motor ve duysal kayıplar, optik nörit, serebellar bozukluklar, mesane ve barsak disfonksiyonu belirtileri görülmektedir. Ayrıca MS hastalığının gidişatı sırasında psikiyatrik bozukluklar da ortaya çıkmaktadır. MS hastalarının en yaygın yaşadığı ruhsal sorunlar; depresyon, anksiyete, bipolar duygudurum bozukluğu, madde kötüye kullanımı, intihar, öfori ve psikoz olarak sıralanmaktadır. Depresyonun, MS hastalarında genel topluma ve diğer kronik hastalıklara göre 2-3 kat daha fazla olup yaşam boyu sıklığı yaklaşık %50 oranında rastlanmaktadır. MS hastalarında depresyon hastalığın başlangıcında ve hastalık süresi boyunca çıkabileceği gibi, tedavi sürecinde de olumsuz etki olarak da gelişebilmektedir. MS'de kronik yorgunluk ve uyku bozukluğu depresyonla birlikte görülmektedir. Depresyonun ayrıyeten kognitif bozukluklarla beraber MS'de yaşam kalitesini düşüren faktör olduğu da belirtilmiştir. MS hastalığındaki depresif semptomların fiziksel özürülüklerin yanı sıra kortikal-subkortikal yapılarında gözlemlenen tutulumlarından kaynaklandığı bildirilmiştir. Bu birbiriyle ilişkili durumlar bu derleme çalışmasında; literatürde son yedi yılda Multipl Skleroz hastalığı ile ruhsal durumun, özellikle depresyonla ilişkisini araştıran geçmişten günümüze yapılmış güncel araştırma makaleleri taranmıştır. Bunun sonucunda MS hastalığının, bireylerin başta merkezi sinir sistemini ve daha birçok sistemi etkilediği, yaşamın her alanındaki problemleri de beraberinde getirdiğini söyleyebiliriz. Son olarak depresyonu olan MS hastaların olmayanlara kıyasla yorgunluk şiddetleri ve etkileri daha yüksek olup yaşam kalitelerinin düşük olduğu makalelerden tespit edilmiştir.

Anahtar Kelimeler: Multipl Skleroz, Depresyon, Yorgunluk, Yaşam Kalitesi

ABSTRACT

Multiple sclerosis (MS) is a neurodegenerative disease that often affects young adults, progresses with attacks and remissions, and causes axonal damage. It has been determined that the incidence of MS disease in women is 2-1.5 times higher than in men. Although it has been revealed that environmental conditions cause an autoimmune disorder of the central nervous system in people with a genetic predisposition to MS, the cause is still under investigation. The signs and symptoms of multiple sclerosis differ according to the function of the affected area of the central nervous system. Common symptoms of motor and sensory loss, optic neuritis, cerebellar disorders, bladder and bowel dysfunction are seen in patients. The most common mental problems experienced by MS patients are; depression, anxiety, bipolar mood disorder, substance abuse, suicide, euphoria and psychosis. Depression is 2-3 times more common in MS patients compared to the general population and other chronic diseases, and its lifetime prevalence is approximately 50%. Depression in MS patients may occur at the beginning of the disease and throughout the disease, or it may develop as a negative effect during the treatment process. Chronic fatigue and sleep disturbance are seen together with depression in MS. It has also been stated that depression, together with cognitive disorders, is a factor that reduces the quality of life in MS. It has been reported that depressive symptoms in MS disease are caused by the involvement of cortical-subcortical structures as well as physical disabilities. These interrelated conditions are in this review study; In the last seven years, current research articles from past to present investigating the relationship between Multiple Sclerosis disease and mental status, especially depression, have been scanned in the literature. As a result, we can say that MS disease affects the central nervous system and many other systems, and brings problems in all areas of life. Finally, it has been determined from the articles that the severity and effects of fatigue are higher and their quality of life is lower in MS patients with depression compared to those without.

Keywords: Multiple Sclerosis, Depression, Fatigue, Quality of Life

COVID-19 SALGININDA ÜNİVERSİTE ÖĞRENCİLERİNDE YALNIZLIK, YAŞAMIN ANLAMI VE MUTLULUK ARASINDAKİ İLİŞKİ

THE RELATIONSHIP BETWEEN LONELINESS, MEANING OF LIFE AND HAPPINESS IN UNIVERSITY STUDENTS DURING THE COVID-19 PANDEMIC

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GİRİŞ VE AMAÇ: COVID-19 salgını ile birlikte izolasyon ve sosyal mesafe toplumun ruh sağlığını etkilemiş ve yaşanan yalnızlık stres kaynağı olmuştur. Genç yetişkinler için pandemi öncesinde de bir halk sağlığı sorunu olan yalnızlığın Covid-19 sürecinde de önemli bir yeri olmuştur. Bu dönemde yaşanan kapanma, yasaklar ve uzaktan eğitim yalnızlık açısından riskli bir grup olan genç yetişkinleri etkilemektedir. Bu çalışmada COVID-19 salgını sırasında üniversite öğrencilerinde yalnızlık, yaşamın anlamı ve mutluluk arasındaki ilişkinin incelenmesi amaçlanmıştır.

YÖNTEM: Bu tanımlayıcı ilişkisel tipte tanımlayıcı bir araştırmadır. Çalışmanın evrenini 09.07.2021 ile 24.10.2021 tarihleri arasında Türkiye'deki üniversitelerde okuyan öğrenciler oluşturmuştur. Çalışmanın örnekleme G-Power analizi ile belirlenmiştir. Buna göre 0,15 etki büyüklüğü, %80 güç ve 0,05 hata payı ile örneklem büyüklüğü $n=346$ hesaplanmış, 375 öğrenciye ulaşılmıştır. Çalışmanın verileri Kişisel Bilgi Formu, UCLA Yalnızlık Ölçeği, Yaşamın Anlamı Ölçeği, Oxford Mutluluk Ölçeği kullanılarak toplanmıştır. Parametrelerin normal dağılıma uygunluğu Kolmogorov-Smirnov ve Shapiro Wilks testleri ile değerlendirilmiştir. Verilerin analizinde tanımlayıcı istatistikler, niceliksel verilerin karşılaştırılmasında parametrelerin gruplar arası karşılaştırmalarında Oneway Anova testi ve farklılığa neden çıkan grubun tespitinde Tukey HSD testi kullanıldı. Parametrelerin karşılaştırmalarında Student t test, arasındaki ilişkilerin incelenmesinde Pearson korelasyon analizi kullanılmıştır. Ölçek güvenilirliği için Cronbach's alpha katsayısı hesaplanmıştır ve anlamlılık $p<0.05$ düzeyinde değerlendirilmiştir.

BULGULAR: Çalışmada öğrencilerin ölçek toplam puan ortalamaları UCLA 40.22 ± 9.91 , Mevcut Yaşam Anlamı 26.15 ± 5.99 , Aranan Yaşam Anlamı 26.73 ± 5.37 , Oxford Mutluluk Ölçeği 19.81 ± 3.47 olduğu belirlenmiştir. Öğrencilerin yaş ile mevcut yaşam anlamı puanları arasında pozitif yönde istatistiksel olarak anlamlı zayıf bir ilişki bulunmuştur. Ekonomik durum ile mevcut yaşam anlamı puanları arasında anlamlı farklılık bulunmaktadır. Geliri gidere eşit olan öğrencilerin mevcut yaşam anlamı puanları, geliri giderden az olan öğrencilerin puanlarından anlamlı şekilde yüksek bulunmuştur. Kadın öğrencilerin Oxford mutluluk puanları, erkeklerden istatistiksel olarak anlamlı düzeyde yüksek bulunmuştur. Mevcut yaşam alanı skoru ile aranan yaşam alanı arasında pozitif yönlü orta düzeyde, mevcut yaşam alanı skoru ile Oxford mutluluk puanı arasında pozitif yönlü orta düzeyde, aranan yaşam alanı skoru ile Oxford mutluluk puanı arasında pozitif yönlü zayıf düzeyde istatistiksel olarak anlamlı bir ilişki bulunmuştur.

SONUÇ VE ÖNERİLER: Bu çalışmanın sonucunda ölçek puanlarının yaş, cinsiyet ve ekonomik durum ile ilişkili olduğu, mevcut ve aranan yaşam anlamı puanları ile de Oxford mutluluk puanlarının ilişkili olduğu belirlenmiştir. Elde edilen verilere göre öğrencilerin Covid-19 sürecinde yaşamın değişmesinin yalnızlık, yaşamın anlamı ve mutlulukla istatistiksel bir ilişkisi bulunmamıştır. Ancak Covid-19 salgınının öğrencilerin yaşamına getirmiş olduğu değişimin kişilerde yaşamın anlamı ve mutluluk üzerine etkisinin olduğu düşünülmektedir. Genç yetişkin yaş aralığında olma, erkek ve düşük sosyoekonomik düzeydeki bireylerin yaşamın anlamı ve mutlu hissetmeyi sağlamak ve genç nüfusun ruh sağlığını korumak ve sürdürmek adına destekleyici ve psikoterapotik müdahalelerin yapılması önerilmektedir.

Anahtar sözcükler: Üniversite Öğrencileri, Covid-19, Yalnızlık, Mutluluk, Yaşamın Anlamı

ABSTRACT

INTRODUCTION and AIM: With the COVID-19 pandemic, isolation and social distancing have affected the mental health of society, and the loneliness experienced has been a source of stress. Loneliness, which was a public health problem for young adults before the pandemic, also had a significant impact on the Covid-19 process. The lockdown, bans, and remote education observed during this period affected young adults, who are a risky group in terms of loneliness. This study aimed to examine the relationship between loneliness, the meaning of life, and happiness in university students during the COVID-19 pandemic.

METHOD: The population of this descriptive correlational study consisted of students studying at universities in Turkey between 09.07.2021 and 24.10.2021. The sample of the study was determined by G-Power analysis. Accordingly, with an effect size of 0.15, 80% power and 0.05 margin of error, the sample size was calculated as $n=346$ and 375 students were reached. The data of the study were obtained by using Personal Information Form, UCLA Loneliness Scale, The Meaning in Life Questionnaire and Oxford Happiness Questionnaire. Compliance of the parameters with normal distribution was evaluated by the Kolmogorov-Smirnov and the Shapiro Wilks tests. Descriptive statistics were used to analyze the data, the Oneway Anova test was conducted to compare the quantitative data between groups and the Tukey HSD test was carried on to determine the group that caused the difference. Student t test was used for comparisons of parameters and Pearson correlation analysis was implemented to examine the relationships between parameters. Cronbach's alpha coefficient was calculated for scale reliability and significance was evaluated at $p<0.05$ level.

FINDINGS: In the study, it was determined that the mean total scale scores of the students were UCLA 40.22 ± 9.91 , Current Meaning in Life 26.15 ± 5.99 , Desired Meaning in Life 26.73 ± 5.37 , Oxford Happiness Questionnaire 19.81 ± 3.47 . A statistically significant weak positive relationship was detected between age and current meaning in life scores of the students. There is a significant difference between economic status and current meaning in life scores. The current life meaningfulness scores of students whose income was equal to expenses were significantly higher than the scores of students whose income was less than expenses. Oxford happiness scores of female students were statistically significantly higher than those of male students. A statistically significant relationship was detected between the current living space score and the sought living space score at a positive moderate level, between the current living space score and the Oxford happiness score at a

positive moderate level, and between the sought living space score and the Oxford happiness score at a weak positive relationship.

CONCLUSION and SUGGESTIONS: As a result of this study, it was revealed that scale scores were related to age, gender and economic status, and that current and sought meaning in life scores were related to Oxford happiness scores. According to the data obtained, there was no statistical relationship between the change of life in the Covid-19 process and loneliness, meaning of life and happiness. However, it is believed that the change brought by the Covid-19 pandemic to the lives of students has an impact on the meaning in life and happiness in individuals. It is recommended that supportive and psychotherapeutic interventions should be carried out in order to ensure that individuals in the young adult age range, male and low socioeconomic level have meaning in life and feel happy and to protect and maintain the mental health of the young population.

Key Words: University Students, Covid-19, Loneliness, Happiness, Meaning in Life

THE EFFECTS OF SOCIO-ECONOMIC FACTORS ON ACADEMIC PERFORMANCE OF UNIVERSITY STUDENTS

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ABSTRACT

In universities, the most common measure of academic performance is students' grade point average (GPA). Academic performance is affected by different socio-economic factors such as gender, financial aid, additional income, monthly expenditure, household income, health, and place of living.

This study has been carried out in order to determine the effects of socio-economic factors on academic performance of Çukurova University students based on a cross sectional survey. 855 students are participated in the survey in which all data were categorical. GPA is an ordered variable with four categories which are less than 2.0, 2.0-2.5, 2.5-3.0, and 3.0 and over. Financial aid categories (TL per month) are none, less than 500, 500-1000, 1000-1500, 1500-2000 and 2000+. State financial aid was 450 TL per month at the time of survey.

Ordered logistic regression model used for the analyses is $GPA = \gamma_i + \beta_1 GENDER_i + \beta_4 ADDITIONALINCOME_i + \beta_5 FINANCIALAID_i + \beta_6 FAMILYAID_i + \beta_8 LIVINGPLACE_i + \beta_9 HEALTH_i + e_i$

Students who receive financial aid are expected to have higher GPA and vice versa. Pairwise correlations indicate that state financial aid is more significant than state support to family and household income to explain GPA. Significant pairwise correlations seems to be in low range. Gender is expected to be an important determinant of academic performance and female students have higher GPA than their male students. Health indicates a significant correlation with GPA. Better health condition is expected to contribute to GPA.

State financial aid was found to be the most important determinant of students' satisfaction with life. Consequently, the same is expected for GPA regressed on aforementioned explanatory variables in the ordered logistic regression model.

Keywords: Academic Performance, Socio-Economic Factors, University

FİZİK VE METAFİZİK KAVŞAĞINDA ETİK
ETHICS AT THE INTERSECTION OF PHYSICS AND METAPHYSICS

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ÖZET

Bir şeyin ne olduğu sorusu, iyi bir şeyin ne olduğu sorusu ve en iyi şeyin ne olduğu sorusu birbiriyle ilgili üç alanda işlenir. Bunlardan son ikisi, etik ve metafiziktir. İlk ve Orta Çağlarda gerek evren, gerek toplum ve gerekse insan, bir en yüksek ilkedен hareketle, kozmolojik ve teolojik bir metafizik kapsamında bütünlüklü olarak kavranmaya çalışılmıştır. Bu dönemlerde genelde metafizik bir arka plan olmaksızın “en iyi şey” üzerine düşünülmez. Metafiziksel bir iyi, olan-biteni dayandığı ontolojik zemin itibarıyla bütünlüklü hale getirip, anlamlı kılar, Bu bakımdan hakikat ile ahlak ilişkisi de kişinin “ruhsal dönüşümü”yle kurulur. Bu nedenle, ruhsal bir dönüşümle iyi-olmanın biricik yolu, bir bütün olarak alemi temaşa etmektir. Modern dönemde (en) iyi olan, daha ziyade epistemolojik bir hakikatin yansıması haline gelir, bir başka deyişle, bilmek, olmak’a öncel ya da baskın hale gelmiştir. Fiziksiz bir metafizikten “iyi” doğmaz. Ahlak alanının fizik dünyayla uyum içinde olması beklenir. Bir ahlakî söylemin seçkinliği buna bağlıdır. Filozofun işi fizik dünyaya uygunluğu içerisinde bir ahlakî söylem kurmaktır. Bu bakımdan, filozofun bilimin geldiği son aşamayı dikkate alması gerekir. Buna uygun olarak, teleolojik fiziğin hakim olduğu pre-modern dönemin mekanik fizikle aşılması sonucunda modern dönemde yeni bir ahlakî söylem kurulmuştur. Bu söylemde mütakamil bir insanın artık teleolojik fiziğe göre inkişafından söz edilmez, daha ziyade mekanik fiziğin sağladığı olanaklarla şeylerin nedenlerinin bilgisine erişmeyi ve bu bilgileri kendi yararı için kullanabilmeyi salık verilir. Bu bildiride etik tartışmalar bağlamında modern-öncesi dönem ile modern dönem arasında bir mukayese yapılacaktır.

Anahtar Kelimeler: Fizik, Metafizik, Etik, Pre-Modernlik, Modernlik.

ABSTRACT

The question of what something is, the question of what is a good thing, and the question of what is the best are treated in three interrelated areas; the last two of these are ethics and metaphysics. In the Ancient and Middle Age, both the universe, society and man were tried to be comprehended as a whole within the scope of a cosmological and theological metaphysics, starting from a highest principle. In these periods, the "best thing" is not generally thought about without a metaphysical background. A metaphysical good makes what is happening whole and meaningful in terms of the ontological ground on which it is based. In this respect, the relationship between truth and morality is established with the "spiritual transformation" of the person. Therefore, the only way to become well-being is to contemplate the world as a whole. In the modern era, what is (best) becomes rather a reflection of an epistemological truth, in other words, knowing has become prior or dominant over being. "Good" does not derive from a metaphysics without physics. The moral field is expected to be in harmony with the physical world. The distinction of a moral discourse depends on this. What the philosopher needs to do is to construct a moral discourse in accordance with the physical world. In this regard, the philosopher must take into account the final stage of science. Accordingly, as a result of overcoming the pre-modern era dominated by teleological physics with mechanical physics, a new moral discourse was established in the modern era. In this discourse the development of a person according to teleological physics is no longer included, but rather, it is recommended to reach the knowledge of the causes of things with the possibilities provided by mechanical physics and to use this knowledge for one's own benefit. In this paper, a comparison will be made between the pre-modern period and the modern period in the context of ethical discussions.

Keywords: Physics, Metaphysics, Ethics, Pre-Modernity, Modernity.

TESTING SETUP PROPOSAL FOR PERMEABILITY CALCULATION OF COMPOSITE MATERIALS

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ABSTRACT

Pressure vessels are used to store a liquid or a gas. The great advantage of using a pressure vessel made of composite material over pressure vessels made of metal alloys and those that have a liner, is its reduced weight. In the aerospace industry, weight is highly valued, as any reduction in weight is advantageous when sending satellites into orbit. In this work, a testing setup was developed that determines the permeability of a sample of composite material representative of type V pressure vessels. The setup is based on placing a sample of the pressure vessel between two chambers and compacting the three components. Afterwards, the gas, which the pressure vessel will store, is injected into one of the setup chambers. In the other chamber, the pressure variation is measured with the aid of a pressure transducer. After obtaining the data from the second chamber pressure transducer, it is possible to calculate the permeability of the sample. Few materials with good permeability characteristics were tested, some alternatives were considered during the design, and the justifications of each characteristic that was included in the setup were presented. Permeability tests were also carried out and the results obtained were analyzed. In conclusion, the tests performed were successful, the setup was created as planned and it is operational. The results obtained from the setup were compared with literature data and showed to be similar.

Keywords: Aerospace vehicles; Composite materials; Mechanical design; Pressure vessel; Type V; Permeability tests.

CONSTITUENT MATERIAL EFFECT ON THE FLEXURAL BEHAVIOUR OF SANDWICH STRUCTURES

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ABSTRACT

Sandwich structures present a very interesting combination of good mechanical properties and low weight. This combination leads to a growing demand of such structures, in multiple industry sectors, with distinct applications. Many of these possess a high degree of responsibility, which is why it is crucial to assess, in firsthand, with elevated reliability, the behavior of these structures in service. In this work, four configurations of sandwich structure, with different cores (PMI and PET foams) and ply stacking sequence, are experimental and numerically analyzed. Regarding the numerical analysis, the finite element method is used to simulate the bending tests, and specific failure criterium are employed for the different constituents of the structure. Such capability is very important in sandwich structures' analysis because skins, core and adhesive have quite different behaviors and, this way, it is possible to simulate and validate the failure of the constituents. Overall, the numerical analysis shows good agreement with the experimental tests, and it was able to predict the linear and non-linear behavior of the sandwich structures with good precision. Besides, the used technique accurately predicts the failure modes and the maximum load (with small variations) of the tested specimens, and, therefore, can be used, with confidence, in the project of these structures.

Keywords: Sandwich structures; Numerical modelling; Finite element method; Crushable foam model; Failure criteria.

BIO-THERMAL ANALYSIS OF HEAT DISTRIBUTION IN ENGINEERED LANDFILL SYSTEM AT MESOPHILIC TEMPERATURE REGIME IN RELATION TO LANDFILL GAS PRODUCTION IN NIGERIA

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Abstract

Engineered landfill is a closed system that the internal conditions are unknown, therefore, demystifying the bio-thermal and chemical reactions as well as the relationship between organic feedstocks and operating parameters for maximum landfill gas yield is a complex phenomenon. Considering Nigeria's average temperature of 28°C, it was necessary to investigate the bio-thermal behaviour of heat distribution in engineered landfill at mesophilic temperature regime in relation to landfill gas production. The investigation was conducted computationally using SOLIDWORKS (2018 version) modelling and simulation tool and experimentally through field construction/demonstration of developed landfill models. Maximum average landfill gas yield (LGY) from the model and experimental framework were 1.08 kg and 1.04 kg which both occurred at maximum weekly temperature of 321 k. Also, maximum average mass flow rate (MFR) of landfill gas and heat distribution of 2.76 kg/h and 2.837 W/m³ from the model occurred at maximum weekly temperature of 321 k. These indicated that maximum LGY was obtained with peak rate of heat distribution which depended on peak temperature of the landfill while peak MFR of the landfill gas was observed to be a function of peak heat distribution rate. The temperature under which landfill gas yield was recorded in this study fell between the range of 291 and 321 K, which is within mesophilic temperature regime. Hence, the climatic condition of Nigeria and other countries (particularly countries in the tropics) with average daily temperature ranging from 291 to 321 K and above may be ideal for recovery of landfill gas which is a useful energy resource for domestic and industrial purposes.

Keywords: Engineered landfill, Mesophilic Temperature, Heat distribution, Landfill Gas

**TEMPORARY ORDERED ROUTE ENERGY MIGRATION (TOREM) : PROTECTION OF
THE COMMUNICATION CHANNEL FROM MALICIOUS BEHAVIOURS IN MOBILE
ADHOC NETWORK USING**

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ABSTRACT

Mobile Ad-hoc Network (MANET) is a popular field in the smart digital world; it is effectively used for communication and sharing. However, the packet drops and low throughput ratio became a serious issue. By developing multipath routing, several algorithms are implemented to increase the throughput ratio. However, in some cases, multipath routing results increase in routing overhead and data transfer time due to data load on the same path. To address this issue, this study sought to create a novel Temporary Ordered Route Energy Migration (TOREM). In this case, the migration strategy equalises the data load and improves the communication channel, while the reference node creation strategy reduces routing overhead and packet drop ratio. Finally, the proposed model's output is validated against recent existing works, yielding better results by minimising packet drop and maximising throughput ratio.

Keywords: Ad-hoc network, throughput, packet delivery, communication channel, routing

MİKROELEKTROMEKANİK JİROSKOP VE İVME ÖLÇERİNİN ARAŞTIRILMASI
RESEARCH OF MICROELECTROMECHANICAL GYROSCOPE AND ACCELEROMETER

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ÖZET

Son zamanlarda, düşük maliyetli, kompakt algılama elemanına ve küçük genel boyutlara sahip mikroeletromekanik (MEMS) sensörler geliştirilmiştir. MEMS teknolojisine dayalı olarak yapılan jiroskoplar ve ivmeölçerler, çeşitli kara ve hava araçlarında, füzelerin navigasyon ve kontrol sistemlerinde yaygın olarak kullanılan atalet ölçüm birimlerinin (AÖB) temelini oluşturmaktadır. Özellikle küçük boyutlu insansız hava araçları (İHA), robotik ve diğer alanlarda bu tip sensörlere dayalı birimlerin uygulanması, gelişmiş MEMS üretim teknolojisinin sağladığı düşük maliyet, düşük güç tüketimi ve küçük boyut nedeniyle büyük önem taşımaktadır.

Modern cihaz imalatının temel sorunları, küçük boyut ve kütleyle sahip, düşük enerji tüketimi ve düşük maliyetli, yeterince yüksek güvenilirliğe sahip sensörlerin geliştirilmesi ile ilgilidir. MEMS tabanlı jiroskoplar ve ivmeölçerler, hacim ve maliyette azalma sağlarken, giderek artan şekilde doğrusal olmayan veya rastgele hatalara maruz kalıyorlar ve bu da navigasyon çözümlerinin zaman içinde önemli ölçüde değişmesine neden oluyor. MEMS AÖB'nin ilk sinyallerindeki sistem hatalarını ve rastgele hataları belirlemek ve bir dereceye kadar ortadan kaldırmak için araştırma çalışmaları yapılmıştır. Bu hatalar laboratuvar koşullarında belirli deneyler ile tespit edilmiş ve kalibre edilmiştir. Yapılan araştırmalara dayanarak, kalibrasyondan elde edilen sonuçlar, dikkate alınan birimin küçük boyutlu uçakların stabilizasyon sisteminde kullanılmasının uygunluğu belirlemiştir.

Anahtar Kelimeler: Jiroskop, İvmeölçer, Atalet Ölçüm Birimi, İnsansız Hava Aracı

ABSTRACT

Recently, microelectromechanical (MEMS) sensors with low cost, compact sensing element and small overall dimensions have been developed. Gyroscopes and accelerometers based on MEMS technology form the basis of inertial measurement units (IMU), which are widely used in navigation and control systems of missiles, in various land and air vehicles. The application of such sensor-based units, especially in small-sized unmanned aerial vehicles (UAVs), robotics and other fields, is of great importance due to the low cost, low power consumption and small size provided by advanced MEMS production technology.

The main problems of modern device manufacturing are related to the development of sensors of small size and mass, low energy consumption and low cost, with sufficiently high reliability. While MEMS-based gyroscopes and accelerometers offer reductions in volume and cost, they are increasingly subject to nonlinear or random errors, causing navigation solutions to change significantly over time. Research studies have been carried out to identify and to some extent eliminate system errors and random errors in the initial signals of the MEMS IMU. These errors have been detected and calibrated

by certain experiments under laboratory conditions. Based on the research conducted, the results from the calibration determined the suitability of the considered unit to be used in the stabilization system of small-sized aircraft.

Keywords: Gyroscope, Accelerometer, Inertial Measurement Unit, Unmanned Aerial Vehicle

CONCEPT TO CHANGE THE VOLTAGE TRANSFORMATION RATIO OF A DC/DC CONVERTER

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ABSTRACT

DC/DC converters are very important for supplying electronic circuits. The input voltage is transferred into an output voltage which can be adapted and controlled. The control of the circuit is done by the duty cycle of the electronic switch. Here a concept is shown to change the voltage transformation ratio of a converter by shunting a coil by an additional electronic switch during the free-wheeling state of the converter. This additional switch is realized e.g. by two MOSFETs which are connected anti-serially. One can interpret this also as an AC-switch, because it can block voltages in both directions and makes a current flow in both directions possible. With this concept two control variables effect the converter. During the on-time of the additional switch the current in the coil stays nearly constant, the free-wheeling diode turns off and no energy is transferred to the output. The concept is explained in detail with the help of the inverting Buck-Boost converter. It is also shown for the Buck- and the Boost-converter. Furthermore, the concept is extended to converters with two coils like the Cuk, Sepic, Zeta, for a converter with limited duty cycle, and a converter with a quadratic term in the voltage transformation ratio. Plots for the voltage transformation ratio in dependence on the duty cycle of the main switch with the duty cycle of the additional ac-switch are shown. The derivation of the large and small signal models is explained for an example. LTSpice simulations are used to prove these considerations.

Keywords: DC/DC converter, AC-switch, voltage transformation ratio, modelling, simulation, education

THE RELEVANCE OF DATA SCIENCE FOR THE MATURITY OF INDUSTRY 4.0

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ABSTRACT

In dynamic and competitive market, the manufacturing industry has been constantly reshaping and adapting its operations to meet the requirements for a more agile and smart production. The advent of Industry 4.0 comes as a reference on development of applications and technologies for manufacturing process innovation. Nevertheless, after some time that Industry 4.0 was first coined, companies are still looking for the best approach and trying to understand this new paradigm, mainly because there is a need for clarification of Industry 4.0 related concepts and technologies. The purpose of the paper is to identify the maturity of Industry 4.0 through the prism of data science. Based on the literature review, a theoretical-conceptual model is proposed to outline Industry 4.0 scenarios regarding the adoption of technologies. The delivery results in a two-axis distribution model: connectivity and data science. The lower or higher adherence to these technologies results in four quadrants or maturity scenarios. In the first quadrant would be automation, followed by digitalization in the second quadrant. In the third would be visibility and descriptive analysis, up to the fourth quadrant in which Industry 4.0 reaches its maturity, through the adaptability and predictive analysis. This work can help to support managers, professionals, and governments to identify at which level of Industry 4.0 a particular business would be, as well as support the expected impacts through policies and financial initiatives. The article also derives recommendations for future research on the topic.

Keywords: Industry 4.0, Maturity model, Data Science

IMPACT OF FINANCIAL DEEPENING ON ECONOMIC GROWTH IN NIGERIA

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ABSTRACT

The crucial need to assess the relationship between financial deepening and economic growth in Nigeria lie in the fact that there are monetary policy related questions yet be answered by the researchers as regard to the inference of these variables under investigation. To this end, the research work aimed at examining the effects of financial deepening, inflation and exchange rate on the economic growth in the presence of US-GDP as an exogenous variable. The data for the research were quarterly from 2010 to 2020 and sourced from Central Bank of Nigeria (CBN) Statistical Bulletin and World Bank Databank. Structural Vector Autoregressive (SVAR) method was implemented in the procedural analysis. The results from the analysis revealed that the impact of the shock of GDP on itself was measured at 0.86% and highly significant. This might indicate that little changes in the previous values of GDP may likely destruct the system equilibrium. The impact of the shock of GDP on CPI was measured at 0.07% and insignificant at 5 % level of significance. In the long-run however, the accumulated response of the shock of GDP to itself had a long-run persistent effect on itself at 5 per cent level of significant. More so, the accumulated response of GDP to the shock of CPI, exchange rate and FD were persistently insignificant at 5 per cent level. Nevertheless, the accumulated response of CPI to itself is significant and tended to fizzle out after fifteenth quarter. The accumulated response to exchange rate to CPI is tended to be significant and fizzle out after tenth quarter. The study recommended that Central Bank of Nigeria (CBN) should provide a policy that will promote the enhancement of the development of financial institutions.

Key Words: Exogenous, Long-run, Shocks, SVAR and Restrictions

HISTOGRAM AND CRITERION STATISTICAL ANALYSIS OF FREQUENCY DISTRIBUTION OF LETTERS IN THE TEXT SUBJECTED TO ENCODING

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ABSTRACT

By the 1950s, it became clear that many statistical regularities observed in various stochastic systems should be analyzed from the point of view of the basic principles of probability theory and mathematical statistics.

The main object of our research is the text subjected to coding, for example, by translating it into another or several languages. The text selection was based on a certain physical process, later reflected on paper in the form of a set of alphabet characters. We remind you that other approaches are known, in one of which texts are generated with word frequencies distributed according to Zipf's law or close to it. Such a mechanism was proposed by B. Mandelbrot [Mandelbrot B. On recurrent coding that limits the influence of interference. In the book: Theory of message transmission. M., 1957, p. 139-157], and it is based on the assumption that the text appears due to a random selection of compound words with probabilities determined by the number of letters in a given the word. This approach is based on the fact that repeated application of the random variable generation method under the same conditions leads to a normal distribution.

Since, in our research, we selected texts with a relatively large number of letters (data) generated alphabetically according to the same content of the studied text, it was expected that the frequency distribution of letters in the selected text would be close to normal. It was the purpose of our research to check this distribution according to the criterion values accepted in statistics.

Keywords: Mathematical statistics, Distribution, Normal distribution, Probability theory

ADOMIAN DECOMPOSITION METHOD FOR SOLVING BOUSSINESQ EQUATIONS USING MAPLE

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ABSTRACT

The adomian decomposition method (ADM) is utilized to solve boussinesq equations using Maple in this paper. The Boussinesq approximation for water waves is a weakly nonlinear and fairly long wave approximation in fluid dynamics. The approximation is named after Joseph Boussinesq, who developed it in response to John Scott Russell's observation of a wave of translation (also known as solitary wave or soliton). Boussinesq's article from 1872 introduced the equations that are now known as the Boussinesq equations. Numerical methods are commonly utilized to solve nonlinear equation systems. In this paper, we investigate at a nonlinear singly perturbed advection diffusion problem. Using the usual Adomian decomposition method, we formulate an approximate linear advection diffusion problem and investigate several practical numerical approaches for solving it (ADM). The adomian decomposition method (ADM) is a powerful tool for numerical simulations and approximation analytic solutions. The adomian decomposition (ADM) is used to solve nonlinear advection differential equations using Maple by illustrating numerous examples. The findings are presented in the form of tables and graphs for several examples. For various examples, the findings are presented in the form of tables and graphs. The difference between the precise and numerical solutions indicates the Maple program solution's efficacy, as well as the ease and speed with which it was acquired

Keywords: Adomian Decomposition Method, Boussinesq Equations, Maple18.

**TRACING THE IMPLICATIONS OF SCIENCE, TECHNOLOGY, AND INNOVATION
POLICY ON EDUCATIONAL POLICIES AND PRACTICES IN GHANA: APPLICATION
OF KINGDON'S MULTIPLE STREAMS FRAMEWORK FOR POLICY ANALYSIS AND
NICHOLSON'S CRITICAL QUESTIONS TO UNDERSTANDING THE PHILOSOPHY OF
EDUCATION**

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ABSTRACT

Over the past two decades, Ghana has taken the necessary steps to promote science and technology as a strategy for improving its socio-economic development. This is because many countries across the globe have implemented Science, Technology, and Innovation policies for sustainable national development. However, the initial STI policy initiatives have all failed to achieve their intended objectives. As such, these policy initiatives have undergone a series of reforms to make them better and result-oriented. The current Science, Technology, and Innovation (STI) policy implemented in 2017 is a reform of the previous policies to a more efficient policy by linking innovation. Unlike the previous policies, the STI policy harnesses cross-sector collaboration to actualize its intended goals. Among these sectors, the education ministry is at the core of pursuing the STI policy agenda. As such policy entrepreneurs need to pay more attention to the education system. This study is in the perimeter of evaluation in the policy cycle since 2022 marked the end of the short-term phase of the implementation. Hence, using Kingdon's (1995) multiple streams frameworks for policy analysis and Nicholson's (2016) critical questions to understand the philosophy of education, this Policy analysis traced the implication of the STI policy both in educational policies and practice since the implementation of the STI policy in May 2017.

The findings of the study include redefining the purpose of education in the 2018 education strategic plan, teacher education reforms, and pre-tertiary education curriculum reforms that are geared toward advancing STEM education in Ghana. In practice, it was found that both higher and secondary institutions are being developed to create more capacity for STEM education. Finally, recommendations were made, and a framework was developed based on the two underpinning theories to serve as a roadmap for the education sector to continue the education agenda of the STI policy.

Key Words: STI Policy, Kingdon's Multiple stream framework, Sustainable National Development, Philosophy of education, Education Policies, Educational Practices, STEM education

ADOMIAN DECOMPOSITION METHOD FOR SOLVING KLEIN-GORDON EQUATIONS USING MAPLE

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ABSTRACT

In this paper, the method of edematous decomposition was used in this study to determine the equations of Klein-Jordan equations using maple. Explain the processes for expressing and addressing problems. In general, use traditional. We look at the issue of satellite broadcasting individually in the study. The approximate linear horizon diffusion and pity versus determination are derived from the endemic decomposition method (ADM) as a powerful tool for analytical solutions and first-hand simulation. The use of Idome processing (ADM) to solve the equations is good, and the results are presented in the form of graphical tables. The results are presented in the form of groups and intermediate steps. The contrast between micro and digital solutions shows the effectiveness of the Maple solution the ease and speed of its accessibility.

Keywords: Adomian Decomposition Method, Klein-Gordon Equations, Maple18.

ADOMIAN DECOMPOSITION METHOD FOR SOLVING BURGER EQUATIONS USING MAPLE

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ABSTRACT

In this study, the adomian decomposition method (ADM) is used to solve Burger equations in Maple. The Burger equation or the Pittman-Burger equation is a fundamental partial differential equation that occurs in various areas of applied mathematics, such as fluid mechanics, nonlinear acoustics, gas dynamics, and traffic flow. The equation was first introduced by Harry Pittman in 1915 and later studied by Johannes Martinus Berger's in 1948. To solve nonlinear equation systems, numerical methods are often used. Burgers' inviscid equation is a conservation equation, or a first order quasilinear hyperbolic equation in general in this study. We develop an approximation linear advection diffusion issue and study several realistic numerical ways for addressing it using the standard. Adomian decomposition method (ADM).

For numerical simulations and approximation analytic solutions, the adomian decomposition method (ADM) is a useful tool. By demonstrating various instances, the adomian decomposition (ADM) is used to solve nonlinear advection differential equations using Maple. For various examples, the findings are presented in the form of tables and graphs. Tables and graphs are used to display the findings for various examples. The difference between the precise and numerical solutions reflects the efficacy of the Maple program solution, as well as the ease and speed with which it was obtained.

Keywords: Adomian Decomposition Method, Burger Equations, Maple18.

**SOLUTION OF 9TH ORDER BOUNDARY VALUE PROBLEMS USING
VARIATIONAL ITERATION TECHNIQUE WITH SHIFTED LEGENDRE
POLYNOMIALS AS TRIAL FUNCTION**

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ABSTRACT

The modified variational iteration method using Legendre polynomials was used to obtain the numerical solution of ninth order boundary value problem in this paper. The proposed modification involves constructing Legendre polynomials for the given boundary value problem, which are then used as the basis function for the approximation. Numerical examples were also given to show the efficiency and reliability of the proposed method.

Keywords: Approximate solutions, Boundary value problems, Legendre polynomials, Variational iteration technique.

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FURTHER SOLUTIONS OF THE MULTIVARIATE BEHRENS FISHER PROBLEM

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ABSTRACT

Multivariate Behrens-Fisher Problem is a problem that deals with testing the equality of two means from multivariate normal distribution when the covariance matrices are unequal and unknown. However, there is no single procedure served as a better performing solution to this problem. In this study efforts were made in selecting four different existing procedures and examined their power and rate to which they control type I error using different setting and conditions designed in the study. To overcome this problem a code was designed via R Statistical Software and simulate random normal data which independently run 1000 times, using MASS package in order to estimate the power and rate at which each procedure control type I error rate. In the simulation result we discovered that some of these existing procedures have equal and highest power in some certain settings like Yao and Adebayo, Johansen and Yao, Krishnamoorthy and Adebayo, Yao and Krishnamoorthy but when P-variables is increase we also found that these procedures with equal power varies significantly, where as some procedures' power decrease while some increases in power. For type I error rate where robustness and nominal level matters we found that under some settings none of the procedure maintained nominal level and some procedures lie outside the interval and considered non-robust. Yao and Adebayos were found good when $P=2$ and sample size $n_1 > n_2$, it is discovered that at a sample size (300, 200) all procedures attained the nominal level.

**AN IMPROVED UPPER BOUND FOR THE NUMBER OF SPANNING TREES
OF BIPARTITE GRAPHS**

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ABSTRACT

The number of spanning trees of a graph equals the total number of its distinct spanning subgraphs which are trees. In the present work, we aim to obtain an improved upper bound for the number of spanning trees of bipartite graphs.

Keywords: Graph, Normalized Laplacian Eigenvalues (of Graph), Spanning Trees

ON THE LOWER BOUND FOR DEGREE KIRCHHOFF INDEX OF GRAPHS

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ABSTRACT

Let $G = (V, E)$ be a simple connected graph of order n and size m , where $|V| = n$ and $|E| = m$. Denote with $\varphi_1 \geq \varphi_2 \geq \dots \geq \varphi_{n-1} > \varphi_n = 0$ the normalized Laplacian eigenvalues of G . The degree Kirchhoff index $Kf^*(G)$, is a graph invariant defined in terms of normalized Laplacian eigenvalues as $Kf^*(G) = 2m \sum_{i=1}^{n-1} \frac{1}{\varphi_i}$. In this study, a new lower bound for $Kf^*(G)$ will be reported.

Keywords: Graph, Normalized Laplacian Eigenvalues (of Graph), Degree Kirchhoff Index (of Graph)

ANTIMICROBIAL RESISTANCE OF URINARY TRACT INFECTION BEFORE AND DURING THE COVID-19

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ABSTRACT

Since the start of the pandemic, different studies have highlighted disproportional antimicrobial use in COVID-19 patients despite low bacterial co- and superinfection rates. Among the most frequently occurring infections that are often over diagnosed are urinary tract infections, leading to overprescribing antibiotics, globally. This retrospective study carried out in American Laboratory Network in Tirana, Albania analyzed 1354(59 %) and 941(41 %) positive urine cultures, in two different periods of 6 months, before and during the COVID-19. The most common pathogen was *Escherichia coli* 522(38.5) and 390(41.44%), followed by *Staphylococcus spp.* 195(14.4) and 173(18.38%), *Enterococcus faecalis* 150(11.0) and 111(11.79%), *Streptococcus spp.* 71(5.2) and 80(8.5%), *Enterobacter spp.* 166(12.2) and 75(7.97%), *Proteus mirabilis* 82(6.0) and 46(4.88%), *Pseudomonas aeruginosa* 86(6.3) and 37(3.93%) and *Klebsiella spp.* 88(6.4) and 29(3.08%). In Gram-negative pathogens, in almost all cases, an increased in resistance was observed, but the highest was by macrolide antibiotic from 38 % to 62%, penicillin-type antibiotic from 18% to 54%, Cephalosporins from 28% to 45% and quinolones 22% to 43%. Gram-negative multidrug resistance was found where 6 of them were classified as 3MRGN and 2 of them as 4MRGN. Methicillin-resistant *Staphylococcus aureus* was from 6.5 to 8.6%. We consider the overall tendency of increased resistance, is the use of antibiotics without prescriptions during pandemic.

Keywords: Antimicrobial resistance; urinary tract infection; COVID-19

MANAGEMENT OF LABORATORY DIAGNOSIS OF COVID-19 AND LABORATORY PRIORITIES AFTER THE PANDEMIC

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ABSTRACT

COVID-19 a major challenge, also changed the practices of clinical laboratories. Retrospective study of 1900 suspected cases in American Laboratory Network from October 2020-February 2021. Oronasopharyngeal swabs were analyzed for SARS-CoV-2 with SLAN-96-P and GeneXpert-System devices. Demographic and clinical data were processed with SPSS -22.0. The prevalence of SARS Cov-2 was found to be 31.1%. The most predominant ages with a positive test were 31-40 years and 41-50 years, respectively 17.3% and 16.3% with $p = 0.01$. Men were more affected (61.6%) than women (38.4%), with $p=0.0004$. Our results found an association of all typical symptoms with positivity, except temperature, with $p \geq 0.05$. A high degree of antibiotic resistance was found in hospitalized patients. We analyzed SARS-CoV-2 positive patients with both Orf 1 Ab and N-genes where 180 of them were admitted to the intensive care unit (ICU). Higher viral load can affect the severity of the disease. We found that 23.7% had Ct values from 15 -25; 42% had Ct values of 25-30; and 34% Ct value from 30-40. Out of them, 90 (21.7%) with Ct below 25 were hospitalized in ICU; 70 (9.6%) with Ct 25 -30 were hospitalized in ICU; 20 (3.36) with Ct over 30 were hospitalized in ICU. Mismanagement of treatments increased the Antimicrobial Resistance after the Pandemic. The importance of providing a quantitative result with Ct values, will help the clinician to identify patients at higher risk. Multidrug resistant is the laboratory priority after the Pandemic.

Keywords: Pandemic, SARS-CoV-2, Ct value, antibiotic resistance.

DETERMINING THE SCOPE OF WATER USE BASED ON ALGAL AND ABIOTIC INDICES IN SIRVAN RIVER (IRAN)

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ABSTRACT

Sirvan River (Iran) has two main tributaries (Gaveh-rood and Gheshlagh rivers). The main activities near the rivers are agricultural and industrial. Determining water use based on biological indices that come along with the a-biotic index will have a more practical and sustainable result as well as a-biotic indices. Therefore, the purpose of this study is to determine the scope of water use in this basin by using different algal (biotic) and non-biotic indicators, including IRWQI, Shannon, the percentage of species resistant to organic matter, saprobic, and palmer indices. Seasonal sampling was conducted in 4 stations of the river from the fall of 2020 to the summer of 2021. Most of the results based on the different indices indicated medium- severe pollution (moderate to very bad quality) and possibly leading to eutrophication of the environment. So the water quality in the lowest level of pollution and its peak quality was suitable for transport (non-recreational) boats. However, it requires advanced treatment for use in public and drinking water, and it only was suitable for breeding resistant species (critical for salmon and doubtful for sensitive fish) in fisheries and aquaculture scopes. Also, primary purification is required for use in industry and agriculture. Most of the time, the decrease in water quality was as much as that it needed the warning sign of "no physical contact" and had not suitable quality in various fields. Generally, the definition of water use is not done periodically and short term, therefore, before planning and defining any type of use of this river, it is necessary to do the optimizing of sewage treatment, control the entry of sewage into the river, modifier, and restoring the river.

Keywords: Pollution, Algal indices, IRWQI, water use, Sirvan River, Iran

VEGETATIVE ANATOMY OF FIVE DOMESTICATED MEMBERS OF THE GENUS
CUCURBITA (LINN.) IN SOUTHWESTERN NIGERIA

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Abstract

Vegetative anatomy of five domesticated species of the genus *Cucurbita* L. found in South Western Nigeria was studied. The aim was to establish some useful diagnostic features that may be employed in combination with other characters as intra or inter-specific or generic tools for their delimitation. The study revealed exciting features that are helpful in the identification of each species.

The genus can be divided into three groups based on the shape of the midrib. Those with U-shape are *C. pepo*, *C. argyrosperma* and *C. ficifolia*. *C. maximum* has round/flat shape while *C. moschata* has V shape. Those with U-shape can further be classed into those with wide and narrow neck. *C. argyrosperma* has narrow neck with two vascular bundles, four layers of palisade tissues and 6 layers of abaxial epidermis. *C. pepo* has wide neck with three bicollateral bundles and two layers of palisade tissues while *C. ficifolia* has two bundles and three layers of palisade tissues. Overlaps and similarities in number of vascular bundles, layers of tissues showed generic affinity among the members.

Keywords: affinity; anatomy, bicollateral bundles, comparative, *Cucurbita*; generic

A REPORT ON YELLOW SPOT DISEASE IN *BASELLA* LINN. IN ONDO NIGERIA

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ABSTRACT

Basella, is one of the green traditional leafy vegetables found in the South western, Nigeria. The leafy vegetable is a means of sustainable diet and livelihood. It is cultivated in backyard gardens as well as on large scale. This report covers between July 2019 and August 2023 growing seasons. The spots were observed with the heavy rains that occur between the months of June and September. The vegetable developed yellow/ orange roundish/oval spots that were powdery; holes develop in those areas where there were spots, curling of the leaves from the margins and eventually withering of leaves. The stems also had yellow/orange spots, lesions on them and eventually death. Farmers loose almost all the *Basella* farms to the yellow spots; vegetables become unfit for consumption. Infected leaves are removed to curtail its spread but this is not possible in large scale production. Continuous use of seeds from infected plants contributed to this. This outbreak has been reported to sensitize farmers and plant scientists on the need to develop appropriate strategies to combat the massive destruction on this vegetable. There is the need to develop improved variety of the vegetable.

Keywords: *Basella*, holes, leaf curling, lesions, yellow spots,

GREEN SYNTHESIS OF SILVER NANOPARTICLES USING SEAWEED AND THEIR ANTIBACTERIAL ACTIVITY

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ABSTRACT

Using seaweed extracts to reduce silver metal resulted in a more environmentally friendly silver nanoparticle synthesis. Three seaweed species from the green, brown, and red classes were chosen. The analyses revealed that seaweeds have potential in terms of the presence of functional moiety involved in bio reduction and the stability of silver nanoparticles (AgNPs). The absorption peaks of these nanoparticles in the 400-450 nm range were measured using a UV-Visible spectrophotometer. After the incubation period, the colour intensity increased, and the incubation period for making silver nanoparticles with brown and red seaweeds was 48 hours, whereas the incubation period for green seaweeds was 98 hours. Scanning electron microscopy (SEM) and the Fourier transform infrared (FTIR) technique were used for additional analysis. Silver nanoconjugates were used in antibacterial research. Which demonstrated good antibacterial activity against *S. aureus* and *E. coli*, two bacteria that can cause food poisoning. This synthesis contained no harmful processes, which is good for the environment. The silver nanoconjugates have the potential to be used in drug development, medical devices, water purification, microbial activity, and agriculture.

Keywords: AgNPs, UV-Visible spectrophotometer, Fourier transform infrared (FTIR), Scanning electron microscopy (SEM), silver nanoconjugates

PHYCOCHEMICAL AND BIOLOGICAL ANALYSES OF SEaweEDS FROM PAKISTAN COAST (NORTH ARABIAN SEA)

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ABSTRACT

Thirteen major seaweeds from the Karachi coast were studied. Several seaweed phyla (red Rhodophyta, brown Pheophyta, and green Chlorophyta) are consumed globally. *Solieria robusta*, *Coelarthrum muelleri*, *Melanothamnus afaqhussainii*, *Asparagopsis taxiformis*, *Laurencia karachiana*, *Jania ruben*, *Gracilaria foliifera* (Red Seaweeds); *Sargassum wightii*, *Sargassum swartzii*, *Cystoseira indica* (Brown Seaweeds); and *Codium flabellatum* (Green seaweeds). Nutritional constituents (including protein, carbohydrates, lipids, crude fiber, C:N ratio, pectic substance); Secondary metabolites (including total phenol, flavonoids, tannins, alkaloids, and saponins); Inorganic contents (ash residue, fluoride, iodide, and nitrate); and GCMS identifications were included in the phycochemical analyses. Calorific values were also determined. Pharmacological (including anti-inflammatory, analgesic, anti-oxidant, anti-depressant, memory enhancing activity, and psychotherapeutic response); antimicrobial (including nematicidal and antibacterial); acute toxicity assay; and pesticidal (including larvicidal, repellent, neurotoxic, anti-feedant, and growth disrupting effects) activities were among the biological activities. In addition, a new species has been discovered. A variety of pollutants were also discovered.

Keywords: Seaweeds, Secondary metabolites, phycochemical analyses, GCMS

**LIPIDS AND CONTAMINANTS IDENTIFIED BY GCMS TECHNIQUE OF THE LIVER OIL
OF SHORT FIN DEVIL RAY (*MOBULA KUHLII*)**

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ABSTRACT

Devil rays (genus *Mobula* Rafinesque, 1810) are pelagic elasmobranchs distributed worldwide in tropical, subtropical and temperate waters. *Mobula kuhlii* occur only in Indian ocean and portion of the Indo-pacific region. Nearly all mobuids are listed as near threatened (*M. kuhlii* is data deficient; IUCN, 2017). Although the species are poorly studied. As per our information the liver oil of short fin devil ray has been analyzed for the first time. The livers of cartilaginous fish could be used as raw material in the production of many industrial products (e.g., pharmacy, cosmetic) due to their high fatty acid content. TLC, GCMS and RI of short fin devil ray revealed various compounds, of these 77 compounds were identified. Of these 3 were identified through TLC, including triacylglycerides (TGA) and 76 through GCMS i.e. 2 constituents were identified both in TLC and GCMS. It comprises 64 fatty acids, constituting 26 saturated fatty acids, 6 Br FAs, 17 MUFA, 4 oxy FAs and 11 PUFAs. 6 pollutants belonging to petrochemicals and plasticizer class were also identified. Remaining 6 were miscellaneous compounds, of these 2 have been justified through food chain.

Keywords: GCMS analyses, liver oil, *Mobula kuhlii*, short fin devil ray

UOT 619

**DISTRIBUTION OF NEMATODES IN SHEEP ALONG THE ALTITUDINAL ZONES
OF THE APSHERON REGION**

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ABSTRACT

Nowadays, when most areas of agriculture are intensively and comprehensively developed, stable development of domestic small cattle, obtaining ecologically clean animal products is in the main action plan of the Republic of Azerbaijan, and State Programs and Orders have been adopted in this direction. Therefore, protecting domestic ruminants from invasive agents, especially helminths, has both scientific and practical importance in order to fulfill the provisions outlined in the State Programs and Orders. It is very important to protect the animals in livestock farms from causative agents of helminthiasis, to carry out effective measures to combat diseases, to determine the sources of spread of these parasites in farms and nature, and the environmental factors affecting their spread. Helminths, as a component of the biocenosis, play a significant role in its dynamics, but they cause also significant obstacles to the normal development, reproductive capacity, reproduction, and productivity by entering the body of the main and intermediate hosts through various biocenotic ways and parasitizing various organs and tissues [3].

In the last 20 years, both social and economic conditions have changed in the country due to the transition to a market economy, and many small peasant farms based on private ownership have been established. Along with many advantages, these farms also have some disadvantages. Most of such farms do not have qualified specialists (zootechnician, veterinarian, etc.). In this case, timely treatment of animals and proper preventive measures against pests, diseases, and especially helminths are not carried out. Various problems have also arisen in the irrigation systems, pastures, areas around the barns, etc. In recent years, meat sale points have been operating in large cities and settlements. In many cases, animals are slaughtered and meat is sold under conditions where veterinary and sanitary requirements are not met. All of these factors have led to the spread and growth of various causative agents of helminthiasis in the areas where private and farmer farms are located. Issues such as the helminth fauna of ruminants fed in such farms, the identification of newly formed disease foci and the implementation of effective control measures against them have not been sufficiently studied until recently with some minor exceptions. Currently, the transformation of pasture lands into agricultural lands, some problems arising in the irrigation systems, the expansion of the tourism and catering network, etc. also affect the spread of helminthiasis agents [2]. Besides, in recent years, global climate change has been taking place on our planet, which is one of the abiotic factors affecting the spread of helminth eggs, larvae, and intermediate hosts.

Thus, the study of the bio-ecological features of the helminth fauna and the main helminths of sheep is relevant in the background of the current environmental conditions in Absheron, which is a densely populated region where sheep farming is developed, and there is a special need for it in a period when animal husbandry is being developed and attention is being paid to the obtaining of high-quality, clean food products [4].

The scientific novelty of the research was the study of the species composition, intensity, and extensiveness of the main helminthiasis agents of sheep in private and farmer farms in the Absheron

region for the first time in the last 20 years. *Trichocephalus ovis*, *Chabertia ovina*, and *Haemonchus contortus* were found to be the main causative agents of gastrointestinal system diseases in sheep.

For the first time, both the extensiveness and intensity of the invasion were found to be higher in the Khizi district, which belongs to the mountainous belt of the Absheron region.

These data will get the attention of farmers, veterinarians, and veterinary-sanitary measures and ensure both preventive and treatment measures against helminths in the sheep farms located in the Khizi district of the Absheron region.

The main goal of the research was to determine the areas where helminthiasis agents are widespread in the Absheron region, the extensiveness and intensity of the invasion, the identification of dominant species, and the distribution of helminths in different altitude zones and seasons.

The research was performed in the Absheron region of the Azerbaijan Republic on private and farmer sheep farms from 2015 to 2020. The complete helminthological dissection method revealed that nematodes such as *Trichocephalus ovis*, *Haemonchus contortus*, and *Chabertia ovina* parasitize the gastrointestinal system of sheep. All 3 species belong to geohelminths. 771 dead and slaughtered sheep were examined by complete helminthological dissection. Nematodiasis causative agents were found to be widely distributed in vertical landscape-ecological zones with the predominance of the mountainous zone: *Tr.ovis* 57.5%, *Ch.ovina* 39.8%, *H.contortus* 32.7%. It was also observed that helminths were more widespread in the Khizi district of the region [1].

Keywords: nematode, geohelminth, sheep, invasion, Absheron region, mountainous zone

ÇOK MERKEZLİ MEKANSAL GELİŞME: KAVRAMSAL İRDELEME
POLYCENTRIC SPATIAL DEVELOPMENT: CONCEPTUAL EVALUATION

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ÖZET

Son kırk yıldır hem akademik çalışmalarda hem de strateji belgelerinde popüler hale gelen çok- merkezli mekansal gelişim kavramı, aslında yirminci yüzyılın başından itibaren üzerinde fikir geliştirilen bir kavramdır. Genel bir ifadeyle birkaç aktivite merkezinin kümelendiği bir kentsel bölge olarak tanımlanabilen çok-merkezlilik kavramının son onlu yıllarda yükselişe geçmesinin en önemli nedenlerinden birisi şüphesiz Avrupa Mekânsal Gelişme Perspektifi'nin stratejileridir (European Spatial Development Perspective - ESDP). Avrupa Mekansal Gelişme Perspektifi, AB genelinde bölgesel olarak dengeli bir kalkınmayı teşvik etme yeteneğinden dolayı, tercih edilen bir mekansal yapı olarak çok merkezliliği desteklemektedir. Bu argümanla çok merkezlilik, ekonomik rekabet edebilirlik, çevresel sürdürülebilirlik ve sosyal uyum kapasitesi için anahtar bir araç olarak kabul edilmektedir.

Bu noktadan hareketle bildiri, çok merkezli mekânsal gelişme kavramının anlamını açıklığa kavuşturmayı ve çok-merkezli mekansal gelişme ile ekonomik rekabet edebilirlik, çevresel sürdürülebilirlik ve sosyal uyum arasındaki ilişkiyi irdelemeyi amaçlamaktadır.

Bu çalışmada girişin ardından ikinci bölüm, gerek akademik çalışmalardan gerekse strateji belgelerinden çok merkezlilik kavramının tanımlarına ve boyutlarına odaklanmaktadır. Üçüncü bölüm ise, pek çok çalışmada varlığı iddia edilen “çok-merkezli mekânsal gelişme ile ekonomik rekabet edebilirlik, çevresel sürdürülebilirlik ve sosyal uyum kapasitesi arasındaki olumlu ilişki”yi sorgulamakta ve konuya yönelik farklı coğrafyalarda gerçekleştirilen çalışmalardan örneklere yer vermektedir. Çalışma sonuç ve önerileri içeren dördüncü bölümle sonlanmaktadır.

Anahtar Kelimeler: Çok-merkezli Mekansal Gelişme, Ekonomik Rekabet Edebilirlik, Çevresel Sürdürülebilirlik, Sosyal Uyum Kapasitesi

ABSTRACT

The concept of polycentric spatial development, which is becoming popular in both academic and professional debates last four decades, have been carried out since the beginning of the twentieth century. One of the most important reasons for the rise of the concept of polycentricity, which can be defined as an urban region where several activity centers are clustered in general terms, is undoubtedly the strategies of European Spatial Development Perspective (ESDP). The European Spatial Development Perspective promotes polycentrism as a preferred spatial structure because of its ability to promote regionally even development across the EU. With this argument, polycentrism is accepted as a key tool for economic competitiveness, environmental sustainability and social cohesion capacity.

From this point of view, the paper aims to clarify the meaning of the concept of polycentric spatial development and to examine the relationship between polycentric spatial development and economic competitiveness, environmental sustainability and social cohesion.

In this study, after the introduction, the second section focuses on the definitions and dimensions of the concept of polycentricity from both academic studies and strategy documents. The third section questions the “positive relationship between polycentric spatial development and economic competitiveness, environmental sustainability and social cohesion capacity”, which is claimed in many studies, and includes examples from different geographies. The study concludes with the fourth chapter, which includes conclusions and recommendations.

Keywords: Polycentric Spatial Development, Economic Competitiveness, Environmental Sustainability, Social Cohesion Capacity.

**ANIT YAPILARDA SOMUT OLMAYAN KÜLTÜREL MİRAS İZLERİNİN MEKÂN
BİÇİMLENMESİ ÜZERİNDEN İNCELENMESİ**
EXAMINATION OF INTANGIBLE CULTURAL HERITAGE TRACES ON MONUMENTAL
BUILDINGS THROUGH SPACE FORMATION

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ÖZET

Anıt yapılar, günlük yaşam rutinin yanı sıra özel durumlara da ev sahipliği yapan nitelikli mimari eserlerdir. Savunma, eğitim, ibadet ve üretim gibi çeşitli işlevleri bünyelerinde barındıran bu yapıların her biri, sahip oldukları işleve ve diğer niteliklerine göre farklı biçimlerde tasarlanmaktadır. Bu anlamda her anıt yapı, kendine özgü mimari niteliklere sahip olabilmekte ya da aynı işlev için farklı coğrafyalarda aynı niteliklere sahip olan anıt eserler inşa edilebilmektedir.

Anıt yapılar, mimarlıkta koruma kavramının günümüzdeki hâliyle gelişmeye başladığı andan itibaren kültürel mirasın en önemli temsilcilerinin başında gelmiştir. İnsana ve topluma dair pek çok önemli ritüelin gerçekleştirildiği bu yapıların plan şemaları, cephe nitelikleri, malzeme ve yapım tekniği özellikleri de kendilerine özgüdür. Bununla birlikte her anıt yapı, içinde bulunduğu toplumun gelenek/görenek, inanç değeri, yaşama biçimi ve kutlama/festival/ritüellerine göre şekillenerek mimari tasarımında söz konusu tüm değerleri yansıtabilmektedir. Bu bağlamda yapılan çalışmanın amacı, anıt yapılarda yoğun olarak izleri bulunan somut olmayan kültürel miras değerlerini tespit etmek ve bunların mimari niteliklere etkilerini ortaya koyarak bütüncül korumaya katkı sağlamaktır. Çalışma kapsamında öncelikle anıt yapı ve somut olmayan kültürel miras kavramları, çeşitli kaynaklar incelenerek aktarılmıştır. Bu kavramların birbirleriyle örtüşen pek çok noktası vurgulanmıştır. Bu bağlamda gerek dünyanın farklı yerlerinden gerekse Türkiye’den çeşitli anıt yapı örnekleri, işlevlerine göre birbirleriyle karşılaştırılarak somut olmayan kültürel miras özellikleri bakımından değerlendirilmiştir. Elde edilen verilerle, öncelikle farklı işleve sahip olan yapıların somut olmayan kültürel mirasa göre mekân biçimlenişleri ortaya koyulmuş; bununla birlikte farklı coğrafyalarda yer alan aynı işlevli anıt eserlerin, somut olmayan kültürel miras özelliklerine göre farklılaşan mekânları ele alınmıştır. Bu bağlamda somut olmayan kültürel mirasın, anıt yapıların mekân biçimlenişini büyük oranda etkilediği gözler önüne serilmiştir. Çalışma sonucunda, anıt yapıların korunması için somut olmayan kültürel miras değerlerinin göz önünde bulundurulmasının hayati önem taşıdığına dikkat çekilmiştir.

Anahtar Kelimeler: Anıt yapı, mekân, somut olmayan kültürel miras, geleneksel yapı, koruma

ABSTRACT

Monumental buildings are qualified architectural works that host special occasions as well as daily life routines. Each of these structures, which contain various functions such as defense, education, worship and production, is designed in different ways according to their functions and other qualities. In this sense, each monument can have its own architectural characteristics or monuments with the same characteristics can be built in different geographies for the same function.

Monumental structures have been at the forefront of the most important representatives of cultural heritage since the concept of conservation in architecture began to develop in its current form. The plan schemes, facade qualities, materials and construction techniques of these buildings, where many important rituals about people and society are performed, are also unique to them. However, each monumental building can reflect all the values in question in its architectural design by being shaped according to the tradition/custom, belief value, lifestyle and celebration/festival/rituals of the society in which it is located. In this context, the aim of the study is to determine the intangible cultural heritage values that are heavily traced in monumental structures and to contribute to holistic protection by revealing their effects on architectural qualities. Within the scope of the study, first of all, the concepts of monumental building and intangible cultural heritage were transferred by examining various sources. Many overlapping points of these concepts are emphasized. In this context, various monumental building examples from different parts of the world and from Turkey have been compared with each other according to their functions and evaluated in terms of intangible cultural heritage characteristics. With the data obtained, first of all, the spatial formations of the buildings with different functions according to the intangible cultural heritage were revealed; However, the different places of monuments with the same function in different geographies according to their intangible cultural heritage characteristics are discussed. In this context, it has been revealed that intangible cultural heritage greatly affects the spatial formation of monumental structures. As a result of the study, it was pointed out that it is vital to consider intangible cultural heritage values for the protection of monumental structures.

Keywords: Monumental building, place, intangible cultural heritage, traditional structure, conservation

**MİMARİ MİRASIN BÜTÜNCÜL KORUNMASINDA SOMUT OLMAYAN KÜLTÜREL
MİRASIN ÖNEMİ ÜZERİNE BİR DEĞERLENDİRME**
AN ASSESSMENT ON THE IMPORTANCE OF INTANGIBLE CULTURAL HERITAGE IN
HOLISTIC CONSERVATION OF ARCHITECTURAL HERITAGE

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ÖZET

Mimari miras, kültürel mirasın önemli bir parçası olarak geçmişten günümüze ulaşan ve özgün nitelikleriyle bugünün mimari anlayışına ilham veren yapıları kapsamaktadır. Bu bağlamda kültürel mirasın diğer bileşenleriyle de yakından ilişkili olan mimari miras, son yıllarda mimari koruma açısından giderek önem kazanmıştır.

Kültürel mirasın bileşenleri, somut ve somut olmayan kültürel değerler olarak ele alınmaktadır. Bunların içinde somut kültürel değerleri, başta mimari yapılar olmak üzere arkeolojik alanlar, belli bir zanaatın ürünü olan objeler gibi nitelikli eserler oluşturmaktadır. Somut olmayan kültürel değerler ise yaşama biçimiyle birlikte gelenekler/görenekler, ritüeller/festivaller/törenler, inançlar ve zanaatlar gibi özgün verilerden meydana gelmektedir. Söz konusu tüm değerler, birbirleriyle doğrudan ya da dolaylı olarak ilişki kurmaktadır. Bu anlamda somut ve somut olmayan kültürel miras değerlerini birbirlerinden ayrı ele almak mümkün değildir.

Mimari miras, içinde plan, cephe, malzeme ve yapım tekniği gibi tasarıma ve inşaya yönelik bilgileri barındırdığı gibi; yapıların içindeki yaşama ve kullanım kültürüne, plan şemasının bu kültüre ve aynı zamanda üretme biçimlerine bağlı olarak zanaatlara göre şekillenmesine, cephe niteliklerinin dönemin sanat ve yapı çevre anlayışını yansıtacak şekilde tasarlanması gibi pek çok somut olmayan kültürel miras değerine dair veriler de içermektedir. Buradan hareketle yapılan çalışmanın amacı, somut kültürel miras olarak mimari eserlerin içinde barındırdığı somut olmayan kültürel miras değerlerini ortaya koymak ve söz konusu mirasın her yönden korunmasının gerekliliğine dikkati çekmektir. Çalışma kapsamında dünyanın ve Anadolu'nun çeşitli yerlerinde, mimari ve somut olmayan kültürel miras değerlerinin ilişkisinin açık bir şekilde görüldüğü çeşitli örnekler ele alınmıştır. Çalışmanın yöntemini ise öncelikle kültürel ve mimari mirasa dair literatürün taranması; aynı zamanda bu mirasın gözlemlenebildiği örneklerin ilgili kaynaklar üzerinden araştırılması ve yerinde gözlemlenerek değerlendirilmesi oluşturmaktadır. Bununla birlikte dünyada ve Türkiye'de mimari mirasın korunmasına yönelik olarak geliştirilen yasal çalışmalar da incelenmiş ve bunların içinde, somut olmayan kültürel mirasın korunmasının gerekliliğine değinen noktalar özellikle ele alınmıştır. Sonuç olarak yapılan çalışma ile tüm dünyanın ortak mirası olan mimari değerlerin, içerdikleri somut olmayan kültürel miras ile birlikte bütüncül olarak korunmasına katkı sağlanacağı düşünülmektedir.

Anahtar Kelimeler: Kültürel miras, mimari miras, somut olmayan kültürel miras, koruma, geleneksel yapı

ABSTRACT

Architectural heritage includes buildings that have survived from the past as an important part of cultural heritage and that inspire today's architectural understanding with their original qualities. In this context, architectural heritage, which is closely related to other components of cultural heritage, has become increasingly important in terms of architectural preservation in recent years.

Components of cultural heritage are considered as tangible and intangible cultural values. Among them, tangible cultural values constitute qualified works such as architectural structures, archaeological sites, objects that are the product of a certain craft. Intangible cultural values, on the other hand, consist of original data such as traditions/customs, rituals/festivals/ceremonies, beliefs and crafts along with the way of life. All these values are directly or indirectly related to each other. In this sense, it is not possible to consider tangible and intangible cultural heritage values separately from each other.

Architectural heritage includes information about design and construction such as plan, facade, materials and construction techniques; It also contains data on many intangible cultural heritage values, such as the culture of living and use inside the buildings, the shaping of the plan scheme according to this culture and also the crafts depending on the way of production, the design of the facade features to reflect the understanding of art and built environment of the period. From this point of view, the aim of the study is to reveal the intangible cultural heritage values that the architectural works contain as tangible cultural heritage and to draw attention to the necessity of protecting the said heritage in all aspects. Within the scope of the study, various examples in which the relationship between architectural and intangible cultural heritage values are clearly seen in various parts of the world and Anatolia are discussed. The method of the study is primarily scanning the literature on cultural and architectural heritage; At the same time, the examples where this heritage can be observed are researched through relevant sources and evaluated by observing on site. In addition to this, legal studies developed for the protection of architectural heritage in the world and in Turkey have also been examined and the points that refer to the necessity of preserving intangible cultural heritage are especially discussed. As a result, it is thought that the study will contribute to the holistic preservation of architectural values, which are the common heritage of the whole world, together with the intangible cultural heritage they contain.

Keywords: Cultural heritage, architectural heritage, intangible cultural heritage, conservation, traditional building

**YAPI BİLEŞENLERİNDE KULLANILAN FAZ DEĞİŞTİREN MALZEMELERİN BİNA
SOĞUTMA YÜKÜ ÜZERİNDEKİ ETKİSİ**
THE EFFECT OF PHASE CHANGEOVER MATERIALS USED IN BUILDING COMPONENTS ON
THE BUILDING COOLING LOAD

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ÖZET

Günümüz dünyasında artan enerji talebi ve buna bağlı olarak devamlı artan enerji kullanım miktarı enerji kaynaklarının azalmasına neden olmaktadır. Bu nedenle enerji korunumu günümüzde önemli bir konu haline gelmiştir. Ayrıca yaşanan olaylar (salgın, savaş vb.) enerji ithal eden ülkelerin dışa bağımlılığını daha da artırmaktadır. Dışa bağımlılığı azaltmak için enerjiyi daha etkin ve verimli kullanarak enerji talebini azaltmak gibi yollara başvurulabilir.

Tüketilen enerjinin büyük çoğunluğu binalarda kullanılmaktadır. Binalarda kullanılan enerjinin büyük bir kısmını ise ısıtma ve soğutmada kullanılan enerji oluşturmaktadır. Enerji tüketim miktarını düşürmek ve enerjiyi verimli bir şekilde kullanarak konfor şartlarını yükseltmek amacıyla yalıtım malzemesi kullanılması en yaygın yöntemdir. Bunun yanı sıra son zamanlarda ısı depolama özelliği bulunan malzemelerin kullanılmasıyla enerji tüketim miktarında azalma sağlanabildiği birçok çalışmaya konu olmuştur.

Bu çalışmada tasarlanan bir konut için Elazığ ili iklim şartları dikkate alınarak, ısı depolama özelliğine sahip Faz Değiştiren Malzeme (FDM)'nin bina kabuğunda kullanılmasıyla soğutma yükü ihtiyacı üzerindeki etkisini ölçmek amaçlanmıştır. Ayrıca FDM 'nin erime sıcaklıkları dikkate alınarak konutta kullanılan FDM 'nin uygun erime sıcaklıkları araştırılmıştır. Kullanılan FDM 'nin alınan ısı karşısında faz değiştirmemesi soğutma yükünü azaltmayacaktır. Bu nedenle kullanılan FDM 'nin soğutma yüküne etki etmesi için alınan ısı karşısında faz değiştirerek ısı depolaması gerekir. Bundan dolayı konutun bulunduğu ilin iklim verileri ışığında uygun erime sıcaklığına sahip FDM belirlenmelidir. FDM uygulanan 4x4x3m³ ebatlarındaki konutta enerji performansını artırmak için çeşitli parametreler de (bina yönlendirilmesi, bina kabuğu katmanları (duvar, çatı) için farklı seçenekler) belirlenmiştir. Ayrıca bina kabuğunda kullanılacak çeşitli FDM türleri , FDM 'nin bina kabuğundaki konumu ve FDM'ye ait farklı erime sıcaklıkları baz alınarak çeşitli senaryolar üretilmiştir. Bu belirlenen senaryo ve parametreler ışığında Desind Builder programı kullanılarak oluşturulan konutla ilgili simülasyonlar yapılmıştır.

Anahtar Kelimeler: Faz Değiştiren Malzeme (FDM) , Desing Builder , Soğutma Yükü Analizi, Enerji analizi, Bina kabuğu , Simülasyon , Yalıtım Malzemeleri

ABSTRACT

In today's world, the increasing energy demand and the constantly increasing amount of energy use cause a decrease in energy resources. Therefore, energy conservation has become an important issue today. In addition, the events (epidemic, war, etc.) increase the foreign dependency of energy importing countries even more. In order to reduce foreign dependency, ways such as reducing energy demand by using energy more effectively and efficiently can be resorted to.

Most of the consumed energy is used in buildings. A large part of the energy used in buildings is the energy used in heating and cooling. The most common method is to use insulation material in order to reduce the amount of energy consumption and increase comfort conditions by using energy efficiently. In addition, it has been the subject of many studies recently that the use of materials with thermal storage properties can reduce the amount of energy consumption.

In this study, it is aimed to measure the effect on the cooling load requirement by using Phase Change Material (FDM) with thermal storage feature in the building envelope, considering the climatic conditions of Elazığ province for a designed house. In addition, considering the melting temperatures of the FDM, the appropriate melting temperatures of the FDM used in the house were investigated. The fact that the FDM used does not change phase against the received heat will not reduce the cooling load. For this reason, in order for the PCM used to affect the cooling load, it must store heat by changing the phase against the received heat. Therefore, FDM with appropriate melting temperature should be determined in the light of the climate data of the province where the residence is located. Various parameters (building orientation, different options for building envelope layers (wall, roof)) have been determined in order to increase the energy performance in the 4x4x3m³ sized house where FDM has been applied. In addition, various scenarios were produced based on the various FDM types to be used in the building envelope, the position of the FDM in the building envelope and the different melting temperatures of the FDM. In the light of this determined scenario and parameters, simulations about the house created using the Desind Builder program were made.

Keywords: Phase Change Material (FDM), Design Builder, Heating and Cooling Load Analysis, Energy analysis, Building envelope, Simulation, Insulation Materials

**SEACELL KARIŞIMLI KUMAŞLARIN UV KORUMA VE NEM İLETİM PERFORMANSININ
İNCELENMESİ**
UV PROTECTION AND MOISTURE TRANSMISSION PERFORMANCES OF SEACELL
BLENDED FABRICS

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ÖZET

Son yıllarda gelişen teknolojiyle birlikte tekstil sektöründe bitim işlemleri ve yenilikçi ipliklerle kumaşlara fonksiyonel özellikler kazandırılmaktadır. Bu kapsamda sürdürülebilir ve fonksiyonelliğe sahip kumaşların geliştirilmesinde, selülozik liflere çeşitli katkı maddeleri katılarak elde edilen yeni nesil iplikler alternatif oluşturmaktadır. Yenilikçi ipliklerden olan seacell, deniz yosunu tozunun life eklenmesiyle elde edilmektedir. Üretimi aşamasında deniz yosunlarının yenilenebilir kısımlarından faydalanılması, biyobozunur ve karbon nötr olması seacell elyafını ekolojik ve sürdürülebilir yapmaktadır. Bu çalışmada deniz yosunu katkılı seacell elyafı kullanılarak iyi tutumlu, UV koruma sağlayan ve nem iletimi yüksek giysilik kumaş kalitelerinin tasarlanması ve dokunması amaçlanmıştır. Dokunan kumaşlar boyandıktan sonra tuşeleri subjektif olarak değerlendirilmiştir. Seacell oranı yüksek olan kumaşların tutumlarının daha iyi olduğu saptanmıştır. Ayrıca tüm kumaşların fiziksel (mukavemet, dikiş kayması ve boncuklanma), nem emilimi ve UV koruyuculuk özellikleri test edilmiştir. Tüm sonuçlar değerlendirildiğinde; dikiş kayması değerleri arasında fark görülmemiş, seacell oranı düştükçe çözgü yönündeki mukavemet artmış ve boncuklanma değerleri iyileşme göstermiştir. %9 Seacell içerikli karışım kumaşların nemi yüzeye iletme hızı yüksek olduğundan konfor özelliğinin üstün olduğu bulunmuştur. UV koruma faktörü ölçülen kumaşlar karşılaştırıldığında ise karışımda seacell oranı arttıkça UV koruyuculuğun arttığı (UPF > 50) sonucuna ulaşılmıştır.

Anahtar Kelimeler: Seacell, UV Koruma, Nem İletimi

ABSTRACT

Increasing technological developments in recent years enable the production of functional products by using finishing applications and innovative yarns. In this context, new generation yarns obtained by adding various additives to cellulosic fibers constitute an alternative in the development of sustainable and functional fabrics. Seacell, which is in the innovative yarn class, is obtained by adding seaweed powder to the fiber. Utilizing renewable parts of seaweeds during production, makes seacell fiber ecological and sustainable, being biodegradable and carbon neutral. In this study, it is aimed to design and weave garment fabric qualities with good fabric touch, UV protection and high moisture transmission using seaweed added seacell fiber. After the woven fabrics were dyed, their touch was evaluated subjectively. It has been determined that the fabric touch with high seacell ratio is better. In addition, physical (strength, seam slippage and pilling), moisture absorption and UV protection properties of all fabrics were tested. When all the results are evaluated; there was no difference between seam slippage values but when the Seacell ratio decreased, the strength in the warp direction and the pilling values improved. It has been found that the comfort feature of the blended fabrics with 9% Seacell content is superior since the moisture transfer rate to the surface is high. When the fabrics with UV protection factor were compared, it was concluded that as the Seacell ratio in the mixture increased, the UV protection increased (UPF > 50).

Keywords: Seacell, UV Protection, Moisture Transmission

TEKNİK RESİM VE ENDÜSTRİYEL SERAMİK ÜRETİMİNİN MESLEKİ TEKNİK RESME ETKİLERİ

THE EFFECTS OF TECHNICAL DRAWING AND INDUSTRIAL CERAMIC PRODUCTION ON
PROFESSIONAL DRAWING

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ÖZET

Teknik resmin kullanımı, insanoğlunun yerleşik düzene geçmeye başladığı dönemlere kadar uzanmaktadır. Zamanla kentleşmenin başlamasıyla günlük hayattaki ihtiyaçlar da artmıştır. Bu durum birçok girişimci ve bilim insanının ilgisini çekmiş ve artan bu ihtiyaçları karşılayabilmek için seri üretim yapabilen makineler tasarlanması ve imal edilmesi gerekmiştir. Bu karmaşık yapıdaki makinaların tasarım ve üretim detaylarını çıkarabilmek için teknik resmin önemi ve gerekliliği ortaya çıkmıştır. Bu alanda yapılan çalışmalar, doğru bir teknik resmin, herkes tarafından aynı şekilde algılanması gerektiği ve bununla ancak kurallar doğrultusunda çizilirse mümkün olabileceği anlaşılmıştır. Özellikle endüstri devrimi sonrası mimar, mühendis ve tasarımcıların kendi aralarında mesleki konuları rahatça konuşabilmeleri ve anlayabilmeleri için teknik resme hâkim olmaları, bir mesleki zorunluluk haline gelmiştir.

Bir ürünün, üretime girdiği andan tüketiciye ulaştığı ana kadar geçirdiği tüm evrelerde kullanılan teknik resim, endüstriye ve mimariye teknik eleman yetiştiren tüm okulların ders programlarında temel bir ders olarak yer almıştır. Bu meslek dallarında, teknik resim eğitimi genel teknik resim ve mesleki teknik resim olarak ikiye ayrılmaktadır. Genel teknik resim dersi tüm meslek alanlarında ortak eğitim verilebilir bir müfredata sahipken, mesleki teknik resim dersinin müfredatı, mesleklerin kendi üretim metodlarına göre şekillenmiştir. Bu nedenle mesleki teknik resim eğitimi, yine kendi alanında uzman eğitimciler tarafından verilmelidir.

Seramik eğitiminde teknik resim dersi, en temel derslerden biridir. Özellikle endüstriyel seramik eğitiminde çok büyük bir önem taşır. Seramik endüstrisine tasarım ve teknik eleman yetiştiren seramik bölümleri, sektörünün çeşitliliğini (seramik sağlık gereçleri, seramik yer ve duvar kaplamaları, sofa seramiği vs.) göz önünde bulundurarak verecekleri teknik resim eğitiminin müfredatını, sömestre süresini belirlerken birçok hususa dikkat etmek gerekir. Seramik sektörünün çeşitliliği ve bu çeşitliliğin kendine has üretim metodlarının ve problemlerinin olması, seramik teknik resmin de oldukça zor ve karmaşık olmasına neden olmaktadır. Ayrıca seramik teknik resmi alanında yeterli kaynak olmaması durumu dahada zor hale getirmektedir. Genel teknik resim eğitimi esnasında öğrenilen birçok konunun seramik form çizimlerinde nasıl kullanılacağına tam olarak seramik öğrencilerine aktarılmaması durumunda genel teknik resim ve mesleki teknik resmin arasında bağ kurmak zorlaşacaktır. Bu çalışma kapsamında, genel teknik resim kurallarının mesleki teknik resme katkıları endüstriyel seramik ürünleri üzerinden örneklendirilerek aktarılacaktır.

Anahtar Kelimeler: Teknik Resim, Endüstriyel Seramik, Üretim, Eğitim

ABSTRACT

The use of technical drawing dates back to the times when human beings began to settle down. With the onset of urbanization over time, the needs in daily life have also increased. This situation attracted the attention of many entrepreneurs and scientists, and it was necessary to design and manufacture machines

capable of mass production to meet these increasing needs. The importance and necessity of technical drawing have emerged to reveal these complex machines' design and production details. Studies in this field have shown that a correct technical drawing should be perceived in the same way by everyone, and this is only possible if the rules draw it. Especially after the industrial revolution, it has become a professional necessity for architects, engineers, and designers to have a good command of technical drawing so that they can talk and understand professional issues comfortably.

Technical drawing, used in all phases of a product from the moment it enters production to the moment it reaches the consumer, has been included as an introductory course in the curriculum of all schools that train technical staff for industry and architecture. In these professions, technical drawing education is divided into general and vocational-technical drawing. While the general technical drawing course has a curriculum that can be taught in all occupations, the curriculum of the vocational-technical drawing course is shaped according to the production methods of the professions. For this reason, vocational technical drawing training should be given to instructors who are experts in their field.

The technical drawing course is one of the most basic courses in ceramics education. It is essential in industrial ceramics education. It is necessary to pay attention to many issues when determining the curriculum and semester duration of the technical drawing education that will be given by the ceramic departments that train design and technical staff for the ceramic industry, taking into account the diversity of the industry (ceramic sanitary ware, ceramic floor, and wall coverings, table ceramics, etc.). The variety of the ceramic industry and the unique production methods and problems of this diversity cause the ceramic technical drawing to be complicated and complex. In addition, the lack of sufficient resources in ceramic technical drawing makes the situation even more difficult. It will be challenging to establish a connection between general technical drawing and vocational-technical drawing if the students are not entirely taught how to use many of the subjects learned during general technical drawing education in ceramic form drawings. Within the scope of this study, the contributions of general technical drawing rules to professional technical drawing will be exemplified through industrial ceramic products.

Keywords: Technical Drawing, Industrial Ceramics, Production, Education

TÜRKİYE'DEKİ KONUT PROJELERİNİN ULUSLARARASI MİMARLIK ARŞİVLERİNDEKİ GÖRÜNÜRLÜĞÜ, DEĞİŞEN MİMARİ VE KAVRAMSAL ÖNCELİKLERİ

VISIBILITY OF RESIDENTIAL PROPERTIES IN TURKEY IN THE INTERNATIONAL ARCHITECTURAL ARCHIVES; CHANGING ARCHITECTURAL AND CONCEPTUAL PRIORITIES

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ÖZET

Günümüz modern dünyasında hızla değişen toplumsal düzen, her alanda değişimi beraberinde getirmektedir. Toplumsal yaşamın içinde gerçekleştiği mekanların ve bu mekanların tasarım süreçlerinin de bu dönüşüme bağlı olarak farklılaşması kaçınılmazdır. Sektörde öne çıkan projeler, mimari ve kavramsal öncelikler yönünden sektörel eğilimin izlerinin sürülmesi açısından önem taşımaktadır.

Çalışmada, uluslararası mesleki arşivlerde son 5 yıldır öne çıkan, Türkiye'de uygulanmış konut projelerine ait veriler izlenerek, bu projelerde vurgulanan mimari ve kavramsal önceliklerinin belirlenmesi hedeflenmiştir. Bu doğrultuda dünya çapında en yaygın kullanılan dijital mimari arşivler belirlenerek bu arşivlerde Türkiye'den yer verilen konut projeleri taranmıştır. Ulaşılan 14 projeye ait arşivlerde yer verilen anlatımlar içerik analizi yöntemiyle analiz edilerek öne çıkan kavramlar belirlenmiştir.

Sonuçta, uluslararası arşivlerde yer verilen örneklere ait mimari ve kavramsal önceliklerin zaman içinde hem nicel hem nitel olarak değişime uğradığı görülmektedir. Söz konusu arşivlerde Türkiye'deki konut projelerine ait kayıtların son 20 yıl ile sınırlı olduğu belirlenirken, son 5 yılda arşivlere giren projelerin verileri değerlendirildiğinde, söz konusu önceliklerin tekrar eden örüntüler oluşturduğu belirlenmiştir. Bu örüntüler çalışma kapsamında 8 kategori halinde ortaya konarak tartışılmıştır. Çalışmada ayrıca, Pandemi dönemi olarak da literatüre geçen 2020 sonrası dönemde örneklerin sektörel durağanlığa paralel olarak sayıca azaldığı, öne çıkan temaların ise kent ile kurulan bağı sorgulayan ve doğa ile yeni ilişki kurma biçimleri öneren bir yöne evrildiği tespit edilmiştir.

Çalışma her ne kadar kısıtlı örneklem kümesi dolayısıyla tüm sektörü temsil etme konusunda yetersiz kalsa da, ele alınan örneklerin uluslararası arşivler tarafından yer verilmiş nitelikli örnekler olması ve söylem düzeyinde kapsamlı veriler sunması itibarıyla dikkate değer bir nitelik taşımaktadır. Bu örneklerin ve öne çıkan mimari ve kavramsal önceliklerin analiz edilmesi, Türkiye'deki güncel eğilimlerin izlenmesi açısından önem taşımaktadır. Böylece daha büyük ölçekli araştırmalar yoluyla daha kapsamlı verilere ulaşılmasının ve geleceğe yönelik provizyon oluşturulmasının da altyapısı oluşturulacaktır.

Anahtar kelimeler: Konut projeleri, konut mimarisi, mimari konsept.

ABSTRACT

The rapidly changing social order in today's modern world brings about change in every field. It is inevitable that the spaces in which social life takes place and the design processes of these spaces will also differentiate depending on this transformation. Projects that stand out in the sector are important in terms of following the sectoral tendencies in terms of architectural and conceptual priorities.

In the study, it is aimed to determine the architectural and conceptual priorities emphasized in the precursor residential properties featured in international professional archives in the last 5 years by monitoring their data. In this direction, the most widely used digital architectural archives around the world were determined and residential properties from Turkey were scanned in these archives. The narratives included in the archives of the 14 projects reached were analyzed with the content analysis method and the prominent concepts were determined.

As a result, it is seen that the architectural and conceptual priorities of the examples in international archives have changed both quantitatively and qualitatively over time. It was determined that the first records of residential properties in Turkey in these archives dated back to twenty years ago. When the data of the projects that are featured in the archives in the last 5 years were evaluated, it was determined that the priorities in question formed repetitive patterns. These patterns were discussed in 8 categories within the scope of the study. In the study, it was also determined that the examples decreased in number in parallel with the sectoral deceleration in the post-2019 period, which was also recorded in the literature as the Pandemic period, and the prominent themes evolved into a direction that questions the bond established with the city and proposes new forms of relationship with nature.

Although the study is insufficient to represent the whole sector due to the limited sample handled, it is noteworthy that the examples discussed are qualified examples featured by international archives and present comprehensive data at the level of discourse. Analyzing these examples and prominent architectural and conceptual priorities is important in terms of monitoring current tendencies in Turkey. Thus, the infrastructure for reaching more comprehensive data through larger-scale research and creating provision for the future will be formed.

Keywords: Housing projects, residential architecture, architectural concept.

**FARKLI AĞIR METAL SEVİYELERİNİN *IN VITRO* ŞARTLARDA YETİŞTİRİLEN
MARULUN (*Lactuca sativa*) GELİŞİMİ ÜZERİNE ETKİLERİ**
THE EFFECTS OF DIFFERENT HEAVY METAL LEVELS ON THE DEVELOPMENT OF
LETTUCE (*Lactuca sativa*) GROWN *IN VITRO* CONDITIONS

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ÖZET

Çalışma kapsamında, ülkemizde açıkta ve örtüaltı tarımı şeklinde yetiştiriciliği yapılan marulun (*Lactuca sativa*) ağır metal stresi altında bitkisel gelişim durumu incelenmiştir. Araştırma, Cumhuriyet Teknokent bünyesinde kurulmuş olan AgroGeneTech bitki doku kültürü laboratuvarında *in vitro* koşullarda yürütülmüştür. Çalışma boyunca kullanılan ağır metaller; kobalt, kadmiyum, nikel, bakır, kurşun, alüminyum ve krom olup, bunların 100 µM, 200 µM, 300 µM, 400 µM, 500 µM dozları MS besin ortamına eklenmiştir. Ağır metal içermeyen MS besin ortamı da kontrol grubu olarak değerlendirilmiştir. Tohum ekimi yapıldıktan sonra çimlenen tohum sayısı (%), kotiledon sayısı (%), sürgün gelişimi (mm), yaprak sayısı (adet), kök sayısı (adet) ve kök uzunluğu (mm) ölçülmüştür. Araştırma sonuçları değerlendirildiğinde, kobalt ağır metali uygulamasında Kobalt-5 ortamında çimlenme oranı ve kotiledon oluşumu en yüksek olarak belirlenip kontrol uygulaması ile aynı grupta yer almıştır. Kobaltın farklı dozlarının marul bitkisinde, kök sayısı, yaprak sayısı ve sürgün gelişimi üzerine etkisinin olmadığı tespit edilmiştir. Kök uzunluğu en yüksek uygulama Kobalt-2 olarak belirlenmiştir. Kadmiyum ağır metalini uygulamasının sonuçlarına göre Kadmiyum-3 uygulamasında en fazla tohum çimlenmesi gerçekleşmiştir. Kotiledon sayısı ise en fazla Kadmiyum-2 ve Kadmiyum-3 ortamlarından elde edilmiştir. En fazla yaprak oluşumunun ise kontrol ortamında görülürken, en fazla kök sayısı kontrol ve Kadmiyum-1 ortamlarında saptanmıştır. Kadmiyumun farklı dozlarının sürgün gelişimi üzerine etkisinin ise önemli olmadığı dikkat çekmiştir. Nikel uygulamasında çimlenme üzerine en etkili olan ortam Nikel-2 olarak bulunmuştur. Kotiledon oluşum sayısı incelendiğinde ise Nikel-4 ortamının ön plana çıktığı dikkat çekmiştir. Nikelin farklı dozlarının marulda yaprak oluşumuna etki etmediği tespit edilmiştir. Sürgün gelişiminin en fazla Nikel-2 ve Nikel-3 ortamlarında olduğu ve bunların kontrol uygulamasıyla istatistiksel bakımdan aynı grupta olduğu belirlenmiştir. Çalışma sonucunda ağır metallerinin etkilerinin ve etki şiddetinin doza ve ağır metal cinsine göre değiştiği kanaatine varılmıştır.

Anahtar Kelimeler: Doku kültürü, *In vitro*, ağır metal, Marul

ABSTRACT

Within the scope of the study, the plant development status of lettuce (*Lactuca sativa*), which is grown in open and greenhouse cultivation in our country, was investigated under heavy metal stress. The research was carried out in vitro conditions in the AgroGeneTech plant tissue culture laboratory established within Cumhuriyet Teknokent. Heavy metals used throughout the study; cobalt, cadmium, nickel, copper, lead, aluminum and chromium were added to the MS nutrient medium in doses of 100 μ M, 200 μ M, 300 μ M, 400 μ M, 500 μ M. MS nutrient medium without heavy metals was also evaluated as a control group. After sowing, the number of germinated seeds (%), the number of cotyledons (%), shoot development (mm), the number of leaves (number), the number of roots (number) and root length (mm) were measured. When the results of the research were evaluated, the germination rate and cotyledon formation were determined to be the highest in Cobalt-5 medium in cobalt heavy metal application, and it was in the same group as the control application. It was determined that different doses of cobalt had no effect on root number, leaf number and shoot growth in lettuce plant. The highest root length was determined as Cobalt-2. According to the results of the application of cadmium heavy metal, the highest seed germination occurred in the application of Cadmium-3. The maximum number of cotyledons was obtained from Cadmium-2 and Cadmium-3 media. While the most leaf formation was observed in the control medium, the highest number of roots was determined in the control and Cadmium-1 media. It was noted that the effect of different doses of cadmium on shoot development was not significant. Nickel-2 was found to be the most effective medium on germination in nickel application. When the number of cotyledon formations was examined, it was noted that the Nickel-4 environment came to the fore. It was determined that different doses of nickel did not affect leaf formation in lettuce. It was determined that shoot development was most prevalent in Nickel-2 and Nickel-3 environments, and they were statistically in the same group with the control application. As a result of the study, it was concluded that the effects and severity of heavy metals vary according to the dose and heavy metal type.

Keywords: Heavy Metal, *In vitro*, *Lactuca sativa*

**RESEARCHS ON QUALITY CHARACTERISTICS OF SWEET CORN COB DURING
STORAGE OF DIFFERENT HUSK QUANTITIES**

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ABSTRACT

Sweet corn can spoil quickly after harvest, where fresh cobs have high water and sugar concentrations. Effective post-harvest preservation techniques should be used to reduce post-harvest losses and ensure quality. The study was carried out to determine changes in the husk quantities of fresh sweet corn cobs quality during storage. The study was established in Isparta University of Applied Sciences, Faculty of Agriculture, Field Crops department in 2021, with 3 replications according to a randomized plot design. In the study, the sweet corn cobs separated into full husk, single-row husk and huskless cobs were stored in modified atmosphere bags for different periods (30, 60 and 90 days) in a warehouse with a temperature of +4°C and a relative humidity of $90 \pm 5\%$. In the study, weight loss, dry matter content, color parameters (L^* , C^* and h_0), total soluble sugar content, ash content and protein content were investigated according to storage time. Quality losses increased during storage, the storage time increased. At the end of storage, decrease in ash content, crude protein content, total soluble sugar content, color parameters (L^* , C^* and h_0); increase in weight loss and dry matter ratio were determined. According to the husk quantities, it was determined that the cob husk were closely related to the storage period. The least quality losses were in the sweet corns stored in full husk, followed by sweet corns stored in single-row husk and huskless form. As a result, it has been determined that sweet corn should be stored with cob husks after harvest to extend the storage life and to reduce quality losses.

Keywords: Sweet Corn, Storage, Presence Of Husk, Quality Characteristics

KEÇİ ETİ VE KALİTE ÖZELLİKLERİ
GOAT MEAT AND QUALITY CHARACTERISTICS

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ÖZET

Tarım sektörünün nüfusun beslenmesindeki önemi, dünya nüfusundaki hızlı artışa paralel olarak artmaktadır ve gıda, insan ihtiyaçlarının birinci basamağı olan fizyolojik ihtiyaçlar arasında yer almaktadır. Gıda tüketiminin zorunlu olması kadar gıdaların çeşitliliği ve günlük alım miktarı da önemlidir. İnsan beslenmesi için olmazsa olmaz olan hayvansal proteinin, erişilebilir olması, toplumların dengeli ve yeterli beslenmeleri için gereklidir. Ayrıca bu kaynağın varlığının yanı sıra güvenilirliği de önemlidir, teknolojik gelişme, ekonomik ve sosyal refahın artması tüketicilerin büyük çoğunluğunun gıda tüketimi üzerine olan hassasiyetini artırmış ve satın alma davranışlarını değiştirmiştir. Tüketici bilincinin günümüz itibariyle artmasıyla tüketilen hayvansal ürünlerde kalite özellikleri ön plana çıkmaya başlamıştır. Üretim maliyetlerinin yükselmesiyle hayvansal üretimin, bol miktarda ve ekonomik olmasını zorunlu hale getirmiştir. Bütün bu ilişkileri göz ardı etmeden mevcut tüm hayvansal üretim kaynaklarından olabildiğince etkin şekilde yararlanmanın yolları aranmalıdır.

Keçi yetiştiriciliği, keçi ürünlerine olan talebin artması ve ekonomik ölçekte değer kazanması ile birlikte tüm dünya ülkelerinde yükselişe geçmiştir. Keçilerin yemden yararlanma oranlarının yüksek olması, diğer hayvanlar tarafından değerlendirilemeyen yem kaynaklarını kullanarak verim elde etmesi gibi pek çok avantajları sayesinde düşük maliyetli ve kaliteli hayvancılık için önemli bir potansiyele sahiptir. Keçi eti, kırmızı et üretimi ve tüketimi içinde farklı coğrafi ya da kültürel koşullara göre farklı pazarlama koşulu olan bir hayvansal protein kaynağıdır. Et kalitesi renk, biçim, mukavemet, koku gibi duyu faktörleri; protein, bağdoku, mineraller, vitaminler, kuru maddeler gibi besleme faktörleri; pH değeri, kokuşma, zararlı kalıntı gibi hijyenik faktörler ve sululuk, yağ içeriği, ölüm sonu pH düşüşü gibi teknik faktörlerin ortak etkisi ile belirlenir. Ayrıca et kalitesi üzerinde kesim öncesi ve sonrası pek çok faktör de rol oynamaktadır. Bu çalışmada keçi eti üretimi ve kalite özelliklerinin ortaya konulması amaçlanmıştır.

Anahtar Kelimeler: Keçi Eti, Et Kalitesi, Kırmızı Et, Tüketici Tercihleri

ABSTRACT

The importance of the agricultural sector in the nutrition of the population is increasing in parallel with the rapid increase in the world population and food is among the physiological needs, which is the first step of human needs. The variety of foods and the daily intake are as important as the necessity of food consumption. Accessibility of animal protein, which is indispensable for human nutrition, is necessary for balanced and adequate nutrition of societies. In addition to the existence of this source, its reliability is also important. Technological development and the increase in economic and social welfare have increased the sensitivity of the majority of consumers on food consumption and changed their purchasing behavior. With the increase in consumer awareness as of today, quality features of consumed animal products have started to come to the fore. With the increase in production costs, it has become necessary for animal production to be abundant and economical. Without ignoring all these relations, ways to benefit from all available animal production resources as effectively as possible should be sought.

Goat breeding has started to rise in all countries of the world with the increase in the demand for goat products and the increase in value on an economic scale. Goats have an important potential for low-cost and high-quality livestock, thanks to many advantages such as high feed conversion rate and yield by using feed resources that cannot be evaluated by other animals. Goat meat is an animal protein source with different marketing conditions according to different geographical or cultural conditions in red meat production and consumption. Sensory factors such as meat quality, colour, shape, strength, odor; nutritional factors such as protein, connective tissue, minerals, vitamins, dry matter; The pH value is determined by the combined effect of hygienic factors such as putrefaction, harmful residue, and technical factors such as juiciness, oil content, post-mortem pH drop. In addition, many factors before and after slaughter play a role in meat quality. In this study, it is aimed to reveal goat meat production and quality characteristics.

Keywords: Goat Meat, Meat Quality, Red Meat, Consumer Preferences

DEMİR EKSİKLİĞİNİN MEYVE AĞAÇLARINA ETKİLERİ
EFFECTS OF IRON DEFICIENCY ON FRUIT TREES

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ÖZET

Demir (Fe), ağaçların bitki büyümesinde, hücre metabolizmalarında, azot fiksasyonunda ve fotosentezde çok önemli roller alan önemli bir mineraldir. Toprakta Fe bulunmasına rağmen, topraktaki kireç ve yüksek pH değeri nedeniyle Fe bileşiklerinin çözünürlüğünün düşük olması bitkilerde bazı semptomlara neden olmaktadır. Toprakta ve/veya sulama kaynağında karbonat bulunması, toprak ve suyun pH'sını yükseltir. Fe noksanlığı klorofil biyosentezinin azalmasına bağlı olarak yapraklarda kloroza neden olur. Demir klorozu birçok meyve ağacında meyve verimini ve kalitesini sınırlar. Birçok meyve ağacının Fe noksanlığına duyarlı olduğu bilinmektedir. Bu nedenle meyve bahçelerinde Fe noksanlığının oluşması yetiştiriciler için ciddi bir sorundur. Demir Fe^{3+} formunda bulunur, ancak bitkiler için Fe^{2+} formu tercih edilir. Bu nedenle Fe^{3+} , bazı mekanizmalarla Fe^{2+} 'ye indirgenmesi gerekmektedir. Fe elementini yarayışlı hale getirmek için iki mekanizma bilinmektedir; bir mekanizma, strateji I olarak adlandırılan Fe^{3+} 'nin Fe^{2+} 'ye indirgenmesinde kilit rol oynayan bir enzim olan demir şelat-redüktazdır (FC-R). Bir diğeri strateji II olarak adlandırılır ve Fe yarayışlılığı şelatlama ile sağlanmaktadır.

Strese dayanıklı anaçların kullanılması, stres hasarını hafifletmek için bir çözüm sunar. Birçok çalışma, bazı bitkilerin Fe elde etmek için organik asitler salgıdığını göstermiştir. Bu bağlamda, eksojen organik asit muamelesi toprak pH'nın ayarlanmasına yardımcı olabilir. Stres faktörleriyle baş etmenin bir başka yolu da antioksidanların tedavisidir. Bu derleme, Fe eksikliği stresinin meyve ağaçları üzerindeki etkilerini göstermektedir.

Anahtar Kelimeler: Demir, Kireç, Meyve Ağacı

ABSTRACT

Iron (Fe) is an important mineral for trees takes pivotal roles in plant growth, cell metabolisms, nitrogen fixation and photosynthesis. Despite the presence of Fe in the soil, low solubility of Fe compounds due to calcareous and high pH value of soil causes some symptoms in plants. The presence of carbonate in soil and/or irrigation source increase pH of the soil and water. Fe deficiency causes chlorosis in leaves due to decrease in chlorophyll biosynthesis. Iron chlorosis limits fruit yield and quality in many fruit trees. Many fruit trees are known sensitive to Fe deficiency. Therefore, the occurrence of Fe deficiency in orchards is a serious problem for the growers. Iron is found in the form of Fe^{3+} , however form of Fe^{2+} is preferred for plants. Therefore, Fe^{3+} must be reduced to Fe^{2+} with some mechanisms (Garcia et al., 2018). Two mechanisms are known to acquire Fe; one mechanism is Ferricchelate-reductase (FC-R) an enzyme playing key role in Fe^{3+} reduction to Fe^{2+} called as strategy I. Another one is called strategy II provides chelation to Fe availability.

The utilize of stress tolerant rootstocks represents a solution to alleviate stress damage. Many studies showed that some plants release of organic acids to acquire Fe. In these regards, exogenous organic acid treatment may help adjust soil pH. Another way to cope with stress factors is the treatment of antioxidants. The present review demonstrates the effects of Fe deficiency stress on fruit trees.

Keywords: Iron, Calcareous, Fruit Tree

BİTKİ BÜYÜMESİNİ TEŞVİK EDEN BAKTERİLERİN MEYVE AĞAÇLARINA ETKİLERİ EFFECTS OF PLANT GROWTH PROMOTER BACTERIA ON FRUIT TREES

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ÖZET

Bakteriler en yaygın organizmalardır. Bitki kökleri etrafındaki bakteri yoğunluğu, genellikle toplu toprakta bulunan yoğunluktan çok daha yüksektir. Bitki köklerinin (rizosfer) çevresinde bulunan bakterilerin çoğu, bitki büyümesini kolaylaştırma yeteneğine sahiptir ve sonuç olarak bitki büyümesini teşvik eden bakteriler (PGPB) olarak adlandırılır. Rizosferin çeşitli PGPB'ye konukçuluk yaptığı iyi bilinmektedir. Bitki büyümesini teşvik eden bakteriler, bitkilerin büyümesini kolaylaştırabilen serbest yaşayan toprak bakterileridir. Bitkilere faydalı mikroorganizmalar, tarımda biyo-gübre veya pestisit olarak uygulamada kullanılmaktadır. Bitki büyümesini teşvik eden bakterilerle muamele edilen bitkilerin çevresel streslere karşı artan direncini açıklamada, az sayıda mekanizma içeren çalışma gösterilmiştir. PGPB, hem doğrudan hem de dolaylı mekanizmalarla bitki büyümesini teşvik edebilir. Doğrudan mekanizmalar, oksin, ACC deaminaz, sitokin, gibberellin, azot fiksasyonu, fosfor çözübilme dahil olmak üzere bitki büyümesinin doğrudan desteklenmesiyle sonuçlanan bakteriyel özelliklerin kullanılması olarak tanımlanır. Dolaylı mekanizmalar arasında ise ACC deaminaz, antibiyotikler, hücre duvarını parçalayan enzimler ve sideroforlar bulunur. Bu derlemede PGPB'nin meyve ağaçları üzerindeki etkileri tartışılacaktır.

Anahtar Kelimeler: Bitki Büyümesi, Faydalı Bakteri, Meyve Ağaçları

ABSTRACT

Bacteria are the most ubiquitous organisms. That is, the concentration of bacteria around the roots of plants is generally much higher than the concentration found in the bulk soil. Many of the bacteria that are found around plant roots (the rhizosphere) have the ability to facilitate plant growth and consequently are called plant growth-promoting bacteria (PGPB). The rhizosphere is well known to host a variety of PGPB. Plant growth-promoting bacteria are free-living soil bacteria that can facilitate growth of plants. Plant beneficial microorganisms are of interest for application in agriculture either as biofertilisers or as pesticides. Relatively few mechanisms have been unequivocally demonstrated in explaining the increased resistance to environmental stresses of plants treated with plant growth-promoting bacteria. PGPB can promote plant growth by both direct and indirect mechanisms. Indirect mechanisms refer to bacterial traits that inhibit the functioning of one or more plant pathogenic organisms both fungi and bacteria. Indirect mechanisms include ACC deaminase, antibiotics, cell wall degrading enzymes, and siderophores. In the current review, the effects of PGPB on fruit trees will be discussed.

Keywords: Plant Growth, Useful Bacteria, Fruit Trees

SOĞAN TOHUMLARINDA OZMO ve HİDROPRİMING UYGULAMALARININ TOHUM GÜCÜ ÜZERİNDEKİ ETKİNLİĞİ

EFFECTIVENESS OF OZMO AND HYDROPRİMING TREATMENTS ON SEED VIGOR IN ONION SEEDS

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ÖZET

Tohum priming işlemleri, radikül çıkışından önce çimlenme öncesi metabolik aktiviteleri uyararak ve bitkinin çimlenme hızında ve performansında iyileşme sağlayarak fide gelişimi için bir ekim öncesi yaklaşımdır. Hidropriming, tohumlarda hidrasyon yapmak ve kimyasalların kullanımını en aza indirmek için en basit yaklaşımdır. Tohumların ozmotik çözeltilerde tutulması ile tohumun su ile muamele edildiği çözeltilerin ozmotik basınçları arasında fark ortaya çıkararak, çimlenmenin uyarılması veya başlatacak kadar suyun tohum içine girmesini sağlamak amaçlanmaktadır. Çalışmada; Güntan ve Tan8 soğan (*Allium cepa* L.) çeşitlerinin tohumlarına uygulanan ozmo ve hidro priming uygulamalarının tohum canlılığı ve güç oranlarına etkileri belirlenmiştir. 25 ve 30 °C sıcaklıkta %2-4 NaCl ve hidropriming uygulamaları yapılmıştır. Çimlendirme (24 °C'de 14 gün), çıkış (24 °C'de, 21 gün), kontrollü bozulma (%24 nemde, 45 °C'de 24-48 saat), hızlı yaşlandırma (45 °C'de 48, 72, 90 ve 120 saat) ve EC (20 °C'de, 2-4-6 ve 24 saat) testleri kurulmuştur. Denemede ortalama çimlenme oranı ve zamanı ölçülmüştür. Yapılan priming sonuçları değerlendirildiğinde genel olarak; hidro ve ozmopriming uygulamalarının 25 °C'de tohum canlılığı üzerindeki etkileri daha olumlu bulunmuş olup, özellikle tohum yaşlandıkça %2 NaCl dozu canlılık performansını arttırmıştır. Özellikle fide çıkış performanslarında bu fark daha belirgin olmuştur. Yaşlanma süreci içerisinde tohumun ticari canlılık değerindeki azalma hidropriming uygulaması ile yavaşlamıştır. İki çeşit karşılaştırıldığında ise Güntan gerek kontrol grubu gerekse yaşlandırma sürecindeki performanslar açısından daha iyi performans göstermiştir. Genel olarak sonuçlar göstermiştir ki; yapılan priming uygulamaları çimlenme gücüne olumlu etki yapmış, çimlenme zamanı ve anormaliteyi azaltmış özellikle Güntan çeşidinde çimlenme zamanında erkencilik sağlamıştır.

Anahtar Kelimeler: Soğan, Ozmopriming, Hidropriming, Tohum gücü ve canlılığı

ABSTRACT

Seed priming is a pre-planting approach for seedling development by stimulating pre-germination metabolic activities before radicle emergence and improving the germination rate and performance of the plant. Hydropriming is the simplest approach to hydrating seeds and minimizing the use of chemicals. It is aimed to create a difference between keeping the seeds in osmotic solutions and the osmotic pressures of the solution in which the seed is treated with water, to stimulate germination or to ensure that enough water enters the seed to initiate it. In the study; The effects of osmo and hydro priming treatments applied to the seeds of Güntan and Tan8 onion (*Allium cepa* L.) cultivars on seed viability and vigor were determined. 2-4% NaCl and hydropriming applications were done at 25 and 30 °C temperatures. Germination (14 days at 24 °C), emergence (21 days at 24 °C), controlled deterioration (24-48 hours at 24 °C, 45 °C), rapid aging (48, 72, 90 °C at 45 °C), and 120 hours) and EC (at 20 °C, 2-4-6, and 24 hours) tests were established. The mean germination rate and time were measured in the experiment. When the priming results are evaluated, in general; the effects of hydro and osmopriming applications on seed viability at 25 °C were found to be more positive, and a 2% NaCl dose increased the viability performance, especially as the seed aged. Especially in seedling emergence performances, this difference was more pronounced. During the aging process, the decrease in the commercial viability value of the seed slowed down with the hydropriming application. When the two cultivars were compared, Güntan showed better performance both in the control group and in the aging process. In general, the results showed that; Priming applications had a positive effect on germination power, reduced germination time and abnormality, and provided earliness in germination time, especially in the Güntan variety.

Keywords: Onion, Osmopriming, Hydropriming, Seed vigor and vitality

**COVID-19 PANDEMİ SÜRECİNDEKİ ÇEVRESEL VE TEKNOLOJİK FAKTÖRLER
KAPSAMINDA SAĞLIK KURUMLARININ YAPISAL VE YÖNETSEL AÇIDAN
DEĞERLENDİRİLMESİ**

STRUCTURAL AND MANAGEMENT EVALUATION OF HEALTH INSTITUTIONS WITHIN THE
SCOPE OF ENVIRONMENTAL AND TECHNOLOGICAL FACTORS DURING THE COVID-19
PANDEMIC PROCESS

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ÖZET

Covid-19 pandemi süreci esnasında ülke genelinde kamu ve özel sağlık kuruluşlarında çeşitli yönetsel uygulamalar, kararlar ve önlemler ortaya konulmuştur. Olağanüstü bir dönemi ifade eden bu süreç dahilinde sağlık kurumlarının içinde bulunduğu koşullar ile örgütsel yapı ve sergilenen yönetsel faaliyetler arasında alışlagelenden çok daha yakın bir ilişki meydana gelmiştir. Bu durum sağlık kurumlarını çeşitli yapı, süreç, yöntem ve anlayış değişikliklerine zorlamıştır.

Olağanüstü koşullar altında sağlık kurumlarında yapısal ve yönetsel anlayış değişikliklerine yol açan etkenlerin başında, aynı zamanda durumsallık yaklaşımının temel unsurlarını teşkil eden, çevre ve teknoloji gelmektedir. Teknoloji sağlık kurumlarındaki çalışanları, grupları, örgüt içi ilişkileri, yönetim süreçlerini ve yönetim şekillerini önemli ölçüde etkilemektedir. Benzer bir şekilde, sağlık kurumlarının içerisinde yer aldığı olağanüstü çevre koşulları dengeli olma, değişime yatkınlık, çapraşıklık düzeyi, değişim hızı, belirsizlik gibi boyutlar düzeyinde örgütsel yapı ve işleyişi güçlü bir şekilde etkilemektedir.

Bu çalışmada Covid-19 pandemi süreci nedeniyle ortaya çıkan teknolojik gelişmelerin ve bazı mevcut teknolojilerin kullanımında ortaya çıkan olağandışı kısıtlılıkların sağlık kurumu çalışanları, sağlık meslek grupları, örgüt içi ilişkiler ve yönetsel uygulamalar ile süreçler üzerindeki etkisi araştırılmıştır. Ayrıca, sağlık kurumlarının yapısı ile yönetsel faaliyetlerinin hızla değişen çevresel koşullardan ne şekilde etkilendiği hususu ele alınmıştır.

Literatür taraması neticesinde elde edilen bulgular ışığında, sağlık kurumlarının iç yapısını karakterize eden yönetsel kademe sayısı, alt birimlerin miktarı, yetki ve otorite dağılımı, iş bölümü, uzmanlaşma derecesi, iletişim kanallarının yapısı, büyüklük, formalleşme derecesi, karar verme yetkisinin kullanım şekli ile dağılımı, yönetici/çalışan sayısı oranı gibi unsurlar ve sağlık kurumlarının çevresini teşkil eden pazar koşulları, rekabet, kamu müdahalesi, kültürel - sosyal faktörler, hasta profili gibi unsurların pandemi süresince alışlagelmiş olandan bazı açılardan farklılaştığı belirlenmiştir. Sağlık kurumlarında değişen söz konusu teknolojik ve çevresel faktörlere bağlı olarak işlerin yapılış şekli, sağlık çalışanlarının sahip olması gereken nitelikler, sağlık çalışanlarının işinden tatmin olma düzeyi, sağlık hizmetlerinin miktarı ve kalitesi, bireysel ve takım halinde çalışma düzeni ve etkili iletişim yöntemleri gibi faktörler açısından ortaya çıkan bazı farklılıklar da tespit edilmiştir.

Sağlık kurumları, hizmet sunulabilmesi açısından yapılması gerekli olan faaliyetlerin tamamının karşılıklı olarak birbirinin başarısına bağlı olmasına dayalı olan, yoğun teknoloji esaslı örgütler olduğu için büyük ölçüde organik organizasyon yapısına sahiptir. Covid-19 pandemi döneminde yoğun teknoloji esaslı

yönetim faaliyetlerinin gerçekleştirilmesinde yaşanan güçlüklerin sağlık kurumlarının sahip olduğu organik yapıyı bazı açılardan olumsuz yönde etkilediği değerlendirilmiştir. Bu durumun, yoğun teknolojilerde önem arz eden hususların başında gelen birimler arasında çok yönlü ve hızlı iletişim, çalışanların empati yapabilme yeteneği, birbirleri ile sürekli iş ilişkisi içerisinde bulunma, koordinasyonların karşılıklı olarak ayarlanması, çapraşık organizasyon yapısı ile dayanışma eğilimi gibi faktörlerin pandemi sürecinde bazı açılardan sektöre uğramasından kaynaklandığı sonucuna ulaşılmıştır.

Anahtar Kelimeler: Sağlık yönetimi, Çevre, Teknoloji, Covid-19 Pandemisi

ABSTRACT

During the COVID-19 pandemic process, various administrative practices, decisions, and measures have been put forward in public and private health institutions throughout the country. In this process, which represents an extraordinary period, there has been a much closer relationship than usual between the conditions of health institutions, the organizational structure, and the administrative activities exhibited. This situation has forced health institutions to change various structures, processes, methods, and understandings.

The environment and technology, which constitute the basic elements of the contingency approach, are at the forefront of the factors that lead to structural and managerial changes in health institutions under extraordinary conditions. Technology significantly affects employees, groups, intra-organizational relations, management processes, and management styles in health institutions. Similarly, the extraordinary environmental conditions in which health institutions are located strongly affect the organizational structure and functioning at the level of dimensions such as being balanced, susceptibility to change, level of complexity, speed of change, and uncertainty.

In this study, the effects of the technological developments and the unusual limitations in the use of some existing technologies that emerged due to the COVID-19 pandemic process on health care workers, health professional groups, intra-organizational relationships, and managerial practices and processes were investigated. In addition, the structure of health institutions and how their administrative activities are affected by rapidly changing environmental conditions are discussed.

In the light of the findings obtained as a result of the literature review, it has been determined that the elements that characterize the internal structure of health institutions, such as the number of hierarchical levels, the distribution of authority and responsibility, the division of work, specialization of jobs, the structure of communication channels, the size, the degree of formalization, the use and distribution of decision-making authority, and the factors such as market conditions, competition, public intervention, cultural-social factors, patient profile, which constitute the environment of health institutions, differ in some respects from the usual ones during the pandemic. Depending on the technological and environmental factors that change in health institutions, some differences have also been identified in terms of factors such as the way things are done, the qualifications that health workers should have, the level of satisfaction of health workers, the amount and quality of health services, individual and team working arrangements, and effective communication methods.

Healthcare institutions have an organic organizational structure to a large extent, as they are intensive technology-based organizations that depend on the mutual success of all the activities that must be done in order to provide services. It has been evaluated that the difficulties experienced in the implementation of intensive technology-based management activities during the COVID-19 pandemic period adversely affected the organic structure of health institutions in some respects. It has been concluded that this situation is due to the fact that factors such as versatile and fast communication among the units, the ability of employees to empathize, being in a constant business relationship with each other, mutual adjustment of coordination, intricate organizational structure, and a tendency to solidarity, which are at the forefront of the important issues in intensive technologies, are interrupted in some respects during the pandemic process.

Keywords: Healthcare Management, Environment, Technology, COVID-19 Pandemic

**BİRİNCİ BASAMAK SAĞLIK HİZMETLERİNDE ÇALIŞAN SAĞLIK PERSONELİNDE
COVID-19 KORKUSUNUN DEĞERLENDİRİLMESİ**
EVALUATION OF COVID-19 FEAR IN HEALTH STAFF WORKING IN PRIMARY HEALTH
SERVICES

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ÖZET

COVID-19 pandemisi başta sağlık çalışanları olmak üzere tüm toplumun psikolojik sağlığını olumsuz etkilemiştir. COVID-19'un tehlikeli bir salgın olması, sağlık çalışanları arasında mental sağlık sorunlarını tetiklemekte ve bu da sağlık çalışanlarının fiziksel sağlığına ve mental iyi oluşuna olumsuz etki yapmaktadır. Pandemi döneminde, sağlık çalışanlarında strese neden olan faktörlerin başında, COVID-19 ile enfekte olma korkusu gelmektedir. Sağlık kuruluşlarında COVID-19 korkusuyla mücadele edebilmek ve olumsuz etkilerini azaltabilmek için ise öncelikle çalışanların COVID-19 korku düzeylerinin bilinmesi gerekmektedir. Bu çalışmanın amacı, birinci basamak sağlık hizmetlerinde görevli sağlık çalışanlarında COVID-19 korkusunu değerlendirmektir. Araştırmaya Niğde il merkezindeki birinci basamak sağlık kuruluşlarında görevli 69 doktor (aile hekimi), 121 aile sağlığı elamanı (ebe, hemşire ve sağlık memuru) ve 29 diğer olmak üzere toplam 219 sağlık çalışanı katılmış, böylece çalışma evreninin %90,12'sine ulaşılmıştır. Sağlık çalışanlarının COVID-19 korku düzeyini ölçmek için COVID-19 Korku Ölçeği kullanılmıştır. Ölçeğin güvenilirlik katsayısı 0,92 olarak bulunmuştur. Sağlık çalışanlarının COVID-19 Korku Ölçeği genel ortalaması $2,33\pm 0,95$ 'tir. Araştırma sonuçlarına göre cinsiyeti kadın ($2,45\pm 1,01$), medeni durumu evli ($2,41\pm 0,96$) ve kurumda çalışma süresi daha uzun ($2,50\pm 0,95$) olan sağlık çalışanlarının COVID-19 korku düzeyi daha yüksektir ($p<0,05$). Ayrıca kadın sağlık çalışanı ($b=0,52$; $p=0,001$) ve evli ($b=0,47$; $p=0,014$) olma, COVID-19 korkusunun belirleyicilerindedir. Çalışmanın sonunda, özellikle korku düzeyi yüksek gruplar başta olmak üzere, tüm sağlık çalışanlarının pandemi korkusunu yok etmek veya en eza düşürmek için gerekli koruyucu ekipmanların zamanında sağlanması, terapi desteği, video konferans gibi yöntemlerin uygulanması ve bunların dışında başka hangi müdahalelerin yapılabileceğinin araştırılması önerilmiştir.

Anahtar Kelimeler: COVID-19 korkusu, birinci basamak sağlık kuruluşları, sağlık personeli, hemşireler, doktorlar

ABSTRACT

The COVID-19 pandemic has adversely affected the psychological health of the entire society, especially healthcare workers. The dangerous nature of COVID-19 triggers mental health problems in health staff that negatively affect their physical health and mental well-being. During the pandemic period, the fear of being infected with COVID-19 was the main factor that cause stress in health staff. In order to struggled the COVID-19 fear in health institutions and to reduce its negative effects, it is necessary to know the COVID-19 fear levels of the employees first. The aim of this study was to evaluate the fear of COVID-19 in health staff in primary health care institutions. A total of 219 health workers, including 69 doctors (family physicians), 121 family health personnel (midwife, nurse and health officer) and 29 other health staff in the primary health care institutions in the city center of Niğde, participated in this study. Thus, 90.12% of the study population was reached. The COVID-19 Fear Scale was used to measure the COVID-19 fear level of health staff. The reliability coefficient of the scale was 0,92. The general average of the COVID-19 Fear Scale of health staff was 2.33 ± 0.95 . In the study, the COVID-19 fear levels of health staff who were female (2.45 ± 1.01), married (2.41 ± 0.96) and had a longer working time in the institution (2.50 ± 0.95), were higher ($p<0.05$). In addition, being a female ($b=0.52$; $p=0.001$) and married ($b=0.47$; $p=0.014$) health staff were among the determinants of COVID-19 fear. At the end of the study, it was suggested to provide the necessary protective equipment in a timely manner, to apply methods such as therapy support, video conference, and to investigate what other interventions could be done in order to eliminate or minimize the fear of pandemics of all health professionals, especially in groups with high levels of fear.

Keywords: Fear of COVID-19, primary health care institutions, health staff, nurses, doctors

VAN KALESİ HÖYÜĞÜ TOPLUMUNDA DOWN SENDROMU ÖRNEĞİ¹

THE SAMPLE OF THE DOWN SYNDROME IN INDIVIDUALS OF VAN CASTLE MOUND
SOCIETY¹

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ÖZET

İnsanda genetik düzensizlik sonucu fazladan bir kromozomun bulunmasına Down sendromu denilmektedir. Down sendromu, insan yaşam kalitesini düşüren genetik bir farklılıktır. Down sendromuna ilişkin klinik verilerin çoğunluğu yumuşak dokuda oluşan morfolojik bozukluklardır. Kemikler üzerinde yapılan çalışmalar sınırlı olmasına rağmen ince kafatası kemikleri, metopik sutur açıklığı, oksipital düzlük, brakisefallik, frontal, maksillar ve sphenoid sinüslerin az gelişmesi veya yokluğu ve dişlerde gözlenen hastalıklar gibi özellikler akla Down sendromunu getirmektedir. Çalışmanın materyalini; 2014 yılında Van Kalesi Höyüğü kazısından elde edilen ve Orta Çağ'ın son evresi - Yakın Çağ'ın ilk evreleri (17. yy-20. yy) arasına tarihlendirilen 18-25 yaşlarında bir kadın bireyin kafatası oluşturmaktadır. Çalışmanın amacı, Van Kalesi Höyüğü'nde 18-25 yaşlarında genç erişkin bir kadın bireyde gözlenen Down sendromu bulgularını değerlendirmek ve daha önce tespit edilen çalışmalarla birlikte değerlendirilerek literatüre katkı sağlamaktır. Çalışmada Down sendromu özellikleri anatomik açıdan ayrı ayrı değerlendirilerek, bireyin kafatası ve yüz iskeletinden osteometrik ölçümler alınmıştır. Ayrıca, sinüs varlığı ve gelişimi hakkında bilgi vermek için röntgen çekimi yapılmıştır. Van Kalesi Höyüğü toplumuna ait VK2014 M28 16505 buluntu numaralı genç erişkin (18-25) kadın bireye ait kafatasının morfolojik özelliklerinin, Down sendromu tanısal özellikleri ile uyumluluk gösterdiği tespit edilmiştir. Down sendromlu genç erişkin bireyin kafatası kapasitesinin küçük olması, kafatası uzunluğunun kısa olması, microcephalik kafatası tipi göstermesi ve rhomboid kafatası biçimine benzemesi morfolojik farklılıklardır. Kafatası occipitalinin düz olması, frontalde metopik suturun varlığı, alnın geniş olması, çok dar ve uzun yüz özelliği, dar buruna sahip olması, dar damaklı olması, hyperbrachicephalic indeks göstermesi, sağ frontal sinüsün az gelişmiş olması, sol maxillar sinüsü gelişmemiş olması, maloklüzyonun varlığı, dişlerin hizalanma problemi, dişlerin çıkmasında değişkenlik ve dişlerinde mine hypoplasianın varlığı bu bireyin Down sendromu ile uyumlu olduğunun göstergesidir. İncelenen bu bireyin kafatası morfolojik özellikler açısından Down sendromu ile uyumluluk göstermektedir. Bu birey üzerinde incelemeler devam etmektedir.

Anahtar Kelimeler: Down sendromu, Van Kalesi Höyüğü, Anadolu

1 It was prepared by Mehmet Denli from his master's thesis titled "Paleoanthropological Investigation of Metopic Suture Samples Observed in the Van Castle Mound Society".

ABSTRACT

Presence an extra-chromosome in human is called Down syndrome which is the result of genetic irregularity. Down syndrome is a genetic variation that reduce the quality of human life. The majority of clinical data appertain to Down syndrome are morphological disorders consisted in soft tissue. Although there are limited studies made on skeletons, observed traits such as thinness of vault, the persistent metopic suture, flat occipital bone, brachycephalic, little development or the absence of frontal maxillar and sphenoid sinuses and teeth bring Down syndrome to the mind. The material of study is the skull of a female individual, aged 18-25 years, unearthed from excavation of 2014 year in the Van Castle Mound and dated between the last phase of the Middle Ages and the first phase of the Modern Age (17-20th century). The aim of the study is to evaluate the findings of Down syndrome observed on a young adult female individual, aged 18-25, found in the Van Castle Mound and contribute to the literature by evaluating the results together with previous studies. In the study, the features of Down syndrome were evaluated separately from the anatomical point of view, and osteometric measurements were taken from the skull and facial skeleton of the individual. In addition, x-rays were taken to give information about the presence and development of sinus. Morphological features of the skull of a young adult (18-25) female individual with find number VK2014 M28 16505 belonging to the Van Castle Mound community were found to be compatible with the diagnostic features of Down syndrome. Morphological differences in young adults with Down syndrome are small skull capacity, short skull length, microcephalic skull type and resemblance to rhomboid skull shape. Flat skull occipital, presence of metopic suture in the frontal, wide forehead, very narrow and long facial features, narrow nose, narrow palate, hyperbrachicephalic index, underdeveloped right frontal sinus, underdeveloped left maxillary sinus, presence of malocclusion, The problem of alignment of the teeth, the variability in the eruption of the teeth, and the presence of enamel hypoplasia in the teeth are indicators that this individual is compatible with Down syndrome. The skull of this examined individual is compatible with Down syndrome in terms of morphological features. The examination made on this individual continues.

Key words: Down syndrome, Van Castle Mound, Anatolia

SAĞLIK BİLİMLERİ ÖĞRENCİLERİNİN BİLGİ OKURYAZARLIĞI

INFORMATION LİTERACY OF HEALTH SCIENCES STUDENTS

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ÖZET

Araştırmanın Amacı ve Problemi: Bilgi ve iletişim teknolojilerinde yaşanan gelişmeler ve zaman kavramının değerinin artması ile bilgiye ulaşma hızı tüm alanlarda olduğu gibi sağlık alanında da önemli bir güç haline gelmiştir. Araştırmanın amacı, sağlık bilimleri alanında öğrenim gören öğrencilerin bilgiye ulaşırken yaşadıkları problemleri bulmak ve bilgi edinme, bilgiye ulaşma, bilgiyi yapılandırma yaklaşımlarını ve buna ilişkin beceri düzeylerini ölçmektir. Bu araştırmanın problemi, sağlık alanında hizmet vermesi için yetiştirilen öğrencilerinin çalışmalarında bilgiye ulaşma konusunda yaşadıkları problemler.

Yöntem: Yapılan araştırma nicel araştırma türündedir. Veriler araştırmanın amacına uygun olarak Bilgi okuryazarlığı ölçeği ve kişisel bilgi formu kullanılarak toplanmıştır. Yapılan anketler SPSS programı ile analiz edilmiştir. Araştırma, Sakarya Uygulamalı Bilimler Üniversite'nin Akyazı Sağlık Hizmetleri Meslek Yüksekokulu öğrencileri ile 2021– 2022 eğitim-öğretim yılının bahar yarıyılında yapılmıştır. Araştırmanın evrenini 1200 öğrenci örneklemini 280 öğrenci oluşturmuştur. Anketler, Bilgi Okuryazarlık Ölçeği kullanılarak yüz yüze ve Google form aracılığı ile yapılmıştır.

Bulgular: Araştırmaya katılan öğrencilere bilgi okuryazarlık ölçeği cevaplandırılmış ve bilgi okuryazarlık seviyeleri test edilmiştir. Yapılan anketlerde sağlık alanında öğrenim gören öğrencilerin verdiği cevaplara göre öğrencilerin %78,51'nin ölçekteki sorulara olumlu yönde cevap verdiği görülmüştür. Yapılan anketlerde verilen cevapların aile gelir düzeyi ile bağlantılı olduğu saptanmış olup gelir düzeyi arttıkça bilgi okuryazarlığı düzeyinin de arttığı görülmüştür.

Sonuç: Çalışma sonucu dikkate alındığında ölçekler üzerinde öğrenim görülen bölüm ve cinsiyet özelliklerinin etkisi de saptanmıştır. Çalışma sonucunda eğitim düzeyine göre pozitif yönlü anlamlı ilişki olduğu anlaşılmıştır. Elde edilen bulgular doğrultusunda zaman kaybının önemli etkilerinin olabileceği sağlık hizmetlerinde çalışacak adayların bilgiyi bulma ve bilgiye ulaşma hızındaki düzeylerinin yüksek olduğu tespit edilmiştir.

Anahtar Kelimeler: Bilgi okuryazarlığı, Sağlık, Bilgi Edinme

ABSTRACT

Purpose and Problem of the Research: With the developments in information and communication technologies and the increase in the value of the concept of time, the speed of accessing information has become an important power in the field of health as well as in all other fields. The aim of the research is to find out the problems experienced by students studying in the field of health sciences while reaching information and to measure their approaches to obtaining information, accessing information, structuring information and their skill levels. The problem of this research is the problems experienced by the students who are trained to serve in the field of health in accessing information in their studies.

Method: The research is in the type of quantitative research. The data were collected by using the Information Literacy scale and the personal information form in accordance with the purpose of the research. The questionnaires were analyzed with the SPSS program. The research was conducted with Sakarya University of Applied Sciences Akyazı Health Services Vocational School students in the spring semester of the 2021-2022 academic year. The universe of the research consisted of 1200 students and 280 students. Questionnaires were conducted face-to-face using the Information Literacy Scale and via Google form.

Findings: Information literacy scale was answered to the students participating in the research and their information literacy levels were tested. According to the answers given by the students studying in the field of health in the surveys, it was seen that 78.51% of the students gave positive answers to the questions in the scale. It has been determined that the answers given in the surveys are related to the family income level, and it has been observed that the level of information literacy increases as the income level increases.

Conclusion: Considering the results of the study, the effects of the department and gender characteristics on the scales were also determined. As a result of the study, it was understood that there was a positive and significant relationship according to education level. In line with the findings, the candidates who will work in health services, where time loss may have significant effects, have a high level of finding and accessing information.

Keywords: Information literacy, Health, Obtaining Information

COVID-19 PANDEMİSİNDE HEMŞİRELERİN STANDART ÖNLEMLERE UYMA DURUMLARININ BELİRLENMESİ
DETERMINATION OF NURSES' COMPLIANCE WITH STANDARD PRECAUTIONS DURING COVID 19 PANDEMIC

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ÖZET

Amaç: Hemşireler, COVID-19 pandemi sürecinde, sağlık hizmeti sunumunda en ön saflarda görev yapan sağlık profesyonelleridir. Pandemi koşulları, hemşireler için birçok zorluğu da beraberinde getirmiştir. Bir yandan COVID-19 ile enfekte olan hastaların ağır sağlık bakım gereksinimlerini karşılamak için yedi gün 24 saat yatak başı çalışan hemşireler, diğer yandan da virüs bulaşı riskine karşı mücadele etmektedirler. Bu çalışma hemşirelerin Covid 19 pandemi sürecinde standart önlemlere uyma durumlarını belirlemek amacı ile tanımlayıcı türde yapılmıştır.

Yöntem: Bu çalışma Dr. Ersin Arslan Eğitim ve Araştırma Hastanesi'nin Eylül-Aralık 2021 tarihleri arasında yürütülmüştür. Çalışmanın evrenini pandemi sürecinde hastanede görev yapan hemşireler oluşturmuş olup her hangi bir örnekleme yöntemine gidilmeden çalışmaya katılmayı kabul eden 219 hemşire çalışmanın örneklemini oluşturmuştur. Çalışma verileri araştırmacılar tarafından oluşturulan "Sosyo-demografik Bilgi Formu" ve "Standart Önlemlere Uyum Ölçeği" ile araştırmacı tarafından yüz yüze görüşme tekniğiyle toplanmıştır.

Bulgular: Çalışmaya katılan hemşirelerin %57.5'i kadın, %63.9'u bekârdır. Çalışmaya katılanların yaşları 18-65 arasında olup %31.5'i 26-35 yaş aralığındadır. Çalışmaya katılan hemşirelerin %23.7'si yoğun bakımda çalışmakta ve %32.9'unun çalışma yılı 26-30 yıl arasındadır. Hemşirelerin Standart Önlemlere Uyma Ölçeği toplam puan ortalaması 14.48 ± 2.80 olarak bulunmuştur.

Sonuç: Çalışma sonucunda COVID-19 pandemisinde hemşirelerin standart önlemlere uyum puanı ortalamasının üzerinde bulunmuştur. Ayrıca hemşirelerin yaş, cinsiyet, mesleki deneyim gibi özellikleri standart önlemlere uymalarını etkileyen faktörler olduğu belirlenmiştir.

Anahtar Kelimeler: Covid 19; hemşire; standart önlem

ABSTRACT

Aim: Nurses are healthcare professionals who work at the forefront of healthcare delivery during the COVID-19 pandemic. Pandemic conditions have brought many difficulties for nurses. On the one hand, nurses working 24 hours a day, seven days a week to meet the severe health care needs of patients infected with COVID-19, on the other hand, are struggling against the risk of virus transmission. This study was conducted in a descriptive manner to determine the nurses' compliance with standard precautions during the Covid 19 pandemic process.

Methods: This study was carried out at Dr. Ersin Arslan Training and Research Hospital between September and December 2021. The population of the study consisted of nurses working in the hospital during the pandemic process, and 219 nurses who agreed to participate in the study without any sampling method formed the sample of the study. The study data were collected by the researcher by face-to-face interview technique with the “Socio-demographic Information Form” and “Scale of Adaptation to Standard Precautions” created by the researchers.

Results: 57.5% of the nurses participating in the study were women and 63.9% were single. The age of the participants in the study is between 18-65 and 31.5% of them are between 26-35 years old. 23.7% of the nurses participating in the study work in the intensive care unit, and 32.9% of them work between 26-30 years. The mean score of the Nurses' Compliance with Standard Precautions Scale was 14.48 ± 2.80 .

Conclusion: As a result of the study, the compliance score of nurses to standard precautions in the COVID-19 pandemic was found above the average. In addition, it has been determined that the characteristics of nurses such as age, gender, professional experience are factors that affect their compliance with standard precautions.

Keywords: Covid 19; nurse; standard precautions

**ANESTEZİ VE TIBBİ GÖRÜNTÜLEME TEKNİKLERİ ÖĞRENCİLERİNİN
AMELİYATHANEDE KULLANILAN SKOPİ VE RADYASYON GÜVENLİĞİ HAKKINDA
BİLGİ DÜZEYLERİ**

KNOWLEDGE LEVELS OF ANESTHESIA AND MEDICAL IMAGING TECHNIQUES
STUDENTS ABOUT SCOPY AND RADIATION SAFETY USED IN THE OPERATING ROOM

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ÖZET

Yapılan çalışmada, ameliyathanede çalışacak anestezi ve tıbbi görüntüleme teknikleri öğrencilerinin radyasyondan korunma bilgi düzeyinin değerlendirilmesi amaçlanmıştır.

Çalışmaya Anestezi ve Tıbbi Görüntüleme Teknikleri programlarında, 2022-2023 Eğitim-Öğretim Bahar yarısında öğrenime devam eden 179 öğrenci katıldı. Katılımcılara ameliyathanede kullanılan radyasyon cihazları ve bu cihazların kullanımı sırasında uyulması gereken radyasyondan korunma ile ilgili bilgi düzeyini ölçmeyi amaçlayan ve literatür taraması sonucu oluşturulan bir anket uygulandı. Çalışma sonucunda elde edilen sonuçlar, istatistiksel olarak değerlendirildi.

Katılımcıların büyük çoğunluğu Ameliyathanede kullanılan radyasyon cihazları ve radyasyondan korunma ile ilgili soruları doğru yanıtladı. Ameliyathanede kullanılan cihazlar ile ilgili soruya, katılımcıların %56,89'u skopi cevabını vermiştir. Skopi cihazının başka kullanım alanlarında olduğuna dikkati çekmek için yöneltilen soruya katılımcıların %28,1'i ameliyathane cevabını verse de, %71,9'u diğer kullanım alanını da işaretlemiştir. Skopi kullanımı sırasında radyasyondan koruyucu ekipmanlar sorulduğunda, cevapların %34,74'nün kurşun önlük, %25,16'sının tiroid koruyucu olduğu görüldü. Katılımcıların büyük çoğunluğu (%69,27), koruyucu ekipmanların muhafaza edilmesine yönelik yapılması gereken uygulamayı bildiği görüldü. Katılımcıların %84,35'i, skopi kullanımı sırasında cihaza en uzak mesafede durulması gerektiğini ifade etmiştir. Skopi cihazı ile uzun süre çalışılması ve koruyucu önlük kullanılmamasının kansere sebep olabileceği konusunda, katılımcıların %91,06'sının hemfikir olduğu görüldü.

Katılımcıların ameliyathanede kullanılan radyasyon cihazının skopi olduğunu belirten olduğu kadar, MR ve BT cevabını verenlerin de olması, ameliyathanede kullanılan radyasyon cihazlarının yeterince bilinmediğini göstermektedir. Yapılan çalışmada katılımcıların, radyasyondan korunma hakkında bilgi düzeyinin orta seviye olduğu ve radyoloji departmanında çalışan personelin yanı sıra ameliyathanede de çalışan personelin radyasyon farkındalığının artırılması gerektiği sonucuna ulaşılmıştır. Ayrıca, radyasyon ile ilgili bilgi düzeyinin ve farkındalığın artırılması için, mezuniyet sonrası radyasyon eğitiminin yenilenmesi ve iyileştirilmesinin gerektiği düşünülmektedir.

Anahtar Kelimeler: Ameliyathane, skopi, radyasyondan korunma

ABSTRACT

In this study, it was aimed to evaluate the radiation protection knowledge level of anesthesia and medical imaging techniques students who will work in the operating room.

179 students who continue their education in the Anesthesia and Medical Imaging Techniques programs in the 2022-2023 Spring Semester participated in the study. A questionnaire was applied to the participants, which aimed to measure the level of knowledge about the radiation devices used in the operating room and the radiation protection that should be followed during the use of these devices, and which was created as a result of the literature review. The results obtained as a result of the study were evaluated statistically.

The majority of the participants correctly answered the questions about the radiation devices used in the operating room and radiation protection. To the question about the devices used in the operating room, 56.89% of the participants answered scopy. Although 28.1% of the participants answered the operating room to the question posed to draw attention to the fact that the scope device has other areas of use, 71.9% also marked other areas of use. When asked about radiation protective equipment during the use of the scope, it was seen that 34.74% of the answers were lead apron and 25.16% of them were thyroid protective. It was seen that the majority of the participants (69.27%) knew the application that should be done for the preservation of protective equipment. 84.35% of the participants stated that they should stay at the farthest distance from the device while using the scope. It was seen that 91.06% of the participants agreed that working with the scope device for a long time and not using a protective apron may cause cancer.

The fact that the participants stated that the radiation device used in the operating room was the scope, as well as those who gave the answer to MR and CT, shows that the radiation devices used in the operating room are not known enough. In the study, it was concluded that the level of knowledge of the participants about radiation protection was moderate and the radiation awareness of the personnel working in the operating room as well as the personnel working in the radiology department should be increased. In addition, it is thought that postgraduate radiation education should be renewed and improved in order to increase the level of knowledge and awareness about radiation.

Keywords: Operating room, fluoroscopy, radiation protection

ÇOCUK YOĞUN BAKIM ÜNİTELERİNDE BASINÇ YARALARINI ÖNLEMEDE KULLANILAN RİSK DEĞERLENDİRME ÖLÇEKLERİ

RISK ASSESSMENT SCALES USED TO PREVENT PRESSURE SOULS IN CHILDREN
INTENSIVE CARE UNITS

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ÖZET

Basınç yaraları, genellikle kemik çıkıntılar üzerindeki deri ve/veya derin dokularda basınç veya basınca eşlik eden sürtünme ve yırtılma sonucu gelişen lokal yaralanmalardır. Çocuklar ve özellikle yenidoğanlar, erişkinlere kıyasla, anatomik ve fizyolojik bakımdan tüm sistemlerde olduğu gibi cilt özellikleri bakımından da önemli farklılıklar gösterirler. Tıpta ve teknolojiye ileri adımlarla birlikte kronik hastalığı olan çocuklar uzun süre yaşayabilmektedirler basınç yaraları hasta güvenliğiyle ilgili dünya çapında sorun olmaya devam etmektedir. Bu sorun hastaların yaşam kalitesinin düşmesine, bağımlılıklarının artmasına, ağrı ve anksiyete yaşamalarına, kısacası fiziksel, psikolojik ve sosyal sorunlar yaşamalarına neden olurken, kurumlarda ise sağlık bakım maliyetinin artmasına neden olmaktadır. Sağlık bakımıyla ilgili oluşan basınç yaraları, hastanelerin hemen her biriminde görülmekle birlikte özellikle yoğun bakım ünitelerinde (YBÜ) bakım verilen hastalarda fiziksel aktivite ve mobilizasyonun sınırlı olması, sıklıkla uygulanan sedatif, analjezik ve kas gevşetici ilaçlar, mekanik ventilasyon uygulaması, bu ünitelerde görülen basınç yarası gelişime riskini arttırmaktadır. Çocuklarda basınç ülserlerinin gelişim nedenleri, bölgeleri, evrelendirilmesi, değerlendirilmesi, tedavisi ve hemşirelik girişimleri yer almaktadır. Hemşirelerin basınç ülserinin belirlenmesinde, oluşumunun önlenmesinde ve girişimlerin erken dönemde uygulanmasında önemli işlevleri bulunmaktadır. Aslında basınç yaraları öngörülebilir ve kanıta dayalı uygulama kılavuzları ile önlenir. Bunun için ilk olarak yapılması gereken çocuklarda basınç yarası riskinin belirlenmesidir. Pek çok uluslararası kuruluş da basınç yaralarının önlenmesinde risk değerlendirme ölçeklerinin kullanılmasını tavsiye etmektedir. Riskin doğru belirlenmesinde ise ölçüm aracı seçimi çok önemlidir. Basınç yarası, hasta bireyin bakımında etkin rol alan hemşirenin bakım kalitesini ortaya koyan en önemli göstergelerden biridir. Bu nedenle değerlendirilmesinde ve önlenmesinde en büyük rol hemşireye düşmektedir. Hasta grubuna uygun, geçerli ve güvenilir risk ölçüm araçlarının seçilmesi ve kullanılmasıyla, bireye özgü bakımın planlanması, takibi ve sürekliliği sağlanarak basınç yarası gelişiminin önüne geçilebilir. Günümüzde çocuklarda kullanılmak üzere Braden Q, Glamorgan, Starkid, Burn ve Buçh Pediatrik Bası Yarası Risk Tanılama Aracı ölçeklerine ulaşılmıştır. Bu derleme ile Türkiye’de ve genelde en çok kullanılan ölçüm araçlarına ilişkin bir değerlendirme yapılması amaçlanmıştır.

Anahtar kelimeler: Basınç yarası, risk değerlendirmesi, çocuk, hemşirelik bakımı

ABSTRACT

Pressure sores are local injuries, usually caused by pressure or pressure in the skin and/or deep tissues over bony prominences, as a result of friction and tearing. Compared to adults, children and especially newborns show significant differences in terms of skin characteristics, as in all anatomical and physiological systems. With advances in medicine and technology, children with chronic diseases can live longer. Pressure sores continue to be a worldwide problem for patient safety. While this problem causes patients to decrease their quality of life, increase their addiction, experience pain and anxiety, in short, experience physical, psychological and social problems, it also causes an increase in health care costs in institutions. Although pressure sores related to health care are seen in almost every unit of hospitals, limited physical activity and mobilization, frequently applied sedative, analgesic and muscle relaxant drugs, mechanical ventilation application, especially in intensive care units (ICU) patients, can cause pressure sores to develop in these units. increases the risk. The causes, regions, staging, evaluation, treatment and nursing interventions of pressure ulcers in children are included. Nurses have important functions in identifying pressure ulcers, preventing their formation and applying interventions in the early period. In fact, pressure sores are predictable and preventable with evidence-based practice guidelines. For this, the first thing to do is to determine the risk of pressure ulcers in children. Many international organizations also recommend the use of risk assessment scales in the prevention of pressure sores. In determining the risk correctly, the selection of the measurement tool is very important. Pressure ulcer is one of the most important indicators that reveal the quality of care of the nurse who takes an active role in the care of the patient. For this reason, the nurse plays the biggest role in its evaluation and prevention. By choosing and using valid and reliable risk measurement tools suitable for the patient group, the development of pressure ulcers can be prevented by planning, monitoring and maintaining individual care. Today, Braden Q, Glamorgan, Starkid, Burn and Buch Pediatric Pressure Ulcer Risk Diagnostic Tool scales have been reached for use in children. With this review, it is aimed to make an evaluation of the most used measurement tools in Turkey and in general.

Keywords: Pressure ulcer, risk assessment, child, nursing care

**DİYABET EĞİTİMİ VE YÖNETİMİNDE YAPAY ZEKA UYGULAMALARININ
HEMŞİRELİK MESLEĞİNE YANSIMALARI**
REFLECTIONS OF IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE IN DIABETES
EDUCATION AND MANAGEMENT ON THE NURSING PROFESSION

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ÖZET

Tip 1 Diyabetes Mellitus (DM) çocukluk yaş grubunda sık görülen, pankreatik beta hücrelerinin yıkımı ile giden ve insülin eksikliği ile sonuçlanan kronik metabolik bir hastalıktır. Olguların büyük kısmında (%90) beta hücrelerinin otoimmün yıkımı (Tip 1A), az bir kısmında (%10) ise beta hücrelerinin idiyopatik yıkımı veya yetmezliği söz konusudur (Tip 1B). T1DM esas olarak çocukluk yaş grubunun hastalığı olup, özellikle 4-6 yaş ve 10-14 yaş aralığında pik yapmaktadır. Ülkemizde 2014 yılında yapılan bir çalışmada T1DM insidansının 0.75/1000 olduğu gösterilmiştir. Diyabetin önlenmesi ve yönetimi son derece önemlidir ve bu süreçte diyabet eğitimi önemli bir bileşendir. Hastanın günlük insülin enjeksiyonu, kan şekeri takibi, gelişebilecek akut ve kronik komplikasyonlar çocuk ve ergenlerin sağlıkla ilgili yaşam kalitesini etkilemektedir. Tip 1 DM’de yaşam kalitesi hastalığın gidişatının önemli bir parametresi olup, çocuğun iyilik halini göstermektedir. Metabolik kontrol ve komplikasyonların önlenmesi kadar, çocuğun iyilik hali ve yaşam kalitesi de tedaviye eşdeğer öneme sahiptir. Son birkaç yılda, diyabet sağlığı için artan yapay zeka tabanlı araçlar geliştirilmiştir. Hastalar, diyabetin önlenmesi, yaşam tarzı ve diyet rehberliği, egzersiz, insülin enjeksiyonu ve komplikasyonların izlenmesi dahil olmak üzere diyabet öz yönetiminin çeşitli yönleri için beceri ve bilgilere daha esnek ve bilimsel erişimle desteklenmektedir. Sağlık çalışanlarının önemli bir bileşeni olan hemşireler, teorik olarak yapay zeka teknolojilerinden en fazla yararlanacak ve kullanacak olan meslek grubudur. Bununla birlikte, hemşireler tarafından yeni teknolojilerin genel olarak benimsenmesi klinikteki rutin uygulamaların ve tedavi planlarının organizasyonunun geliştirebilmesine ve doğru kararlar verebilmesi için gerekli tüm bilgileri sağlayabilmelerine yardımcı olabilir. Hemşireliğin temel rolü olan bakımın hedefi, yaşam kalitesini destekleyebilir. Tüm bunların yansımaları çocuğun diyabeti yönetirken yaşam kalitesinin de olumlu yönde gelişmesine katkı sağlayabilmektir. Bu derlemenin amacı, diyabet eğitimi ve yönetiminde yapay zeka uygulamalarının mevcut durumu gözden geçirmektir.

Anahtar Kelimeler: Çocuk, Diyabetes Mellitus, Yapay Zeka, Hemşirelik Bakımı

ABSTRACT

Type 1 diabetes mellitus is a chronic metabolic disease that is common in childhood, leads to destruction of pancreatic beta cells and results in insulin deficiency. Autoimmune destruction of beta cells (Type 1A) is present in most of the cases (90%), and idiopathic destruction or failure of beta cells in a few (10%) cases (Type 1B). T1DM is mainly a disease of the childhood age group and peaks especially at the ages of 4-6 and 10-14 years. In a study conducted in our country in 2014, the incidence of T1DM was shown to be 0.75/1000. Prevention and management of diabetes is extremely important, and diabetes education is an important component in this process. The patient's daily insulin injection, blood glucose monitoring, and possible acute and chronic complications affect the health-related quality of life of children and adolescents. Type 1 DM quality of life is an important indicator of the course of the disease and shows the well-being of the child. The child's well-being and quality of life are equally important in treatment, as well as metabolic control and prevention of complications. In the last few years, an increasing number of artificial intelligence-based tools have been developed for diabetes health. Patients are supported with more flexible and scientific access to skills and information for various aspects of diabetes self-management, including diabetes prevention, lifestyle and dietary guidance, exercise, insulin injection and monitoring for complications. Nurses, the largest proportion of health workers, are the occupational group that will theoretically benefit and use artificial intelligence technologies the most. However, the general adoption of new technologies by nurses can help them to improve the organization of routine practices and treatment plans in the clinic and to provide all the information necessary to make the right decisions. The goal of care, which is the main role of nursing, can support quality of life. The reflections of all these are to contribute to the positive development of the child's quality of life while managing diabetes. This review aims to review the current situation of artificial intelligence applications in diabetes education and management.

Keywords: Child, Diabetes Mellitus, Artificial Intelligence, Nursing Care

APPLICATION OF INTERNET OF THINGS IN INTERLOCKING CONCRETE BLOCK PAVEMENT FOR PERFORMANCE MONITORING

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ABSTRACT

This paper presents the preliminary study of applying Internet of Things (IoT) technology in health monitoring of Interlocking Concrete Block Pavement (ICBP). Texas Instrument (TI) CC2650 SensorTag, a wireless multi-sensor device was chosen as the IoT device in this study to develop a wireless sensor network system capable of real-time monitoring of humidity and vibration in the pavement. Several locations of embedment for the installation of the IoT device in the concrete blocks were investigated. The signal transmission was based on Bluetooth Low Energy and the live data can be accessed from mobile applications and web browsers. The humidity and vibration source were simulated manually. The power-on time, signal strength coverage and function and data consistency among different devices were studied to evaluate the functionality of the device. The results showed that the concrete blocks with embedment holes had passed design compressive strength of 30MPa with embedment hole at the top surface exhibiting the most optimum location for greater signal strength coverage. The humidity sensor of the TI CC2650 SensorTag was sensitive to change in ambient temperature and humidity but not sensitive to change in water submersion level while the motion sensor was sensitive to change in block movement and location with a significant amount of magnitude. The potential of applying Internet of Things (IoT) wireless sensor network using TI CC2650 SensorTag in ICBP to monitor humidity and vibration was verified. However, the study was limited to battery-powered devices and the low signal bandwidth of the IoT devices. A large-scale field test was needed to compare with the laboratory simulation result.

Keywords: Internet of Things, concrete block, TI CC2650 SensorTag, humidity, vibration

**PVT TRAINING MODULE FOR VOCATIONAL SECONDARY EDUCATION:
A FINAL VERSION**

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ABSTRACT

Within the project PowerUp MyHouse (Project No: 2020-1-TR01-KA202-093467) partners from Turkey, Portugal, Sweden, Lithuania and Denmark cooperate on preparation of teaching materials on PVT systems. The project aims to develop the know-how about PV/T systems in design aspects by comparing different climate conditions and to increase the vocational skills and knowledge on PV/T systems of renewable energy vocational teachers/students. This document summarizes all stages of the project and the final conclusions of all participants.

Keywords: Solar energy, PVT system, PVT training module, Renewable energy technologies

PARTIAL REPLACEMENT OF FINE AGGREGATE WITH SAW DUST IN CONCRETE

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ABSTRACT

Now a days as per the construction part required materials are not Available more. So we Have to Find the another Way by use of the various material instead of coarse Aggregate, fine aggregate, cement in the concrete. In future Saw Dust is Useful for the concrete mixing Replacement of fine Aggregate. Concrete plays an important role in the development of infrastructure globally and its applications are very significant in this advanced World. Traditionally the basic ingredients of concrete include cement, fine aggregate and coarse aggregate. In general, Ordinary Portland cement is used in the construction of Civil Structures. The important ingredient of Concrete is Fine Aggregate i.e. River sand is high scare resource. To Growing the cost of River sand, I have to choose a replacement of saw Dust With fine aggregate. To reduce the environmental wastage and reduce the overall cost of structure. This project deals with the Experimental Study on partial replacement of fine aggregate with Saw Dust. Saw dust is Composed of fine particles of wood. It is a by-product cutting lumber with a saw, and it is available for all over he regions. Present investigation has been under taken to study the strength parameters of saw dust by adding 10%, 15%, 20%, with replacement of Fine Aggregate.

Keywords: Cement, Saw dust, Fine aggregate, Compressive Strength.

**OVERVIEW OF DPOS IN THE USE OF LGPD COMPLIANCE SOFTWARE WITH
EVIDENTIAL ANNOTATED PARACONSISTENT LOGIC $E\tau$ AND DLP – DATA LOSS
PREVENTION**

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ABSTRACT

A DPO – Data Protection Officer is a professional who needs to be always up to date with local legislation regarding data protection and privacy.

There is a concern with the implementation of effective models both in Brazil and in the world, but most of the time the action of a DPO is based on mitigating controls, however at times, due to a large amount of information that must be analyzed, he will need to of tools such as software for compliance with the LGPD – General Data Protection Law of Brazil.

This study addresses exploratory research on this software that considers the use of Paraconsistent Evidential Annotated Logic $E\tau$, to direct the contradictions in decision making combined with the practice of DLP - Data Loss Prevention.

These results are also compared with the statistics of the ANPPD - National Association of Data Privacy Professionals, which has about 4,000 professionals, presented at the National Conference of Data Privacy Professionals of the CNPPD held two times: in March/2021 and March/2022, presenting a comparative overview of DPOs in Brazil.

Keywords: LGPD – General Data Protection Law; Evidential Annotated Paraconsistent Logic $E\tau$; DPO – Data Protection Officer, DLP – Data Loss Prevention.

GARMENT DESIGN ACCORDING TO ZERO WASTE DESIGN PRINCIPLE

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ABSTRACT

The concept of Zero Waste means that everything is reused and nothing is discarded. Zero Waste refers to a product or process that produces minimal or no waste materials. The concept was developed in response to fast fashion in the textile and fashion industry, where a lot of textile waste is generated both in the production of garments and in the post-consumer phase. Zero Waste encourages designers to minimise or even eliminate the waste generated in the textile industry. This includes waste-free pattern cutting, recycling or reusing scraps, designing on demand, or virtual 3D prototyping. On average, at least 15 percent of all fabric used in traditional tailoring is wasted due to cut shapes, mismatched patterns and the structure of the fabric itself. Zero-waste techniques result in garment design that adapts to the dimensions of the material by adjusting the cuts. Criteria for a zero-waste garment include a visually appearance, the right fit, and the right size of garment. The cost of a Zero-Waste garment should not increase the manufacturing cost due to the complicated pattern. The material used to make Zero-Waste garments should be sustainable. It should be possible to make the garment custom-made or mass-produced. The goal of the research is to design a garment based on the principles of Zero Waste. The tunic was chosen as a commonly used garment. Through the experimental process, it was proved that the accurate placement of the garment's pattern, modelling, and careful cutting can achieve maximum material utilisation and eliminate waste in the manufacturing process. The experiment proved that waste-free design creates new opportunities for garment design, which requires that pattern making and cutting be an integral part of the design process.

Keywords: Zero Waste, Design, Sustainability, Garment pattern, Garment manufacturing, Tunic

AN OVERVIEW OF REGION-BASED DESCRIPTORS WITH
APPLICATION TO FACE RECOGNITION

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ABSTRACT

An important issue to be solved in face recognition is how to represent a face so that a computer vision system is able to recognize it regardless of their shapes, sizes, position and orientation. In this paper we will discuss the comparison of region-based shape descriptors such as LBPH, SIFT, eigenfaces, Zernike moments etc. To compare the robustness of these methods, we used our own data set. It contains 1200 images of 60 persons from the FSTE students and staff of different genders. The images are 128*128 pixels. Each person is represented by various views (20 images) in a variety of poses going from facial views to frontal views with various expressions. For the similarity measure we used the l_1 norm defined by the Euclidean distance between their descriptors

The experimental investigations confirm that the properties of these methods are stable in rotation, translation and have low sensitivity to noise, however they are not fixed in size and we can use them for facial recognition.

Keywords: Images, Face recognition, Descriptors, Region based descriptors,

UTILITY OF PROCALCITONIN AS A DIAGNOSTIC TOOL FOR SEPSIS IN INTENSIVE CARE UNITS

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ABSTRACT

Introduction/ Objective: Sepsis is the main cause of mortality in the intensive care unit. The objective of this study is to evaluate the usefulness of procalcitonin (PCT) measurement at admission in sepsis diagnosis among patients hospitalized in the medical-surgical intensive care unit.

Material and methods: This was a prospective cohort study carried out over 4 months, including 65 patients hospitalized in the intensive care unit. Demographic and clinical data were collected according to an information sheet. All patients underwent an inflammatory assessment including PCT, CRP and complete blood count. The SOFA score was calculated. Patients were classified into septic patients (SOFA ≥ 2 points) and non-septic patients (SOFA < 2 points). The ROC curve was used to evaluate the diagnostic performance of inflammatory parameters.

Results: Of 65 included patients, 46 had developed sepsis. Among the investigated inflammatory markers, PCT has the best sepsis discriminative capacity; its AUC, in the range of 0.78 [0.7-0.9], was the highest. NLR, with an AUC of 0.74 [0.6-0.9], has a diagnostic capacity as effective as that of PCT, followed by hsCRP with a lower but statically significant AUC (AUC = 0.69 [0.6-0.8]). The optimal threshold of PCT for sepsis diagnosis is 4.5ng/ml with a specificity of 83% and a sensitivity of 60%. A positive correlation between the PCT level and the SOFA score was also found ($p=0.002$).

Conclusion: PCT could be a useful diagnostic marker for sepsis.

Key words: Procalcitonin, sepsis, C-reactive protein, white blood cells, SOFA score, intensive care.

**NANOCELLULOSE FROM RECYCLED PAPER OF LOW GRADES PREPARED BY A
SIMPLE AND ECO-FRIENDLY METHOD. A SHORT REVIEW**

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ABSTRACT

Nowadays, when humanity is facing a global ecological crisis, the concept of sustainable development is the only way to decrease the negative impacts on the environment. The total amount of wastes is growing up dramatically, due to an incessant worldwide production expansion. The paper production is a significant sector in the world industry and the consumption of the paper is rapidly growing.

In waste paper (WP) utilization, a downgrading happens while paper of high-quality grades turns into that one of low-quality grades. The later still contains an essential number of cellulose fibres. In this review, we focus on the recycling and functionalization of the wastes of low-quality grades, cardboard and newsprint paper.

One of the promising goals of pulp processing is to obtain prospective materials containing cellulose fibres, including nanocellulose (NC). Paper wastes are attractive in this regard because the production of NC would provide an alternative to paper recycling and possibly address the issue of by-products arising from the recycling.

The main approach to extract NC from cellulose containing materials is acid hydrolysis. In some cases, it is possible to get NC with the same properties as from ordinary sources of cellulose, e.g. wood pulps, ramie, bacterial. However, the most methods require mandatory pretreatments including thorough cleaning, shredding, mercerization and bleaching.

Another approach to obtain NC is the dissolution of WPs and subsequent regeneration of NC from solutions. An aqueous system NaOH/thiourea/urea has been implemented to extract NC with cellulose II crystal structure from a mixture of kraft and newsprint paper. The system DMAc/LiCl has been also applied to dissolve WP and to get NC after regeneration in powder and hydrogel forms.

Thus, low-grades WPs are appropriate for extraction of NC effectively. The valorization of WP is especially promising as it does not require separation into grades stage after capture.

Keywords: Waste paper, nanocellulose, cellulose dissolution

ANTICANCER ACTIVITY OF NEW HYBRID DERIVATIVES WITH BENZO[f]QUINOLINE SKELETON

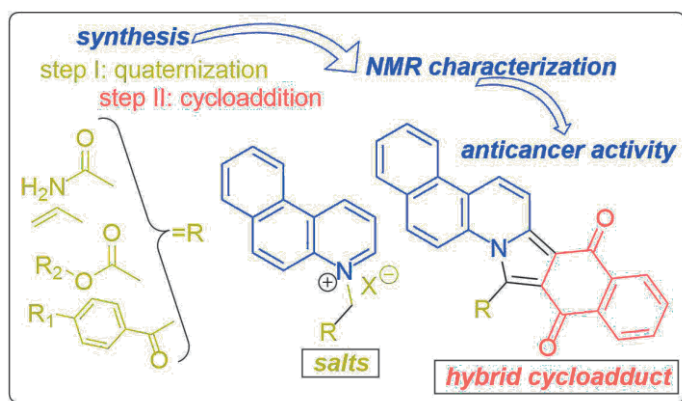
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ABSTRACT

One of the most devastating diseases worldwide is cancer of various forms, so researchers are continuously trying to discover new treatments for such a disease. Compounds having benzoquinoline skeleton are known in the literature with various biological properties, including, anticancer, antibacterial, anti-inflammatory, analgesic, etc.



Considering the above mentioned, our main objective was to design, synthesize and characterize novel hybrid derivatives with benzo[f]quinoline skeleton adopting a general and straightforward strategy, involving two steps only: quaternization and [3+2] cycloaddition reactions. The structures of newly benzo[f]quinolone derivatives were proved using NMR experiments (¹H, ¹³C, 2D-

correlations). The NMR apparatus is equipped with a 5 mm PABBO detection probe, operating at 500.1 MHz for ¹H and respectively 125.7 MHz for ¹³C nuclei. In the ¹H and ¹³C spectra, chemical shifts are reported in δ units (ppm) relative to the residual peak of solvent (ref: DMSO, ¹H: 2.50 ppm; ¹³C: 39.52 ppm). The new benzo[f]quinolone derivatives were evaluated for their *in vitro* anticancer activity against an NCI 60 human tumour cell line panel. Thus, the good anticancer profile of the quaternary salts with aromatic/aliphatic chain was distinguished by an excellent activity against different cell lines: Melanoma MALME-3M and SK-MEL-5 cell lines, Renar Cancer SN12 C cell line, Breast Cancer BT-549 and MDA-MB-468 cell lines.

Keywords: Anticancer properties, Benzo[f]quinoline, Quaternization, [3+2] Cycloaddition

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REMOVAL OF BPA BY ADSORPTION BY USING ORGANOCCLAYS AND BIO- ADSORBENT

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ABSTRACT

Water quality, whether for human consumption, irrigation, or simply dumped into nature, such as rivers, oceans, or soil, has become a major problem and source of worry for governments, national and international entities and organizations. As a result, environmental protection has become a major economic and political issue. This has sparked and encouraged the development of new pollution control measures as well as the upgrading of current ones. For the removal of specific soluble contaminants in industrial or domestic effluents, many approaches have been tried. Adsorption, electrolysis, flotation, precipitation, ion exchange, liquid-liquid extraction, membrane filtration, and so on are examples of processes that are distinct from one another. Because of its high potential to filter contaminated water, adsorption is one of the most widely used processes for removing pollutants. The goal of this project is to eliminate Bisphenol A, which is known to be hazardous to individuals and the environment and creates major difficulties even at low concentrations, through adsorption on bio adsorbents such as sawdust, activated carbon, and clay.

Key words : Bisphenol A, clay, bio-adsorbent, adsorption, pollution.

ROLE OF VITAMIN IN ASTHMA PATIENTS

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ABSTRACT

In many biomedical research has been demonstrated huge interested in vitamin D over the last decade. In many papers is reported that vitamin D insufficiency/deficiency play pivotal role in immune system in US and globally population (1,2).

Vitamin D appeared to play a pivotal role in the pathogenesis of asthma. Vitamin D in the form of 1,25-dihydroxy, appeared to be involved in suppressing dendric cell maturation and the Th1 cell development (3,4,5,6). Asthma is a heterogeneous disease characterized by chronic inflammation of the airways. Asthma is known to be characterized by symptoms such as of respiratory symptoms such as wheezing, expiratory dyspnea, chest tightness (7). A number of studies have shown association of vitamin D deficiency with other diseases such as asthma (2). The study by Behluli et al. 2022 made at children who visited University Clinical Center of Kosovo-Prishtina show insignificant of serum vitamin D for FVC%, FEV1% (2). Tamašauskienė et al. in their study also indicated that vitamin D levels did not correlate with lung function (8). Janeva-Jovanovska et al. found insignificant correlation between serum levels of vitamin D and FEV1 (9).

IN VITRO EVALUATION OF TWO WAYS SYNTHESIZED MANGANESE DOPED CERIUM OXIDE NANOCOMPOSITES AS A POTENTIAL THERAGNOSTIC AGENT AND AN ANTIBIOTIC DRUG

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Abstract

Nano-biotechnology provides the opportunity for the development of new materials in the nanometer size range with many potential applications in biological sciences and clinical medicine. Carcinogenesis is a complex molecular process starting with genetic stimulation, and DNA damage leading to an uncontrolled proliferation mechanism. The application of light induced the generation of different reactive oxygen species, such as hydroxyl radicals, and singlet oxygen, upon the nanomaterials entering these cells, causing damage to the cell membrane followed by apoptosis and oxidative degradation of lipids due to the increased ROS production.

In current research, we analyzed structure, morphology, antimicrobial and anticancer activities of un-doped and manganese doped ceria nanoparticles $Mn_x Ce_{1-x} O_2$ synthesized by co-precipitation and hydrothermal method. Various bacterial strains i.e., Escherichia coli (E. coli), Methicillin resistant Staphylococcus aureus (S. aureus), and Pseudomonas aeruginosa (P. aeruginosa), and MCF-7 breast cancer cell line were utilized to conduct the biomedical analysis. Cytotoxicity, and antimicrobial analysis were conducted via light-based therapy using 600 nm wavelength light, optical density, and zone of inhibition respectively. It was observed that undoped particles shown less anticancer activity and inhibition than doped particles towards infectious diseases/agents. We concluded the exact dose along with doping concentration and cell viability which is beneficial for treating tumor and microorganisms in future. Antibacterial and antitumor study have found to be enhanced by Mn doping which attributed to the correlation with maximum reactive oxygen species (ROS) generation for targeted toxicity and maximum anti-oxidant property in bacteria growth inhibition.

Keywords: Mn doped cerium oxide, Photodynamic therapy, antimicrobial activity.

INDUSTRIALLY IMPORTANT BIOPOLYMERS

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ABSTRACT

It is known that after a certain period of operation of oil wells, the conductivity of rocks decreases, which leads to a decrease in the oil recovery coefficient. Both in the world and in our Republic, among both chemical and technological measures, polyacrylamide among polymer solutions, especially high-molecular ones, hydrolyzed in a certain amount, plays a key role in enhanced oil recovery from wells (EOR) by increase of reservoir pressure and displacement of oil.

In oil industry, two kinds of compression polymer solutions of this type are widely used - synthetic polymer and biopolymer solutions. As already noted, among typical synthetic polymers, PAA, hydrolyzed in a certain amount, hydrophobic PAA and its copolymers are of particular importance. In general, among the used both synthetic and natural polymers, hydrolyzed PAA (HPAA) and industrially obtained solutions of a polysaccharide - xanthan gum are most often used.

The rheology and viscosity of polymer solutions used in such studies and the study of their dependence on various parameters are important issues. For this purpose, three types of gum of plant origin taken from young trunks of fir, cherry and acacia trees were used in the presented work. The collected gums of plant origin were dissolved separately for 24 h with continuous stirring, filtered and redried and pulverized into fresh water with a concentration of 250, 500, 1000 and 2000 mg/L were prepared. The viscosities of gum of plant origin in fresh water and in the presence of salt and surfactant, as well as the dependence of these viscosities on the amount of gum of plant origin and temperature, were studied.

Key words: gums of plant origin, viscosities, enhanced oil recovery

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**WEE1 REGULATES TWO ANTAGONIZING E3 UBIQUITIN LIGASES TO ACTIVATE
REPLICATION STRESS RESPONSES**

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ABSTRACT

DNA replication stress threatens genome stability and is one of the major causes of cancers. To resolve replication stress, cells activate cell cycle checkpoints to stop cell cycle progression. The evolutionarily conserved checkpoint kinase WEE1 and the E3 ubiquitin ligase APC/C are essential regulators of cell cycle. Our previous studies revealed that WEE1 promotes the polyubiquitination and degradation of the E3 ubiquitin ligase FBL17 through an unknown E3 ubiquitin ligase in *Arabidopsis*. Here we show that CDC20, an activator of APC/C, interacts with FBL17 and mediates the polyubiquitination of FBL17 at Lysine 599, followed by degradation. WEE1 interacts with and phosphorylates APC10, a co-activator of APC/C, at Serine 6, which enhances the interaction between FBL17 and CDC20. Similar to the *wee1* mutant, the plants with reduced CDC20 or APC10 are hypersensitive to replication stress. Collectively, our study reveals a new mechanism of WEE1 in replication stress responses, a new function of APC/C, and a new regulatory mechanism of FBL17.

Keywords: DNA replication stress, checkpoint, WEE1, APC/C, FBL17

2D-QSAR STUDIES OF THIADIAZOLE DERIVATIVES AGAINST LUNG CANCER

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ABSTRACT

This study was aimed at building a robust quantitative structure–activity relationship (QSAR) to predict the anti-proliferate activity of 1,3,4-thiadiazole derivatives against the A549 lung cancer cell lines. The semi-empirical PM7 parametrization approach was used to optimize the complete set of 1,3,4-thiadiazole derivatives and various classes of molecular descriptors have been calculated. We built models using Fisher score and the best subset selection for feature selection, and the final model was developed using the multiple linear regression technique, all in accordance with the rigorous Organization for Economic Co-operation and Development (OECD) requirements. Furthermore, various internationally agreed severe validation parameters were used to validate the model. Overall, our established model for quick prediction should be relevant to new, untested, or not yet produced compounds that fall within the applicability domain (AD) of the model. The drug-likeness properties of the 10 compounds with the greatest activity value were also calculated using Lipinski's rule properties.

Keywords: QSAR, Thiadiazole derivatives, A549, PM7, OECD

SYNTHESIS, CHARACTERIZATION AND COMPARATIVE STUDY OF NEW 2-PHENYLIMIDAZO[1,2-a]PYRIDINE-3-CARBALDEHYDE DERIVATIVES

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ABSTRACT

The inhibition of mild steel corrosion in 1.0 M HCl by some Imidazo[1,2-a]pyridines derivatives namely: 2-(4-fluorophenyl)imidazo[1,2-a]pyridine-3-carbaldehyde (**P1**) and 2-(4-nitrophenyl)imidazo[1,2-a]pyridine-3-carbaldehyde (**P2**) has been investigated using weight loss, electrochemical studies, and quantum chemical calculations. The results showed that P1 is the best corrosion inhibitor among the three compounds studied and the inhibition efficiency increases with increase in concentration for all the inhibitors. The adsorption of inhibitor molecules on mild steel surface was found to be spontaneous and obeyed the Langmuir adsorption isotherm. Potentiodynamic polarization investigations indicated that the studied inhibitors were mixed type inhibitors. Electrochemical Impedance Spectroscopic measurements show that the inhibitors form an adsorptive layer on the metallic surface.

Keywords:

Mild steel, Corrosion inhibition, 2-phenylimidazo[1,2-a]pyridine-3-carbaldehyde, Weight loss, Electrochemical studies, DFT.

DIAGNOSIS AND TREATMENT OF FROZEN SHOULDER WITH SHOCK-WAVE THERAPY

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ABSTRACT

Introduction: Adhesive capsulitis is a pathology of the gleno-humeral joint that causes joint pain and immobility. The cause in most cases is unknown. Conservative treatment is good but still unclear, ESWT is an adjunctive and effective therapy for treatment.

Objectives: To analyze the effectiveness of Shock-Wave therapy (ESWT) in the treatment of pain and ROM in frozen shoulder.

Method: We based on 7 studies, taken from medical websites (PubMed, Medline, WebMD, MedScope). Patients diagnosed with adhesive capsulitis in all studies taken in reference were randomly divided into two groups.

- In studies [1], Extracorporeal shockwave therapy improves short-term functional outcomes of shoulder adhesive capsulitis and [3], Extracorporeal Shockwave Therapy Improves Functional Outcomes of Adhesive Capsulitis of the Shoulder in Patients With Diabetes one group was treated with ESWT, the other with oral AINS

- In studies [2] The efficacy of radial extracorporeal shockwave therapy in shoulder adhesive capsulitis: a prospective, randomised, double-blind, placebo-controlled, clinical study one group was treated with ESWT, and the other with placebo treatment

- in study [4], The effects of extracorporeal shock wave therapy on frozen shoulder patients' pain and functions . All patients received NSAIDs once a day. The subjects of this study were divided into the conservative physical therapy group one group was treated with ESWT, All subjects were treated 2 times a week for 6 weeks. In within-group comparisons of VAS and PSFS, both ESWT and CPT groups showed significant decreases in VAS and PSFS. In comparisons between VAS and PSFS groups, ESWTG showed much lower results compared to CPTG

-In studies [6] Efficacy of Extracorporeal Shockwave Therapy in Frozen Shoulder and [7] Shock Wave Therapy and Ultrasound Therapy plus Exercises for Frozen Shoulder Joint Clients , one group was treated with ESWT, the other with conservative physical therapy

Results: For the studies considered it was observed that: patients treated with ESWT have an earlier and more noticeable improvement in pain and functionality, articular ROM compared to the effect from other treatments such as: (placebo, AINS, conservative treatment, ultrasound) applied to patients.

Conclusions: Based on the above studies, it is concluded that ESWT is more effective in treating pain and functionality, articular ROM, compared to other treatments applied to the groups of patients diagnosed with adhesive capsulitis.

Keywords: Frozen shoulder, physiotherapy, placebo, ESWT

CORRELATION OF VITAMIN D WITH OSTEOPOROSIS

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ABSTRACT

Introduction: Osteoporosis is a disease of bone metabolism, which is characterized by the silent and progressive reduction of bone density and is followed by a risk for fractures that can be fatal to the patient. The causes leading to this disease are endogenous and exogenous, but it is mainly related to the decrease in vitamin D level.

Aim: Our study is the review and presentation of a more complete picture regarding osteoporosis and the effect of vitamin D on osteoporosis.

Material and Method: Is a literary review of studies published in PubMed, Medline, WebMD, on the topic of vitamin D and its correlation with osteoporosis, an essential indicator with a wide range of applications in diagnosis and analysis of this illness. The scientific studies referenced, highlight the effectiveness of diagnosing osteoporosis through a bone density scan with a dual energy X-ray (DEXA), which provides the most accurate assessment to date on bone density. According to 'International Osteoporosis Foundation' statistics conducted for EU countries, Switzerland, UK the estimated number of individuals with osteoporosis above 50 years old in 2019 was 32 million, from which 25.5 million were of the gender female and 6.5 million male, deriving the conclusion that females are more prone to osteoporosis. Apart from diagnosis of osteoporosis, in the studies referenced, of great importance is the role of vitamin D levels and its correspondence with osteoporosis. In a study by Michael Holick Vitamin D deficiency. N Engl J Med. a vitamin D deficiency is defined by concentration of 25(OH)D less than 10ng/mL and an insufficiency of 20-30 ng/mL.

At last, treatments and recommendations for osteoporosis regarding vitamin D deficiency have elaborated to supplementary diets, bisphosphonates treatments and even hormone replacement therapy.

Conclusion : 25-OH-Vitamin D is essential for vitamin D status. To prevent the rapid progress of osteoporosis, factors that need immediate attention such as diet, lifestyle and an early diagnosis through DEXA are to be a priority, especially in risk patients.

Key words : Vitamin D, osteoporosis, patient, diet, vitamin D deficiency

INFLUENCE OF CA, PH AND PHOSPHATES AT THE SALIVA, OF ORAL HEALTH AMONG WOMEN IN THE FIRST AND THIRD TRIMESTERS OF PREGNANCY

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ABSTRACT

Although there are many studies that describe dental and oral changes in pregnant women, we set ourselves the task of estimating oral changes in pregnant women and their association with salivary pH, calcium and phosphates. Objective: The study included 66 women as a dependent sample, in the first and third trimesters of pregnancy. We have made examination for condition of the teeth (DMF index according to WHO criteria, index of erosive decay of the teeth (BEWE index), salivary PH with the help of DENOBUFF tests; salivary concentrations of Ca and phosphate by colorimetric method. Data analysis was performed in statistical programs Statistic: 7.1 for Windows and SPSS Statistics 23.0. Results: The value of the DMF index in the third trimester of pregnancy for $p < 0.001$ ($p = 0.000$) is significantly higher than the value in the first trimester. For BEWE index is not found statistical significance between first and third trimester of pregnancy. The significant difference is found by saliva pH values in the relation first trimester and third trimester of pregnancy for $p > 0.001$ ($p = 0.000$). For Calcium is found statistical significance between first and third trimester of pregnancy $p < 0.001$ ($p = 0.000$). The value of Phosphates in the third trimester of pregnancy by $p < 0.01$ ($p = 0.003$) is significantly higher than the value in the first trimester. The highest influence is due to the parametric value of salivary pH over the DMF index in the third trimester for $p > 0.0123$ ($p = 0.000$) significantly higher.

Conclusion: Tooth changes, such as caries and erosions, were at a level that could be affected by regular and proper oral hygiene and proper nutrition.

Key words: saliva, pH, Ca, phosphates, caries, tooth erosions, pregnancy

MANAGEMENT APPROACH TO THYROID CANCER IN ALBANIA

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ABSTRACT

Introduction: Thyroid cancer is cancer that starts in the thyroid gland. It happens when cells in the thyroid grow out of control and crowd out normal cells. In Albania, thyroid cancer is a rare disease, according to available data. The aimed study was to show the prevalence of thyroid cancer in Albania and consider the effects of its management approach.

Methods: A retrospective population-based study was conducted using the data from the Clinic of General Surgery, UHC “Mother Theresa” in Tirana, and the Registry of the Department of Pathology during the period 2004 – 2011. We analyzed the data of 262 suspected patients with thyroid tumors.

Results: The prevalence of thyroid cancer resulted in 16% (42/262). The most predominant gender was female 79% compared to male 21% with a significant association between them p-value of <0.05. The average age was 34, 5 +/-12, 6 (16-71) years. Related to histologic types of thyroid cancer 67% of cases were papillary, 24% follicular, 7% medullary, and only 2% anaplastic. Treatment depends on the type of thyroid cancer. Surgery is most often done, the entire thyroid gland is usually removed and if is suspected that cancer has spread to lymph nodes in the neck, these will also be removed. Radiation therapy may be done with or without surgery and it may be performed by; aiming external beam x-ray radiation at the thyroid or taking radioactive iodine by mouth. If cancer does not respond to surgery or radiation and has spread to other parts of the body, chemotherapy and targeted therapy are applied.

Conclusion: The importance of screening, early diagnosis, and proper treatment possess still challenging in Albania, so better national health programs must be developed in order to offer better health care services for this medical problem.

Keywords: Thyroid cancer, risk factors, diagnosis, treatment

DIAGNOSIS AND REHABILITATION OF SMALL MUSCULAR RUPTURES IN THE LOWER SIDE (Poster presentation)

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Introduction: Muscle ruptures are muscle injuries that result from a maximum extension of the muscle more than its tolerance, or as a result of an immediate muscle contraction. Muscle ruptures manifest in the patient with pain, hematoma, edema, walking problems (when it occurs on the inferior sides) and difficulty in performing daily activities (ADLs).

Subject objective: Diagnosis and identification of the degree of muscle damage and the effectiveness of the selected rehabilitation protocol.

Purpose of the topic: Comparison of the effectiveness of the rehabilitation protocol before and after the physiotherapeutic evaluation of the patient. The goal of the rehabilitation protocol is:

Reduction of pain, elimination of hematoma, elimination of edema, return of the patient to his ADLs without pain.

The rehabilitation protocol was taken from the AAOS (American Academy of Orthopedics) of 2008 and 2011. Two rehabilitation protocols were taken as the 2008 protocol treats cartilage muscle ruptures, while the 2011 protocol treats muscle ruptures of the thigh.

The rehabilitation protocol is divided into 4 phases, where in the first phase orthopedic tutor, cryotherapy, Tecar Therapy, articular mobilizations, patella mobilization and isometric exercises were used.

In the second phase, orthopedic tourniquets, articular mobilizations, magnetotherapy, myofacial techniques, closed chain exercises, proprioception exercises were used, we educate walking and start using the static bike. In the third phase, we applied interference currents, isotonic exercises, proprioception exercises, closed and open chain exercises and the static bicycle.

While the fourth phase dealt with patient education.

Materials and methods: The study is prospective. The patient's treatment was carried out in a private physiotherapeutic clinic in Tirana. The diagnosis of the patient was made with the ultrasound machine and the physiotherapist evaluation of the patient. The patient manifested pain, hematoma, edema, difficulty in walking and in daily activities. The patient was treated with 40 physiotherapeutic sessions (the sessions took place every 2 days). Each physiotherapy session lasted 50 minutes. At the end of the physiotherapeutic rehabilitation we reassessed the patient to see the results of the protocol used.

Results: From the protocol implemented in the case of the patient under analysis, we see that we managed to reduce pain, edema, hematoma and return the patient to performing his ADLs without pain.

Conclusions: from this study we come to the conclusion that the rehabilitative protocol divided into 4 phases helps to reduce pain, hematoma and edema as well as helps to return the patient to his daily life, even in sports activities. In the meantime, it is necessary to educate the patient to prevent a secondary injury.

Key words: muscle ruptures, symptoms, physiotherapeutic assessment, rehabilitation protocol.

DIAGNOSIS AND REHABILITATION OF LOWER BACK PAIN WITH MANUAL THERAPY AND ELECTROTHERAPY (POSTER PRESENTATION)

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Definition : Lower back pain is one of the most frequent musculoskeletal problems in physiotherapeutic clinical practice, with the most frequent incidence in the middle and later ages.

Spondyloarthrosis lumbalis part of the osteoarthritis group and involves injuries to the articular cartilage level and it is associated with destructive and constructive phenomena (osteophytes).

Spondyloarthrosis can be developed in different parts of the vertebrae columns.

Lumbal spondyloarthrosis affects the vertebrae at level L1-L5. It is a degeneration of vertebrae and discs in the cervical region associated with aging.

Physiotherapy can be used alone or combined with electrotherapy for the purpose of rehabilitation and muscular strengthening.

Aim: The study aims to identify the effects of physiotherapy in the rehabilitation of Lower back pain

Methodology: Prospective study at the rheumatology department in “Mother Teresa” Hospital, Tirana, from April to September 2018. Patients were selected randomly.

The age of patients included in the study were from 25 to 55 years old.

40 patients were diagnosed with subacute and chronic lumbago by the rheumatologist.

The excluded criteria were: neurological problems (radiculopathy), orthopedic operations and polyneuropathy.

Patients were divided into two groups: **Group I** of the study was treated for 15 days with electrotherapy (TENS, ultrasound) **The second group** of patients was treated for 15 days with combined therapy with manual, exercises and electrotherapy. Québec Questionnaire was used to evaluate daily activity of patients.

Results: The therapy used are electrotherapy, manual therapy and exercises.

Group I: The Quebec back pain disability scale of the patients on the first day of treatment was 3.81, while on the last day was 2.27.

As a result, the electrotherapy has increased the functionality of patients in their daily activity.

Group II: The Quebec back pain disability scale of the patients on the first day of treatment was 3.9, while on the last day was 1.36.

As a result, the combined therapy has considerably increased functionality in daily activity of patients.

Conclusions: By concluding, the most effective therapy for the rehabilitation of the lower back pain is combined therapy with manual therapy, exercises and electrotherapy.

This conclusion is also supported by International evidence.

Key words: Lower Back Pain, exercises, Ultrasound, Electrotherapy, Patients.

SYNERGISTIC RESPONSE OF PEG COATED BLACK TiO₂ COMPOSITE WITH DOXORUBICIN FOR BREAST CANCER TREATMENT

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Abstract

Black TiO₂ nanoparticles are the magnificent material and having exceptional potential towards bio-medical applications such as cancer therapy. In this experimental technique Polyethylene Glycol (PEG) decorated black TiO₂ composite with Doxorubicin (DOX) with the exposure of near infrared (NIR) will be used for breast cancer therapy. In prior step, PEG) decorated black TiO₂ composite with Doxorubicin (DOX) will be characterized by employing XRD, SEM, UV-visible spectroscopy and Fourier transform infrared spectroscopy (FTIR). Basically crystal structure will be performed by applying XRD analysis, morphological analysis will be employed by using scanning electron microscopy (SEM). Functional group presence will be analyzed by using FTIR. Finally anticancer response of PEG capped black TiO₂ doped with DOX will be assessed under NIR exposure toward cancer in vitro cellular model. Current development of therapeutic analysis will lead to comprehensive treatment of various malignant tissues/tumors.

Key words: FTIR, XRD, Doxorubicin

THE NOVEL ROLE OF INTESTINAL EPITHELIAL HIGH MOBILITY GROUP BOX PROTEIN 1 IN PREVENTING ENTERIC PATHOGEN INFECTION

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Background: High mobility group box protein 1 (HMGB1) plays divergent biological functions. In the nucleus, HMGB1 organizes DNA and nucleosomes and regulates gene transcription. Extracellular HMGB1 is considered as a damage-associated molecular pattern protein. However, little is known about its intracellular role. The β -catenin pathway is a critical player in upregulation proliferation and inflammation in intestine. It remains unclear whether HMGB1 and β -catenin are closely related or function independently. Here, we studied the effects and mechanisms of intestinal epithelial HMGB1 contributes to enteric pathogen infection.

Methods: We investigated the protective role of intestinal HMGB1 using conditional intestinal epithelial cell (IEC) HMGB1-knockout (HMGB1 ^{Δ IEC}) mouse model, HMGB1 ^{Δ IEC} organoids, and *Salmonella*-colitis.

Results: *In vivo*, we found that HMGB1 ^{Δ IEC} mice had increased bacterial burden and *Salmonella* translocation in live 4 days post *Salmonella* infection. Serum inflammatory cytokines were significantly higher in HMGB1 ^{Δ IEC} mice, compared to the HMGB1^{LoxP} mice 4 days post infection. Intestinal HMGB1 ablation led to inflammation and bacterial invasion involved in the β -catenin pathway, which is known to upregulate proliferation of intestinal epithelial cells. The p- β -catenin signaling was significantly up-regulated, while p-GSK-3 β was significantly down-regulated in the HMGB1 ^{Δ IEC} mice infected with *Salmonella*. Immunostaining data showed more positive staining of proliferation marker PCNA in the colon of HMGB1 ^{Δ IEC} mice infected with *Salmonella*. Furthermore, we found that HMGB1 ^{Δ IEC} organoids infected with *Salmonella* had increased bacterial burden and enhanced inflammation, compared to the HMGB1^{LoxP} organoids.

Conclusion: Our study demonstrated that intestinal epithelial HMGB1 negatively regulates counters bacterial-induced intestinal inflammation through the β -Catenin pathway. We reveal that intestinal epithelial HMGB1 is directly involved in the suppression of bacteria.

EVALUATION OF THE EFFECTS OF PARAMETERS IN LASER MACHINING OF AISI 316LVM ALLOY

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ABSTRACT

In this study, the surface of a workpiece made of AISI 316LVM steel was laser-machined. The effects of frequency, scan speed, and hatch distance of the laser ablated process for a particular hatching strategy and pulse duration on the workpiece surface were investigated on the texture of the machined surface. Based on the findings, scan speed, hatch distance, and frequency were the primary factors that determined surface roughness. There was a considerable improvement in the smoothness of the surface when increasing the scan speed. In addition, it was found that there was a correlation that could be considered statistically significant between the scan speed and the surface roughness. The surface roughness was shown to be significantly influenced by the scan speed by 76%. A smoother surface was achieved by increasing the scan speed; however, as frequency increased, surface roughness increased too. The results of this study led to the conclusion that the influence of hatch distance on surface roughness was not statistically significant since the variation in the roughness of the surface with the change of hatch distance was not prominent. The lowest and highest surface roughness value was found to be 1.94 μm and 8.99 μm .

Keywords: Laser surface machining, AISI 316 LVM, surface roughness

**FIBER LASER MACHINING OF CoCr28Mo ALLOY: ASSESSING THE EFFECTS OF
PARAMETERS ON SURFACE ROUGHNESS**

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ABSTRACT

In this study, the effects of scanning speed, hatching distance, and frequency which are among the texturing parameters of a laser marking machine, and the changes in the roughness of the engraved surfaces during machining on CoCr28Mo alloy, were investigated by correlating the process parameters. An experimental layout consisting of twelve different engraving conditions was built up by associating the three parameters, and the various values were allocated to these parameters. The results from the experiments show that with the rise in scanning speed and hatching distance, a decrease in roughness occurs. It was found that as the frequency increases, the surface roughness also increases. It has been determined that scanning speed is a parameter that has important effects on the change of texture roughness. The effectiveness rate was found to be 72%. However, the hatching distance showed the lowest effect, with a rate as low as 1.3%. Frequency, as a statistically significant parameter, showed a 12.9% effect on the roughness of the texture. While the scanning speed was statistically significant, the hatching distance was not statistically significant.

Keywords: Laser Surface Machining, CoCr28Mo alloy, Surface Roughness

DÜŞÜK KARBONLU ÇELİĞİN FARKLI AÇILARDA BÜKÜLMESİ SONRASI FERRİT TANE YAPISINDAKİ DEĞİŞİMLERİN İNCELENMESİ

INVESTIGATION OF CHANGES IN FERRITE GRAIN STRUCTURE AFTER BENDING LOW CARBON STEEL AT DIFFERENT ANGLES

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ÖZET

Bu çalışmada 8mm çapındaki düşük karbonlu çelik çubuk kenar bükme tekniği ile 30, 60 ve 90° açılarda bükülmüştür. Bükme işlemi sonrası büküm alanı çekme, merkez ve basma bölgesi olarak üç kısma ayrılmış ve belirlenen bölgelerde meydana gelen mikro yapı değişimleri incelenmiştir. Bu değişimler incelenmeden önce büküm işlemi yapılmamış numune referans malzemesi olarak kabul edilmiştir. Yapılan mikro yapı incelemeleri sonucunda referans malzemesinde düşük miktarda perlit, yüksek miktarda ferrit taneleri gözlemlenmiştir. Büküm işlemi sonrasında çekme bölgesinde bulunan ferrit tanelerinin çekme yönüne doğru yönlendiği, basma bölgesinde bulunan tanelerin ise basma yönüne dik doğrultuda yönlendiği belirlenmiştir. Yönlenme sırasında taneler arasında oluşan kaymanın, tane boylarında uzamaya, tane eninde de kalınlaşmaya neden olduğu belirlenmiştir. Büküm açısındaki artış ile tanelerin uzama eğilimi de artmakta olup, referans malzemesine göre ferrit tane boyundaki artış miktarının en fazla olduğu bölge çekme bölgesi olurken, ferrit tane eninin en fazla artış gösterdiği bölge basma bölgesi olarak tespit edilmiştir. Bunun yanı sıra büküm sonrası belirlenen bölgelerde yapılan mikro sertlik ölçümlerinde deformasyondaki artış ile sertlikte bir artışın oluştuğu, bölgesel olarak bakıldığında ise çekme bölgesindeki sertlik artışının basma bölgesine göre daha fazla olduğu tespit edilmiştir.

Anahtar Kelimeler: Düşük karbonlu çelik, Tek taraflı büküm, Ferrit tane yapısı

ABSTRACT

In this study, 8mm diameter low carbon steel bar was bent at 30, 60 and 90° angles with the edge bending technique. After the bending process, the bending area is divided into three parts as tensile, center and compression regions, and the microstructure changes in the determined regions are examined. Before examining these changes, the sample that was not bent was accepted as the reference material. As a result of the microstructure investigations, low amount of perlite and high amount of ferrite grains were observed in the reference material. After the bending process, it was determined that the ferrite grains in the tensile region were oriented towards the tensile direction, while the grains in the compression region were oriented perpendicular to the compression direction. It has been determined that the sliding between the grains during orientation causes elongation in grain length and thickening in grain width. With the increase in the bending angle, the elongation tendency of the grains also increases, and the region with the highest increase in ferrite grain size compared to the reference material was the tensile region, while the region where the ferrite grain width increased the most was determined as the compression region. In addition, in the micro-hardness measurements made in the regions determined after bending, it was determined that an increase in hardness occurred with the increase in deformation, and when viewed regionally, the increase in hardness in the tensile region was higher than in the compression region.

Keywords: Low carbon steel, Edge bending, Ferrite grain structure

3B YAZICILARDA ORTAM SICAKLIĞININ ÇEKME DAYANIMINA ETKİSİ
THE EFFECT OF ENVIRONMENTAL TEMPERATURE ON TENSILE STRENGTH IN 3D
PRINTERS

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ÖZET

Bu çalışmada ABS esaslı malzemelerin üç boyutlu (3B) yazıcı ile üretilmesinde ortam sıcaklığının çekme dayanımına etkisi incelenmiştir. 0,29 mm katman kalınlığı, % 60 doluluk oranı ve doğrusal dolgu deseni parametrelerinde ASTM D638-IV standartına uygun çekme numuneleri üretilmiştir. Farklı ortam sıcaklıklarının oluşturulması için Xytronic LF-853D sıcak hava üfleme seti kullanılmıştır. Ortam sıcaklığının etkisinin belirlenmesi için hem havanın sıcak hava çıkış değerleri 100 °C, 150 °C, 200 °C ve 250 °C 'de sabit tutularak hemde oda sıcaklığında numune üretimleri gerçekleştirilmiştir. Artan ortam sıcaklığı ile çekme dayanımı olumlu yönde etkilenmektedir. En düşük çekme dayanımı oda sıcaklığında üretilen numunede 16,535 Mpa'dır. En yüksek çekme değeri ise %18,39 artışla 19,577 MPa olarak 250 °C sıcak hava üflenen ortamda gerçekleşmiştir.

Anahtar Kelimeler: 3B, ABS, Ortam sıcaklığı, Çekme dayanımı

ABSTRACT

In this study; The effect of environment temperature on tensile strength was investigated in the production of ABS-based materials with a three-dimensional (3D) printer. Tensile specimens were produced in accordance with ASTM D638-IV standard with 0.29 mm layer thickness, 60% fill rate, and linear fill pattern parameters. Xytronic LF-853D hot air-blowing soldering set was used to create different ambient temperatures. In order to determine the effect of environmental temperature on tensile strength, specimen productions were carried out both keeping the hot air output values of the soldering constant at 100 °C, 150 °C, 200 °C and 250 °C, and at room temperature. Tensile strength is positively affected by increasing environmental temperature. The lowest tensile strength value is 16,535 Mpa, which specimen was produced at room temperature. The highest tensile strength value, on the other hand, was 19,577 MPa with an increase of 18.39%, in an environment where 250 °C hot air was blown.

Keywords: 3D, ABS, Environmental temperature, Tensile strength

TÜRKİYE'DE LİMON ÜRETİMİNDE ENERJİ KULLANIM VERİMLİLİĞİNİN BELİRLENMESİ: HATAY İLİ ÖRNEĞİ

DETERMINATION OF ENERGY USE EFFICIENCY OF LEMON PRODUCTION IN TÜRKİYE:
A CASE STUDY OF HATAY PROVINCE

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ÖZET

Tarımsal üretim, çiftlik gübresi gibi ticari olmayan enerjiler ile dizel, elektrik, kimyasal gübre, ilaç, sulama suyu, makine enerjisi gibi ticari enerjileri kullanır. Bu enerjilerin uygun kullanımı, tarımsal sürdürülebilirliği, karlılığı ve rekabet gücünü artırarak ekonomiye katkıda bulunur. Tarım sistemlerinde girdilerin en aza indirilmesi ve enerji verimliliğinin artırılabilmesi için enerji analizi yapılması gereklidir.

Bu araştırmanın amacı, Türkiye'nin en önemli turunçgil üretim merkezlerinden biri olan Hatay'da limon üretiminde kullanılan enerji girdi ve çıktı miktarlarını belirlemek ve buna göre bir enerji verimliliği analizi yapmaktır. Veriler, 2021 yılında Hatay ili Arsuz, Dört Yol, Erzin ve Samandağ ilçelerinde limon üretimi yapan 54 turunçgil üreticisinden yüz yüze görüşmeler yolu ile elde edilmiştir.

Araştırmada enerji verimliliğini belirlemek için limon üretiminde kullanılan tarımsal girdi enerjileri ile çıktı enerjileri belirlenmiştir. Yapılan enerji analizi sonuçlarına göre; limon üretiminde belirtilen üretim sezonunda toplam enerji girdisi $53739.10 \text{ MJ ha}^{-1}$ olarak belirlenmiştir. Enerji kullanım etkinliği, enerji verimliliği, özgül enerji, ve net enerji sırasıyla 1.01, 0.42 kg MJ^{-1} , 2.36 MJ kg^{-1} , 683.3 MJ ha^{-1} olarak hesaplanmıştır. Toplam enerji girdilerinin içinde en büyük payın %43.26 ile kimyasal gübre enerjisi olduğu tespit edilmiştir. Özellikle azotlu gübreler yüksek enerji maliyetiyle toplam enerji girdisini oldukça fazla etkilemektedir. Kimyasal gübrelerin enerjisini azaltmak için çiftlik gübresi enerjisi artırılabilir, organik gübre ve biyolojik gübre gibi alternatif gübre çeşitleri kullanılabilir. Limon üretiminde yenilenemeyen enerji girdisi kullanılan toplam enerji girdisinin ortalama olarak %88.88'i kadardır. Yenilenemeyen enerjiler hem çevresel bozulmaya hem de bu enerji kaynaklarının hızla tükenmesine neden olmaktadır.

Hatay Bölgesinde limon üretiminde enerji kullanım verimliliğinin artırılması için çalışmalar yapılmalı, sürdürülebilir tarım ve temiz bir çevre için daha fazla yenilenebilir enerji kullanılmalıdır.

Anahtar Kelimeler: Limon üretimi, enerji verimlilik analizi, Hatay ili, Türkiye

ABSTRACT

Agricultural production uses non-commercial energies such as farm manure and commercial energies such as diesel, electricity, chemical fertilizers, pesticides, irrigation water, machinery energy. Appropriate use of these energies contributes to the economy by increasing agricultural sustainability, profitability and competitiveness. Energy analysis is necessary in order to minimize inputs and increase energy efficiency in agricultural systems.

The aim of this research is to determine the energy input and output amounts used in lemon production in Hatay, one of the most important citrus production centers in Turkey, and to make an energy efficiency analysis accordingly. The data were obtained through face-to-face interviews from 54 citrus producers producing lemons in Hatay province Arsuz, Dört Yol, Erzin and Samandağ districts in 2021. In order to determine energy efficiency, agricultural input energies and output energies used in lemon production were calculated. According to the results of the energy analysis; The total energy input in the production season specified in lemon production was determined as 53739.10 MJ ha⁻¹. Energy use efficiency, energy productivity, specific energy, and net energy were calculated as 1.01, 0.42 kg MJ⁻¹, 2.36 MJ kg⁻¹, 683.3 MJ ha⁻¹, respectively. The biggest share in total energy inputs was determined as chemical fertilizer energy with 43.26%. Especially nitrogen fertilizers affect the total energy input quite a lot with their high energy cost. In order to reduce the energy of chemical fertilizers, the energy of farm manure can be increased, and alternative fertilizer types such as organic fertilizers and biological fertilizers can be used. The non-renewable energy input in lemon production is on average 88.88% of the total energy input used. Non-renewable energies cause both environmental degradation and rapid depletion of these energy sources.

Efforts should be made to increase the efficiency of energy use in lemon production in the Hatay Region, and more renewable energy should be used for sustainable agriculture and a clean environment.

Keywords: Lemon production, energy efficiency analysis, Hatay province, Türkiye

**YIKAYICI-KURUTUCULARDA YER ALAN SANTRİFÜJ FAN DİL BÖLGESİNİN
OPTİMİZASYONU**
OPTIMIZATION OF THE VOLUTE TONGUE IN THE CENTRIFUGAL FAN IN
WASHER/DRYERS

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ÖZET

Dayanıklı tüketim ürünlerinden biri olan yıkayıcı kurutucu, çamaşır yıkama ve kurutma görevlerini tek bir bölmede yerine getiren bir tür ev aletidir. Yıkama ve kurutma fonksiyonlarının tek bir makinede veriliyor olması büyük şehirlerde daralan yaşam alanları için oldukça büyük önem arz etmektedir. Bu nedenle yıkayıcı kurutucu ürün kullanımını giderek artmaktadır.

Yıkayıcı kurutucu çeşitlerinden biri olan su soğutmalı yıkayıcı kurutucu, temel olarak çamaşır makinesi içerisine kurutma grubunun eklenmesiyle oluşmaktadır. Bu ürünlerde çamaşır makinesi komponentlerine ek olarak kurutma komponentleri bulunmaktadır. Yıkayıcı kurutuculardaki kurutma çevriminin verimine etki eden santrifüj fan, ısıtıcı ve kondenser komponentlerinin yanında ısıtıcı kanalının da etkisi oldukça fazladır. Santrifüj fan ile emişi yapılan havanın ısıtılması ve çamaşırlara gönderilmesi için ısıtıcı kanalından geçmesi gerekmektedir. Proses havasının doğrudan etkileşim halinde olduğu ısıtıcı kanalının geometrik tasarımı da bu yüzden önem kazanmaktadır. Isıtıcı kanalının tasarımına bağlı olarak hava debisi ve hava basıncı etkileneceğinden kurutma verimi de doğrudan etkilenmektedir.

Isıtıcı kanalındaki hava akışına etki eden parametrelerin başında santrifüj fan kanadının bulunduğu salyangozda yer alan dil bölgesi gelmektedir. Bu çalışmada ısıtıcı kanalında dil bölgesinin kanaldan geçen hava debisi, basıncı gibi performans parametrelerine etkisi incelenmiştir. Bu amaçla dil bölgesi tasarımı parametrik olarak ele alınmış ve 27,5°, 55° ve 65° dil açısına sahip ısıtıcı kanalları nümerik analizler ile kıyaslanmıştır. Nümerik analiz sonuçları rüzgar tüneline yapılan deneysel çalışmalar ile doğrulanmıştır.

Sonuç olarak dil bölgesi açısı azaldıkça statik basınç farkı artmakta, geri dönüş ve ters akış bölgeleri azalmaktadır. Ancak düşük açı değerlerinde sistem kaybında artış meydana gelmektedir. Bu sonuçlara göre dil açısı 55° olan ısıtıcı kanalı optimum tasarım olarak elde edilmiştir.

Anahtar Kelimeler: HAD, Yıkayıcı Kurutucu, Isıtıcı Kanalı, Dil Bölgesi, Santrifüj Fan, Debi

ABSTRACT

The washer-dryer is a kind of household appliance that performs the laundry washing and laundry drying tasks in a single compartment. The fact that both washing and drying functions are given in a single machine is of great importance for the shrinking living spaces in big cities. For this reason, the use of washer-dryer products is increasing.

The water-cooled washer-dryer, which is one of the washer dryer types, is basically formed by adding the drying group to the washing machine. These products have drying components in addition to the washing machine components. In addition to the centrifugal fan, heater and condenser components, which affect the efficiency of the drying cycle in washer dryers, the effect of the heater channel is also quite high. The air sucked by the centrifugal fan must pass through the heater channel in order to be heated and sent to the laundry. This is why the geometric design of the heater channel, in which the process air interacts directly, gains importance. Since the air flow rate and air pressure will be affected depending on the design of the heater channel, the drying efficiency will also be directly affected.

One of the parameters affecting the air flow in the heater channel is the tongue region in the volute where the centrifugal fan blade is located. In this study, the effect of volute tongue on the performance parameters such as air flow, pressure passing through the heater channel was investigated. For this purpose, the volute tongue design was considered parametrically and the heater channels with 27.5°, 55° and 65° tongue angles were compared with numerical analyzes. Numerical analysis results were confirmed by experimental studies in the wind tunnel.

As a result, as the volute tongue angle decreases, the static pressure difference increases, and the recirculated and reverse flow regions decrease. However, at low angle values, the system loss increases. According to these results, the heater channel with a tongue angle of 55° was obtained as the optimum design.

Keywords: CFD, Washer Dryer, Heater Channel, Volute Tongue, Cut-Off, Centrifugal Fan, Flow Rate

**ISI POMPASINDA R32 VE R410A SOĞUTUCU AKIŞKANLARININ PERFORMANS
KARŞILAŞTIRMASI**
PERFORMANCE COMPARISON OF R32 AND R410A REFRIGERANTS IN HEAT PUMP

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ÖZET

İklimlendirme ve ısı pompası sistemleri sera gazı emisyonlarında önemli pay sahibidir. Montreal Protokolü ve Kigali Değişikliği'nin getirdiği sınırlamalarla birlikte düşük küresel ısınma potansiyelli (KIP) soğutucu akışkanlar kullanılması gerekmektedir. Bu nedenle, ısı pompası sistemlerinde R32, R410A'nın yerini almaktadır. R32, 2088 KIP'a sahip R410A'ya kıyasla 675 KIP ile çok daha düşük bir KIP'a sahiptir. R32'nin termofiziksel özellikleri R410A ile benzerdir. R32 hidrokarbonlara göre daha az yanıcıdır ve izin verilen soğutucu akışkan şarj limiti daha yüksektir. Böylece, aynı ısı pompasında R410A yerine R32 kullanıldığında daha verimli ve yüksek kapasiteli ısı pompaları elde edilebilirken; aynı verim ve kapasitede daha küçük boyutlarda ve daha az akışkan kullanılan ısı pompası da tasarlanabilmektedir. Bununla beraber R32'nin yüksek kompresör çıkış sıcaklıkları, özellikle yüksek dış ortam sıcaklıklarında ısı pompası uygulamalarını sınırlamaktadır.

Bu çalışmanın ilk kısmında R410A kullanılan 12000 Btu/h inverter klima tasarımı yapılmıştır. Kondenser ve evaporator Coil Designer programı kullanılarak tasarlanmıştır. Kapileri uzunluğu ve şarj miktarı literatürden elde edilen korelasyonlar ile teorik olarak hesaplanmıştır. Klima, soğutma modunda EN-14511(2,3,4)-2011 şartlarında psikrometrik tip kalorimetre odasında test edilmiştir. Testler boyunca klimanın iç ve dış ünite fan devirleri sabit tutulmuş ve kompresör 3 farklı devirde sürülmüştür. Böylece optimum kompresör devri belirlenmiştir. Çalışmanın devamında R32 için şarj miktarı hesaplanmıştır. R32 şarj miktarının R410A'dan %27 daha az olduğu bulunmuştur. Sistemde hiçbir değişiklik yapılmadan, klima aynı koşullarda R32 ile test edilmiştir. Test sonuçlarında, R410A ile karşılaştırıldığında, kapasite ve COP'nin sırasıyla %2,4 ve %4,9 arttığı, çekilen gücün ise %2,3 azaldığı görülmüştür. Kapileri boyutları R32 için optimize edildiğinde ise kapasite ve COP sırasıyla %3,9 ve %9,5 artmıştır.

Çalışmanın ikinci bölümünde yüksek sıcaklık altında performans ve kompresör çıkış sıcaklıkları karşılaştırılmıştır. Dış ortam sıcaklığı yükseldikçe her iki akışkanın da COP'si düşmektedir. Her iki soğutucu akışkanın da aynı azalma eğilimi gösterdiği bulunmuştur. Son olarak, R32'nin kompresör çıkış sıcaklığının 2-5°C aralığında daha yüksek olduğu görülmüştür.

Anahtar Kelimeler: Isı Pompası, Klima, R32, R410A, KIP

ABSTRACT

Air conditioning and heat pump systems contribute greatly to greenhouse gas emissions. Montreal Protocol and Kigali Amendment phases down the consumption of hydrofluorocarbons refrigerants and encourage low global warming potential (GWP) refrigerants to be used. Therefore, R32 replaces R410A in heat pump systems. The thermophysical properties of R32 are similar to R410A however it has a much lower GWP with 675 GWP compared to the R410A with 2088 GWP. R32 is less flammable than hydrocarbons and has a higher refrigerant charge limit as well as it has significantly good heat transfer characteristics. Thus, while using R32 instead of R410A in the same heat pump, more efficient and high-capacity heat pumps can be obtained; It is also possible to design a heat pump with the same efficiency and capacity in smaller sizes with less refrigerant. However, the high compressor outlet temperatures of R32 limit heat pump applications, especially at high outdoor temperatures.

In the first part of this study, a 12000 Btu/h inverter air conditioner using R410A was designed. The condenser and evaporator were designed using Coil Designer software used in design and optimization of air-cooled heat exchangers. The capillary length and charge amount were calculated theoretically with the correlations obtained from the literature. The air conditioner was tested in a psychrometric type calorimeter chamber under the conditions of EN-14511(2,3,4)-2011 in cooling mode. During the tests, the indoor and outdoor fan speeds of the air conditioner were kept constant, and the compressor was driven at 3 different speeds. Thus, the optimum frequency was determined. In the continuation of the study, the charge amount for R32 was calculated. R32 charge amount was found to be 27% less than R410A. The air conditioner has been tested with R32 under the same conditions, without making any changes to the system. In the test results, it was found that the capacity and COP increased by 2.4% and 4.9%, respectively, and the absorbed power decreased by 2.3%, compared to R410A. When the capillary dimensions were optimized for R32, the capacity and COP increased by 3.9% and 9.5%, respectively.

In the second part of the study, performance and compressor discharge temperatures are compared under high temperatures. As the outdoor temperature rises, the COP of both refrigerants decreases. It was found that both refrigerants showed the same tendency of decreasing. Finally, the compressor discharge temperature of R32 was found to be in the range of 2-5 °C

Keywords: Heat Pump, Inverter Air-conditioner, R32, R410A, GWP

**ORTOPEDİ ALANINDA KULLANILAN DAİRESEL EKSTERNAL FİKSATÖRLERİN
BİYOMEKANİK OPTİMİZASYONU**
BIOMECHANIC OPTIMIZATION OF CIRCULAR EXTERNAL FIXATORS USED IN
ORTHOPEDICS

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ÖZET

Eksternal fiksatorler, hasarlı uzuvların stabilizasyonunu sağlayan vücut dışından uygulanan cihazlardır. Bu cihazlar iskelet deformitelerinin düzeltilmesinin yanı sıra kemik ve eklem hasarlarının tedavisinde kullanılan bir yöntem olarak görülmektedir. Bu araştırmanın amacı ortopedi alanında kullanılan dış sabitleyicilerden birisi olan Dairesel Eksternal Fiksator sisteminin biyomekanik optimizasyonunun gerçekleştirilmesidir. Çalışma nümerik olarak değerlendirilmiştir. Çalışmada, DEF sistemi üzerinde belirlenen parametreler göz önüne alınarak değişimlerinin sistem ve kırık hattı üzerindeki etkileri sonlu elemanlar metodunu kullanan ANSYS yazılımı ile incelenmiştir. Optimizasyon işleminin de sınır şartları belirlenmiş ve bunlara göre aday tasarımlar belirlenmiştir. Aday tasarımlarda tel çapı 1mm, teller arası açı 55°, yay katsayısı 20 N/mm ve ön yüklemeye ise iki farklı değişken olarak elde edilmiştir. Bu çalışmada elde edilen sonuçlara dayanarak kırık iyileşmesi hakkında daha geniş bir bilgi birikimine sahip olunmuştur.

Anahtar Kelimeler: Dış Sabitleyiciler, Biyomekanik Optimizasyon, Kırık İyileşmesi

ABSTRACT

External fixators are devices applied externally to stabilize damaged limbs. These devices are seen as a method used in the treatment of bone and joint damage as well as the correction of skeletal deformities. The aim of this research is to perform the biomechanical optimization of the circular external fixator system, which is one of the external fixators used in the field of orthopaedics. The study was evaluated numerically. In the study, considering the parameters determined on the DEF system, the effects of their changes on the system and the fracture line were examined with ANSYS software using the finite element method. In the optimization process, boundary conditions were determined and candidate designs were determined according to these. In the candidate designs, the wire diameter is 1mm, the angle between the wires is 55°, the spring coefficient is 20 N/mm and the preload is obtained as two different variables. Based on the results obtained in this study, a broader knowledge of fracture healing was obtained.

Keywords: External Fixators, Biomechanical Optimization, Fracture Healing

**BUHAR SIKIŞTIRMALI SOĞUTMA ÇEVİRİMİNDE KILCAL BORU
PARAMETRELERİNİN VE ÇOKLU KILCAL BORU KULLANIMININ ENERJİ
TÜKETİMİNE ETKİSİ**

THE EFFECT OF CAPILLARY TUBE PARAMETERS AND USE OF MULTI CAPILLARY ON
ENERGY CONSUMPTION IN VAPOR COMPRESSION CYCLE

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ÖZET

Dünyada artan nüfus ve sınırlı enerji kaynakları nedeniyle mevcut enerji kaynaklarının verimli kullanılmasının önemi her geçen gün artmaktadır. Pandemi etkisiyle birlikte ev aletleri kullanımı artış göstermiştir ve ev tipi buzdolaplarındaki enerji verimliliği daha da ön plana çıkmıştır. Ev tipi buzdolapları, küresel elektrik tüketiminin %6'sına tekabül etmektedir ve buhar sıkıştırma soğutma çevriminin en çok kullanıldığı alanların başında gelmektedir. Soğutma çevriminin verimliliğini artırmak için başlıca etken çevrim bileşenlerini daha verimli hale getirmektir. Bu çalışmada, ev tipi buzdolaplarında kısılma elemanı olarak kullanılan kılcal boruya odaklanılarak, çoklu kısılma elemanı (kılcal borular) kullanımıyla değişen ortam sıcaklıklarında farklı kılcal boru çap ve uzunlukları için çevrim noktaları ve enerji tüketim değerleri incelenmiştir.

Kılcal boru tasarımı için 3 farklı ortam sıcaklığında ve 3 farklı şarj miktarında test edilmek üzere 6 farklı kılcal boruya sahip (2 çap ile 3 farklı boy değeri) bir buzdolabı prototipi hazırlanmıştır. Bu prototip ile, farklı ortam ve şarj miktarları için kompresör devri, buharlaştırıcı fan debisi, yoğuşurucu fan debisi sabit tutularak enerji, kapasite ve güç tüketim değerleri ölçülmüştür. Tüm deneyler tamamlandıktan sonra, farklı çalışma koşulları için en iyi enerji ve soğutma kapasitesi değerini sağlayan kılcal boru tasarımları elde edilmiştir. Optimum kılcal boru çap ve uzunluk değeri elde edilerek istatistiksel modelleme çalışmasına veri oluşturulmuştur.

Enerji tüketimi ölçüm standartında (EN-62252) sıcak ortam şartı olan 32 °C sıcaklığında en düşük enerji tüketim değerleri, tüm şarj miktarları için buharlaşma sıcaklığının ve gücün en düşük olduğu 0.80 mm çap, maksimum uzunluk değerlerinde sağlanıyor iken, IEC 62552-2007 standartındaki ortam sıcaklık şartı olan 25 °C sıcaklığında benzer buharlaşma sıcaklıkları için çalışma oranının en düşük olduğu noktalarda en iyi enerji tüketimleri sağlanabilmektedir. Bu değer minimum ve maksimum soğutucu akışkan miktarında 0.80 mm çapa karşılık, maksimum uzunlukta sağlanıyor iken, 47 gram soğutucu akışkan miktarında ise 0.80 mm çap, minimum uzunlukta elde edilmiştir.

Anahtar Kelimeler: Buzdolabı, Kılcal Boru, Kısılma, Enerji

ABSTRACT

Due to the increasing population and limited energy resources in the world, the importance of efficient use of existing energy resources is increasing day by day. With the effect of the pandemic, the use of household appliances has increased and the energy efficiency in household refrigerators has come to the fore even more. Household refrigerators account for 6% of global electricity consumption and are one of the areas where the vapour compression refrigeration cycle is used the most. The main factor in increasing the efficiency of the refrigeration cycle is to make the cycle components more efficient. In this study, the conversion points and energy consumption values for different capillary tube diameters and lengths at varying ambient temperatures with multiple throttling elements (capillary tubes) were investigated, focusing on the capillary tube used as a throttling element in domestic refrigerators.

For the capillary tube design, a refrigerator prototype with 6 different capillary tubes (2 diameters and 3 different length values) was prepared to be tested at 3 different ambient temperatures and 3 different charge amounts. With this prototype, energy, capacity and power consumption values were measured by keeping the compressor speed, evaporator fan flow rate, condenser fan flow rate constant for different media and charge amounts. After all experiments were completed, capillary tube designs were obtained that provide the best energy and cooling capacity value for different operating conditions. By obtaining the optimum capillary tube diameter and length value, data was created for the statistical modelling study.

In the energy consumption measurement standard (EN-62252), the lowest energy consumption values at 32 °C temperature, which is the hot environment condition, are provided at 0.80 mm diameter and maximum length values, where the evaporation temperature and power are the lowest for all charge amounts, while the environment in the IEC 62552-2007 standard The best energy consumption can be achieved at the points where the operating rate is the lowest for similar evaporation temperatures at the temperature condition of 25 °C. While this value was obtained at the maximum length, corresponding to 0.80 mm diameter in the minimum and maximum amount of refrigerant, 0.80 mm diameter was obtained with the minimum length in the amount of 47 grams of refrigerant.

Keywords: Refrigerator, Capillary Tube, Expansion, Energy

**SnS:PVC ARAYÜZLÜ Au/n-TİPİ Si YARIİLETKEN YAPILARIN ENGEL
YÜKSEKLİKLERİNİN DÜŞÜK SICAKLIKLARDA İNCELENMESİ**
INVESTIGATION OF BARRIER HEIGHTS OF Au/n-TYPE Si SEMICONDUCTOR
STRUCTURES WITH SNS:PVC INTERFACES AT LOW TEMPERATURES

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ÖZET

Bu çalışmada; SnS:PVC arayüzlü Au/p-tipi Si yarıiletken yapıların düşük sıcaklıklarda engel yüksekliklerinin sıcaklığa bağlı değişimleri incelendi. 80 K ile 300 K arasında SnS:PVC arayüzlü Au/p-tipi Si yarıiletken yapının akım-voltaj ($I-V$) ölçümleri 20 K aralıklarla alındı. Engel yüksekliği değerleri termiyonik emisyon (TE) teorisine göre hem akım-voltaj değerlerinden hem de Cheung ve Norde metodu kullanılarak elde edildi ve elde edilen engel yüksekliği değerleri birbiriyle karşılaştırıldı. Termionik emisyon (TE) teorisi kullanılarak deneysel $I-V$ datalarından elde edilen engel yükseklikleri (Φ_{bo}) değerlerinin sıcaklığın artmasıyla engel yüksekliği değerlerinden artış olurken, aynı şekilde sıcaklığa bağlı idealite faktörü (n) değerlerinde ise bir azalma olduğu görüldü. Ayrıca, doyma akım yoğunlukları (I_0) değerleri de sıcaklığın artması ile artış gösterdi. Bu durum arayüzeyde engel yüksekliklerinin homojensizliğinden dolayı Au/(SnS:PVC)/p-Si yapının bir Gaussian dağılımına sahip olduğunu ifade eder.

Anahtar Kelimeler: SnS:PVC, Engel Yüksekliği, Doyma Akımları, $I-V$ Ölçümleri

ABSTRACT

In this study; barrier height changes depending on temperature at low temperatures of Au/p type Si semiconductor structures with SnS:PVC interface were investigated. Current-voltage ($I-V$) measurements of Au/p type Si semiconductor structure with SnS:PVC interface between 80 K and 300 K were taken at 20 K intervals. Both the barrier height values obtained from current-voltage values using thermionic emission (TE) theory and the barrier height values obtained using the Cheung and Norde method were compared with each other. It was observed that the barrier heights (Φ_{bo}) values obtained from the experimental $I-V$ data using the thermionic emission (TE) theory increased from the barrier height values with the increase in temperature, while there was a decrease in the ideality factor (n) values depending on the temperature. Also, the saturation current densities (I_0) values also increased with increasing temperature. This station indicates that the Au/(SnS:PVC)/p-Si structure has a Gaussian distribution due to the inhomogeneity of the barrier heights at the interface.

Keywords: SnS:PVC, Barrier Height, Saturation Currents, $I-V$ measurements

**SICAKLIĞA BAĞLI Au/(SnS:PVC)/n-Si METAL YARIİLETKEN YAPILARIN SERİ
DİRENÇLERİNİN İNCELENMESİ**
INVESTIGATION OF SERIES RESISTANCES OF TEMPERATURE DEPENDENT Au/(SnS:PVC
)/n-Si METAL SEMICONDUCTOR STRUCTURES

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ÖZET

Bu çalışmada; Au/(SnS katkılı PVC)/p-tipi Si yarıiletken yapıların seri dirençlerinin (R_s) sıcaklığa bağlı değişimleri 200 K ile 340 K arasında akım-voltaj ($I-V$) ölçümlerinden elde edildi. Sıcaklığa bağlı seri direnç değerleri hem Cheung hem de Norde metodunda elde edildi karşılaştırıldı. Deneysel sonuçlar göstermiştir ki elde edilen seri direnç değerleri sıcaklığın artmasıyla düşüş gösterdiler ve aynı zamanda, Cheung metodunda elde edilen seri direnç değerleri Norde metodunda elde edilen değerlerden daha düşük çıktı. Bunun nedeni Cheung metodunda seri direnç değerleri elde edilirken akım-voltaj ($I-V$) eğrilerinde ileri beslem voltaj bölgesinde sadece lineer kısım alınırken, Norde metodunda seri değerleri tüm ileri beslem bölgesinde lineer olan ve olmayan bölgede dikkate alınarak elde edilir. Sonuç olarak; metal yarıiletken yapılarda seri direnç yarı iletken yapısının tanımlanmasında çok önemli bir parametredir.

Anahtar Kelimeler: SnS katkılıPVC, $I-V$, Seri Direnç, Cheung, Norde, Si

ABSTRACT

In this study; The temperature-dependent changes of the series resistance (R_s) of Au/(SnS doped PVC)/p-type Si semiconductor structures were obtained from current-voltage ($I-V$) measurements between 200 K and 340 K. The series resistance values depending on the temperature were obtained using both Cheung and Norde methods and compared with each other. Experimental results showed that the obtained series resistance values decreased with increasing temperature. However, the series resistance values obtained by Cheung's approach are lower than those obtained by the Norde method. So that means, while Norde method is applied to the all forward biases of the current-voltage ($I-V$) plots for metal semiconductor structures, Cheung method are only applied to the nonlinear part of the forward bias $I-V$ plots in the high voltage region. As a result; in metal semiconductor structures, the series resistance is a very important parameter in defining the semiconductor structure.

Keywords: SnS doped PVC, $I-V$, Series Resistance, Cheung, Norde, Si

**PÜSKÜRTME TEKNİĞİ İLE ELDE EDİLEN Pb KATKILI CdS FİMLERİNİN
İNCELENMESİ**
CHARACTERIZATION OF Pb DOPED CdS FILMS OBTAINED BY SPRAY PYROLYSIS
TECHNIQUE

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ÖZET

CdS filmlerin elektronik yapısı güneş ışığı tayfına uygun olduğundan güneş hücrelerinde ve teknolojik aletlerde sıklıkla kullanılmaktadır. Bu çalışmada, Pb katkılı CdS ince filmler ultrasonik kimyasal spreylendirme tekniği ile hazırlandı ve özellikleri araştırıldı. Hazırlanan numunelerin yapısal, yüzey, optik ve elektriksel özellikleri X-ışını toz kırınımı (XRD), taramalı elektron mikroskobu (SEM), atomik kuvvet mikroskobu (AFM), UV-Vis, fotoluminesans (PL) ve raman spektroskopileri kullanılarak incelendi. Filmlerin tümü altıgen kristal yapı sergilemekte ve polikristaldir. Kalınlıklar, spektroskopik elipsometri tekniği ve Cauchy-Urbach modeli kullanılarak belirlendi. Böylece kalınlıklar 70-192 nm aralığında ölçüldü. UV verileri kullanılarak elde edilen optik bant aralığı 2.44 ila 2.25 eV arasında değişmektedir. Pb katkılı CdS için, $\sim 300 \text{ cm}^{-1}$ aralığında karakteristik tepenin Raman kaymasını göstermektedir. Son olarak, filmlerin yapısal, yüzey, optik ve elektriksel özellikleri üzerinde önemli bir etkiye sahip olduğu sonucuna varılmıştır.

Anahtar Kelimeler: CdS:Pb yapısı; X-ışını kırınımı; Raman spektroskopisi; optik özellikler; püskürtme tekniği.

ABSTRACT

Since the electronic structure of CdS films is suitable for the sunlight spectrum, it is frequently used in solar cells and technological devices. In this study, Pb doped CdS thin films were prepared with ultrasonic chemical spray pyrolysis technique and their properties were investigated. Structural, surface, optical and electrical properties of the prepared samples have been investigated using X-ray powder diffraction (XRD), scanning electron microscope (SEM), atomic force microscope (AFM), UV-Vis, photoluminescence (PL) and raman spectroscopies. All of the films are polycrystalline in exhibiting hexagonal crystal structure. Thicknesses have been determined using spectroscopic ellipsometry technique and Cauchy-Urbach model. Thus, thicknesses have been measured in the range of 70-192 nm. The optical band gap obtained using the UV data ranged from 2.44 to 2.25 eV. For Pb doped CdS, Raman scattering, in which the multi-peak setting of the first optical longitudinal mode is observed, indicates the Raman shift of the characteristic peak in the $\sim 300 \text{ cm}^{-1}$ range. Finally, it has been concluded that has an important effect on the structural, surface, optical, and electrical properties of the films.

Keywords: CdS:Pb structure; X-ray diffraction; Raman spectroscopy; optical properties; spray pyrolysis technique.

Bu çalışma, Eskişehir Osmangazi Üniversitesi BAP Komisyonu tarafından 20211652 numaralı proje kapsamında desteklenmiştir.

NANOPARTİKÜLLER(NP): SELİLOZ, DEKSTRAN VE KİTASON İLE İŞLEVLEŞTİRİLMİŞ GÜMÜŞ NANOPARTİKÜLLERİN(NP) ANTIOKSİDAN ETKİLERİ

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ÖZET

Nanopartiküllerin hayatın her alanında kullanılabilir biyoaktiviteleri dünya çapında araştırmacılar tarafından büyük ilgi görmektedir. İnsan vücudundaki biyolojik yapılar protein kompleksleri, dokular, kromozomlar, lipitler, karbonhidratlar, nano ölçekteki malzemelerdir. Son yıllarda artan hastalıkların tedavi ve teşhisinde nanopartiküllerin kullanımı oldukça önem kazanmıştır. Bu bağlamda sağlık alanında yapılan çalışmalara kullanılan NP'ler, gümüş, demir oksitler, altın, çinko, titanyum gibi biyoparçalanabilir polimerler, dendrimerler, lipozom ve miselleri de içeren lipit temelli taşıyıcılar, virüsler ve hatta organometal bileşikler olduğu görülmektedir.

Çalışmada selüloz, dekstran ve kitason ile işlevleştirilmiş gümüş nanopartiküllerin(NP) antimikrobiyal, antiviral, antikanserojen gibi çoklu etkilerin yanında önemi her geçen gün artan antioksidatif etkileri geniş bir araştırma ile ortaya konmuştur.

Key words: Nanopartikül, selüloz, dekstran, kitasonoksidatif stres, antioksidan

ABSTRACT

Nanoparticles are of great interest worldwide in terms of usable life activities in the area they are in. Formations in humans, protein complexes, chromosomes, lipids, generations, nano-cultivators. To gain value from the use of nanoparticles to the art of son art. NPs used in healthcare in this region are degradable, such as iron, oxides, gold, polymer zinc, titanium, dendrimers, appear lipid-based including liposomes and micelles, viruses and indeed organometals.

This indicator has been demonstrated by a large research on the effects of cellulose, dextran and chitason-functionalized silver nanoparticle (NP) antimicrobials, increasing day by day anti-oxidative effect.

Keywords: Nanoparticle, cellulose, dextran, chitasonoxidative stress, antioxidant

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Since the electronic structure of CdS films is suitable for the sunlight spectrum, it is frequently used in solar cells and technological devices. In this study, Pb doped CdS thin films were prepared with ultrasonic chemical spray pyrolysis technique and their properties were investigated. Structural, surface, optical and electrical properties of the prepared samples have been investigated using X-ray powder diffraction (XRD), scanning electron microscope (SEM), atomic force microscope (AFM), UV-Vis, photoluminescence (PL) and raman spectroscopies. All of the films are polycrystalline in exhibiting hexagonal crystal structure. Thicknesses have been determined using spectroscopic ellipsometry technique and Cauchy-Urbach model. Thus, thicknesses have been measured in the range of 70-192 nm. The optical band gap obtained using the UV data ranged from 2.44 to 2.25 eV. For Pb doped CdS, Raman scattering, in which the multi-peak setting of the first optical longitudinal mode is observed, indicates the Raman shift of the characteristic peak in the $\sim 300 \text{ cm}^{-1}$ range. Finally, it has been concluded that has an important effect on the structural, surface, optical, and electrical properties of the films.

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**BURDUR İLİNİN YAĞIŞ VERİLERİNİN BULANIK MANTIK MODELİ İLE
BELİRLENMESİ**
DETERMINATION OF PRECIPITATION DATA OF BURDUR PROVINCE WITH FUZZY
LOGIC MODEL

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ÖZET

Küresel ısınma başta kuraklık olmak üzere birçok olumsuz iklim olayını tetiklemekte ve bunun yanında tarımsal faaliyetler başta olmak üzere tüm çalışma alanlarını etkilemektedir. Kuraklığın en önemli göstergelerinden biri de ilgili bölgedeki yağış miktarıdır. Bu çalışmada, Göller bölgesinde önemli su havzalarına sahip olan Burdur ilinde yağış miktarının belirlenmesinde çıkarımsal kümelemeye dayalı etkin bir bulanık model yaklaşımı sunulmaktadır. Bu amaçla öncelikle Türkiye İstatistik Kurumu'ndan Burdur ilinin son 62 yıllık meteorolojik verileri elde edilmiştir. Daha sonra bulanık modelin kurulum aşamasına geçilmiştir. Geliştirilen bulanık model sırasıyla; meteorolojik verilerin kümelenmesini, kural tabanlı bir doğrusal denklem sisteminin oluşturulmasını ve parametre optimizasyon adımlarını içerir. Bulanık modelimizi eğitmek ve doğruluğunu doğrulamak için ayrı veri çiftleri kullanılmıştır. Eğitim ve kontrol veri çiftlerinin birlikte en düşük hata değerini verecek şekilde parametre değerleri ve kural sayısı belirlenmiştir.

Sonuç olarak, geliştirilen bulanık model ile Burdur ili için aylık bazda yağış miktarı yaklaşık bir düzeyde elde edilmiştir. Modelin çalışma hızı kabul edilebilir düzeyde olup, kullanılan bulanık kümeleme yönteminin benzer çalışmalara örnek teşkil edebileceği düşünülmektedir.

Anahtar Kelimeler: Yağış Değerleri, Burdur, Çıkarımsal Kümeleme, Bulanık Model

ABSTRACT

Global warming triggers many negative climatic events, especially drought, and in addition, affects all working areas particularly agricultural activities. One of the most important indicators of drought is the amount of precipitation in the relevant region. In this study, an effective fuzzy model approach based on subtractive clustering is presented in the determination of precipitation amount in Burdur province, which has important water basins in the Lakes region. For this purpose, firstly, meteorological data on the province of Burdur for the last 62 years were achieved from the Turkish Statistical Institute. Then, the setup phase of the fuzzy model was started. The fuzzy model improved is respectively; includes clustering the meteorological data, creating a rule-based linear equation system and parameter optimization steps. Separate data pairs were used to train our fuzzy model and confirm its accuracy. Parameter values and number of rules were determined to give the lowest error value of training and control data pairs together.

As a result, the amount of precipitation on a monthly basis for the province of Burdur was obtained at an approximate level with developed fuzzy model. The working speed of the model is at an acceptable level and it is thought that the fuzzy clustering method used can set a sample for similar studies.

Keywords: Precipitation Values, Burdur, Subtractive Clustering, Fuzzy Model

**ADANA İLİNDE HAYVANCILIKLA İLGİLİ SERA GAZI EMİSYONLARININ
BELİRLENMESİ**

DETERMINATION OF GREENHOUSE GAS EMISSIONS RELATED TO ANIMAL
HUSBANDRY IN ADANA PROVINCE

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ÖZET

Sera gazı emisyonları ortalama sıcaklık artışına ve dolayısıyla küresel ısınmaya neden olmaktadır. Küresel ısınma ise iklim değişikliğine ve doğal afetlere neden olmaktadır. Tarım sektöründe sera gazı emisyonları, enterik fermantasyon ve gübre yönetimi gibi alt sektörlerden kaynaklanmaktadır. Hayvancılık işletmeleri küresel ısınmayı etkileyen önemli üretici kaynaklarıdır. Bu sektörden kaynaklanan emisyonların bir kısmı gübrelerden kaynaklanmaktadır. Hayvancılık faaliyetleri azot oksit ve metan gibi sera gazı emisyonlarına neden olur. Sera gazlarının tahmin edilmesi ülkeler için çok önemlidir. Bu gazlar iki farklı aşamada salınır. Bu aşamalar enterik fermantasyon ve gübre yönetimi olarak ifade edilmektedir.

Bu çalışmada Adana'da hayvancılık faaliyetleri sonucunda üretilen sera gazı emisyonları ve küresel ısınma potansiyeli hesaplanmıştır. Enterik fermantasyon ve gübre yönetiminden kaynaklanan metan ve azot oksit emisyonlarını belirlemek için Hükümetler arası İklim Değişikliği Paneli IPCC tarafından belirlenen Tier-1 yöntemi kullanılmıştır.

Anahtar Kelimeler: Sera Gazı Emisyonu, Adana, Enterik Fermentasyon, Gübre Yönetimi

ABSTRACT

Greenhouse gas emissions cause average temperature increase and thus global warming. Global warming causes climate change and natural disasters. Greenhouse gas emissions in the agricultural sector originate from sub-sectors such as enteric fermentation and fertilizer management. Livestock enterprises are important producer resources that affect global warming. Some of the emissions from this sector originate from fertilizers. Livestock activities cause greenhouse gas emissions such as nitrous oxide and methane. Estimating greenhouse gases is very important for countries. These gases are released in two different stages. These stages are expressed as enteric fermentation and fertilizer management.

In this study, greenhouse gas emissions and global warming potential produced as a result of livestock activities in Adana were calculated. The Tier-1 method determined by the Intergovernmental Panel on Climate Change IPCC was used to determine the emissions of methane and nitrous oxide from enteric fermentation and fertilizer management.

Keywords: Greenhouse Gas Emission, Adana, Enteric Fermentation, Fertilizer Management

**ACOUSTIC LIQUID CONCENTRATION SENSOR BASED ON A POINT DEFECT SIDE
COUPLED TO SEPARATED WAVEGUIDES**

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ABSTRACT

Sensor applications based on manipulation of acoustic waves through artificial periodic structures called phononic crystals have become popular in the last decade. Such sensors generally rely on tracking the resonant frequency of a defect state as a function of the mixing concentration of the analyte. Phononic crystal based liquid concentration sensors have been successfully applied to determine interfering, toxic, inflammatory, etc. contaminants in a background liquid such as water, gasoline and alcohol.

Detection of the presence and concentration of methanol in ethanol is an important problem in terms of especially fake beverage detection. As the chemical and physical properties of the two chemical compounds are similar, detection of methanol in ethanol is challenging. There are a number of sensors based on methods such as spectroscopy, colorimetry, luminescence, and chromatography. Our group recently proposed acoustic sensors based on Mach-Zehnder interferometer and add-drop filter.

In this work, a compact, sensitive, practical acoustic sensor to determine the molar ratio of ethanol in methanol is numerically investigated. It is based on a point defect serving as a bridge between two decoupled linear defect waveguides in a two-dimensional phononic crystal. Depending on the interaction of the point defect state with linear defect states, which depends on the concentration of the mixture at the defect core, a sharp resonant transmission peak with high quality factor is observed. The peak frequency shifts to lower frequencies with increasing methanol concentration in a quadratic manner. Finite-element method simulations are employed to obtain linear defect and cavity states, as well as in the investigation of sensor performance. It is shown that high-sensitivity measurement is possible with a small amount of analyte. The proposed sensor has a small footprint and offers fast detection, as well as practical sample reloading and long duty cycle.

Keywords: Phononic crystal, linear waveguide, point defect, liquid sensor, ethanol, methanol

ÖĞRETMENLERİN LİSANSÜSTÜ EĞİTİME YÖNELİK TUTUMLARININ İNCELENMESİ THE EXAMINATION OF TEACHERS' ATTITUDES TO GRADUATE EDUCATION

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ÖZET

Lisansüstü eğitim programları lisans eğitimi bittikten sonra bireyin mezun olduğu lisans alanında veya mezun olduğu lisans alanına yakın bir alanda uzmanlaşmasını sağlayabilmek amacıyla açılmış programlardır. Bu programların amacı alanında uzmanlaşmış, iyi yetişmiş ve kaliteli bireyler yetiştirmektir. Lisansüstü eğitim programları, tezli yüksek lisans, tezsiz yüksek lisans ve doktora programlarından oluşmaktadır. Eğitim fakülteleri ile ilgili YÖK'ün 1998 yılında yapmış olduğu değişikliklerle veya düzenlemelerle öncelikle ihtiyaç duyulan alanlarda özellikle de öğretmen olmak isteyenler için üniversitelerin eğitim fakültelerine bağlı olarak tezsiz yüksek lisans programlarının açılmasına karar verilmiştir. Günümüzde ise öğretmenlerin gerek mesleki gelişimleri gerekse de uzman öğretmen ve yöneticilik gibi görevde yükselme faaliyetleri amacıyla üniversitelerin eğitim fakültelerinde tezsiz yüksek lisans programları açılmakta ve eğitimler verilmektedir. Bu araştırmanın amacı, tezsiz yüksek lisans yapan öğretmenlerin lisansüstü eğitime karşı tutumlarını belirleyebilmektir. Araştırmanın çalışma grubunu, 2021-2022 öğretim yılında Hatay Mustafa Kemal Üniversitesi Eğitim Fakültesine bağlı Eğitim Programları ve Öğretim Anabilim Dalında okuyan öğretmenler oluşturmaktadır. Araştırmada, model olarak nicel araştırma yöntemlerinden tarama deseni kullanılmıştır. Araştırma sonucunda, öğretmenlerin lisansüstü eğitimlere karşı olumlu tutum geliştirdikleri, lisansüstü eğitimde almış oldukları dersler sayesinde kendilerini daha da geliştirdikleri, lisansüstü derslere geldiklerinde üniversitedeki akademisyenlerle görüşerek okulda yaşadıkları sorunlar hakkında bilgi ve tavsiyeler alarak davranış konusunda da tutumlarını geliştirdikleri gibi sonuçlara ulaşılmıştır.

Anahtar Kelimeler: Lisansüstü Eğitim, Yüksek Lisans, Tezsiz Yüksek Lisans, Doktora

ABSTRACT

After graduating from graduate education programs, a graduate is a graduate program that graduates. Benefiting from the purpose of these programs is to be well trained and accustomed. graduate education programs consist of master's with thesis, master's and doctorate programs. Universities need education faculties for those who want to be connected to the needs that the YÖK should have implemented in 1998 or the needs of the students regarding what they can have for education. As today, their development in the fields of education in the world, expert teachers and management, also in development activities, in non-thesis master's programs and trainings in education faculties of schools. For this purpose, it is aimed to determine the attitudes of non-thesis graduate students towards graduate education. The study groups of the research are the education and training areas in the Education Program and Teaching Department of the Faculty of Hatay Mustafa Kemal University in the 2021-2022 academic year. In the research, scanning design, which is one of the research methods, was used as a model. Information about education was obtained by interviewing the students in the education-related education, by interviewing the students in a positive approach to the education, and by interviewing the students in a positive approach to the education they developed.

Keywords: Postgraduate Education, M.Sc., Non-Thesis M.Sc., Ph.D.

BİLİMSEL BİLGİYE VE BİLİMİN DOĞASINA YÖNELİK ÖĞRENCİ GÖRÜŞLERİNİN İNCELENMESİ

THE EXAMINATION OF STUDENT OPINIONS ON SCIENTIFIC KNOWLEDGE AND THE
NATURE OF SCIENCE

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ÖZET

Toplumların gelişmesi, kendisini oluşturan bireylerin bilimsel düşüncelerine ve yaşamlarında bilimsel bilgileri kullanmalarına bağlıdır. Bilimsel düşünerek yaşamını devam ettiren bireylerin yaşamlarında hata yapma olasılıkları daha düşüktür. Çünkü bilgi, öğrenmeler, araştırmalar ve gözlemler sonucu elde edilen doğrulara ve ilkelere dayanır. Bilimsel bilgi ise geçerli ve kabul edilebilir metotlar kullanarak yapılan araştırmalar sonucu gözlemler yoluyla elde edilen bilgilerdir. Bilimsel bilgiler doğruluğu ve geçerliği defalarca kanıtlanmış kanunlaşmış bilgilerdir. Bu araştırmanın amacı, öğretmen adaylarının bilimsel bilginin önemine ve bilimin doğasına yönelik görüşlerini belirleyebilmektir. Araştırmanın çalışma grubunu, 2021-2022 öğretim yılında Hatay Mustafa Kemal Üniversitesi Eğitim Fakültesine bağlı Türkçe Öğretmenliği, Sınıf Öğretmenliği, Fen Bilgisi Öğretmenliği ve Özel Eğitim Öğretmenliği bölümlerinde okuyan öğretmen adayları oluşturmaktadır. Araştırma, bilimsel bilginin etkililiğine ve doğasına ilişkin öğretmen adaylarının görüşlerine dayalı nitel bir araştırmadır. Araştırmada, durum çalışması yöntemi kullanılmıştır. Araştırma verileri, araştırmacı tarafından geliştirilmiş olan yarı yapılandırılmış görüşme formu ile toplanmıştır. Elde edilen tüm veriler içerik analizi yöntemi ile kodlanarak çözümlenmiştir. Araştırma sonuçlarında, araştırmalara dayalı bilimsel bilginin önemli olduğu, toplumların gelişebilmesi için insanoğlunun devamlı bilimsel olarak çalışması gerektiği, bilimsel bilgilerin özellikle teknolojik bilgilerin yaşamı kolaylaştırdığı gibi sonuçlara ulaşılmıştır. Ayrıca araştırmada, insanoğlunun deneyim ve tecrübelerine dayalı bilgilere de ihtiyacının olduğu ve bu tür deneyimlere dayalı bilgilerin de en az bilimsel bilgiler kadar önemli olduğu gibi sonuçlara da ulaşılmıştır.

Anahtar Kelimeler: Bilimsel Bilgi, araştırma, Bilim, Bilimin Doğası, Deneyim

ABSTRACT

Designs for the use of societies for their children and their use. Those who maintain a scientific belief are less likely to make mistakes. Because it is based on truths and principles obtained about knowledge, learning, training and observations. Scientific knowledge, on the other hand, is information obtained through observations in a way using valid and acceptable methods. Scientific information and information that has been proven to be true. For this purpose, it is designed for the purpose of teacher candidates. The study groups of the research are the prospective teachers of Hatay Mustafa Kemal University Teaching, Classroom Turkish Teaching, Teaching, Science Teaching and Special Education Teaching Faculty in the 2021-2022 academic year. The research is a qualitative research on the opinions of the candidates of the students of the university students. In the research, a case study was applied. Research data were collected with a structured structured formula developed by the researcher. All the obtained content was analyzed by coding with the method. In research results, it is used as usable so that it can be created, it is used when it is made from humans. In addition, information can be benefited from, knowledge of human experience and experiences.

Keywords: Scientific Knowledge, Research, Science, Nature of Science, Experience

OKUL ÖNCESİ DÖNEM ÇOCUKLARININ KOKU DUYUSUNU GELİŞTİRMEYE YÖNELİK EĞİTİM TEMELLİ DUYU BÜTÜNLEME MATERYALİ GELİŞTİRME ÇALIŞMASI

EDUCATION-BASED SENSORY INTEGRATION MATERIALS DEVELOPMENT TO
DEVELOP PRESCHOOL CHILDREN'S SENSE OF SMELL

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ÖZET

Duyular bireyin yaşadığı çevreden bilgi alması, uyum sağlaması, tepki üretmesi için var olan duyumsamalardır. Çevredeki duyuşsal uyarıcılardan gelen bilgiler göz, kulak, burun, deri, dil uzuvları tarafından algılanarak bir çıkarımda bulunulmaktadır. Her bir duyu alanı diğer tüm duyu alanlarıyla koordinasyon içinde çalışmaktadır. Duyularımızın çoğu ilk olarak anne karnında gelişmeye başlamakla birlikte doğumdan sonra hızla gelişerek aldığı bilgileri beyne iletmektedir. Duyular aracılığıyla hayatın içinde varlığını devam ettirebilmekte, tehlikelerden korunmakta, öğrenmekte, değişmekte ve gelişmektedir. Her bir duyunun kendi içinde bir gelişim süreci ve diğer duygularla bir etkileşim süreci bulunmaktadır. Örneğin koku duyusu ağırlıklı olarak tatma duyusuyla etkileşimli olarak verileri algılamaktadır. Birinden gelen bir uyarıcı otomatik olarak bir diğerine harekete geçirmektedir. Duyulardan gelen bilgilerin algılanması, işlenmesi, organize edilmesi, değerlendirilmesi, tepki verilmesi gibi işlemleri açıklamak için “*Duyu Bütünleme*” kavramı kullanılmaktadır. Duyuşsal bütünleme kavramı ilk olarak özel eğitime ihtiyacı olan çocuklar, duyu hassasiyetlerini kaybetmiş yetişkin ve çocuklar için kullanılan bir eğitim terapisi olarak ortaya çıkmasına karşın günümüzde başta okul öncesi çocuklar olmak üzere her yaş ve düzeyde kullanılabilir. Ancak bu alanla ilgili yapılan çalışmaların oldukça sınırlı olduğu da görülmektedir. Okul öncesi eğitimde duyu bütünleme çalışmalarının yaygınlaşmasına ilişkin az da olsa çalışma olmasına karşın duyu bütünleme etkinliklerinde kullanılacak materyallerin oldukça kısıtlı olduğu belirtilmektedir. İhmal edilen duyular arasında yer alan koku duyusunun gelişimine ilişkin de yeterince materyal bulunmamaktadır. Bu çalışmada okul öncesi dönem çocuklarına yönelik olarak geliştirilen koku duyusu temelli iki farklı duyu bütünleme materyalinin tanıtılması, gelişimsel ve eğitim alanına yönelik etkilerinin ortaya konulması amaçlanmıştır. Geliştirilen bu materyaller sırasıyla Geliştirilen bu materyaller sırasıyla *Mis Kokulu İstasyonum*, *Koku Çarkı*, *Koku Kutum* olarak adlandırılmıştır. Koku duyusu temelinde geliştirilen materyallerin amacı, materyal geliştirme süreci ve kullanılan malzemeler, kullanılış şekline ilişkin bilgiler verilmiştir.

Anahtar Kelimeler: Duyu, Duyu Bütünleme, Koku Duyusu, Çocuk, Eğitim

ABSTRACT

The senses are the sensations that exist for the individual to receive information from the environment he lives in, to adapt and to produce a reaction. The information coming from the sensory stimuli in the environment is perceived by the eyes, ears, nose, skin and tongue organs and an inference is made. Each sensory area works in coordination with all other sensory areas. Although most of our senses first begin to develop in the mother's womb, they develop rapidly after birth and transmit the information it receives to the brain. It can survive in life through the senses, it is protected from dangers, it learns, it changes and it develops. Each sense has a developmental process and an interaction process with other emotions. For example, the sense of smell perceives data in interaction with the sense of taste. A stimulus from one automatically triggers another. The concept of "Sensory Integration" is used to explain processes such as perceiving, processing, organizing, evaluating and reacting information from the senses. Although the concept of sensory integration first emerged as an educational therapy used for children in need of special education, adults and children who have lost their sensory sensitivity, today it can be used at all ages and levels, especially for preschool children. Although there are few studies on the spread of sensory integration studies in preschool education, it is stated that the materials that can be used in sensory integration activities are quite limited. There is not enough material on the development of the sense of smell, which is among the neglected senses. In this study, it is aimed to introduce two different sensory integration materials based on the sense of smell developed for preschool children and to reveal their developmental and educational effects. These developed materials are named as *My Scented Station*, *Koku Wheel* and *Kokum Box*, respectively. Information on the purpose of the materials developed on the basis of the sense of smell, the material development process and the materials used, and the way they are used are given.

Keywords: Sense, Sensory Integration, Sense of Smell, Child, Education

OKUL ÖNCESİ DÖNEM ÇOCUKLARININ TAT DUYUSUNU GELİŞTİRMEYE YÖNELİK EĞİTİM TEMELLİ DUYU BÜTÜNLEME MATERYALİ GELİŞTİRME ÇALIŞMASI

EDUCATION-BASED SENSORY INTEGRATION MATERIALS DEVELOPMENT TO
DEVELOP PRESCHOOL CHILDREN'S SENSE OF TASTE

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ÖZET

Duyu, çevreden gelen her türlü uyarıcı verinin göz, kulak, burun, deri, dil organları tarafından algılanması, yorumlanması ve çıkarımda bulunarak karar verilmesidir. Tüm duyular birbirleriyle ilişkili ve etkileşimli olarak işbirliği içinde görevlerini yerine getirmektedir. Bireyin çevreyle kurduğu iletişim ve etkileşimin temelinde yer alan duyular bebek anne karnındayken gelişmeye başlamaktadır. Bebek annenin bedeni ve dışardan gelen uyarıcıları kısmen algılamaktadır. Doğumdan sonra bebek duyular aracılığıyla içine doğduğu çevreden gelen uyaranları algılayarak bilgi elde etmeye başlamaktadır. Süreç içinde de bu bilgileri kullanarak hayatta kalma, deneyim sahibi olma, gelişme, bedenini algılama ve kontrol etme, öğrenmekte becerilerini geliştirmektedir. Duyuları sağlıklı bir şekilde gelişmeyen çocuklar hayati becerilerini yerine getirmekte, etkinliklere katılmakta akranlarına kıyasla gecikmeler yaşamaktadır. Duyuların işbirliği içinde çalışması, değerlendirilmesi, yorumlanması günümüzde “Duyu Bütünleme” başlığı altında ele alınmaktadır. Okul öncesinde öğrenme sürecinde duyu bütünleme eğitimine ilişkin geliştirilen materyallerin kullanılması, yaşanan gecikmeleri gidermede, geliştirerek işlevsel hale getirilmesine katkı sunmaktadır. Duyu bütünleme materyallerinin temel amacı duyuların gelişimi olmakla birlikte çocukların öğrenme konularıyla da ilişkilendirilerek bütünsel gelişimini desteklemektir. Tat duyusu dil ile gerçekleşen duyu alanıdır. Tat duyusunun mümkün olduğu kadar erken dönemde sağlıklı bir şekilde gelişiminin sağlanması önemlidir. Bu bağlamda farklı tatlara yönelik farkındalıklarının kazandırılması farklı besinlere açık olmayı, bozulmuş gıdaları ayırt etmeyi ve dolayısıyla bedensel gelişimin sağlıklı bir şekilde gerçekleşmesini sağlamaktadır. Okul öncesi dönemde tat duyusu temelinde geliştirilen eğitim amaçlı duyu bütünleme materyallerin çok az olduğu ve bu konuda yeni materyallerin geliştirilmesi gerektiği görülmektedir. Bu çalışmada okul öncesi dönem çocuklarına yönelik olarak geliştirilen tat duyusu temelli iki farklı duyu bütünleme materyalinin tanıtılması, gelişimsel ve eğitim alanına yönelik etkilerinin ortaya konulması amaçlanmıştır. Geliştirilen bu materyaller sırasıyla *Tadıyorum Eşleştiriyorum*, *Tatmatik* olarak adlandırılmıştır. Tat duyusu temelinde geliştirilen materyallerin amacı, materyal geliştirme süreci ve kullanılan malzemeler, kullanılış şekline ilişkin bilgiler verilmiştir.

Anahtar Kelimeler: Duyu, Duyu Bütünleme, Tat Duyusu, Çocuk, Eğitim

ABSTRACT

The sense is the perception and interpretation of all kinds of stimulus data coming from the environment by the eyes, ears, nose, skin and tongue organs and making a decision by making inferences. All senses perform their duties in cooperation with each other and interactively. The senses, which are the basis of the communication and interaction of the individual with the environment, begin to develop when the baby is in the mother's womb. The baby partially perceives the mother's body and external stimuli. After birth, the baby begins to acquire information by perceiving the stimuli from the environment in which he was born through the senses. By using this information in the process, he develops his skills in surviving, having experience, developing, perceiving and controlling his body, and learning. Children whose senses do not develop in a healthy way experience delays compared to their peers in performing their vital skills and participating in activities. The cooperation of the senses, their evaluation and interpretation are now discussed under the title of "Sensory Integration". The use of materials developed for sensory integration education in the preschool learning process contributes to eliminating the delays and making them functional by developing them. The main purpose of sensory integration materials is the development of the senses, as well as supporting the holistic development of children by associating them with learning topics. The sense of taste is the area of sensory that occurs with the tongue. It is important to ensure the healthy development of the sense of taste as early as possible. In this context, raising awareness of different tastes enables being open to different foods, distinguishing spoiled foods, and thus a healthy physical development. It is seen that there are very few educational sensory integration materials developed on the basis of the sense of taste in the preschool period and new materials should be developed in this regard. In this study, it is aimed to introduce two different sensory integration materials based on the sense of taste developed for preschool children and to reveal their developmental and educational effects. These developed materials were named as Taste, I Match, and Tatmatik, respectively. Information on the purpose of the materials developed on the basis of the sense of taste, the material development process and the materials used, and the way of use are given.

Keywords: Sense, Sensory Integration, Sense of Taste, Child, Education

ORTAOKUL ÖĞRENCİLERİNİN FENE YÖNELİK KAYGILARININ BAZI DEMOGRAFİK DEĞİŞKENLER AÇISINDAN İNCELENMESİ
EXAMINATION OF SECONDARY SCHOOL STUDENTS' ANXIETY ON SCIENCE IN TERMS OF SOME DEMOGRAPHIC VARIABLES

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ÖZET

Bu çalışmanın amacı, ortaokul 6, 7 ve 8. sınıf öğrencilerinin cinsiyet, sınıf düzeyi, anne ve babanın eğitim düzeylerinin fene yönelik kaygı düzeyini nasıl etkilediğini incelemektir. Çalışmanın örneklemini 2018-2019 öğretim yılının güz yarı döneminde Kilis ilinde yer alan altı farklı ortaokulda öğrenim gören 348 öğrenci oluşturmaktadır. Örneklem, kolay ulaşılabilir örnekleme yoluyla belirlenmiştir. Çalışmada araştırma yöntemi olarak betimsel tarama yöntemi kullanılmıştır. Veriler araştırmacı tarafından geliştirilen “Kişisel Bilgi Formu ile Uluçınar Sağır (2014) tarafından geliştirilen “Fen Kaygı Ölçeği [FKÖ]” ile toplanmıştır. FKÖ derse odaklanma, özgüven yetersizliği, çalışma ve sınava yönelik kaygı, endişe ve ilgi olmak üzere beş faktör ve 25 maddeden oluşan 5’li likert tipi bir ölçektir. Elde edilen verilerin IBM SPSS 26.0 programı aracılığıyla betimsel ve kestirimsel istatistiksel analizleri yapılmıştır. Araştırma sonucu olarak öğrencilerin genel fen kaygı düzeylerinin düşük düzeyde olduğu bulunmuştur. Ayrıca, öğrencilerin fene karşı kaygılarının cinsiyetleri açısından anlamlı bir farklılık gösterirken, sınıf düzeyi, anne ve baba eğitim düzeyleri açısından ise anlamlı bir farklılık göstermediği saptanmıştır. Bununla birlikte demografik değişkenlerin FKÖ’nin alt boyutlarının düzeyine etkisi de analiz edilmiştir. Sınıf düzeyi değişkenine göre sadece 7 ile 8. sınıf öğrencilerinin derse odaklanma alt boyutu düzeylerinin 8. sınıf lehine anlamlı olarak farklılaştığı görülmüştür. Anne eğitim düzeyi değişkenine göre de sadece annesi ilkökullü ile üniversite mezunu olan öğrencilerin çalışma ve sınava yönelik kaygı boyutu düzeylerinin üniversite mezunu lehine anlamlı olarak farklılaştığı görülmüştür.

Anahtar Kelimeler: Fen Bilimleri, Kaygı, Ortaokul Öğrencileri, Demografik Değişkenler

ABSTRACT

This study aims to examine how the gender, grade level, education levels of the parents and the 6th, 7th, and 8th-grade students in secondary school affect the level of science anxiety. The sample of the study consists of 348 students studying at six different secondary schools in Kilis in the fall semester of the 2018-2019 academic year. The sample was determined by easily accessible sampling. The descriptive survey method was used as the research method in the study. The data were collected with the "Personal Information Form" developed by the researcher and the "Science Anxiety Scale [SAS]" developed by Uluçınar Sağır (2014). PBL is a 5-point Likert-type scale consisting of 25 items and five factors: focus on the lesson, lack of self-confidence, anxiety, worry and interest in studying and exam. Descriptive and predictive statistical analyzes of the obtained data were made using the IBM SPSS 26.0 program. As a result of the research, it was found that the students' general science anxiety levels were low. In addition, it was determined that while the students' science anxiety showed a significant difference in terms of gender, there was no significant difference in terms of grade level and education levels of parents. In addition, the effect of demographic variables on the level of the sub-dimensions of SAS was also analyzed. According to the grade level variable, it was observed that only the 7th and 8th-grade students' levels of focusing on the lesson sub-dimension differed significantly in favor of the 8th grade. According to the mother's education level variable, it was observed that the anxiety dimension levels of the students whose mothers were primary school or university graduates differed significantly in favor of university graduates..

Keywords: Science, Anxiety, Secondary School Students, Demographic Variables

**ORTAOKUL MATEMATİK DERS KİTAPLARININ MATEMATİK OKURYAZARLIĞI VE
PISA BAĞLAMINDA İNCELENMESİ¹**
EXAMINATION OF SECONDARY SCHOOL MATHEMATICS TEXTBOOKS IN THE
CONTEXT OF MATHEMATICAL LITERACY AND PISA²

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ÖZET

Bilgi ve teknolojinin çok önemli hale geldiği günümüzde her alanda gelişme sağlayabilmek için yaşamda karşımıza çıkan problemleri akılcı bir şekilde çözmek ve öğrenilen şeyleri günlük yaşama uygulama becerisini güçlendirmek önem kazanmıştır. Doğayı ve sosyal sistemleri anlamamızda ve değiştirmemizde en büyük yardımcımızın olan matematiğin bilimin evrensel ortak dili olduğu düşünüldüğünde öğrencilerin daha çocuk yaşlarda okulda matematik okuryazarlığını öğrenmeye başlamaları önem kazanmaktadır. Matematik okuryazarlığı öğrencilerin matematik alanında öğrendiği bilgi ve becerileri günlük yaşam problemlerine yansıtabilmesi, çözümler üretebilmesi ve kullanabilmesi olarak tanımlanmaktadır. Matematik okuryazarlığı terimi resmi anlamda ilk olarak Ekonomik Kalkınma ve İşbirliği Örgütü (Organisation for Economic Cooperation and Development –OECD)’nin ülkeler arası eğitimsel karşılaştırmalarını sağlayan Uluslararası Öğrenci Değerlendirme Programı (Programme for International Student Assessment – PISA) sınavlarında karşımıza çıkmıştır. OECD’nin her üç yılda bir gerçekleştirdiği PISA testlerinde belirli ülkelerden belirli kriterlere göre seçilmiş 15 yaşındaki öğrenciler, matematik okuryazarlığı dâhil çeşitli alanlarda teste tabi tutulmaktadır. Bu testin amacı öğrencilerin matematiksel becerilerinin günlük yaşam durumlarına ne kadar yansıtılabildiğini ölçmek olan katılımcı ülkeler arasında bir sıralama oluşturulmaktadır. PISA testlerine 15 yaş grubu öğrencilerin seçildiği düşünüldüğünde bu grubun matematiksel beceri temelini ortaokul yıllarında aldıkları görülmektedir. Ortaokulda okumakta olan öğrencilerin matematik okuryazarlıklarını geliştirmesini beklediğimiz birincil kaynaklar ise gerek ücretsiz dağıtılması gerekse en çok basılan kitap olması bakımından matematik ders kitaplarıdır. Yapılan çalışmalardan da görüldüğü gibi ülkemizin PISA testlerinde matematik okuryazarlığının düşük seviyelerde olması sebebi matematik ders kitaplarının bu bağlamda yeterliliğinin araştırılması gereğini ortaya çıkarmıştır. Bu araştırmanın amacı, Millî Eğitim Bakanlığı’nın (MEB) ortaokullarda okutmakta olduğu matematik ders kitaplarının matematik okuryazarlığı ve PISA bağlamında uygunluğunu belirlemek, MEB yayınevlerine ait kitaplarının bu bağlamda karşılaştırılmasını sağlamak ve bu kitapların yıllara göre gelişimini ortaya koymaktır. Bu bildiride ortaokullarda okutulan MEB yayınevlerine ait matematik kitaplarındaki soru ve problemlerin “Matematik Okuryazarlığı Yeterlilik Düzeyleri” ve “Matematiksel İçerik, Süreçler ve Bağlamlar” bakımından inceleme sonuçları hakkında bilgiler verilmektedir.

¹ Bu çalışma Balkan Ozan ÖNGEL tarafından Eskişehir Osmangazi Üniversitesi Eğitim Bilimleri Enstitüsü’nde hazırlanan master tezinin bir parçasıdır.

² This study is a part of the master thesis prepared by Balkan Ozan ÖNGEL at Eskişehir Osmangazi University Institute of Educational Sciences.

Anahtar Kelimeler: Uluslararası Öğrenci Değerlendirme Programı, PISA, Matematik Okuryazarlığı, MEB

ABSTRACT

In today's world where information and technology have become very important, it is important to solve in a rational way the problems we encounter in life and to strengthen the ability to apply the learned things to daily life in order to develop in every field. Considering that mathematics, which is our greatest helper in understanding and changing nature and social systems, is the universal common language of science, it is important that students begin to learn mathematical literacy at school at an early age. Mathematical literacy is defined as students' ability to reflect the knowledge and skills they have learned in the field of mathematics to daily life problems, to produce and use solutions. The term mathematical literacy first appeared in the Program for International Student Assessment (PISA) exams of the Organization for Economic Cooperation and Development (OECD), which provides educational comparisons between countries. In the PISA tests conducted by the OECD every three years, 15-year-old students selected from certain countries according to certain criteria are tested in various fields, including mathematical literacy. The purpose of this test is to establish a ranking among the participating countries, whose aim is to measure how much the students' mathematical skills can be reflected in their daily life situations. Considering that 15-year-old students were selected for the PISA tests, it is seen that this group took the basis of mathematical skills in secondary school years. The primary sources that we expect secondary school students to develop in their mathematical literacy are mathematics textbooks, both free of charge and being the most published book. As can be seen from the studies, the low level of mathematical literacy in our country's PISA tests has revealed the need to investigate the adequacy of mathematics textbooks in this context. The aim of this research is to determine the suitability of the mathematics textbooks taught by the Ministry of National Education (MoNE) in secondary schools in the context of mathematics literacy and PISA, to compare the textbooks of MoNE publishing houses and to reveal the development of these textbooks over the years. In this paper, information is given about the results of the examination of the questions and problems in these textbooks in terms of "Mathematics Literacy Sufficiency Levels" and "Mathematical Content, Processes and Contexts".

Keywords: Programme for International Student Assessment, PISA, Mathematical Literacy, MoNE

REVERSIBLE CYCLIC CODES OVER $\mathbb{F}_q + u\mathbb{F}_q + u^2\mathbb{F}_q$

MOHAMMAD FAREED AHMAD AND NADEEM UR REHMAN

ABSTRACT. Let $R = \mathbb{F}_q + u\mathbb{F}_q + u^2\mathbb{F}_q$, $u^3 = 0 \pmod q$ be any ring of order q^3 , where $q = p^r$ be some integral power of a prime p . Here, we study reversible cyclic codes of arbitrary length over R . First, we find a set of generators for cyclic codes over R and then classify the reversible cyclic codes over R with their respective generators. The necessary and sufficient conditions for a cyclic code to be reversible has been provided. Lastly, the structure of dual of reversible cyclic codes over R has been established.

Keywords: Cyclic code, Reversible cyclic code, Generator polynomial.

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**ÖĞRETMENİN SANATÇI YÖNÜNE NEDEN İHTİYAÇ VARDIR? EĞİTİM ORTAMLARI
İÇİN BİR DEĞERLENDİRME**
WHY IS THE TEACHER'S ARTISTIC ASPECT NEEDED? A REVIEW FOR EDUCATIONAL
ENVIRONMENTS

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ÖZET

Öğretmenlik mesleği, “insanı eğitme, onun davranışlarını şekillendirme ve geliştirme” yönüyle diğer meslek gruplarından daha farklı bir özelliğe sahiptir. Bir öğrencinin eğitim-öğretim süreci, uzun vadeli bir süreç olup, sabır ve emek gerektiren bir özelliğe sahiptir. Öğretmenin eğitim anlayışı hem okuldaki hem sınıftaki eğitim öğretim süreçlerini etkilemektedir. Bir öğretmenin okul ve sınıf kapısından içeri girdiği andan çıkış yapana kadarki süreci incelendiğinde; karşımıza birçok durum ve konu çıkabilmektedir. Bunlardan biri de öğretmenin sanatçı yönüdür. Bir öğretmenin eğitimi nasıl tanımladığı, öğrencisine nasıl baktığı, öğrenme ve öğretmeyi nasıl algıladığı, dersini nasıl yönettiği, mesleğinde kendini nasıl hissettiği gibi konular, öğretmenin sanatçı kimliğini açığa çıkaracak olan konulardır. Derse şiir okuyarak, bir müzik enstrümanı çalarak, ya da bir dans figürüyle başlayan bir öğretmen, öğrencileri üzerinde nasıl bir etki yaratır? Bu soru, öğretmenin sanatçı kimliğiyle öğrencinin sanat ruhunu ortaya çıkaracak bir sorudur.

Bu çalışmada, eğitim-öğretim sürecinde öğretmenin sanatçı yönüne neden ihtiyaç duyulduğu ve bu sanatçı yönünün hangi özellikleri içerdiği tartışılarak öğretmenlik mesleğiyle ilgili bir değerlendirme yapmak amaçlanmıştır. Bu doğrultuda ilgili alan yazın incelenmiş ve bir derleme yapılmıştır. Buna göre öğretmenin okulda ve sınıfta sanatçı yönü ele alınmış, bu sanatçı yönünün öğretmenin mesleği, öğrencileri ve diğer paydaşlar açısından ne anlam ifade edebileceği incelenmeye çalışılmıştır. Sonuç olarak, insanla uğraşan öğretmenin günümüz eğitim koşullarında karşılaşılan problemler için “sanatçı” yönünün ele alınması ve incelenmesi gerekliliği gündeme gelmiştir.

Anahtar Kelimeler: Öğretmen, Sanat, Sanatçı Olarak Öğretmen

ABSTRACT

The teaching profession has a different characteristic than other professional groups in terms of "educating people, shaping and developing their behaviors". The education process of a student is a long-term process and has a feature that requires patience and effort. The teacher's understanding of education affects the educational processes both at school and in the classroom. When the process of a teacher from the moment he enters the school and classroom door to the exit is examined; Many situations and issues can be encountered. One of them is the artistic aspect of the teacher. How a teacher defines education, how he looks at his students, how he perceives learning and teaching, how he manages his lesson, how he feels in his profession are the subjects that will reveal the artist's identity of the teacher. What effect does a teacher have on his students, starting with a poem, playing a musical instrument, or a dance figure? This is a question that will reveal the artist's identity of the teacher and the artistic spirit of the student.

In this study, it is aimed to make a review about the teaching profession by discussing why the artistic aspect of the teacher is needed in the education-teaching process and what features this artistic aspect contains. In this direction, the related literature was examined and a compilation was made. Accordingly, the artistic aspect of the teacher at school and in the classroom has been discussed, and it has been tried to examine what this artistic aspect can mean in terms of the teacher's profession, students and other stakeholders. As a result, the necessity of addressing and examining the "artist" aspect of the teacher dealing with people has come to the fore for the problems encountered in today's educational conditions.

Keywords: Teacher, Art, Teacher as Artist

**GÖRSEL SANATLAR ÖĞRETMEN ADAYLARININ ESER
ANALİZİNE İLİŞKİN GÖRÜŞLERİ**
OPINIONS OF PROSPECTIVE VISUAL ARTS TEACHERS
ON ARTWORK ANALYSIS

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ÖZET

Sanat eleştirisi, sanat kuramları ve sanat tarihini, sanatsal uygulamalar ile buluşturan, felsefe, sosyoloji, psikoloji, tarih gibi sanat dışı alanları da kapsayan bir sanat disiplini. Görsel sanatlar öğretmeni yetiştiren lisans programlarında yer alan Sanat Eleştirisi dersi ile sanat kuramları çerçevesinde sanat eserlerini inceleme, sözlü ve yazılı olarak sanat eserini yorumlama ve değerlendirmeye dayalı eser analizi çalışmaları yapılmaktadır. Farklı sanat disiplinlerinden farklı sanatçıların çalışmaları arasından seçtikleri eserleri analiz eden öğretmen adayları, eser seçimi, kaynak belirleme, analiz sorularına yanıt verme, sunum hazırlama-sunma gibi çok boyutlu bir süreç yaşamaktadır. Bu sürecin ele alındığı bu araştırmada, öğretmen adaylarının eser analizi için hangi eserleri neden seçtikleri, analiz sürecinde hangi problemlerle karşılaştıkları, dersin içeriğinin ve yönteminin bu sürece etkisi ve eser analizi çalışmalarının mesleki, sanatsal ve bireysel gelişimlerine katkısı sorgulanmıştır.

Temel nitel araştırma yaklaşımının benimsendiği bu araştırmada, Sanat Eleştirisi dersini alan 42 öğretmen adayı içerisinden belirlenen odak grup ile görüşme yapılmış, elde edilen veriler betimsel analiz yöntemiyle çözümlenmiştir. Bu verilerden yola çıkarak eser analizi uygulamaları bağlamında Sanat Eleştirisi dersini geliştirmeye yönelik öneriler getirilmeye çalışılmıştır. Araştırmada, öğretmen adaylarının, yazılı kaynak bulma problemi yaşadıkları, Türk Sanatına ve resim sanatı dışındaki sanat disiplinlerine ilişkin hazır bulunuşluk düzeylerini yetersiz buldukları için daha çok Batı Resim Sanatından ünlü eserleri tercih ettikleri, aktif öğrenmeye dayalı sanat eleştirisi etkinliklerini analiz sürecine etkisi bağlamında olumlu değerlendirdikleri, dersin süresini ise olumsuz değerlendirdiklerine ilişkin sonuçlara ulaşılmıştır. Bu anlamda hem ders sürecinde hem de diğer derslerde çağdaş sanat yaklaşımlarının ve Türk Sanatının daha çok ele alınması, dersin süresinin artırılması, aktif öğrenmeye dayalı sanat eleştirisi etkinliklerine daha fazla yer verilmesi gibi öneriler getirilmiştir.

Anahtar Kelimeler: Sanat eleştirisi, Eser Analizi, Sanat Eğitimi.

ABSTRACT

Art criticism is an art discipline that combines art theories and history with artistic practices and encompasses fields other than arts, such as philosophy, sociology, psychology, and history. The Art Criticism course offered in undergraduate visual arts teaching programs involves analysis studies based on artwork analysis and verbal and written interpretation and evaluation of the artworks within the framework of art theories. The prospective teachers analyse the artworks they choose among the works of various artists from different art disciplines. They go through a multi-dimensional process involving artwork selection, source specification, answering the analysis questions, and preparing and giving presentations. This study aims to discuss this process and investigate the reasons why the students selected specific artworks for analysis, the problems they encountered during the analysis process, the effects of the course contents and method on this process, and the professional, artistic, and individual contributions of the artwork analysis studies.

A basic qualitative research approach was used in this study, and the focus group, which was selected among 42 prospective teachers taking Art Criticism class, were interviewed. The data were analysed through the descriptive analysis method. Based on these data, suggestions were made for improving the Art Criticism course within the context of artwork analysis practices. For example, it was found that the prospective teachers had difficulties in finding written sources; they mostly preferred famous paintings of Western artists since they thought their level of readiness for analysing Turkish Art and art disciplines other than painting were insufficient; they found active learning-based art criticism activities helpful within the context of their impacts on the analysis process, and that they had negative opinions about class periods. In this sense, suggestions were made on spending more time on postmodern art approaches and Turkish Arts both in this class and in other classes, extending the class period, and spending more time on active learning-based art criticism activities.

Keywords: Art Criticism, Artwork Analysis, Art Education.

**YIELD GAPS, PRODUCTION LOSSES AND PRIORITY RESEARCH PROBLEM AREAS IN
THE MEKONG DELTA OF VIETNAM**

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ABSTRACT

Rice is the staple food for most of the Vietnamese population. There has been a giant leap in rice productivity and production from 1990s to 2020s after the introduction of high-yielding rice, short-duration and photo-insensitive varieties. Despite the adoption of improved cultivation practices, rice yield has been found to be stagnating in almost all rice production environments. Three sets of data were generated from interviews with rice research scientists, extension specialists and farmers representing different rice production environments in the Mekong Delta of Vietnam. A structured questionnaire was used. In this regard, biotechnology with their inherent low-cost and resource-neutral characteristics could be a viable technology alternative for small farmers to help them realize the yield potentials of modern rice varieties. Apart from cost effectiveness, biotechnologies have another strong factor in their favors. They are best suited for eco-friendly farming systems essential for ensuring sustainable agriculture. A substantial increase in production could also be achieved if rice research helps reduce production loss due to various biotic and abiotic stress in specific rice ecosystems.

Keywords: Mekong Delta, production losses, research problem, yield gap

FOREIGN DIRECT INVESTMENTS AND TOURISM SECTOR: A LITERATURE REVIEW

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ABSTRACT

This study aims to examine the studies in the relevance between foreign direct investment (FDI) and tourism chronologically. Stemming from the concept of globalization, the amount of investments made in foreign countries has increased in recent years and has also affected the tourism sector, which has low costs and high returns. In line with the studies carried out, it was concluded that FDI positively influences the number of tourists, tourism expenditures, and the country's reputation and economic growth. Moreover, the co-sectors of tourism, such as the transportation and food sectors, are affected positively. It can be said that FDI is of great importance in the enlargement of sectors, which also increases tourism revenues.

Keywords: Foreign Direct Investment, Tourism Sector

TRAINING ENGINEERS FOR THE CIRCULAR ECONOMY

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ABSTRACT

The transition to a circular economy in all areas depends on training Brazilian professionals with future vision and prepared to create changes in companies in line with sustainable development. However, engineers do not receive the necessary knowledge related to circular economy topics in engineering courses. We analyzed the syllabus of Engineering courses at Brazilian Universities that can contribute to sustainable development and the circularity of the economy. We also looked at innovations in current studies to improve engineering college learning.

We evaluated the data in ten websites of Universities that offer Engineering courses. We selected six curricula of Brazilian institutions based on the necessary detailed syllabus information to compare all courses related to the keywords of circular economy, entrepreneurship, and sustainability. We established the ideal curricula based on the literature. We compared the ongoing courses with the ideal ones using the Likert scale. The overall analysis checked if the course syllabus presented any of the keywords. To qualify the findings, we interviewed two individuals, one academic and the other a cooperate administrator specialized in the circular economy.

The results showed that the keywords were either not present or slightly related to the topic in Brazilian Engineering courses. Although not straightly present in the course syllabus, some courses present topic-related actions such as specialist speeches and special meetings. Checking in current literature, training of Brazilian engineers faces the same difficulty as in other countries to keep in line with market and societal updates. As a result, in the interview with the specialists in the area of Production Engineering, we inferred that the Engineering courses in Brazilian curricula present a significant deficiency: training for innovation, entrepreneurship, and also for the circular economy.

Keywords: Social responsibility; Engineer's learning; Innovation; Sustainability; Sustainable development.

GEÇİCİ İŞTE ÇALIŞANLARIN İŞLERİNDE VE HAYATLARINDA MUTLULUKLARI
JOB AND LIFE SATISFACTION OF THE TEMPORARY WORKER

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ÖZET

İşgücü piyasası, geçtiğimiz on yıllarda çok daha rekabetçi hale geldi. İstihdam ilişkileri çarpıcı biçimde değişiyor. Bu yüksek rekabet koşulları işgücü piyasasında yüksek seviyede esneklik gerektirmektedir. Bu esneklik gereksinimlerinin bir sonucu olarak, tipik olmayan ve esnek çalışma veya geçici çalışma düzenlemeleri gibi farklı türlerde iş sözleşmeleri gündeme gelmiştir. Klasik istihdam ilişkilerinin sayısı azalmakta ve gittikçe daha fazla firma işlerini yerine getirmek için geçici işçi müessesesini kullanmaktadır (Keller ve Seifert, 2013). Politika yapımcılar geleneksel olarak uzun vadeli iş akdini korusa da, bu eğilim özellikle Avrupa'da ve Almanya'da da dikkate değer bir yer bulmaya başlamıştır. Nedeni aslında basit. Geçici çalışanlar, firmaların işgücü talebi şokuna maruz kaldıklarında firmaların işgücünü esnek bir şekilde ayarlamalarına izin verir. Firmalar belirli bir işçiyi çok kısa sürede bulabilir ve iş bittikten sonra onların iş akdine son verebilir. Tabiki bu sistem, firmaların maliyetlerinin çok büyük bir kısmını azaltmalarına izin veriyor. Ancak, bu tür bir iş, işçilerin yaşamı ve iş tatmini üzerinde kesinlikle olumsuz etkiye sahiptir ve bu da işçilerin üretkenliğini etkileyebilir. Bu nedenle, 2001'den 2015'e kadar Alman Sosyo-Ekonomik Panel (SOEP) verilerini kullanarak geçici işlerin işçilerin yaşamı ve iş tatmini üzerindeki etkisini analiz ediyoruz. İş tatmininin mesleki duruma bağlı olarak farklılık gösterdiğini görüyoruz. Geçici işçi daha az iş güvencesi hissediyor ve bu nedenle işlerinden daha az memnunlar. Bu bulgular aynı zamanda genel yaşam sonuçlarına da olumsuz etkiliyor, böylece genel yaşamlarından da daha az tatmin oluyorlar.

Anahtar Kelimeler: Yaşam doyumu, geçici istihdam, işgücü piyasaları

ABSTRACT

The European labor market is getting competitive over the past decades. The employment relations changes dramatically. The labor market also requires high flexibility in the job market. As a result of this flexibility requirements different types of labor contracts exists such as atypical and flexible work or temporary work arrangements. The number of classical employment relations are decreasing and more and more firms use temporary work agents to accomplish their duties (Keller & Seifert, 2013). This trend has also find remarkable place in Germany although the policy maker traditionally protects the long-term job place. The reason is actually simple. Temporary workers allow firms to flexible adjust firms' workforce when they hit by a labor demand shock. Firms could find specific worker in very short time and get rid of them after the job has been done. Yet, this allow firms to cut very large part of their costs. However, this type of job has certainly negative effect on workers' life and job satisfaction which in turn may influence workers' productivity. Therefore, we analyze the effect of temporary jobs on workers' life and job satisfaction using German Socio-Economic Panel (SOEP) data from 2001 to 2015. We find that job satisfaction differs depending on occupational status. Temporary worker feels less job security and therefore they are less satisfied with their jobs. These findings will also be transferred to overall life outcomes so that they are also less satisfied with their overall life.

Keywords: Life satisfaction, temporary employment, labor markets

ESTIMATION OF LOSSES IN THE TEXTILE INDUSTRY: A CASE STUDY

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ABSTRACT

Production Planning and Control (PPC) is a corporate management system applied in a company's production processes. PPC allows the planning (when, how much, where, and in what order) to produce and ensures a constant check on operations facilitating the production to its fullest.

The company which offers the product with the current high competition in the market, with the best quality and the best price, stands out. Moreover, manufacturers increasingly invest in modern machinery and specialized workmanship to achieve their objectives, making their processes more elaborate and detailed. There it is necessary to have control over its increasingly precise and rigorous processes in order to avoid the waste of material, work and time, thus preventing the rise in the cost of the final product

The present research is a case study carried out in a textile industry in São Paulo, Brazil, which produces bedding, table, bath, and decoration clothes. The first stages are initiated in sectors where the threads are transformed into fabric through looms. The company has 93 air jet looms, with an estimated daily production capacity of 50,000 meters of flat textile. Computing losses carried out a shrinkage analysis in several production orders during the tissue improvement processes. We added suggestions for improving and optimizing processes, avoiding material losses.

Results indicate that the material suffers a percentage of shrinkage, reaching approximately 4.5% in the final step. Implementing this study can be an essential step towards industry excellence to optimize production costs and reduce the maximum possible losses during textile processing.

Keywords: Textile improvement; Textile shrinkage; Planning, Control; Production.

EXAMINING THE PROGRESS OF HUNGARY IN GREEN AND SUSTAINABLE ENERGY SOURCES

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ABSTRACT

The state of renewable energy is one of the most topical issues that affect almost everyone indirectly. In the 21st century, humanity is returning to greater use of natural and sustainable energy sources. One of the critical questions is the level of access to and use of environmental elements and natural resources, including soil, water, air quality, and energy. Therefore, the success of energy use in a country with such natural resources as Hungary depends on its ability to replace the traditional economic model based on energy resources with an alternative economic model based on environmental elements. The circular economy and sustainability aspects are also crucial for future generations. These include energy efficiency, environmental awareness and greater use of renewable energy sources. Suppose these critical areas are integrated as a typical cross-section. In this regard, it is clear that, when integrated into a coherent economic model, they provide clear answers to questions such as how we will deal with global climate change, sustainable growth, the global energy crisis and changes in fossil fuel prices. In this study, we present the changes in the use of renewable energies in Hungary, focusing on the current solar energy and biomass situation. We also aimed to examine the renewable energy aspects of the Sustainable Development Goals, which are particularly relevant for the 2030 Agenda for sustainable development. The study's preliminary results show that the share of energy produced from renewable energy sources in gross final energy consumption in Hungary increased significantly from 4.4% to 11.9% from 2005-2020. Within this share, the use of solar energy was 0.3% in 2012, rising to 44.5% in 2020. In contrast, biomass has decreased from 50.4% to 30.1% over the same period, raising several further research questions.

Keywords: renewable energy, sustainability, energy efficiency, sustainable development goals, energy consumption in Hungary, solar energy, biomass

**ANALYSIS OF DEMOGRAPHIC INDICATORS OF SCIENTIFIC PERSONNEL ON
E-DEMOGRAPHY PLATFORM**

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ABSTRACT

At present, the creation of an e-demographic system enabling monitoring of demographic characteristics on the e-government platform is very significant in terms of building an effective management system. E-demographic system will allow the government to more effectively meet the needs of the population, and to clearly define the strategic trends of future economic and social development. E-demography allows the study of the impact of digital technologies on demographic behavior and the use of new data sources for in-depth study of demographic processes.

The formation of e-demography provides ample opportunities for demographic research based on registers integrated into the system. The development of a model for the analysis of the country's intellectual potential on the e-demography platform is one of the urgent issues. This research considers the analysis of demographic indicators of scientific personnel based on the data of the "Scientific Personnel" National Information System. In the article, based on the system information, the demographic indicators of the scientific personnel are clustered using the k-means algorithm and analyzed. For the formation of the e-demographic system, various e-government registers must be integrated into a single platform. This research under consideration conducted demographic analysis on the basis of the data of the Scientific Personnel System. All information about each personnel member was analyzed by the indicators as age, gender, specialty, research field, number of scientific publications, number of articles in indexed journals, etc. With the help of these analyzes, the scientific potential can be assessed by conducting detailed research by different age groups, research fields, scientific centers, etc. Future research will consider the application of these analyses in a wider range of areas.

Keywords: E-government, E-demography, Demographic characteristics, Population register, Electronic register, Scientific personnel.

**WORKPLACE DISCIPLINE AND STAFF PERFORMANCE OF MONEY DEPOSIT BANKS
IN ANAMBRA STATE, NIGERIA.**

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ABSTRACT

The study examined the effect of workplace discipline on staff performance of money deposit bank in, Anambra State. A survey research design was adopted and simple random sampling technique was used while the sample size of 258 out of a total population of 729 was determined using Taro Yamane formula. Data were collected with the aid of structured questionnaire. Hypotheses were tested using simple regression with the aid of Statistical Packages for Social Science (SPSS version 27). Findings revealed that employee sanctioning has a positive effect on job engagement; secondly, that staff demotion negatively affects employee effectiveness. The study concluded that workplace discipline affects employee performance in different dimension depending on the disciplinary tool adopted by management. The study recommended that there is need to sanction erring staff as a disciplinary tool so as to instill the right behaviour in staff.

Keywords: Workplace discipline, Employee Sanctioning, Staff Suspension, Service Delivery

**RESILIENCE OF RURAL COCONUT FARMERS IN TANJUNG RAJA VILLAGE,
KATEMAN DISTRICT, INDRAGIRI HILIR REGENCY**

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ABSTRACT

This study aims to analyze the livelihood resilience of coconut farmers in Tanjung Raja Village and describe the factors that influence the livelihood resilience of farmers in Tanjung Raja Village. Sampling was carried out descriptively with data collection methods using, interviews, document data collection, and observation collection methods and data analysis using the Miles and Huberman model. The results showed that most of the population in Tanjung Raja Village are coconut farmers and some of them are coconut farmers who do not own their own land. Thus, the factor that most influences the existence of coconut farmer workers in Tanjung Raja Village is due to the limited expertise of the population who only graduated from elementary school as many as about 30 people or about 68.1% of them making it difficult for them to work in other fields. First, the livelihood on the small island Tanjung Raja Village only comes from coconut plantations. Second, farm laborers don't have the skills and abilities in another field and the third they had low level of education.

Keywords: Resilience, Livelihood, Coconut Farmer Labor

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**THE EFFECT OF THE TIMING OF THE APPLICATION OF MANURE WITH
MINERAL FERTILIZERS AND THE DENSITY OF POTATO PLANTING ON THE
NUTRITIONAL REGIME OF THE SOIL OF THE WEST KAZAKHSTAN REGION**

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ANNOTATION

Studies were conducted to identify the effect of fertilizers and potato planting density on the nutritional regime of the soil. The experiments were laid by a systematic method with a tiered arrangement of variants in the experiment, the repetition was 3-fold. Cattle manure was used on a straw litter of autumn-winter harvesting. The following types of fertilizers were used: ammonium nitrate, double superphosphate, potassium chloride. Soil analyses were carried out annually to determine the availability of nutrients (humus, NPK, soil moisture and pH). The introduction of manure increased the water-holding capacity of the soil, increasing the moisture reserves in it at all application periods during the growing season. The introduction of manure with mineral fertilizers had a positive effect on the accumulation of nitrate nitrogen at all stages of the experiment. The content of mobile phosphorus in the soil when manure was applied varied depending on the timing of its application in the range of 4.8-5.6 mg per 100 g of soil. The introduction of manure increased the potassium content in the soil, depending on the timing of application. The principles of balancing the organic-mineral nutrition of potatoes developed in the research will be used for potato production technology and are recommended for distribution in the West Kazakhstan region.

Keywords: fertilizers, planting density, soil moisture, humus, nitrogen, phosphorus and potassium.

**STATUS OF GASTROINTESTINAL NEMATODE INFECTIONS AMONG RUMINANTS
SLAUGHTERED IN YAURI EMIRATE, KEBBI STATE, NIGERIA**

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ABSTRACT

A cross-sectional study was conducted from October 2019 to April 2020 on 350 randomly selected ruminants (cattle, goat and sheep) in the three Local Government Areas of Yauri Emirate, Kebbi State, Nigeria, with the objective of determining the prevalence of gastrointestinal nematode infestation in these ruminant animals. Fecal samples collected from all study animals were subjected to parasitological investigation using simple test tube floatation and sedimentation techniques to define the eggs of the observed gastrointestinal (GIT) nematodes. In addition, larval culture was also used for the strongyles identification. The study discovered that the overall prevalence of gastrointestinal nematodes in cattle was 38.9%, 28.9% in goat and 32.2% in sheep was. The most prevalent nematode parasite identified was *Ascaris spp* 153(43.7%) followed by *Haemonchus contortus* 52(14.9%) and the least 7(0.6%) was observed in *Ostertagia spp*. The major nematodes identified in this study were *Ascaris spp* 153(43.7%), *Bunostomum spp* 42(14.0%), *Cooperia spp* 43(12.3%), *Haemonchus contortus* 52(14.9%), *Ostertagia spp* 7(0.6%), *S.papillosus* 16(4.6%), *T.colubriformis* 13(3.7%) and *Trichuris trichiura* 29(8.3%). There was no significant association ($P > 0.05$) between the prevalence of GIT nematodes and the study animals. This finding observed that helminth parasites are more prevalent in the study area. It is therefore suggested that proper screening and monitoring of ruminant animals with regular and strategic deworming programs be carried out and further studies should be conducted to determine the seasonal prevalence of GIT parasites of cattle, goat and sheep in the study area

Key words: Ruminants, gastrointestinal nematodes, helminth parasites, Yauri Emirate

**GREEN SYNTHESIS OF COLLOIDAL GOLD NANOPARTICLES USING CITRUS
ESSENTIAL OILS - MORPHOLOGY, PHYSICO-CHEMICAL CHARACTERIZATION AND
MICROBIOLOGICAL PROPERTIES**

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ABSTRACT

Introduction: Essential Oils (EOs) have a strong focus in the scientific world these days and citrus essential oils began to show increased interest due to their antioxidant and antimicrobial properties (Bora, Kamle et al. 2020, Brahmi, Mokhtari et al. 2021). Also, nanostructures are intensely studied and exploited in various fields including the agri-food sector. Particularly, combining EOs and nanostructures can be an efficient way to improve the EOs stability and properties.

Aims: This study aims to produce colloidal gold nanoparticles by reduction of Au³⁺ ions with citrus EOs.

Materials and Methods: The syntheses were carried out using lime, lemon, orange, tangerine and grapefruit EOs, at boiling and pH between 8 and 9. The morphology of the nanoparticles was characterized by transmission electron microscopy (TEM) and dynamic light scattering (DLS), while their stability was assessed by UV-Vis spectroscopy and Zeta potential measurements. Their antioxidant activity (DPPH method) and antimicrobial properties were also studied. **Results:** The nanoparticles showed characteristic UV-Vis absorption maxima between 521-547 nm, depending on the EO used as reducing agent. The diameter of nanoparticles was in the range of 13- 23 nm. Zeta potential values indicated a strong stability in time of the colloid and this has been also confirmed by UV-Vis spectroscopy at 6 months after production.

Conclusion: In the present work we successfully achieved gold nanoparticles by green synthesis with citrus essential oils with sizes between 13 and 23 nm and strong stability in time with potential use in active packaging for food industry

Acknowledgments: This work was supported by a grant of the Romanian Ministry of Education and Research, CNCS - UEFISCDI, project number PN-III-P4-ID-PCE-2020-1847, within PNCDI III.

Keywords: gold nanoparticles, citrus essential oils, DLS, Antioxidant

**IN-VITRO INHIBITORY EFFECT OF CYPERMETHRIN ON LACTIC ACID
DEHYDROGENASE LDH ENZYME IN SHEEP GOAT**

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Abstract:

The Cypermethrin insecticides are used in farm animals it's inhibit many enzymes in animals plasma in this study inhibit lactic acid dehydrogenase enzyme LDH in sheep and goat. the results show inhibitory presence of parentage of enzyme significantly at conc. (1 , 2 μ mol of Cypermethrin add to reaction mixture) in sheep (13-16%) and in goat (23-35%) .

The aim of study detection of Cypermethrin toxicity by measured of lactic acid dehydrogenase enzyme LDH

Key words: - sheep, goat, lactic acid dehydrogenase

HELMINTH INFECTIONS OF PETS CATS IN BELGRADE AREA

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ABSTRACT

Cats play a significant role in the lives of modern people, especially in urban environments. Alienation, stress, and other factors that burden the city man are often overcome psychologically by acquiring a pet that, with its affection, represents excellent psychotherapy. Unfortunately, in addition to this favorable influence, the presence of dogs in urban areas has its other side. These animals are reservoir and hosts for some of zoonotic parasitic infections and their faeces have an important role in contamination of environments by excreting eggs, cysts and oocysts of parasites. From that reason in the period 2018-2021, we performed a parasitological examination of the feces of 250 pet cats. All feces were from owner's cats brought for examination from Veterinary clinics in the Belgrade. All animals had clinical symptoms that indicated parasitic infections (weight loss, stunted growth, swelling of the stomach in puppies, foul-smelling diarrhea; feces with blood, with findings of swallowing, etc.). Fecal samples were examined with flotation methods by McMaster, Stoll and Richardson-Kendell. Determination of parasite eggs and oocysts was made on the basis of their morphological characteristics. During our examination helminth infection we established at 43.2% animals. Most abundant species was *Ancylostoma tubaeforme* found in 39.2%, followed by *Dipylidium caninum* in 36.4%, *Toxocara cati* in 22.8%, *Toxascaris leonine* in 12.4%, and *Taenia* spp. in 4.4%. During same examination protozoan infection we established at 31.33% animals.

Keywords: pets cats, helminths, Belgrade, epidemiology

REPLACING CHEMICAL INPUTS WITH ORGANIC MATERIALS

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ABSTRACT

The use of plant protection products plays an important role for sufficient and high-quality agricultural products, especially fresh fruits and vegetables which are essential for a healthy life. For this reason, it is necessary to use modern agricultural techniques and inputs in order to increase the yield and quality of agricultural products. Among the different agricultural control methods against diseases, pests and weeds, chemical control, which has a share of approximately 95%, is still valid today. Nowadays, many farmers choose to use chemicals to keep weeds and pests from destroying their crops and to add more nutrients to the soil. Chemicals are a more effective and easier method than organic materials. For this reason, the use of chemicals in agriculture is widespread today. The use of pesticides in plant protection products is one of these inputs and is a complementary component of modern agriculture. The use of pesticides is a form of agricultural struggle used to protect agricultural products from diseases, pests and weeds and to ensure quality production, and it is the most important component that has increased production since the 1940s. Pesticide use is the most preferred method because it takes effect in a short time and is easy to use. The use of pesticides (agricultural pesticides) is inseparable part of modern agriculture. However, when using pesticides, both the protection of the product against diseases, pests and weeds and its negative effects on humans and the environment should be evaluated together. Accordingly, the formation and importance of agricultural chemistry, widespread of pesticides in agriculture were explored in this paper. As well as, pesticide use in the world is compared and the advantages and disadvantages of pesticide use and the behavior of pesticides in agro-ecosystems are explained in this article. During writing of this work, we have investigated several works of researchers, also agricultural statistics of governmental and official organizations.

Keywords: pesticides, chemistry, modern agriculture, agricultural techniques.

**ENHANCING LAND UTILIZATION EFFICIENCY OF COCONUT BASED FARMING
THROUGH INTEGRATION OF *Brachiaria humidicola* PASTURE AND CATTLE**

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ABSTRACT

Integrated pasture and livestock in coconuts based farming systems were expected to enhance the efficiency and the sustainability of land utilization. The objective of this research was to study the effects of stocking rate and grazing systems on production and quality of forage, performance of pasture, average daily gain of cattle and the yield of coconuts. This experiment was conducted at Coconut and Others Palma Research Center in Manado city, Indonesia. Treatments being evaluated were two grazing systems namely rotational (RS) based on accumulation of *heat unit* and continuously (CS) grazing systems based on calendar-day. Level of stocking rate (SR) at 0.77 AU (SR1); 1.54 AU (SR2) and 2.31 AU (SR3). Treatments were put on Split Plot arrangement based on Randomized Block Design. The results show that: a) all highest performances measured were found on the interaction of rotational grazing system (RS) and stocking rate three (SR3), b) the lowest of crude fiber, acid detergent fiber and lignin were found on rotational grazing, but higher in crude protein. c) the higher the stocking rate, the lower the daily gain but the value of cattle gain provide almost double than value of copra per hectare. Daily gain of cattle of rotational grazing was significantly higher than the continue one. Yield of coconuts was significantly higher on the experimental field than out site. The conclusion was rotational grazing system and suitable stocking rate are needed to sustain the productivity and quality of *Brachiaria humidicola* pasture grazed in coconut based farming to support cattle production and to optimized the efficiency of land utilization.

Key word: pasture, cattle, land utilization, coconut .

**PHYSIO-ANATOMICAL AND MORPHOLOGICAL MODIFICATION IN IPOMOEA
CARNEA JACQ. IN DIVERSE HABITATS FROM PAKISTAN**

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ABSTRACT

The role of anatomical and functional modification in *Ipomoea carnea* for invasion of different habitats from Pakistan was investigated. Populations were collected from different habitats of Pakistan namely canal bank, irrigated land, road, river bank, hills, saline water drain, saline on dry land and hypersaline salt marsh. Specific structural adaptation in morphological characteristics included increasing plant height in agricultural field and riverine populations. Increased root length in hypersaline saltmarsh, dry land-saline, and saline water drainage populations facilitated access to groundwater in deep soil layers. The hypersaline population accumulated more compatible solutes such as total soluble sugars, phenolics, and flavonoids associated with osmoprotection. Increased sclerification and phloem thickness in hyper-saline and dry-saline populations conferred mechanical strength and improved photosynthetic conduction. Narrow methylem vessels in the saltwater outflow population protected the water-conducting tissue from collapse and cavitation under adverse arid conditions. The increased density of trichomes and salt excretory glands in the salt mountain stream population prevented water loss and excreted toxic ions through the leaf surface. In conclusion, *I. carnea* populations have adopted different strategies such as water conservation through water storage in parenchymatous tissues, accumulation of compatible solutes (total soluble sugars) and allelochemicals (flavonoids and phenolics) for chemical defense. Morphological traits of plants growing on hyper-saline soils were negatively plastic, while plants growing near less saline freshwater habitats were positively plastic. All these aspects were key factors for survival and invasive success in different habitat types and environmental conditions.

Keywords: Environmental heterogeneity, anatomical, *Ipomoea carnea*, allelochemical, Sclerification, Trichomes

EVALUATION OF *IN VITRO* BIOCOMPATIBILITY OF 3 DIFFERENT ADHESIVE RESIN CEMENTS WITH DIFFERENT POLYMERIZATION PATTERNS AND USED CLINICALLY ON HUMAN GINGIVAL FIBROBLASTS

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ABSTRACT

The use of fixed prosthetic restorations in the clinic increases the interest in dental cements. Adhesive resin cements, of the derivatives used, are particularly useful as they allow more conservative preparation forms on the teeth due to their adhesion properties. Because of their use in humans, it is preferred that their toxic effects are minimal. Since resin-based materials contain various monomers at different concentrations, the structure and properties of the monomers are the most important factors affecting their cytotoxic effects. In this study, it was aimed to evaluate the biocompatibility of 3 adhesive resin cements with different polymerization forms (light-cured, chemically-cured, and both chemically and light-cured dual) in vitro.

Cement samples were prepared as discs in stainless steel molds in sterile conditions according to ISO standards. MTT test was used to evaluate its cytotoxic effects. For this purpose, the extracts (0.7 cm²/ml) were prepared by keeping the discs sterilized under UV light for 24 and 48 hours in an incubator containing 37°C, 5% CO₂, 95% humidity in cell culture medium. HGF (human gingival fibroblast) cells were added to 96-well plates inoculated with 3 different doses (100%, 50% and 25%) of the extracts. Cell viability was evaluated in each well after 24 and 48 h incubations. 3 wells were used for each variant and the experiments were repeated 2 times. In addition, in order to evaluate the total protein production after incubation at each dose, the cells in the wells prepared in the same way were lysed after incubation and total protein isolation was performed. Total protein amount was calculated using the Bradford method. The obtained data were statistically evaluated with multiple variance analysis using the GraphPAD program.

When the data on the exposure time and dose-dependent effect of the 24-hour and 48-hour extracts of the post-polymerization forms of the three different polymerized restorative resin adhesives of the same brand on HGF cells were evaluated collectively, it was determined that the least cytotoxic cement was dual cement. As a result, the tested resin cements can be ranked in terms of their biocompatibility, both chemically and light-cured dual cement (Variolink Esthetic DC) > light-cured cement (Variolink Esthetic LC) > chemically cured cement (Multilink N). The findings of total protein amounts in the

parameters applied in the experimental systems due to cytotoxicity in the study also confirm the cytotoxicity findings.

Keywords: HGF, Resin cements, Cytotoxicity, Biocompatibility, MTT

ASYMMETRIC MODEL FOR SKEWED DATA

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ABSTRACT

Asymmetric model is an important aspect in statistical modeling to gain flexible functions for modeling skewed data by adding one or more shape parameters to existing distribution. In this study, a generalized modified weighted Rayleigh distribution with some of its statistical properties is examined and presented using Topp Leone family of distributions. The modification was done by setting one of the parameters to two ($\gamma = 2$) to accomplish the proposed distribution. However, the aim of the generalization is to determine a non-rigid model as an act of expanding the Weighted Rayleigh distribution which can be applied to various fields. We obtain several measures and order statistics of the proposed distribution. Also, maximum likelihood approach was used for estimation of model parameters. The strength of the proposed model was established using a real life data set for survival time of seventy-two guinea pigs infected with virulent tubercle bacilli. The result showed that the modified distribution has better representation of the data set than any other competing distributions considered. Hence, some conclusions were drawn based on the results obtained.

Keywords: Order Statistics, Likelihood, Topp Leone, Weighted Rayleigh, Weighted Weibull

**ROBUST PCA WITH AFFINE TRANSFORMATION, L_{2,1} NORMS AND
REGULARIZATION PARAMETER FOR HIGH DIMENSIONAL IMAGE RECOVERY:
APPLICATION IN CRIME DETECTION**

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ABSTRACT

In this article, a novel Robust PCA with affine transformation and the L_{2,1} norm is employed to remove the correlated samples across the images, enabling the new approach to be more resilient to outliers and large variations in the images. This is important especially for detecting crime in in the areas of image processing. The determination of the parameters involved and the affine transformations is cast as a convex optimization problem. The Alternating Direction Method of Multipliers (ADMM) method is utilized to derive a new set of recursive equations to update the optimization variables and the affine transformations iteratively in a round robin manner. The convergence of the developed updating equations is addressed and experimentally validated as well. The simulations results justify in outperforming compared with the state-of-the-art works in detecting outlier's high dimensional images in terms of accuracy on some public databases.

Keywords: Crime detection; Robust PCA; Image processing; L_{2,1} norm and Affine Transformation

DEVELOPMENT OF A MANAGEMENT SYSTEM FOR REAL ESTATE AGENCIES

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ABSTRACT

In developing countries like Nigeria, real estate performance remains unsatisfactory as many residential, commercial and office spaces remain unoccupied due to real estate agents not being easily and conveniently consulted. Land is a gift of nature and a factor of production, land tenure is the term given to the legal system in common law in particular where the land is the property of an individual because the land and its owners were kept in mind a great task for government and state access to land information is mostly difficult, people are scammed due to lack of land information, illegal land sales without owner's consent are very common. This project Computerized Land Information System to help keep track of the land, including: the size of the land, the location of the land, the type of houses to be built on the land, the owners of the land purchased. Hence, a software was developed to keep an eye on the information system of the earth. As such, it facilitates the maintenance of detail information about the lot of size, location, and the type of home to be built on the lot, as well as easy access to the records stored. Hence, the logs in this software are stored in the database using MySQL server as DBMS. Other tools and methods also used are PHP, XHTML, CSS and Apache which comes with MySQL.

Keyword: Real Estate, Land, Information, System, owners

THERMAL STRESSES EVALUATION IN TRANSVERSELY ISOTROPIC PIEZOELECTRIC DISC WITH ROTATION AND INTERNAL PRESSURE

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ABSTRACT

This paper deals with the analytic solution of transitional stresses in thin rotating disc composed of piezoelectric material under temperature and internal pressure. The stresses are evaluated in the rotating disc by using transition theory of Seth. The electric displacement relations and stresses are computed by using stress strain relations. Non-homogeneous differential equation is derived by substituting the obtained relations into the equilibrium equation. The formulated differential equation is solved with specified boundary conditions, applied pressure, electric displacement and stresses. Obtained results are exhibited graphically, analyzed numerically and then concluded that transversely isotropic Beryl is better than transversely isotropic material Magnesium and transversely isotropic piezoelectric materials BaTiO₄ and PZT-4. To ensure that the piezoelectric instruments or appliances will work in various temperature conditions, it becomes necessary to include temperature effect while developing mathematical model of scientific research problem. So electrical-thermal-mechanical coupling thermoelastic theories have been developed by various authors. First of all, Mindlin developed theory of piezoelectric thermoelastic materials. Later Mindlin derived equation for thermo piezoelectric crystals under effect of high frequency vibrations. Chandrasekharaiah considered the finite speed of thermal vibrations and extended the theory presented by Mindlin. Tauchert applied the thermoelastic theory of piezoelectric materials to composite plates. Eringen introduced electromagnetic effect in micropolar thermo elasticity. Eringen developed micropolar piezoelectricity.

Key words: Pressure, Transversely, isotropic

REGULARIZATION, OPTIMIZATION AND APPROXIMATION IN GENERAL
HAUSDORFF TOPOLOGICAL SPACES

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ABSTRACT

In this paper we introduce a wide class of generalized regularization methods in the Tikhonov sense for saddle point theory and minimax problems in a general Hausdorff topological space. First we prove a central theorem from which we derive various types of approximation results and variational asymptotic developments. An application is given to the conjugacy for bivariate functions defined on a normed space. Well-posedness of such regularizations is also investigated when the functions under consideration are convex-concave, semicontinuous and defined on the product of two reflexive Banach spaces. A stability result involving a class of variational convergences of operators has been also displayed within the framework of variational asymptotic developments.

Key words and phrases: Generalized regularization method in the Tikhonov sense for bivariate functions, saddle point and minimax problem, variational asymptotic developments, conjugacy, stability and sensitivity analysis, well-posedness, epi/hypo-convergence.

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COMMUTATIVITY WITH DERIVATIONS OF PRIME NEAR-RINGS

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ABSTRACT

The main purpose of this paper is to study the commutativity with derivations of a prime near-ring N , we give some results about that. Indeed, the first problem of this article is to prove the commutativity of a prime near-ring satisfy some identities. The notion of derivation in rings is quite old and plays a significant role in various branches of mathematics. The study of derivation was initiated during the 1950s and 1960s. Throughout this paper, N is non empty set, equipped with two binary operations say '+' and '.'. N is called a left near-ring if (i) $(N, +)$ is a group (not necessarily a belian) (ii) $(N, .)$ is a semigroup and (iii) $x.(y + z) = x.y + x.z$ for all $x, y, z \in N$. Similar for N is called a right near-ring. A near-ring is called a semiprime if $x \in N, xyx=0$ for all $y \in N$ implies $x=0$ and N is prime if $x, r \in N, xyr=0$ for all $y \in N$ implies either $x=0$ or $r=0$. A near ring N is called zero-commutative if $xy = 0$ implies that $yx = 0$ for $x, y \in N$. Let d be an arbitrary additive endomorphism of N . Then d is a derivation on N if $d(xy) = d(x)y + xd(y)$ for all $x, y \in N$. A nonempty subset I of a near-ring N will be called a semigroup ideal if $IN \subseteq I$ and $NI \subseteq I$.

**(α, α) - DERIVATIONS WITH SEMIGROUP IDEAL IN SEMIPRIME
NEAR - RINGS**

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ABSTRACT

The main purpose of this paper is to study the notion of (α, α) – derivations with semigroup ideal of a semiprime near-ring N , we give some results about that, where the map α acts as a homomorphism on semigroup ideal of a near-ring. The notion of derivation in rings is quite old and plays a significant role in various branches of mathematics. The study of derivation was initiated during the 1950s and 1960s. Throughout this paper, N is non empty set, equipped with two binary operations say '+' and '.'. N is called a left near-ring if (i) $(N, +)$ is a group (not necessarily abelian) (ii) $(N, .)$ is a semigroup and (iii) $x.(y + z) = x.y + x.z$ for all $x, y, z \in N$. Similar for N is called a right near-ring. A near -ring is called a semiprime **if $x \in N$, $xyx=0$ for all $y \in N$ implies $x=0$** . Let d be an arbitrary additive endomorphism of N . Then d is a derivation on N if $d(xy) = d(x)y + xd(y)$ for all $x, y \in N$. An additive mapping $f : N \rightarrow N$ is called a (α, α) -derivation if there exist function $\alpha : N \rightarrow N$ such that $f(xy) = f(x)\alpha(y) + \alpha(x)f(y)$ for all $x, y \in N$. A nonempty subset I of a near-ring N will be called a semigroup ideal if $IN \subseteq I$ and $NI \subseteq I$.

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**FRACTIONAL INTEGRAL ON HERMITE-HADAMARD INEQUALITIES
FOR P-CONVEX STOCHASTIC PROCESS**

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ABSTRACT

In this work we apply well known fractional integral operators such as Riemann-Liouville fractional integral, k-Riemann-Liouville fractional integral, Katugampola fractional operators, conformable fractional integral, Hadamard fractional integrals, etc, on P-convex stochastic processes in order to establish new integral inequalities of Hermite-Hadamard type.

Keywords: Stochastic process, Fractional integral, Hermite-hadamard inequality

**FURTHER SOLUTIONS OF THE MULTIVARIATE BEHRENS
FISHER PROBLEM**

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ABSTRACT

Multivariate Behrens-Fisher Problem is a problem that deals with testing the equality of two means from multivariate normal distribution when the covariance matrices are unequal and unknown. However, there is no single procedure served as a better performing solution to this problem. In this study efforts were made in selecting four different existing procedures and examined their power and rate to which they control type I error using different setting and conditions designed in the study. To overcome this problem a code was designed via R Statistical Software and simulate random normal data which independently run 1000 times, using MASS package in order to estimate the power and rate at which each procedure control type I error rate. In the simulation result we discovered that some of these existing procedures have equal and highest power in some certain settings like Yao and Adebayo, Johansen and Yao, Krishnamoorthy and Adebayo, Yao and Krishnamoorthy but when P-variables is increase we also found that these procedures with equal power varies significantly, where as some procedures' power decrease while some increases in power. For type I error rate where robustness and nominal level matters we found that under some settings none of the procedure maintained nominal level and some procedures lie outside the interval and considered non-robust. Yao and Adebayos were found good when $P=2$ and sample size $n_1 > n_2$, it is discovered that at a sample size (300, 200) all procedures attained the nominal level.

**THE INFLUENCE OF MATHEMATICAL REASONING ON PROBLEM SOLVING SKILLS
AND COMPETENCE IN CRITICAL THINKING AMONG SECONDARY SCHOOL
STUDENTS**

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ABSTRACT

The Mathematical forms today has more and more new application for everyday life and rapid growth of desired application helps to develop more and more new fields of mathematics. Reasoning skills are recognized as the key abilities for human being to create, learn, and exploit knowledge. The purpose of this study was to find out the influence of mathematical reasoning on problem solving skills and competence in critical thinking among secondary school students in wudil local government area. The research examines the difference in mathematical ability as well as the difference in mathematical ability base on sex. The study had a sample of 100 senior secondary students (50 boys and 50 girls) out the 16552 Senior Secondary School Students in the zone. Mathematics achievement test was used to measure mathematical ability and reasoning ability of students respectively. The research instrument used was validated by a team of three (3) mathematics educators and an expert an English language. Using the Kuder-Richardson 21(KR-21) formula, a reliability coefficient of 0.83 was obtained. The data was analyzed using statistical package to determine the mean, standard deviation, t-test, and one way ANOVA and Pearson's coefficient of correlation of correlation. The finding of the study showed that was a significant relationship between mathematical ability and reasoning ability. This study also showed a difference in mathematical ability and reasoning based on their level of reasoning ability.

Keywords. Mathematical Reasoning, Problem Solving Skills, Gender Differences Competence Critical Thinking.

**FARKLI BRANŞLARDA SPOR YAPAN SPORCULARIN 6222 SPORDA ŞİDDET VE
DÜZENSİZLİĞİN ÖNLENMESİ KANUNU HAKKINDAKİ DÜŞÜNCELERİNİN
İNCELENMESİ**

INVESTIGATION OF THE OPINIONS OF ATHLETES PLAYING IN DIFFERENT BRANCHES
ON THE 6222 LAW ON PREVENTION OF VIOLENCE AND IRRORITY IN SPORTS

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ÖZET

Bu çalışma farklı branşlarda spor yapan sporcuların 6222 Sporda Şiddet ve Düzensizliğin Önlenmesi Kanunu hakkındaki düşüncelerinin çeşitli değişkenlere göre incelenmesi amacıyla yapılmıştır. Çalışma grubunu; 504 gönüllü sporcu oluşturmuştur. Grup oluşumu, seçkisiz olmayan örnekleme yöntemlerinden uygun (kolay ulaşılabilir) örnekleme yöntemiyle gerçekleştirilmiştir. Araştırma verileri anket aracılığıyla toplanmıştır. Anketler araştırmacı tarafından yüz yüze görüşme yöntemiyle bireylere ulaştırılmıştır. Bireylerin demografik özellikleri elde etmek için 'Kişisel Bilgi Formu'nun yanı sıra araştırmacı tarafından hazırlanan 6222 sporda şiddet düzensizliğin önlenmesi kanunu hakkında sorular içeren form kullanılmıştır. Elde edilen veriler SPSS paket programıyla analiz edilmiştir. Tanımlayıcı istatistiklerin yanı sıra; dağılımların normallik yapısı çarpıklık ve basıklık testleri aracılığıyla incelenmiştir. Nonparametrik testlerden kay-kare testi uygulanmıştır. Yapılan analiz sonuçlarına göre; Sporcular 6222 sayılı kanunun varlığından haberdar olduklarını, ve bu kanun sayesinde spor sahalarındaki şiddet olaylarının azalacağını belirtmişler. Ayrıca kötü tesis ve ortamların şiddeti artırabileceğini ifade etmişlerdir. Kanun kapsamında spor sahalarına usulsüz seyirci girişi, ateşli silah bulundurma, toplum da din, ırk, cinsiyet farkı gözeterek hakaret içeren davranış veya sözlü tacizde bulunmak, kasten mala zarar vermek, şiddeti teşvik edecek açıklamada bulunmak için verilen cezaları yeterli bulmuşlardır. Sporda şiddeti önlemek için panel, seminer verilmesi gerektiğini belirtmişlerdir. Spor sahalarında uygulamaya konulan e-bilet uygulamasını şiddeti önleyici bir faktör olarak değerlendirmişlerdir.

Anahtar Kelimeler: Şiddet, Spor, Kanun

ABSTRACT

This study was carried out to examine the opinions of the athletes who do sports in different branches about the 6222 Law on the Prevention of Violence and Irregularity in Sports, according to various variables. Working group; It consisted of 504 volunteer athletes. Group formation was carried out with convenient (easily accessible) sampling method, which is one of the non-random sampling methods. Research data were collected through a questionnaire. The questionnaires were delivered to the individuals by the researcher by face-to-face interview method. In addition to the 'Personal Information Form', the form containing questions about the 6222 law on the prevention of violence and disorder in sports, prepared by the researcher, was used to obtain the demographic characteristics of the individuals. The obtained data were analyzed with the SPSS package program. In addition to descriptive statistics; The normality structure of the distributions was examined through skewness and kurtosis tests. Chi-square test, one of the nonparametric tests, was applied. According to the results of the analysis; Athletes stated that they were aware of the existence of the law numbered 6222, and that violence in sports fields would decrease thanks to this law. They also stated that bad facilities and environments can increase violence. Within the scope of the law, they found the punishments given for illegal entry of spectators to sports fields, possession of firearms, insulting behavior or verbal abuse in the society by considering religion, race, gender, deliberately damaging property, and making statements that encourage violence. They stated that in order to prevent violence in sports, panels and seminars should be given. They evaluated the e-ticket application, which was put into practice in sports fields, as a factor preventing violence.

Keywords: Violence, Sports, Law

FARKLI ŞİDDETEKİ KUVVET ANTRENMANLARININ GENÇ SPORCULARIN VÜCUT POSTÜR YAPILARINA ETKİSİNİN İNCELENMESİ

INVESTIGATION OF THE EFFECT OF STRENGTH TRAININGS OF DIFFERENT INTENSITY
ON BODY POSTURE STRUCTURES OF YOUNG ATHLETES

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ÖZET

Bu araştırmanın amacı, farklı şiddetteki kuvvet antrenmanlarının genç sporcuların vücut postür yapılarına etkisini incelemektir. Araştırmaya Elazığ ilinde, spor geçmişi en az iki yıl olan, düzenli olarak antrenman yapan, kulüp lisansı bulunan ve daha önce kuvvet antrenman geçmişi olan 37 erkek sporcu gönüllü olarak katılmışlardır. Katılımcılar, vücut ağırlıklı antrenman grubu (VAAG, n: 18, yaş ort.: 16,05±0,80 yıl, spor yaşı ort.: 2,66±0,68 yıl, boy ort.: 170,38±4,18 cm., kilo ort.: 62,33±4,11 kg., bki ort.: 21,46±1,07 kg/m²) ve ek ağırlıklı antrenman grubu (EAAG, n: 19, yaş ort.: 16,00±0,74 yıl, spor yaşı ort.: 2,94±0,84 yıl, boy ort.: 169,57±4,28 cm., kilo ort.: 62,10±4,29 kg., bki ort.: 21,44±0,75 kg/m²) olarak iki gruba ayrılmıştır. Araştırmada, sporcuların antrenmanlar öncesinde ve sonrasında "Posturescreen" mobil telefon programı ile dört yönlü fotoğrafları çekilerek baş, omuz, göğüs kafesi ve kalça postür analizleri yapılmıştır. Elde edilen verilerin istatistiksel analizlerinde SPSS 22.0 programı kullanılmıştır. Verilerin normallik analizi için Skewness ve Kurtosis değerleri incelenmiş, grup içi ön test son test karşılaştırmaları için Paired-Samle T testi uygulanmıştır. İstatistiksel analizler sonucunda VAAG için ön test-son test karşılaştırmasında baş, omuz, göğüs kafesi ve kalça postür analizinde anlamlı farklılıklar bulunmamıştır. EAAG için omuz postüründe olumlu yönde anlamlı farklılık tespit edilirken, baş, göğüs kafesi ve kalça ölçümlerinde farklılık tespit edilmemiştir. Sonuç olarak; vücut ağırlığı ile yapılan antrenmanlar sonucunda postür yapısında değişiklik tespit edilmezken, ek ağırlık ile yapılan antrenmanlar sonucunda omuz postüründe olumlu farklılık tespit edilmiş, baş, göğüs kafesi ve kalça ölçümlerinde farklılık tespit edilmemiştir.

Anahtar Kelimeler: Postür, Postür Analizi, Kuvvet Antrenmanı, Genç Sporcu.

ABSTRACT

The aim of this research is to examine the effects of strength training of different intensity on the body posture structures of young athletes. In the province of Elazığ, 37 male athletes with at least two years of sports history, regularly training, club license and previous strength training history participated voluntarily. Participants, body weight training group (VAAG, n: 18, mean age: 16.05±0.80 years, mean sports age: 2.66±0.68 years, height mean: 170.38±4, 18 cm., weight mean: 62.33±4.11 kg., bki mean: 21.46±1.07 kg/m²) and additional weighted training group (EAAG, n: 19, mean age: 16 .00±0.74 years, mean sports age: 2.94±0.84 years, mean height: 169.57±4.28 cm., weight mean: 62.10±4.29 kg., bki mean: 21.44±0.75 kg/m²) were divided into two groups. In the research, head, shoulder, rib cage and hip posture analyzes were made by taking four-way photographs of the athletes before and after the training with the “Posturescreen” mobile phone program. SPSS 22.0 program was used in the statistical analysis of the obtained data. Skewness and Kurtosis values were examined for the normality analysis of the data, and Paired-Samle T test was applied for intra-group pre-test and post-test comparisons. As a result of the statistical analysis, no significant differences were found in the head, shoulder, rib cage and hip posture analysis in the pre-test-post-test comparison for VAAG. While a positive significant difference was found in shoulder posture for EAAG, no difference was found in head, rib cage and hip measurements. As a result; While no change was detected in the posture structure as a result of the trainings performed with body weight, a positive difference was detected in the shoulder posture as a result of the trainings performed with additional weight, and no difference was detected in the measurements of the head, rib cage and hips.

Keywords: Posture, Posture Analysis, Strength Training, Young Athlete.

GENÇLİK VE SPOR İL MÜDÜRLÜĞÜ BÜNYESİNDE DÜZENLENEN VOLEYBOL YAZ KURSLARININ SPORCULARIN BAZI PERFORMANS DEĞERLERİNE ETKİSİNİN İNCELENMESİ

INVESTIGATION OF THE EFFECT OF VOLLEYBALL SUMMER COURSES ORGANIZED BY THE PROVINCIAL DIRECTORATE OF YOUTH AND SPORTS ON SOME PERFORMANCE VALUES OF ATHLETES

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ÖZET

Bu araştırmanın amacı, Gençlik ve Spor İl müdürlüğü bünyesinde açılan voleybol yaz kurslarının sporcuların bazı performans değerlerine etkisinin incelenmesidir. Araştırmaya, Elazığ ilinde Gençlik ve Spor İl Müdürlüğü voleybol yaz kurslarına devam eden 34 kız öğrenci gönüllü olarak katılmıştır. Sporcular 13-14 yaş grubu (n: 18, yaş ort.: 13,27±0,66 yıl, boy ort.: 150,55±5,79 cm., kilo ort.: 44,66±4,94 kg., bki ort.: 19,67±1,51 kg/m²) ve 15-16 yaş grubu (n: 16, yaş ort.: 15,56±0,62 yıl, boy ort.: 161,56±4,66 cm., kilo ort.: 53,06±4,20 kg., bki ort.: 20,31±1,15 kg/m²) olarak iki ayrı grupta incelenmiştir. Sporcular 18 yaşından küçük olduğu için veli izin belgeleri alınmıştır. Katılımcıların kurs başlangıcında ve sonunda dikey sıçrama, yatay sıçrama, çeviklik ve sürat ölçümleri yapılmıştır. Verilerin analizinde SPSS 22.0 programı kullanılmıştır. Verilerin normallik incelemesinde Shapiro-Wilk değeri incelenmiş, normal dağılım gösterdiği tespit edilmiştir. Ön test son test karşılaştırmasında Paired-Sample T testi kullanılmıştır. İstatistiksel analiz sonucunda 13-14 yaş grubu ve 15-16 yaş grubunun dikey sıçrama ve yatay sıçrama ölçümlerinde olumlu yönde anlamlı farklılık tespit edilirken (p<0,05), çeviklik ve sürat ölçümlerinde anlamlı farklılık tespit edilmemiştir (p<0,05). Sonuç olarak; voleybol yaz kursları, sporcuların sıçrama değerlerine anlamlı derecede olumlu etki ederken, çeviklik ve sürat değerlerine anlamlı derecede etki etmediği belirlenmiştir.

Anahtar Kelimeler: Voleybol, Yaz Kursu, Sıçrama, Sürat, Çeviklik.

ABSTRACT

The aim of this research is to examine the effects of volleyball summer courses opened within the Provincial Directorate of Youth and Sports on some performance values of the athletes. 34 female students attending the volleyball summer courses of the Provincial Directorate of Youth and Sports in Elazığ voluntarily participated in the research. Athletes 13-14 age group (n: 18, mean age: 13.27±0.66 years, mean height: 150.55±5.79 cm., mean weight: 44.66±4.94 kg., bki mean: 19.67±1.51 kg/m²) and 15-16 age group (n: 16, mean age: 15.56±0.62 years, height mean: 161.56±4.66 cm., weight mean: 53.06±4.20 kg., bki mean: 20.31±1.15 kg/m²) were examined in two separate groups. Since the athletes are under the age of 18, parental permission documents have been obtained. Vertical jump, horizontal jump, agility and speed measurements were made at the beginning and end of the course. SPSS 22.0 program was used in the analysis of the data. In the normality analysis of the data, the Shapiro-Wilk value was examined and it was determined that it showed normal distribution. Paired-Sample T test was used in the pre-test post-test comparison. As a result of the statistical analysis, a positive significant difference was found in the vertical jump and horizontal jump measurements of the 13-14 age group and the 15-16 age group (p<0.05), while no significant difference was found in the agility and speed measurements (p<0.05). As a result; It was determined that volleyball summer courses had a significant positive effect on the jump values of the athletes, but did not significantly affect the agility and speed values.

Keywords: Volleyball, Summer Course, Jumping, Speed, Agility.

GENÇ FUTBOLCULARDA BAZI ANAEROBİK TABANLI AKTİVİTELERİN SEZONSAL DEĞİŞİMİ

SEASONAL CHANGE OF SOME ANAEROBIC-BASED ACTIVITIES IN YOUNG FOOTBALL PLAYERS

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ÖZET

Futbolcuların performans yeterliklerinin takibinin sezon boyunca yapılmasının önemli olduğu yeterli performansla elde edilen fiziksel uygunluklarının başarının önemli bir parçası olduğu bildirilmektedir. Sporcuların performans değerlendirmelerinin antrenörlerin antrenman plan ve uygulamaları hakkında bilgiler verdiği bilinmektedir. Bu performans takip ve değerlendirmeleri sezonun herhangi bir evresinde ve ya sezon boyunca yapılabilmektedir. Performans testleri genellikle, takım sporlarına başarılı katılım için önemli fiziksel özellikler olan çeviklik, sıçrama ve sprint performansını değerlendirmek için kullanılır.

Futbol müsabakası esnasında aksiyonların çoğu kısa kasılma gevşeme döngüsü içerdiğinden, sporcuların, müsabakanın taleplerini karşılamaya hazır olup olmadığını belirlemek için sıçrama performanslarının ölçümü uygun olacağı bildirilmektedir. Futbolcularda sıçrama performansı alt ekstremite kuvvetinin bir göstergesidir. Sıçrama yüksekliği takımın başarısı ile ilişkili olduğundan futbolcularda bu performans çıktısının ölçülmesi için farklı testler kullanılmaktadır. Yapılan çalışmalar yarı profesyonel futbolcularda dikey sıçrama performansının takım başarısı ile ilişkili olduğunu göstermiştir.

Dikey sıçrama testlerinden elde edilen veriler, sporcuların performansını değerlendirmede, sporcuların sınıflandırılmasında ve ya takım oluşturmada pratik öneme sahiptir. Daha önceki çalışmalar dikey sıçrama ve sprint performansının genç oyuncuların rekabet seviyesini ayırt etmede faydalı olduğunu belirtmişlerdir.

Takım sporlarında sporcular bireysel olarak performanslarını geliştirmeleri için kısa mesafe performanslarını geliştirmeleri zorunlu hale gelmektedir. Birçok spor dalı için antrenman öncüsü haline gelen kısa mesafe aksiyon performans yeteneğinin geliştirilmesi için aktif sıçrama ve ya yatay sıçrama egzersizleri öneren çalışmalarda mevcuttur. Dikey sıçramaların yanı sıra yapılacak olan yatay sıçramalar takım sporcularında sprint performansını geliştirmek için etkili olacağı vurgulanmaktadır.

Çalışmada, elit genç futbolcuların sezon öncesi hazırlık döneminin sonunda ve birinci müsabaka dönemi sonunda iki farklı sıçrama performanslarının ölçümü gerçekleştirilmiştir. Sporculara uygulanan futbola özgü antrenmanların sıçrama performansları üzerine etkileri gözlemlenmiştir. Çalışmadan elde edilen bilgiler antrenörlere futbola özgü antrenman uygulamalarının genç futbolcuların sıçrama performansları hakkında bilgi verecektir. Bildiride elde edilen veri ve literatür bilgi daha ayrıntılı olarak aktarılacaktır.

Anahtar Kelimeler: Aktif Sıçrama, Squat Sıçrama, Anaerobik Güç

ABSTRACT

It is stated that tracking the performances of football players throughout the season and that the physical fitness obtained through sufficient performance are important parts of the success of an athlete. It is known performance assessments of athletes give valuable information on training programs of coaches and their applications. These can be done at any stage of the season or throughout. Performance tests are generally used to assess the physical qualities: agility, jump, and sprint performances which are all significant for the success in team sports.

It is reported that as most of the movements during a football match include short contraction-relaxation cycle, jump performance of athletes has been found suitable for determining whether athletes are ready for the requirements of the match or not. The jump performance of an athlete is an indicator of lower extremity strength. In addition, since jump performance is correlated with success of a team, various tests are used to assess this performance outcome of footballers. The research with semi-professional football players showed that vertical jump performance of footballers correlates with a team's success.

Data obtained from vertical jump tests have practical significance in terms of assessing the performance of athletes, categorizing them, or forming the team. Previous studies have shown that vertical jump and sprint performance of young football players are helpful for determining the level of competitiveness.

In order to improve their individual performance in team sports, athletes are required to improve their short-distance performances which have become a priority in most sports, and to improve this, active jump or horizontal jump exercises have been suggested in some research. It has been emphasized that performing horizontal jumps as well as vertical jumps significantly improves sprint performance in team sports.

In this study, two different jumping performances of elite young football players which were at the end of the pre-season preparation period and at the end of the first competition period were measured. The effects of football-specific training on jump performances of football players were observed. The data obtained from the study will give valuable information to coaches in terms of the effect of football-specific training on the jump performances of young football players. The data and literature obtained in this paper will be presented in more detail.

Keywords: Active Jump, Squat Jump, Anaerobic Strength

**BASKETBOLDA OYUNCULARIN ROLÜNDEKİ DEĞİŞİM:
EN DEĞERLİ OYUNCULAR
CHANGE IN THE ROLE OF PLAYERS IN BASKETBALL:
MOST VALUABLE PLAYERS**

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ÖZET

Basketbol bir takım oyunudur ve başarılı olmak için oyuncuların işbirliği, güçlü iletişim ve empati becerisi olmalıdır. Oyuncuların bireysel olarak ortaya koyduğu performansın asıl amacı takıma yardım etmek olsa da takımın önemli oyuncuları takım şablonunu ve oyun anlayışını da etkileyebilir. Basketbol, diğer spor branşları gibi kitlelerin ilgisinde artışın giderek arttığı bir spor dalıdır. Bu ilgi sadece oyuna değil aynı zamanda oyuncular için de artmaktadır. Sezon içerisinde en başarılı performansı sergileyen oyuncu ‘En Değerli Oyuncu’ unvanıyla ödüllendirilir. Takımın oyunu ve başarısına doğrudan etkisi olan bu oyuncuların istatistiksel verilerindeki farklılıklar basketbolun değişimi hakkında fikir sahibi olunmasını sağlayabilir. Bu çalışmada da 10 yıl arayla Euroleague’de ‘En Değerli Oyuncu’ ödülünü kazanan iki farklı oyuncunun istatistiksel verilerinin incelenmesi amaçlanmıştır.

Çalışmada 2012-2013 sezonunda ödülü kazanan ‘Vassilis Spanoulis’ ve 2021-2022 sezonunda ödülü kazanan ‘Vasilije Micic’in normal sezondaki istatistiksel verileri incelenmiştir. İstatistiksel veriler hücum ve savunma değişkenleri olarak iki farklı kategoride değerlendirilmiştir. Hücum kategorisinde sayı, asist, serbest atış yüzdesi, üç sayılık atış yüzdesi ve top kaybı verileri ele alınmıştır. Savunma kategorisinde ise ribaund, top çalma ve blok verileri değerlendirilmiştir. Oyuncuların istatistiksel verileri ortalama olarak raporlandırılmıştır. Çalışmaya ilişkin veriler istatistiklerin erişime açık olduğu Euroleague’in resmi web sitesi euroleague.net’ten elde edilmiştir.

2012-2013 sezonunun ‘En Değerli Oyuncusu’ Vassilis Spanoulis’in normal sezonda 16.7 sayı, 4.0 asist, %82 serbest atış yüzdesi, %38 üç sayılık atış yüzdesi ve 3.7 top kaybı ortalamasına sahiptir. Savunma istatistikleri ise 2.0 ribaund, 0.7 top çalma ve 0.1 blok şeklindedir. Vasilije Micic ise 2021-2022 sezonunda 18.2 sayı, 4.6 asist, %83 serbest atış yüzdesi, %33 üç sayılık atış yüzdesi ve 2.9 top kaybı ortalamalarıyla oynamıştır. Micic’in savunma istatistikleri 2.7 ribaund, 1.1 top çalma ve 0.01 blok şeklindedir.

Çalışma sonucunda Vasilije Micic’in hücum ve savunma istatistiklerinde daha iyi ortalamalara sahip olduğu söylenebilir. Bu durum, oyundaki aksiyon sayısındaki artış ve oyun kurucu pozisyonundaki oyuncularının rolü ile açıklanabilir. Literatürdeki takımların istatistiklerine yönelik birçok çalışma bulunsa da oyuncu özelinde yapılacak çalışmalar gelecekte ortaya çıkacak oyuncu profili ve oyun trendi hakkında fikir sahibi olunmasına katkıda bulunabilir. **Anahtar Kelimeler:** Basketbol, Euroleague, Basketbolda Analiz, En Değerli Oyuncu

ABSTRACT

Basketball is a team game and to be successful, players must have strong communication and empathy skills. Although the main purpose of individual performance by players is to help the team, key players of the team can also affect the team pattern and understanding of the game. Basketball, like other sports branches, is a sport where the interest of the crowds is increasing gradually. This interest is increasing not only for the game but also for the players. The player with the most successful performance during the season is rewarded with the title of 'Most Valuable Player'. The differences in the statistical data of these players, which have a direct impact on the game and success of the team, can provide an idea about the change in basketball. In this study, it is aimed to examine the statistical data of two different players who won the 'Most Valuable Player' award in the Euroleague.

In the study, the statistical data of Vassilis Spanoulis, who won the MVP award in the 2012-2013 season and Vasilije Micic, who won the award in the MVP 2021-2022 season, in the regular season were examined. Statistical data were evaluated in two different categories as offensive and defensive variables. In the offense category, points per game, assists per game, free throw percentage, three-point percentage and turnovers are examined. In the defense category, rebound, steal and block data were evaluated. Statistical data of the players were reported as average. The data regarding the study were obtained from the official website of Euroleague, euroleague.net.

The 'Most Valuable Player' of the 2012-2013 season, Vassilis Spanoulis, averaged 16.7 points, 4.0 assists, 82% free throws, 38% three-point percentage and 3.7 turnovers in the regular season. Defensive stats were 2.0 rebounds, 0.7 steals and 0.1 blocks. Vasilije Micic averaged 18.2 points, 4.6 assists, 83% free throws, 33% three-point percentage and 2.9 turnovers in the 2021-2022 season. Micic's defensive stats were 2.7 rebounds, 1.1 steals and 0.01 blocks.

As a result of the study, it can be said that Vasilije Micic has better averages in offensive and defensive statistics. This can be explained by the increase in the number of actions in the game and the role of the players in the point guard position. Although there are many studies on the statistics of the teams in the literature, the studies to be carried out on the player basis can contribute to having an idea about the player profile and game trend that will emerge in the future.

Keywords: Basketball, Euroleague, Basketball Analysis, Most Valuable Player.

**AVRUPA BASKETBOLUNDA SAVUNMANIN DEĞİŞİMİ:
EUROLEAGUE ÖRNEĞİ**
CHANGE OF DEFENSE IN EUROPEAN BASKETBALL:
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ÖZET

Basketbol, yıllar içerisinde aksiyon sayısının arttığı bir spor dalıdır. Oyuncular modern antrenman metotları ve profesyonel yaklaşımı benimseyerek daha iyi performans sergileyebilmektedir. Bu, oyunun hızlanmasına ve kitlelerin ilgisindeki artışa sebebiyet veren bir durumdur. Rekabetin artması takımların birbirine üstünlük kurmak için yeni arayışlar içerisinde olması takip edilme oranını da etkilemektedir. Oyundaki gelişim çoğu zaman hücumdaki aksiyonların değerlendirilmesiyle ele alınsa da savunma yönündeki değişimler de merak konusudur. Yetenekli oyuncu sayısındaki artış savunma oyuncularının da oyuncularını fiziksel ve zihinsel yönden etkilemektedir. Aksiyon sayısındaki artışın savunma parametrelerindeki verilere olan etkisi de son yıllarda araştırılmaktadır. Bu bilgiler doğrultusunda yapılan bu çalışmanın amacı müsabakada blok ve top çalma verilerinin yıllar içerisindeki değişiminin incelenmesidir.

Çalışmada 2011-2012 ve 2021-2022 normal sezonlarında Euroleague’de oynanan müsabakalardaki blok ve top çalma verileri incelenmiştir. Takımların kaydettiği blok ve top çalma verileri ortalama olarak incelenmiştir. Çalışmaya ilişkin veriler istatistiklerin erişime açık olduğu Euroleague’in resmi web sitesi euroleague.net’ten elde edilmiştir.

2011-2012 normal sezonunda bir müsabaka esnasında takımların yaptığı blok sayısı ortalama 2.4’tür. Sezon içerisinde en yüksek blok ortalamasına sahip takım maç başına 4.3 blok ortalamasıyla Real Madrid takımındır. Maç başına 3 ve üzeri blok yapan takım sayısı 8’dir. 2021-2022 normal sezonu verileri incelendiğinde ise, müsabaka esnasında yapılan blok sayısı ortalama 2.28 olarak tespit edilmiştir. Sezon içerisinde en yüksek blok ortalamasına sahip takım maç başına 3.3 blok ortalamasıyla Real Madrid takımındır. Maç başına 3 ve üzeri blok yapan takım sayısı ise 2’dir. Top çalma verileri incelendiğinde ise; 2011-2012 sezonunda maç başına top çalma sayısı ortalama olarak 5.8’dir. Sezon içerisinde en yüksek top çalma ortalamasına sahip takım maç başına 8.4 top çalma ile Nancy Basket takımındır. Maç başına 7 ve üzeri top çalma ortalamasına sahip takım sayısı 6’dır. 2021-2022 normal sezonunda ise, top çalma sayısı ortalama 6.50 olarak tespit edilmiştir. Sezon içerisinde en yüksek top çalma ortalamasına sahip takım maç başına 9.4 top çalma ile UNICS Kazan takımındır. Maç başına 7 ve üzeri top çalma ortalamasına sahip takım sayısı ise 4’tür.

Sonuç olarak, yıllar içerisinde oyun içerisindeki aksiyonun artışı blok ortalamalarında herhangi bir artışa neden olmamıştır. Top çalma verilerinde ise ortalama olarak artış söz konusudur. Turnuvada yıllar içerisinde format değişikliği, takım sayısı ve maç sayısında değişiklikler yapılmıştır. Bu durum oyuncu

performansı ve oyun içi parametreleri etkileyebilir. Gelecekte oyunun hücum ve savunma yönünü birlikte ele alan çalışmalar koçlara ipucu verebilir.

Anahtar Kelimeler: Basketbol, Basketbolda Analiz, Savunma, Top Çalma, Blok

ABSTRACT

Basketball is a sport where the number of actions has increased over the years. Players can perform better by adopting modern training methods and professional approach. This is a situation that causes the game to accelerate and increase the interest of the masses. The increase in competition and the fact that the teams are in new quests to gain superiority over each other also affected the rate of follow-up. Although the development in the game is mostly handled by evaluating the offensive actions, the changes in the defensive direction are also a matter of curiosity. The increase in the number of talented players also affects the players of the defensive players physically and mentally. The effect of the increase in the number of actions on the data on defense parameters has also been investigated in recent years. The aim of this study was examine the change in the block and steal data in the competition over the years.

In the study, block and steal data in the Euroleague matches in the 2011-2012 and 2021-2022 regular seasons were examined. Block and steal data recorded by the teams were analyzed as average. The data regarding the study were obtained from the official website of Euroleague, euroleague.net.

In the 2011-2012 regular season, the average number of blocks made by the teams during a match is 2.4. The team with the highest block average during the season is Real Madrid with an average of 4.3 blocks per game. The number of teams making 3 or more blocks per match is 8. The average number of blocks made during the competition was determined as 2.28. The team with the highest block average during the season is Real Madrid with an average of 3.3 blocks per game. The number of teams making 3 or more blocks per match is 2. In the 2011-2012 season, the average number of steals per game is 5.8. The team with the highest steals average during the season is Nancy Basket with 8.4 steals per game. The number of teams with an average of 7 steals or more per game is 6. In the 2021-2022 regular season, the average steals was 6.50. The team with the highest steals average during the season is UNICS Kazan with 9.4 steals per game. The number of teams with an average of 7 steals or more per game is 4.

As a result, the increase in the action in the game over the years did not cause any increase in the block averages. There is an average increase in stealing data. In the tournament, changes were made in the format, the number of teams and the number of matches over the years. This may affect player performance and in-game parameters. The future studies may give clues to the coaches for deal with the offensive and defensive aspects of the game together.

Keywords: Basketball, Analysis in Basketball, Defense, Steal, Block.

LİFE KİNETİK EGZERSİZİNİN TENİŞÇİLERİN ALFA VE BETA BEYİN DALGALARI ÜZERİNDEKİ AKUT ETKİSİNİN İNCELENMESİ

INVESTIGATION OF THE ACUTE EFFECT OF LIFE KINETIC EXERCISE ON ALFA AND
BETA BRAIN WAVES OF TENNIS PLAYERS

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ÖZET

Akut Life Kinetik egzersizinin tenisçilerin Alfa (α) ve Beta (β) beyin dalgaları üzerindeki etkisini incelemektir. Araştırmaya toplam 28 tenisçi (13 Kadın, 15 Erkek) katılmıştır. Sporcular Deney (n=14) ve Kontrol (n=14) grup olmak üzere rastgele yöntem ile 2 gruba ayrılmıştır. Araştırma 2 oturumdan oluşmuştur. İlk oturumda grupların 1 dakika boyunca koordinatif uygulama sırasında beyin dalgaları 14 kanallı Emotiv EPOC mobil EEG cihazı ile kaydedilmiştir. İkinci oturumda deney grubuna life kinetik egzersizini takiben, kontrol grubuna ise herhangi bir uygulama yapmadan son test ölçümü olarak beyin dalgaları kaydedilmiştir. Ölçüm sonrası MATLAB yazılımı kullanılarak ön test ve son test koordinatif hareketlerde Alfa (α) ve Beta (β) beyin dalgaları ortalama değerleri hesaplanmıştır. Grup içi değişimi belirlemede Paired Simple T, gruplar arası değişimi belirlemede ise Independent T testi kullanılmıştır. Deney grubunda grup içi Alfa (α) ve Beta (β) dalgalarında istatistiksel olarak anlamlı bir farklılık bulunurken ($p<0,05$), kontrol grubunda herhangi bir farklılık bulunamamıştır ($p>0,05$). Ayrıca gruplar arası karşılaştırmada Deney ve Kontrol grupları arasında Alfa (α) ve Beta (β) dalgalarında deney grubu lehine anlamlı bir farklılık bulunmuştur ($p<0,05$). Life kinetik egzersizinin tenisçilerde alfa ve beta dalgalarını akut olarak arttırdığı bulunmuştur. Life kinetik beynin aynı anda birden fazla iş yapabileceği kapasitesini zorladığı için daha fazla sinirsel aktivasyonun gerçekleşmesine bağlı olarak Alfa (α) ve Beta (β) dalgalarında artış sağladığı düşünülmektedir.

Anahtar kelimeler: Alfa Beyin Dalgaları, Beta Beyin Dalgaları, Life Kinetik Egzersizleri, Tenis

ABSTRACT

To examine the acute effect of Life Kinetic exercise on the Alpha (α) and Beta (β) brain waves of tennis players. A total of 28 tennis players (13 Female, 15 Male) participated in the study. Athletes were randomly divided into 2 groups as Experiment (n=14) and Control (n=14) groups. The research consisted of 2 sessions. In the first session, the brain waves of the groups were recorded for 1 minute with the 14-channel Emotiv EPOC mobile EEG device during the coordinative application. In the second session, brain waves were recorded for the experimental group following the life kinetic exercise, and for the control group as a post-test measurement without any application. After the measurement, the mean values of Alpha (α) and Beta (β) brain waves were calculated in the pretest and posttest coordinative movements using Matlab software. Paiered Simple T test was used to determine within-group change, and Independent T test was used to determine intergroup change. While there was a statistically significant difference in Alpha (α) and Beta (β) waves within the experimental group ($p<0.05$), no difference was found in the control group ($p>0.05$). In addition, a significant difference was found between the Experimental and Control groups in Alpha (α) and Beta (β) waves in favor of the experimental group in the comparison between the groups ($p<0.05$). Life kinetic exercise has been found to acutely increase alpha and beta waves in tennis players. Since Life kinetics forces the brain's capacity to do more than one job at the same time, it is thought to increase Alpha (α) and Beta (β) waves due to the realization of more neural activation.

Keywords: Alpha Brain Waves, Beta Brain Waves, Life Kinetic Exercises, Tennis

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**ORTAOKUL ÖĞRENCİLERİNİN SPORA KATILIM GÜDÜLERİ ÜZERİNE BİR
ARAŞTIRMA**
A RESEARCH ON SECONDARY STUDENTS' MOTIVATIONS TO PARTICIPATE IN SPORTS

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ÖZET

Bu çalışmanın amacı, ortaokul öğrencilerinin spora katılım güdülerinin çeşitli demografik değişkenler bağlamında incelenmesidir. Çalışmanın araştırma grubunu 46'sı erkek ve 86'sı kız olmak üzere toplam 132 kişi oluşturmaktadır. Çalışma Şırnak Cizre İsmail Ebul İz Ortaokulu'nda öğrenim görmekte olan öğrencileri oluşturmaktadır. Bu çalışmada veri toplama aracı olarak "Kişisel Bilgi Formu" ile "Spora Katılım Güdüsü Ölçeği" kullanılmıştır. Verilerin analizinde; katılımcıların demografik verilerinin dağılımının belirlenmesi için yüzde (%) ve frekans (f) analizleri, iki grubun karşılaştırılması için t-testi ve grupların karşılaştırmaları için tek yönlü varyans analizi (ANOVA) kullanılmıştır. Gruplar arası farkın hangi gruplardan kaynaklandığını tespit etmek için ise Tukey testi yapılmıştır. Okul sporlarına katılım değişkenine göre incelendiğinde; okul sporlarına katılım ile spora katılım güdüsü alt boyutları arasında istatistiksel olarak Takım Üyeliği-Ruhu, Arkadaşlık ve Beceri gelişimi arasında anlamlı bir fark tespit edilmiştir ($p<0,05$). Yine spora yönelik tutum ile ailede düzenli olarak spor yapan birey değişkeni arasında istatistiksel olarak Arkadaşlık alt boyutunda anlamlı bir fark bulunmuştur ($p<0,05$). İlave olarak, anne eğitim durumu değişkenine göre Takım Üyeliği-Ruhu alt boyutunda anlamlı bir farklılık görülmektedir ($p<0,05$). Fakat Spora Katılım Güdüsü ölçeğinin alt boyutları ile cinsiyet, aile gelir düzeyi, baba eğitim durumu, boş zamanlarda düzenli spor yapma durumu ve ailenin spora katılım desteği değişkenleri arasında anlamlı bir fark tespit edilememiştir. Bulgular ışığında; okul sporlarına katılım gösterme, ailede düzenli olarak spor yapan birey olması, anne eğitim düzeyi gibi bazı faktörlerin spora katılım motivasyonda etkin olduğu sonucuna varılmıştır.

Anahtar Kelimeler: Ortaokul öğrencisi, Spor, Güdü

ABSTRACT

The aim of this study is to examine secondary school students' motivation to participate in sports in the context of various demographic variables. The research group of the study consists of a total of 132 people, 46 of whom are boys and 86 are girls. The study consists of students studying at Şırnak Cizre İsmail Ebul İz Secondary School. In this study, "Personal Information Form" and "Sport Participation Motivation Scale" were used as data collection tools. In the analysis of data; Percentage (%) and frequency (f) analyzes were used to determine the distribution of demographic data of the participants, t-test was used to compare the two groups, and one-way analysis of variance (ANOVA) was used to compare the groups. The Tukey test was used to determine which groups caused the difference between the groups. When examined according to the variable of participation in school sports; A statistically significant difference was found between the sub-dimensions of participation in school sports and motivation to participate in sports ($p<0.05$). Again, a statistically significant difference was found between the attitude towards sports and the variable of individuals who regularly do sports in the family in the Friendship sub-dimension ($p<0.05$). In addition, there is a significant difference in the Team Membership-Spirit sub-dimension according to the mother's educational status ($p<0.05$). However, no significant difference was found between the sub-dimensions of the Motivation to Participate in Sports scale and the variables of gender, family income, father's education level, regular sports activities in spare time and family support for sports participation. In the light of the findings; It has been concluded that some factors such as participating in school sports, having a family member who does sports regularly, and mother's education level are effective in motivation to participate in sports.

Keywords: Secondary school student, Sports, Motivation

**ORTAOKUL ÖĞRENCİLERİNİN SPORA KATILIM GÜDÜLERİ ÜZERİNE BİR
ARAŞTIRMA**
INVESTIGATION OF THE PROFESSIONAL PROFESSIONALITY LEVELS OF SCHOOL
MANAGERS WHO DO AND DO NOT DO SPORTS

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ÖZET

Bu çalışmanın amacı, spor yapan ve yapmayan okul yöneticilerinin mesleki profesyonellik düzeylerinin incelenmesidir. Çalışmanın araştırma grubunu 93'ü erkek ve 23'ü kadın olmak üzere toplam 116 kişi oluşturmaktadır. Çalışmanın araştırma grubunu Şırnak'ta Silopi ilçesinde görev yapan okul yöneticilerini oluşturmaktadır. Bu çalışmada veri toplama aracı olarak "Kişisel Bilgi Formu" ile "Okul Müdürlerinin Mesleki Profesyonellik Ölçeği" kullanılmıştır. Verilerin analizinde; katılımcıların demografik verilerinin dağılımının belirlenmesi için yüzde (%) ve frekans (f) analizleri, iki grubun karşılaştırılması için t-testi ve grupların karşılaştırmaları için tek yönlü varyans analizi (ANOVA) kullanılmıştır. Gruplar arası farkın hangi gruplardan kaynakladığını tespit etmek için ise Tukey testi yapılmıştır. Okul yeri değişkenine göre incelendiğinde; okul müdürlerinin mesleki profesyonellik alt boyutları arasında istatistiksel olarak mesleki özerklik alt boyutunda anlamlı bir fark bulunmaktadır ($p<0,05$). Yine hizmet süresi değişkeni ile okul müdürlerinin mesleki profesyonellik alt boyutları arasında mesleki özerklik alt boyutunda anlamlı farklılık tespit edilmiştir ($p<0,05$). İlâveten, düzenli spor yapma değişkenine göre incelendiğinde ise; okul müdürlerinin mesleki profesyonellik düzeyi arasında karara katılım sağlama, mesleki gelişim ve mesleki özerklik alt boyutlarında anlamlı fark olduğu tespit edilmiştir ($p<0,05$). Fakat Okul Müdürlerinin Mesleki Profesyonellik ölçeğinin alt boyutları ile cinsiyet, yaş, okul kademesi, okul yöneticiliği hizmet süresi değişkenleri arasında anlamlı bir fark tespit edilememiştir. Bulgular çerçevesinde; okul yeri, hizmet süresi ve düzenli olarak spor yapma faktörlerinin mesleki profesyonellik durumlarında etkin olduğu sonucuna varılmıştır.

Anahtar Kelimeler: Mesleki Profesyonellik, Okul Yöneticisi, Spor

ABSTRACT

The aim of this study is to examine the professional professionalism levels of school administrators who do and do not do sports. The research group of the study consists of a total of 116 people, 93 men and 23 women. The research group of the study consists of school administrators working in Silopi district of Şırnak. In this study, "Personal Information Form" and "School Principals' Professional Professionalism Scale" were used as data collection tools. In the analysis of data; Percentage (%) and frequency (f) analyzes were used to determine the distribution of demographic data of the participants, t-test was used to compare the two groups, and one-way analysis of variance (ANOVA) was used to compare the groups. Tukey test was used to determine from which groups the difference between the groups originated. When examined according to the school location variable; There is a statistically significant difference between the professionalism sub-dimensions of school principals in the professional autonomy sub-dimension ($p<0.05$). Again, a significant difference was found between the variable of length of service and the professional professionalism sub-dimensions of school principals in the sub-dimension of professional autonomy ($p<0.05$). In addition, when examined according to the variable of regular exercise; It was determined that there was a significant difference between the professional professionalism level of school principals in the sub-dimensions of participation in decision making, professional development and professional autonomy ($p<0.05$). However, no significant difference was found between the sub-dimensions of the School Principals' Professional Professionalism scale and the variables of gender, age, school level, and length of service as a school administrator. Within the framework of the findings; It has been concluded that the factors of school location, length of service and regular sports activities are effective in professional professionalism.

Keywords: Professionalism, School Administrator, Sports

BİYOLOJİK SİSTEMLERDE GPC/GFC/SEC ANALİZİ VE NİTELİĞİ
QUALIFICATION OF GPC/GFC/SEC ANALYSIS IN BIOLOGICAL SYSTEMS

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ÖZET

Boyut dışlama kromatografisi (SEC), gözenekli dolgu ile doldurulmuş bir kolona bir numune solüsyonunun verildiği ve kolondan solvent ile taşındığı bir sıvı kolon kromatografik tekniğidir. İdeal olarak, boyut ayrımı, diferansiyel gözenek geçirgenliği ile sağlanır. SEC içinde jel geçirgenlik kromatografisi (GPC), sentetik makromoleküllerin gözenekli jeller veya katı inorganik paketleme partikülleri kullanılarak kromatografik olarak ayrılmasıdır, jel filtrasyon kromatografisi (GFC), basitçe jel filtrasyonu ise biyolojik makromoleküller (biyopolimerler) için benzer bir ayırma işlemidir. Molar kütle dağılımları, molar kütle ortalamaları ve polidispersite jel geçirgenlik kromatografisi (GPC), boyut dışlama kromatografisi (SEC) ve jel filtrasyon kromatografisi (GFC) ile belirlenebilir. Bu üç isim de polimerler, biyopolimerler, polisakaritler veya proteinler olarak da bilinen makromoleküllerin önemli özelliklerini belirlemek için gerekli olan aynı sıvı kolon kromatografisi tekniğini tanımlamak için kullanılan isimlerdir. Bu isimlerin arkasındaki ayırma mekanizması, kullanılan kısaltmadan bağımsız olarak aynıdır. Bununla birlikte, farklı bilim adamları aynı tekniğe farklı şekilde atıfta bulunduğu için üç isim de kullanılmaktadır. GPC/SEC'nin iki temel kullanımı vardır: polimerleri karakterize etmek ve karışımları polimer, oligomer, monomer ve herhangi bir polimerik olmayan katkı maddesi gibi ayrı fraksiyonlara ayırmak. GPC/SEC, tüm sentetik polimerlerin sahip olduğu bir özellik olan polimerlerin moleküler ağırlık dağılımını karakterize etmek için mevcut olan tek tekniktir. Ayrıca polimer karışımı, polimer ve plastikleştirici gibi ayrı bileşenlere ayrılabilir. İlgili bir polimerin moleküler ağırlık karakterizasyonu için belirli bir SEC yöntemi geliştirirken yapılması gereken birkaç özel husus vardır. Bunlar, mobil faz, sıcaklık, kolon dolgu tipi, kolon dolgusu partikül boyutu, gözenek büyüklüğünün kolon dolgu aralığı, dedektör tipleri, moleküler ağırlık kalibrasyon yöntemi ve polimer konsantrasyonu seçimini içerir. Ek olarak, SEC analizinin yüksek kalitesini sağlamak için, fraksiyonlama sırasında mobil faz akış hızının tekdüzeliğinin yanı sıra uygun bir numune enjeksiyonu gibi genel hususlar da vardır. Ligninler, proteinler ve polisakaritler gibi doğal olarak oluşan polimerler, polar organik veya sulu çözücülerde GPC/SEC kullanılarak rutin olarak araştırılır. GPC/SEC, oligomerlerin ve küçük moleküllerin ayrılması için de mükemmel bir yöntemdir.

Anahtar Kelimeler: GPC, SEC, kromatografi, polimer, biyopolimer

ABSTRACT

Size exclusion chromatography (SEC) is a liquid column chromatographic technique in which a sample solution is introduced into a column filled with porous filler and eluted with solvent from the column. Ideally, size separation is achieved by differential pore permeability. Gel permeation chromatography (GPC) within SEC is the chromatographic separation of synthetic macromolecules using porous gels or solid inorganic packaging particles, while gel filtration chromatography (GFC), simply gel filtration, is a similar separation process for biological macromolecules (biopolymers). Molar mass distributions, molar mass averages and polydispersity can be determined by gel permeation chromatography (GPC), size exclusion chromatography (SEC), and gel filtration chromatography (GFC). All three names are used to describe the same liquid column chromatography technique required to determine important properties of macromolecules, also known as polymers, biopolymers, polysaccharides or proteins. The separation mechanism behind these names is the same regardless of the abbreviation used. However, all three names are used as different scientists refer to the same technique differently. GPC/SEC has two main uses: to characterize polymers and to separate mixtures into separate fractions such as polymer, oligomer, monomer and any non-polymeric additives. GPC/SEC is the only technique available to characterize the molecular weight distribution of polymers, a property possessed by all synthetic polymers. Further, the polymer mixture can be separated into separate components such as polymer and plasticizer. There are several special considerations that must be made when developing a particular SEC method for the molecular weight characterization of a polymer of interest. These include the choice of mobile phase, temperature, column filler type, column filler particle size, column filler range of pore size, detector types, molecular weight calibration method, and polymer concentration. In addition, there are general considerations such as a proper sample injection as well as uniformity of mobile phase flow rate during fractionation to ensure high quality of SEC analysis. Naturally occurring polymers such as lignins, proteins and polysaccharides are routinely investigated using GPC/SEC in polar organic or aqueous solvents. GPC/SEC is also an excellent method for the separation of oligomers and small molecules.

Keywords: GPC, SEC, chromatography, polymer, biopolymer

**KOLOREKTAL KANSERDE TERAPÖTİK BİR HEDEF OLARAK İNSÜLİN BENZERİ
BÜYÜME FAKTÖRÜ SİSTEMİ**
INSULIN-LIKE GROWTH FACTOR SYSTEM AS A THERAPEUTIC TARGET IN
COLORECTAL CANCER

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ÖZET

Fiziksel hareketsizlik ve obezite artan kolon kanseri geliştirme riskiyle ilişkilendiren önemli kanıtlar mevcuttur ve bununla ilgili birkaç çalışmada, yaşam tarzı faktörleri ve kolon kanseri arasındaki bu ilişkiye, insülin-insülin benzeri büyüme faktörü (IGF) eksenini yoluyla hiperinsülinemi ve insülin direncinin aracılık ettiği öne sürülmüştür. Yüksek plazma glukoz oranı ve tip II diyabetin de kolon kanseri gelişimi için yüksek risk faktörleri olarak kabul edilmesi bu hipotezi daha da güçlendirmiştir. İnsülin-IGF ekseninin aktivasyonu kolon kanseri gelişimi için önemli bir risk faktörü olmasının yanı sıra hastalık teşhisi konan hastalarda önemli prognostik etkileri olabilmektedir. İnsülin-IGF yolunu ve kolon kanserindeki rolünü anlamak bu nedenle klinik öneme sahiptir. İnsülin benzeri büyüme faktörü reseptörleri (IGF-IR ve IGF-IIR), iki polipeptid ligandı (IGF-I ve IGF-II), insülin reseptörleri (IR), hibrit reseptörler (IGF-IR/IR) ve altı bağlayıcı protein (IGFBP-1-6), karmaşık IGF sisteminin üyeleridir. Ek olarak, büyük bir grup insülin büyüme faktörü bağlayıcı protein proteazları, insülin benzeri büyüme faktörü proteinlerinin hidrolize edilmesine yardımcı olmaktadır. IGF-I, IGF-II ve insülin, IGF-IR ve IR'yi bağlar ve aktive eder, bu da metabolik, mitojenik, dönüştürücü ve göç tepkileri dahil olmak üzere bir dizi biyolojik sonucu düzenleyen hücre içi sinyalleşme basamaklarının başlatılmasına yol açmaktadır. Son zamanlarda birkaç çalışma, kolorektal kanserde IGF sisteminin rolü ile ilgili moleküler yönere ve IGF eksenini kolorektal kanserin patogeneze bağlayan klinik ve deneysel kanıtlara odaklanmıştır. Bazı önemli kanıtlar, güçlendirilmiş IGF-I/IGF-IR sinyalinin yalnızca kanser gelişimi için artan göreceli risk ile ilişkili olmadığını, aynı zamanda kanser hücresinin hayatta kalmasına, istilasına, metastazına ve kemoterapötik ilaçlara direncine de katkıda bulunduğunu göstermektedir. IGF sisteminin bir inhibitörünün genel olarak insan kanseri ve özel olarak kolorektal kanser üzerinde ne gibi bir etkisi olabileceğini tahmin etmek zordur. Ancak kanserli hastalarda, bir IGF sistem inhibitörü, yerleşik tümörlerin büyümesini değiştirebilir. Gen terapisi, küçük kinaz inhibitör molekülleri, terapötik reseptörler gibi en iyi genel stratejinin ne olacağı henüz bilinmemektedir. Özellikle bu yaklaşımlar, kombinasyon halinde kullanıldığında kemoterapi direncini değiştirebilir veya öngörülemez mekanizmalar yoluyla etki edebilir. Kolorektal kanserde IGF sisteminin biyolojisini ve patolojisini tam olarak anlamak için daha fazla yüksek kaliteli deneysel çalışmalar ve ileriye dönük denemeler gerekecektir ve bununla bu yaygın kanserde özel terapötik stratejilerin geliştirilmesinin hızlandıracağı umut edilmektedir.

Anahtar Kelimeler: Kolorektal kanser, IGF-sistem, kanser terapötik stratejiler

ABSTRACT

There is substantial evidence linking physical inactivity and obesity with an increased risk of developing colorectal cancer, and several studies have suggested that this association between lifestyle factors and colorectal cancer is mediated by hyperinsulinemia and insulin resistance via the insulin-insulin-like growth factor (IGF) axis. The acceptance of high plasma glucose ratio and type II diabetes as high risk factors for the development of colorectal cancer further strengthened this hypothesis. In addition to being an important risk factor for the development of colorectal cancer, the activation of the insulin-IGF axis may have important prognostic effects in patients diagnosed with the disease. Understanding the insulin-IGF pathway and its role in colon cancer is therefore of clinical importance. Insulin-like growth factor receptors (IGF-IR and IGF-IIR), two polypeptide ligands (IGF-I and IGF-II), insulin receptors (IR), hybrid receptors (IGF-IR/IR), and six binding proteins (IGFBP- 1-6) are members of the complex IGF system. In addition, a large group of insulin growth factor binding protein proteases help hydrolyze insulin-like growth factor proteins. IGF-I, IGF-II and insulin bind and activate IGF-IR and IR, leading to the initiation of intracellular signaling cascades that regulate a range of biological outcomes, including metabolic, mitogenic, transformative and migration responses. Several recent studies have focused on molecular aspects of the role of the IGF system in colorectal cancer and clinical and experimental evidence linking the IGF axis to the pathogenesis of colorectal cancer. Some important evidence suggests that enhanced IGF-I/IGF-IR signaling is not only associated with increased relative risk for cancer development, but also contributes to cancer cell survival, invasion, metastasis, and resistance to chemotherapeutic drugs. It is difficult to predict what effect an inhibitor of the IGF system might have on human cancer in general and colorectal cancer in particular. However, in cancer patients, an inhibitor of the IGF system can alter the growth of established tumors. It is not yet known what the best overall strategy will be, such as gene therapy, small kinase inhibitor molecules, and therapeutic receptors. Especially when these approaches are used in combination, they can alter chemotherapy resistance or act through unpredictable mechanisms. Further high-quality experimental studies and prospective trials will be required to fully understand the biology and pathology of the IGF system in colorectal cancer, and it is hoped that this will accelerate the development of specific therapeutic strategies in this common cancer.

Keywords: Colorectal cancer, IGF-system, cancer therapeutic strategies

LİGİLACTOBACİLLUS SALİVARIUS KC27L VE LİMOSİLACTOBACİLLUS REUTERİ KC21L BAKTERİLERİNDE FARKLI FİZİKSEL ŞARTLARDA EPS ÜRETİMLERİNİN BELİRLENMESİ

DETERMINATION OF EPS PRODUCTION IN DIFFERENT PHYSICAL CONDITIONS BY
LIGILACTOBACILLUS SALIVARIUS KC27L AND LIMOSILACTOBACILLUS REUTERI
KC21L BACTERIA

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ÖZET

Prebiyotik olarak kullanılan ve endüstriyel üretim kapasitesi oldukça yüksek olan laktik asit bakterileri (LAB), üretmiş oldukları ekzopolisakkaritler (EPS) nedeniyle oldukça önem arz etmektedir. LAB'nin ürünleri, kullanım açısından uzun ömürlü ve Genel Olarak Güvenli Olarak Kabul Edilir (GRAS) olmalarından dolayı gıda endüstrisinde oldukça önemlidirler. Probiyotik ve prebiyotik özellikteki mikroorganizmaların ürettiği EPS'lerin tekstil, kozmetik, biyoremediasyon, gıda ve tedavi gibi çeşitli alanlarda kullanılması ve biyoyoumluluğunun yüksek olması biyoteknolojik olarak kullanım alanlarının genişlemesine sebep olmuştur. Bu sebepten ötürü EPS'lerin yüksek miktarlarda üretimi birçok alan için ihtiyaç haline gelmiştir. Bakterilerin sentezlediği EPS miktarı bazı çevresel koşullar ile artmaktadır. Bu çalışmada karbon kaynağı, azot kaynağı, besiyerinin pH'sı, inkübasyon zamanı, inkübasyon sıcaklığı ve CO₂ miktarı gibi çevresel faktörlerin *Ligilactobacillus salivarius* KC27L ve *Limosilactobacillus reuteri* KC21L suşlarında EPS üretimine etkisinin belirlenmesi amaçlanmıştır. Çalışma sonucunda KC27L suşu için kontrol grubuna (175 mg/L) göre karbon kaynağının sükroz (235 mg/L), azot kaynağının beef extract (291 mg/L), besiyeri pH'ının 4,5 (357 mg/L), inkübasyon zamanının 18 saat (228 mg/L), inkübasyon sıcaklığının 35°C (285 mg/L); KC21L suşu için kontrol grubuna (138 mg/L) göre karbon kaynağının sükroz (419 mg/L), azot kaynağının pepton (240,5 mg/L), besiyeri pH'ının 4,5 (232,5 mg/L), inkübasyon zamanının 18 saat (224,5 mg/L), inkübasyon sıcaklığının 35°C (215 mg/L) olduğu ortamlarda bakterilerin EPS üretim miktarlarının arttığı tespit edilmiştir.

Anahtar kelimeler: Laktik asit bakterileri, ekzopolisakkarit, optimum koşul, *Ligilactobacillus salivarius*, *Limosilactobacillus reuteri*

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ABSTRACT

Lactic acid bacteria (LAB), which are used as prebiotics and have a very high industrial production capacity, are very important due to the exopolysaccharides (EPS) they produce. LAB's products are very important in the food industry due to the fact that they are considered long-lasting for use and Generally Safe (GRAS). The use of EPS produced by probiotic and prebiotic microorganisms in various fields such as textiles, cosmetics, bioremediation, food and treatment and its high biocompatibility have cause to expansion of its use areas biotechnologically. Therefore, the production of EPS in high quantities has become a need for many areas. The amount of EPS synthesized by bacteria increases with some environmental conditions. In this study, the effect of environmental factors such as carbon source, nitrogen source, pH level of the medium, incubation time, incubation temperature and CO₂ percent on EPS production for *Ligilactobacillus salivarius* KC27L and *Limosilactobacillus reuteri* KC21L strains was purposed to determine of effect. As a result of this study, for the KC27L strain; the carbon source was sucrose (235 mg/L), the nitrogen source was beef extract (291 mg/L), the medium pH was 4.5 (357 mg/L), incubation time was 18 (357 mg/L) and the temperature was 35°C (285 mg/L) according to the control group (175 mg/L) sucrose of the carbon source (419 mg/l), peptone of the nitrogen source (240,5 mg/L), 4,5 of the medium pH (232,5 mg/l), 18 hours of the incubation time (224,5 mg/l), 35°C of the incubation temperature (215 mg/L) according to the control group (138 mg/L) for the KC21L strain have been found to increased the amount of EPS production in the specified environments.

Keywords: Lactic acid bacteria, exopolysaccharide, optimum condition, *Ligilactobacillus salivarius*, *Limosilactobacillus reuteri*

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OVERVIEW OF IRON CHELATION THERAPY

DEMİR ŞELASYON TEDAVİSİNE GENEL BAKIŞ

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ÖZET

Talasemi, otozomal resesif olarak kalıtılan hematolojik bir hastalıktır. Dünya üzerinde en yaygın görülen monogenik hastalık olarak öngörülmektedir. Bu hastalığın önemli tedavi yollarından biri demir fazlalığı ile sonuçlanan, sık ve sürekli kan nakilleridir. Düzenli kan transfüzyonunun sağladığı yaşamsal yarar yanında uzun dönemde ortaya çıkan en önemli yan etkisi, kanın içeriğindeki demirin organlarda birikimi ile oluşan klinik patolojilerdir. İnsan vücudu transfüzyondan kaynaklanan aşırı demir yükünü gidermek için fizyolojik bir mekanizmaya sahip değildir. Transfüzyon sonucu oluşan demir fazlalığının tedavisi için şu an uygulanan yöntem şelasyon tedavisidir. Şelasyon tedavisinin amacı, vücutta biriken demir yükünün azaltılması ve aşırı demir birikimine bağlı organ hasarının önlenmesidir. Şelasyon amacıyla kullanılan ilaçlar Desferrioksamin (DFO), Deferipron (DFP) ve Deferasiroks (DFX) 'tir. DFO karaciğer demirini azaltmakta, yaşam süresini uzatmaktadır. Ancak ilacın pahalı olması, uzun süreli infüzyon gerektirmesi, absorpsiyonunun düşük olması ve yüksek konsantrasyonlarda potansiyel olarak toksik etki göstermesi gibi önemli dezavantajları vardır. DFX, orak hücre anemili hastalarda demir şelasyonu için ruhsatlandırılmıştır; bununla birlikte, çocuklarda uzun vadeli etkinliği ve güvenliği hakkında sınırlı veri bulunmaktadır. DFP klinik uygulamada kullanılan ilk oral aktif demir şelatörü olmuştur ancak DFP tedavisi birçok yan etkiye sahiptir. Ayrıca şelasyon tedavisinin uzun sürmesi de bir dezavantaj olarak karşımıza çıkmaktadır. Bu nedenle daha etkili demir şelatörlerinin geliştirilmesi son yıllarda yoğun olarak çalışılan konulardan biri haline gelmiştir.

Anahtar kelimeler: Talasemi, şelasyon, transfüzyon

ABSTRACT

Thalassemia inherited autosomal recessively, is a hematological disorder. It is predicted that it is the most common seen monogenic disease in the world. One of the significant treatment methods for this disease is frequent and continuous blood transfusions resulting in iron overload. Besides the vital benefits of regular blood transfusions, the most side effects which occur in the long term are clinical pathologies that occur with the accumulation of iron in the blood content in organs. The human body doesn't have any physiological mechanism to eliminate iron overload resulting from transfusion. Currently, the method used for the treatment of iron overload involving transfusing is chelation therapy. The goal of iron chelation is the reduction of accumulating iron overload and the prevention of organ damage related to iron overload. The drug used for iron for chelation purposes is Desferrioxamine, deferiprone, and deferasirox, which are presently available. DFO reduces the liver iron level and prolongs its lifetime. However, the drug has significant disadvantages such as high cost, requiring long-term infusion, low absorption, and potentially toxic effects at high concentrations. DFX has been licensed for iron chelation in patients with sickle cell disease; however, there is limited data on its long-term efficacy and safety in children. Deferiprone has been the first orally active iron chelator used in clinical practice, but deferiprone therapy may be associated with a lot of adverse effects. Also taking a long time for the duration of the treatment comes up with a disadvantage. Therefore, the development of more effective iron chelators has become one of the issues that have been extensively studied in recent years.

Keywords: Thalassemia, transfusion, chelation

MƏSƏLƏ HƏLLİNİN BİOLOGİYANIN TƏDRİSİNDƏ ROLU. BİYOLOJİ ÖĞRETİMİNDE PROBLEM ÇÖZÜMÜN ROLU

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ÖZET

Müasir təhsilin əsas məqsədi təlim-tərbiyə prosesinin səmərəliliyini artırmaq, hərtərəfli şəxsiyyətin formalaşdırılmasına nail olmaqdır. Bu səbəbdən Azərbaycan təhsil sisteminin beynəlxalq təhsil sisteminə inteqrasiya edilməsi sahəsində uzun illərdir ki, islahatlar həyata keçirilir. Ümummillə liderimiz Heydər Əliyevin imzaladığı Təhsil islahatının həyata keçirilməsində əsas götürülən 6 prinsipdən biri məhz inteqrasiyadır.

İnteqrasiyanın əsas məqsədinin şagirdlərin təfəkküründə dünyanın bütöv və bölünməz obrazını formalaşdırmaq, onları özünüinkışafa istiqamətləndirməkdən ibarət olduğunu bilirik. İnteqrasiyanın düzgün qurulması təlim prosesini təkmilləşməsinə, şagirdlərin təfəkkürünün inkişafına, onların kompleks bilik, bacarıqlara yiyələnməsinə, dünyagörüşünün genişləndirilməsinə, təlim yükünün azaldılmasına, tədqiqatçılığa marağın artmasına, vaxtdan səmərəli istifadəyə imkan yaradır.

Müasir biologiya fənn proqramının hazırlanması zamanı həm fəndaxili, həm də fənlərarası inteqrasiya diqqət mərkəzində saxlanılmışdır. Fəndaxili inteqrasiyanın fənn üzrə məzmun xətlərini əlaqələndirməklə, müvafiq məzmun standartlarının müəyyən tədris vahidlərində ifadə olunmasını təmin edən növü üfüqi, sinifdən sinfə tədrisən dərinləşən və genişlənən məzmun xətləri arasında varisliyi təmin edən növü isə şaquli inteqrasiyadır.

Məntiqi təfəkkürü inkişaf etdirən biologiya məsələlərinin həlli zamanı şagirdlərin fənn üzrə bilik və bacarıqlarını əlaqələndirməsi mütləqdir. Məsələ həlli zamanı şagirdlər bu biliklərdən mütləq olaraq yararlanırlar. Belə ki, müasir proqramda canlılar aləmi barədə bilik və bacarıqlar biologiyanın sahələrinin (botanika, zoologiya, insanın anatomiya, fiziologiya və gigiyenası, ekologiya və s.) ayrılıqda təqdim edilməsi ilə deyil, canlıların quruluşunun, onlarda baş verən fiziki, kimyəvi, bioloji proseslərin, canlıların bir-biri ilə, ətraf mühitlə qarşılıqlı əlaqəsinin vəhdəti kimi təqdim edildiyi müəllimlərimizə bəllidir. Bu bilik və bacarıqlar hər bir təhsil səviyyəsində şagirdin yaşına və əvvəllər əldə etdiyi bilik və bacarıqlara uyğun olaraq genişləndirilir. Hər sinifdə əvvəlki mərhələdə verilən biliklərin genişləndirilməsi və dərinləşdirilməsinin nəticəsi olaraq “spiralvari” prinsipə əməl edilir.

Ümumi orta təhsil səviyyəsində VI sinfində şagirdlər canlılara xas əlamətlər, canlıların quruluşu, orqanizmlərin təşkili səviyyələri, bioloji proseslərin xüsusiyyətləri, bitki və heyvanların insan sağlamlığında rolu, onlara qulluq barədə sadə bilik və bacarıqlara yiyələnilər. Məsələ həlli zamanı bu biliklərdən istifadə edirlər. Məsələn: Yarpaqların suyu buxarlandırması ilə bağlı məsələ həlli edərək şagirdlərin hansı bitkinin nə qədər su buxarlandırıdığını, ağızcıqların quruluşunu və s. bilməsi önəmlidir. VII sinifdə artıq konkret olaraq canlıların müxtəlifliyi, təsnifatı, müxtəlif orqanizmlərdə gedən həyati proseslər, müxtəlif canlıların insan orqanizmində törətdiyi xəstəliklər, dərman bitkilərindən təyinatına görə istifadə, respublikanın flora və faunasının qorunma yolları ilə bağlı bilik və bacarıqlar formalaşdırılır. Bu zaman da məsələ həllində şagirdə həm aşağı sinifdə əldə etdiyi biliklər, həm də bu sinifdə əldə etdiyi biliklər lazım olacaq. Bir neçə nümunəyə baxaq: *Məsələ 1.*

Göl qurbağasının ətraflarında olan barmaqların ümumi sayı, xanı balığının cüt üzgəclərinin cəmindən neçə ədəd çoxdur?

İzah: Bu məsələni həll etmək üçün şagird balıqların və suda quruda yaşayanların qululuşunu bilməli, bu biliklərini əlaqələndirməli, məsələni həll etməlidir. VII sinif şagirdi bilməlidir ki, göl qurbağasının ətraflarında olan barmaqların ümumi sayı 18-dir. Xanı balığının cüt üzgəclərinə isə qarın və döş üzgəcləri aiddir. Bu biliklərə əsasən də sadə riyazi hesablamada aparmalıdır.

Məsələ 2. Kəlam çiçəklərində qısa erkəkciklərin sayının ləçəklərin sayına nisbətini hesablayın.

İzah: Bu məsələni həll etmək üçün şagird VI sinifdən çıxəyin quruluşunu bilməli, VII sinifdən isə kələmin hansı fəsiləyə aid olduğunu, bu fəsiləyə aid bitkilərin çiçək düsturunu bilməlidir.

Göründüyü kimi məzmununda olduğu kimi məsələ həlli zamanı da fəndaxili üfəqi və şaquli inteqrasiyadan istifadə olunur.

Bu nümunələr təkcə VI, VII siniflər üçün deyil bütün sinifləri əhatə edir. Beləliklə də şagird VI sinifdən XI sinifə qədər məzmunun dərinləşməsi ilə bərabər məsələlərin həllinin də çətinləşməsini müşahidə edir. Çətinlik isə yaşa, materialın həcminə, şagirdin potensial imkanlarına görə müxtəlif səviyyələrdə ola bilər.

Açar sözlər: hərtərəfli şəxsiyyət, məsələ həlli, inteqrasiya, məntiqi təfəkkür

ÖZET

Modern eğitimin temel amacı, kapsamlı bir kişilik oluşumunu sağlamak için eğitim sürecinin verimliliğini artırmaktır. Bu nedenle Azerbaycan eğitim sisteminin uluslararası eğitim sistemine entegre edilmesi alanında uzun yıllardır reformlar gerçekleştirilmektedir. Entegrasyon, milli liderimiz Haydar Aliyev tarafından imzalanan Eğitim reformunun uygulanmasına dayanan 6 ilkeden biridir.

Entegrasyonun temel amacının, öğrencilerin düşüncelerinde dünyanın bütün ve bölünmez bir imajını oluşturmak, onları kendilerini geliştirmeye yönlendirmek olduğunu biliyoruz. Entegrasyonun doğru kurulması, eğitim sürecinin iyileştirilmesine, öğrencilerin düşüncelerinin gelişmesine, karmaşık bilgi ve becerilerin edinilmesine, dünya görüşlerinin genişlemesine, eğitim yükünün azaltılmasına, araştırmaya olan ilginin artmasına ve zamanın verimli kullanımını.

Modern biyoloji konu programının hazırlanmasında hem konu içi hem de disiplinler arası entegrasyona odaklanılmıştır. İçerik satırlarını konuya göre koordine ederek belirli eğitim birimlerinde ilgili içerik standartlarının ifade edilmesini sağlayan müfredat içi entegrasyon türü yatay entegrasyon, dersten sınıfa giderek derinleşen ve genişleyen içerik satırları arasında ardışıklığı sağlayan tür dikey entegrasyondur.

Mantıksal düşünmeyi geliştiren biyoloji problemlerini çözerken, öğrencilerin konuyla ilgili bilgi ve becerilerini birleştirmeleri gerekir. Öğrenciler problem çözme sırasında mutlaka bu bilgiden yararlanırlar. Bu nedenle modern programda canlılar dünyasıyla ilgili bilgi ve beceriler, biyoloji alanlarının (botanik, zooloji, insan anatomisi, fizyoloji ve hijyen, ekoloji vb.) canlıların kendi içlerinde meydana gelen fiziksel, kimyasal, biyolojik süreçlerle, canlıların birbirleriyle ve çevreyle etkileşiminin bir birliği olarak sunulduğu öğretmenlerimize açıktır. Bu bilgi ve beceriler, her eğitim kademesinde öğrencinin yaşına ve önceki bilgi ve becerilerine göre genişletilir. Her derste bir önceki aşamada verilen bilgilerin genişletilmesi ve derinleştirilmesi sonucunda "spiral" ilkesi izlenir.

Genel ortaöğretim VI sınıfında öğrenciler, canlıların karakteristik işaretleri, canlıların yapısı, organizmaların organizasyon seviyeleri, biyolojik süreçlerin özellikleri, bitki ve hayvanların yaşamdaki rolü hakkında basit bilgi ve beceriler kazanırlar. İnsan sağlığı ve bakımı. Bu bilgiyi problem çözme sırasında kullanırlar. Örneğin: Yapraklardan suyun buharlaşması ile ilgili problemi çözerken öğrenciler hangi bitkinin ne kadar suyu buharlaştırdığını, stomaların yapısını vb. bilmek önemlidir.

VII. Sınıfta, canlıların çeşitliliği ve sınıflandırılması, farklı organizmalardaki yaşamsal süreçler, farklı canlıların insan vücudunda oluşturduğu hastalıklar, şifalı bitkilerin amaçlarına göre kullanımı, ve cumhuriyetin flora ve faunasını koruma yolları. Bu sırada öğrencinin problemin çözümünde hem alt sınıfta edindiği bilgilere hem de bu sınıfta edindiği bilgilere ihtiyacı olacaktır. Bazı örneklere bakalım: Sorun 1.

Bir göl kurbağasının uzuvlarındaki toplam parmak sayısı, bir yalıçapkını çiftinin yüzgeçlerinin toplamından kaç fazladır?

Açıklama: Bu problemin çözümü için öğrencinin suda balık ve karasal hayvanların kullanımını bilmesi, bu bilgileri birleştirmesi ve problemi çözmesi gerekmektedir. VII. sınıftaki bir öğrenci, bir göl kurbağasının bacaklarındaki toplam parmak sayısının 18 olduğunu bilmelidir. Göbek ve göğüs yüzgeçleri Khani balığının yüzgeç çiftine aittir. Bu bilgiye dayanarak basit bir matematiksel hesaplama yapılmalıdır.

Problem 2. Lahana çiçeklerinde kısa organlarındaki sayısının yaprak sayısına oranını hesaplayın.

Açıklama: Bu problemin çözümü için öğrencinin VI. sınıftan çiçeğin yapısını, VII. sınıftan ise lahananın hangi familyaya ait olduğunu ve bu familyaya ait bitkilerin çiçek formüllerini bilmesi gerekir.

Görüldüğü gibi konu içerisinde yatay ve dikey entegrasyon, içerikte olduğu kadar problem çözmede de kullanılmaktadır.

Bu örnekler sadece VI ve VII sınıfları için değil, tüm sınıfları kapsamaktadır. Böylece öğrenci, VI. sınıftan XI. sınıfa kadar içeriğin derinleşmesiyle birlikte problem çözmenin zorluğunu gözlemler. Zorluk, öğrencinin yaşına, materyalin hacmine, potansiyel yeteneklerine bağlı olarak farklı seviyelerde olabilir.

Anahtar Kelimeler: bütüncül kişilik, problem çözme, bütünleştirme, mantıksal düşünme

ABSTRACT

The main goal of modern education is to increase the efficiency of the educational process, to achieve the formation of a comprehensive personality. For this reason, reforms have been carried out for many years in the field of integrating the Azerbaijani education system into the international education system. Integration is one of the 6 principles based on the implementation of the Education reform signed by our national leader Heydar Aliyev.

We know that the main goal of integration is to form a whole and indivisible image of the world in the thinking of students, to direct them to self-development. The correct establishment of integration enables the improvement of the educational process, the development of students' thinking, their acquisition of complex knowledge and skills, the expansion of their worldview, the reduction of the training load, the increase of interest in research, and the efficient use of time.

During the preparation of the modern biology subject program, both intra-subject and interdisciplinary integration were focused. The type of intra-curricular integration that ensures the expression of relevant content standards in certain educational units by coordinating content lines by subject is horizontal integration, and the type that ensures succession between content lines that gradually deepens and expands from class to class is vertical integration.

When solving biology problems that develop logical thinking, students must connect their knowledge and skills in the subject. Students definitely benefit from this knowledge during problem solving. Thus, in the modern program, knowledge and skills about the world of living things are not provided by the separate presentation of the fields of biology (botany, zoology, human anatomy, physiology and hygiene, ecology, etc.), but by the structure of living things, the physical, chemical, biological processes

that occur in them. , it is clear to our teachers that it is presented as a unity of interaction of living things with each other and the environment. These knowledge and skills are expanded according to the student's age and previous knowledge and skills at each educational level. In each class, the "spiral" principle is followed as a result of expanding and deepening the knowledge given in the previous stage.

In the VI class of the general secondary education level, students acquire simple knowledge and skills about signs characteristic of living things, the structure of living things, the levels of organization of organisms, the characteristics of biological processes, the role of plants and animals in human health, and their care. They use this knowledge during problem solving. For example: When solving the problem about the evaporation of water from the leaves, the students asked which plant evaporates how much water, the structure of the stomata, etc. it is important to know.

In the VII grade, the knowledge and skills are formed specifically about the diversity and classification of living things, the vital processes in different organisms, the diseases caused by different living things in the human body, the use of medicinal plants according to their purpose, and the ways of protecting the flora and fauna of the republic. At this time, in solving the problem, the student will need both the knowledge obtained in the lower class and the knowledge obtained in this class. Let's look at some examples: Issue 1.

The total number of fingers on the limbs of a lake frog is how many more than the sum of the pairs of fins of a kingfisher?

Explanation: In order to solve this problem, the student should know about the use of fish and terrestrial animals in water, connect this knowledge, and solve the problem. A student of class VII should know that the total number of fingers on the legs of a lake frog is 18. Belly and pectoral fins belong to the pair of fins of Khani fish. Based on this knowledge, he should perform a simple mathematical calculation.

Problem 2. Calculate the ratio of the number of short stamens to the number of petals in cabbage flowers. Explanation: In order to solve this problem, the student should know the structure of the flower from the VI class, and from the VII class he should know which family the cabbage belongs to, and the flower formula of the plants belonging to this family.

As can be seen, horizontal and vertical integration within the subject is used during problem solving as well as in content.

These examples are not only for classes VI and VII, but they cover all classes. Thus, the student observes the difficulty of solving problems along with the deepening of the content from class VI to class XI. Difficulty can be at different levels depending on the age, volume of material, potential capabilities of the student.

Keywords: holistic personality, problem solving, integration, logical thinking

ORCHIS SANCTA’NIN YÜZEY STERİLİZASYONUNUN OPTİMİZASYONU
OPTIMIZING THE SURFACE STERILIZATION OF *ORCHIS SANCTA*

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ÖZET

Orkide, Orchidaceae familyasındaki cinslere ait türlerin tümüne verilen genel isimdir. Familya ismini *Orchis* cinsinden almıştır. Orchidaceae familyasının içerdiği tür sayıları ile ilgili farklı veriler bulunmaktadır.

Orkideler monokotil, çok yıllık, otsu bitkilerdir. Kutuplar ve çöller dışında dünyanın hemen her yerinde yetişen türleri bulunmaktadır. *Orchis sancta* boyu 45 cm ye kadar ulaşabilen ve Türkiye’de genellikle batı ve güney Anadolu’da bulunan ve doğada yetişmesi oldukça zor ve uzun yıllar alan bir orkide türüdür. Orkide bitkisi yayılış gösterdiği alanlarda genellikle tohumla çoğalmaktadır. Orkide tohumları çok küçük olup toza benzeyen bir yapıya sahiptir ve endosperm bulundurmamaktadırlar. Bu nedenle çimlenmenin ilk aşamalarında dışarıdan besin sağlaması gerekmektedir ve bu besin ihtiyacını türün kendine özgü mikoriza mantarından sağlamaktadır. Bu tohumların çimlenmesi ve çimlendikten sonra bir bitkinin meydana gelmesi için ise 2-16 yıl gibi bir süreye ihtiyacı vardır. Her bitkide genellikle 2 yumru oluşmaktadır. Bu yumruların birisi diğer sene için hasat edilmemektedir. Eski ve yeni yumru olarak isimlendirilen bu yumruların eski olan yeni yumrunun besin ihtiyaçlarını karşılar ve içi boşalmış bir şekilde kalmaktadır. Bu yumruların doğadan bilinçsizce hasat edilmesi bitki neslinin tükenmesine sebep olmaktadır.

Dünyada orkideler gıda alanında, parfüm eldesinde ve tıbbi amaçlarla kullanılmaktadır. Ayrıca süs bitkisi olarak da orkideler sektörde değerli bir yere sahiptir. Ülkemizde ise orkide türlerinden elde edilen salep, asıl kullanım alanını oluşturmaktadır. 1 kg kuru yumru elde etmek için doğadan sökülmesi gereken salep yumrusu (bitki) sayısının 1000-4350 adet arasında değiştiği belirlenmiştir. Salebin ilk toplayıcıları, topladıkları 1 kg yaş ürünü kalitesi, türü, yöresine göre farklılık göstererek 70-450 TL arasında değişken bir ücretle tüccara satmaktadırlar. Kuru salebin pazardaki kg fiyatı ise 400-1500 TL ye kadar çıkmaktadır.

Oldukça kıymetli olan orkidelerin doğal ortamları dışında çoğaltılması da kolay değildir. Dünyada bulunan orkidelerle yapılan çalışmalar uygulamada kullanılabilir sonuçlar vermemiştir.

Bu çalışmada, nesli bilinçsiz toplama sonucu yok olma tehdidiyle karşı karşıya olan ve mikroçoğaltımı amaçlanan orkidelerin toprak altından toplanan yumrularının yüzey sterilizasyonunun optimizasyonunun sağlanması amaçlanmıştır. Çalışmada yumrulara farklı konsantrasyonlardaki yüzey sterilizatörleri farklı sürelerle uygulanmış ve sonuçta sterilizasyon da kullanılan maddeler içinde %1 lik gümüş nitrat, %30 luk hidrojen peroksit ve % 4 lük ppm (Plant preservative mixture) en iyi etkiyi göstermişlerdir.

Anahtar Kelimeler: Orkide, Orchidaceae, Mikroçoğaltım, Sterilizasyon

ABSTRACT

Orchid is the general name given to all the species belonging to the genus of the Orchidaceae family. The family got its name from the genus *Orchis*. There are different data on the number of species in the Orchidaceae family.

Orchids are monocotylous, perennial, herbaceous plants. There are species that grow almost everywhere in the world except the poles and deserts. *Orchis sancta* is a species of orchid that can reach up to 45 cm in length and is usually found in western and southern Anatolia in Turkey and is quite difficult to grow in nature and takes many years. The orchid plant usually reproduces by seed in the areas where it spreads. Orchid seeds are very small, have a powder-like structure and do not contain endosperm. Therefore, at the initial stages of germination, it is necessary to provide nutrients from the outside and it provides this nutritional need from the mycorrhiza fungus unique to the species. In order for these seeds to germinate and for a plant to form after germination, it needs a period of 2-16 years. Usually 2 tubers are formed on each plant. One of these tubers is not harvested for the next year. Of these tubers, which are called old and new tubers, the old tuber meets the nutritional needs of the new tuber and remains empty inside. Harvesting these tubers unconsciously from nature causes the extinction of the plant.

In the world, orchids are used for food, perfume production and medicinal purposes. In addition, orchids have a valuable place in the sector as an ornamental plant. In our country, it is mostly used as salep. It has been reported that 1000-4350 salep tubers (plants) must be removed from nature in order to obtain 1 kg of dry tubers. The first collectors of salep sell 1 kg of wet product to the trader for a variable fee between 70-450 TL, depending on the quality, type and region. The price of dry salep per kg in the market is up to 400-1500 TL.

It is not easy to reproduce orchids, which are very valuable, outside their natural environment. Studies with orchids found in the world have not yielded usable results in practice.

In this study, it is aimed to provide optimization of surface sterilization of tubers collected from underground of orchids, whose extinction is facing the threat of extinction as a result of unconscious collection and intended for micropropagation. Lots of different concentrations for different periods of study in the sterilization sterilizers and ultimately applied to the surface of the ingredients that are used in 1% silver nitrate, 30% hydrogen peroxide and 4% ppm (Plant serve mixture) showed the best effect.

Keywords: Orchid, Orchidaceae, Micropropagation, Sterilization

**FARKLI UYGULAMA BASAMAKLARINDA OLUŞAN TÜKÜRÜK
KONTAMİNASYONUNUN FARKLI ADEZİV SİSTEMLERİN DENTİNE BAĞLANMA
DAYANIMLARINA ETKİSİNİN İNCELENMESİ**
INVESTIGATION OF THE EFFECT OF SALIVA CONTAMINATION ON DIFFERENT DENTIN
BOND STRENGTHS OF DIFFERENT ADHESIVE SYSTEMS

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ÖZET

Bu çalışmanın amacı, 3 farklı adeziv sistemin farklı uygulama basamaklarında oluşan tükürük kontaminasyonunun, adeziv sistemlerin dentine bağlanma dayanımları üzerine etkisini incelemektir. Çalışmamızda, iki basamaklı total-etch adeziv sistem, tek basamaklı self-etch adeziv sistem ve tek basamaklı universal adeziv sistem örnekleri test edildi.

Test için hazırlanan 96 adet diş üç farklı adeziv sistem olduğu için A grubu, B grubu, C grubu adı altında üç ana grupta değerlendirildi.

A grubunda iki basamaklı total-etch adeziv sistem (One Step, Bisco) incelenirken biri kontrol grubu olmak üzere, tükürük kontaminasyonunun olduğu aşamaya göre 6 alt gruba ayrıldı:

A1: Kontrol grubu (kontaminasyon yok)

A2: Asit→tükürük→yıkama→prosedür

A3: Asit→tükürük→yarı zamanlı asit→prosedür

A4: Asit→tükürük→tam zamanlı asit→prosedür

A5: Asit→prosedür→ tükürük→yarı zamanlı asit→prosedür

A6: Asit→prosedür→tükürük→tam zamanlı asit→prosedür

B grubunda tek basamaklı self-etch adeziv sistem (All-Bond SE, Bisco) incelenirken biri kontrol grubu olmak üzere, tükürük kontaminasyonunun olduğu aşamaya göre 3 alt gruba ayrıldı:

B1: Kontrol grubu (kontaminasyon yok)

B2: Self-etch adeziv→tükürük →yıkama→self-etch adeziv

B3: Self-etch adeziv→tükürük→yıkama→ront frez→yıkama→self-etch adeziv

C grubunda tek basamaklı universal adeziv sistem (All-Bond Universal, Bisco) incelenirken biri kontrol grubu olmak üzere, tükürük kontaminasyonunun olduğu aşamaya göre 3 alt gruba ayrıldı:

C1: Kontrol grubu (kontaminasyon yok)

C2: Universal adeziv→tükürük→yıkama→universal adeziv

C3: Universal adeziv→ tükürük→yıkama→ront frez→yıkama→universal adeziv

Mikro kesit alma cihazına adapte edebilmek için dişler, servikal hattın 1 mm altından okluzal yüzleri horizontal düzleme paralel olacak şekilde akrilik rezin bloklara gömüldü. Kesme cihazıyla su soğutması altında yüzeyel dentin elde edildikten sonra standart bir smear tabakası elde etmek ve dentin yüzeylerini

standart, düzgün bir hale getirmek amacıyla, dış yüzeyleri 600 gritli silikon karbit zımpara kullanılarak zımparalandı.

Çalışmamızda, kontaminasyon materyali olarak laboratuvarında hazırlanan yapay tükürük kullanıldı. Bütün gruplarda, makaslama bağlanma dayanım testi için dentin yüzeyler üzerine kompozit rezin yerleştirilirken 3 mm çapında ve 3 mm yüksekliğinde şeffaf plastik tüpler kullanıldı. Böylece 96 adet kompozit rezin örnek elde edildi. Bu örnekler 1 gün boyunca 37°C distile suda bekletildikten sonra, üniversal test cihazına yerleştirildi ve 1mm/dk'lık hızla makaslama kuvveti uygulandı.

Veriler tek yön varyans analizi (ANOVA) testi ve Tukey çoklu karşılaştırma testi kullanılarak değerlendirildi. İki basamaklı total-etch adeziv sistem için oluşturulan alt gruplar arasında dentine bağlanma dayanım değerleri açısından anlamlı farklılık bulundu ($p<0,05$). A2 grubundaki değerler diğer gruplara göre anlamlı derecede düşük bulundu. Ortalama en yüksek bağlanma dayanım değeri A1 grubunda tespit edildi, bunu sırasıyla A3, A5, A4, A6 grupları takip etti. A1, A3, A4, A5, A6 grupları arasında istatistiksel açıdan anlamlı bir fark bulunmadı ($p>0,05$). Tek basamaklı self-etch adeziv sistem için oluşturulan alt gruplar arasında B1 ve B3 alt gruplarının dentine bağlanma dayanım değerleri benzer ($p>0,05$), B2 alt grubunun değerleri ise diğer alt gruplardan istatistiksel açıdan anlamlı derecede düşük bulundu ($p<0,05$). Tek basamaklı universal adeziv sistem için oluşturulan alt gruplar arasında değerler en yüksek C1 grubunda tespit edildi, bunu sırasıyla C3, C2 takip etti. Ancak bu farklılık istatistiksel açıdan anlamlı bulunmadı ($p>0,05$).

Bu çalışmanın sınırları dahilinde, tükürük kontaminasyonunun adeziv sistemlerin dentine bağlanma dayanımlarını etkilediği ve dekontaminasyon prosedürünün kullanılan adeziv sisteme ve kontaminasyonun olduğu basamağa göre değişiklik gösterdiği sonucuna varılabilir.

Anahtar Kelimeler: Dekontaminasyon prosedürü, dentin adeziv sistemler, makaslama testi, tükürük kontaminasyonu

ABSTRACT

The aim of this study was to investigate the influence of salivary contamination on bond strength to dentin during different application stages of 3 different adhesive systems. Two-step total-etch adhesive, one-step self-etch adhesive and one-step universal adhesive were used in this study.

Ninety-six caries-free human premolars were sectioned and randomly divided into 3 groups according to adhesives used (Group A,B,C). In the group A, a two-step total-etch adhesive system (One Step, Bisco) was examined and six subgroups were divided according to the stage of saliva contamination one of which was the control group:

A1: Control group (no saliva contamination)

A2: Etching→saliva→rinsing→bonding

A3: Etching→saliva→8 s re-etching→bonding

A4: Etching→saliva→15 s re-etching→bonding

A5: Etching→bonding→saliva→8 s re-etching→bonding

A6: Etching→bonding→ saliva→15 s re-etching→bonding

One group self-etch adhesive system (All-Bond SE, Bisco) was examined in group B and three subgroups were divided according to the stage of saliva contamination, one of which was the control group:

B1: Control group (no saliva contamination)

B2: Adhesive→saliva→rinsing→re-applying adhesive

B3: Adhesive→saliva →round bur→rinsing→re-applying adhesive

In group C, a single-step universal adhesive system (All-Bond Universal, Bisco) was examined and three subgroups were separated according to the stage of saliva contamination, one of which was the control group:

C1: Control group (no saliva contamination)

C2: Adhesive→saliva→rinsing→re-applying adhesive

C3: Adhesive→saliva→round bur→rinsing→re-applying adhesive

To adapt to the microsectioner, the teeth were embedded in acrylic resin blocks with the occlusal faces from 1 mm below the cervical line parallel to the horizontal plane. After obtaining superficial dentin under water cooling with a cutting device, tooth surfaces were abraded using 600 grit silicon carbide abrasive paper to obtain a standard smear layer and to make the dentin surfaces standard, smooth.

In our study, artificial saliva prepared in the laboratory was used as the contamination material. In all groups, transparent resin tubing with a diameter of 3 mm and a height of 3 mm was used while the composite resin was placed on the dentin surfaces for the shear bond strength test. Thus, 96 composite resin samples were obtained. These samples were placed in a 37°C distilled water for 24 hours. Shear bond strength test was measured at a cross-head speed of 1mm/min using an universal test machine.

Data were analyzed by one way analysis of variance (ANOVA) and Tukey's Honestly Significant Difference post hoc test. Significant differences were found between subgroups for two-step total-etch adhesive systems in terms of dentin bonding strength values ($p<0.05$). The values in group A2 were significantly lower than the other groups. The highest average bond strength values were found in A1 group, followed by A3, A5, A4, A6 groups respectively. There was no statistically significant difference between groups A1, A3, A4, A5, A6 ($p>0.05$). The dentine bonding strength values of B1 and B3 subgroups were similar ($p>0,05$) and B2 subgroups were significantly lower than the other subgroups ($p<0,05$). Among the subgroups formed for the single-step universal adhesive system, values were found in the highest C1 group, followed by C3, C2 respectively. However, this difference was not statistically significant ($p>0,05$).

Within the limitations of this study, it can be concluded that, saliva contamination affects the dentine bonding strength of adhesive systems and that the decontamination procedure varies according to the adhesive system used and the level of contamination.

Keywords: Decontamination procedure, dentin adhesive systems, shear bond strength, saliva contamination

**SICAKLIK DEĞİŞİMİNİN DESELLÜLERİZE PERİKARDİYEL SIVI (dPF) ÜZERİNE
ETKİSİNİN VE DOKU MÜHENDİSLİĞİ UYGULAMALARINDA KULLANIMININ
İNCELENMESİ**

INVESTIGATION OF THE EFFECT OF TEMPERATURE CHANGING ON DECELLULARIZED
PERICARDIAL FLUID (dPF) AND USING IN TISSUE ENGINEERING APPLICATION

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ÖZET

Doku mühendisliği çalışmalarında hücre kültürü ile hücrelerin çoğalmasında besi yeri ve büyüme faktörlerinin önemli etkisi bulunmaktadır. Bir plazma ultrafiltratı olan desellülerize Perikardiyal Fluid (dPF) hücrelerin büyüüp çoğalması için gerekli biyokimyasal içeriğe sahiptir.

Bu çalışmada, besi yeri desteği olarak kullanılan dPF'ye sıcaklık uygulanmasının dPF biyokimyasal yapısına ve hücre kültüründe besi yeri desteği olarak kullanımına etkisinin incelenmesi araştırılmıştır. Bu amaçla dPF 56°C'de 15 dk süre bekletilerek ısı uygulaması yapılmıştır. Isı uygulaması yapılan ve yapılmayan dPF'ler besi yeri tamamlayıcısı olarak hücre kültüründe kullanılmış ve hücre canlılığı ve çoğalmasındaki etkisi mikroskopik olarak incelenmiştir.

Hücre kültürünün bir ay boyunca takibi ile sıcaklık uygulaması yapılan dPF ile her hangi bir sıcaklık uygulaması yapılmayan dPF'nin hücre canlılığı, hücre çoğalması ve morfolojilerinde tespit edilebilir değişim olmadığı gözlenmiştir. Böylece, dPF'ye sıcaklık uygulaması ile besi yeri desteği olarak kullanımında hücrelere herhangi bir olumsuz etki oluşturmadığı sonucuna varılmıştır. Ayrıca, dPF'nin besi yeri destekleyici olarak hücre kültürü çalışmalarında kullanılabileceği bu çalışma ile ortaya konulmuştur.

Anahtar kelimeler: Perikardiyal Sıvı (PF), Desellülerize Perikardiyal Sıvı (dPF), Hücre Kültürü, Doku Mühendisliği

ABSTRACT

In tissue engineering studies, media and growth factors substantially affect cell culture and cell proliferation. Decellularized Pericardial Fluid (dPF), a plasma ultrafiltrate, has the necessary biochemical content for the growth and proliferation of cells. In this study investigated the effect of applying heat to the dPF, which is used as medium support, on the dPF biochemical structure and its use as medium support in cell culture.

For this purpose, heat application was made by keeping it at dPF 56°C for 15 minutes. dPFs with and without heat treatment were used in cell culture as a medium supplement. The effects of heating treatment on dPF were examined microscopically, according to cell viability and proliferation.

It was observed that there was no detectable change in cell viability, cell proliferation, and morphology of the dPF with temperature application and the dPF without any temperature application by following the cell culture for a month. Consequently, it was shown that the application of heat to dPF and its use as medium support did not cause any adverse effects on the cells. In addition, this study demonstrated that dPF could be used as a medium supplement in cell culture studies.

Keywords: Pericardial Fluid (PF), Decellularized Pericardial Fluid (dPF), Cell Culture, Tissue Engineering

İLAÇ-HEDEF ETKİLEŞİMİ TAHMİNİ: VERİ TABANLARI VE METODLARINA GENEL BİR BAKIŞ

PREDICTION OF DRUG TARGET INTERACTION: OVERVIEW OF DATABASES AND METHODS

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ÖZET

İnsan sağlığına zararlı olduğu bilinen çok sayıda hastalık mevcuttur ve her yıl daha fazlası da keşfedilmektedir. Bu şartlarda ilaçların geliştirilme, üretilme ve etkili olma süreçlerinin hızlandırılmasının toplum için önemi yadsınamaz bir gerçektir. Uzun yıllar süregelen araştırmaların sonucunda bir ilacın keşfedilip tedaviye yönelik kullanılması amacı ile piyasaya sürülmesi çok fazla emek, maliyet ve ciddi araştırma kapasitesi gerektirmektedir.

Bir hedefin biyolojik sürecini etkinleştirmek için veya bu süreci inhibe edebilmek için ilaçlar hedef proteinlerle etkileşime girmektedirler. Bir hastalık için etkisi yüksek ve güvenilir tedaviler bulmak, büyük ölçüde moleküler terapötik hedeflerin doğru tanımlanmasına bağlıdır. İlaç geliştirme süreçleri, hesaplamalı tahmin metodolojilerinin kullanıldığı ilaç hedef etkileşimlerinin bulunması esasına dayanır. İlaç hedef etkileşimleri (DTI), ilaç moleküllerinin protein hedeflerine ne kadar iyi bağlandığını hesaplamaktadır. Bu yüzden ilaç keşfinin ilk ve en önemli basamaklarından biridir.

Çok sayıda potansiyel hedef protein ve ilaç/kimyasal bileşik eşleşmesinin var olması nedeniyle, teknolojik gelişmelerin hızına rağmen, hedef ve bileşiklerin büyük bir kısmının kapsamlı bir şekilde laboratuvar koşullarında araştırılıp çalışılması şu anda bile imkân dahilinde değildir. Bunun bir başka nedeni ise ıslak laboratuvar uygulamalarının uzun süren süreçlerinin var olması, ayrıca zor ve oldukça maliyetli yöntemler olmasıdır. Bu sebeple ilaç hedef etkileşimi tahmini yöntemlerinde kuru laboratuvar olarak isimlendirilen hesaplamalı yöntemler ıslak laboratuvar uygulamalarına her anlamda destek sağlamaktadır. Yapay zekâ ve makine öğrenimini kullanan ilaç hedef etkileşimi tahminleri; hesaplamalı ilaç keşfi, biyoloji ve kimya alanları için çok önem arz etmektedir. Hesaplamalı yöntemler sonucunda ortaya çıkan olası ilaç hedef etkileşimleri laboratuvar uygulamaları için büyük uzay alanını daraltmayı

amaçlamakla birlikte hata oranını en aza indirdiği için de tercih sebebidir. Laboratuvar deneylerinde arama alanı da hesaplama araçlarının potansiyel etkileşimlerini doğru bir şekilde tahmin etme yeteneği ile azaltılır. Bu hesaplama yöntemleri ilaç hedef etkileşimi tahmini için 3 temel kategoride; (1) ligand tabanlı yöntemler, (2) yerleştirme (docking) tabanlı yöntemler ve (3) kemogenomik tabanlı yöntemler olarak sınıflandırılabilir.

Bu bildiride, araştırmacılara ve katılımcılara ilaç hedef etkileşimleri tahmininde hesaplamalı yöntemlere genel bir bakış açısı sağlanması amaçlanmakta olup; ilaç hedef etkileşimi tahmininde kullanılan veritabanlarına, metodlarına ve bu çalışma alanının avantajlarının yanında kısıtlamalarına da değinilecektir.

Anahtar Kelimeler: İlaç-hedef etkileşimi tahmini, veritabanları, hesaplamalı yöntemler

ABSTRACT

There are many diseases known to be harmful to human health, and more are being discovered each year. In these circumstances, the need of rapid development, production and effectiveness of drugs is an undeniable reality for the society. As a result of long years of research, the discovery of a drug and its release to the market for therapeutic use requires a lot of effort, cost and serious research capacity.

Drugs interact with target proteins to either stimulate a target's biological process or in order to inhibit this process. Finding high effective and reliable treatments for a disease largely depends on the correct identification of molecular therapeutic targets. Drug development processes are based on the discovery of drug target interactions using computational predictive methodologies. Drug target interactions (DTIs) calculate how well drug molecules bind to their intended protein targets. Hence, it is the first and one of the most important stages of drug discovery.

Despite the current speed of technological developments, even now it is not possible to investigate all potential targets and compounds comprehensively, partly due to the existence of the large number of potential target proteins and drug/chemical compound pairings. Another reason is that wet laboratory applications are usually long-term processes and involve very costly and difficult methods. Therefore, computational methods, also called dry laboratory, provide support for wet laboratory applications in all aspects to make the process of predicting drug target interaction relatively easier. Prediction of drug target interactions using artificial intelligence and machine learning are of great importance for computational drug discovery. The potential drug target interactions result from computational methods are intended to narrow the large research space for laboratory applications, but are also a reason for choice because it minimizes the error rate. In drug-target interaction discovery, these computational techniques are further classified into three major categories: (1) chemogenomics based methods, (2) ligand based methods, and (3) docking-based methods.

In this paper, we aim to provide researchers and participants a general perspective on computational methods in predicting drug target interactions; the databases and methods used in drug-target interaction prediction and the advantages as well as the limitations of dry laboratory applications.

Keywords: Drug-target interaction prediction, databases, computational methods

QUANTUM CHEMICAL ANALYSIS OF PENTAZOCINE

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ABSTRACT

Pentazocine, the N-allyl derivative of phenazosin, is a potent analgesic with weak narcotic antagonist activity. It is being regulated as a subclass compound of narcotics. The physiologic effects of pentazocine are similar to morphine, and with one third of its analgesic potency. Pentazocine has been widely used in the long-range treatment of cancer pain, and it is the only agonist-antagonist analgesic that has a clinically existent, efficient oral formulation. When the literature is examined, a comprehensive quantum chemical analysis study on pentazocine has not been found. Therefore, in this study, it is aimed to investigate the structural and energetic properties of pentazocine by using computational chemistry methods. Quantum chemical methods rely on the use of computer simulation in order to estimate, interpret, or explain many properties of scientific interest in a given molecule. It is known that DFT (Density Functional Theory) techniques are frequently preferred in terms of predicting many properties such as electronic parameters and physicochemical properties of a molecule of interest in a short time and with high accuracy. In this context, molecular geometry optimization, frontier molecular orbital (HOMO-LUMO) analysis, natural bond orbital (NBO) analysis and electrostatic surface properties (ESP) of the mentioned molecule were explored using the Gaussian 16 software package. Reactivity estimation was made by calculating quantum chemical reactivity descriptors. In addition, data such as molecular volume, topological polar surface area (TPSA), molecular lipophilicity potential (MLP) map obtained using Molinspiration software were interpreted.

Keywords: Pentazocine, DFT, HOMO-LUMO, NBO

**KONTROL SİSTEMLERİNDE KÖK YER EĞRİSİ YÖNTEMİ İLE FAZ GERİLEMELİ
KOMPENSATÖR TASARIMI**
PHASE LAG COMPENSATOR DESIGN WITH ROOT LOCATION CURVE METHOD IN
CONTROL SYSTEMS

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ÖZET

Kontrol sistemlerinde karakteristik denklemin köklerini bulmak için kullanılan yöntemlerden birisi kök yer eğrisi yöntemidir. Bu yöntem sayesinde kontrol sistem tasarımcısı, sisteme eklenecek açık çevrim kutup ve sıfırlarının etkilerini veya sistem kazanç değerinin değişimini tahmin edebilmektedir. Kapalı çevrim sistemlerin kutuplarının s-düzlemindeki yerleri farklı girişler için sistemin geçici ve kalıcı durumlarda gösterdikleri tepkiye bağlıdır. Sistem tasarımcısı özellikle geçici ve kalıcı durumdaki performansı karşılayabilmek için sistem değişkenlerini ayarlamayı bilmelidir. Kök yer eğrisi yöntemi kapalı çevrim sisteminin kutuplarını grafik üzerinde gösterilmesine dayanır. Sistemin kök yer eğrilerinin s- düzleminde çizilebilmesi, tasarımcının sistem tasarımı aşamasında kalıcı ve geçici durum performans kriterlerine göre değişkenin istenilen değerlerde ayarlanabilmesini sağlamaktadır. Kontrol sistemlerinde sistem performansının iyileştirilmesi için sisteme kompensatör dahil edilebilmektedir. Sistemlerde kullanılan kompensatör çeşitlerinden birisi de faz gerilemeli kompensatördür. Faz gerilemeli kompensatör sistemin sürekli haldeki doğruluğunu düzeltir; ancak cevap hızını azaltıcı etki yapar. Bu çalışmada faz gerilemeli kompensatör tasarımı için kök yer eğrisi yöntemi kullanılmıştır. Köklerin yer eğrisi yöntemi ile tasarım, sistemin açık çevrim transfer fonksiyonuna kutuplar ve sıfırlar ekleyerek ve kök-yer eğrisinin s düzleminde istenen kapalı çevrim kutuplarından geçmesini zorlayarak, sistemin kök yer eğrisini tekrar şekillendirme esasına dayanır. Bunu gerçekleştirebilmek için örnek transfer fonksiyonları kullanılarak Matlab ortamında program yazılmış ve kompanse edilmiş ve kompanse edilmemiş sistemlerin birim basamak ve birim rampa cevapları elde edilmiştir. Elde edilen birim basamak cevabında tespit edilebilen yüzde aşım oranı, yükselme zamanı ve kalıcı durum hatası sonuçları karşılaştırılarak yorumlanmıştır.

Anahtar Kelimeler: Kök yer eğrisi yöntemi, faz gerilemeli kompensatör, birim basamak cevabı

ABSTRACT

One of the methods used to find the roots of the characteristic equation in control systems is the root locus method. Thanks to this method, the control system designer can predict the effects of open loop poles and zeros to be added to the system or the change in the system gain value. The positions of the poles of the closed-loop systems in the s-plane depend on the response of the system in transient and permanent states for different inputs. The system designer must know how to adjust system variables, especially in order to meet temporary and permanent performance. Root locus method is based on showing the poles of the closed loop system on a graph. The fact that the root locus of the system can be drawn in the s-plane enables the designer to set the variable at desired values according to the permanent and transient performance criteria during the system design phase. Compensator can be included in the system to improve system performance in control systems. One of the compensator types used in the systems is the phase lag compensator. The phase lag compensator improves the continuous accuracy of the system; however, it reduces the response speed.

In this study, root locus method was used for phase lag compensator design. Design by the root locus method is based on reshaping the root locus of the system by adding poles and zeros to the open-loop transfer function of the system and forcing the root-locus to pass through the desired closed-loop poles in the s-plane. In order to achieve this, the program was written in Matlab environment by using sample transfer functions and unit step and unit ramp responses of compensated and uncompensated systems were obtained. The percent overshoot rate, rise time and steady-state error results that can be detected in the unit step response obtained were interpreted by comparing them.

Keywords: Root locus method, phase lag compensator, unit step response

ELEKTRİK ŞEBEKELERİNDE ENERJİ HATLARI ÜZERİNDEN HABERLEŞME (PLC) TEKNOLOJİSİNİN KAÇAK ELEKTRİK KULLANIMINA ETKİLERİ

THE EFFECTS OF COMMUNICATION OVER ENERGY LINES (PLC) TECHNOLOGY IN ELECTRIC NETWORKS ON LEAK ELECTRICITY USE

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ÖZET

Geleneksel elektrik şebekeleri santrallerde üretilen elektriğin iletim ve dağıtım sistemleri üzerinden son kullanıcıya iletilmesi esasına göre kurulmuştur. Bu sistemlerde enerji ve bilgi akışı tek yönlüdür. Özellikle 2000’li yıllardan sonra ortaya atılan akıllı şebeke kavramında iki yönlü enerji ve bilgi akışından bahsedilmiştir. Akıllı şebeke; verimli, güvenilir ve acil durumlarda kendi kendini iyileştirme özelliğine sahip bir güç sistemidir. Akıllı şebeke alt yapısının kurulmasında son yıllarda akıllı sayaçlar kullanımına geçilmiştir. Akıllı sayaçlar, herhangi bir haberleşme alt yapısı kullanılarak uzaktan sayaç parametrelerinin değiştirilebilmesi-güncellenebilmesine izin veren ve anlık ölçüm değerlerini sistem merkezine iletme yeteneğine sahiptir. Akıllı sayaçların sistem merkeziyle haberleşmesini sağlayan teknolojilerden birisi de PLC (enerji hatları üzerinden haberleşme) dir. Enerji hattı üzerinden haberleşme teknolojisi fazladan bir kablolamaya gerek kalmadan mevcut enerji şebekesi üzerinden bilgi alışverişine olanak sağlayan bir yöntemdir. PLC teknolojisi geniş kapsama alanı, düşük maliyet ve yüksek adresleme yetenekleri ile akıllı şebekenin vazgeçilmez bir parçası olacağı düşünülmektedir. PLC’de; mevcut enerji dağıtım hattı kullanılarak alıcı ve verici sistemler arasında ses ve veri iletimi, otomatik veri toplama, yük kontrolü ve sistemlerin uzaktan kontrolü gibi uygulamalar amaçlanmaktadır. Özellikle PLC teknolojisi ile kırsal bölgelerde evlerde bulunan sayaçlar direklerle monte edilip uzaktan sayaç değerleri okunarak kayıp kaçak oranını azaltmak hedeflenmektedir. Türkiye’de özellikle PLC sistemi için Bitlis ili Güroymak ilçesi pilot bölge olarak seçilmiştir. Evlerdeki sayaçlar direklerle monte edilerek PLC sistemi yardımıyla uzaktan sayaç değerleri okunup olası bir kayıp kaçak önüne geçilmek planlanmaktadır.

Bu çalışmada PLC teknolojisinden bahsedilmiştir. PLC’nin kullandığı haberleşme bant aralıkları, kullanım alanları ve diğer haberleşme tekniklerine göre avantajları ve dezavantajları detaylandırılmıştır.

Anahtar Kelimeler: Akıllı Şebeke, PLC, Haberleşme Teknikleri

ABSTRACT

Traditional electricity networks have been established on the basis of transmitting the electricity produced at the power plants to the end user through transmission and distribution systems. In these systems, the flow of energy and information is unidirectional. In the concept of smart grid, which was put forward especially after the 2000s, two-way energy and information flow was mentioned. Smart grid; It is an efficient, reliable and self-healing power system in emergency situations. Smart meters have been used in the establishment of the smart grid infrastructure in recent years. Smart meters are capable of transmitting instantaneous measurement values to the system center, allowing the remote meter parameters to be changed-updated using any communication infrastructure. One of the technologies that enables smart meters to communicate with the system center is PLC (communication over power lines). Communication technology over the power line is a method that allows information exchange over the existing energy network without the need for extra cabling. PLC technology is thought to be an indispensable part of the smart grid with its wide coverage area, low cost and high addressing capabilities. In PLC; Applications such as voice and data transmission between receiver and transmitter systems, automatic data collection, load control and remote control of systems are aimed using the existing energy distribution line. Especially with PLC technology, it is aimed to reduce the loss and leakage rate by mounting the meters in the houses in rural areas and reading the meter values from a distance. In Turkey, especially for the PLC system, Güroymak district of Bitlis province has been selected as a pilot region. The meters in the houses are mounted on the poles and it is planned to read the meter values remotely with the help of the PLC system and to prevent a possible loss and leakage.

In this study, PLC technology is mentioned. The communication band gaps used by PLC, its usage areas and advantages and disadvantages compared to other communication techniques are detailed.

Keywords: Smart Grid, PLC, Communication Techniques

**AHŞAP İŞLEME MAKİNELERİNDE SES SEVİYESİNİN AZALTIILMASI İÇİN BİR
YAKLAŞIM**
AN APPROACH FOR TO REDUCTION OF SOUND LEVEL ON WOODWORKING MACHINES

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ÖZET

Bu makalede, ahşap işleme amacıyla üretilen makinelerin çalışmaları esnasında ürettikleri gürültü seviyelerinin azaltılması için önerilen bir yöntem açıklanmıştır. Rahatsız edici ses olarak tanımlanan gürültü günümüzün insanını hem fiziki hem de ruhsal olarak yükler ve strese sokar. Yüksek gürültü seviyeleri ve uzun maruz kalma olaylarında sağırılık gibi geri dönüşü olmayan sağlık problemlerinin oluşumu da mümkündür. Önemine binaen çalışma alanlarında iş kanunlarına göre sınır gürültü seviyeleri belirlenmiştir. Bu değerlerin aşılması çalışanın sağlığını doğrudan tehdit edeceğinden çalışma alanlarında çeşitli tedbirlerin alınması gerekir. Bu tedbirler arasında primer/birincil önlem olarak da isimlendirilen makinelerin daha sessiz çalışacak şekilde imal edilmesi çalışmaları her zaman makine üreticilerini meşgul etmektedir.

Ahşap işleme makinelerinde de özellikle delik delme ve kesme işlerinin yapıldığı süreçlerde yüksek gürültü seviyeleri görülebilmektedir. Makinenin ses emisyon değerlerini daha aşağıya çekebilmek için çeşitli konstrüktif değişiklikler yapılabilir, ses yutucu özelliği olan malzemeler kullanılabilir veya sesi ortama vermeyecek özel kabin tasarımları ile ses makineye hapsedilebilir. Üretimi yapılan ahşap işleme makinelerinde ses emisyon değerlerinde azaltma sağlamak için olası tedbirleri belirlemek amacı ile öncelikle makinelerin ses seviyeleri standartlara uygun şekilde ölçülerek ortaya konulmuştur. Ardından makineler için hedef ses seviyesi değerleri belirlenmiş ve bu seviye değerlerine ulaşmak amacı ile neler yapılabileceği, hangi tasarım değişikliklerinin yapılabileceği araştırılmıştır.

Anahtar Kelimeler: Makine, Ses, Gürültü, Ahşap işleme, Analiz

ABSTRACT

In this paper, a project on the reduction of noise levels, in other words, the noise levels produced by the machines designed in the R&D centre, is introduced. Noise, defined as disturbing sound, is one of the sources that disturb today's people. Both in working life and in normal life, noise stresses people and even irreversible health problems such as deafness may occur. Due to its importance, boundary noise levels have been determined in the study areas according to the statements. Since exceeding these values will directly threaten the health of the employee, various measures should be taken in the work areas. Among these measures, the work of manufacturing the machines, which are also called as primary / primary measures, to operate more silently, always occupies the machine manufacturers. High noise levels can be seen in woodworking machines, especially in the processes of drilling and cutting. To reduce the sound emission values of the machine, various constructive changes can be made, materials with sound absorbing properties can be used or sound can be confined to the machine with special cabinet designs that will not let the sound into the environment. To determine possible measures to reduce sound emission values in the woodworking machines produced, the sound levels of the machines were first measured in accordance with the standards. Then, the target sound level values for the machines were determined and it was researched what can be done and what design changes could be made to reach these level values. In this paper, possible design changes are discussed along with the measurement and analysis results.

Keywords: Machine, Sound, Noise, Woodworking, Analysis

ANALYSIS OF EFFECTS OF RANDOM WHEEL SLIP VARIATIONS ON WHEEL AND ENGINE VELOCITIES IN MECANUM WHEELED UNMANNED TERRESTRIAL VEHICLES

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ABSTRACT

In recent years, rapid developments accomplished in artificial intelligence and 5G technologies caused an increase in innovative and value-added research and development studies related to the autonomous vehicles. Unmanned terrestrial vehicles, which are mostly used in military and reconnaissance fields today, have a complex technology and structure. However, they are widely used in the fields of automotive, logistics, agriculture, space, and other industries because of that they do not have human-specific behaviors (sleep, fatigue, nervousness, etc.), and they can respond quickly, and make the best decision according to the conditions.

In the literature, purpose-made, omnidirectional direct drive wheeled vehicles are used especially in confined spaces and difficult surface conditions, the aerospace industry, logistics applications, and military applications. The multi-wheel drive control, steering-independent steering capability, and rapid adaptation to different operational tasks are the most important advantages of the systems used in these vehicles. In this study, an unmanned terrestrial vehicle with mecanum wheels is utilized as a model to enable the vehicle to perform multi-directional movement and to make its turning ability with electric motor drive instead of steering wheels.

Although a mecanum-wheeled vehicle benefits from omnidirectional maneuverability, it is exposed to random wheel slip and high-velocity vibrations creating the problems of electrical power safety, uncertain location errors, and energy wastage for heavy-duty tasks. In these wheels, natural problems such as random wheel slip and high-velocity vibration cause uncertain location errors, difficult vehicle control, and low efficiency in motion-mobility performance. Moreover, errors may occur in the odometry data due to random wheel slip resulting in low accuracy driving and data mismatch during autonomous control. Therefore, the random wheel slip parameter and its dependencies on the wheel and engine velocity form the basis of this study.

In this study, the mecanum wheels used in the model exploited in the study are triggered by DC electric motors with values changing in the range of 25 rpm – 500 rpm placed parallel to each other with 45° differences. In this sense, random wheel slip, which is the most common mechanical problem for the mecanum wheels of an unmanned terrestrial vehicle with mecanum wheels, that can move easily in confined areas and rugged difficult surface conditions because of its omnidirectional mobility, has been evaluated in terms of both wheel and engine velocity. Furthermore, the relationship between random

wheel slip and both engine and wheels velocities have been mathematically analyzed and 3rd-degree polynomial equations with respect to these parameters have been derived.

In response to the velocity variations of the mehanum wheels in the range of 0.668 - 13.366 m/s, random slip variations have been obtained in the range of 67.039 - 3.352 m^{-1} . For random wheel slip changes in this range, the engine velocities show a change in the range of 0.785-15.708 m/s. The random wheel slip dependencies of wheel velocity change and engine velocity change have been obtained as -2.68 (m/s)/ m^{-1} and -2.28 (m/s)/ m^{-1} , respectively.

Keywords: Unmanned Terrestrial Vehicle, Mechanum Wheel, Random Wheel Slip, Wheel and Engine Velocity

**EFFECT OF AXIAL PARTIAL DESIGN OF PERMANENT MAGNETS OF RADIAL FLUX
PERMANENT MAGNET SYNCHRONOUS MOTOR ON EFFICENCY**

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ABSTRACT

In this study, an innovative design that will increase the efficiency of the Radial Flux Permanent Magnet Synchronous (PMS) motor used in the propulsion system of light electric vehicles has been realized. Reducing the effects of eddy current losses is one of the factors that increase PMS motor efficiency. The variation of eddy current losses was investigated by dividing the magnets positioned in the radial direction in the axial direction. The simulated design is a radial flux PMS motor used in the propulsion system of light electric vehicles with a power of 3.2 kW and a busbar voltage of 150V. In the simulation study, finite element method (FEM) based software ANSYS Electronics Desktop was used.

Keywords: Permanent Magnet Synchronous Motor, Efficiency, Light Electric Vehicle, Finite Element Method

5G KABLOSUZ İLETİŞİM SİSTEMLERİ İÇİN DGS VE SLOT YÜKLEME TEKNİKLERİNİ KULLANARAK 28/38 GHZ ÇİFT BANTLI MİKROŞERİT YAMA ANTEN TASARIMI

28/38 GHZ DUAL BAND MICROSTRIP PATCH ANTENNA DESIGN USING DGS AND SLOT LOADING TECHNIQUES FOR 5G WIRELESS COMMUNICATIONS SYSTEMS

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ÖZET

Günümüzde kablosuz iletişimi geliştirmek için çalışmalar hızla devam etmektedir.

Bu çalışmada kablosuz iletişimde 5G milimetrik dalga sistemleri için ITU(International Telecommunication Union) ve FCC (Federal Communication Commission)'nin önerdiği 28 ve 38 GHz de çalışan bir geniş bantlı mikroşerit anten tasarımı yapılmıştır. Anten, temel olarak CST yazılımı kullanılarak geliştirilmiştir. Tasarlanan mikroşerit anten için, 6x10 mm² boyutlarında, alt tabaka için 1.6 mm yüksekliğinde, dielektrik sabiti 4.4 olan düşük maliyetli FR-4 malzemesi kullanılmıştır. Yüksek bant genişliği, empedans uyumlama ve yüksek kazanç gibi performans kriterlerinde iyileştirmek amacıyla DGS (Defected Ground Structure) ve slot yükleme teknikleri ile hem ışıma yama düzlemi hem de toprak düzlemi üzerinde fiziksel parametrik çalışmalar yapılmış ve sonuçta 2x1 mm² olan dikdörtgen yamalar ile 4 mm çapında dairesel bir yama üstünde 1 mm ve 0.5 mm lik dairesel yarıklardan oluşan bir anten elde edilmiştir.

Tasarlanan anten 28 GHz, ve 38 GHz frekanslarında, sırasıyla, 11.34 dB ve 13.66 dB geri dönüş kaybına sahiptir ve 24 GHz ile 40 GHz frekanslarını kapsayan S₁₁ -10 dB bant genişliği ise 15.68 GHz olarak elde edilmiştir.

Literatürdeki benzer anten tasarımları ile karşılaştırıldığında, bu çalışmada sunulan antenin avantajları, daha küçük boyut ve daha yüksek bant genişliğine sahip olmasıdır.

Anahtar kelimeler: Milimetrik Dalga, 5G, Mikroşerit Yama Anten, CST

ABSTRACT

Today, studies are continuing rapidly to improve wireless communication.

In this study, a broadband microstrip antenna operating at 28 and 38 GHz recommended by ITU (International Telecommunication Union) and FCC (Federal Communication Commission) has been designed for 5G millimetric wave systems in wireless communication. The antenna was mainly developed using CST software. For the designed microstrip antenna, low cost FR-4 material with dimensions of 6x10 mm², a height of 1.6 mm for the substrate and a dielectric constant of 4.4 was used. In order to improve performance criteria such as high bandwidth, impedance matching and high gain, physical parametric studies were carried out on both the radiation patch plane and the ground plane with DGS (Defected Ground Structure) and slot loading techniques. An antenna consisting of circular slits of 1 mm and 0.5 mm was obtained on a patch.

The designed antenna has a return loss of 11.34 dB and 13.66 dB at 28 GHz and 38 GHz frequencies, respectively, and the S₁₁ -10 dB bandwidth covering the 24 GHz and 40 GHz frequencies is 15.68 GHz. Compared to similar antenna designs in the literature, the advantages of the antenna presented in this study are its smaller size and higher bandwidth.

Keywords: Millimeter Wave, 5G, Microstrip Patch Antenna ,CST

TÜRKİYE’DE BÜYÜKŞEHİR BELEDİYELERİ WEB SİTE PERFORMANSLARININ ÇOK KRİTERLİ KARAR VERME YÖNTEMLERİYLE KARŞILAŞTIRILMASI
COMPARISON OF OFFICIAL WEBSITE PERFORMANCES OF METROPOLITAN MUNICIPALITIES IN TURKEY WITH MULTI-CRITERIA DECISION MAKING METHODS

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ÖZET

Bilişim teknolojilerindeki yaşanan gelişmeleri rakiplerine göre daha yakından takip eden kurumlar, önemli stratejik avantajlar elde etmektedir. Bu kurumlar, internet kullanımının yaygınlaşmasıyla, kurumsal kimliğin ifade edilmesi, üretilen bilginin paylaşılması, rutin işlemlerin gerçekleştirilmesi için web platformlarını yoğun şekilde kullanmaktadırlar. Benzer şekilde büyükşehir belediyeleri yürütmüş oldukları kamusal hizmetlerin etkinliğini ve verimliliğini artırmak için elektronik belediyeçilik anlayışını benimsemektedirler. Bu bağlamda her işletmenin/kurumun olduğu gibi büyükşehir belediyelerinin web siteleri, kurumsal kimliğinin yansıtıldığı, yüksek performansa sahip web platformları arasında yer almasının gerekli olduğu ifade edilebilir. Ayrıca kurumsal web sitelerinin kurumların görünür yüzü olduğu var sayıldığında, web site performanslarının ölçülebilir olmasını gerektirmektedir. Web site performanslarının ölçülmesine yönelik geliştirilen web analitik araçları, web sitelerinin yapısını inceleyerek geri bildirimler sağlamaktadır. Bu geri bildirimler web sitelerinin performansını iyileştirmeye yönelik çalışmaların yapılmasını ve çevrimiçi stratejilerin etkin bir şekilde değerlendirilmesini kolaylaştırmaktadır. Bu çalışmada Türkiye’de bulunan 30 büyükşehir belediyesinin web site performansları çok kriterli karar verme yöntemleriyle değerlendirilmiştir. Çalışmada kullanılan kriterler PageSpeed Insight platformundan elde edilmiştir. Kriterler ilk zengin içeriğin yüklenme süresi (First Contentful Paint), etkileşime hazır olma süresi (Time to Interactive), hız indeksi (Speed Index), görev süresi 50 ms.yi aştığında, ilk zengin içeriğin yüklenme süresiyle etkileşime hazır olma süresi arasındaki tüm dönemlerin milisaniye cinsinden toplamı olan toplam bloklama süresi (Total Blocking Time), en büyük zengin içeriğin yüklenme süresi (Largest Contentful Paint), kümülatif mizanpaj değişim süresinden (Cumulative Layout Shift) oluşmaktadır. Kriterler entropi yöntemiyle ağırlıklandırılmıştır. Ağırlıklandırılan kriterlere göre büyükşehir belediyelerine ait kurumsal web site performansları Gri ilişkisel analiz yöntemiyle karşılaştırılarak öneriler sunulmuştur. Çalışmada yer alan kısıtlar ve web sitesi performanslarına göre en başarılı büyükşehir belediyesi olan Eskişehir’i, Hatay ve Mersin izlemiştir.

Anahtar Kelimeler: Çok Kriterli Karar Verme, Web Site Performansı

ABSTRACT

Institutions that follow developments in information technologies more closely than their competitors gain significant strategic advantages. With the widespread use of the internet, these institutions use web platforms intensively to express corporate identity, share the information produced, and perform routine transactions. Similarly, metropolitan municipalities adopt the concept of electronic municipality in order to increase the effectiveness and efficiency of the public services they carry out. In this context, it can be stated that the websites of metropolitan municipalities should be among the high-performance web platforms where their corporate identity is reflected, just like every business/institution. In addition, assuming that corporate websites are the visible face of institutions, it requires that website performances be measurable. Web analytics tools developed to measure website performances provide feedback by examining the structure of websites. This feedback facilitates the work to improve the performance of websites and the effective evaluation of online strategies. In this study, the website performances of 30 metropolitan municipalities in Turkey were evaluated with multi-criteria decision making methods. The criteria used in the study were obtained from the PageSpeed Insight platform. The criteria are First Contentful Paint, Time to Interactive, Speed Index, when the task duration exceeds 50 ms, Total Blocking Time, Largest Contentful Paint, Cumulative Layout Shift, which is the sum in milliseconds of all the periods between the first rich content loading time and the time to interact with it. . The criteria are weighted using the entropy method. According to the weighted criteria, the institutional web site performances of the metropolitan municipalities were compared with the Gray relational analysis method and suggestions were presented. According to the constraints in the study and the most successful website performances, Eskişehir, which is the successful metropolitan municipality, was followed by Hatay and Mersin.

Keywords: Multi-Criteria Decision Making, Website Performance

FACE IDENTIFICATION IN SECURITY SYSTEMS

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ABSTRACT

Face recognition is the process of recognizing predefined people in videos. Machine learning can be used to extract facial regions from frames and classify them among predefined people. There are many applications; access control, verification of an action, check-in, etc. These applications can have different use cases in various domains. For example, employee check-in and check-out in the office area can be tracked using such a system. Another example is disabling the alarm system without a password through facial recognition. Some cell phones support unlocking with the face. All these use cases and more are taking place in many areas. There are several components in development that lead to face recognition: Face Detection, Face Embedding, Liveness Detection and Face Classification.

In all components of face recognition, there are various constraints that affect the performance of the whole system. Image quality, light, the distance of the person to the camera, and the angle of the person to the camera are the most critical metrics that need to be considered. Another important metric is time performance. Some applications may require real-time prediction from video footage. Therefore, a face recognition system should be able to predict at least several frames per second.

The first part of the system is face detection. In this component, the bounding box of the face is detected, where the bounding box is the rectangle that covers the face area exactly at the face boundaries. There are several open source models for this task: Opencv SSD Caffe model, Google Mediapipe, and Deep face. These models and several other studies are tested with the prepared person dataset. The models are compared in terms of stability, prediction time, the distance of the person to the camera and different camera types. As the fastest and most stable model, the Opencv SSD Caffe model is used for the face recognition part of face identification.

After the bounding box of the face is determined, this area needs to be vectorized into a feature vector. dlib, Deep face, FaceNet, and Openface are the most common studies in this area. In this study, these models are tested with different classifier combinations on the prepared dataset. In face classification, the Euclidean Classifier (EC) and Support Vector Machine (SVM) classifier are tested. In the EC, the distance between the embedding vectors in the whole dataset is compared. In the SVM classifier, the embedding vector is used as the feature vector and the model predicts the person. As the best combination, Openface Embedding and EC produced fast and accurate results in the dataset.

In the last part, a liveness detection model is trained. Liveness detection is used to determine whether the person in the video is a photo or a real person. For example, when unlocking a phone, a photo of the owner should not unlock the phone. To train such a model, a new dataset is created. As real data, direct images of people are collected. As fake data, images of photos on paper or on the phone are collected. Using the dataset, a Convolutional Neural Network (CNN)-based classification model is trained from scratch. After optimizing the dataset and model parameters, a stable liveness detection model is obtained.

As a result, all components of face recognition are developed. These components are inserted into a prediction pipeline. Live streaming video images are predicted using the face recognition pipeline and the predictions are visualized as streaming video. There are ongoing studies to improve the performance of the components, such as using a super-resolution component to improve image quality. In addition, use cases are currently being developed for the final phase of the model.

Keywords: Face Identification, Face Detection, Face Recognition, Liveness Detection

COMPARISON OF PERFORMANCE OF SOME VARIANTS OF THE ABC ALGORITHM IN NEURAL NETWORK TRAINING FOR THE ESTIMATION OF THE NUMBER OF COVID-19 CASES

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ABSTRACT

The COVID-19 pandemic, which has affected the whole world, still shows its effect. Many researchers continue to carry out studies in different fields to combat COVID-19. Estimating the number of COVID-19 cases is one of the important study topics. Estimating the number of COVID-19 cases for the future gives an idea for more effective planning. One of the artificial intelligence techniques used to estimate the number of COVID-19 cases is artificial neural networks (ANNs). To create an effective model with ANN, a successful training process is required. Within the scope of this study, ANN is trained using some artificial bee colony (ABC) algorithms to estimate the number of COVID-19 cases. These algorithms are standard ABC, aABC, ABCES, HABCES algorithms. These algorithms have advantages and disadvantages compared to each other in terms of global and local convergence ability. In the study, the number of COVID-19 cases belonging to worldwide is taken into account. Weekly data from January 2021 to September 2022 are used. Considering these data, the weekly estimation of the number of COVID-19 cases is realized. In order to achieve effective results, the related problem has been transformed into systems consisting of two, three and four inputs, and different network structures are used. 80% of the data set is used for the training process. Others are belonging to the testing process. When the training and test results are evaluated, successful results are achieved with all algorithms. On the other hand, the most effective algorithm in solving the related problem is HABCES algorithm.

Keywords: COVID-19, Neural Network, Artificial Bee Colony Algorithm

NUMERICAL SOLUTION OF FRACTIONAL ORDER OF MONKEYPOX DISEASE

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ABSTRACT

Monkeypox is a zoonotic viral infection caused by the monkeypox virus, a genus of Orthopoxvirus in the Pox family of viruses. The disease spreads from person-to-person through close contact with someone who has a monkeypox rash. The virus can also spread to people when they come into physical contact with an infected animal such as a non-human primate, terrestrial rodent, antelope, gazelle, or tree squirrel. In this paper, a fractional order mathematical model of the dynamics of disease is developed. The stability analysis of the scheme carried out and non-negative unique solution within the domain was verified. Laplace–Adomian Decomposition Method is applied to calculate an estimated solution of the system of nonlinear fractional differential equations. The solutions of fractional differential equations are obtained in the form of infinite series. The proposed series solution of the model converges swiftly to its precise value. The acquired results are related with the standard case.

Key words: Fractional Order, Numerical Solution, Monkeypox, Laplace Adomian Decomposition Method

IDENTITIES RELATED TO A PAIR OF GENERALIZED SKEW DERIVATIONS ON LIE IDEALS

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Abstract

Let R be a prime ring with a characteristic different from 2, Q_r its right Martindale quotient ring, C its extended centroid and L its non-central Lie ideal, F and G two generalized skew derivations of R . If $F(xy) \pm G(y)G(x) \pm yx = 0$, for any $y, x \in L$, then one of the following holds:

- (a) $F = 0$ and there exists $\lambda \in C$ such that $G(x) = \lambda x$, for any $x \in R$, with $\lambda^2 + 1 = 0$;
- (b) R satisfies the standard polynomial identity $s_4(x_1, \dots, x_4)$.

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NIGHTTIME LIGHT INTENSITY FOR ASSESSING THE SRI LANKAN REGIONAL ELECTRICITY DEMAND UNDER COVID-19 RESTRICTIONS: AN IMAGE BASED STATISTICAL ANALYSIS

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ABSTRACT

COVID-19 related lockdowns had a significant impact on mobility and economic activities around the world. This paper explores the impact of COVID-19 lockdowns in Sri Lanka using night-time light (NTL) intensity data obtained from Visible Infrared Imaging Radiometer Suite (VIIRS) satellite images between the period of January 2019 to March 2021. Frequency and intensity images of the satellite images thus obtained were normalized using the maximum and minimum pixel values of the images to generate raster images. The raster images were then used to observe the variation in illumination across the considered months. Dot products of the normalized intensity and frequency images were obtained to calculate the zonal statistics which yield the mean, standard deviation and variance of NTL intensity of the provinces separately. To examine the statistical impact of COVID-19 lockdowns, a visual representation and a panel regression analysis were used. Results of the analysis show that the national COVID-19 lockdown has caused a drop in electricity consumption. However, during national COVID-19 lockdowns, change in NTL intensity is negligible compared to electricity consumption. This could be due to Sri Lanka not being an industrial country and/or due to internal migration that occurred during these periods. Limitations of this study are, the time horizon considered for the study being limited only for 27 months, absence of dis-aggregated information on electricity consumption and the unavailability of lockdown related data after March 2021. Furthermore, the relationship between the economic activity of Sri Lanka with NTL intensity and electricity consumption not being considered could also be cited as a limitation of this study.

Keywords—Nighttime light, economic activities, Google Earth Engine

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SOME RESULTS ON GRACEFUL LABELING GRAPHS

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ABSTRACT

A vertex labeling is assigning of labels to the vertices that result from each edge in a graph made up of vertices and edges. If the injection from the vertices of the set $(0,1,\dots,e)$ is made in such a way that when each edge is given the label, the resulting edge labels are distinct, the vertex labeling of a graph with edges is said to be graceful. If there is a graceful labeling, a graph is said to be graceful. In this paper, we present five graphs we could find interesting and we prove that it represents the edge graceful labeling.

Keywords: graph labeling, vertex labeling, graceful labeling, edge graceful labeling.

HERMITE-HADAMARD INEQUALITIES FOR STOCHASTIC PROCESSES OF DIFFERENT TYPES OF CONVEXITY

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ABSTRACT

Inequalities play an important role in the development of all branches of mathematics. One of the most influencing results of the theory of convex functions is the Hermite-Hadamard inequality or its weighted versions. This inequality was discovered by Charles Hermite in 1883, and was proven by Jaques Hadamard in 1893. A wealth of literature of mathematical inequalities is due to determined convex functions born by the Hadamard equality. The concept of convex functions has indeed found an important place in modern mathematics, as can be seen in a large number of articles of research and books devoted to the field today. In this context, inequality of Hermite-Hadamard which one can say is the first fundamental result for the functions convex curves defined over an interval of real numbers with a natural geometric interpretation real and many applications, is attracted and continues to attract a lot of interest for elementary mathematics. Many mathematicians have devoted their efforts to generalize, refine and extend it for different classes of functions such as P-convex functions, Quasi-convex.

In this work, we give some new Hermite-Hadamard type inequalities, for stochastic processes with different types of

convexity.

Keywords: Stochastic process, Quasi convex, P-convex, Fractional Integrals, Fractional Operators, Hermite Hadamard Inequality.

PATTU WEAVING: A CRAFT OF RAJASTHAN INDIA

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Abstract

Rajasthan is one of the most spectacular grand places in the world that never fails to enchant with its rich heritage, remarkable architecture of its majestic forts, mystic havelis, grand palaces and intricately carved temples. Retaining a quaint charm in spite of its sterile land the state of Rajasthan is frequently described as ‘colourful’ or ‘vibrant’ especially for their vivid costumes which invigorate the harsh desert landscape of Thar desert and relieve the monotony of the sand, rock and scrubby trees. The state’s textiles illustrate an amalgamation of centuries of fabric exploration and handicraft skills. These textiles such as pattu weaving, bandhini, leheriya, bagru, sanganeri, kota doria, applique work etc. are made with incredible precision, are the result of an oral tradition that has passed down generations, and been honed with finesse and purpose.

The craft of ‘Pattu weaving’ is a traditional extra weft weaving technique wherein the motifs are created in contrast to the base by inserting an extra weft and giving an impression of finely embroidered fabric. The word pattu is originally derived from the word ‘patti’, which means a narrow cloth strip, referring to the thin strips used for weaving. Pattus are basically shawls or durries, crafted by the traditional weavers of the Meghwal community, a community synonymous with centuries-old Rajasthan embroidery textiles in the rural areas of Barmer, Jodhpur and Jaisalmer. Pattu, are sturdy and thick cloth which helps the tribal communities to endure the harsh mode of existence in the desert, and simultaneously symbolized their colourful and vibrant clothing traditions.

An attempt has been made to explore the production process of Pattu weaving, further the product of pattu weaving such as shawls, blankets, sarees, carpets etc. will also be discussed. The study further give emphasis on current situation of this craft.

Keywords: Pattu, Weaving, Art, Craft, Cotton, Fabric,

DETERMINING THE TRANSIT ORIENTED DEVELOPMENT (TOD) POTENTIAL OF STATIONS IN A SUBURBAN RAILWAY CORRIDOR.

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ABSTRACT

With extraordinary migration and population expansion in India, there has been an unintentional increase in the number of urban residents resulting in urban sprawls. Due to this unavoidable urban sprawl, there is a direct impact on the urban form and connectivity of the region. Since majority of the connectivity is through road networks, there is a substantial increase in the number of vehicles which in turn puts a lot of pressure on the transport infrastructure of the region. To overcome this pressure, Public Transports have been promoted because of their economical and environmentally more sustainable nature. One such public transport is Suburban Railway Service that facilitates the movement of passengers from the city core to the sub urban regions and other satellite settlements. However, bringing a new mode of public transport on ground is a major challenge as it should meet the proposed ridership and should not be under-utilized. In India, we have many examples of under-utilized public transport even after significant amount of time, like Bangalore and Kochi Metro. Under-utilized public transport is directly proportional to the increase in number of private vehicles leading to more congestion and unhealthy city conditions. Therefore, to utilize the existing transport infrastructure and to ensure that the proposed ridership is achieved, TOD is taken up as a tool.

Transit Oriented Development (TOD) is a tool that is accepted all over the world to raise densities and built environment near mass transit stations. This enables safe and practical access for non-motorized modes, such as walking and cycling, to transit stations, bus stops, and other locations in the station area, which in result promises an increased ridership. TOD reduces the dependency on Para Transits like Auto rickshaws, as the last mile connectivity is achieved majorly through Walking and Cycling. The need for having a transit oriented development in these station areas comes from the underlying issue of congestion in the country and the crucial time that is spent on travel. The study aims to determine the Transit Oriented Development potential of stations in one of the proposed Suburban Railway corridors in Bangalore. Since all the stations will have a different urban characteristics and unique passenger behaviours, it is important to acknowledge the individual station capacity for undergoing such a development. The potential will be based on various parameters like, Landuse, Population, Occupation and Travel Patterns, etc of the core TOD area. The parameters will be ranked based on the existing urban characteristic of the area and analysis will be done for all the stations. Various analysis techniques will be compared and the stations will be given ranks and preferences for the TOD development based on the observations. In case of Bangalore Suburban Railway service, this study could help the organisations

in coming up with the priority of various stations and whether or not the TOD will be successful in a particular station.

Keywords: Transit Oriented Development, Suburban Railway, Ridership, Mass Rapid Transit System.

A FRAMEWORK FOR PRIORITIZING LOCATIONS FOR CYCLING INFRASTRUCTURE INVESTMENTS IN A CITY

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ABSTRACT

India as per its new climate policy in 2022 has committed to reducing the emissions intensity of its GDP by 45 percent by 2030. The transportation sector is one of the major contributors to Green House Gas (GHG) emissions with a 13.5% share of the total emissions. About 90% of this is by the road transport sector. As per the last census in 2011, 31% of the nation's population lives in urban areas. Urban commuting is a major contributor to the GHG emissions from the transport sector. Hence, various levels of government are promoting sustainable modes of urban transport, and in this regard, cycling is highly favored. Authorities have started to recognize the environmental, social, and health benefits of cycling for daily commutes. The city of Bengaluru is the fifth largest metropolis in India with a population of 8.5 million. As the city is famous for its pleasant weather, it would be the most ideal city in India for promoting cycling as a mode of commute. About 35% of all the trips made in the city were through walking and cycling (DULT, 2010). As economic prosperity could lead to more people shifting to motorized transport modes, it is necessary to incentivize the walk and cycle trips.

In order to promote the use of bicycles, there needs to be adequate infrastructure to cater to the comfort, convenience, and safety of existing as well as future bicycle users. The city being huge, the scattered investments may not yield the expected results. Therefore, there needs to be a scientific method for investing in cycling infrastructure in the right place to get the optimum results. This study aimed to develop a framework for decision-making on where in the city shall the authorities invest in cycling infrastructure. Through literature review and Analytic Hierarchy Process (AHP), the weighted criteria for site selection, are calculated and the candidate locations are scored to finalize the sites having the ideal conditions for such investments.

Keywords: NMT, Cycling, Bicycle Infrastructure, Sustainable urban transport, Active mobility

HUMAN-CENTRIC UX DESIGN PRINCIPLES AND DESIGN THINKING: AN EMPIRICAL STUDY USING DESIGN CHALLENGES

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ABSTRACT

Do not make the user think is the fundamental design principle. The people-centred design combines analysis and creative design with research about people. Any business or profession can use design thinking as a tried-and-true method for solving issues. The design thinking procedure begins with problem definition and continues through prototyping, gathering feedback, and redefining the problem statement. It covers an individual's experience with a product and overall satisfaction with it. This research aims to demonstrate how design innovation theories and concepts—which are drawn from the principles of user experience design—can be objectively comprehended. The UX design procedure is explained using two design challenges. In-depth research is conducted on the implementation and demonstration of the known-unknown map, stakeholder mapping, journey mapping, affinity mapping, concept generation matrix, and prototyping to refine the problem statement and generate "how may we?" statements to turn those challenges into opportunities for design.

Participants - We posed a questionnaire to a diverse sample of 198 individuals of varying ages and professions. After the questionnaire, we select some individual of 72 people for direct observation. For this research, we have conducted interviews which include 14 doctors, 18 pharmacists, 23 individuals and 17 senior citizens (age above 65) to deep dive into the UX research.

Keywords- people-centred design, known-unknown map, journey mapping, affinity mapping, concept generation matrix

UX STUDY ON HANDHELD AUGMENTED REALITY GAMES BY APPLYING SPRADLEY'S NINE DIMENSIONS DESIGN PRINCIPLE

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ABSTRACT

The first step in researching augmented reality was making a head-mounted three-dimensional display at the beginning of 1968. The idea behind a three-dimensional display is to show the user a perspective image from a different point of view that changes as the user moves. Since that time, the majority of growth in augmented reality has been driven by technology. The researcher's emphasis on AR's technological aspects, such as its hardware and software, has resulted in very few initiatives directed toward user experience and exploration studies. To address the transition of the notion of augmented reality from research/laboratories to the general user, it is necessary to approach the technology in a more user-friendly, user-centric manner. In this study, we focus on handheld augmented reality (HAR) gaming applications and propose to employ Spradley's nine dimensions to investigate components of handheld augmented reality experience so that designers may comprehend the human-centric design approach. we posted a questionnaire to a diverse sample of 215 individuals. After the questionnaire, we select 35 individuals and provide them with our iPhone11 to play AR Gamest for direct observation.

In the result, we found out 61.9% of users know about HAR games, and 8.1% of users played the AR game without understanding that it is known to handle augmented reality implying that even after utilising augmented reality, many are unaware of it. 28.2% (strongly agree) and 32.5% (agree) on the issue that it is easier to get skilled at AR games. We conclude our research by finding out there are 4 insights related to the HAR games. The detail of these insights is discussed in context with the human-centric design in HAR games.

Keywords: handheld augmented reality (HAR), user-centric, Spradley's nine dimensions, human-centric design

**TRAINING NEEDS OF HISTORY – GEOGRAPHY TEACHERS IN
HIGH SCHOOLS IN THE MEKONG DELTA**

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ABSTRACT

Since 2018, Vietnam has been innovating its educational program, especially at the high school level. In the new program, the lower secondary school level will combine 2 subjects History and Geography into 1 subject, History - Geography. That fact raises a problem that needs to be solved, which is to have teachers for History - Geography subjects. This requires pedagogical universities to quickly organize training to meet the requirements of the change. The Mekong Delta is home to a large population of Vietnam, with a large number of high school students, so the need for teacher training is very necessary.

This article aims to survey the actual needs of teacher training in History - Geography in the Mekong Delta, thereby defining more clearly the actual needs of teacher training, as a basis to pedagogical schools in Vietnam recruitment and training.

Keywords: Education, History, Geography, high school, Mekong Delta

**SIEVE ANALYSIS AND PETROGRAPHIC EVIDENCES OF TYPICAL NERITIC MARINE
JODU SILTSTONE DEPOSIT, GWANDU FORMATION, SOKOTO BASIN,
NORTHWESTERN NIGERIA**

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Abstract

Sedimentological study of Jodu Siltstone was necessitated to determine its textural properties and petrographic attributes in understanding the porosity and permeability capability of the particles and their paleoenvironment of deposition. The litho-section is composed of succession of kaolinite at the base, followed by massive silty claystone, intensively burrowed, bioturbated claystone and laminated siltstone of deep marine environment; separated unconformably from overlying continental ferruginized ironstone. Grain size of the Jodu samples vary from 8.150-8.183, indicative of very fine silt, deposited beyond effective wave baseline in deep marine environment by suspension in quiet water body. Deposition was by nephloid mechanism without internal wave energy, thereby, resulted to deposition of laminated siltstone. Sorting (σ) values vary 0.298-0.310, described as very well sorted sediment. Skewness (SK) value is 0.485-0.538 belonging to fine tail deposited particles. The kurtosis values range from 1.094-1.314 of both leptokurtic and platykurtic, characterized by unimodal source. Bivariate cross plot of skewness against sorting indicated a marine plot far from marine/fluvial boundary suggestive of sedimentation in deep marine setting, possibly within Middle Neritic or beyond. Petrographic point count of quartz (Q), feldspar (F) and rock fragment (RF) distribution on ternary plot, classifies the sediments as subarkose, indicative of mineralogical submature siltstone. Heavy mineral ZTR Index values vary from 70.0-76.4 %, depictive of mineralogical submature sediments. Therefore, the textural properties of Jodu Siltstone are excellent in terms of porosity and permeability because the sediments are characterized by very fine silt size, very well sorted grains, well round grain shape and fine tail sediment pack.

**AKUT KORONER SENDROMLARDA SAĞLIK İNANÇ MODELİ'NE DAYALI YAPILAN
ARAŞTIRMALAR: SİSTEMATİK BİR İNCELEME**

STUDIES BASED ON THE HEALTH BELIEF MODEL IN ACUTE CORONARY SYNDROM: A
SYSTEMATIC REVIEW

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ÖZET

Akut koroner sendromlar, dünyada ve ülkemizde başta gelen ölüm nedenleri arasında yer almaktadır. Prevalansı giderek artan, yaşam kalitesini düşüren, yüksek mortalite ve morbidite oranlarına sahip akut koroner sendromlarda semptom yönetiminin sağlanabilmesi ve yaşam kalitesinin arttırılabilmesi için teoriye temellendirilmiş hasta girişimlerinin planlanması gerekmektedir. Sağlık İnanç Modeli, özellikle kardiyovasküler hastalıkları olan hastalarda sağlığı koruyucu ve geliştirici davranışların eğitimi için uygulanabilir teorik modellerden biridir. Bu araştırmada; akut koroner sendromlu hastalara yönelik Sağlık İnanç Modeli'ne dayalı yapılan araştırmaların sistematik olarak incelenmesi ve sağlık profesyonellerine bir rehber oluşturulabilmesi amaçlanmıştır. Konuyla ilgili makalelere ulaşmak için Pubmed, Google Scholar ve ScienceDirect arama motorlarında “sağlık inanç modeli”, “akut koroner sendrom”, “miyokard infarktüsü”, “koroner arter hastalığı” ve “uygulama” anahtar kelimelerinin Türkçe ve İngilizce çeşitli kombinasyonları ile 2012-2022 tarihleri arasında yayımlanan makalelerin retrospektif literatür taraması yapılmıştır. Konu ile ilgili 935 makaleye ulaşılmış ve araştırmaya dahil olma kriterlerine uyan üç makale araştırma kapsamına alınarak incelenmiştir. Bu sistematik incelemede, akut koroner sendromlu hastalara sağlık inanç modeline dayalı eğitim programları kullanılarak yapılan eğitim müdahalelerinin bireylerin hastalıklarına yönelik bilgi, farkındalık, duyarlılık, ciddiye, engel ve yarar algılarında olumlu yönde fark yarattığı belirlenmiştir. Araştırma sonuçları, akut koroner sendromlar ile ilgili bilgi, tutum ve davranışların geliştirilmesine yönelik bireyselleşmiş ve topluma yönelik eğitim müdahalelerinin kısıtlı sayıda olduğunu göstermiştir. Görülme sıklığı küresel olarak her geçen gün artan akut koroner sendromlarda semptom kontrolünün sağlanabilmesi için bireylerin bilgi, duyarlılık ve ciddiye algısını arttıracak; olumlu sağlık davranışlarını geliştirecek daha fazla sayıda teorik temelli girişimsel müdahalelerin yapılması önerilmektedir.

Anahtar Kelimeler: Akut Koroner Sendrom, Sağlık İnanç Modeli, Uygulama.

ABSTRACT

Acute coronary syndromes are among the leading causes of death in the world and in our country. In order to provide symptom management and improve quality of life in acute coronary syndromes with increasing prevalence, decreasing quality of life, and high mortality and morbidity rates, theory-based patient interventions should be planned. The Health Belief Model is one of the applicable theoretical models for the education of health protective and improving behaviors, especially in patients with cardiovascular diseases. In this study; It is aimed to systematically examine the studies based on the Health Belief Model for patients with acute coronary syndrome and to create a guide for health professionals. In order to reach the articles on the subject, using Pubmed, Google Scholar and ScienceDirect search engines, with various combinations of the keywords "health belief model", "acute coronary syndrome", "myocardial infarction", "coronary artery disease" and "practice" in Turkish and English were a retrospective literature review of the articles published between 2012-2022 was conducted. 935 articles related to the subject were reached and three articles that met the inclusion criteria were included in the research. In this systematic review, it was determined that educational interventions using education programs based on the health belief model for patients with acute coronary syndrome made a positive difference in the knowledge, awareness, sensitivity, seriousness, disability and benefit perceptions of individuals about their disease. The results of the study showed that there are limited number of individualized and community-oriented educational interventions aimed at improving knowledge, attitudes and behaviors related to acute coronary syndromes. It will increase the perception of knowledge, sensitivity and seriousness of individuals in order to provide symptom control in acute coronary syndromes, the incidence of which is increasing globally day by day; It is recommended that more theoretically-based interventional interventions be made that will improve positive health behaviors.

Keywords: Acute Coronary Syndrome, Health Belief Model, Practice.

**KADINLARA VERİLEN MENAPOZ EĞİTİMİNİN VE YAPILAN TARAMALARIN
MENAPOZ TUTUMUNA ETKİSİ**
THE EFFECT OF MENOPAUS EDUCATION AND SCREENINGS GIVEN TO WOMEN ON
MENOPAUS ATTITUDE

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ÖZET

Menopoz, 12 aylık amenorenin ardından adet kanamasının kalıcı olarak kesilmesi sürecidir. Kadınların doğal üreme döngüsünün sonunu işaret eden önemli bir yaşam evresidir. Bu araştırmanın amacı kadınlara menopoz hakkında eğitim verilerek menopoz hakkındaki tutumlarını olumlu yönde etkilemektir. Araştırma ön test-son test modeline dayalı yarı deneysel bir çalışma olarak gerçekleştirildi. Araştırma Mart-Haziran 2022 tarihleri arasında eğitim verilen 95 kadınla gerçekleştirildi. Dört hafta boyunca kadınlara menopoza ilişkin eğitimler verildi. Eğitim sonrası eğitime katılan kadınlara KETEM tarafından taramalar yapıldı. Araştırma verilerinin toplanmasında “Tanıtıcı Bilgi Formu” ve “Menopoza İlişkin Tutum Ölçeği (MİTO)” kullanıldı.

Kadınların menopoza yönelik tutumları hem eğitim öncesi hem de eğitim sonrası değerlendirildi. Araştırmaya katılan kadınların yaş ortalaması 47.62 ± 8.35 (min:30-67) olarak bulunmuştur. Katılımcıların çoğu üniversite düzeyinde eğitim almış (%42.1), %53.7’i çalışıyor, %50.5’i gelir gidere denk, çoğunluğunun evli (%85.3), çocuk sahibi (%87.4) ve çekirdek aile yapısına sahip (%90.5) olduğu belirlenmiştir. Kadınların eğitim öncesi MİTO puan ortalaması 40.98 ± 11.6 , eğitim sonrası MİTO puan ortalaması ise 42.27 ± 12.2 olup, eğitim öncesi ve eğitim sonrası MİTO puan ortalamaları arasında istatistiksel olarak önemli farklılık bulunmamıştır ($p > 0.05$). Kadınların sosyo-demografik özelliklerinden gelir düzeyi, medeni durumları ile eğitim öncesi ve sonrası MİTO puan ortalamaları arasında istatistik olarak önemli bir farklılık bulunmuştur ($p < 0.05$). Kadınların sosyo-demografik özelliklerinden eğitim durumları, menopoza girmiş bulunmaları ile yalnızca eğitim öncesi MİTO puan ortalamaları arasında istatistik olarak önemli bir farklılık bulunmuştur ($p < 0.05$).

Sonuç olarak eğitimde yer alan kadınların eğitim sonrası menopoza yönelik tutumlarının olumlu olduğu arttığı görülmektedir.

Anahtar Kelimeler: Kadın, Menopoz, Menopoz Eğitimi, Tutum

ABSTRACT

Menopause is the process of permanent cessation of menstrual bleeding after 12 months of amenorrhea. It is an important life stage that marks the end of a female's natural reproductive cycle. The aim of this research is to give women education about menopause and to affect their attitudes about menopause in a positive way. The research was carried out as a quasi-experimental study based on the pretest-posttest model. The research was carried out with 95 women who were trained between March and June 2022. For four weeks, women were given training on menopause. After the training, the women who participated in the training were screened by KETEM. "Introductory Information Form" and "Attitude Scale Regarding Menopause (MITO)" were used to collect research data.

Women's attitudes towards menopause were evaluated both before and after education. The mean age of the women participating in the study was 47.62 ± 8.35 (min:30-67). It was determined that most of the participants were educated at university level (42.1%), 53.7% of them are working, 50.5% of them are equal to income and expenditure, the majority of them are married (85.3%), have children (87.4%) and have a nuclear family structure (90.5%). The mean MIT score of the women before the education was 40.98 ± 11.6 , and the mean MIT score after the education was 42.27 ± 12.2 , and there was no statistically significant difference between the mean MIT scores before and after the education ($p > 0.05$). A statistically significant difference was found between the socio-demographic characteristics of the women, their income level, marital status, and the MITÖ score averages before and after the education ($p < 0.05$). A statistically significant difference was found between the socio-demographic characteristics of the women, their educational status, menopause, and only the mean scores of MITÖ before education ($p < 0.05$).

As a result, it is seen that the attitudes of the women participating in the education towards menopause have increased after the education.

Keywords: Woman, Menopause, Menopause Education, Attitude

**OBEZİTE HASTALIĞI VE OBEZ BİREYLERLE İLGİLİ YAPILAN TEZLERİN YAYINA
DÖNÜŞTÜRÜLMESİNİN ARAŞTIRILMASI**
INVESTIGATION OF THE CONVERSION OF THESES RELATED TO OBESITY DISEASE AND
OBESIC INDIVIDUALS

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ÖZET

Çalışmanın amacı; Türkiye’de obezite alanında yapılan tıpta uzmanlık, doktora ve yüksek lisans tezlerinin ulusal ve uluslararası dergilerde yayınlanma durumunun değerlendirilmesidir. 1981-2020 yılları arasındaki obezite,obesite ve obez konulu tezlerine Ulusal Tez Merkezi veri tabanından ulaşılmıştır. Tezlerin yazar ve danışman adı Google Akademik akademik veri tabanlarında aratılmış, makale ve tezin içeriği ile başlığı karşılaştırarak makalenin tezden üretilme durumu araştırmacılarca belirlenmiştir. Araştırmamızda 1981 yılından 2020 yılına kadar olan toplam 1143 tezin tamamı değerlendirmeye alınmıştır. Tezlerin %79.9’u 2009-2019 yılları arasında olup tez sahiplerinin %33.1’i erkektir. Tezlerin 566’sı (%47.7) tıpta uzmanlık olup bunların içerisinde en fazla iç hastalıkları 187 (%16.5) alanları ile ilgilidir. Tezlerin yayına dönüşme oranları ise erkeklerde %24.5 olup 2010 sonrası yapılan tezlerde yayına dönüşme oranı daha yüksektir(%22.5). Tezlerin üçte biri İstanbul’daki üniversitelerden çıkarken, en çok yayın %6.1 ile İstanbul üniversitesi olmuştur.

Anahtar Kelimeler: Obezite, obes, tez

ABSTRACT

The aim of the study; The aim of this study is to evaluate the publication status of medical specialization, doctorate and master's theses in the field of obesity in national and international journals. The theses on obesity, obesity and obesity between 1981-2020 were accessed from the National Thesis Center database. The names of the authors and advisors of the theses were searched in Google Academic academic databases, and by comparing the content of the article and thesis with the title, the status of producing the article from the thesis was determined by the researchers. In our research, all 1143 theses from 1981 to 2020 were evaluated. 79.9% of the theses are between 2009-2019 and 33.1% of the thesis owners are male. 566 (47.7%) of the theses are specialization in medicine, and 187 (16.5%) of them are related to the fields of internal medicine. The rate of publication of theses is 24.5% for males, and the rate of publication for theses made after 2010 is higher (22.5%). While one third of the theses came from universities in Istanbul, the most publications were from Istanbul universities with 6.1%.

Key words: Obesity, obes, thesis.

**TURKİYE’ DE FİZİYOTERAPİ VE REHABİLİTASYON ALANINDA VİDEO TABANLI
EGZERSİZ EĞİTİMİ UYGULANAN LİSANSÜSTÜ TEZLERİN İNCELENMESİ**
THE EXAMINATION OF GRADUATE DISSERTATIONS THAT APPLIED VIDEO-BASED
EXERCISE TRAINING IN THE FIELD OF PHYSIOTHERAPY AND REHABILITATION IN
TURKEY

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ÖZET

Son yıllarda teknolojinin gelişmesiyle birlikte sağlık alanında sanal gerçeklik uygulamalarının kullanımı artmaktadır. Özellikle video tabanlı egzersiz eğitimi Fizyoterapi ve Rehabilitasyon alanında tedavi ve farklı amaçlar için kullanılmaktadır. Video tabanlı egzersiz eğitimlerinin lisansüstü çalışmalarında kullanılması artmaktadır. Bu çalışmada Türkiye’de Fizyoterapi ve Rehabilitasyon alanında video tabanlı egzersiz eğitimi uygulanan lisansüstü tezleri incelemek ve bu eğitim yaklaşımının alan ve yıl eğilimlerini belirlemek amaçlanmıştır. Çalışmada Yükseköğretim Kurulu Ulusal Tez Merkezi ‘Video Tabanlı Eğitim’, ‘Sanal Gerçeklik’ ve ‘Exergame’ anahtar kelimeleri kullanılarak 2010-2022 yılları arasındaki içerik analizi ile lisansüstü tezleri taranmıştır. İncelenen bu anahtar kelimelerle toplam 30 lisansüstü teze ulaşılmıştır. Bunların 20’si yüksek lisans 10’u doktora tezinden oluşmaktadır. Lisansüstü tezlerin konu başlıklarına göre 4’ü (%13,3) Ortopedi, 4’ü (%13,3) Kardiyopulmoner, 5’i (%16,6) Genel Fizyoterapi, 8’i (%26,6) Nöroloji, 2’si (%6,6) Kadın Sağlığı, 4’ü (%13,3) Pediatri ve 3’ü (%10) Geriatri alanlarında olduğu saptanmıştır. Yıllara göre dağılımı ise 2010 yılında 1 tez, 2015 yılında 1 tez, 2018 yılında 2 tez, 2019 yılında 3 tez, 2020 yılında 10 tez, 2021 yılında 7 tez, 2022 yılında 4 tez şeklinde belirlendi. Video tabanlı egzersiz eğitimlerinin Fizyoterapi ve Rehabilitasyon alanındaki gelişiminin takip edilmesi ve bu alanda çeşitli konularda çalışma yapmak isteyen araştırmacılara konulara ve yıllara göre eğilim bilgisi vermesi önemlidir. Gelecekteki video tabanlı egzersiz eğitimi uygulamak isteyen araştırmacılara yararlı olabileceği düşünülmektedir.

Anahtar Kelimeler: Video Tabanlı Eğitim, Sanal Gerçeklik, Exergame, Fizyoterapi ve Rehabilitasyon

ABSTRACT

With the development of technology in recent years, the use of virtual reality applications in the field of health has been increasing. Especially video-based exercise training is used for treatment and different purposes in the field of Physiotherapy and Rehabilitation. The applications of video-based exercise training in graduate dissertations are increasing. In the present study, it was aimed to examine the graduate dissertations on video-based exercise training in the field of Physiotherapy and Rehabilitation in Turkey and to determine the field and year trends of this educational approach. In the study, graduate dissertations of the National Dissertation Center of the Council of Higher Education were scanned with content analysis between the years 2010-2022 using the keywords 'Video-Based Training', 'Virtual Reality', and 'Exergame'. A total of 30 graduate dissertations were reached with these keywords. Of these, 20 are master's and 10 are doctoral dissertations. According to the subjects of the postgraduate dissertations, 4 (13.3%) of them were conducted in Orthopedics, 4 (13.3%) of them written in Cardiopulmonary, 5 (16.6%) of them executed in other physiotherapy topics, 8 (26.6%) of them carried out in Neurology, 2 (6.6%) of them written in Women's Health, 4 (13.3%) of them were executed in Pediatrics, and 3 (10%) of them were carried out in Geriatrics. The distribution by years was determined as 1 dissertation in 2010, 1 dissertation in 2015, 2 dissertations in 2018, 3 dissertations in 2019, 10 dissertations in 2020, 7 dissertations in 2021, and 4 dissertations in 2022. It is important to follow the development of video-based exercise training in the field of Physiotherapy and Rehabilitation and to provide trend information according to subjects and years to researchers who want to work on various subjects in this field. It is thought that it may be useful to researchers who want to apply video-based exercise training in the future.

Keywords: Video-based Training, Virtual Reality, Exergame, Physiotherapy and Rehabilitation

**FİZİKSEL ENGELLİ BİREYLERDE FİZİKSEL AKTİVİTE, YAŞAM MEMNUNİYETİ, İYİ
OLUŞ VE VÜCUT İMAJININ İNCELENMESİ**

EXAMINATION OF PHYSICAL ACTIVITY, LIFE SATISFACTION, WELL BEING AND BODY
IMAGE IN PHYSICALLY DISABLED INDIVIDUALS

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ÖZET

Bu çalışmanın amacı tekerlekli sandalye ile mobilitelerini sağlayan ve yürüyebilen fiziksel engelli bireylerde fiziksel aktivite, yaşam memnuniyeti, iyi oluş düzeyi ve vücut imajının incelenmesiydi. Çalışmaya yaş ortalaması 26,12±9,24 yıl olan 24 birey katıldı. Bireylerin eğitim düzeyi, çalışma durumu, medeni hali sorgulandıktan sonra fiziksel engelin sebebi, tanı yaşı, mobilite düzeyi, fizyoterapi programına katılım gibi bilgileri kaydedildi. Fiziksel aktivite düzeyini değerlendirmek için Bedensel Engelliler İçin Fiziksel Aktivite Ölçeği, yaşam memnuniyetini değerlendirmek için Yaşam Tatmin Ölçeği (YTÖ), iyilik halini ölmek için Dünya Sağlık Örgütü tarafından geliştirilen 5 maddelik iyi oluş ölçeği (WHO-5), vücut imajını değerlendirmek için Bedeni Beğenme Ölçeği (BBÖ) kullanıldı. Tekerlekli sandalye kullanan ve yürüyebilen bireylerin yaşam memnuniyeti, iyi oluş düzeyi, fiziksel aktivite düzeyi ve vücut imajının karşılaştırılmasında Mann Whitney-U testi kullanıldı. Çalışmaya katılanların %58,3'ü kadın, %41,7'si erkekti. Katılımcıların %54,2'sinin tanısı serebral palsy idi. Diğer tanılar arasında omurilik yaralanması, çocuk felci, spina bifida, inme, multiple skleroz ve muskuler distrofi bulunmaktaydı. Katılımcıların hepsi düzenli fizyoterapi ve rehabilitasyon hizmeti almaktaydı. Katılımcıların %45,8'i tekerlekli sandalye ile mobilitelerini gerçekleştirmekte idiler. %54,2'si ise

bağımsız bir şekilde veya ortez, baston, yürüteç gibi yürüme yardımcıları ile yürüyerek mobilitelerini sağlamakta idiler. Çalışmaya katılan bireylerin YTÖ skoru $17,44\pm 7,04$ olarak, Bedensel Engelliler İçin Fiziksel Aktivite Ölçeği skoru $16,61\pm 10,43$ olarak, WHO-5 skoru $12,47\pm 4,81$ olarak, BBÖ skoru $37,65\pm 7,68$ olarak bulundu. Tekerlekli sandalye kullanan bireylerle yürüyebilen bireylerin yaşam tatmini, iyi oluş, vücut imajı ve fiziksel aktivite düzeyleri arasında anlamlı fark yoktu ($p>0,05$). Bu çalışmanın sonuçları tekerlekli sandalye ile mobilitelerini sağlayanlar ve yardımcı cihaz ile veya bağımsız yürüyebilen yetişkin bedensel engelli bireylerde yaşam tatmini, iyi oluş, vücut imajı ve fiziksel aktivite düzeyleri açısından fark olmadığını göstermektedir.

Anahtar kelimeler: Fiziksel engelliler, fiziksel aktivite, vücut imajı, yaşam memnuniyeti

ABSTRACT

The aim of this study was to examine physical activity, life satisfaction, well-being and body image in physically disabled individuals who are able to walk and mobility with a wheelchair. Twenty-four individuals with a mean age of 26.12 ± 9.24 years participated in the study. After questioning the education level, employment status and marital status of the individuals, information such as the reason for the physical disability, age at diagnosis, level of mobility, and participation in the physiotherapy program were recorded. Physical Activity Scale for Individuals with Physical Disabilities was used to assess the level of physical activity, Satisfaction With Life Scale (SWLS) was used to assess life satisfaction, 5-item well-being scale (WHO-5) developed by the World Health Organization to measure well-being, (BAS) was used to assess body image. Mann Whitney-U test was used to compare the life satisfaction, well-being level, physical activity level and body image of individuals who use wheelchairs and can walk. 58.3% of the participants were female and 41.7% were male. The diagnosis of 54.2% of the participants was cerebral palsy. Other diagnoses included spinal cord injury, polio, spina bifida, stroke, multiple sclerosis, and muscular dystrophy. All of the participants were receiving regular physiotherapy and rehabilitation services. 45.8% of the participants were performing their mobility with a wheelchair. 54.2% of them were able to provide their mobility by walking independently or with walking aids such as orthoses, canes and walkers. Individuals participating in the study had a SWLS score of 17.44 ± 7.04 , a Physical Activity Scale for Individuals with Physical Disabilities as 16.61 ± 10.43 , a WHO-5 score of 12.47 ± 4.81 , and a BAS score of 37.65 ± 7.68 . There was no significant difference between the life satisfaction, well-being, body image and physical activity levels of individuals who use wheelchairs and those who can walk ($p>0.05$). The results of this study show that there is no difference in terms of life satisfaction, well-being, body image and physical activity levels in wheelchair mobility and adult physically disabled individuals who can walk with an assistive device or independently.

Keywords: Physically disabled, physical activity, body image, life satisfaction

SLEEP IN CHILDREN WITH CEREBRAL PALSY: A REVIEW

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ABSTRACT

Cerebral Palsy (CP) is a non-progressive but persistent developmental disorder in the developing fetal or newborn brain that causes dysfunction in children. The incidence of CP in Turkey is 4.4 per 1000 live births.

Healthy sleep has an important in the growth and development of children. Sleep disorders in children for different reasons can lead to decreased school success, behavioral problems, psychological problems and metabolic complications. For these reasons, early recognition of sleep problems in children and the suitable approach are very important. Children with CP are at higher risk for sleep problems than their typically developing peers.

Sleep-related problems in CP can negatively affect daily life and treatments, leading to various behavioral and attention problems. In addition, sleep problems negatively affect children's daily behavior, education and school life. Sleep problems negatively affect the quality of life of both the child and the caregivers in CP. The sleep problems seen in children with CP are scanned inadequately, they are not reported sufficiently by the parents, and as a result, they are often not diagnosed.

Within the scope of all this information, it is aimed to explain the possible risk factors associated with the development of sleep problems in children with CP, to discuss the effects of these problems on the child and the caregiver, and to increase awareness about sleep disorders in CP.

Keywords: Cerebral Palsy, Children, Sleep

YENİLEBİLİR BÖCEKLERE GASTRONOMİ VE BESLENME AÇISINDAN BİR BAKIŞ A OVERVIEW OF EDIBLE INSECTS IN TERMS OF GASTRONOMY AND NUTRITION

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ÖZET

Beslenme, bireylerin yaşamlarını sürdürülmesi için en önemli gereksinimlerden biridir. Sağlıklı bir beslenme, makro ve mikro besin öğelerinin günlük diyet içerisinde dengeli ve yeterli oranlarda vücuda alınması ile mümkün hale gelmektedir. Proteinler, metabolizmada özellikle yapım ve onarım başta olmak üzere, birçok fonksiyon için gerekli olması açısından en önemli makro besin öğelerinin başında gelmektedir. Ancak günümüzde hızla artan dünya nüfusu ile birlikte, iklim krizi, doğal kaynakların azalması gibi nedenlerle gıda arzı açısından tehlike oluşmaktadır. Ayrıca geleneksel üretim yöntemleriyle üretilen gıdalara ulaşım da her zaman adil bir şekilde gerçekleşmemektedir. Bu nedenle insanoğlu kendisine ve gelecek nesillere, sağlıklı ve yaşanabilir bir dünya sağlayabilmek için geleneksel üretim yöntemi alternatifleri ve sürdürülebilir gıda uygulamaları arayışında bulunmaktadır. Alternatif sürdürülebilir eğilimlerin ilk sıralarında ise esansiyel aminoasit, yağ, vitamin, mineral ve özellikle protein açısından zengin olan bazı yenilebilir böceklerin (yusufçuk, tırtıl, arı, karınca, çekirge, cırcır böceği) tüketimi yer almaktadır. Geleneksel gıda üretimdeki arazi kullanımı, sera gazı salınımı, su ve doğal kaynakların harcanması sürdürülebilirlik açısından değerlendirildiğinde, yenilebilir böcek üretim ve tüketiminin ekolojik açıdan faydaları gözler önüne serilmektedir. Hali hazırda başta Tayland, Japonya, Endonezya, Kore ve Doğu Afrika ile Asya'daki ülkeler olmak üzere, pek çok ülkede böcekler gıda olarak tüketilirken, bazı ülkelerde ise etik, kültürel ve dini değerler bakımından tüketim açısından tercih edilmemektedir. Ancak küreselleşmenin etkisi ve sürdürülebilirlik kaygısı ile böcek tüketimi farklı kıtalardaki ülkelerde gün geçtikçe yaygınlaşmaktadır. Bu çalışmada bahsi geçen yenilebilir böcek türleri, besin öğeleri açısından diğer geleneksel gıdalarla kıyaslanması, Türkiye ve dünyada yenilebilir böceklerin tüketim durumuna ve böcek tüketiminin avantaj ve dezavantajlarına değinilmiştir.

Anahtar Kelimeler:Yenilebilir Böcekler, Beslenme, Alternatif Protein, Sürdürülebilirlik

ABSTRACT

Nutrition is one of the most important requirements for individuals to continue their lives. A healthy diet becomes possible by taking the macro and micro nutrients into the body in balanced and sufficient proportions in the daily diet. Proteins are one of the most important macronutrients in terms of being necessary for many functions in metabolism, especially construction and repair.. However, today, with the rapidly increasing world population, there is a danger in terms of food supply due to reasons such as climate crisis and decrease in natural resources. In addition, access to foods produced by traditional production methods is not always equal. For this reason, human beings seek alternatives to traditional production methods and sustainable food practices in order to provide a healthy and livable world for themselves and future generations. In the first place of alternative sustainable trends, consumption of some edible insects (dragonfly, caterpillar, bee, ant, grasshopper, cricket) which is rich in essential amino acids, oil, vitamins, minerals and especially protein takes place. When the land use, greenhouse gas emissions, consumption of water and natural resources in traditional food production are evaluated in terms of sustainability, the ecological benefits of edible insect production and consumption are revealed. Currently, insects are consumed as food in many countries, especially Thailand, Japan, Indonesia, Korea and countries in East Africa and Asia, while insect consumption is not preferred in some countries in terms of ethical, cultural and religious values. However, with the effect of globalization and sustainability concerns, insect consumption is becoming more common in countries on different continents. In this study, the edible insect species mentioned, their comparison with other traditional foods in terms of nutrients, the consumption status of edible insects in Turkey and the world, and the advantages and disadvantages of insect consumption are mentioned..

Keywords: Edible Insects, Nutrition, Alternative Protein, Sustainability

**YAPAY SİNİR AĞLARI KULLANARAK RADYE TEMELLERDEKİ OTURMANIN
TAHMİN EDİLMESİ**
PREDICTING THE SETTLEMENT VALUES OF RAFT FOUNDATIONS UTILIZING
ARTIFICIAL NEURAL NETWORKS

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ÖZET

Yapay zeka ile birçok mühendislik probleminin efektif bir şekilde çözülebilmesi yapay sinir ağlarının geoteknik mühendisliği alanında da yaygınlaşmasını sağlamıştır. Bu çalışmada örnek bir radye temel sistemi üç boyutlu sonlu elemanlar yöntemi ile analiz edilip doğrulandıktan sonra yapay sinir ağları modeli oluşturabilmek için radye temelin ve zeminin mühendislik özellikleri değiştirilerek parametrik analizler gerçekleştirilmiştir. Parametrik analiz kombinasyonları yapay sinir ağlarının iyi derecede sonuç verebileceği optimum sayıda oluşturulmuştur. Tüm üç boyutlu sonlu elemanlar analizlerinde model gerçek boyutlarıyla tasarlanmıştır. Radye temel ile zemin bağlantısı yüzeyden yüzeye olacak şekilde gerçekleştirilmiştir. Modelin sınır şartları, ağ eleman sayısı gibi parametrelerin uygun bir şekilde seçilebilmesi için yakınması çalışması gerçekleştirilmiştir. Modelin sınır şartlarından etkilenmemesi için model boyutu tasarlanırken sınır şartlarının konumu dikkate alınmıştır. Modelin malzeme özellikleri, zeminin nonlinear parametreleri dikkate alınarak tanımlanmıştır. Model hem malzeme açısından hem de geometrik olarak nonlinear analize tabi tutulmuştur. Değişen parametrelere bağlı olarak her analiz kombinasyonu için oturma değerleri elde edilmiştir. Kurulan yapay sinir ağları modelinde zemin ve radye temelin özellikleri girdi olarak radye temelin oturma değerleri ise çıktı olarak seçilmiştir. İstatistiksel olarak en iyi yapay sinir ağı modelini elde etmek için tek gizli katmandaki optimum nöron sayısı belirlenerek ağ oluşturma işlemi gerçekleştirilmiştir. Öğrenme, test ve doğrulama veri setleri rastgele ayrılmıştır. Ağın en iyi performansı yakalaması için ortalama karesel hata fonksiyonu kullanılmıştır. Değişen parametrelere bağlı olarak radye temel oturmalarını tahmin eden seçilen yapay sinir ağının istatistiksel olarak iyi sonuçlar verdiği tespit edilmiştir. Böylece yapay sinir ağlarının eğitiminde daha geniş bir veri tabanı ve yeterli sayıda girdinin sağlanması durumunda proje ön çalışmalarında radye temellerin oturma değerlerinin tahmini için tatmin edici sonuçlara ulaşabileceği belirlenmiştir.

Anahtar Kelimeler: Yapay Sinir Ağları, Radye Temellerin Oturması, Sonlu Elemanlar Analizi

ABSTRACT

The practical solution to many engineering problems with artificial intelligence has made artificial neural networks widespread in geotechnical engineering. In this study, parametric analyses were conducted by varying the engineering properties of the raft foundation and the soil to create an artificial neural network model after a sample raft foundation system was analyzed and verified with the three-dimensional finite element method. The most effective number of parametric analysis combinations for artificial neural networks was developed. The model was designed with its actual dimensions in all three-dimensional finite element analyses. Surface-to-surface interaction was used to tie the raft foundation and the soil. A convergence study was carried out to select parameters such as the boundary conditions of the model and the number of mesh elements. The boundary conditions' location was considered while designing the model size to prevent the model from being affected by the boundary conditions. The material properties of the model were defined by considering the nonlinear parameters of the soil. The model was subjected to nonlinear analysis both in terms of material and geometrical. Settlement values were obtained for each analysis combination depending on the varying parameters. In the established artificial neural network model, the properties of the soil and the raft foundation were selected as inputs and the settlement values of the raft foundation as output. The optimal number of neurons in the single hidden layer was determined, and the networking process was carried out to obtain the statistically best artificial neural network model. The training, testing, and validation datasets were randomly assigned. The mean square error function was used to achieve the best performance of the network. The selected artificial neural network, which forecasts raft foundation settlements based on varying parameters, has been proven to produce statistically valuable outcomes. As a result, it has been determined that if a more extensive database and sufficient inputs are provided during the training of artificial neural networks, relevant results can be obtained for the assessment of the settlement values of raft foundations in the preliminary studies of the projects.

Keywords: Artificial Neural Networks, Settlement of Raft Foundations, Finite Element Analysis

**DIATOMİT İKAMESİNİN GEOPOLİMER HARÇLARIN MEKANİK ÖZELLİKLERİNE VE
YÜKSEK SICAKLIK DİRENÇLERİNE ETKİSİNİN İNCELENMESİ**
INVESTIGATION OF THE EFFECT OF DIATOMITE SUBSTITUTION ON MECHANICAL
PROPERTIES AND ELEVATED TEMPERATURE RESISTANCE OF GEOPOLYMER MORTARS

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ÖZET

Son yıllarda gerek çevresel kaygılar gerekse uluslararası anlaşmalar (Avrupa Yeşil Mutabakatı) sebebiyle çimento üretiminden kaynaklanan CO₂ emisyonunun azaltılması ve daha az ekolojik ayak izine sahip alternatif ürünler geliştirilmesi hedeflenmektedir. Bu sebeple geopolimer bağlayıcılar çimentoya alternatif olabilecek ürünler arasında yer almaktadır. Geopolimer bağlayıcı sistemlerinde kullanılan uçucu kül, termik santrallerden atık ürün olarak oraya çıkmakta ve çevresel kaygılar oluşturmaktadır. Bu nedenle uçucu külün çimento esaslı sistemlere alternatif olabilecek geopolimer sistemlerde kullanılması, çevresel açıdan sürdürülebilir bir malzeme halini alması büyük önem taşımaktadır. Uçucu kül esaslı geopolimerlerin çeşitli yöntemlerle mekanik özelliklerinin iyileştirilmesi yakın zamanda önemli hale gelmiştir. Bu çalışmada, F sınıfı uçucu kül ile üretilen geopolimer numunelere diatomit ikamesinin fiziksel ve mekanik özellikleri üzerinde etkisi araştırılmıştır. Karışımlarda uçucu küle ağırlıkça %1, %2, %3, %4 ve %5 oranlarında diatomit ikame edilmiş ve bağlayıcı olarak kullanılmıştır. Aktivatör olarak sodyum hidroksit (NaOH) seçilmiş olup, bağlayıcı malzemeye göre ağırlıkça %10 oranında Na⁺ ihtiva edecek şekilde kullanılmıştır. Üretilen geopolimer numunelere 24, 48 ve 72 saat 60°C'de ıslık kür uygulanmıştır. Geopolimer numuneler üzerinde birim ağırlık, eğilme ve basınç dayanımı, aşınma direnci tayini ve yüksek sıcaklıklara dayanıklılık testleri yapılmıştır. Ayrıca numunelerin mikroyapısını incelemek için geopolimer hamur numuneler üzerinde FESEM görüntüleri de alınmıştır. Elde edilen sonuçlara göre geopolimer harçlarda %1, %2, %3 diatomit ikamesi eğilme ve basınç dayanımını artırmıştır. En yüksek basınç dayanımı değeri (42,4 MPa) %3 oranında diatomit içeren harçlarda elde edilmiştir. FESEM görüntüleri sonucunda %3 diatomit ikamesi yapılan geopolimerin kontrol numunesine göre daha yoğun ve kompakt bir mikro yapıda olduğu görülmüştür. %3 oranında diatomit ikamesi aşınma direncini artırırken, yüksek sıcaklıklara karşı direnci artırmadığı sonucuna varılmıştır.

Anahtar Kelimeler: Diatomit, Uçucu Kül, Geopolimer, Aşınma Direnci, Yüksek Sıcaklık Direnci

ABSTRACT

In recent years, due to both environmental concerns and international agreements (European Green Deal), it is aimed to reduce CO₂ emissions from cement production and to develop alternative products with less ecological footprints. For this reason, geopolymer binders are among the products that can be an alternative to cement. Fly ash used in geopolymer binder systems comes out as a waste product from thermal power plants and creates environmental concerns. For this reason, it is of great importance that fly ash is used in geopolymer systems, which can be an alternative to cement-based systems and become an environmentally sustainable material. Improving the mechanical properties of fly ash-based geopolymers by various methods has recently become important. This study investigated the effect of diatomite substitution on the physical and mechanical properties of geopolymer samples produced with F-class fly ash. In the mixtures, diatomite was substituted at 1%, 2%, 3%, 4%, and 5% by weight of fly ash and used as a binder. Sodium hydroxide (NaOH) was chosen as the activator, and it was used to contain 10% Na⁺ by weight according to the binder material. The thermal cure was applied to the produced geopolymer samples at 60°C for 24, 48, and 72 hours. Unit weight, flexural and compressive strength, abrasion resistance, and resistance to high temperatures were tested on geopolymer samples. In addition, FESEM images were taken of the geopolymer paste samples to examine the microstructure of the samples. According to the results obtained, 1%, 2%, and 3% diatomite substitution in geopolymer mortars increased flexural and compressive strengths. The highest compressive strength value (42.4 MPa) was obtained in mortars containing 3% diatomite. As a result of FESEM images, it was seen that the geopolymer with 3% diatomite substitution had a more dense and compact microstructure compared to the control sample. It was concluded that while 3% diatomite substitution increased wear resistance, it did not increase resistance to elevated temperatures.

Keywords: Diatomite, Fly Ash, Geopolymer, Abrasion Resistance, Elevated Temperature Resistance

BİR YERALTI KROM OCAĞINDA MEVCUT TAHKİMATIN İNCELENMESİ
AN INVESTIGATION OF EXISTING SUPPORT IN AN UNDERGROUND CHROME MINE

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ÖZET

Bu çalışma kapsamında bir yeraltı krom maden ocağında yantaş içerisinde sürülen anayollardaki kaya birimlerinin sağlamlığı, tahkimatsız olarak durabilirliği ve uygulanmakta olan tahkimat incelenmiş ve değerlendirilmiştir. 1755 (AT-3) ve 1705 (AT-4) kotlarında bulunan anayollarda, yerinde ölçüm ve gözlemler yapılmıştır. RMR kaya kütle sınıflama sistemine yönelik veriler ve laboratuvar testleri için kaya birimlerinden örnek parça numuneler alınmıştır. 1755 ve 1705 kotlarında bulunan ana galeride hakim kayaç türü serpantin olup, RMR sisteminin tahkimat önerisine göre en fazla 3 m aralıklı tahkimat gerektiği belirlenmiştir. 1705 kotunda sürülen hakim kayaç türünün dünit/harzburgit birimlerinin bulunduğu galerilerin ise RMR sistemi dikkate alınarak yapılan değerlendirme sonucunda en az 10 yıl boyunca tahkimatsız olarak durabileceği görülmüştür.

Anahtar Kelimeler: Yeraltı Krom Ocağı, Tahkimat, Kaya Kütle Sınıflama Sistemi (RMR)

ABSTRACT

In this study, the strength and durability of the rock units without support and the existing support of the main transportation gallery driven in the bedrock in an underground chrome mine were evaluated and investigated. In situ measurements and observations were carried out on the main transportation galleries at elevations 1755 (AT-3) and 1705 (AT-4). For data collection and laboratory testing for the RMR rock mass classification system, piece samples were taken from the rock units. The dominant rock type in the main gallery at 1755 and 1705 elevations is serpentinite, and it has been determined a maximum of 3 m intervals is required according to the support proposal of the RMR system. As a result of the evaluation made by considering the RMR system, it was seen that the galleries in which the dunite/harzburgite units of the dominant rock type at elevation 1705 could be stable without support for at least 10 years.

Keywords: Underground Chrome Mine, Support, Rock Mass Classification System (RMR)

**FARKLI KAT SAYILARINA SAHİP BETONARME BİNALARDA MALZEME
PARAMETRELERİNİN YAPI DOĞAL TİTREŞİM PERİYODUNA ETKİSİNİN
İNCELENMESİ**

INVESTIGATING THE EFFECT OF MATERIAL PROPERTIES ON THE NATURAL
VIBRATION PERIOD OF REINFORCED CONCRETE BUILDINGS WITH DIFFERENT STORY
NUMBERS

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ÖZET

Betonarme yapıların deprem analizlerinde ve yapı karakteristik özelliklerinin belirlenmesinde, yapı doğal titreşim periyodunun doğru bir şekilde hesaplanması önem arz etmektedir. Yapı doğal titreşim periyodu yapı rijitliği ve kütesinden doğrudan etkilenmektedir. Yapının kütlesi dış yüklere ve yapının kullanım amacına bağlı olarak değişkenlik gösterirken, yapının rijitliği yapı sisteminde var olan betonarme elemanların en-kesit özelliklerine, kat yüksekliğine ve malzeme parametrelerine bağlı olarak belirlenir. Bu çalışma kapsamında, betonarme yapılarda rijitlik faktörüne; malzeme parametrelerinin, kat yüksekliklerinin ve brüt/etkin kesit rijitliklerinin etkilerini irdelemek için ETABS programında farklı bina örnekleri modellenmiştir. Farklı malzeme parametrelerini tanımlamak için C25'ten C50 beton sınıfına kadar Betonarme Yapıların Tasarım ve Yapım Kuralları (TS500-2000)'nda tanımlı olan bütün beton sınıfları kullanılmıştır. Modelleme sırasında, sabit bir betonarme bina kat planı belirlenmiş ve bu kat planı kullanılarak 3-4-5-6-7-8-9-10 katlı betonarme yapı analizleri gerçekleştirilmiştir. Analizler sırasında yapının herhangi bir deprem hareketine maruz kalma durumu incelenmediğinden ve her katta alınan düşey yüklerin (ölü ağırlık: 2.0 kN/m², hareketli yük: 2.0 kN/m²) eşit olarak kabul edilmesi nedeniyle kiriş boyutları bütün binalarda sabit tutulmuştur. Ancak kolon en-kesit boyutları en alt kat kolonlarına gelen tasarım eksenel yükü ve ilgili deprem yönetmeliğinde verilen eksenel yük limiti kullanılarak farklı kat sayılarına sahip her bir bina için ayrı ayrı belirlenmiştir. Türkiye Bina Deprem Yönetmeliği (TBDY-2018) ile birlikte doğrusal analizlerde de kullanılması gereken etkin en-kesit rijitliğinin etkisinin irdelenmesi için her bir bina modeli için brüt ve etkin kesit rijitlikleri tanımlanmıştır. Analizler sonucunda bulunan doğal titreşim periyotları, TBDY 2018'de verilen ampirik doğal titreşim periyodu denkleminde elde edilen sonuçlar ile karşılaştırılmıştır. Farklı malzeme ve yapı kat sayısı (buna bağlı olarak kolon en-kesit büyüklüğü) parametrelerine ek olarak brüt ve etkin kesit rijitliği kullanılarak elde edilen sonuçlar bir araya toplanarak, mevcut ve daha önceki yıllarda kullanılan modelleme yaklaşımlarının yapı doğal titreşim periyoduna etkisi de vurgulanmıştır.

Anahtar Kelimeler: Beton sınıfı, En-kesit Rijitliği, Periyot, Modal Analiz

ABSTRACT

It is significant to calculate the natural vibration period of the structure precisely in earthquake analysis of reinforced concrete structures and in determining the characteristics of the structure. The natural vibration period of the structure is directly affected by the stiffness and mass of the structure. The rigidity of the structure is determined depending on the cross-section properties of the reinforced concrete elements existing in the building system, the story height, and material parameters while the mass of the structure varies depending on the external loads and the purpose of use of the structure. In the present study, to investigate the effects of material parameters, story heights, and gross/effective section stiffnesses on the stiffness factor in reinforced concrete structures, a variety of building samples were modeled in the ETABS program. All concrete classes defined in the Requirement for Design and Construction of Reinforced Concrete Structures (TS500-2000) from C25 to C50 were used to define different material parameters. During the modeling, a fixed reinforced concrete building floor plan was determined as a priority and 3-4-5-6-7-8-9-10 story reinforced concrete structure analyzes were carried out using this floor plan. The beam dimensions were kept constant in all buildings since the building was not analyzed under seismic actions, and the vertical loads on each floor (dead weight: 2.0 kN/m², live load: 2.0 kN/m²) were considered equal. However, the column cross-section dimensions were determined individually for each building with different floor numbers by using the design axial load on the lowest floor columns and the axial load limit given in the relevant earthquake code. To scrutinize the effect of effective cross-section stiffness, which should also be used in linear analyzes with the Turkish Building Earthquake Code (TBDY-2018), gross and effective section stiffnesses are defined for each building model. The natural vibration periods obtained from the analyzes were compared with the results calculated from the empirical natural vibration period equation given in TBDY 2018. In addition to the parameters of different materials and building coefficients (correspondingly, the column cross-section size), the results obtained by using the gross and effective section stiffness are assembled and the effect of the modeling approaches used in the current and previous years on the natural vibration period of the structure is emphasized.

Keywords: Concrete class, Cross-section Stiffness, Period, Modal Analysis

ASSESSMENT OF STRUCTURAL PERFORMANCE OF RED BASILICA OF PERGAMON, TURKEY

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ABSTRACT

History has witnessed the emergence of many different civilizations in Anatolia. These civilizations left behind many historical and monumental artifacts. Among these works is the Red Basilica in Pergamon, Izmir, which dates back to the Roman period. The temple, which is one of the most magnificent religious monumental structures of Anatolia, was built entirely of bricks. In light of the current state of the structure, some parts have been damaged or destroyed due to environmental conditions and abandonment. The roof section of the entire building was completely demolished and the building left unprotected. In this state, the structure may be in danger of being destroyed in an earthquake that may occur. Therefore, it is necessary to examine the seismic performance of a structure with such a historical and cultural value. The purpose of this study is to specify the structural performance of the historical building under static and dynamic loads. Within the scope of this study, a 3D finite element model of the basilica was prepared and static and dynamic analyzes were carried out on this model. In the dynamic analyses, the acceleration records from the Eastern Aegean Sea Earthquake on October 30, 2020 ($M_w=6.9$) were used. According to the results obtained from the study, it is seen that the structure is well in terms of structural behavior. Moreover, the results showed that the performance of the basilica is also well in terms of seismic behavior and the interaction between the structural components and the openings plays a vital role.

Keywords: Pergamon Red Basilica, Cultural Heritage, Seismic Behaviour, Structural Performance, Finite Element Method, Static Analysis, Modal Analysis, Time History Analysis

STRUCTURAL PERFORMANCE EVALUATION OF TRADITIONAL TURKISH HOUSES

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ABSTRACT

Historically, humans have needed shelter to protect themselves from natural conditions. In the past, caves and other natural formations served as shelters, but as the population increased, they became insufficient, and shelters were built using natural materials such as stone and wood. Through history, shelters evolved in response to topography, climatic conditions, and cultural differences. Traditional Turkish houses are a good example of structures developed as a result of natural needs. Therefore, these houses are one of the most important cultural heritages that carry the traces of the past civilizations to the present day. It is of great importance to preserve the traditional urban fabric and traditional Turkish house examples in Turkey. Because of the construction practices and architectural simplicities, the traditional Turkish houses are still standing after hundreds of years. In this study one of the most notable examples of the traditional Turkish houses, the Kemaliye houses are analyzed. The aim is to specify the structural performance of these houses under static and dynamic loads, also critical parts and seismic vulnerability of these structures. In the scope of the study, a typical Kemaliye house is investigated by using a three-dimensional (3D) finite element model. Moreover, the outcomes from the numerical analyses is evaluated in detail by comparing similar studies taken from literature. Results show that the transition zone between the stone and timber-framed floor may be considered as risky in terms of creating structural stability problems. It is thought that the results obtained from the study will be useful in the evaluation of many historical buildings.

Keywords: Traditional Turkish Houses, Cultural Heritage, Structural Performance, Finite Element Method, Finite Element Analyses

**GÜNCEL GELİŞMELER IŞIĞINDA İNŞAAT SEKTÖRÜNÜ ETKİLEYEN FAKTÖRLER
ÜZERİNE BİR DEĞERLENDİRME**
AN ASSESSMENT ON THE FACTORS AFFECTING THE CONSTRUCTION SECTOR IN THE
LIGHT OF CURRENT DEVELOPMENTS

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ÖZET

İnşaat sektörü son on yılda büyüyen ekonomi, gelişen teknoloji sayesinde küresel boyutta büyük bir ilerleme göstermiştir. Sektörün doğal olarak diğer iş kollarını da etkilemesi nedeniyle bu durum genel ekonomiye de olumlu etkiler sağlamıştır. Ancak özellikle geçtiğimiz yıl artan çeşitli salgın, savaş, terör ortamları, enerji ve hammadde arzında bozulmalara neden olmuş ve bu durum inşaat sektöründe ciddiye alınması gereken sorunlara yol açmıştır. Bu çalışma kapsamında inşaat sektöründe karar verici olarak anılan proje, şirket, saha yöneticilerinden rastgele örneklem yoluyla seçilen 221 katılımcı ile bir anket çalışması yürütülmüş ve katılımcılara güncel gelişmelerin inşaat sektörüne etkisinin değerlendirilmesi istenmiştir. Değerlendirmeler çeşitli istatistik araçlarla analiz edilmiş ve dikkat çekici sonuçlar çıkarılmıştır. Elde edilen sonuçlar ile çeşitli öneriler sunulmuş inşaat sektörünün bu zorlu sürecinin en az hasarla nasıl atlatılabileceği tartışılmıştır.

Anahtar Kelimeler: İnşaat sektörü, İstatistiksel Veri, Faktör Analizi

ABSTRACT

The construction sector has made great progress on a global scale thanks to the growing economy and developing technology in the past decades. As the sector naturally affects other business lines, this situation also had positive effects on the general economy. However, especially in the last year, various epidemics, wars, terrorist environments have caused deterioration in energy and raw material supply, and this has led to problems that should be taken seriously in the construction sector. Within the scope of this study, a survey was conducted with 221 participants selected by random sampling from the project, company, field managers, who are known as the decision makers in the construction sector, and the participants were asked to evaluate the impact of current developments on the construction sector. Evaluations were analyzed with various statistical tools and remarkable results were obtained. With the results obtained, various suggestions were presented and it was discussed how this difficult process of the construction industry could be overcome with the least damage.

Keywords: Construction sector, Statistical Data, Factor Analysis

**ENJEKSİYONLA KALIPLAMA YÖNTEMİ İLE ÜRETİLECEK OLAN MEKANİK VE
TRIBOLOJİK TEST NUMUNELERİNİN İMALATI İÇİN KALIP TASARIMI**
TRIBOLOGICAL TEST SPECIMENS TO BE PRODUCED BY INJECTION MOLDING METHOD
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ÖZET

Bu çalışmada, plastik sektöründe malzeme kalitesini belirleyen en önemli özelliklerden olan mekanik ve tribolojik test numunelerinin enjeksiyonla kalıplama yöntemi ile imalatı için kalıp tasarımının yapılması amaçlanmıştır. Kalıp tasarımı için Siemens NX 12.0 tasarım programı kullanılmıştır. Çekme testi, darbe testi ve aşınma pim numuneleri gibi üç farklı ürünün aynı anda kalıplanabilmesi ve doldurulabilmesi için ürünlerin konumlandırılması ve soğuk yolluk tasarımının yapılması gerekmektedir.

Bu amacı gerçekleştirebilmek için Autodesk moldflow adviser 2019 programı kullanılmıştır. Analiz öncesi ürünlerin hammadde girişleri malzemelerin uzun tarafından verilecek şekilde tasarlanmıştır. Dağıtıcı kanal girişleri kenardan giriş (yan yolluk) olarak tercih edilmiştir. Bu üç test numunenin soğuk yolluk analizi yapılmıştır. Analizden sonra oluşan salkımın kalıplanmasına başlanmıştır. Salkım ürünü sabit ve hareketli çekirdek plakaları oluşturulmuştur. Oluşan ürünlerin kalıptan düşmesi için hareketli tarafa itici pim ile itici sistemi kurgulanmıştır. Bu makalede test numunelerinin Plastik enjeksiyon kalıp tasarımı hakkında bilgiler verilecektir.

Anahtar Kelimeler: Moldflow akış analizi, kalıp tasarımı, enjeksiyon, mekanik, triboloji, test numunesi

ABSTRACT

In this study, it is aimed to design molds for the manufacture of mechanical and tribological test specimens, which are one of the most important features that determine the material quality in the plastics industry, by injection molding method. Siemens NX 12.0 design program was used for mold design. In order to mold and fill three different products at the same time, such as tensile test, impact test and wear pin samples, it is necessary to position the products and design the cold runner.

In order to achieve this goal, Autodesk moldflow adviser 2019 program was used. Before the analysis, the raw material inputs of the products are designed to be given from the long side of the materials. Distributor channel inlets are preferred as side inlets (side runners). Cold runner analysis of these three test samples was performed. After the analysis, the molding of the cluster formed was started. Fixed and movable core plates of cluster product are formed. In order for the formed products to fall out of the mold, a pusher system with a pusher pin is designed on the moving side. In this article, information about the plastic injection mold design of test samples will be given.

Keywords: Moldflow flow analysis, mold design, injection, mechanics, tribology , test specimen

DÖKÜM İŞ PARÇALARINDA BOYAMA İŞLEM VERİMLİLİĞİNİ ARTTIRACAK BOYA KARIŞTIRICI TASARIMI VE GELİŞTİRİLMESİ

DESIGN AND DEVELOPMENT OF A PAINT MIXER TO INCREASE THE EFFICIENCY OF
THE PAINTING PROCESS ON CASTING WORKPIECES

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ÖZET

Döküm sektörü içerisinde imal edilen bazı iş parçalarına boyama işlemi uygulanmaktadır. Bu işlem sonucunda imal edilen parçanın boya kalınlıkları istenilen ölçüde olmamaktadır. Boya kalınlığının ayarlanması için tiner kullanımı oldukça yaygın olup kalınlığı tutturabilmek için kullanılan tiner miktarının planlanandan fazla olması sorunu ile sıklıkla karşılaşmaktadır. Karışımı homojenleştirmek için kullanılan karıştırma metodunda enerji tüketiminin fazla olması, kullanılan hava ile karıştırma metodunda bazı durumlarda homojenliği sağlamaya çalışırken boyanın kurumması veya dibe çökmesi çeşitli sorunlar arasında yer almaktadır.

Bu çalışma, döküm iş parçalarında boyama işlem verimliliğini arttıracak boya karıştırıcı tasarımı yapılması ve geliştirilmesini ele almaktadır. Bu bağlamda ilk olarak sanal ortamda katı model oluşturma çalışmaları gerçekleştirilmiştir. Sorunları çözmek için mühendislik hesaplamaları yapılmış olup, elde edilen veriler doğrultusunda proje konusu parçanın 2D ve 3D tasarımları bilgisayar destekli çizim ve tasarım programları (CAD) kullanılarak sanal ortamda oluşturulmuştur. Modele ait malzeme seçimi ve ergonomi çalışmaları gerçekleştirilmiş, imalat ve montaj faaliyetleri gerçekleştirilmiştir. Ürünün ihtiyaçları karşılayan ölçülerde olup olmadığı test edilmiş sonuçlar raporlandırılmıştır.

Hali hazırda kullanılan boya karıştırıcıları ihtiyaçları karşılamadığı için tamamen firmaya özel kullanılacak bir karıştırıcı tasarımı ele alınmıştır. Normal şartlarda kullanılan boya karıştırıcıları yalnızca tiner ve boyanın birbiri içinde çözünmesini sağlarken, yeni tasarım bu çözünmenin tamamen boya havuzunun tamamında homojen olmasını sağlamaktadır. Homojenite ve tüketim kısıtlarının en ideal seviyede oluşturulabilmesi için mekanik karıştırıcının uygun tasarım gerçekleştirilmiş, yenilikçi bir ürün ortaya konulmuştur.

Çalışma ile birlikte ürünlerin boya kalitesinin artması, karışımın kurummasını engelleyerek boyanın dibe çökmesinin önüne geçilmesi, tiner kullanımını azaltarak verimliliğin artırılması, işgücü verimliliğinin artırılması, boyama işlem verimliliğini arttıracak gelişmiş tasarıma ve özelliklere sahip yeni bir ürünün firmaya kazandırılması hedeflerine ulaşılmıştır.

Anahtar Kelimeler: Döküm, Boya Karıştırıcı, Tasarım

ABSTRACT

Painting process is applied to certain workpieces manufactured in the casting industry. As a result of this process, the paint thickness of the manufactured part is not at the desired level. The use of thinner for adjusting the paint thickness is quite common, and it is frequently encountered that the amount of thinner used to achieve the thickness is more than planned. Among the various problems are the high energy consumption in the mixing method used to homogenize the mixture, and the drying or sinking of the paint while trying to achieve homogeneity in some cases in the mixing method used.

This study deals with the design and development of paint mixers that will increase the dyeing process efficiency in cast workpieces. In this context, firstly, solid model creation studies were carried out in the virtual environment. Engineering calculations were made to solve the problems, and 2D and 3D designs of the project subject part were created in a virtual environment using computer aided drawing and design programs (CAD) in line with the obtained data. Material selection and ergonomics studies of the model were carried out, manufacturing and assembly activities were carried out. It has been tested whether the product is in the dimensions that meet the needs, and the results are reported.

Since the paint mixers currently used do not meet the needs, a completely company-specific mixer design has been discussed. While the paint mixers used under normal conditions only allow the thinner and paint to dissolve in each other, the new design ensures that this dissolution is completely homogeneous throughout the paint pool. In order to create the most ideal level of homogeneity and consumption constraints, the appropriate design of the mechanical mixer has been realized and an innovative product has been introduced.

With the study, the objectives of increasing the paint quality of the products, preventing the paint from collapsing by preventing the mixture from drying out, increasing productivity by reducing the use of thinner, increasing labor productivity, and introducing a new product with advanced design and features that will increase the efficiency of the painting process have been achieved.

Keywords: Casting, Paint Mixer, Design

**ENF KULLANARAK SES VE GÖRÜNTÜDEKİ SAHTECİLİĞİN TESPİTİ ÜZERİNE BİR
ÇALIŞMA**
A STUDY ON DETECTING THE FAKE IN AUDIO AND VIDEO USING ENF

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ÖZET

Teknolojik gelişmeler ile her geçen gün daha da güçlenmekte olan yazılım ve donanımlar sayesinde ses ve görüntü alanında uzman olmayan kişiler dahi sahte ses ve görüntüler üretebilmekte ve ürettikleri bu medyaları şantaj, kamu güveni zedeleme, kişileri karalama, sahte kanıt üretme gibi kötü amaçlarla kullanabilmektedirler. Bununla birlikte, medyalarındaki sahteciliği tespit edebilmek için özellikle son yıllarda çok önemli çalışmalar yapılmıştır. Bu çalışmalar arasında öne çıkanlardan biri de Elektrik Şebeke Frekans (Electric Network Frequency - ENF) tabanlı yaklaşımlardır. ENF, şebekede üretilen ve harcanan güç dengesizliğine bağlı olarak 50 Hz (Avrupa) ya da 60 Hz (Amerika) etrafında rastgele salınımlar yapar. ENF'teki bu değişimler, elektrik şebeke gerilimi kaynaklı akustik gürültü veya elektromanyetik alanın olduğu bir ortamda yapılan ses kayıtlarına; ya da elektrik şebekesinden beslenen bir ışık kaynağı aydınlatmasının olduğu bir ortamda yapılan video kayıtlarına gömülür. Zaman ve frekans uzayı temelli çeşitli tekniklerle bu kayıtlardan ENF'in zamana bağlı değişimleri (ENF sinyali) kestirilebilir. ENF değişimleri kısa süreliğine de olsa benzerlikler gösterse de zaman uzadıkça bu değişimler emsalsiz hale gelir. Bu sebepten dolayı, bir ses ya da video dosyasından hesaplanan ENF sinyali kaynak dosyanın bütünlüğü konusunda önemli bilgiler verebilir. ENF'in bu özelliğinden yararlanılarak çeşitli derin öğrenme teknikleri ile içeriğinde ENF olan bir ses ya da video kaydının gerçekliği ya da sahteliği konusunda tahminde bulunulabilir. Bu çalışmada ses ve görüntüden kestirimi yapılan ENF sinyali; ya da medyadan ENF kestirimi yapmadan doğrudan ses sinyali veya videodaki parlaklık değişimlerinden medyanın orijinalliği konusunda yapılan çalışmalar incelenecek ve tartışılmalı bir analiz yapılacaktır.

Anahtar Kelimeler: ENF, Sahte Medya, Derin Öğrenme, Sahte Ses, Sahte Görüntü

ABSTRACT

As a result of technological advancements, software and hardware are becoming more and more powerful, consequently even an ordinary person having no special expertise in media processing can create fake audio or video which may be used for malicious purposes such as blackmail, defamation of individuals, creating public distrust and producing false evidence. On the other hand, significant studies have been done recently to detect modifications in the media. Among these studies, Electric Network Frequency (ENF) based approaches are outstandingly important. Depending on the imbalance between generated power and consumed power in the power grid, ENF randomly oscillates around 50 Hz (for Europe) or 60 Hz (for America). These changes in ENF get embedded into audio recordings made in an environment where electric mains voltage-induced acoustic noise or electromagnetic field exists. These alterations also get integrated into video recordings made in a setting that is illuminated by a mains-powered light source. ENF variations through time (the ENF Signal) can be estimated from these recordings via various time-domain or frequency-domain based techniques. Although the ENF oscillations show similarities in a short period of time, they are almost unique in longer time periods. For this reason, the estimated ENF signal from an audio or video may provide valuable information about the integrity of the media. By using this property of ENF, several deep learning techniques can be used to predict the authenticity of the audio or video containing ENF. In this work, the authenticity of a media containing ENF is explored. The related existing works are investigated and it is discussed whether to use the ENF signal directly or whether to use the raw media without estimating the ENF, such as by taking advantage of the time-series of the audio or the luminance variations.

Keywords: ENF, Fake Media, Deep Learning, Fake Audio, Fake Video

**KARAÇAM (*PINUS NIGRA*) ODUNUNA UYGULANAN VAKUMLU ISIL İŞLEM
MODİFİKASYONUNUN BAZI MEKANİK DİRENÇ DEĞERLERİ ÜZERİNE ETKİSİ**
THE EFFECT OF VACUUM HEAT TREATMENT MODIFICATION OF LARCH (*PINUS NIGRA*)
WOOD ON SOME MECHANICAL RESISTANCE VALUES

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ÖZET

Yapılan çalışmada karaçam odunu (*Pinus nigra*) örneklerine 160 ve 205 C° sıcaklık 1,5 ve 3 saat süresince vakumlu ısıtma işlemi uygulanmıştır. Çalışmanın sonucunda karaçam odunu örnekleri üzerinde ısıtma işlemi sıcaklığı ve süresinin yoğunluk, basınç direnci, eğilme direnci ve elastikiyet modülü değerleri üzerine etkisi incelenmiştir.

Çalışmanın sonucuna göre, karaçam odunu örneklerine uygulanan sıcaklık ve sürenin artmasıyla yoğunluk değerlerinin azaldığı tespit edilmiştir. Yoğunluk azalması odunun direnç değerlerini etkilediği ve sonucunda basınç direnci değerini 57 N/mm² den 41 N/mm² ye düşürdüğü, eğilme direncini ortalama 94 N/mm² den 76 N/mm² ye ve elastikiyet modülü değerini 6483 N/mm² den 4474 N/mm² ye kadar azalttığı tespit edilmiştir.

Anahtar Kelimeler: Karaçam Odunu, Basınç Direnci, Eğilme Direnci, Elastikiyet Modülü

ABSTRACT

In the study, vacuum heat treatment was applied to European black pine wood (*Pinus nigra*) samples at 160 and 205 C temperatures for 1.5 and 3 hours. As a result of the study, the effects of heat treatment temperature and duration on the density, compressive strength, bending strength and modulus of elasticity on black pine wood samples were investigated.

According to the results of the study, it was determined that the density values decreased with the increase of temperature and time applied to the larch wood samples. The decrease in density affects the resistance values of the wood and as a result it decreases the compressive strength value from 57 N/mm² to 41 N/mm², the bending resistance from 94 N/mm² to 76 N/mm² and the modulus of elasticity from 6483 N/mm² to 4474 N/mm². was found to be reduced.

Keywords: European Black Pine Wood, Compressive Strength, Bending Strength, Modulus of Elasticity

**KARAÇAM (*PINUS NİGRA*) ODUNUNA UYGULANAN VAKUMLU ISIL İŞLEM
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THE EFFECT OF VACUUM HEAT TREATMENT MODIFICATION OF LARCH (*PINUS NİGRA*)
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ÖZET

Yapılan bu çalışmada, yalancı akasya (*Robinia pseudoacacia*) odununun 140 ve 180 C° sıcaklıkta 60 ve 150 dakika vakumlu ısıtma işlemi modifikasyonuna tabi tutulmuş, modifikasyon sonucu meydana gelen teğet yönde vida direnci, radyal yönde vida direnci, enine yönde vida direnci, teğet yönde sertlik direnci, radyal yönde sertlik direnci ve enine yönde sertlik direnci değişimleri tespit edilmiştir. Ayrıca vakumlu ısıtma işleminden kaynaklanan yoğunluk ve kütle kaybı değişimleri belirlenmiştir.

Yapılan çalışmanın sonucuna göre, ısıtma işlemi sıcaklığı ve süresi arttıkça, teğet, radyal ve enine yöndeki vida direnci değerlerinin azaldığı tespit edilmiştir. Ortalama değerler kontrol (K;64 kN/mm²) grubu ile kıyaslandığında, sıcaklık ve süre arttıkça sırasıyla 53, 50, 44, 41 kN/mm² olarak elde edilmiştir. Sertlik direnci değerleri teğet, radyal ve enine yönde en yüksek, 140 C° sıcaklık, 150 dakika süre ve 180 C° sıcaklık 60 dakika sürede modifikasyona uğramış örneklerden elde edilmiştir. Yüksek sıcaklıkta uzun süre işleme maruz kalmış örneklerde bu değerlerin azaldığı tespit edilmiştir. Örneklerde kütle kaybı sıcaklık ve sürenin artmasıyla arttığı ve buna bağlı olarak yoğunluk değerinin değiştiği bulunmuştur.

Anahtar Kelimeler: Yalancı Akasya, Vida Direnci, Sertlik, Kütle Kaybı

ABSTRACT

In this study, acacia (*Robinia pseudoacacia*) wood was subjected to vacuum heat treatment modification at 140 and 180 C° for 60 and 150 minutes. The changes in screw resistance in tangential direction, screw resistance in radial direction, screw resistance in transverse direction, hardness resistance in tangential direction, hardness resistance in radial direction and hardness resistance in transverse direction, which occur as a result of modification, were determined. In addition, density and mass loss changes due to vacuum heat treatment were determined.

According to the results of the study, it was determined that the screw resistance values in the tangential, radial and transverse directions decreased as the heat treatment temperature and time increased. When the mean values were compared with the control (K;64 N/mm²) group, they were obtained as 53, 50, 44, 41 N/mm² as the temperature and time increased, respectively. The hardness resistance values were obtained from the samples that were modified in the tangential, radial and transverse directions at the highest temperature, 140 °C for 150 minutes, and 180 °C for 60 minutes. It was determined that this value decreased in samples exposed to high temperature for a long time. It was found that the mass loss in the samples increased with the increase in temperature and time, and the density value changed accordingly.

Keywords: Black Locust, Screw Resistance, Hardness, Mass Loss

**IN THE DIGITAL AGE AN ETHIC MODEL PROPOSAL FOR ARTIFICIAL
INTELLIGENCE SYSTEMS AS A SECURITY PRACTICE**

**DİJİTAL ÇAĞDA YAPAY ZEKÂYA SAHİP OTONOM SİSTEMLERDE GÜVENLİK
UYGULAMASI OLARAK: ETİK KONTROL MODELİ ÖNERİSİ**

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ABSTRACT

As technologies and the products offered increase, it is becoming more and more difficult to distinguish between features such as purposes, fields of service, and reasons for use. At the end of the last century, the purpose of computers; was to convert precisely defined commands into inputs and present the resulting output; it is used effectively in all areas of life today. With the features added to mobile phones produced only for voice calls, it is possible to fulfil the requirements of professions such as photography and reporting today. With the advancement of technology, the shrinkage of processors, integration with portable devices, and wireless networks communicating with each other and making them compatible with communication devices have led to the inclusion of information system devices in almost every part of our business and private lives. At this point, adding additional artificial intelligence to processors is a natural process. The transition process to artificial intelligence, accepted as natural by society, has expanded the application areas of information systems. At the same time, it has opened up discussion about the fact that a machine can think like a human. Even though they are produced for good purposes, we frequently encounter technological tools in all areas of life that also contain potential security violations in practice. Security problems can be physical or economic, as well as ethical violations that cause discrimination and inequality among people. When the relevant literature is examined, it is seen that the foundations of the concept of ethics are a process that goes back approximately five thousand years. It is not only regulates commercial relations in society and also develops the whole of the rules that must be followed for the welfare of people. These first rules, which we can also call the basis of ethical principles in our age, significantly impacted the formation of our current ethical system. Artificial intelligence, which enters our lives as a different actor from the people in the society, is a concept integrated with different technologies and connected with many sciences. On the way to understanding artificial intelligence, scientific research and inferences on the brain and neurons, which are the centre of human intelligence, in order to reveal the concept of intelligence better; it will transform machines from imitating artificial intelligence to autonomous systems that think and learn like us. In this study, an ethical perspective that can be applied in order to use autonomous systems safely in social areas in the digital age has been revealed. It aims to fill the gap in the related literature by examining the relations between the related variables theoretically and practically. The application part of the study, in which a six-step ethical model is presented, it is aimed to integrate some technical engineering processes with

ethical rules, thereby identifying potential ethical problems and preventing them without causing sensitivity.

Keywords: Artificial Intelligence, Autonomous Systems, Ethics, Reliability, Openness.

ÖZET

Teknolojiler ve bu teknolojilerin sunduğu ürünler arttıkça; kullandığımız dijital araçların amaçları, kullanım alanları, kullanım nedenleri gibi özellikleri arasında ayırım yapmak günden güne daha zor hale gelmektedir. Geçen yüzyılın sonlarında, bilgisayarların kullanım amacı; kesin bir şekilde tanımlanmış komutların girdilere dönüştürülmesi ve oluşan çıktının sunulması iken günümüzde hayatın her alanda etkin şekilde kullanılmaktadır. Sadece sesli görüşme için üretilen cep telefonlarına eklenen özellikler ile günümüzde fotoğrafçılık ve muhabirlik gibi mesleklerin gereklerini yerine getirmek mümkündür. Teknolojinin ilerlemesiyle işlemcilerin küçülmesi, taşınabilir cihazlarla bütünleştirilmesi, kablosuz ağlar birbirleriyle iletişim kurması ve haberleşme aygıtları ile uyumlu hale getirilmesi, beraberinde bilgi sistem cihazlarının iş ve özel hayatımızın hemen hemen her yerine dâhil olmasına yol açmıştır. Geline nokta işleme ilave yapay zekâ kazandırılması sürecin doğal bir parçası olarak karşımıza çıkmaktadır. Toplum tarafından doğal kabul edilen yapay zekâyâ geçiş süreci, bilgi sistemlerinin uygulama alanlarını genişletilirken aynı zamanda bir makinenin insan gibi düşünebilme olgusunu tartışmaya açmıştır. Her ne kadar iyi birtakım amaçlarla üretilmiş olsalar dahi, hayatın her alanında sıklıkla karşılaştığımız teknolojik araçlar uygulamada potansiyel güvenlik ihlallerini de barındırmaktadır. Güvenlik sorunları fiziksel ya da ekonomik olabildiği gibi insanlar arasında ayrımcılığa ve eşitsizliğe neden olan etik ihlaller olarak da karşımıza çıkmaktadır. İlgili yazın incelendiğinde etik kavramının temellerinin yaklaşık olarak beş bin yıl geriye dayanan, toplum içerisinde ticari ilişkileri düzenlemeyen ve devamında insanların refahı için uyulması gereken kurallar bütününe kadar gelişen bir süreç olduğu görülür. Çağımızdaki etik ilkelerin temeli olarak da adlandırabileceğimiz bu ilk kurallar hâlihazırda kullandığımız etik sistemin oluşumunda önemli ölçüde etki göstermiştir. Toplumdaki insanlardan farklı bir aktör olarak hayatımıza giren yapay zekâ ise farklı teknolojilerle bütünleşmiş ve çok sayıda bilim ile bağlantılı bir kavramdır. Yapay zekâyı anlamaya giden yolda, zekâ kavramını daha iyi ortaya koymak için insan zekâsının merkezi olan beyin ve nöronlar üzerine yapılan bilimsel araştırma ve çıkarımların; makinaları, taklit eden yapay zekâdan bizim gibi düşünen ve öğrenen otonom sistemlere dönüştüreceği açıktır us. Bu çalışmada dijital çağda otonom sistemlerin toplumsal alanlarda güvenli halde kullanılabilmesi için uygulanabilecek etik bakış açısı ortaya koyulmuştur. İlgili değişkenler arasındaki ilişkilerin hem teorik hem de uygulamalı olarak incelenmesi ile ilgili yazındaki boşluğun doldurulması hedeflenmektedir. Çalışmanın altı adımlı bir etik model ortaya koyduğu uygulama kısmı ile teknik olarak gerçekleştirilen birtakım mühendislik işlemlerinin etik kurallar ile bütünleştirilmesi ve bu suretle potansiyel etik sorunların tespit edilmesi ve hassasiyete yol açmadan engellenmesi amaçlanmıştır.

Anahtar Kelimeler: Yapay Zekâ, Otonom Sistemler, Etik, Güvenilirlik, Açıklık.

MERMER OCAĞINDAKİ İŞÇİLERİN TOZ VE GÜRÜLTÜ MARUZİYETLERİNİN BELİRLENMESİ

DETERMINATION OF DUST AND NOISE EXPOSURE OF WORKERS IN MARBLE QUARRY

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ÖZET

Hem işçi sağlığı ve güvenliği hem de işletmenin verimli çalışması için çalışma ortamının belirli kriterlere sahip olması gerekmektedir. Bu nedenle çalışma ortamının hem fiziksel hem de psikolojik açıdan iyileştirilmiş olması gerekmektedir. İş yerlerinde çalışma esnasında meydana gelen bazı fiziksel ve kimyasal risk etmenlere çalışanların maruz kalınması kaçınılmazdır. Bunlardan en yaygın olanı ise gürültü, titreşim, termal konfor, aydınlatma ve tozdur. Bu çalışmada, Elazığ ilinde faaliyet gösteren bir mermer ocağında işçilerin maruz kaldıkları gürültü ve toz faktörleri ele alınmıştır. Bu amaçla, tel kesme makinesi, kaya delme (rock) makinesi ve sahada çalışan işçilerin günlük maruz kaldıkları gürültü ve toz değerleri cihaz yardımıyla nicel olarak tayin edilmiştir. Elde edilen sonuçlar, ilgili risk faktörüne ait yönetmelikle kıyaslanarak değerlendirilmiştir. Özellikle rock makinasının yanında çalışan işçiler için ek tedbirler önerilmiştir.

Anahtar Kelimeler: Gürültü, Toz, Mermer Sahası, İş Sağlığı ve Güvenliği

ABSTRACT

For both health-safety of worker and efficient operation of the enterprise, the working environment must have certain criteria. For this reason, the working environment should be improved both physically and psychologically. It is inevitable for employees to be exposed to some physical and chemical risk factors that occur during working in the workplace. The most common of these are noise, vibration, thermal comfort, lighting and dust. In this study, noise and dust factors that workers are exposed to in a marble quarry operating in the province of Elazığ are discussed. For this purpose, the daily exposure to noise and dust values of wire cutting machine, rock drilling machine and field workers were determined quantitatively with special devices. The results obtained were evaluated by comparing them with the regulation of the relevant risk factor. Especially, additional measures have been proposed for workers working next to the rock machine.

Keywords: Noise, Dust, Marble Field, Occupational Health and Safety

**DENGESİZ BİR DİYABET VERİ SETİNDE MAKİNE ÖĞRENMESİ YÖNTEMLERİNİ
KULLANARAK DİYABET HASTALIĞININ TEŞHİSİ**
DIAGNOSIS OF DIABETES DISEASE USING MACHINE LEARNING METHODS IN AN
IMBALANCED DIABETES DATASET

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ÖZET

Son yıllarda diyabet hastalığına sahip kişi sayısı günden güne artmaktadır. Diyabet hastalığı eğer önlem alınmaz ise ilerleyen dönemlerde vücutta ciddi hasarlara yol açan, hatta kişinin ölümüne sebebiyet verecek derecede önemli bir hastalıktır. Sürekli artan diyabet hastalığının erken ve doğru şekilde tespiti, tıp dünyasında daha çok önem kazanmaktadır. Literatürde makine öğrenmesi yöntemleri kullanarak diyabet teşhisi yapılan çalışmaların sayısı önemli ölçüde artış göstermektedir.

Bu çalışmada, Türkiye'deki bir devlet hastanesinden alınan gerçek dünya verileri üzerinde farklı veri ön işleme ve makine öğrenmesi yöntemleri kullanılarak Tip-2 diyabet hastalığı sınıflandırılmıştır. Çalışmada, Lojistik Regresyon, Naive Bayes, C4.5 ve Rastgele Orman sınıflandırma modelleri kullanılmıştır. Sınıflandırma modellerinde girdi değişkeni olarak, hastaların yaşı, cinsiyeti, tam kan sayım testi sonuçları, biyokimya testi sonuçları ve hormon testleri sonuçları; çıktı değişkeni olarak ise, uzman doktorlar tarafından hastalara konulan hastalık tanısı kullanılmıştır. Toplamda 43 farklı değişken ile çalışılmıştır. Veri seti incelendiğinde hedef değişkendeki sınıflar arasında dengesizlik olduğu tespit edilmiştir. Sınıf dengesizliğinin olduğu durumlarda, sınıflandırma modelleri sınıflara yanlış atamalar yapabilmektedir. Çalışmada kullanılan veri setindeki sınıf dengesizliğinin giderilebilmesi için rastgele örneklem azaltma, rastgele aşırı örnekleme ve sentetik azınlık aşırı örnekleme olmak üzere üç farklı yeniden örnekleme yöntemi kullanılmıştır.

Orijinal eğitim veri seti, rastgele örneklem azaltılmış eğitim veri seti, rastgele aşırı örneklenmiş eğitim veri seti ve sentetik azınlık aşırı örneklenmiş eğitim veri setinin her birinde dört farklı makine öğrenmesi yönteminin performansları karşılaştırılmıştır. Toplamda 16 farklı senaryo üzerinde çalışılmıştır.

Tüm senaryoların analiz edilmesi sonucunda en iyi sonuçları veren dört kombinasyon belirlenmiştir. Bunlar; orijinal eğitim veri setiyle çalışan Naive Bayes, rastgele örneklem azaltılmış eğitim veri seti ve sentetik azınlık aşırı örneklenmiş eğitim veri setiyle çalışan Rastgele Orman ve rastgele aşırı örneklenmiş eğitim veri setiyle çalışan C4.5 algoritmasıdır. En iyi sonuçları gösteren dört senaryo arasında birinci sırayı alan algoritma ise rastgele örneklem azaltılmış eğitim veri seti ile çalışan Rastgele Orman algoritmasıdır.

Anahtar Kelimeler: Diyabet Teşhisi, Tip-2 Diyabet, Makine Öğrenmesi, Sınıflandırma, Dengesiz Veri Seti, Yeniden Örnekleme Yöntemleri

ABSTRACT

In recent years, the number of people with diabetes has been increasing daily. Diabetes is an important disease that can cause serious damage to the body in the future and even cause death if precautions are not taken. Early and accurate detection of ever-increasing diabetes is gaining more importance in the medical world. The number of studies using machine learning methods to diagnose diabetes has increased significantly in the literature.

In this study, type-2 diabetes disease was classified using different data preprocessing and machine learning methods on real-world data taken from a public hospital in Turkey. Logistic regression, Naive Bayes, C4.5, and Random Forest classification models were used in the study. In the classification models, the patient's age, gender, complete blood count, biochemistry, and hormone test results were used as input variables, and the disease diagnosis made by specialist doctors was used as output variable. In total, 43 different variables were studied. When the dataset was examined, it was noticed that there was an imbalance between the classes in the target variable. In cases where there is a class imbalance, the classification models can make incorrect assignments to the classes. To eliminate the class imbalance in the data set used in the study, three different resampling methods were used: random undersampling (RUS), random oversampling (ROS), and synthetic minority oversampling (SMOTE).

The performances of four different machine learning methods were compared on each of the original training dataset, random undersampled training dataset, random oversampled training dataset, and synthetic minority oversampled training dataset. A total of 16 different scenarios were studied.

As a result of the analysis of all scenarios, four combinations that give the best results were determined. These are Naive Bayes working with original training dataset, Random Forest working with random undersampled training and synthetic minority oversampled training datasets, and C4.5 algorithm working with random oversampled training dataset. The algorithm that takes the first place among the four scenarios that show the best results is the Random Forest algorithm working with random undersampled training dataset.

Keywords: Diabetes Diagnosis, Type-2 Diabetes, Machine Learning, Classification, Imbalanced Dataset, Resampling Methods

PARAMETRIC VIBRATION ANALYSIS OF THE GULL-SHAPED WINGS HAVING VARIATIONAL SWEEP ANGLES AND WINGLET DIHEDRAL ANGLES

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ABSTRACT

Wings are the structures of an aircraft that provide lift and make the aircraft able to fly. During a flight, an aircraft wing is subjected to aerodynamic forces including thrust, drag, and lift. In various situations in which a wing has to endure a dynamic aerodynamic force that takes place in a period of time. Therefore, it becomes essential to understand and determine the vibrational characteristics of a wing at the very beginning of its designing phase. Based on this motivation, this study has examined the vibrational characteristics of the gull-shaped wings having variational wing sweep angle (WSA) and winglet dihedral angles (WDA). For this purpose, the basic wing structure of the Airbus A380-800 wing has been taken into account. The cut-section of the wing and the winglets has been designed considering NASA SC(2) – 0610 airfoil shape. The gull-shaped aircraft wings have been designed in SolidWorks. Seven blended-winglet dihedral angles; 90° , 60° , 30° , 0° , -30° , -60° , -90° , have been taken into account. As for the sweep angles; 0° , 30° , and 60° have been considered. To obtain the vibrational characteristics of those wings, the designed models have been implemented in ANSYS Workbench to conduct the free vibration analysis. As for meshing, four-node quadrilateral elements have been employed and the mesh quality has been measured by the mesh skewness ratio. Before proceeding to the modal analysis, the gull-shaped wing structures have been fixed from their root to set the boundary conditions. The vibrational characteristics of the gull-shaped wing structures have been investigated considering the differences in the first three natural frequencies and the corresponding mode shapes regarding different winglet dihedral angles. Numerical analysis results indicated that the minimum frequencies have been obtained for the structure with 60° WSA and 0° WDA, while the maximum frequencies have been acquired for that of 0° WSA and -90° WDA. In addition, it has been concluded that the impact of the WDA has been dependent on the value of WSA.

Keywords: Gull-Shaped Aircraft Wings, Vibration, Winglet, Dihedral Angle.

**MOBİLYA İŞLETMELERİNDE YÖNETİM VE ORGANİZASYON SORUNLARI: BİR
MOBİLYA İŞLETMESİ UYGULAMASI**
MANAGEMENT AND ORGANIZATIONAL PROBLEMS IN FURNITURE ENTERPRISES: A
FURNITURE ENTERPRISE APPLICATION

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ÖZET

Bu çalışmada bir mobilya işletmesinin yönetim ve organizasyon yapısında ortaya çıkan sorunlar incelenerek olası çözüm önerileri sunulmuştur. Bu amaçla işletmenin organizasyon yapısı hakkında bilgiler verilmiştir. İşletmenin genel durumu incelendiğinde ağırlıklı olarak üretim ve finansal açıdan sorunlar ile karşılaştığı tespit edilmiştir. Genel olarak bakıldığında bu sorunların planlama ve stok kontrolünden, proje teslim zamanlamalarına, üretim tipinden, üretilen malın cinsine, makine ve çalışma alanlarının fabrika içerisindeki yerleşim düzeninden, hammadde teminine, gelir-gider takibinden, kısa vadeli borçların ödenmesine gibi farklı nedenlerden kaynaklandığı tespit edilmiştir. Sonuç olarak işletmeye, mevcut üretim tipinin değiştirilmesi, farklı bir stok kontrol yöntemi uygulanması, etkin durum analizleri yapması, hammadde teminini ayrıntılı takip edebileceği güncel bir yazılım ve güncel muhasebe yönetim sistemi önerilmiştir.

Anahtar Kelimeler: Mobilya, Yönetim, Organizasyon, Sorunlar

ABSTRACT

In this study, the problems that arise in the management and organizational structure of a furniture enterprises are examined and possible solutions are presented. For this purpose, information about the organizational structure of the enterprise is given. When the general situation of the enterprise is examined, it has been determined that it mainly encounters problems in terms of production and financial. In general, it is seen that these problems arise from different reasons such as planning and stock control, project delivery timings, production type, type of goods produced, layout of machinery and work areas in the factory, raw material supply, income-expenditure follow-up, and payment of short-term debts. As a result, an up-to-date software and accounting management system were proposed to the company to change the current production type, to apply a different stock control method, to make effective situation analysis, to follow the raw material supply in detail.

Keywords: Furniture, Management, Organization, Problems

ÖZDİRENÇ YÖNTEMİ İLE BETONLARDA ANİZOTROPİNİN BELİRLENMESİ DETERMINATION OF ANISOTROPY IN CONCRETES BY RESISTIVITY METHOD

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ÖZET

Yapılan çalışmada beton üzerindeki özdirenç ölçümlerinin yöne bağımlılığının zamana, kür koşullarına ve beton dayanımına bağlı değişimi araştırılmıştır. Bu amaçla, çalışma düşük, orta ve yüksek dayanım özelliklerine sahip 3 beton tasarım üzerinde gerçekleştirilmiştir. Her tasarımda 150mm ebatlarında 6 adet küp numune olacak şekilde hazırlanmıştır. Toplamda 18 numunenin yarısı 90 gün süreyle su kürüne, diğer yarısı da hava kürüne tabi tutulmuştur. Belirli zaman dilimlerinde mukavemetleri farklı olan betonların her yüzeyinde özdirenç cihazı ile birbirine dik iki ölçü olmak üzere 4 yüzeyde toplam 8 özdirenç değeri belirlenmiştir. Ayrıca, 7., 28. ve 90. günlerde her tasarımdaki birer adet numunenin basınç dayanımı belirlenmiştir. Sonuç olarak, özdirenç yöntemi kullanılarak elde edilen anizotropi değerleri beton gözeneklerindeki doygunluğun türüne bağlı değiştiği anlaşılmıştır.

Anahtar Kelimeler: Anizotropi, Beton, Özdirenç yöntemi, Tahribatsız jeofizik yöntem

ABSTRACT

In this study, the determination of the direction-dependence of the resistivity measurements on concrete was investigated with respect to time, curing conditions and concrete strength. For this purpose, the study was carried out on 3 concrete designs with low, medium and high strength characteristics. Each design was designed to have six cube samples of 150 mm in sizes. Half of the total 18 specimens were subjected to water curing and the other half to air curing for 90 days. At each surface of the reinforced concrete with different strengths in certain time periods, a total of 8 resistivity values were determined from 4 surfaces with two measures perpendicular to each other. In addition, the compressive strength of one sample in each design was determined on the 7th, 28th and 90th days. As a result, it was understood that the anisotropy values obtained by using the resistivity method changed depending on the type of saturation in the concrete pores.

Keywords: Anisotropy, Concrete, Resistivity method, Non-destructive geophysical method

ZAMAN-FREKANS ANALİZİ İLE BETONDAKİ DONATININ TESPİTİ
DETERMINATION OF REINFORCEMENT IN CONCRETE WITH TIME-FREQUENCY
ANALYSIS

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ÖZET

Bu çalışmada, beton üzerinde alınan Ultrasonik P dalga ölçümlerinden yararlanarak elde edilen sinyallerin Zaman-Frekans analizi tekniği ile beton içerisindeki donatıların varlığı tespit edilmeye çalışılmıştır. Bu amaçla, düşük ve yüksek mukavemet özellikleri gösteren beton tasarımlarına ait donatılı küp numuneler içerisine birer adet olmak üzere 10, 14 veya 20 mm çapında donatılar yerleştirilmiştir. Hazırlanan numuneler su kürüne tabi tutulmuştur. Bu numuneler üzerinde 90 gün boyunca belirli zaman dilimlerinde karşılıklı yüzeylerinden Ultrasonik P dalgası ölçümleri yapılmıştır. Ayrıca 7., 28. ve 90. günlerde tek eksenli basınç dayanımı testi ile dayanımları belirlenmiştir. Elde edilen P dalga sinyal kayıtları üzerinde FFT (Hızlı Fourier Transformı), güç spektrumu ve Zaman-Frekans analizi yapılarak sonuçlar tartışılmıştır. Böylece, Ultrasonik P dalga sinyallerinden Zaman-Frekans analizi ile beton numuneler içerisine yerleştirilmiş olan birer adet 10, 14 veya 20 mm çapındaki donatıların varlığının çap arttıkça belirginleştiği gözlenmiştir.

Anahtar Kelimeler: Beton, Donatı, Dayanım, Ultrasonik Yöntem, Zaman-Frekans analizi, Hızlı Fourier Dönüşümü

ABSTRACT

In this study, the presence of reinforcements in the concrete was tried to be determined by the Time-Frequency analysis technique of the signals obtained by using the Ultrasonic P wave measurements taken on the concrete. For this purpose, one 10, 14 or 20 mm diameter reinforcements were placed in the reinforced cube samples of concrete designs with low and high strength properties. Prepared samples were subjected to water curing. Ultrasonic P wave measurements were made on these samples from their opposing surfaces at certain time periods for 90 days. In addition, their strength was determined by Uniaxial Compressive Strength test on the 7th, 28th and 90th days. FFT (Fast Fourier Transform), power spectrum and Time-Frequency analysis were performed on the obtained P wave signal records and the results were discussed. Thus, with the Time-Frequency analysis of ultrasonic P wave signals, it was observed that the presence of 10, 14 or 20 mm diameter reinforcements that placed in the concrete samples was observed to be more evident with increasing of the diameter.

Keywords: Concrete, Reinforcement, Strength, Ultrasonic Method, Time-Frequency analysis, Fast Fourier Transform

THE ASSOCIATION BETWEEN THE CUTANEOUS MICROBIOME AND HIDRADENITIS SUPPURATIVA

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ABSTRACT

Background Hidradenitis suppurativa is a chronic disease of the pilosebaceous unit. Patients experience multiple nodules, abscesses, and draining fistulae in intertriginous skin, which cause a significant impact on their quality of life. The skin microbiome thus plays a critical role in the induction and education of host immunity, enabling sustained tolerance to innocuous antigens, a process termed “homeostatic immunity”.

Objective To arrive at these observations, the authors examined how Polenoplasmin and Imuniplant solve hidrosadenitis suppurativa.

Materials and methods The cutaneous microbiota is a necessary component of the immune barrier, with commensal skin microorganisms preventing the colonisation and growth of pathogenic bacteria, a process known as colonisation resistance. In this review we assimilate the existing literature regarding the role played by the cutaneous microbiome in hidradenitis suppurativa to identify novel and much needed treatment strategies.

Results The pathophysiology of hidradenitis suppurativa is multifaceted and is the product of interactions between inflammation, a genetic tendency, the cutaneous microbiome, and environmental factors. Whilst it is now recognised as an autoinflammatory condition rather than an infective disease, bacteria are implicated in disease pathogenesis. Hidradenitis suppurativa skin appears to have a microbiome distinct from that of healthy skin and which is overwhelmingly populated by anaerobic Gram-negative bacteria. Further research should be undertaken examining the cutaneous and gut microbiome in hidradenitis suppurativa.

Conclusion Our research investigating the role of microbiota in the development of inflammatory skin diseases has largely focused on hidradenitis suppurativa, this may help identify potential future therapeutic targets.

Keywords: hidradenitis suppurativa, cutaneous microbiome, Polenoplasmin, Imuniplant

DENIPLANT NUTRITIONAL INTERVENTION TO TARGET GUT MICROBIOME IN PSORIASIS

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ABSTRACT

Background Restoration of the dysbiotic gut microbiome has emerged as a promising aid and a better therapeutic approach.

Objectives New evidences suggest that the microbiome may play a pathogenic role in psoriatic disease. The aim of the present project is to investigate whether a dietary intervention could ameliorate the clinical manifestations and modulate the gut microbiota of individuals with psoriasis.

Materials and methods Nutrition plays an important role in the development of psoriasis and it can modulate microbiome composition.

Results Among environmental factors, diet plays a central role therefore incorrect nutritional habits and excessive body weight can increase clinical symptoms or even trigger the disease. Such diet-based and nutraceutical approaches to targeting the microbiome may produce a milder side effect profile than current systemic medications. Thus, interventions aimed at the microbiome may be a valuable adjunct for preventing or managing psoriatic disease and its comorbidities.

Conclusion Nutrition plays an important role in the development of psoriasis and its comorbidities. Ultimately, a better understanding of the psoriatic microbiome can lead to the development of new therapeutic modalities that target the shifting microbiota. Thus, interventions aimed at the microbiome may be a valuable adjunct for preventing or managing psoriatic disease and its comorbidities

Keywords: psoriasis, microbiome, microbiota, Deniplant nutritional intervention

ELECTRICAL STIMULATION IN REHABILITATION PATIENTS WITH FACIAL PALSY

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ABSTRACT

A systematic- Meta analysis of randomized, case studies and randomized clinical trials published between 2000 to 2021, using Elsevier, PubMed, and Google Scholar, among other sources. Over the course of a month, we conducted our research. This meta-analysis was conducted to find and analyze all available information on electrical stimulation in facial palsy treatment, as well as to see how neuromuscular electrical stimulation impacts strength of face musculature. There is an inadequate evidence to support the use of electrical stimulation to treat Bell's palsy, the findings of this comprehensive review suggest that the intervention has a positive outcome. We concluded 9 studies in this review. We've compiled a list of recent research studies that are relevant to and related to our main topic, deleted all unpublished research articles and included all published journal publications for the best analysis. According to the results of current study, patients who received electrical stimulation benefited in both acute and chronic stages. As long as the muscle is not entirely innervated, electrical stimulation can restore facial muscle activity even in facial nerve palsies that have been present for several years and when the muscle has no clinical function. Electrical Stimulation, according to this meta-analysis and comprehensive review, increases facial muscle strength, facial movements and optimizes the oral mechanism of swallowing.

Keywords: Facial palsy, Physiotherapy for Bell's palsy, Facial Paralysis, Rehabilitation, in addition to Electro-stimulation

STRUCTURE-BASED DRUG REPURPOSING TO INHIBIT THE DNA GYRASE OF MYCOBACTERIUM TUBERCULOSIS

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Short Introduction:

Drug repurposing is an alternative avenue for identifying new drugs to treat tuberculosis (TB). Although TB can be cured with anti-tubercular drugs, the emergence of multidrug-resistant and extensively drug-resistant strains of *Mycobacterium tuberculosis* H37Rv (Mtb), as well as the significant death toll globally, necessitate the development of effective drugs to treat TB.

Experiments and Key result findings:

In this study, drug repurposing approach was employed to address this drug resistance problem by screening drugbank database to identify novel inhibitors of the Mtb target enzyme, DNA gyrase. The compounds were screened against the ATPase domain of gyrase B subunit (MtbGyrB47), and the docking results showed Echinacoside, Doxorubicin, Epirubicin, and Idarubicin possess high binding affinities against MtbGyrB47. Comprehensive assessment using fluorescence spectroscopy, SPR, and CD titration studies revealed that Echinacoside as a potent binder against MtbGyrB47. Further, ATPase, and DNA supercoiling assays exhibited IC₅₀ values of 2.1-4.7 μM for Echinacoside, Doxorubicin, Epirubicin, and Idarubicin. Among these compounds, the least MIC₉₀ of 6.3 μM and 12 μM were observed for Epirubicin and Echinacoside, respectively. Hence, our findings indicate that Echinacoside and Epirubicin target mycobacterial DNA gyrase, inhibit its catalytic cycle, and retard mycobacterium growth. Further these compounds exhibits potential scaffolds for optimizing novel anti-mycobacterial agents that can act on drug-resistant strains.

THE RELATIONSHIP BETWEEN ILLNESS UNCERTAINTY AND ANXIETY IN CANCER PATIENTS

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ABSTRACT

Purpose:

The purpose of the study is to:

- Study the relationship between uncertainty and anxiety in cancer patients
- To find out if there is a positive relationship between uncertainty and the features of anxiety in patients diagnosed with cancer.

Method:

A cross-sectional descriptive design was used to identify the relationship between uncertainty and anxiety in cancer patients.

This study examines the relationship between illness uncertainty and anxiety in cancer patients.

Anxiety is a common problem for those patients who suffer from cancer. Anxiety can have a negative impact on patients' decision-making and overall emotional well-being and can be related to the insecurities faced by people with cancer.

The model consists of 100 patients, mostly women who are treated as patients in the Shkodra Regional Hospital and residents in the community of Postribë Administrative Unit. After agreeing to participate, patients completed the State Trait Anxiety Inventory (STAI), which consists of 12 questions that test the trait. Each question has four possible answers. The assessment is made according to 4 points, which range from 1 (not at all) to 4 (very much),

Patients also completed the Michel's Uncertainty (MUIS) in the Range of Illness. To complete the questionnaire, the subjects chose the level to which they agree or disagree with the 20 statements related to uncertainty. The evaluation is made up to five points, which ranges from "I strongly agree" to "I do not agree at all".

The ages of the participants ranged from 24-68 years, with a mean age of 46 years.

Conclusions:

According to the answers received from the patients who filled out the forms in this study it was reached the conclusion that the level of anxiety was very high in those patients who had uncertainty about their illness.

83% of patients stated that they were unclear about what would happen to them, 52% of them expressed that they were unclear about the purpose of the treatment, 86% had many questions answers about their illness.

Most patients agree with the level statements 4 (I agree) and 5 (I strongly agree) of the Michel scale indicating high levels of uncertainty. 85% of patients were likely to have more anxiety because they had more negative thoughts, lack of confidence and panic.

No evidence was found as to whether patients who were calmer were more likely to they accepted that the cancer disease had defeated them and they had surrendered.

Key words: illness, anxiety, cancer patients, emotional well-being.

IMPACT OF COVID-19 ON MENTAL HEALTH AMONG BALKAN HEALTHCARE WORKERS. A RAPID SYSTEMATIC REVIEW

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ABSTRACT

Introduction: The COVID-19 pandemic has placed extraordinary demands on the health and care workforce, not least mentally. One report by WHO highlights that the exceptional workload and psychological drain on health professionals have led to a considerable mental health burden, with possible long-term implications for their wellbeing. The study aimed to evaluate the mental health among Balkan HWCs based on a systematic review.

Methods: This paper presents the results of Balkan research as well as expert opinions related to the COVID-19 infection and its impact on mental health. The basis for the preparation of this paper was made by the selection of studies published mostly in international journals from PubMed and Google Scholar, Scopus, Clarivate, etc.

Results: The prevalence rates of mental health symptoms were summarized based on 14 studies out of 11 Balkan countries. In the frontline HWCs, the prevalence rates of overall mental health symptoms varied from 23% to 48%. Among five mental health symptoms, distress (29%), anxiety (32.9%), and depression (38.5%) were the most prevalent during the covid-19 pandemic. Exposure to covid-19 was the most commonly reported correlate of mental health problems, followed by the female gender, and worry about infection or about infecting others. Social support correlated with fewer mental health problems.

Conclusion: This systematic review summarizes the prevalence of mental health symptoms in the HWCs during the COVID pandemic in Balkan countries. The results of this survey have shown that the mental health of HWCs was affected by the COVID-19 pandemic. Risk factors for deteriorating mental health include fear of infection, social distancing, loneliness, stigma, and stress.

Keywords: COVID-19, mental health symptoms, Healthcare workers

IMPACT OF DIABETES MELLITUS ON THE RISK OF CARDIOVASCULAR DISEASES

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ABSTRACT

Background: The prevalence and incidence of diabetes increase with age. Mostly encountered among adults aged 65 years and older. Individuals with diabetes are at higher risk for cardiovascular disease, and age strongly predicts cardiovascular complications. The aimed study was to evaluate the prevalence of diabetes mellitus and to assess its impact on the risk of cardiovascular diseases for elderly over 65 years old.

Methods: We performed a cross-section descriptive study of the elderly (aged ≥ 65 years) from January to December 2019 by using the National Health Information Database. The software SPSS 20.0 version was used for data analyses. A p-value less than 0.05 was considered statistically significant.

Results: This study included 1245 patients with T2DM, (46% female and 54% male), with an average age of 71.2 ± 8.5 . About 43.8% of patients were obese, and the T2DM duration was 12.9 ± 2.4 years. Regarding CVD, most of them resulted in hypertension 59%, IM in 12%, atherosclerosis 15.1%, coronary heart disease 21.2%, 1.9% heart failure, angina 6.4%, and 7.6% stroke.

Conclusion: The prevalence of CVD among our T2DM patients resulted relatively significant. Hypertension, coronary heart disease, and IM were the major contributors to CVD. We recommend more attention to the management of diabetes to reduce the risk of cardiovascular disease, in late life, in the geriatric population.

Keywords: Diabetes mellitus, cardiovascular diseases, geriatric population

**ASSESSMENT OF PROBLEM AND PROSPECT OF NURSING EDUCATION AS IT
AFFECT NURSE ANAESTHESIA PROGRAM IN NIGERIA.**

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ABSTRACT

Problem and prospect of Nursing Education as it affect Nurse Anaesthesia in Nigeria. Nurse Anaesthesia face with serious challenges in academic progression. The significance of study was to awaken the practising Nurse Anaesthetist in Nigeria in Nigeria throughout the nation to further and uplift their educational status, find the opportunity to go to United State of America (USA), Australia and other part of European Countries in the world to further their Education in relevant field of study, i.e. PGDA, MSc and PhD in Nurse Anaesthesia and come back to Nigeria and join hand with Nursing and Midwifery Council of Nigeria (NMCN) and National University Commission (NUC) to developed the speciality educationally. Advance University program in Anaesthesia face a serious attrition and lack of educational progression in Nigeria, as a result you may have BSC/BNSC but yet you have to deviate to another speciality for MSc program, due to unavailability of such speciality in the Nation. Nigerian Universities should partner with international foreign Aids or Universities to established a department in one of the Universities in the country or utilized any of the Nurses institution to developed the school or department that are main for such training. Like what happened in Ghana (2014/2015). The first Bachelor degree program in Nurse Anaesthesia was established in Africa to address the lack of carrier progression of Nurse Anaesthetist and prevent the constant attrition of the profession in Ghana. The people concern should look for the international scholarship and the government should provide scholarship for the intending graduate. Nigerian Association of Nurse Anaesthetist (NANA), Nursing and Midwifery Council of Nigeria (NMCN), National Association of Nigerian Nurses and Midwives (NANNM) and National University Commission (NUC) should put head together to prevent attrition and solved the issues related to lack of progression in Nurse Anaesthesia Education in Nigeria.

Key word: NMCN, NUC, NANA,

SYNTHETIC LEACHATE TREATMENT USING BENTONITE CLAY

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ABSTRACT

The impact of landfilling is the production of liquid effluents rich in organic, mineral, and metallic matter called leachate. The choice of leachate treatment is based on the characteristics of the leachate. Any treatment process has advantages and limitations, so before proceeding with the treatment it is necessary to characterize the leachate to choose the appropriate process. The objective of this study is to prepare synthetic leachate based on the characteristics of real leachate (case of the controlled landfill of Al Hoceima), in order to carry out treatability tests of this synthetic leachate by controlling the various parameters of analysis. This solution was made from organic ($\text{CH}_3\text{CO}_2\text{H}$, $\text{CH}_3\text{CO}_2\text{Na}$) and inorganic compounds (MgSO_4 , CaCl_2 , $\text{Ca}(\text{OH})_2$, NH_4Cl , KOH , MgCl_2), the various analyzes of this solution gave values comparable to the real solution. This work was devoted to carrying out the treatability tests of synthetic leachate by a process of adsorption on bentonite, by studying its yield to reduce the organic load.

Keywords: Leachate, Synthetic leachate, Characterization, Bentonite, Treatment.

IMPORTANT PROPERTIES OF POLYESTER AND POLYAMIDE FABRIC FOR THE PRODUCTION OF AIRBAGS IN CARS

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ABSTRACT

This study presents the important properties of polyester and polyamide fabric for the production of airbags in cars. Polyamide is a chemical fiber obtained from synthetically produced polymers. Polyester is a man-made fiber that has a high degree of crystallinity and low absorption. Polyamide and polyester fabric samples were used in the experiment. Air permeability was measured at different pressures for both fabrics. Also, the structural properties of the fabric were analyzed. A comparison of structural properties with air permeability was made. It is noticeable that for both fabrics, higher values were obtained on the back of the fabric than on the face of the fabric. Due to similar values of parameters of structural properties and basic characteristics of fabrics, similar values of air permeability were observed.

Keywords: air permability, polyester, polyamide, air bag

**STUDY OF THE ANTI-ANXIETY EFFECT OF CARALLUMA QUADRANGLA IN BALB/c
mic**

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ABSTRACT

Alternative medicine and plant-derived therapies that affect the "mind" are gaining popularity. The goal of this study was to look at the anti-anxiety efficacy of alcoholic extracts in rats utilizing several anxieties animal models (high plus maze, open field test, light and dark test, and hole board test). The benchmark was diazepam oral, and the doses of C. Q fruit hydroalcoholic extract (100, and 200 mg/kg) were chosen in accordance with OECD standards. exhibited a distinct dose-dependent anxiolytic reaction while having no effect on spontaneous ambulatory behavior. The present findings indicate that, the C. Q also plays a crucial part in the anti-anxiety effect.

Keywords: C. quadrangla, elevated plus maze, light and dark test, open field test, hole board test

UNDERSTANDING THE EXPRESSION LEVEL OF AKT AND PTEN GENES IN FEMALE BREAST CANCER

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ABSTRACT

Cancer is characterized by uncontrolled proliferation and differentiation with abnormal functioning of the cells. Hundreds of genes are involved in cancer physiology. Breast cancer is introduced as a second most common cause of mortality in females as well as it is most common malignancy in females round the globe after lungs cancer. Genomic mutation investigations helped us to understand breast cancer genetics. The current study was planned to examine the expression of AKT and PTEN genes in breast tumor formation. Beta catenin signaling and microRNA's involvement in breast cancer cycling is also observed. Breast cancer samples were arranged from PINUM, DHQ and Allied hospital. The biopsy samples were preserved in 10% formalin for histopathology and in RNA Later to extract the mRNA. RNA was isolated in TRIZOL. To check gene expression analysis qRT-PCR was performed. Results were analyzed statistically to check the significance of data. ANOVA and DMR were used and for graphical presentation graph pad prism was used. Results show the up regulation of AKT as proto-oncogenic and PTEN gene as tumor suppressor gene, while involvement of microRNA as high expression level of microRNA-328, microRNA-203 and microRNA-145 was also observed ($p < 0.05$). Histopathological examination revealed ductal carcinoma because variable, irregular ducts formation, empty lumens and infiltration in cords of varying thickness were observed. Histopathology also showed multi-layering, hyperplasia, complete distortion of ductal and glandular epithelial of the breast gland in the breast cancer patients.

Keywords: Hyperplasia, qPCR, Cancer, MicroRNA's, Gene expression

STUDY INFLUENCE OF THE CHROMIUM ON THE OIL'S WETTABILITY

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ABSTRACT

Corrosion is one of the most critical effects in the oil industry. It has resulted from the friction between the water-containing crude oil and the surface of the steel (where it is in constant contact with erosive and harmful substances). Thus, stopping the extraction, transfer, and export for maintenance purposes, thus driving to high-cost maintenance and loss of time, is high-economic losses and environmental consequences.

Wettability means the spreading of the liquid on the solid surface gives us information about the adhesion between the liquid and solid metal phase of the pipe. The contact angle can be affected by the composition of the steel pipe. This review aims to analyze previous studies and our experiments regarding increasing the wettability of the interior surface of a transferring steel pipe by oil and the effect on the wetting behaviour of water contamination in the oil.

The experimental work was carried out using Glycerine or Oil on the surface of three different types of steel (CrMo4, CK60, and 1.4050steel). The software (KSV) was used to record and measure the change in contact angles of the oil or glycerine droplet for 1500 seconds for each sample. It was found that increasing the Cr content of the steel pipe materials contributed to enhancing the corrosion resistance by increasing the wettability angle between Glycerine and oil and the surface of the steels.

Keywords: wettability, crude oil, surface tension, corrosion resistance.

INVESTIGATION OF ACETOAMINOPHEN INDUCED ACUTE HEPATITIS IN MICE AND STUDY OF IMMUNE PARAMETERS

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ABSTRACT

Liver cirrhosis marks as one of the most common causes behind fatality worldwide. N-acetyl-p-aminophenol (acetaminophen; APAP) is the major drug that contributes to the malfunction of liver. Toxic levels of APAP, which is mild analgesic and antipyretic drug, can cause lethal hepatic failure. The overdose of acetaminophen leads to the development of fulminant hepatitis in humans and death due to exacerbated host immune responses. The mice model of hepatitis served as an excellent tool to study the poorly known immune mechanisms during hepatitis. A total of 17 mice were divided into three dose groups in two trials. APAP was administered in the dose of 200mg/kg and 400, g/kg to induce liver injury in BALB/c mice. The findings showed high levels of aspartate aminotransferase (AST), alanine aminotransferase (ALT), and lactate dehydrogenase (LDH). H&E staining was performed on liver tissue which showed centrilobular necrosis, a classic sign of APAP toxicity. Intrahepatic immune cells (macrophages, Kupffer cells, neutrophils, natural killer cells, and lymphocytes) were isolated by Percoll method. Increased immune cell responses were evident in the toxicity-induced group as compared to the control group, proving immune cell infiltration. Giemsa staining of tissues revealed leukocyte infiltration. The results of this experiment concluded that APAP induction causes acute liver injury in mice with increased liver enzymes, liver necrosis, and infiltrate cells.

Keywords: Liver disease, Cirrhosis, Toxicity, Hepatitis, Paracetamol, Acetaminophen, Pyrexia

DISTILLERY SPENT WASH AS A SOURCE OF POTASSIUM IN COTTON

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ÖZET

Spent wash is a sugar industry effluent of plant origin generated during ethanol production. A nutritious solution dumped in the surroundings of sugar mills creating environmental issues can instead be used to fertilize plants and save the input cost. Nitrogen and phosphorus applications were reduced to 1/3rd and 2/3rd including 0 and full application (140-70 kg N and P₂O₅ ha⁻¹). Each fertilizer treatment was tied with spent wash spray of 0, 5, 10, 15 and 20 %. Application of 140-70 kg N-P₂O₅ ha⁻¹ with 20% spray of spent wash achieved statistically same plant height, number of leaves, fruiting branches, number of floral buds, number of opened bolls and seed cotton yield (130.77 cm, 25.13, 20.12, 27.70, 40.24 plant⁻¹, and 4025 kg ha⁻¹, respectively) as those obtained by 93-46 kg N-P₂O₅ ha⁻¹ (130.3 cm, 25.05, 20.07, 27.35, 40.24 plant⁻¹ and 4018 kg ha⁻¹, respectively). Likewise, the nitrogen and phosphorous contents in cotton leaves followed the same trend. Regardless of any application of potassium, it increased from 1.47% in control to 2.83% with 93-46 kg N-P₂O₅ ha⁻¹ with 20% spent wash spray and was statistically at par (2.81%) with the treatment receiving 140-70 kg N-P₂O₅ ha⁻¹ along with 20% spent wash. A one-third recommended rate of NP (93-46 kg ha⁻¹) along with 20% spent wash substituted each 33% of nitrogen and phosphorus and 100% of potassium.

Anahtar Kelimeler: potassium, spentwash, sugar-industry

CHEMICAL COMPOSITION, ANTIOXIDANT AND ANTIBACTERIAL ACTIVITIES OF THE PLANT *ERINACEA ANTHYLLIS* LINK.

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ABSTRACT

The genus *Erinacea* belonging to the subfamily Papilionoideae of the family Fabaceae and the tribe Genisteae, is represented by a single species named *Erinacea anthyllis* Link or *Erinacea pungen*. *E. anthyllis* is a shrub with purplish blue flowers that is found mainly in the Pyrenees Orientales in France, Spain, Algeria, Tunisia and Corsica. In Algeria, this species is used in traditional medicine to treat rheumatic diseases. The present work describes the isolation and structural elucidation of two new prenylated isoflavonoids namely: Erinasone A (**1**) and Erinasone B (**2**), together with **10** known compounds from the EtOAc extract of *E. anthyllis*. Structures of all the isolated metabolites **1-12** were established mainly by spectroscopic analysis, measurement of optical rotation $[\alpha]_D$ and by comparison with the literature data. The total phenolic and flavonoid contents were quantified by Folin-Ciocalteu and trichloroaluminum methods respectively. The antioxidant activity of the EtOAc extract and the isolated compounds was determined by three different methods including trapping of the free radicals DPPH, FRAP and PPM assays. In addition, the antibacterial activity of EtOAc extract and the isolated products was evaluated against three strains. The results of the antioxidant activity revealed that the EtOAc extract and the isolated compounds possess moderate antioxidant activity for all the tested methods. Both, new compounds Erinasone A and Erinasone B showed good antibacterial activity against all the tested strains. Consequently, *Erinacea anthyllis* is a rich source of polyphenolic compounds particularly isoflavonoids used as chemotaxonomic markers for the subfamily Papilionoideae.

Keywords: *Erinacea anthyllis*, Isoflavonoids, Bioactive contents, Antioxidant activity, Antibacterial activity.

CYTOTOXIC EFFECT, ANTI-CHOLINESTERASE AND ANTIBACTERIAL ACTIVITIES OF THE PLANT *SCABIOSA STELLATA* L.

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ABSTRACT

In this study, cytotoxic effect, anticholinesterase, hemolytic and antibacterial activities of crude extracts (petroleum ether, ethyl acetate and *n*-butanol) obtained from the plant *Scabiosa stellata* L. were evaluated. The cytotoxicity of the tested extracts was tested by Brine shrimp lethality method; the acetylcholinesterase inhibitory activity was performed using Ellman's colorimetric method and the hemolytic activity was assessed by spectrophotometric method towards human erythrocytes. Furthermore, the antibacterial activity was estimated by agar disk diffusion assay against ten bacterial strains. Results The phytochemical screening of the extracts revealed the presence of several types of secondary metabolites. A significant cytotoxic effect was observed for the *n*-butanolic extract with a value of 57.2 ± 0.2 % of mortality at 80 $\mu\text{g/mL}$, the ethyl acetate extract had a moderate anticholinesterase activity at 200 $\mu\text{g/mL}$. The hemolytic assay exhibited that *n*-butanolic and ethyl acetate extracts induce hemolysis in dose-dependent manner with values of EC_{50} at 37.3 ± 0.5 and 106.6 ± 0.3 $\mu\text{g/mL}$, respectively. All the crude extracts showed antibacterial activity against most tested strains, with zones of inhibition ranging from 9 to 20 mm. As conclusion, the crude extracts obtained from the medicinal plant *S. stellata* can be an important source of therapeutic agents against pathological damage due to free radicals inducing neurodegenerative and infectious diseases, while *n*-butanolic extract could be used as a good source of alternative natural antiproliferative compounds.

Keywords: *Scabiosa stellata*, cytotoxic effect, anticholinesterase, hemolytic effect, antibacterial activity.

MITIGATION OF PARACETAMOL-INDUCED HEPATOTOXICITY BY DICLIPTERA BUPLEUROIDES NEES' THROUGH OXIDATIVE STRESS MODULATION

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ABSTRACT

Introduction Despite the advances in medical care, still there is no medication accessible that offers protection against hepatic cell damage. Therefore, it is a need of time to find out new drugs from natural sources for liver protection. The utilization of restorative plants has gained prime importance in developing countries due to their safety, cost-effectiveness and efficacy. The purpose of this study is to assess *Dicliptera bupleuroides* Nees' safety profile, hepatoprotective, and in-vivo antioxidant properties.

Methodology Standard techniques were used to conduct toxicity tests on human RBCs and DNA. Albino rats were given all six fractions/extracts of *D. bupleuroides* 350 mg/kg/day for an acute hepatoprotective study. The hepatotoxicity was determined through blood tests including Alanine transaminase (ALT), Aspartate transaminase (AST), Alkaline phosphatase (ALP), and total bilirubin (TB). The n-hexane fraction (200 mg/kg/day) was found to have enough hepatoprotective effect and thus selected to be administered for further dosing and investigation (14 days). Hepatotoxicity was induced by paracetamol (350 mg/kg) and silymarin (50 mg/kg) was set to be the reference drug. After the procedure, liver function tests, liver peroxidation tests, and a histological examination were performed.

Results In comparison with standard medicine, the hexane fraction exhibited a substantial drop in the levels of ALT (88.17.8), AST (93.87.6), ALP (136.38.4), and TB (0.60.03) ($p > 0.05$). In comparison to the toxic group (paracetamol induced), the Malondialdehyde (MDA) and Glutathione (GSH) levels were 51.32.9 nmol/g and 73.64.0 μ mol/g respectively while the rats treated with ethyl acetate fraction demonstrated a decrease in MDA (42.80.7 nmol/g) and an increase in GSH levels (107.71.8 μ mol/g). All of the medication extracts reduced oxidative stress and helped to protect DNA from hydroxyl radicals.

Conclusion The phytochemicals found in the extracts are responsible for the DNA damage prevention activities in the Albino rats used for this study. Therefore, it is concluded that all drug fractions could be used to protect liver cells damage with higher safety. However, n-hexane drug fraction possessed enhanced antioxidant activity to inhibit paracetamol-induced liver damage.

Keywords: *Dicliptera bupleuroides* Nees, DNA protection assay, hepatoprotective, hemolysis, histopathology, in-vivo antioxidant.

VERGİ KARMAŞIKLIĞI EKSENİNDE TÜRK VERGİ SİSTEMİNİN İNCELENMESİ EXAMINATION OF THE TURKISH TAX SYSTEM IN TERMS OF TAX COMPLEXITY

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ÖZET

Vergi sistemlerinin giderek karmaşık hale gelmesi farklı kesimlerin basitleştirilmeye yönelik taleplerini artırmıştır. Esasen vergi sistemlerinin basitleştirilmesi 1900'lü yılların başından beri verginin gelir sağlama ve adaletsizlikleri giderme gibi amaçlarının arkasında kalmıştır. Zira son zamanlarda yapılan çalışmalarda vergi sisteminin karmaşıklığının gerek mükellefler gerekse devletler üzerindeki etkilerinden dolayı vergi sisteminin basitleştirilmesi ana gündem maddesi olmaya başlamıştır. Vergi sisteminin karmaşıklığı, şeffaflığı azaltarak mükelleflerin devletlere güvenini zedelemektedir. Ayrıca vergi sisteminin karmaşıklığı; aşırı ve gereksiz şekilde hem parasal hem de zamansal maliyetlere yol açmaktadır. Devletler açısından da çeşitli olumsuzluklara neden olan vergi karmaşıklığının tanımlanması konusunda literatürde farklı görüşler bulunmaktadır. Vergi karmaşıklığı kavramı bakış açısına göre farklı şeyler ifade etmektedir. Tanımlamada ortaya çıkan bu farklılıkların sonucunda karmaşıklığın ölçülmesindeki zorluklar vergi sisteminin basitleştirilmesindeki engellerin temelini oluşturmaktadır. Vergi kanunlarının sayfa sayısının fazlalığı, vergi harcamalarının fazla olması, vergi kanunlarının okunabilirliğinin zorluğu, vergi kanunlarının sık sık değişime uğraması ve mükelleflerin vergiye ilişkin ödevlerini yerine getirirken katlanmış oldukları maliyetlerin gereksiz ve fazla olması vergi karmaşıklığının temel sebepleri arasında yer almaktadır. Vergi kanunlarını anlamakta zorluk yaşayan mükelleflerin, çoğunlukla profesyonel yardım almadan vergisel ödev ve sorumluluklarını yerine getiremediği görülmektedir. Dolayısıyla mükellefler arasında adaletsizliğe neden olarak haksız rekabete yol açmaktadır. Vergi karmaşıklığının giderek artması ve olumsuz etkilere sahip olmasından dolayı basitleştirme girişimleri hız kazanmıştır. Vergi sistemi karmaşıklığının olumsuz etkilerinin artması ve şikayetlerin çoğalması üzerine son yıllarda bazı çalışmalar yapılmaya başlanmıştır. Bir vergi sisteminin basitleştirilmesi konusunda atılacak ilk adım uygulanan vergi kanunlarının gözden geçirilmesidir. Başta vergi sistemi karmaşıklığının ölçümü olmak üzere vergi sisteminin basitleştirilmesi için gerekli girişimler yapılmış ve uygulamaya konulmuştur. Ancak henüz genel kabul görmüş bir ölçüm endeksi de oluşturulamamıştır. Bu çalışma ile Türk vergi sisteminin genel yapısının çeşitli göstergeler ışığında ele alınması ve Türkiye'deki vergi karmaşıklığı durumunun ortaya konulması amaçlanmıştır.

Anahtar Kelimeler: Vergi Karmaşıklığı, Vergi Sisteminin Karmaşıklığı, Vergi Sisteminin Basitleştirilmesi

ABSTRACT

The increasing complexity of tax systems has increased the demands of different segments for simplification. In fact, the simplification of tax systems has been behind the objectives of taxation such as revenue generation and redressing injustices since the early 1900s. Because, in recent studies, simplification of the tax system has become the main agenda item due to the effects of the complexity of the tax system on both taxpayers and states. The complexity of the tax system undermines the trust of taxpayers in governments by reducing transparency. In addition, the complexity of the tax system; This leads to excessive and unnecessary costs, both monetary and timely. There are different opinions in the literature on the definition of tax complexity, which also causes various negativities for states. The concept of tax complexity means different things from one perspective. As a result of these differences in definition, the difficulties in measuring complexity form the basis of the obstacles to the simplification of the tax system. The excessive number of pages of tax laws, high tax expenditures, difficulty in legibility of tax laws, frequent changes in tax laws and unnecessary and excessive costs incurred by taxpayers while fulfilling their tax duties are among the main reasons for tax complexity. It is seen that taxpayers who have difficulty in understanding tax laws cannot fulfill their tax duties and responsibilities without professional help. Therefore, it leads to unfair competition by causing injustice among taxpayers. Simplification attempts have gained momentum due to the increasing complexity of taxation and its negative effects. In recent years, some studies have started to be carried out due to the increase in the negative effects of the complexity of the tax system and the increase of complaints. The first step in simplifying a tax system is a review of applicable tax laws. Necessary attempts have been made and put into practice to simplify the tax system, in particular by measuring the complexity of the tax system. However, a generally accepted measurement index has not been established yet. With this study, it is aimed to deal with the general structure of the Turkish tax system in the light of various indicators and to reveal the tax complexity situation in Turkey.

Keywords: Tax Complexity, Complexity of Tax System, Simplification of Tax System

**STRATEJİK TAKSİMAT (GERRYMANDERİNG) ARACILIĞIYLA MUHALEFETE
GÖZDAĞI VERME: DEMOKRAT PARTİ DÖNEMİNDE KIRŞEHİR'İN MÜLKİ İDARİ
SINIRLARININ DEĞİŞTİRİLMESİ**

INTIMIDATING TO OPPOSITION THROUGH GERRYMANDERING: THE CHANGING THE
ADMINISTRATIVE BOUNDARIES OF KIRŞEHİR PROVINCE DURING THE DEMOCRATIC
PARTY ERA

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ÖZET

Demokrasilerin ontolojik olarak ihtiyaç duyduğu en önemli mekanizmaların başında muhalefet olgusu gelmektedir. Demokrasinin mantığına göre muhalefetin en temel görevlerinden birisi yasal çerçevede içerisinde iktidara yol göstermektir. Muhalif düşünceler ve ideolojiler parti şeklinde örgütlenirse şayet bu partilerin iktidar olmak en önemli amaçları haline gelmektedir. Muhalefetin özgürce faaliyetlerini sürdürmesi ve iktidarın bu sürece müdahale etmemesi, demokratik gelişmişlik düzeyinin de önemli bir parametresi olarak kabul edilmiştir. Demokratik ilkelere ve geleneğe yeni geçen ya da bunları tam olarak özümseyemeyen ülkelerde muhalefet ve iktidar ilişkisi parabolik biçimde seyretmiş ve iktidarın muhalefete tahammülsüzlüğü baş göstermiştir. İktidar ve muhalefet arasındaki çatışmaların yaşandığı ülkelerden birisi olan Türkiye Cumhuriyeti'dir. Osmanlı İmparatorluğundan itibaren muhalefete yönelik hoşgörüsüzlük, tek parti döneminde de devam etmiştir. 1945 yılından itibaren çok partili hayata geçiş ve 1950 yılında Tek Parti iktidarının son bulması, Türk demokrasi tarihine önemli tarihler olarak not düşülmüştür. 1950 seçimlerinden sonra toplumsal muhalefetin CHP'ye yönelik tepkisini doğru şekilde okuyan Demokrat Parti (DP) iktidara gelmiştir. DP seçim propagandasında Tek Parti dönemini otoriter bir yönetim olduğunu sürekli vurgulamıştır. Bir önceki dönemdeki hatalardan güç devşiren, demokratik bir Türkiye inşa etmeyi hedefleyen ve ismini demokrasiyle özdeşleştiren DP'nin liberal söylem ve eylemleri, iktidar ve muhalefet arasındaki ilişkiyi yumuşatmamıştır. Aksine DP kendisine yönelik muhalefete oldukça radikal ve sert biçimde cevap vermiştir. DP'nin muhalefete yönelik bu karşı koyuşunun en bilinen örneklerinden birisi, 1954 seçimlerinden sonra yaşanmıştır. Amerika Birleşik Devletleri'nin (ABD) seçimlerde başvurduğu önemli bir mekanizma olan stratejik taksimatı (gerrymandering), Türkiye'ye ithal etmiş ve 1954 seçim sonuçlarına göre Kırşehir il statüsünden çıkarılmıştır. DP açısından çıkarlarını maksimize etmek için seçim bölgesinin sınırlarını değiştirme olarak kabul edilen bu uygulama, aynı zamanda Cumhuriyetçi Köylü Millet Partisi'ne (CKMP) oy veren Kırşehirliler için cezalandırma anlamına gelmektedir. Bu çalışma, Kırşehir özelinde DP'nin muhalefete yönelik demokrasiyle bağdaşmayan tutum ve uygulamalarını analiz etmeyi amaçlamaktadır. Bu çalışma, bir seçim manipülasyonu olan Gerrymandering'in nasıl bir ceza mekanizmasına dönüştürüldüğünü konu edinmektedir.

Anahtar Kelimeler: Gerrymandering, Demokrat Parti, Kırşehir.

ABSTRACT

The phenomenon of opposition is one of the most important mechanisms that democracies need ontologically. According to the logic of democracy, one of the most fundamental duties of the opposition is to guide the government within the legal framework. If opposing ideas and ideologies are organized as parties, becoming the ruling party becomes the most important aim of these parties. It is accepted as an important parameter of the level of democratic development that the opposition continues its activities freely and that the government does not interfere in this process. In countries that are new to democratic principles and tradition or that cannot fully assimilate them, the relationship between opposition and government has been parabolic and the government's intolerance of opposition has emerged. One of the countries where conflicts between the government and the opposition are experienced is the Republic of Turkey. The intolerance towards the opposition, which started in the Ottoman Empire, continued in the single-party period. The transition to a multi-party system in 1945 and the end of the Single Party rule in 1950 were noted as important dates in the history of Turkish democracy. After the 1950 elections, the Democrat Party (DP), which correctly read the reaction of the social opposition to the CHP, came to power. In its election propaganda, the DP constantly emphasized that the Single Party period was an authoritarian rule. Gaining strength from the mistakes of the previous period, aiming to build a democratic Turkey and identifying its name with democracy, the liberal discourse and actions of the DP did not soften the relationship between the government and the opposition. On the contrary, the DP responded quite radically and harshly to the opposition against itself. One of the most well-known examples of the DP's counteraction to the opposition was experienced after the 1954 elections. Strategic division (gerrymandering), an important mechanism applied by the United States of America (USA) in the elections, was imported to Turkey and Kırşehir lost its provincial status according to the election results of 1954. This practice, which is accepted as changing the boundaries of the electoral district to maximize the interests in terms of DP, also means punishing the voters from Kırşehir who voted for the Republican Peasant Nation Party (CKMP). This study aims to analyze the DP's attitudes and practices towards opposition that are incompatible with democracy specific to Kırşehir. This study discusses how Gerrymandering, which is an election manipulation, is transformed into a punishment mechanism.

Keywords: Gerrymandering, Democrat Party, Kırşehir.

**İŞ KAZALARINDA BİREYSEL VE İŞE DAYALI ÖZELLİKLER: TÜİK SAĞLIK
ARAŞTIRMASI MİKRO VERİLERİ İLE BİR ANALİZ**
INDIVIDUAL AND JOB CHARACTERISTICS IN OCCUPATIONAL ACCIDENTS: ANALYSIS
OF TURKSTAT HEALTH SURVEY MICRO DATASET

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ÖZET

Bu çalışmada Türkiye’de iş kazasına uğrayan bireylerin sosyo-demografik, fizyolojik, psikolojik özelliklerinin ve istihdam edildikleri işe dayalı özelliklerin ortaya çıkartılması amaçlanmıştır. Çalışma iki bölümden oluşmaktadır. Birinci bölümde iş kazalarının nedenlerine ilişkin kavramsal çerçeve oluşturulmuş; ikinci bölümde ise çalışma kapsamında gerçekleştirilen analizler, bulguları ile birlikte sunulmuştur. Çalışmada nicel araştırma yöntemi kullanılmış ve betimsel istatistiklere yer verilmiştir. 2019 TÜİK Sağlık Araştırması mikro veri seti üzerinden analizler gerçekleştirilmiş, iş kazasına uğrayan 815 bin 628 bireye ilişkin sonuçlar grafikler halinde sunulmuştur. Araştırma sonuçlarına göre; Türkiye’de iş kazasına uğrayanlar çoğunlukla erkek, 25-34 yaş aralığında ve düşük eğitimlidir. Bireyin fizyolojik özellikleri arasında en büyük etkenin yorgunluk olduğu ortaya çıkmıştır. Bunun yanı sıra bireyin sağlık durumunun, uyku problemi yaşamasının, kendini değersiz hissetmesinin ve konsantrasyon sorunu yaşamasının iş kazası üzerinde etkili olabileceği görülmüştür. Hizmet, sanayi ve inşaat sektörleri, sırasıyla en çok iş kazasının yaşandığı sektörler olmuştur. İşin özellikleri açısından en çok ücretlilerin iş kazası geçirmesi ise hem nicel çokluk hem de geçim sıkıntısının getirebileceği dalgın olma hali ile açıklanmıştır.

Anahtar Kelimeler: İş kazası, bireysel özellikler, işe dayalı özellikler, TÜİK Sağlık Araştırması

ABSTRACT

This study aimed to reveal the socio-demographic, physiological and psychological characteristics of individuals who had occupational accident in Turkey. In addition, this study examined the effect of job characteristics on occupational accidents. The study consists of two parts. The first part is the conceptual framework regarding the causes of occupational accidents. The second part is the analysis carried out within the scope of the study. Quantitative research method was used in the study and descriptive statistics were included. 2019 TurkStat Health Survey micro dataset was used in this study. The results of 815 thousand 628 individuals who had occupational accident are presented in graphics. According to the research results; those who had occupational accident in Turkey are mostly men, between the ages of 25-34 and with low education. Fatigue is the most important factor among the physiological characteristics of the individual in having occupational accident. In addition, it has been observed that the health status, having sleep problems, feeling worthless and having concentration problems of the individual may have an effect on the occupational accident. It has been revealed that occupational accidents are mostly in the service, industry and construction sectors. In terms of the characteristics of the job, the high probability of having occupational accident in wage earners is explained by both quantitative multiplicity and financial difficulties.

Keywords: Occupational accident, individual characteristics, job characteristics, TurkStat Health Survey

**KAMU YÖNETİMİNDE ÇIKAR ÇATIŞMASI VE ÇIKAR ÇATIŞMASININ NEDEN
OLDUĞU ETİK DIŞI DAVRANIŞLAR**
CONFLICT OF INTEREST IN PUBLIC ADMINISTRATION AND UNETHICAL BEHAVIORS
CAUSED BY CONFLICT OF INTEREST

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ÖZET

Kamu yönetimi, devletin yürütme alanını oluşturan ve vatandaşların ortak ihtiyaçlarının giderilmesi amacıyla faaliyet gösteren yönetsel yapıdır. Kamusal nitelikteki faaliyetleri gerçekleştirmek amacıyla kurulan kamu yönetimi, sunduğu hizmetlerin niteliğiyle toplumun mutluluğunu, huzurunu, güvenliğini, sağlığını ve gelişimini doğrudan etkileyebilmektedir. Vatandaşların yaşamları üzerinde oldukça etkili olan kamu yönetiminin kamu yararı temelinde hizmet sunması gerekmektedir. Kamu yararı, kamu yönetiminin varlık nedenlerinden biri olarak, sunulan tüm hizmetlerde vatandaşların dikkate alınmasını gerektirmektedir. Kamu yararının sağlanabilmesi kamu yönetiminin mümkün olduğunca sorunsuz bir şekilde işlemesi ile yakından ilgilidir. Lakin kamu yönetiminin işleyişi sırasında ortaya çıkan bazı problemler yönetimde kamu yararı ilkesinin ihlal edilmesine ve yönetimin amacı dışında faaliyet göstermesine neden olabilmektedir. Çıkar çatışması, kamu yönetiminin kendisinden beklenen hizmetleri kamu yararı doğrultusunda sunmasını engelleyen temel etik problemlerden biridir. En genel haliyle kamu personelinin görevlerini icra ederken kamusal çıkarlar yerine kişisel çıkarları doğrultusunda hareket etmelerini ifade eden çıkar çatışması, tarihin tüm dönemlerinde varlığını korumuş yönetsel bir sorundur. Günümüz modern devletlerinde çıkar çatışmasının engellenmesine yönelik yasal düzenlemeler mevcuttur. Fakat ilgili düzenlemelerin çıkar çatışmasını tam anlamıyla ortadan kaldırdığını söylemek mümkün değildir. Çıkar çatışması, kamu yönetiminde en hızlı aşılması gereken sorunların başında yer almaktadır. Zira çıkar çatışması, etik problemler yumağıdır. Çıkar çatışması sorunu sonuçları itibariyle kamu yönetiminde birçok etik problemin ortaya çıkmasını beraberinde getirmektedir. Bu durum kamu yönetiminde etik dışı davranışların artmasına neden olmaktadır ve kamu yönetiminin varlık amacı doğrultusunda faaliyet göstermesini engellemektedir. Bu bilgiler ışığında yapılan bu çalışmada öncelikle çıkar çatışması kavramının ve kamu yönetiminde çıkar çatışmasının neyi ifade ettiği açıklanmıştır. Çalışmanın devamında ise, kamu yönetiminde yaşanan çıkar çatışması sonucunda ortaya çıkan etik dışı davranışların neler olduğu ortaya konmaya çalışılmıştır.

Anahtar Kelimeler: Kamu Yönetimi, Çıkar Çatışması, Etik.

ABSTRACT

Public administration is the administrative structure that constitutes the executive area of the state and operates in order to meet the common needs of citizens. Public administration, which was established to carry out public activities, can affect the happiness, peace, safety, health and development of the society directly with the quality of services it provides. Public administration, which is very effective on the lives of citizens, needs to provide services on the basis of public interest. As one of the reasons for the existence of public administration, public interest requires citizens to be taken into account in all services provided. Providing public interest is closely related to public administration's functioning as smoothly as possible. However, some problems that occur during the functioning of public administration may cause the violation of the principle of public interest in administration and administration to operate outside of its purpose. Conflict of interest is one of the basic ethical problems that prevent public administration from providing the services it is expected to provide in line with the public interest. Conflict of interest, which in its most general form refers to public personnel's acting in line with their personal interests rather than public interest while performing their duties, is an administrative problem that has preserved its existence in all periods of history. In today's modern states, there are legal regulations to prevent conflict of interest. However, it is not possible to say that the related regulations completely eliminate conflict of interest. Conflict of interest is one of the most important problems that need to be overcome most rapidly in public administration because conflict of interest is a tangle of ethical problems. In terms of its consequences, conflict of interest brings with it the emergence of many ethical problems in public administration. This situation causes an increase in unethical behaviors in public administration and prevents public administration from operating in line with its purpose of existence. In the light of this information, the present study first explains the concept of conflict of interest and what conflict of interest means in public administration. Rest of the study tries to show the unethical behaviors that emerge as a result of conflict of interest in public administration.

Keywords: Public Administration, Conflict of Interest, Ethics.

**EKOLOJİK AYAK İZİ, KÜRESELLEŞME VE GELİR EŞİTSİZLİĞİ ARASINDAKİ İLİŞKİ-
PANEL NEDENSELLİK ANALİZİ**
THE RELATIONSHIP BETWEEN ECOLOGICAL FOOTPRINT, GLOBALIZATION AND
INCOME INEQUALITY- PANEL CAUSALITY ANALYSIS

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ÖZET

Son yıllarda, çevre kirliliğinin belirleyicilerine ilişkin çeşitli çalışmalar yapılmaya başlanmıştır. Ekolojik ayak izi ve bileşenleri, çevre kirliliğinin bir göstergesi olarak son dönemde çalışmalarda yer almaktadır. Üretim seviyelerini arttırdığı ve çevre teknolojileri sağladığı için küreselleşme de çevre kirliliğinin belirleyicilerinden biri olarak çalışmalarda yer almaktadır. Bu aşamada, gelir düzeyinin çevreye etkisi uzun yıllardır araştırılrsa da gelir dağılımının etkisi ön plana çıkmamıştır.

Bu amaçla çalışmada, BRICS-T (Brezilya, Rusya, Hindistan, Çin, Güney Afrika ve Türkiye) ülkelerinde 1992-2017 yılları için ekolojik ayak izi, küreselleşme ve gelir eşitsizliği arasındaki ilişki incelenmiştir. Çalışma kapsamında üç değişken kullanılmıştır. Bu değişkenler, ekolojik ayak izi, küreselleşme değişkenini temsilen KOF endeksi ve gelir eşitsizliği değişkenini temsilen kullanılan gini katsayısıdır. Değişkenler arasındaki ilişki panel modeli olarak ele alınmış olup küreselleşme, ekolojik ayak izi ve gelir eşitsizliği arasında bir nedensellik ilişkisi olup olmadığı araştırılmıştır. Bunun için çalışmada, öncelikle yatay kesit bağımlılığı ve homojenlik test edilmiştir. Yatay kesit bağımlılığının test edilmesinde Breusch-Pagan LM testi, homojenliğin test edilmesinde Swamy S testi, Pesaran ve Yamagata tarafından geliştirilen D ve Dadj testinden yararlanılmıştır. Daha sonra çalışmada yer alan her bir değişkenin durağanlığı Levin-Lin-Chu ve Im-Pesaran-Shin birim kök testleriyle sınanmıştır. Birim kök testleri sonucunda ekolojik ayak izi ve küreselleşme değişkenlerinin durağan olduğu, gini değişkeninin durağan olmadığı tespit edilmiş ve değişkenin farkı alınarak durağanlaştırılmıştır. Son olarak çalışmada seriler arasındaki nedensellik ilişkisinin sınanmasında Dumitrescu-Hurlin (2012) tarafından geliştirilen nedensellik testi kullanılmıştır. Nedensellik testi sonuçlarına göre BRICS- T ülkelerinde ekolojik ayak izi ile küreselleşme ve gelir eşitsizliği ile ekolojik ayak izi arasında çift yönlü nedensellik bulunmuştur. Küreselleşmeden gelir eşitsizliğine ise tek yönlü nedensellik tespit edilmiştir.

Anahtar Kelimeler: Ekolojik ayak izi, küreselleşme, gelir eşitsizliği, panel nedensellik.

ABSTRACT

In recent years, various studies have been started on the determinants of environmental pollution. Ecological footprint and its components have been included in recent studies as an indicator of environmental pollution. Globalization is also included in studies as one of the determinants of environmental pollution, as it increases production levels and provides environmental technologies. At this stage, although the effect of income level on the environment has been researched for many years, the effect of income distribution has not come to the fore.

For this purpose, in this study, the relationship between ecological footprint, globalization and income inequality in BRICS-T (Brazil, Russia, India, China, South Africa and Turkey) countries for the years 1992-2017 was examined. Three variables were used in the study. These variables are the ecological footprint, the KOF index representing the globalization variable, and the gini coefficient used to represent the income inequality variable. The relationship between the variables was considered as a panel model and it was investigated whether there was a causal relationship between globalization, ecological footprint and income inequality. For this purpose, first of all, cross-section dependence and homogeneity were tested. The Breusch-Pagan LM test was used to test the cross-sectional dependence, the Swamy S test was used to test the homogeneity, and the D and Dadj tests developed by Pesaran and Yamagata were used. Then, the stationarity of each variable in the study was tested with the Levin-Lin-Chu and Im-Peseran-Shin unit root tests. As a result of unit root tests, it was determined that the ecological footprint and globalization variables were stationary, the gini variable was not stationary, and it was stabilized by taking the difference of the variable. Finally, the causality test developed by Dumitrescu-Hurlin (2012) was used to test the causality relationship between the series in the study. According to the causality test results, two-way causality was found between ecological footprint-globalization and income inequality-ecological footprint in BRICS-T countries. One-way causality has been determined from globalization to income inequality.

Keywords: Ecological footprint, globalization, income inequality, panel causality.

**YAPAY SİNİR AĞLARININ KONUT FİYATI MODELLEMESİNDE KULLANIMI
ÜZERİNE BİR ÇALIŞMA**
A STUDY ON THE USE OF ARTIFICIAL NEURAL NETWORKS IN HOUSE PRICE
MODELING

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ÖZET

Yapay sinir ağları, insan beyninin çalışma prensibinden ilham alan güçlü bir doğrusal olmayan regresyon yöntemidir. Doğrusal olmayan süreçleri modellemede başarılı sonuçlar vermesi nedeniyle, yapay sinir ağlarının birçok disiplinde uygulama alanı bulunmaktadır. Yapay sinir ağları finans, mühendislik, tıp ve sanayi gibi birçok alanda ortaya çıkan gerçek yaşam problemlerinin çözümünde sıklıkla kullanılmaktadır. Yapay sinir ağlarında girdi ve çıktılar arasındaki ilişkinin öğrenilmesi söz konusudur. Yapay sinir ağları doğrusal olmayan çok karmaşık yapıda veri kümelerine dayalı olarak tahminleme yapabilmesi ve ilgili süreç hakkında yorum yapmaya imkân sağlaması nedeniyle ön plana çıkan bir yöntemdir.

Konut sektörü teknolojik gelişmelere bağlı olarak refah düzeyinin önemli bir göstergesi haline gelmiştir. Tüketici bütçesinin en büyük harcama kalemini oluşturan konut sektörünün Gayri Safi Yurtiçi Hasıla içindeki konumu göz önüne alındığında konut fiyatına etki eden faktörlerin araştırılması ve analiz edilmesi büyük önem taşımaktadır. Ayrıca konut fiyatlarının doğru bir şekilde tahmin edilmesi konut sektöründeki paydaşlar için önemli bir problemdir. Konut fiyatlarını etkileyen birçok faktörün olması konut fiyatlarının tahmini için oluşturulan modellerin birçok parametre içeren karmaşık yapıda bir model olmasına neden olmaktadır. Bu yapıdaki modellerin doğru tahminler verebilmesi için veri kümesinin iyi tasarlanmış olması ve doğru tahmin yönteminin seçilmesi gereklidir.

Bu çalışmada Adana ili özelinde satışa sunulan konutların fiyatlarının tahmini için yapay sinir ağları ile modelleme göz önüne alınmıştır. Çalışmada konut fiyat tahminini etkileyen konutun büyüklüğü, yaşı, bulunduğu kat, oda sayısı ve bulunduğu ilçe gibi faktörler göz önüne alınarak konut fiyatlarının tahmini için model ortalamasına dayalı yapay sinir ağı modelleri geliştirilmiştir. Modelleme için beş katlı çapraz geçerlilik yöntemi kullanılmış ve hata kareler ortalamasının karekökü kriterine göre optimal model belirlenmiştir.

Anahtar Kelimeler: Yapay sinir ağları, Konut fiyatı tahmini, Öngörü

ABSTRACT

Artificial neural networks are powerful nonlinear regression methods inspired by the working principle of the human brain. Artificial neural networks have application areas in many disciplines because of their successful results in modeling nonlinear processes. Artificial neural networks are frequently used in solving real-life problems in many fields such as finance, engineering, medicine and industry. In artificial neural networks, the main objective is to learn the relationship between inputs and outputs. Artificial neural networks are prominent methods because they can make predictions based on non-linear very complex data sets and allow for interpretation of the related process.

The housing industry has become an important indicator of the level of welfare due to technological developments. Considering the position of the housing industry, which constitutes the largest expenditure item of the consumer budget in the Gross Domestic Product, it is of great importance to investigate and analyze the factors affecting the housing price. In addition, accurate estimation of housing prices is an important problem for stakeholders in the housing industry. The fact that there are many factors affecting housing prices causes the models created for the estimation of housing prices to be complex with many parameters. In order for the models in this structure to give accurate predictions, the data set must be well designed and the correct estimation method must be selected.

In this study, modeling with artificial neural networks has been considered for the estimation of the prices of the houses offered for sale in Adana province. Artificial neural network models based on model averaging were developed for the estimation of housing prices, taking into account the factors such as the size of the house, its age, the floor it is located on, the number of rooms and the district it is located in. The five-fold cross-validation method was used for modeling and the optimal model was determined according to the root-mean-square-mean error criterion.

Keywords: Artificial neural networks, House price estimation, Prediction

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Keywords: Artificial neural networks, House price estimation, Prediction

DESTİNASYON PAZARLAMASINDA ANALİZ YÖNTEMLERİ VE İMAJ YÖNETİMİ: DUBAİ ŞEHİRİ ÖRNEĞİ

ANALYSIS METHODS AND IMAGE MANAGEMENT IN DESTINATION MARKETING: THE
CASE OF DUBAI

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ÖZET

Günümüzde turizm endüstrisi küreselleşme ve yaşanan teknolojik gelişmelerin etkisiyle dünya ekonomisinde önemli bir pay elde etmiştir. Bu çerçevede sadece ülkeler değil, bölgeler, şehirler ve daha küçük ölçekli yaşam alanları da turizm destinasyonları olarak tanıtım faaliyetlerini arttırmış ve çeşitlendirmişlerdir. Destinasyon pazarlaması olarak tanımlanan faaliyetlerin giderek tüm dünyada yaygın ve sürdürülebilir biçimde kullanılmaya başlandığı görülmektedir. Bu faaliyetler turistlerin istek ve ihtiyaçları kadar bir destinasyonun vizyonunu, amaç ve hedeflerini tatmin etmeye yönelik programları kapsamaktadır. Akademik literatür, son yirmi-otuz yıl içinde turizm ve seyahat endüstrilerinin önemli ölçüde gelişip değiştiğini söylemektedir. Özellikle iş ortamları ve pazarları, küreselleşme, değişken piyasalar, yoğun rekabet, farklı türlerde krizlerin ortaya çıkması ve bilgi iletişim teknolojilerine bağlı olarak bilgi ve enformasyonun yayılım hızı gibi bir dizi faktörün bu değişimi tetiklediklerini düşündürmektedir. 2020'li yıllarla başlayan küresel Covid-19 pandemisi ile birlikte sosyal medya kullanımının artması da destinasyon turizmine farklı bir boyut katarak yeni uygulamaları gündeme getirmiştir. Bir destinasyonun turistik açısından çekici kılınması, seyahat etme isteği uyandırması, turizm endüstrisinin tüm paydaşları için faydalı ve beklenen çıktılarını elde edilebilmesi için pazarlama faaliyetleri ile desteklenmesi gerekmektedir. Bu bağlamda turizm destinasyonu için pazarlama ilke ve yöntemlerinin etkin biçimde uygulanması her türlü olumsuz etkiyi en aza indirerek turizmden kaynaklanan faydaları en üst düzeye çıkarmaya yardımcı olacak, paydaşların algıları ve çıkarları bakımından verimli ve akıllı bir süreç yönetimi olacaktır. Geleneksel pazarlama karmaşasını içeren stratejilerin yanı sıra bir destinasyonun turistik potansiyelini geliştirmeye yönelik farklı bileşenler bulunmaktadır. Destinasyon pazarlamasının etkililiğini ölçmek bu alanlardan bir tanesidir. Nitekim destinasyon pazarlamasında kullanılan analizler, şehir ya da bölgenin turistik anlamda kendini geliştirmesi ve rekabetçi avantaj kazanması açısından önemli bir noktaya gelmiştir. Bu araştırmada destinasyon pazarlaması sürecinde kullanılabilecek analizlere yer verilmiştir. Araştırma çerçevesinde söz konusu analiz yöntemleri ortaya konmuş, destinasyon pazarlamasının önemli bileşenlerden biri olarak gösterilen destinasyon imajı ve analiz yöntemlerinden biri olan SWOT analizi Dubai şehri özelinde incelenmiştir. Araştırmanın amacı, destinasyon pazarlamasında kullanılan analiz yöntemleri ekseninde destinasyon imajını bir örnek üzerinden değerlendirmektir. Bu çerçevede araştırma örneğini turistik açıdan dünyanın en gözde destinasyonları arasında gösterilen Dubai şehri oluşturmaktadır. Araştırmada elde edilen bulgular, destinasyon imajının doğru kullanımının destinasyonlar üzerinde olumlu etkiler yarattığını ortaya koymaktadır.

AnahtarKelimeler: Destinasyon Pazarlaması, Dubai, Turizm, İmaj

ABSTRACT

Globalization and technological developments have had significant effects on the tourism sector and have enabled it to gain an important share in the world economy. In this context, not only the countries, but also regions, cities and even smaller locations have increased and diversified their promotional activities as tourism destinations. It is seen that the activities defined as destination marketing are being used widely and sustainably all over the world. These activities include programs aimed at satisfying a destination's vision, goals and objectives as well as the wishes and needs of visitors. Academic literature related to tourism and travel industries have developed and changed significantly in the last two to three decades. It is thought that a number of factors such as business environments and markets, globalization, volatile markets, intense competition, the emergence of different types of crises, and the dissemination speed of information due to information and communication technologies trigger this change. Global Covid-19 pandemic beginning with 2020s and the increase in the use of social media at the same time, have brought new applications in terms of destination tourism to the agenda. A destination should be supported by marketing activities in order to make it attractive in terms of tourism, must create desire to travel, and to obtain useful and expected outputs for all stakeholders of the tourism industry. In this context, the effective application of marketing principles and methods for the tourism destination will help to maximize the benefits arising from tourism by minimizing all kinds of negative effects, and will be an efficient and smart process management in terms of the perceptions and interests of the stakeholders. In addition to the strategies that include the traditional marketing mix, there are different components to improve the touristic potential of a destination. Measuring the effectiveness of destination marketing is one of these areas. As a matter of fact, the analyzes used in destination marketing have come to an important point in terms of the city or region's self-development in touristic terms and gaining competitive advantage. In this study, analyzes that can be used in the destination marketing process are reviewed. Within the framework of the research, the aforementioned analysis methods were revealed, the destination image, which is one of the important components of destination marketing, and the SWOT analysis, one of the analysis methods, were examined for the city of Dubai. The aim of the research is to evaluate the destination image through an example in the axis of the analysis methods used in destination marketing. The sample of the research is Dubai as it is considered one of the most popular global touristic destinations. Findings of the research reveal that the correct use of the destination image creates positive effects on destinations.

Keywords: Destination Marketing, Dubai, Tourism, Image

SÜRDÜRÜLEBİLİRLİK: İŞ İLANLARI ÜZERİNE BİR DEĞERLENDİRME

SUSTAINABILITY: AN EVALUATION OF JOB POSTINGS

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ÖZET

Planlı ve bilinçli kullanım ile bugünün ihtiyaçlarını karşılarken, gelecek nesillerin kaynaklarına zarar vermemeyi özetleyen sürdürülebilirlik, aynı zamanda kaynakların eşit dağılımını amaçlayan bir kavramdır. Sürdürülebilirlik; insanları, politikacıları, işletmeleri gelecek nesillerin dikkate alındığı uzun vadeli kararların alınmasını ve işlerlik kazanması yönünde etkilemektedir. Sürdürülebilir şekilde hareket etmek, (birkaç ay veya yıl yerine) on yıllık bir zaman çerçevesini kapsar ve kısa vadedeki kâr veya zarardan fazlasını dikkate alır. Kurumsal sosyal sorumluluk çalışmaları ile paralel şekilde düşünülmesi gereken sürdürülebilirlik uygulamaları, kurumlara değer katarken dünya için değer üretilmesini sağlamaktadır. Buradaki bir diğer önemli nokta da kurumların çıkarları ile toplumsal çıkarların uyum içinde olmasıdır.

Sürdürülebilirlik kapsamında çevreyi koruma, ekonomik kalkınma, sosyal gelişim başlıklarını kapsayan sürdürülebilirlik; yoksulluk, açlığın önlenmesi, yaşamın daha sağlıklı ve kaliteli hale gelmesi, nitelikli eğitim, toplumsal cinsiyet eşitliği, enerjinin erişilebilir ve temiz olması, insana yakışır iş ve ekonomik büyüme, yenilikçilik, eşitsizliklerin azaltılması, tüketim, iklim, barış, adalet gibi birçok alanda kendini göstermektedir. Kurumlar için temel yönetim fonksiyonlarından biri olması nedeniyle önemli bir konu olan sürdürülebilirlik konuları, planlanma ve uygulanma aşamalarında uzman kişilerin konuya dahil olmasını gerektirmektedir. Bu nedenle kurumlar bu uygulamaları sürdürülebilirlik başlığı altında gerçekleştirebilecek kişileri seçerken farklı tanımlamalar yapıp çeşitli özellikler aramaktadır. Sürdürülebilirlik uygulamaları, işin niteliği ve uygulama alanına göre değişirken iş için alınacak kişilerin özellikleri de sektöre göre belirlenmektedir. Bu çalışmada, Türkiye’de son altı ay içinde “Sürdürülebilirlik” kavramını içeren ilanlar incelenerek, işletmelerin sürdürülebilir olma ya da sürdürülebilirlikten ne beklediği ortaya konulması amaçlanmaktadır. Bu nedenle insan kaynakları alanında tercih edilen beş sitede yayınlanan ilanların içerik analizi yöntemiyle incelenerek bir sonuca ulaşılmaya çalışılması planlanmaktadır. Bu çalışma ile kavramın nasıl yorumlandığının ortaya konulması da hedeflenmektedir.

Anahtar Kelimeler: Sürdürülebilirlik, İlanlar, İçerik Analizi, İnsan Kaynakları Siteleri, Kurumlar.

ABSTRACT

Sustainability, which summarizes not to harm the resources of future generations while meeting the needs of today with planned and conscious use, is also a concept that aims at the equal distribution of resources. Sustainability; It influences people, politicians and businesses to make long-term decisions that take into account future generations and to make them work. Acting sustainably covers a ten-year time frame (rather than a few months or years) and considers more than just short-term profit or loss. Sustainability practices, which should be considered in parallel with corporate social responsibility studies, add value to institutions and create value for the world. Another important point here is that the interests of institutions and social interests are in harmony.

Sustainability, which covers the topics of environmental protection, economic development, and social development within the scope of sustainability; It manifests itself in many areas such as poverty, preventing hunger, making life healthier and more qualified, quality education, gender equality, accessible and clean energy, decent work and economic growth, innovation, reducing inequalities, consumption, climate, peace, and justice. . Sustainability issues, which are an important issue due to being one of the basic management functions for institutions, require the involvement of experts in the planning and implementation stages. For this reason, institutions make different definitions and look for various features when choosing people who can carry out these practices under the title of sustainability. While sustainability practices vary according to the nature of the work and the field of application, the characteristics of the people to be recruited are also determined according to the sector. In this study, it is aimed to reveal what businesses expect from sustainability or sustainability by examining the advertisements containing the concept of "sustainability" in the last six months in Turkey. For this reason, it is planned to try to reach a conclusion by examining the advertisements published on the five preferred sites in the field of human resources by using the content analysis method. With this study, it is also aimed to reveal how the concept is interpreted.

Keywords: Sustainability, Postings, Content Analysis, Human Resources Sites, Institutions.

MARKA İMAJININ ÜLKE İMAJINA ETKİSİ: ÜLKELERİN MARKA DEĞERİNİ ARTIRAN ETMENLER ÜZERİNE BİR DEĞERLENDİRME

THE EFFECT OF BRAND IMAGE ON COUNTRY IMAGE: AN ASSESSMENT ON THE
FACTORS THAT INCREASE THE BRAND VALUE OF COUNTRIES

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ÖZET

İmaj; bir ürün, hizmet ya da nesneyle ilgili insanların zihnindeki algılardır. İnsanların imaj konusunda zihinlerinde oluşan algıların pozitif ya da negatif olması insan algısındaki anlayıştan, beklentilerin gerçekleşip gerçekleşmemesi gibi farklı etkenlerden kaynaklanabilmektedir. Bu çerçevede kurum, kuruluş ya da kişiler insanların algılarına yönlendirdikleri içerikleri ya da sunulan gerçeklikleri belirli yaratıcılık esasına göre sergilemektedir. Bu içeriklerin ve sunumların en belirgin yansıması ve insan zihnindeki belirginliği marka kavramıyla ortaya çıkabilmektedir. Marka; bir ürünün genel olarak üst segmenti, bir hizmetin genel adı ya da insan zihnindeki kalite algısı şeklinde tanımlanabilmektedir. Farkındalık, kimlik, bilinirlik, imaj gibi birçok başlık marka kavramı altında değerlendirilebilmektedir. Bu başlıklara ek olarak marka kavramı şehir yapısıyla da açıklanabilmektedir. Şehir markası kavramı, bir şehir yapısının ve bunun doğal bir sonucu olarak ülke imajının da göstergesi olabilmektedir. Bir şehrin, güzelliklerinin, tabii varlıklarının, sosyo-politik ve kültürel özelliklerinin, ekonomik göstergelerinin, yaşam koşulları ve sosyolojik alt yapısının aktarımında şehir imajı kavramından yararlanılabilmektedir. Şehir imajı kavramının gösterimi ve sunumu için ülkenin üst düzey bürokrasisi ve yerel yönetimlerinde birçok proje ve uygulama yapılmaktadır. Bu proje ve uygulamalar şehrin dokusuna da etki etmektedir. Ek olarak genel hatlarıyla insanların yaşamları çerçevesinde gelişim gösterdiğinden, ülkenin imajının da olumlu ya da olumsuz belirleyicisi olabilmektedir. İyi ve pozitif bir şehir imajı yapılan projeler ve üretilen içeriklerle marka olmayı başarabilme durumunu ortaya koymaktadır. Marka şehir segmentinin üst varyasyonu ise ülke imajının olumlu olarak algılanması ve dünya çapında o ülke ile ilgili pozitif algıların oluşmasıyla mümkün olabilmektedir. Bu doğrultuda çalışmada imaj, marka imajı ve ülke imajı kavramları literatür incelemesi şeklinde ele alınmaktadır. Ek olarak marka imajının ülke imajına etkisi bir ülkeye ait belirli bir özelliğin aktarılması ve örnekler dahilinde yorumlanmasıyla desteklenmektedir.

Anahtar Kelimeler: İmaj, Küresel Kentler, Marka İmajı, Şehir İmajı, Ülke İmajı.

ABSTRACT

Image; Perceptions in people's minds about a product, service or object. The fact that people's perceptions about the image are positive or negative can be caused by different factors such as the understanding in human perception and whether the expectations are realized or not. In this framework, institutions, organizations or individuals display the contents they direct to people's perceptions or the presented realities on the basis of certain creativity. The most obvious reflection and clarity of these contents and presentations in the human mind can be revealed with the concept of brand. Brand; It can be defined as the upper segment of a product, the general name of a service or the perception of quality in the human mind. Many titles such as awareness, identity, awareness, image can be evaluated under the concept of brand. In addition to these titles, the concept of brand can also be explained by the city structure. The concept of city brand can also be an indicator of a city structure and, as a natural consequence, the image of the country. The concept of city image can be used to convey the beauties, natural assets, socio-political and cultural characteristics, economic indicators, living conditions and sociological infrastructure of a city. Many projects and practices are carried out in the country's high-level bureaucracy and local administrations for the demonstration and presentation of the concept of city image. These projects and practices also affect the texture of the city. In addition, since it develops within the framework of people's lives in general terms, it can also be a positive or negative determinant of the country's image. A good and positive city image reveals the state of being a brand with the projects and the content produced. The upper variation of the brand city segment is possible with the positive perception of the country image and the formation of positive perceptions about that country worldwide. In this direction, the concepts of image, brand image and country image are discussed in the form of a literature review. In addition, the effect of brand image on country image is supported by transferring a specific feature of a country and interpreting it within examples.

Keywords: Image, Global Cities, Brand Image, City Image, Country Image.

**ATIK KAUCUKLARDAN ELDE EDİLEN GERİ DÖNÜŞÜM KARBON SİYAHININ
PEROKSİT PİŞİRİCİ SİSTEMLİ EPDM KAUCUK KARIŞIMINA ETKİSİNİN
İNCELENMESİ**

INVESTIGATION OF EFFECT OF RECYCLED CARBON BLACK OBTAINED FROM WASTE
RUBBERS ON EPDM RUBBER COMPOUNDS WITH PEROXIDE CURING SYSTEM

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ÖZET

Atık Kauçukların geri dönüşümü ülkemizde ve Dünya’da çevre sağlığı için büyük önem taşımaktadır. Vulkanizasyon ile polimer zincirleri arasında çapraz bağlanmalar oluşmaktadır. Kullanım ömrünü tamamlamış ya da teknik hurda olarak atık hale gelmiş kauçukların geri dönüşümü oldukça zordur. Bu çalışmada, atık kauçukların geri dönüşüm yöntemlerinden olan piroliz yöntemi uygulanmıştır. Piroliz yöntemi sonucunda elde edilen geri dönüşüm karbon siyahı ve orijinal karbon siyahı peroksit pişirici sistemine sahip Etilen Propilen Dien kauçuk karışımında dolgu maddesi olarak kullanılmıştır. Bu kapsamda 5 farklı EPDM karışım reçetesi hazırlanmıştır. Reçete tasarımında diğer bileşenler sabit tutulurken orijinal karbon siyahı yerine geri dönüşüm karbon siyahı belirli oranlarda değiştirilmiştir. Bu oranlar 100:0, 75:25, 50:50, 25:75, 0: 100’dir. Deneme karışımlarının rheolojik özelliklerini belirlemek amacıyla rheometre testi, viskozitelerini belirlemek için mooney viskozimetre testi yapılmıştır. Geri dönüşüm karbon siyahının karışımların fiziksel ve mekanik özelliklerinin belirlenmesi için laboratuvar ölçekli kompresyon preste 2 mm kalınlığında standart test plakaları hazırlanmıştır ve testleri gerçekleştirilmiştir. Bu çalışma ile kauçuk karışım reçetesi içerisinde geri dönüşüm karbon siyahı kullanımının artmasıyla; karışım mooney viskozimetresinde azalma, rheometre ml ve mh değerlerinde azalma, karışımın mekanik özelliklerinde büyük bir değişim ve kalıcı deformasyon değerlerinde kötüleşme tespit edilmiştir.

Anahtar Kelimeler: EPDM kauçuk, geri dönüşüm karbon siyahı, kauçuk testleri

ABSTRACT

The recycling of waste rubbers is of great importance for environmental health in our country and in the world. Cross-linking occurs between polymer chains by vulcanization. It is very difficult to recycle rubbers that have completed their useful life or became waste as technical scraps. In this study, pyrolysis method, which is one of the recycling methods of waste rubber, was applied. Recycled carbon black that obtained as a result of pyrolysis method and original carbon black were used as filler in the Ethylene Propylene Diene rubber compound with peroxide curing system. In this context, 5 different compound recipes were prepared. In the recipe design other components were kept constant, recycled carbon black was changed at certain rates instead of the original carbon black. These ratios are 100:0, 75:25, 50:50, 25:75, 0:100. Rheometer test was used to determine the rheological properties of the trial mixtures, and the mooney viscometer test was used to determine their viscosities. In order to determine the physical and mechanical properties of the recycled carbon black mixtures, 2 mm thick standard test plates were prepared in a laboratory scale compression press and tests were carried out. With this study, with the increase in the use of recycling carbon black in the rubber mixture recipe; decrease in compound mooney viscometer, decrease in rheometer ml and mh values, A large change in the mechanical properties of the mixture and a worsening in the permanent deformation values were detected.

Keywords: EPDM Rubber, Recycled Carbon Black, Rubber Tests

**RADIOLOGIC FEATURES OF GORLIN-GOLTZ SYNDROME: A RARE CASE AND
LITERATURE REVIEW**
GORLIN-GOLTZ SENDROMUNUN RADYOLOJİK ÖZELLİKLERİ: NADİR BİR OLGU VE
LİTERATÜR ÇALIŞMASI

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ÖZET

1960 yılında Gorlin-Goltz tarafından tanımlanan Gorlin-Goltz sendromu, nadir görülen genetik bir hastalık olup, çoklu bazal hücre karsinomu, çene keratositleri ve iskelet anomalilerinden oluşan ve esas üçlü olarak adlandırılan bir durumu tanımlar. Bu çalışmada, baş ağrısı şikayeti ile beyin cerrahisi bölümüne müracaat eden 16 yaşındaki bir kadın hastanın klinik, radyolojik, histopatolojik ve anamnez açısından bulguları sunulmuştur. Hastanın ön kranial fossa tabanında yerleşen menenjiyom nedeniyle hastaneye yatışı yapıldı. Beyin kontrastlı Bilgisayarlı Tomografi (BT) ve Manyetik Rezonans Görüntüleme (MRG) ile Toraks BT yöntemleri neticesinde, Gorlin sendromu teşhisi konuldu. Olguda lateral ventriküller hafif dilate olup frontal hornları genişlemiştir. Koronal planda BT imajında solda bifid kosta anomalisi, sagittal planda BT imajında pes carinatum (güvercin göğüs), aksiyel planda kontrastlı BT ve MRG imajında bilateral sağ ve sol overlerde yerleşmiş 43×38mm ve 52×43mm boyutunda ovarian kalsifikasyon içeren kitleler (ovarian fibroid tümörler ve fibrosarkom), aksiyel/sagittal/koronal planda BT imajlarında yaygın falx cerebri ve tentorium kalsifikasyonları, koronal planda kontrastlı beyin MRG'de sol frontal lobda patoloji bulguları menenjiom ile uyumlu lezyon saptanmıştır.

Bu çalışmada, Gorlin-Goltz sendromlu hastaya ait detaylı bilgilendirme sunuldu: Falx cerebri kalsifikasyonları, bifid kosta, pes carinatum, bilateral ovarian kalsifikasyon içeren kitleler. Gorlin-Goltz sendromlu hastalar, tanıyı tam ve doğru bir şekilde koymak, olası genetik ve embriyolojik temeli belirlemek ve çeşitli klinik belirtileri yönetmek için birçok uzman tarafından detaylı olarak değerlendirilmelidir. Erken tanı ve tedavinin Gorlin-Goltz sendromunun malignite veya diğer komplikasyonları, deformasyonu ve olası bir yıkımını içeren uzun dönem etkisinin yaratacağı şiddeti azaltabileceğini düşünmekteyiz.

Anahtar Kelimeler: Gorlin-Goltz sendromu; iskelet anomalileri; falks serebri kalsifikasyonu

ABSTRACT

Gorlin-Goltz syndrome, described by Gorlin and Goltz in 1960 is a rare genetic disorder and describes a condition called the principal triad comprising of multiple basal cell carcinomas, jaw keratocysts, and skeletal anomalies. In this paper, findings of the case of a 16-year-old female who was admitted to a department of neurosurgery due to a headache complaint in terms of clinical, radiological, histopathological and anamnesis were presented. Patient was hospitalized with a diagnosis of meningioma located at the anterior cranial fossa skull base. Patient was evaluated in terms of clinical, radiological, histopathological and anamnesis. Inconsequence of the both brain contrast enhanced MRI and computed tomography (CT), and thorax CT, Gorlin sendromu was diagnosed. Also, the ventriculus lateralis is slightly dilated and its frontal horns are enlarged in this case. Bifid costa anomaly on the left side in the coronal plane CT image, pes carinatus on the sagittal CT image, and ovarian calcification masses (ovarian fibroid tumors and fibrosarcoma) which the sizes were 43*38mm and 52*43mm located in the bilateral right and left ovaries, and diffuse falx cerebri, tentorium calcifications in axial/sagittal coronal plane CT images, lesion areas compatible with meningioma in the left frontal lobe in brain contrast-enhanced MRI were detected. So, in this paper we presented the detailed knowledge of the Gorlin-Goltz syndrome: Calcification of the falx cerebri, bifid costa, pes carinatus (pige on chest), bilateral ovarian calcifications.

The patients with Gorlin-Goltz syndrome should be evaluated by many specialists to identify the diagnosis accurately and exactly, determine the likely genetic basis, embryology, and manage the various clinical manifestations. We think that early diagnosis and treatment may decrease the severity of the long term effects of Gorlin-Goltz syndrome including malignancy or other complications, deformation and destruction.

KeyWords: Gorlin-Goltz syndrome; Skeletal Anomalies; falx cerebri calcifications

**RADIOLOGIC FINDINGS OF TUBEROUS SCLEROSIS BOURNEVILLE SYNDROME: A
CASE AND LITERATURE REVIEW**
TUBEROZ SKLEROZ BOURNEVILLE SENDROMU RADYOLOJİK BULGULARI: BİR VAKA
VE LİTERATÜR ÇALIŞMASI

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ÖZET

Tuberoz skleroz, ilk kez 1862 yılında Von Recklinghausen tarafından, beyinde sklerotik alanlar ve kalpte tümör ile karakterize bulgular olarak bir bebeğin otopsisinde tarif edilmiştir. Bourneville ise, 1880 yılında “tuberoz skleroz terimini”, hastalığı ilk kez ayrı bir sendrom olarak tanımlayarak kullanmıştır. Tuberoz skleroz, aslında merkezi sinir sistemini (MSS) kapsayan ve çoklu organ sistemlerini etkileyen anormallikleri içeren genetik bir hastalık olmasına rağmen, zekâ geriliği, epilepsi ve adenoma sebaseum’u içerecek şekilde klinik üçlü olarak da tanımlanır. Bu çalışmada, bulantı, kusma ve hematüri şikayeti ile Acil Polikliniği’ne başvuran 38 yaşında kadın bir hastaya ait radyolojik ve anatomik bulular sunuldu. Aksiyel planda beyin BT (bilgisayarlı tomografi) imajında sağ bulbus okulide kalsifik retinal fakoma ve sol temporal fossada araknoid kist, koronal ve sagittal planda toraks BT imajında myokardta yağ odakları, koronal planda batın BT imajında, sağda daha büyük boyutlarda olmak üzere bilateral böbreklerde yağ dansitesinde alanlar içeren anjiomyolipomlar, aksiyel planda MR imajında bilateral frontoparyetal kortikal/subkortikal tüberler, aksiyel planda BT imajında lateral ventriküllerde subependimal kalsifik hamartomlar, sagittal planda toraks BT imajında torakal vertebralarda sklerotik lezyonlar görüldü ve tuberosklerozis tanısı konuldu. Bu anomalinin varlığı, hastalarda MSS patolojileri ve renal anomaliler gibi patolojilerin ilerlemesinin engellenmesi için giderek daha önemli hale gelmektedir. Bu nedenle Tuberoskleroz varyasyonlarının detaylı bilgisi özellikle nöroradyoloji için klinik, genetik ve radyolojik bulgular hakkında hayati önem taşır.

Anahtar Kelimeler: Bourneville, nörofibrom, tuberoskleroz

ABSTRACT

Tuberous Sclerosis was first described by VonRecklinghausen in 1862 in the autopsy of an infant as findings characterized by sclerotic areas in the brain and a tumor in the heart. Bourneville, on the other hand, used the term tuberous sclerosis in 1880 by defining the disease as a separate syndrome for the first time. Although, tuberous sclerosis is actually a genetic disease involving abnormalities that affects multiple organ systems including the central nervous system (CNS), it is also defined as the clinical triad including the mental retardation, epilepsy and adenoma sebaceum. In this paper, radiological findings of the case of a 38-year-old female who was admitted to emergency department due to nausea, vomiting and hematuria. Several anomalies which consist of calcified retinal phacoma in the right bulbus oculi and arachnoid cyst in the left temporal fossa in the axial plane brain Computed Tomography (CT), myocardial fatty foci in the thorax CT in the coronal and sagittal plane, angiomyolipomas containing fat-density areas in the bilateral kidneys (the larger sizes on the right side kidney), bilateral frontoparietal cortical/subcortical tubers in the MRI axial plane, subependymal calcific hamartomas in the lateral ventricles in the CT image axial plane, sclerotic lesions in the thoracic vertebrae in the sagittal thoracic CT image were seen and Tuberous sclerosis was diagnosed. The presence of this anomaly is becoming increasingly important to prevent the progression of the pathologies such as central nervous system pathologies and renal anomalies. So, detailed knowledge of Tuberous sclerosis variations is paramount for especially neuroradiology about clinic, genetic, and radiologic manifestations

KeyWords: Bourneville; Neurofibroma; Tuberous Sclerosis;

**ARAMİD İPLİK YERİNE POLİETİLEN TEREFTALAT İPLİK KULLANIMININ
RADYATÖR HORTUMLARININ PERFORMANSINA ETKİSİNİN İNCELENMESİ**
INVESTIGATION OF THE EFFECT OF USING POLYETHYLENE TEREPHTALATE YARN
INSTEAD OF ARAMID ON THE PERFORMANCE OF RADIATOR HOSES

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ÖZET

Otomotiv radyatörüne bağlanan kauçuk hortumların içerisinden antifriz sıvısı geçirilerek motorun ve yağın soğutulması sağlanmaktadır. Hortumların içerisinden geçen akışkan sıvının sıcaklığı 120°C, dış ortamda maruz kaldıkları sıcaklık ise -40 ila 140 °C arasında değişmektedir. Soğutma sistemlerinde kullanılan radyatör hortumların hem iç sıcaklığa hem de dışarıdan maruz kaldıkları dış sıcaklığa karşı dayanıklı olması gerekmektedir. EPDM kauçuklar antifrize, oksidasyona ve ozona karşı yüksek dirence sahip oldukları ve yüksek sıcaklıkta bile kararlı yalıtım özelliği gösterdikleri için radyatör hortumlarının üretiminde yaygın olarak kullanılmaktadır.

Akışkan sistem taşıyan, esnek ve dayanıklı yapıya sahip radyatör hortumlarının üretimi sırasında hortuma dayanım ve esneklik kazandırmak için, hortum ömrüne doğrudan etki eden takviye örgüler kullanılmaktadır. Fiberler birleştirilerek takviye örgülerde kullanılmak için iplikler haline getirilir. Elde edilen bu ipliklerin ağırlık birimleri dtex cinsinden belirtilir. Dtex 10.000 metre uzunluğundaki tekstil malzemesinin gram cinsinden ağırlık değeri olarak tanımlanmaktadır. Hortum yapısında kullanılan bu takviye ipliklerin hortumların kullanım şartlarına dayanım göstermesi gerekmektedir. Yüksek mukavemete sahip olan Aramid iplikler radyatör hortumlarında yaygın olarak kullanılmaktadır.

Bu çalışma kapsamında Aramid fiber yerine PET fiberlerin radyatör hortumlarında takviye malzeme olarak kullanılması incelenecektir. Çalışmada öncelikli farklı fiberlerden oluşan ipliklerin mekanik özelliklerini belirlemek için çekme testi yapılacaktır. Çalışmanın ikinci aşamasında ise farklı tiplere ve dtex sahip iplikler ile hortum üretimi gerçekleştirilecektir. Üretilen hortumlar üzerinden performans testleri yapılarak farklı fiber tiplerinin kauçuk hortumların performansına etkileri incelenecektir.

Anahtar Kelimeler: : Kauçuk hortum, takviye, fiber, aramid, Polietilen Tereftalat

ABSTRACT

Antifreeze liquid is passed through the rubber hoses connected to the automotive radiator to cool the engine and oil. The temperature of the fluid passing through the hoses is 120°C, and the temperature they are exposed to in the outdoor environment varies between -40°C and 140°C. The radiator hoses used in cooling systems must be resistant to both the internal temperature and the external temperature to which they are exposed. EPDM rubbers are widely used in the production of radiator hoses because they have high resistance to antifreeze, oxidation and ozone and show stable insulation properties even at high temperatures.

During the production of flexible and durable radiator hoses that carry a fluid system, reinforcement braids are used that directly affect the life of the hose in order to provide strength and flexibility to the hose. The fibers are combined into yarns for use in reinforcing braids. The weight units of these yarns are specified in dtex. Dtex is defined as the weight value in grams of a 10,000 meter long textile material. These reinforcing threads used in the hose structure must withstand the conditions of use of the hoses. Aramid yarns with high strength are widely used in radiator hoses.

In this study, the use of PET fibers as reinforcement material in radiator hoses instead of Aramid fiber will be examined. In the study, tensile test will be performed to determine the mechanical properties of the yarns consisting of different fibers. In the second stage of the study, hose production will be carried out with yarns of different types and dtex. The effects of different fiber types on the performance of rubber hoses will be examined by performing performance tests on the produced hoses.

Keywords: Rubber hose, reinforcement, fiber, aramid, Polyethylene Terephthalate

**EPDM KAUÇUK KARIŞIMINDA PEROKSİT KÜRLEYİCİ SİSTEMİNİN KRİSTALLENME
OLUŞUMUNA ETKİSİNİN İNCELENMESİ**
INVESTIGATION OF THE EFFECT OF PEROXIDE VULCANIZATION SYSTEM ON
CRYSTALIZATION IN EPDM RUBBER MIXTURE

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ÖZET

Etilen Propilen Dien kauçuğu (EPDM) Propilen ve doymamış dienin kopolimerizasyonu ile üretilen bir çeşit polimer malzemedir. EPDM düşük yoğunluğu, oksijen, ısı, hava şartlarına ve ozona karşı yüksek dayanıma sahip bir kauçuk malzemedir. Vulkanizasyon, kauçuk malzemelerinin yapılarında çapraz bağlanma reaksiyonlarının gerçekleşmesi sonucu geri dönüşümü olmaksızın elastik özellikler kazandırma prosesidir. Çapraz bağlanma sonrasında kauçukların sahip olduğu yüksek plastik özellikler yerini yüksek elastik özelliklere bırakır. Bir veya daha fazla oksijen- oksijen bağına sahip bileşikler organik peroksitler olarak adlandırılır. Ticari olarak kullanılan organik bileşiklerin amacı serbest radikaller üretmek ve bu radikallerin elastomerlerde hidrojen koparma veya çift bağlara ilave olarak çapraz bağ yapısını meydana getirmektir. Üretilen serbest radikallerin enerji seviyeleri, termal ve kimyasal kararlılıkları peroksidin yapısından etkilenmektedir. Peroksitle vulkanizasyon sistemlerinde çapraz bağlanma üç aşamadan oluşmaktadır. Termal enerjinin peroksit molekülündeki oksijen-oksijen çift bağlarını kırarak iki tane radikalın oluşması (homolitik ayrışma) ilk aşama olarak nitelendirilir. Bu radikallerin polimer zincirindeki hidrojen atomlarını uzaklaştırması ve polimer radikallerin oluşması (hidrojen soyutlama) peroksit ile vulkanizasyon sistemlerinde ikinci aşamadır. Üçüncü aşamada ise iki polimer radikal çapraz bağ oluşturur (radikal bağlanması) ve vulkanizasyon tamamlanır. Peroksit ile vulkanizasyon, yüksek vulkanizasyon sıcaklıklarında bile düşük kalıcı deformasyon, basit hamur formülasyonu, scorch olmadan depolama imkanı, vulkanizatların iyi elektriksel özellikleri, yüksek sıcaklıklarda ısıl kararlılıklarının iyi olması gibi avantajlar sağlamaktadır. Statik ve dinamik uygulamalarda özelliklerinin çok iyi olması nedeni ile otomotiv endüstrisinde, hortum ve profiller başta olmak üzere çok geniş bir kullanım ağına sahiptir. Otomotiv sanayinde hortumlar üzerinde oluşabilecek kirlilikler istenmemektedir. Peroksit yeterince kullanılmazsa kürlenmiş parçanın yüzeyine göç edebilirler. Bu, beyaz veya gri bir kalıntı olarak yüzeyde kirliliğe yol açar. Genelde VC tipi peroksit vulkanizasyon ajanı harici ile üretilen karışımlarda peroksit kaynaklı kristallenme görülmemektedir. Bu çalışmada, EPDM kauçuklarda kullanılan VC tipi peroksit vulkanize edici ajanların kauçuk karışımları üzerindeki oluşturdukları kristallerin nedenleri üzerine durulmuştur. Bis peroksit, üretilen ürünlerde kristallenmeye neden olmasına rağmen kokusuz olması nedeniyle piyasada yaygın olarak kullanılan farklı tipteki elastomerlerin çapraz bağlanması/kürlenmesinde mükemmel performansa sahip dialkil sınıfından organik bir peroksittir. Bu çalışmada, farklı EPDM karışımları üretilmiştir. Farklı oranlarda koajan ve kürleyici ajan miktarının EPDM karışımlarında kristallenmeye olan etkileri incelenmiştir. Öncelikle peroksit miktarı sabit tutulmuştur ve 1-3-5 phr oranlarında koajan kullanılmıştır. Sonrasında Koajan miktarı sabit tutulup 3.5-7-14 phr oranlarında peroksit vulkanizasyon ajanı kullanılmıştır. Ardından üretilen karışımlar üzerinde koajan ve vulkanize edici ajanların peroksit kristallenmesine olan etkileri incelenmiştir.

Anahtar Kelimeler: EPDM kauçuk, Kristallenme, Peroksit Kusması, EPDM kauçuk karışımı

ABSTRACT

Ethylene Propylene Diene rubber (EPDM) It is a kind of polymer material produced by copolymerization of propylene and unsaturated diene. EPDM is a rubber material with low density, high resistance to oxygen, heat, weather conditions and ozone. Vulcanization is the process of gaining elastic properties without recycling as a result of cross-linking reactions in the structures of rubber materials. After crosslinking, the high plastic properties of rubbers are replaced by high elastic properties. Compounds with one or more oxygen-oxygen bonds are called organic peroxides. The purpose of commercially used organic compounds is to generate free radicals and to create crosslink structure of these radicals in addition to hydrogen cleavage or double bonds in elastomers. The energy levels, thermal and chemical stability of the produced free radicals are affected by the structure of the peroxide. Crosslinking in peroxide curing systems consists of three stages. The formation of two radicals (homolytic dissociation) by breaking the oxygen-oxygen double bonds in the peroxide molecule of thermal energy is characterized as the first step. The removal of hydrogen atoms in the polymer chain by these radicals and the formation of polymer radicals (hydrogen abstraction) is the second step in peroxide vulcanization systems. In the third step, the two polymers form a radical crosslink (radical bonding) and vulcanization is completed. Peroxide vulcanization provides advantages such as low permanent deformation even at high curing temperatures, simple paste formulation, storage without scorch, good electrical properties of vulcanizates, good thermal stability at high temperatures. Due to its very good properties in static and dynamic applications, it has a very wide usage network in the automotive industry, especially hoses and profiles. Pollution that may occur on hoses in the automotive industry is not desired. If the peroxide is not used enough, they can migrate to the surface of the cured part. This results in surface contamination as a white or gray residue. In general, peroxide-induced crystallization is not observed in the mixtures produced with the exception of the VC type peroxide curing agent. In this study, the reasons for the crystals formed on rubber mixtures of VC type peroxide vulcanizing agents used in EPDM rubbers are emphasized. Bis peroxide is an organic peroxide of dialkyl class, which has excellent performance in crosslinking/curing of different types of elastomers widely used in the market due to its odorless nature although it causes crystallization in the products produced. In this study, different EPDM mixtures were produced. The effects of different amounts of coagent and curing agent on crystallization in EPDM mixtures were investigated. First of all, the amount of peroxide was kept constant and coagent was used at 1-3-5 phr ratios. Afterwards, the amount of coagent was kept constant and peroxide vulcanizing agent was used at 3.5-7-14 phr ratios. Then, the effects of coagent and vulcanizing agents on peroxide crystallization on the produced mixtures were investigated.

Keywords: EPDM rubber, Crystallization, Peroxide Blooming, EPDM rubber mixture

ALOE VERA BİKİSİNDEN EDE EDİLEN MORDANIN DOĞAL BOYALI KAĞITLARDA UV PERFORMANSI

UV PERFORMANCE OF MORDANT MADE FROM ALOE VERA PLANT ON NATURAL
DYED PAPER

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ÖZET

Bu çalışmada, doğal boyarmadde kaynağı olarak ülkemizde yayılış alanı yaklaşık 6 milyon hektar olan kızılçam (*Pinus brutia*) ağacının kabuğu kullanılmıştır. Kızılçam kabuğundan boyarmadde, eldesi su ekstraksiyonu ile yapılmıştır. Renklendirme işleminde doğal boyarmaddelerin etkileşimleri zayıf olduğundan kalıcı olabilmeleri ve odun hamuruna daha güçlü sabitlenmeleri için bir mordan gerekir. Mordan, doğal boya ile odun lifi (selüloz) arasında oluşan kimyasal tepkimeye yardımcı olan ve böylece boyanın emilmesini sağlayan bir maddedir. Mordanlı boyamada, mordanın etkisi ile, malzeme ışığa maruz kaldığında veya yıkandığında solmaya karşı daha dirençli olur. Mordan olarak aloe vera (*Aleo vera* L.) bitkisinin yapraklarındaki jelimsi tabaka tercih edilmiştir. Beraber mordanlama tekniği uygulanmıştır.

Renk ölçümlerinde, kolorimetrik ölçüm (CIE L* a* b* sistemi) tekniği kullanılmıştır. Doğal mordan ilavesi ile UV öncesi yapılan kolorimetrik ölçümlerde, aloe vera miktarının artması ile daha parlak bir renk elde edildiği tespit edilmiştir. UV süreleri 24, 48, 96 ve 120 saat olarak seçilmiştir. UV sonrası yapılan renk ölçümlerinin parlaklık değerlerinde sırasıyla; %1,42 - %3,00 - %3,70 ve %3,86 oranlarında azalma olduğu görülmüştür. Bu değerler; kızılçam kabuğu boyalı kağıtlarda UV sonrası aloe vera'dan elde edilen doğal mordanın renk tutulumunda başarılı olduğunu göstermektedir. Bu çalışmanın devamında hem kızılçam kabuğundan hem de diğer lignoselülozik kaynaklardan elde olunan doğal boyalarla farklı karışım oranlarında farklı mordanlama tekniği ile çalışmalar yapılması planlanmıştır. Bu çalışma, sadece odun lifinin (selüloz) değil, diğer liflerden yapılan farklı ürünlerin doğal boya tutulumunda doğal mordan olarak aloe vera kullanılarak daha birçok doğal malzemenin geliştirilebileceği önemli bir temeli oluşturmaktadır.

Anahtar Kelimeler: Odun selülozu, doğal boya, kızılçam kabuğu, aloe vera, mordan.

ABSTRACT

In this study, the bark of the red pine (*Pinus brutia*) tree, whose distribution area is approximately 6 million hectares in our country, was used as a natural dyestuff source. The dyestuff is made from red pine bark by extraction of water. Since the interactions of natural dyestuffs are weak in the coloring process, a mordant is required to be permanent and to be fixed to the wood pulp more strongly. Mordant is a substance that helps the chemical reaction between natural dye and wood fiber (cellulose), thus allowing the dye to be absorbed. In dyeing with mordant, due to the effect of mordant, the material becomes more resistant to fading when exposed to light or washed. The gel-like layer on the leaves of the aloe vera (*Aleo vera L.*) plant was preferred as a mordant. Co-mordanting technique was applied. The colorimetric measurement (CIE L* a* b* system) technique was used for color measurements. In colorimetric measurements made before UV with the addition of natural mordant, it was determined that a brighter color was obtained with an increase in the amount of aloe vera. UV times were selected as 24, 48, 96 and 120 hours. In the brightness values of the color measurements made after UV, respectively; It was observed that there was a decrease of 1.42% - 3.00% - 3.70% and 3.86%. These values are; shows that natural mordant obtained from aloe vera after UV is successful in color retention on red pine bark dyed papers. In the further of this study, it is planned to carry out studies with different mordanting techniques at different mixing ratios with natural dyes obtained from both red pine bark and other lignocellulosic sources. This study provides an important basis on which many more natural materials can be developed by using aloe vera as a natural mordant in the natural dye retention of not only wood fiber (cellulose), but also different products made from other fibers.

Keywords: Wood cellulose, natural dye, Turkish red pine bark, aloe vera, mordant.

**ATIK SOĞAN KABUĞUNDAN ELDE EDİLMİŞ BOYARMADDE İLE KAĞIT HAMURU
BOYAMADA DOĞAL MORDAN KULLANIMININ ETKİSİ**

THE EFFECT OF USING NATURAL MORDANT ON PAPER DYEING WITH DYESTUFF
MADE FROM WASTE ONION SKIN

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ÖZET

Çevre dostu doğal boyarmaddelerin kağıt gibi malzemelerin renklendirilmesi için kullanılması çevre kirliliğinin azaltılmasında büyük önem arz etmektedir. Mordanlar boyanın sabitlenmesinde önemlidir. Günümüzde, endüstriyel organik atıklar veya yan ürünler, bitkilerin farklı kısımları (kök, gövde, dal, yaprak, çiçek, kabuk), alternatif doğal boya ve mordan kaynakları olarak giderek daha da popüler hale gelmektedir. Doğal boyarmaddeler geleneksel olarak bitkilerden, hayvanlardan ve minerallerden elde edilmektedir. Günümüzde çeşitli sanayi ve tarım kaynaklı biyolojik atık ve yan ürünlerin faydaya dönüştürülmesi sürdürülebilirlik ve ekoloji açısından önemlidir.

Bu çalışmada, soğanın (*Allium cepa*) mutfaklarda kullanılmayan kabuğu tercih edilmiştir. Soğan kabuğu, soğanın en dışındaki tabakasıdır ve quercetin gibi doğal boyama bileşiklerinin kaynağı olarak bilinmektedir. Çalışmada soğan kabuğundan ekstraksiyon yöntemi ile elde edilen doğal boyarmadde ile kağıt boyamada, aloe vera (*Aleo vera L.*) bitkisinin içinde bulunan jelimsi sıvının mordan olarak kullanımı, araştırılmıştır. Mordanlama yöntemi olarak, beraber mordanlama kullanılmıştır. CIE L* a* b* renk sistemi ile renk parametreleri çalışılmış ve 24 – 48 – 96 ve 120 saat koşulları altında UV etkileri incelenmiştir.

Aloe vera ilavesi, mordansız boyamaya göre, koyuluğu yaklaşık %15,20 oranında artırdığı tespit edilmiştir. Bu artış; aloe vera mordanının doğal boyarmaddenin odun hamuruna sabitlenmesini artırdığı anlamını taşımaktadır. UV sonrası renk farklılık değerleri incelendiğinde 120 saatin sonunda rengin parlaklığında (ΔL) %18,44 oranında bir azalma tespit edilmiştir. 120 saatin sonun renk farklılıklarında (ΔE), %30.84'lük bir değişim gözlenmiştir. UV sonrası renk tonunun a* ekseninde yeşile, b* ekseninde ise maviye dönüştüğü gözlenmiştir. Bu deneyler sonucu, soğan kabuğundan elde edilen doğal boyarmaddenin odun hamuruna sabitlenmesinde aloe vera mordanının etkili olduğu sonucuna varılmıştır.

Anahtar Kelimeler: Aloe vera, soğan kabuğu, renk farklılığı, doğal mordan, UV.

ABSTRACT

The use of environmentally friendly natural dyestuffs for coloring materials such as paper is of great importance in reducing environmental pollution. Today, industrial organic wastes or by-products, different parts of plants (roots, stems, branches, leaves, flowers, bark), are becoming more and more popular as alternative sources of natural dyes and mordants. Today, the transformation of biological waste and by-products originating from various industries and agriculture into benefits is important in terms of sustainability and ecology. In this study, the skin of the onion (*Allium cepa*), which cannot be used in kitchens, was preferred. Onion skin is the outermost layer of the onion and is known as a source of natural coloring compounds such as quercetin.

In the study, the use of the gel-like liquid in the aloe vera (*Aleo vera L.*) plant as a mordant in dyeing paper with natural dyestuff obtained by the extraction method from onion peel was investigated. Co-mordanting was used as the mordanting method. Color parameters were studied with CIE L* a* b* color system and UV effects were investigated under 24-48-96 and 120-hour conditions.

It was determined that the addition of aloe vera increased the darkness by about 15,20% compared to dyeing without mordant. This increase; means that aloe vera mordant enhances the fixation of the natural dyestuff to wood pulp. When the color difference values after UV were examined, a decrease of 18,44% was detected in the brightness of the color (ΔL) at the end of 120 hours. A change of 30.84% was observed in the color differences (ΔE) at the end of 120 hours. It was observed that the color tone changed to green on the a* axis and blue on the b* axis after UV. As a result of these experiments, it was concluded that aloe vera mordant was effective in fixing the natural dyestuff obtained from onion skin to wood pulp.

Keywords: Aloe vera, onion skin, color variation, natural mordant, UV.

ÇUKUROVA DELTASI KIYI LAGÜNLERİNDE EKOLOJİK RİSK PROBLEMLERİ ECOLOGICAL RISK PROBLEMS ÇUKUROVA DELTA COASTAL LAGOONS

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ÖZET

Sulak alanlar flora ve fauna açısından dünyadaki en zengin ekosistemlerden biridir. Antropojenik baskılar ve iklim değişikliklerine bağlı olarak hidrodinamik dengesini, limnolojik ve ekolojik özelliklerini kaybeden sulak alanların birçoğu yok olma tehlikesi ile karşı karşıyadır. Uluslararası sözleşmeler ve farklı yasal düzenlemeler ile koruma altına alınan birçok sulak alanda iyileştirme çalışmaları devam etse de yasal düzenlemelerdeki boşluklar, yanlış arazi kullanımı ve nüfusun giderek artmasına bağlı olarak artan su ihtiyacı sulak alanlardaki tehditlerin sürmesine neden olmaktadır.

Çalışma alanı olarak seçilen Çukurova Deltası Türkiye'nin Doğu Akdeniz kıyılarında yer almaktadır. Delta kıyısında yer alan Akyatan, Ağyatan, Tuzla, Dipsiz ve Yumurtalık Lagünleri Türkiye'nin ekolojik cennetleridir. Lagünler çevresinde yer alan tuzlu, tatlı bataklıklar, çamur düzlükleri, sazlık ve kamışlar, tatlı su kanalları, çayırılık alanlar farklı fauna ve floraya ev sahipliği yapmaktadır. Aynı zamanda lagünlerin kıyıları boyunca Seyhan ve Ceyhan nehirlerinin şekillendirdiği Türkiye'nin en büyük kumul kıyı şeridi yer almaktadır. Bu kumullar deniz kaplumbağası (*Caretta caretta*) ve yeşil deniz kaplumbağasının (*Chelonia mydas*) en önemli yuvalama alanlarından biridir. Lagünler çevresinde memeliler, kuşlar, sürüngenler olmak üzere zengin bir yaban yaşam hayatı bulunmaktadır. Su kuşları için önemli kışlama ve yuvalama alanı olan lagünler iç su balıkları içinde de büyük önem taşımaktadır. Yumurtalık Lagünleri'nde doğal yetişme ortamı bulan halep çamı (*Pinus halepensis*) da nadir görülen bir bitki türüdür.

Lagünler çevresinde yoğun olarak tarım, dalyan balıkçılığı, hayvancılık ve turizm faaliyetleri yapılmaktadır. Son yıllarda nüfusun ve tarımsal alanların artmasına bağlı olarak sulak alanlarda ekolojik denge bozulmaya başlamıştır. Kıyı göllerinde yaşanan alansal daralmaya bağlı olarak ortaya çıkan bataklıklar insanlar tarafından kurutulmakta, kurutulan alanlar tarım alanına dönüştürülmektedir. Bazı kıyı lagünleri çevresinde bulunan kumullar da tarım alanı kazanmak amacı ile dönüşüme uğratılmıştır. Hayvanların gelişigüzel ve aşırı otlatılması da önemli tehditlerden biridir. Lagünlerde kaçak avlanma yapılmaktadır. Alansal daralma ve ötrofikasyona bağlı olarak lagün su ekosistemlerinin uzun vadede sürdürülebilirliği mümkün değildir.

Çalışmada kıyı lagünlerinde değişim analiz teknikleri uydu veri setleri üzerinde uygulanmıştır. Kıyı görüntüleri üzerinde sınıflama öncesi ve sonrası değişim analizleri yapılmıştır. Değişim analizlerine arazi çalışmaları, arazi örtüsü değişim analizleri de eklenerek doğruluk analizi yapılmış ve ekolojik risk taşıyan bölgeler değerlendirilmiştir.

Anahtar Kelimeler: Çukurova Deltası, Kıyı Lagünleri, Ekolojik Risk, Sulak Alan, Değişim Analizi.

ABSTRACT

Wetlands are one of the richest ecosystems in the world in terms of flora and fauna. Many of the wetlands that have lost their hydrodynamic balance, limnological and ecological characteristics due to anthropogenic pressures and climate changes are facing the danger of extinction. Although improvement efforts continue in many wetlands protected by international conventions and different legal regulations, gaps in legal regulations, improper land use and increasing water demand due to the increasing population cause the threats in wetlands to continue.

Çukurova Delta, which was selected as the study area, is located on the Eastern Mediterranean coast of Turkey. Akyatan, Ağyatan, Tuzla, Dipsiz and Yumurtalık Lagoons located on the coast of the delta are the ecological paradises of Turkey. The salty and fresh marshes, mud flats, reeds and reeds, freshwater channels, meadow areas around the lagoons are home to different fauna and flora. Along the shores of the lagoons is Turkey's largest sand dune coastline shaped by the Seyhan and Ceyhan rivers. These dunes are one of the most important nesting areas for sea turtles (*Caretta caretta*) and green sea turtles (*Chelonia mydas*). There is a rich wildlife including mammals, birds and reptiles around the lagoons. The lagoons, which are important wintering and nesting areas for water birds, are also of great importance for inland fish. Aleppo pine (*Pinus halepensis*), which grows naturally in Yumurtalık Lagoons, is a rare plant species.

Agriculture, dive fishing, animal husbandry and tourism activities are intensively carried out around the lagoons. In recent years, the ecological balance in wetlands has started to deteriorate due to the increase in population and agricultural areas. The marshes that have emerged due to the spatial contraction in coastal lagoons are being drained by people, and the dried areas are converted into agricultural areas. Dunes around some coastal lagoons have also been transformed to gain agricultural land. Indiscriminate and excessive grazing of animals is another important threat. Poaching is practiced in the lagoons. Due to spatial shrinkage and eutrophication, the long-term sustainability of lagoon water ecosystems is not possible.

In this study, change analysis techniques in coastal lagoons were applied on satellite data sets. Change analyses were performed on coastal images before and after classification. Accuracy analysis was performed by adding field studies and land cover change analysis to the change analysis and ecological risk areas were evaluated.

Keywords: Çukurova Delta, Coastal Lagoons, Ecological Risk, Wetland, Change Analysis.

AIRFOIL SELECTION FOR OUTER WINGS OF BLENDED WING BODY MALE UAV

KANAT GÖVDE HARMANLI ORTA-IRTIFA UZUN-ÖMÜR SINIFI İHA'DA DIŞ KANAT PROFİLİ SEÇİMİ

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ABSTRACT

The aim of the study is to reveal how the choice of airfoil in outer wing of BWB affects the aerodynamic characteristics. For this purpose, comparative analyzes were performed in XFLR5 software for reflexed airfoil -TL 54, supercritical airfoils -NASA SC (2)-0714, Whitcomb-il, NLR-7301, and high lift airfoils-NACA 6412, FX 63-137. In the results the change of drag coefficient (C_D), lift coefficient (C_L), lift to drag ratio (C_L/C_D), maximum endurance factor ($C_L^{3/2}/C_D$) were plotted according to increasing the angle of attack. Given maximum lift /drag ratio, the best aerodynamic efficiency is given by BWB design made of TL 54 in center body and FX 63-137 airfoil in outer wing. Contrary to the studies in the literature, the use of high lift profiles instead of the use of supercritical airfoil on the outer wings provides more advantages. The use of high lift airfoils on the outer wings of BWBs allows the lift drag ratio to increase to the 30. Reflexed airfoils are suitable for main body use as they produce low drag as well producing a good lift.

Keywords: Blended Wing Body, Aircraft Design, Airfoil Selection, Reflexed Airfoils, Supercritical Airfoils.

ÖZET

Çalışmanın amacı, kanat gövde harmanlı bir uçağın dış kanadındaki kanat profili seçiminin aerodinamik özellikleri nasıl etkilediğini ortaya çıkarmaktır. Bu amaçla XFLR5 yazılımında refleksi kanat profili - TL 54, süperkritik kanat profilleri -NASA SC (2)-0714, Whitcomb-il, NLR-7301 ve yüksek kaldırma kanatları-NACA 6412, FX 63-137 için karşılaştırmalı analizler yapılmıştır. Sonuçlarda, artan hücum açısına göre sürtünme katsayısı (C_D), kaldırma katsayısı (C_L), kaldırma / sürüklenme oranı (C_L/C_D), maksimum dayanıklılık faktörü ($C_L^{3/2}/C_D$) değişim grafikleri elde edilmiştir. Maksimum taşıma/sürüklenme oranı göz önüne alındığında, en iyi aerodinamik verimlilik, merkez gövdede TL 54 ve dış kanatta FX 63-137 kanat profilinden yapılmış gövde kanat harmanlı (BWB) tasarımda ortaya çıkmıştır. Literatürdeki çalışmaların aksine dış kanatlarda süperkritik airfoil kullanımı yerine yüksek kaldırma profillerinin kullanılması BWB tasarımlarında daha fazla avantaj sağlamaktadır. BWB'lerin dış kanatlarında yüksek taşıma sağlayan kanat profillerinin kullanılması, kaldırma/sürüklenme oranının 30'a yükselmesini sağlar. Refleksi kanat profilleri, iyi bir kaldırma sağlamanın yanı sıra düşük sürtünme ürettikleri için ana gövde kullanımına uygundur.

Anahtar Kelimeler: Harmanlanmış Kanat Gövde, Uçak Tasarımı, Kanat Profili Seçimi, Refleksi Kanat Profili, Süperkritik Kanat Profili.

STUDY OF THE PERFORMANCE OF A LOCAL BENTONITE AS A COAGULATION ADDITIVE ON THE QUALITY OF WATER

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ABSTRACT

The objective of this work is to observe the effectiveness of bentonite as a coagulation adjuvant on water treatment quality at Abdelkarim El Khattabi in Morocco exactly in Bni Bouayach. In our case, bentonite is used as a source of turbidity and is not an adsorbent.

The approach taken to conduct this study is based on:

A literature review: Bentonite has been studied in different aspects (a set of parameters are characterized to better understand the composition of bentonite, the coagulation flocculation mechanisms and economic aspects).

An experimental study: Jar-Test tests were carried out on raw water samples of low turbidity according to the approach applied in the laboratory. The performance of the bentonite was tested in: raw water / bentonite, raw water / coagulant and coagulant / bentonite mixtures.

The main objectives of this study are to verify if bentonite acts as a coagulation aid for water treatment, then to minimize the dose of alumina sulphate while respecting the treatment yield of the station.

Keywords: Coagulation-Flocculation-Decantation, Turbidity, Oxidation, Jar-Test, Alumina Sulfate, Benonite.

STUDY OF THE ELIMINATION OF CHROMIUM AND METHYLENE BLUE IN AQUEOUS MEDIA BY ADSORPTION ON TREATED AND UNTREATED PYROPHYLLITE

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ABSTRACT

The polluting elements that are introduced in a significant way into the environment are of organic nature, such as detergents and dyes concentrated in large quantities in waste water from the textile industries or of metallic nature, such as copper, zinc, cobalt and iron, present in trace amounts, are essential for living organisms. or finally, other elements such as mercury, lead or chromium which can only cause harmful effects . Chromium, an element considered in this work, has been widely used against corrosion in industry since the nineteenth century. Tanneries alone constitute the most important source of pollution by this element. [3-5]. (0.06 to 0.09 g/l liquid effluent and 1.2 to 5.4 g/100g mineralized sludge) , far exceeding global and national standards in industrial discharges To reduce the he impact of this pollution several methods have been used: The precipitation of heavy metals has long been the most widely used technique . Although this process is effective, it has drawbacks: in fact, it produces large quantities of sludge with a very long settling time. The use of carbon in the adsorption process is also in high demand. Activated carbon has a high adsorption capacity mainly due to its large specific surface, but this process remains very expensive. Attention was subsequently focused on the use of new adsorbents based on abundant natural materials. This is the case for natural or synthetic zeolites, volcanic ash and especially clays . Nowadays, a new family of microporous solids with controlled porosity similar to zeolites and commonly called modified clays, is widely studied by many researchers. Many works on adsorption report information on the different methods of synthesis and characterization, thus, a wide variety of clays modified by cationic polymeric species has been implemented and used in several chemical reactions.

Keywords: kaolin, metakaolin, zeolite LTA, geopolymers, adsorption, anionic dyes, heavy metals

ADSORBENT PROPERTIES OF BRIDGED ORGANOPHILIC CLAYS: SYNTHESIS AND CHARACTERIZATION

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ABSTRACT

A series of modified hydrophobic and organophilic pillared clays were prepared by exchanging some polymeric cations from Al, Fe or Ti into interlamellar space of an algerian montmorillonite and then by co-adsorption of surfactant cationic cetyltrimethyl ammonium bromide (CTAB). The most favorable pillaring conditions of these different pillared complexes productions were function of the molar ratio OH (or H)/Metal, the final concentration and aging of pillaring solutions and the CTA/pillared montm ratio. These different inorgano-montmorillonites (CIM) and organo-inorganomontmorillonites complexes (COIM) were characterized by XRD, BET surface area, FTIR spectroscopy, ATD/ATG, CEC, surface acidity and zetametry. The adsorption of some micropollutants such as pentachlorophenol (PCP), diuron and its degradation products (dichlorophenyl-methyl urea, dichlorophenyl urea, and dichloroanilin), methyl parathion, sulfacid brilliant pink, humic acids (HA) onto COIM shows generally a very high adsorbent-adsorbate affinity. According to adsorption isotherms under different conditions, the sorptive capacities of these new materials were considerably enhanced especially in acidic medium and with titanium and iron pillared clay. The adsorption of PCP in competition with humic acids was considerably influenced by the presence of this organic compound with high molecular weight and hydrophobicity.

Keywords: pillared clays, montmorillonite, adsorption, phenols, pesticides, dyes, humic acids.

HEPATOPROTECTIVE EFFECT OF METHANOLIC EXTRACT OF PSIDIUM GUAJAVA LEAVES AGAINST PARACETAMOL INDUCED HEPATOTOXICITY IN ALBINO RATS

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ABSTRACT

Hepatic injury occurs by hepatotoxic agents such as drugs, alcohol, hydrocarbon and viral infections. The aim of this research was to evaluate the hepatoprotective effect of *Psidium guajava* against paracetamol induced hepatotoxicity in albino rats using Silymarin as reference drug. The plant leaves were extracted using Soxhlet method with methanol as solvent. Qualitative and quantitative analysis was determined by standard methods. Bioactive component of the extracts was determined using gas chromatography-mass spectroscopy method. The results of phytochemical analysis revealed that the extract possessed Phenol (30.05), Tannins (13.92), Saponins (11.89), Alkaloid (7.69), Flavonoids (20.79), Steroids (5.07), Glycosides (3.98), and Terpenoids (6.45) %, respectively. The GC-MS analysis showed that hexadecanoic and octadecenoic acids possessed 45.94 and 43.09 % as the dominant compounds with highest peaks. The in vivo study showed a significant ($p < 0.001$) increase in alanine amino transferase, aspartate amino transferase and alkaline phosphatase after 7 days of induction with paracetamol. There was no significant ($p > 0.05$) difference of these enzymes markers in the groups administered the highest dose the extract except in alkaline phosphatases. Similarly, there was significant increase in malondialdehyde and a reduction in Superoxide dismutase, catalase, glutathione peroxidase and reduced glutathione after 7 days of induction. In co-administering the markers with extract, there was a significant increase in the level of superoxide dismutase and malondialdehyde and a reduction in the catalase. There was however, no significant difference in glutathione peroxidase and reduced glutathione. The histopathological studies showed no hepatocytes damage at medium and highest dose of the extract. In conclusion, the methanolic extract of this plant can be a useful alternative treatment for the prevention of liver damage.

DESIGN SYNTHESIS AND EVALUATION OF SOME NOVEL AURONES AS CATHEPSIN B INHIBITORS

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ABSTRACT

Cathepsin B represents a group of lysosomal-encapsulated cellular cysteine proteases whose upregulation triggers various pathological conditions, like Alzheimer's, cancer, inflammation, arthritis, cardiovascular diseases, and others. Therefore, to grapple with such types of disorders, it is of utmost need to design new drug candidates to effectively target cathepsin B. In this direction, our research group designed and synthesized some novel aurones as a productive class of cathepsin B inhibitors. Aurone is an oxygen-heterocycle, an emerging class of biologically active heterocycle belonging to minor flavonoids. We have synthesized two different classes of cathepsin B inhibitors, one is 6-propynyloxy aurone derivatives, and the second one is the aurone-1,2,3-triazole hybrids. Each class was thoroughly characterized with their spectral data (¹H-NMR, ¹³C-NMR, and HRMS) and investigated their cathepsin B inhibitory potency via *in-vitro* assay. Both the reported class showed remarkable inhibitory power with a maximum of ~97% inhibition of cathepsin B. Among the series, the flexible 6-propynyloxy aurones (% cathepsin B inhibition = 25.9-96.98) showed better inhibition than their corresponding hybrids with 1,2,3-triazole ring (% cathepsin B inhibition = 15.14-87.16). *In-silico* drug modeling studies further supported the *in-vitro* results.

Keywords: Aurones, Aurone-1,2,3-triazole hybrids, Cathepsin B inhibitors, Molecular docking.

An investigation into Technical progress and its dissemination during the transition from Sailing ships to Steamships

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Abstract

One of the defining characteristics of the late nineteenth century was the radical improvement in transportation. "Probably more than three-quarters of the total gain has gotten from advancement of manufacturers over the nineteenth century has been via indirect impacts on decreasing the cost of transportation," Alfred Marshall claimed. The railroads and advances in ocean shipping were the primary technological changes involved; surprisingly, there has been little modern research on the advancements in late nineteenth-century shipping. The railroads were the primary technological shift involved. There is a casual dispute in the literature concerning the relative relevance of advancements in sailing ship technology vs improvements in steamship technology, but the analysis is either very informal or substantially deceptive in its conclusions. One facet of the technological shift in shipping between 1850 and 1890 is the process by which steam eventually superseded sail as the primary source of power for ocean transportation, and this study aims to do so in a methodical manner.

When ships began to switch from sailing to steam in the late nineteenth century, it was part of a larger process of technical development and spread that should be considered as such. Historically and economically, both historians and economists have tended to see technical change and spread as two distinct occurrences. A great deal of economic thought in this sector has been influenced by Joseph Schumpeter's concept of economic progress as a series of bursts

of invention followed by periods of diffusion. A good example of this is Edwin Mansfield's recent econometric work on technological development, which is similar to the previous work. It is implicit in his fundamental model of diffusion that innovations arise during the era of diffusion, and that production is in disequilibrium during this phase — that is, producers are not reducing costs in light of the best available technology — is explicit in his basic model of diffusion. It appears that, at least in the instance of nineteenth-century shipping, an alternate model of the process of technical progress is more applicable. Technological development and dissemination in shipping are better understood as a process rather than as an event, according to the authors. It took nearly a century for steam to completely replace sail as a mode of transportation between around 1850 and the beginning of the twentieth century, while technical progress continued.

The model that underpins this inquiry is predicated on the premise that the shipping and shipbuilding industries were typically in a state of long-run competitive equilibrium (or perhaps better, fluctuating around that equilibrium). This means that both sailing ship freights and steamship freights were influenced by technological advancements in production and the pricing of raw materials at the time of shipment. The proportions of any given commerce carried by steam and sail were determined by the relative expenses of shipping by steam and sail for that particular trade. It was decided to use a lower-cost technique to transport the majority of the goods. A combination of scientific advancement, which happened quicker in steam than it did in sail, and shifting relative pricing cut the costs of steamships relative to those of sailing ships, resulting in the move from sail to steam.

Over the course of the twentieth century, the most significant technical change particular to steamships was the more or less continual improvement that occurred in the fuel consumption of marine engines during the later half of the century. Overall, with the advent of the compound engine as an exception, the advancements in marine engineering technology have been minimal, and they have been introduced on a continual basis by marine engineers. On short routes, steam might be more cost-effective than sailing because of the reduced coal consumption of marine engines. However, on long routes, steamships could not compete with sailing ships for bulk cargoes, despite the fact that, in certain circumstances, steamships soon seized the passenger trade. The displacement of sail on short routes in the 1850s and 1860s, while sail remained

dominant on very long voyages until the turn of the century, did not occur by chance, but rather as a result of the nature of the technology used in the production of shipping services during that time period. As marine engines became more efficient, steamships began to take over longer trade routes.

Unless otherwise stated, the analysis presented in this study is solely limited to maritime transportation of bulk goods. For the sake of this research, the transportation services supplied by sailing ships and steamships can be regarded ideal replacements for the services offered by other modes of transportation. The speed of shipping, which is the most significant qualitative difference between sailing ship services and steamship services, was of little or no value to the shippers of these bulk cargoes, according to the data collected. The study of non-bulk trades and specific trade routes will require additional information beyond what is provided in this paper; however, the fundamental technological and price relationships involved in the transition from sail to steam for bulk cargoes discussed here must form an important part of any such analysis, regardless of the specifics.

Understanding the method by which steam displaced sail requires a detailed description of the manufacturing functions and replacements that took place during that time period. The most significant input substitution involved in the comparison of the production of sailing ship services with the production of steamship services is the replacement of coal for both capital and labour in the production of sailing ship services (and other factors). The increased speed and regularity of steamships resulted in a reduction in capital and labour expenses per tonne mile; the gain in speed more than compensated for the increase in capital contained in the steamship as well as the bigger crew carried on board. Greater speed was achieved mostly by increasing the amount of coal that was burned (larger engines, etc., were, of course, also involved). When travelling at low speeds (up to around 12 knots), resistance and, consequently, power consumption rise in direct proportion to the cube of speed. Due to the fact that distance rises in direct proportion to speed, the amount of coal used every mile travelled increases with the square of speed. When travelling at higher speeds, resistance increases at an even faster rate than when travelling at lower speeds.

When it came to the protracted time of transition from sail to steam, the single most important cause was the requirement of delivering the fuel required by a steamship. It followed as a result

that the factor inputs and costs of steamship transportation changed in an inverse relationship with distance travelled from the coal source. When travelling for an extended period of time, the amount of the ship's capacity that required to be allocated to coal bunkers rather than cargo was proportionately larger. Because Britain was the world's principal coal supply throughout the late nineteenth century, steamship expenses climbed as the distance between Britain and the destination increased. Because coal was sourced from Britain, the option of a steamship refuelling at coaling stations along its journey did not alleviate the additional expense connected with the extended distance travelled by the ship. Because a steamboat can carry less coal, it can carry more cargo and make more money from the freight it transports. Because the freight collected on goods would have to be immediately repaid to the shipper in the form of higher coal freight rates to foreign bunker stations, there would be no net benefit.

On ever longer trade routes, steam gradually displaced sail in the European and Atlantic commerce, resulting in the proliferation of steam power in these regions. General smoothness prevailed throughout the process, which was guided by the constant development of marine engines. The long trades to India and the Far East would, presumably, have transitioned to steam trades gradually in the 1880s or 1890s, if it weren't for the interruption caused by the opening of the Suez Canal in 1869, which halted the process in its tracks. The Canal significantly reduced travel time between Europe and the Far East. The maritime distance between Britain and Bombay was lowered from about 11,500 miles to slightly more than 6200 miles, while the distance between Britain and Calcutta was reduced from around 11,500 miles to slightly more than 8200 miles. This, along with the fact that the Canal was unsuitable for sailing ships, owing principally to unfavourable wind conditions in the Red Sea, had an even bigger impact on the relative positions of sail and steam in the Eastern trades than previously thought. When considering the Eastern trades, if the canal had been equally adequate for both sailing and steamships, the Eastern trades, which included distances in excess of 6000 miles, would have continued to be carried out by sail until the 1870s. The practical impact of the Canal, on the other hand, was to shorten the steamship journey while leaving the sailing ship route unchanged.

One early consequence of the Canal's inauguration was a great increase in the construction of steamships, which displaced the manufacture of sailing ships. Sail accounted for just around 15 percent of the tonnage of ships built in 1871 and 1872; in the late 1860s, sail accounted for two-

thirds of the tonnage. These new steamers made rapid inroads into the Bombay trade, where they had a significant distance advantage over sailing vessels. From Bombay and Scinde, there were hardly no steamships that arrived in Britain prior to the completion of the Canal. Steam accounted for 28 percent of total tonnage in 1870; by 1873, steam accounted for 65 percent of total tonnage, and this figure remained constant throughout the 1870s. By the early 1890s, steamships were transporting all of the freight from Bombay. Even with the benefit of the Canal, steam could only compete with sail at Calcutta in the early 1870s on the basis of a higher rate of freight than the latter mode. Steamships carried about a quarter of the tonnage entering the United States from Bengal and Burma in 1873; by the end of the decade, steamships carried nearly 40%. In the early 1890s, nearly a quarter of the total tonnage was still carried on sails.

Even though the distance between the two countries was greater and the relative saving in distance was smaller than in the Indian trade, it was the China trade that experienced the most abrupt transformation from sail to steam after the construction of the Suez Canal, which surprised many observers. Through the Cape, the distance between Britain and Shanghai is almost 14,000 miles, while by the Canal, the distance is nearly 11,000 miles. Steamships carried 14 percent of the tonnage entering the United Kingdom from China in 1869. By 1873, steamships were transporting 70 percent of the traffic, and by the end of the decade, they were transporting more than 90 percent. This substantial shift can be attributed to the nature of China's commerce with the United States. Chinese exports consisted virtually entirely of high-value items, with tea accounting for the vast majority of total exports. These commodities had paid premium freight rates during the days of sail for swift journeys on clipper ships, and they soon adapted to the even faster delivery made possible by steam and the Suez Canal throughout the twentieth century. The steamship swiftly supplanted the clippers because the steamships reduced the time it took to return home by half while charging nearly the same freight as the clippers did in the late 1860s and early 1870s. The benefit of steam was further boosted by the fact that tea shipped by steam received cheaper insurance costs.

In summary, steamships increasingly supplanted sailing ships, first on the short seas and subsequently on the vast seas, as time went on. During the 1850s and 1860s, steamships were used to transport goods between the United States and the Continent. They conquered the North Atlantic during the late 1860s and early 1870s. With the opening of the Suez Canal in the 1870s

and 1880s, the steamship replaced the sailing ship as the primary mode of transport to India and the Far East. Even into the twentieth century, however, sail continued to be used in the round-the-world trade, the Australian trade, and commerce to and from the west coast of the Americas.

The previous explanation of the actual diffusion of steamship transport is consistent with the predictions of the theoretical model based on the production function presented at the beginning of the study, which is a pleasing result. The model explicitly assumes competitive equilibrium at various points in time: steamship freights equal the minimum average cost of providing ocean steam transportation, and sailing ship freights equal the minimum average cost of providing ocean sailing transportation, and similarly for sailing ship freights. There can be little question that the shipping sector in the late nineteenth century came very near to the economist's ideal of perfect competition in terms of efficiency and profitability. The greatest fleets of the British India Steam Navigation Co. each had a little more than 100 ships and occupied a column of their respective types. The vast majority of owners had only one or two ships in their possession. Under these circumstances, although liner conferences may have had some influence over some line freights, it is implausible that tramp freights could have been set in any way other than a competitive manner. This idea is reinforced by the existence of an auction market for shipping services — the Baltic Exchange — as well as the presence of professional brokers, both of which are characteristics of a competitive market.

It goes without saying that the sheer presence of a competitive market does not mean that the price must always be equal to the minimal average cost. It is feasible to have both negative and positive quasi-rents, at least until the market has adjusted completely. The precise question in this situation is whether sailing ships earned negative quasi-rents during the transition from steam to sail, or if steamships earned positive quasi-rents during the transition from steam to sail. Sailing ships generating negative quasi-rents imply that the present value of predicted net profits was less than the market price for new sailing ships at the time of purchase. This, in turn, suggests that profit-maximizing businesses would refrain from investing in sailing ships for profit. Sail ship production continued throughout the 1870s and 1880s, as well as in the early 1890s (the largest tonnage of sailing ships launched in Britain in a single year was launched in 1892), indicating that sailing ships were able to generate sufficient revenue to cover their capital

costs at least until 1895. It also appears improbable that steamships were able to maintain consistently favourable quasi-rents during the changeover era. Because they are in a competitive business with unfettered access, entrepreneurs will respond to favourable quasi-rents by increasing their ship purchases. Throughout the late nineteenth century, however, the shipbuilding industry in the United Kingdom, notably steamship production, faced significant cyclical variations. During the cyclical troughs of the late 1870s, the mid-1880s, and the early 1890s, there was significant surplus capacity in the British shipbuilding sector. Because of this, there is a shortage of demand for steamships, which in turn indicates a dearth of positive quasi-rents in the steamship industry.

In the case of shorter routes, there was less savings from the reduction in bunker coal and, thus, less cost reductions. During lengthier trips, the first cost savings from steamships had little effect on freight rates. The early savings were required in order for steam to be competitive with sail; developments in steam technology had an impact on bulk freight only after steam had established itself as the main mode of transportation in the trade. Although the move from sail to steam is explained by quicker technological progress in steam than in sail, this is by no means the entire narrative of late nineteenth-century shipping.

It was during the late nineteenth century that the transition from sailing ships to steamships took place, as shipowners made alterations to their fleets, particularly in reaction to improvements in steam technology. The nature of the factor replacements involved in the transition provides an explanation for the lengthy cohabitation of sailing ship building and steamship construction that does not necessitate the assumption of market imperfection on the part of the researchers. The factor inputs per tonne mile for steam transportation grew as the duration of the journey increased, but the factor inputs per tonne mile for sailing ship transportation remained practically same as the length of the voyage extended . As a result, sail continued to be the lower-cost choice for long excursions, while steam continued to dominate shorter voyages. At some point, by the early twentieth century, advancements in maritime engineering had made steam a competitive option for long-haul trips. And lastly, while advancements particular to steam were responsible for the shifting composition of the world's commercial fleets, they were by no means

the only factor contributing to the drop in freight rates that occurred throughout the late nineteenth century.

Conclusion

Sailing ships were phased out in favour of steamships throughout the late nineteenth century as ship owners rearranged their fleets to take advantage of advances in steam technology. There is no need to assume market imperfections to explain the long-term cohabitation of sailing ship building and steamship production due to the type of factor replacements involved in the change. When travelling by steamship, the factor inputs per tonne mile grew as the journey progressed, but when travelling by sailing ship, the factor inputs per tonne mile remained practically unchanged. While steam took over short-distance excursions, sail remained the most cost-effective option for lengthy voyages. By the early twentieth century, innovations in maritime architecture allowed steam ships to compete on long-distance excursions. Finally, while steam-engine advances accounted for a shift in the composition of commercial fleets throughout the world, they were not the sole cause of the decrease in freight rates that occurred in the latter half of the nineteenth century.

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**CHEMICAL INVESTIGATION ON ANTIDIABETIC ACTIVITY OF GARCINOL
ISOLATED FROM *Garcinia quaesita*:
EXPLORATION THROUGH *IN VITRO* AND *IN VIVO* ANTIDIABETIC MECHANISM**

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ABSTRACT

Garcinol is naturally rich in many plants of the *Garcinia* genus, including *Garcinia quaesita* Pierre, and it is a derivative of polyisoprenylated benzophenone. The *in vivo* antidiabetic potential of garcinol has been reported in different previous studies. However, *in vitro* antidiabetic potential of the compound remain limited details. *In vitro* tests are also essential components in biological studies in order to make comparative decisions of natural compounds specially, as it is easy and less expensive compare to the *in vivo* studies. Therefore, the present study was carried out to evaluate the *in vitro* antidiabetic potential of garcinol by *in vitro* enzyme inhibition assays while studying *in vivo* antidiabetic potential in streptozotocin-induced diabetic rats.

Garcinol was isolated from the hexane extract of dried fruit rinds of *G. quaesita* and the characterization of the compound was determined by spectroscopic data. The inhibitory potential of garcinol was determined by α -amylase and α -glucosidase enzyme inhibition assays. Diabetic was induced in Wistar rats by intraperitoneal injection of streptozotocin (65 mgkg^{-1}) for *in vivo* study. Diabetes induced rats were treated with garcinol (8 mgkg^{-1}) and glibenclamide (positive control) (0.5 mgkg^{-1}) for 30 days. At the end of experiment, blood samples were collected by cardiac puncture to determine serum glycemic parameters such as fasting serum glucose, glycated hemoglobin (HbA_{1c}), serum insulin, C-peptide concentrations. The 50% inhibitory effect (IC_{50}) of α -amylase and α -glucosidase by garcinol was $32.16 \pm 1.70 \text{ ppm}$ and $30.03 \pm 0.10 \text{ ppm}$ respectively. Furthermore, the inhibitory activity of garcinol showed potential antidiabetic activity when compared with that of acarbose (positive control). The administration of garcinol and glibenclamide for 30 days showed significant depletion of serum fasting glucose (20%, 33%), HbA_{1c} (24%, 34%), and elevation of serum insulin (63%, 67%), C-peptide concentrations (77%, 137%) compared to diabetic untreated rats. The findings of the present study reveal that *in vitro* antidiabetic assay results are corroborated with the findings of *in vivo* studies and hence garcinol could be a promising antidiabetic drug in the future. More studies are warranted to identify the possible mechanism for the inherited antidiabetic activity of garcinol.

Keywords: *Garcinia quaesita*, Garcinol, Diabetes mellitus, Enzyme Inhibition Assays, Serum glycemic parameters

Acknowledgement: National Research Council (NRC/17/033) for financial assistance.

**AN EXPERIMENTAL ANALYSIS OF MIXTURE OIL
WETTABILITY ON THREE TYPES OF STEEL SURFACES**

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ABSTRACT

Due to the importance of steel in many industries, especially the petroleum industry, it is necessary to study how it behaves when it is in direct contact with water-containing crude oil. As the water content could cause stopping extraction, transferring, and exporting by corrosion, that leads to the need of upkeep, which will be a high-cost maintenance and waste of time and environmental consequences.

Wettability refers to the spread of liquid on a solid surface, which provides information regarding the adhesion between the liquid and solid metal phases of the pipe steel. In addition, the steel composition that can influence the contact angle. The aim of this study is to examine previous research and discuss the experiment results to show the influence of the wettability of oil on the surface of three types of steel pipe.

The experimental part was carried out using a P-oil (a mixture of oil with 90%Oil+10%petroleum) on three steel surfaces (1.4050steel, CK60 and CrMo4). The software (KSV), was used to record and measure the change in contact angles of the P-oil droplets for 1500 seconds for each sample. It was found that the wettability of P-oil on CrMo4 was more than on other types of steel. In addition, the wettability of CK60 and 1.4050steel was somewhat similar.

Keywords: wettability, crude oil, surface tension, stainless steel.

STRUCTURE-BASED VIRTUAL SCREENING AND MOLECULAR DYNAMICS OF NATURAL COMPOUNDS TO IDENTIFY POTENTIAL MALARIA THERAPEUTICS

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ABSTRACT

Malaria is one of the main causes of death on a worldwide scale. Otherwise, Plasmodium falciparum is one of the most prevalent types of malaria infections and is associated with a high fatality rate. However, this is not the only difficult problem that scientists face; there is also the possibility that Plasmodium falciparum could become resistant to all antimalarial medications. As a result of this, molecular modeling approaches have been utilized as tools in the process of developing new medications.

The current research used virtual screening, ADMET methods and molecular dynamics simulation to study 58 quinoline derivatives isolated from different plants against the plasmodium falciparum. The aim is to discover novel natural compounds as potential plasmodium falciparum inhibitors.

Keywords: plasmodium falciparum, natural substances, quinoline derivatives, virtual screening, ADMET, molecular dynamics.

INTEGRATION OF REVERSE DOCKING APPROACH TO IDENTIFY THE THREAT OF NEUROLOGICAL DISORDERS CAUSED BY CAFFEINE OVERCONSUMPTION

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ABSTRACT

In the past decade ingestion of caffeine has increased exponentially and its utility is increasing worldwide. Caffeine is now not only confined to tea and coffee but is present in a large number of desserts and other beverages as well. Caffeine is a psychostimulant that helps in improving not only performance but can also affect cognitive functions of the central nervous system (CNS) negatively. The present study is an attempt to understand the mechanism of caffeine action in blocking central nervous system receptors that can help predict the beneficial and toxic effects of caffeine. The present study exploits the reverse docking approach of computational biology to visualize the interaction of several neurotransmitter receptors with caffeine. Reverse molecular docking is an approach for determining the effect of a ligand on a range of receptors. The binding energy of the receptors with caffeine is considered for determining the best receptor-ligand complex. A list of 7 different neurotransmitters was identified through a literature study and taken into consideration in the current research. Out of all 7 receptors, gamma-aminobutyric acid (GABA-B) was found to have the lowest root mean square deviation (RMSD) of -5.81 with caffeine depicting the most significant interaction. GABA-B is a major inhibitory neurotransmitter in the adult brain. GABA-B plays a significant role in managing the sleeping cycle and the development of the brain and interstitial neurons. Its involvement in the development of the brain signifies that the overconsumption and toxicity of caffeine may lead to several neurological disorders.

Keywords: Caffeine, GABA-B, reverse docking, neurological disorders

COMPARATIVE STUDY OF THE ANTIOXYDANT ACTIVITY BETWEEN THREE SAMPLES OF FRUITS LIPIDS FROM ALGERIAN FICUS CARICA.L

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ABSTRACT

Ficus carica L. (family: Moraceae) is one of the oldest knowing trees in the world. It is native to Africa, Asia and Europe and today it is almost spreading in all continents (Al-Snafi, 2017). Different parts of the tree were traditionally used in dietary or as treatment for illness (Oliveira et al., 2009). The fruits occurring from this tree contain several nutrient elements such as lipids, sugars, proteins, fibers, water, vitamins (ascorbic acid, thiamin, riboflavin, niacin, pyridoxine, Pantothenic acid, Folate, Vitamin A, beta-Carotene, alpha-tocopherol and phylloquinone) and Minerals (Na, P, K, Ca, Mg, Zn, Fe, Cu and Mn) (Jagtap & Bapat, 2019)

Oils from three *Ficus carica* L fruits from Algeria were investigated through determining their chemical characteristics, quantifying sterols and tocopherols, analysing their fatty acids profiles and evaluating antioxidant activity assessed by 1,1-diphenyl-2-picrylhydrazyl (DPPH) antioxidant activity and total antioxidant activity (TAA). *Ficus carica* oils were olive-green in colour, liquid at room temperature. The oil yield obtained by the two samples ranged from 1.20 à 2.82%.. Neutral lipids occupy a very important proportion of the crude extract compared to glycolipids and phospholipids. The oil was characterized by a relatively high amount of tocopherols (424.12 ± 2.11 mg/10g) for total lipid. The major unsaturated fatty acids of different lipid class were both linoleic, linolenic while the main saturated fatty acids were palmitic.

The data of antioxidant capacity determined by using 1, 1-diphenyl-2-picrylhydrazyl (DPPH) and phosphomolybdenum (PPM) complex methods, show that the level of the antioxidant activity by two used assays was significantly compared to synthetic antioxidants. Also, it was demonstrated for the first time that the studied oil possessed a good antioxidant activity which may be associated with their alleged health benefit.

Key words: *ficus carica oil, Fruits, fatty acids (FA), tocopherols, antioxidant activity*

APPLICATION OF PROLINE AS PRE-SOWING SEED TREATMENT ON OKRA UNDER WATER DEFICIT CONDITIONS

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ABSTRACT

Okra (*Abelmoschus esculentus* L.) is a flowering plant belongs to Malvaceae family and it is one of the most well-known and frequently used species. A pot experiment was carried out at Old Botanical Garden, University of Agriculture, Faisalabad, to examine the effect of proline as pre-sowing seed treatment on okra. In the Pots, two okra (*Abelmoschus esculentus* L.) varieties i.e. Sabzpari and Roshni were used for sowing. There were 3 replicates of each treatment. Five kg soil was used in each pot. Okra seeds were pre-soaked in three levels of proline i.e. H₂O, 10 and 20 mM for 12 h to investigate the effect of proline. Two levels of drought (normal watering as control and 60% Field Capacity) were maintained. Experimental layout was completely randomized design (CRD). After 15 days maintaining of drought growth and biochemical related attributes were studied. Results indicated that morphological parameters (shoot length, plant length, shoot fresh and dry weight, root fresh and dry weight, plant fresh and dry weight) were decreased under drought stress. Proline implementation overcame drought effects by increasing these morphological parameters. Antioxidant activities i.e. catalase (CAT), superoxide dismutase (SOD) and peroxidase (POD) also enhanced under drought by the implementation of proline. While reactive oxygen species malondialdehyde (MDA) and hydrogen peroxide (H₂O₂) contents decreased by the application of proline. Mineral shoot ions (Na⁺, K⁺, Ca²⁺) showed positive role in okra plant by the application of proline. Roshni showed better performance than Sabzpari. Best response was recorded at 20 mM proline level.

ASSESSMENT OF FACTORS INFLUENCING TOMATOES PRODUCTION IN NORTHERN TARABA STATE, NIGERIA

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ABSTRACT

The study assessed factors influencing tomatoes production in Northern Taraba State, Nigeria. Specifically, the study describes the socio economics characteristics of the tomatoes farmers in the study area, identify the types of tomatoes varieties grown by the farmers, determines the factors influencing production of tomatoes among farmers and identify the constraints experienced by farmers in tomatoes production. Multi stage sampling techniques were used to select sixty tomatoes farmers. Twenty tomatoes farmers each from Jalingo, Lau and Zing local government areas. Frequency, percentage, mean and raking scale were used to analyse the data. Result show that the mean age of the tomatoes farmers were 24 years, majority (76.3% and 60%) were male and acquired one form of education or the other. Married tomatoes farmers 53.3% with an average household size of eight persons respectively. The results reveals that majority (90% and 78.3%) of tomatoes farmers grows grape and beef steak varieties of tomatoes. The result also showed among the factors influencing tomatoes production planting, climate and social requirement with a mean score of 2.4 and 2.3 respectively were rank 1st and 2nd. In conclusion high cost of farm inputs, pest and diseases with a mean score 2.8 and 2.63 rank 1st and 2nd were the major constraints experienced by tomatoes farmers in the study area. It is therefore recommended that, farm input such as seed, fertilizer and pesticides should be provided to tomatoes farmers at a subsidized rate by government.

Keyword Factors Influencing Tomatoes Production, Northern Taraba State

BIO-INSPIRED SELF-HEALING AND CORROSION RESISTANT CONCRETE

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Abstract

The induced cracks in the reinforced concrete structures provide paths for the penetration of aggressive ions especially chloride ions which cause corrosion of the embedded steel thus disturb the serviceability of structures. Therefore, determination of novel self-healing techniques for automatic repair of induced cracks is very crucial. In the current study, a bio-inspired strategy has been used to autonomously heal the concrete cracks by biomineralization and its effect on the corrosion of steel bars has also been investigated. *Bacillus subtilis* bacteria has been incorporated into the concrete with calcium lactate as their nutrient precursor. The survival of microbes in the high pH of concrete was ensured by immobilizing the bacteria with biochar. Whereas the biochar was produced through pyrolysis of sugarcane bagasse at 500°C. The mechanical properties were checked to evaluate the effects of carbonaceous and biological additives on concrete strength. The enhanced compressive and bending attributes were observed in the modified samples compared to the conventional concrete. Because of the nano-micro reinforcement provided by biochar and the precipitation of CaCO₃ by *Bacillus subtilis* in the open voids or pore spaces of concrete. The self-healing properties were checked on cracked and recured samples after 90 days of generation of cracks. About 1 mm wide cracks were completely closed by the bacterial metabolically precipitated CaCO₃. The scanning electron microscopy and energy dispersive x-ray spectroscopy was utilized to identify the bacterial precipitate as CaCO₃. Then Tafel-polarization test was conducted on reinforced concrete specimens to investigate the corrosion inhibition potential of the bio-inspired self-healing concrete. The corrosion rate and corrosion inhibition efficiency of conventional and bio-inspired concrete was compared. The bacterial formulation efficiently prevented the corrosion of embedded steel with reduced corrosion rate. Thus the selected bacterial strain along with biochar could be used as self-healer and corrosion inhibitor for cracked reinforced concrete.

Keywords: concrete cracks, self-healing, corrosion inhibition, reinforced concrete, chlorides, biomineralization.

PERFORMANCE OF BROILER BIRDS FED VITEX DONIANNA AND HIBISCUS FLOWER

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ABSTRACT

A total of one hundred and twenty (120) Ross broiler birds was used in the experiment, to investigate the effect of Vitex Donianna and Hibiscus flower on performance of broiler birds fed both vitex Donianna and Hibiscus flour was added at 6%, 9% and 12% inclusion level while the control has nothing added to it, the experiment lasted for six weeks and at the end of this period, it was noticed that the diet one (1) containing 6% inclusion level has the highest feed intake, weight gain and feed to weight gain.

FARMERS USE OF SUSTAINABLE PRODUCTION PRACTICES ON YELLOW PEPPER CROP IN NSUKKA AGRICULTURAL ZONE, ENUGU STATE, NIGERIA

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ABSTRACT

This study determined farmers' use of sustainable production practices on yellow pepper crop in Nsukka agricultural zone, Enugu State, Nigeria. It specifically ascertained farmers' knowledge on sustainable production practices; sustainable production practices used; constraints to the use of sustainable production practices; and measures to enhance the use of sustainable production practices on Nsukka yellow pepper. Multistage sampling procedure was used in selecting 135 farmers and interview schedule using structured questionnaires was employed for data collection. Data generated were analyzed with SPSS software using frequency and percentage, mean scores and standard deviation. Findings revealed that majority (91.1%) of the yellow pepper farmers had moderate knowledge on sustainable production practices and some of the practices used were; mass-selection (97.0%), use of poultry manure (95.60%), use of improved varieties of yellow pepper (94.0%), crop rotation practices (91.10%) and minimum use of agrochemicals (78.50). Also, findings indicated that inadequate extension service ($M=2.96$), lack of access to information on yellow pepper innovations ($M=2.94$), and poor access to finance ($M=2.88$) were major constraints to farmers use of sustainable production practices. Furthermore, result indicated that sustainable production practices could be enhanced through the use of improved seeds (85.5%), access to credit facilities (77.8%), access to extension services (71.8%) and training of farmers (68.9%). The study therefore recommends that government and private sectors should provide services that will facilitate the development of sustainable production practices of Nsukka yellow pepper crop, as this will have long-term effect on the productivity and the production environment.

Keywords: Pepper, sustainable, manure, crop and Nigeria

**APPLICATION OF ELECTRONIC RESOURCES TO LIBRARY INFORMATION
PROCESSING IN ACADEMIC LIBRARIES IN NIGERIA**

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ABSTRACT

The paper is about Application of Technology Resources to Library Information Processing in Academic Libraries in Nigeria. The electronic age has made users search beyond print media while looking for information resources. Latest research work are sent across the world through electronic means and no serious researcher of this age ever depends solely on print media rather the use of internet, websites, e-mail etc are the language of the day. Functionally, academic libraries of the current dispensation provide access to both print and electronic resources to serve users and to increase the visibility of their institutions, and as a measure of prestige. In other words, they must go beyond the border of print collection in information delivery. It must extend to computer resources and other non-print format. The paper will conclude that electronic resources are indispensable in the 21st century for global access to information materials. Therefore academic libraries in Nigeria must strive to apply these resources to their information processing for total production and distribution of information contents in a quality manner.

Keywords: Electronic Resources, Library Information Processing, Academic Libraries, Nigeria

LIFE IMPROVEMENT OF SEALING CAP IN A USB CHARGER

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ABSTRACT

In this work, a problem related to material substitution in an existing design is identified and a solution is proposed in a systematic manner. Currently, nitrile rubber is used in an application of sealing cap in USB charger for off-road vehicles. It was identified that the sealing cap deteriorated as a result of crack and fall off from USB charger over a period of 2 years. An alternate material with a good performance up to 5 years is the need of the hour. Better materials were obtained by screening for the thermal stability application; thermal analysis is carried out in software for existing and proposed material. However, to reproduce the exact failure of the component and compare the materials, a set of tests are carried out for the existing and proposed material. From the result of the above tests, a suitable material is selected. Thus, material substitution is carried out methodically, and the silicone rubber is proposed for its use in the application of sealing cap in USB charger for off - road vehicles.

Keywords: Sealing cap failure, thermal analysis, tests, Life improvement

HELMINTH INFECTIONS OF PETS CATS IN BELGRADE AREA

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ABSTRACT

Cats play a significant role in the lives of modern people, especially in urban environments. Alienation, stress, and other factors that burden the city man are often overcome psychologically by acquiring a pet that, with its affection, represents excellent psychotherapy. Unfortunately, in addition to this favorable influence, the presence of dogs in urban areas has its other side. These animals are reservoir and hosts for some of zoonotic parasitic infections and their faeces have an important role in contamination of environments by excreting eggs, cysts and oocysts of parasites. From that reason in the period 2018-2021, we performed a parasitological examination of the feces of 250 pet cats. All feces were from owner's cats brought for examination from Veterinary clinics in the Belgrade. All animals had clinical symptoms that indicated parasitic infections (weight loss, stunted growth, swelling of the stomach in puppies, foul-smelling diarrhea; feces with blood, with findings of swallowing, etc.). Fecal samples were examined with flotation methods by McMaster, Stoll and Richardson-Kendell. Determination of parasite eggs and oocysts was made on the basis of their morphological characteristics. During our examination helminth infection was established at 43.2% animals. Most abundant species was *Ancylostoma tubaeforme* found in 39.2%, followed by *Dipylidium caninum* in 36.4%, *Toxocara cati* in 22.8%, *Toxascaris leonine* in 12.4%, and *Taenia* spp. in 4.4%. During same examination protozoan infection was established at 31.33% animals.

Keywords: pets cats, helminths, Belgrade, epidemiology

ISOLATION AND IDENTIFICATION OF SOME STRAINS OF INDIGENOUS ACETIC ACID BACTERIA OF TRADITIONAL DATE VINEGAR FROM THE BASIN OF OUARGLA (NORTHERN SAHARA EAST ALGERIA)

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ABSTRACT

The date palm tree gives a wide range of products, the valorization of its by-products becomes a socio-economic, ecological and cultural opportunity. The traditional date vinegar is prepared and consumed locally in the basin of Ouargla in the Algerian North Sahara. The vinegar is obtained by a double simultaneous fermentation, alcoholic and acetic provided by yeasts and acetic acid bacteria (AAB) naturally present on fruits and dates. The AAB are industrially important. In order to valorize the traditional vinegar of dates prepared from the cultivars Hamraya and Deglet-Nour, the isolation and the identification of the autochthonous acetic acid flora is carried out on a medium Frateur and completed by a gallery of biochemical tests. The results of microbiological and biochemical analysis, have identified four (4) indigenous strains under the names *Acetobacter aceti* subsp. *aceti*, *Acetobacter aceti* subsp. *xylum*, *Acetobacter pasturianus* subsp. *ascendans* and *Acetobacter pasturianus* subsp. *pasturianum*. This shows a microbiological diversity of Saharan AAB in traditional date vinegar.

Keywords: Traditional Date Vinegar, Valorization, Saharan AAB, *Acetobacter*, Ouargla Basin.

**MORINGA OLEIFERA LAM (DRUMSTICK TREE) BIOACTIVE COMPOUNDS AGAINST
CURRENT PANDEMIC: AN UPDATE**

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ABSTRACT

Recurrent usage of medicinal plants is regarded as general practice in accordance to medical-care requirements of humankind from ancient epochs. Amongst various traditional medicine *Moringa oleifera* Lam. is widely utilised plant whose several parts such as fruit, leaf, and seeds etc. are included in day-to-day diet for their manifold capability in fighting against various deadly diseases.

The genus Moringa oleifera Lam commonly termed as drumstick tree belongs to the Moringaceae family and is valued as medicinal as well as nutritional plant. This plant possesses immunomodulatory activities and also displayed other properties i.e anti-inflammatory, anti-cancer, antioxidant, antimicrobial, antipyretic antiulcer, cardiovascular, wound healing, anthelmintic along with antidiarrheal properties. Based from previous literature reports about pharmacological actions against HIV, EBV and HBV. Our article focused on current pandemic disease which has caused greater the 3 million deaths and has vast array of signs-symptoms along with its potential to transmit disease robustly through contact. Therefore, currently no vaccine is able to mitigate or stop the virus completely. Attention is required on natural products regime with abundant pharmacological actions. Our review article provides insights on *M.oleifera* pharmacological activity and its bioactive compounds involved which can specifically target against COVID-19. *Moringa* plants is enriched with bioactive compounds such as kaempferol, pterygospermin, quercetin, morphine, and apigenin-7-O-rutinoside. We have conducted search on *M.oleifera* databases from Web of Science, Scopus, Science Direct, Mendeley and PubMed from 1990-2021. Our review article is an update on *M. oleifera* plant which has abundant pharmacological properties and could be a solution to our current pandemic disease.

Keywords: *Moringa oleifera Lam* (drumstick tree), PubMed, COVID-19, Immunomodulatory action, apigenin-7-O-rutinoside

ISOLATION AND CHARACTERIZATION OF PLANT GROWTH PROMOTING RHIZOBACTERIA (PGPR) FROM AGRICULTURAL SOIL OF FUMYU, KATSINA, NIGERIA, FOR POTENTIAL APPLICATION AS BIOFERTILISERS

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ABSTRACT

Background: The use of inorganic fertilizer in farming has been shown to have multiple disadvantages including decreased soil quality and associated groundwater pollution. These necessitate the search for a viable alternative. In this study, the objective is to isolate rhizobacteria from agricultural soil and to investigate their Plant growth-promoting (PGPR) efficiency for use as biofertilizer.

Methods: At least Twenty-four (24) rhizosphere-associated bacteria were isolated from Umaru Musa Yar'adua botanical garden soil using Yeast Extract Mannitol Agar (YEMA), Congo Red + YEMA and YEMA + Bromothymol blue. Isolates were screened for plant growth promotion potential using biochemical and physicochemical approaches including phosphatesolubilization and ammoniasecretion among others.

Results: Out of the twenty-four (24) rhizobacterial isolates, only five (5) isolates (S3, S5, S11, S9 and S18) were found to be the best candidates possessing all pre-requisites to be designated as PGPR. The zone of phosphatesolubilization exhibited by the isolates ranged from 17.0 ± 1.0 to 16.5 ± 1.0 mm likewise, siderophore, indoleacetic acid and ammoniaproducton was detected from the five isolates, indicating their nitrogen fixation potential, phytohormones production and iron metabolism abilities, respectively. Further investigations revealed that, the isolates grow well with pH ranging from 5-9 (OD_{600} at pH 5 = 0.788-1.114, at pH 7 = 0.86-1.33 and at pH 9 = 1.04-1.36). Moreover, the isolates thrived in high saline concentrations (upto 10% w/v) and survived at temperatures up to 50°C. Further studies are ongoing to assess the efficiency of the five isolates as a consortium and to identify any potential antagonistic effect among them.

Keywords: Biofertilisers, PGPR, Rhizobacteria, Sustainable agriculture

GENETIC DIVERSITY AND RELATEDNESS AMONG 27 APPLE GENOTYPES (MALUS X DOMESTICA BORKH.) FROM FOUR GEOGRAPHICAL REGIONS IN CENTRAL MOROCCO REVEALED BY MICROSATELLITE (SSR) MARKERS

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ABSTRACT

Genetic diversity of 27 apple genotypes from four geographical regions of Morocco was analyzed using 26 simple sequence repeat (SSR) primers previously optimized on a large set of genetically related progenies of *Malus domestica*. In total, 195 polymorphic SSR alleles were detected, with sizes ranging from 78 to 209 bp. The results obtained for the average number of alleles per locus (7.5), effective number of alleles (4.62), Shannon information index (1.66), expected heterozygosity (0.76), observed heterozygosity (0.74) and polymorphism information content (0.76) showed a moderate to high level of polymorphism. In addition, a strong genetic differentiation between genotypes belonging to distinct geographical groups was detected ($F_{ST} = 0.28$), which suggests that Moroccan apple cultivars exhibit significant genetic diversity. Over the 26 used SSR loci, the probability of identity P (ID) was 4.62×10^{-29} indicating that most markers were highly discriminating and powerful for cultivars characterization. After comparing SSR profiles and genotypes names, we conclude that the problem of homonyms and/or labeling errors appear in the studied cultivars. However, based on genetic profiles, two individuals (Beldi 1/Beldi 2 and Laakri 5/Laakri 6) found to be duplicated. Additionally, some cultivars with the same name are grouped in different clusters suggesting the existence of possible homonymy. The present work confirms the usefulness of SSR markers for the elimination of duplications and characterization of diversity and hybrid characters of apple cultivars. Based on these results, we can conclude that this work may serve as a valuable source of information for assessing the apple germplasm in Morocco.

Key words: *Malus × domestica*, SSR markers, genetic diversity, Apple, Morocco

CLASSIFICATION OF COVID-19 VARIANTS USING CHAOS GAME REPRESENTATION AND RECURRENCE QUANTIFICATION ANALYSIS

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Abstract

Covid-19 appeared in Wuhan in 2019 and has been spreading worldwide rapidly. This virus and its mutated versions directly or indirectly killed about 14 million people. Due to different mortality rates and symptoms of sars-cov-2 variants, it is primarily essential to classify its variant or sub-variant. In the present study, the classification of sars-cov-2 was aimed by a machine learning approach. Accordingly, 114 DNA sequences consisting of 73 sub-variant B and 41 sub-variant A were obtained from the national center for biotechnology information. The chaos game representation method transformed DNA sequences into images. Two time series were extracted from x and y coordinates of the resulting image's pixels. Recurrence quantification analysis (RQA) is a powerful tool for investigating the nonlinear dynamic of time series. In this study, this tool was used for feature extraction from the time series of the Covid-19 sequence. As a result, 18 features were extracted by RQA. Finally, the k-nearest neighbor (KNN) algorithm was used to classify two sub-variants A and B, through the leave one out cross validation method. The result indicates that KNN classifier reached 83.33% accuracy, 68.29% sensitivity, and 91.78% specificity. Generally, this result can pave the way for machine learning identification of the latest sars-cov-2 variants according to the genomic data.

Keyword: Covid19, Chaos Game Representation, Recurrence quantification analysis, K-Nearest Neighbor, classification,

DIAGNOSIS OF DEPRESSION BASED ON TWITTER COMMENTS USING TWO RECURRENT NEURAL NETWORK ARCHITECTURES

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ABSTRACT

Various feelings like sadness and tiredness from activities you once enjoyed are the symptoms of depression which may decrease your performance at work and home. There are more than 100 social networks that four billion people use daily. They affect every area of our lives and play an essential role in spreading information. People's feelings are reflected in this information. Sentiment levels can be monitored or analyzed using Social media information. Monitoring conversations on social media can help us to identify people who are experiencing symptoms of depression and to the sentiment analysis for apprehensiveness or dejection detection. Finding if a person is depressed from their use of words on social media can help treat these diseases. Different architectures of deep learning models have been proposed to perform sentiment analysis. The purpose of this article is to classify social media text data for the diagnosis of depression with architecture based on the pre-trained network called word2vec, recurrent neural networks (RNN), and Gated recurrent unit (GRU) or Long Term Short Memory (LSTM). Word2vec+RNN+LSTM and Word2vec+RNN+GRU architecture were trained using 70% of the database as the training database and 30% as the test. The accuracy of Word2vec+RNN+LSTM architecture was 98.83%, and the accuracy of Word2vec+RNN+GRU architecture was 98.57%.

Keywords: LSTM, GRU, Word2vec, RNN, Depression, Text classification

ANTOCORROSION ACTIVITY OF A NEW INORGANIC COMPOUND ON MILD STEEL IN ACIDIC MEDIUM 1M HCL

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ABSTRACT

Corrosion inhibition potentials, of a new inorganic compound for mild steel in 1M HCl and 3% NaCl media. Were evaluated using potentiodynamic polarization (PP) and electrochemical impedance spectroscopy measurements (EIS). Characterization of the surface morphology was performed by SEM investigation. Electrochemical studies showed that the compound has an inhibiting efficiency reached to 92% at 5×10^{-4} M of the compound in 1M HCl. However, in 3% NaCl exhibit any anticorrosive activities. The different impedance diagrams obtained have been represented in Nyquist and in the Bode plane. These spectra were simulated by electrical equivalent circuit ($R_s + CPE_{dl}/R_{ct}$) in order to extract electrochemical parameters to fully understanding the effect of this compound to the mild steel interface. Nevertheless, it was observed that with increasing concentration this model does not perform a good fit of the data neither in Nyquist nor in Bode representations. After examination of several electrical circuits, only ($R_s + CPE_{dl}/(R_{ct} + CPE_f/R_f)$) which provides the best superposition between experimental and theoretical data.

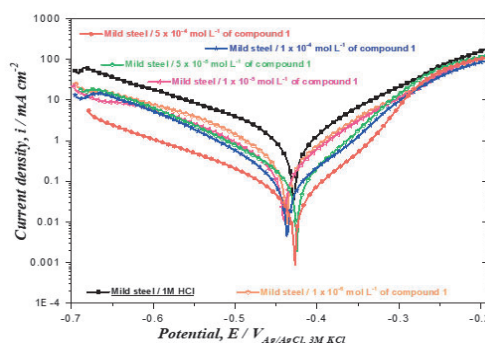


Fig 1: Polarization curves of mild steel in 1M HCl at different concentrations of Compound 1 at 298 K

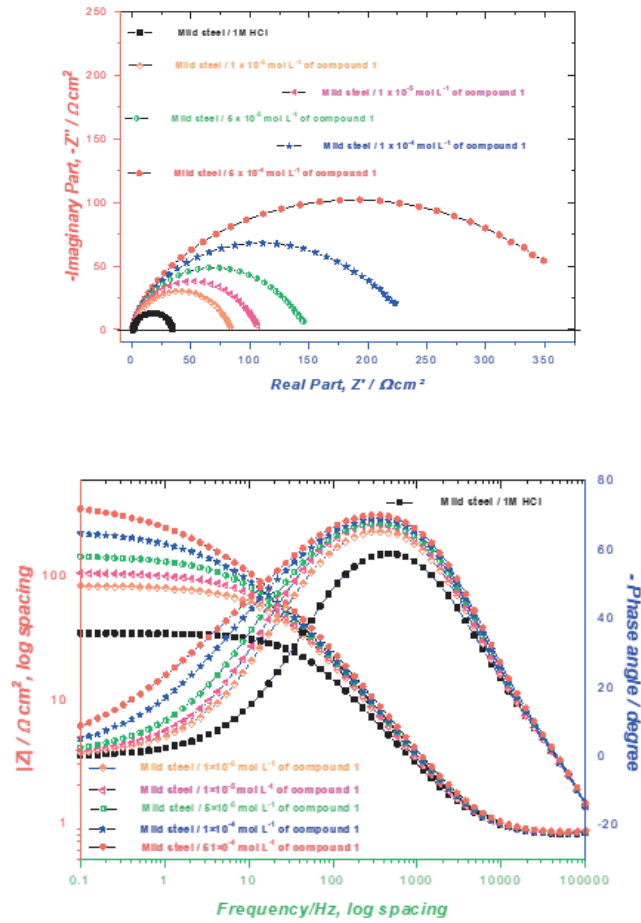


Fig 2: Nyquist and Bode plots of the mild steel in 1 M HCl without and with different concentrations of Compound 1 at 298K

FERULIC ACID SYNTHESIZED GOLD NANOPARTICLES AND ITS CATALYTIC APPLICATIONS

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ABSTRACT

Gold nanoparticles are special because of their biocompatibility, physical traits, and optical capabilities. Because hazardous substances are used in both chemical and physical procedures to create nanoparticles, these nanoparticles cannot be used in biomedical applications. In order to effectively use nanoparticles in biomedicine, interaction between them and biological systems must be under control. As a result, using organic material to synthesize nanoparticles is an approach towards green chemistry that is affordable and environmentally benign. Gold nanoparticles were synthesized by using turkevich method and sodium citrate used as a reducing agent using ferulic acid (FA -AuNp) as capping and stabilizing agent. These were subjected to centrifugation and stored at 4°C. These prepared nanoparticles were characterized by UV-Vis spectrophotometre, Fourier transform infrared (FTIR) spectroscopy and Atomic force microscopy (AFM). AFM results showed that the synthesized nanoparticles are 5-10nm in size. Effect of pH and temperature on the stability of nanoparticales was also evaluated. These are tested for their Environmental and biological applications as heterogeneous catalyst. Anti-scavenging/ Antioxidant potential of FA -AuNp was calculated using DPPH and ABTS cation decolorizing potential and found results as 86.8% and 70.14% respectively. While their anti-urease potential are also calculated as 56.9%. FA –AuNp showed week inhibitory activity against *Pseudomonas aeruginosa*, *Klebsilla pneumoniae*, and *Salmonella typhi*. It has been concluded that synthesized nanoparticles have profound biological effects that can be used in future to modify drug systems and enhance efficacy of medicines.

**KİST BENZERİ GENİŞ PERİAPİKAL LEZYONA SAHİP MANDİBULAR MOLAR BİR
DİŞİN ENDODONTİK TEDAVİSİ VE UZUN DÖNEM TAKİBİ**
ENDODONTIC TREATMENT AND LONG TERM FOLLOW-UP OF A MANDIBULAR MOLAR
WITH A LARGE CYST-LIKE PERIAPICAL LESION

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ÖZET

Pulpa nekrozu çürük, hatalı dental preparasyonlar, travma gibi durumlarda meydana gelebilmektedir. Pulpa nekrozunda fırsatçı mikroorganizmaların çoğalabileceği anaerobik bir ortam oluşur ve endodontik tedavi yapılmazsa immünolojik cevap olarak ilgili dişte periapikal lezyonlar oluşabilmektedir. Periapikal lezyonlar genellikle dental granülom, periapikal apse veya periapikal kist olarak sınıflandırılırlar. Yalnızca radyografik bulgular üzerinden periapikal kistlerin diğer lezyonlardan ayırt edilemeyeceği kabul edilse de 200 mm² veya daha büyük bir radyografik lezyon varlığında ilgili lezyonun kist olduğu varsayılmaktadır. Bir molar dişte kist benzeri geniş periapikal lezyon varlığında ilgili dişin lezyon tedavisi sonrası kök kanal tedavisi, endodontik tedavi sonrası apikal cerrahi ile tedavisi veya dişin çekimi yapılabilir.

Bu vakamızda yirmi bir yaşında erkek hasta eski dolgulu dişinde çiğneme sırasında ağrı ve şişlik şikayetiyle kliniğimize başvurdu. Yapılan klinik ve radyografik incelemede, 36 numaralı dişin vestibül bölgesinde hafif şişlik ve dişin apikalinde kist benzeri geniş bir periapikal lezyonun varlığı tespit edildi. Lokal anestezi altında eski dolgunun uzaklaştırılmasından sonra dişin kök kanallarının başlangıç tedavisi %5,25 NaOCl ve %17 EDTA irrigasyonu altında FlexMaster (VDW, Munich, Germany) Ni-Ti döner eğeleri ile gerçekleştirilmiş, kanallara kalsiyum hidroksit (Sultan Healthcare, New Jersey, Amerika) yerleştirilmiş ve Cavit (ESPE, Seefeld/ Oberbay, Germany) ile geçici olarak kapatılmıştır. İki ay sonra ikinci seansta ilgili dişin asemptomatik olduğu ve radyografik olarak da iyileşmenin başladığı tespit edilince kök kanalı AH Plus (Dentsply DeTrey GmbH, Konstanz, Germany) kanal dolgu patı ve gutta-perca ile dolduruldu. Beş yıl sonra gerçekleştirilen kontrol seansında ilgili dişte herhangi bir klinik semptom bulunmadığı ve alınan periapikal radyografide lamina duranın sağlıklı olduğu görüldü.

Sonuç olarak kist benzeri geniş periapikal lezyona sahip dişler de non-invaziv endodontik tedavilerle iyileşebilmektedir. Periapikal cerrahi veya dişin çekimi endodontik tedavilerle başarı sağlanamadığı durumlarda diğer tedavi seçenekleri olarak düşünülmelidir.

Anahtar Kelimeler: Kist, Periapikal Lezyon, Lezyon Tedavisi

ABSTRACT

Pulp necrosis can occur with caries, defective dental preparations, and trauma, among other conditions. Pulp necrosis creates an anaerobic environment in which opportunistic microorganisms can proliferate, and if endodontic treatment is not performed, periapical lesions may appear in the tooth as an immunological response. Periapical lesions are usually classified as dental granuloma, periapical abscess or periapical cyst. Although it is recognized that periapical cysts cannot be distinguished from other lesions based on radiographic findings alone, a radiographic lesion of 200 mm² or more is considered to be a cyst. In the presence of a large cyst-like periapical lesion in a molar, root canal treatment, treatment with apical surgery after endodontic treatment, or extraction of the tooth can be considered after treatment of the lesion.

In this case, a 21-year-old male patient presented to our clinic complaining of pain and swelling on his old filled tooth during chewing. Clinical and radiographic examination revealed mild swelling in the vestibular region of tooth #36 and the presence of a large cyst-like periapical lesion apical to the tooth. After removal of the old filling under local anesthesia, initial treatment of the root canals of the tooth was performed using FlexMaster (VDW, Munich, Germany) Ni-Ti rotary files under irrigation with 5.25% NaOCl and 17% EDTA, and the canals were treated with calcium hydroxide (Sultan Healthcare, New Jersey, USA) and temporarily sealed with Cavit (ESPE, Seefeld/ Oberbay, Germany). Two months later, at the second appointment, when the tooth was asymptomatic and radiographic healing had begun, the root canal was filled with AH Plus (Dentsply DeTrey GmbH, Konstanz, Germany) root canal filling paste and gutta-percha. At a follow-up visit five years later, there were no clinical symptoms and the lamina dura was found to be healthy according to the periapical radiography.

In conclusion, teeth with large cyst-like periapical lesions can heal with noninvasive endodontic treatments. Periapical surgery or tooth extraction should be considered as further treatment options if endodontic treatments are not successful.

Keywords: Cyst, Periapical Lesion, Lesion Treatment

BELIRLI TIPTEKİ KOMPLEKS İNTEGRALLER İÇİN FARKLI ÇÖZÜM YAKLAŞIMLARI
DIFFERENT SOLUTION APPROACHES FOR COMPLEX INTEGRALS OF CERTAIN TYPES

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ÖZET

Kompleks değişkenli fonksiyonların entegrasyonu, bilim ve mühendisliğin çeşitli alanlarında önemli bir rol oynamaktadır. Uygulamalı bilimlerdeki birçok problem bir integral formülü ile ifade edilip çözümlenmektedir. Bu problemler genellikle bir parametreye bağlı olup, parametrenin sonsuz büyük değerler alması çözümü erişilebilir ve ilgi çekici kılmaktadır. Parametreye bağlı asimptotik bir hesaplama yapmak, bu tür integral gösterimlerin davranışsal doğasını değerlendirmenin en yaygın kullanılan yoludur. Bahse konu kompleks integraller genellikle aşağıdaki biçimde karşımıza çıkmaktadır (Snakowska and Idczak, 2006).

$$I(\Omega) = \int_C f(z)e^{\Omega q(z)} dz, \quad (1)$$

Burada f ve q kompleks z değişkenine bağlı analitik fonksiyonlar olup, Ω parametresi de pozitif değerler almaktadır (Felsen and Marcuvitz, 1994) ve C ise kompleks düzlemde tanımlı bir konturdur. Bunun ötesinde Laplace dönüşümü ve Fourier dönüşümü gibi integraller de (1) biçimini sergilemektedirler. Bu çalışmada, (1) tipindeki kompleks integrallere bir örnek olarak

$$I(\alpha) = \frac{1}{2\pi i} \int_{L_+} \frac{H_0^{(2)}(Kb)e^{-iuc}}{KH_1^{(2)}(Ka)(u - \alpha)} du \quad (2)$$

integrali ele alınmış bu integral için farklı çözüm yaklaşımları incelenmiştir. (2) tipindeki integraller Wiener-Hopf tekniğinin uygulandığı sınır-değer problemlerinin çözüm aşamasında karşılaşılabilen bir integral olmakla birlikte özel olarak (Buyukaksoy and Polat, 1998) ve (Tiryakioğlu and Demir, 2015) 'de ortaya çıkan integralin basitleştirilmiş bir halidir. (2) integralinin incelenmesindeki birinci yaklaşım semer noktası formülü yöntemiyle çözüm yöntemi olup, ikinci yaklaşım integral konturunun kesim çizgileri üzerine deformasyonu ve bu kesim çizgileri üzerinden integralin hesaplanmasıdır. Üçüncü yaklaşım ise, bu tür karmaşık integralleri sayısal olarak hesaplamak için düzgün bir kontur dönüşümü ve formülasyonu sunmaktır. Semer noktası yöntemi büyük parametre değerleri için analitik sonuçlar üretirken, diğer yaklaşımlarda sonuçlar hala integral formdadır. Kesim çizgisi integrasyon yaklaşımı sonsuz bir integral ile sonuçlanırken, düzgün kontur formülasyonu sonucunda sonlu bir integral elde edilmektedir. Bununla birlikte, her iki yaklaşımda da elde edilen integraller parametrik sayısal çalışmalar açısından daha uygun hale gelmiştir. Farklı integral parametreleri için yapılan sayısal hesaplamalar, her üç yaklaşımın da beklendiği gibi büyük parametre değerlerinde iyi bir uyum içinde olduğunu gösterirken, semer noktası formülü daha düşük parametre değerlerinde diğer iki yöntemle uyumlu olmaktan uzak görünmektedir.

Anahtar Kelimeler : Kompleks entegrasyon, Asimptotik değerlendirme, Dal kesimi.

ABSTRACT

The integration of functions of complex variables plays an important role in various fields of science and engineering. The solution of many problems in applied sciences is expressed by an integral formula. These problems are usually dependent on a parameter, and the larger value of the parameter makes the solution achievable and interesting. Performing a parameter dependent asymptotic formulation is the most common used way to evaluate the behavioral nature of such integral representations. These complex integrals usually appear in the following form (Snakowska and Idczak, 2006).

$$I(\Omega) = \int_C f(z)e^{\Omega q(z)} dz, \quad (1)$$

Where, f and q are analytical functions depending on the complex variable z , the parameter Ω takes positive values (Felsen and Marcuvitz, 1994) and C is a defined contour in the complex plane. Moreover, integrals such as Laplace transformation and Fourier transformation also exhibit the form in (1). In this study, as an example of complex integrals of type (1) the following integral is considered

$$I(\alpha) = \frac{1}{2\pi i} \int_{L_+} \frac{H_0^{(2)}(Kb)e^{-iuc}}{KH_1^{(2)}(Ka)(u - \alpha)} du \quad (2)$$

and different solution approaches have been examined for this integral. Although the integral in (2) is an integral that can be encountered during the solution of boundary-value problems to which the Wiener-Hopf technique is applied, it is a simplified form of the integral that appeared in (Buyukaksoy and Polat, 1998) and (Tiryakioglu and Demir, 2015) in particular. The first approach in examining the integral of (2) is the solution method with the saddle point formula, and the second approach is the deformation of the integral contour on the branch-cut lines and the calculation of the integral over these lines. The third approach is to present a smooth contour transformation and formulation to be able to calculate such complex integrals numerically. While the saddle point method produces analytical results for large parameter values, in other approaches the results are still in integral form. In addition, the branch cut line integration approach results in an infinite integral, a finite integral is obtained as a result of the smooth contour formulation. However, the integrals obtained in both approaches have become more suitable for parametric numerical studies. Numerical calculations for different integral parameters show that all three approaches are in good agreement with large parameter values, as expected, while the saddle point formula seems far from being compatible with the other two methods at lower parameter values.

Keywords: Complex integration, Asymptotic evaluation, Branch cut.

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**AFYONKARAHİSAR AMBALAJ ATIKLARININ
BÖLGESEL, SOSYAL VE EKONOMİK ETKİSİNİN İNCELENMESİ**
AFYONKARAHİSAR PACKAGING WASTE
INVESTIGATION OF REGIONAL, SOCIAL AND ECONOMIC IMPACT

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ÖZET

Küreselleşme, hızlı ve kontrolsüz artan dünya nüfusu ile birlikte insanların ihtiyaçlarının artması, işletmeleri daha fazla kaynak tüketmeye zorlamıştır. Artan kaynak tüketimi ile birlikte ambalaj atığı üretimi de artıyor. Bununla beraber doğal denge bozulmakta ve çevreye verilen zarar artmaktadır. Bu noktada geri dönüşümün önemi ortaya çıkıyor. Geri dönüşüme gönderilen ambalaj atığı miktarı arttıkça, ekonomik fayda da artar ve çevreye daha az zarar verilir.

Afyonkarahisar il merkezi ve ilçelerinde son 10 yılda oluşan ambalaj atıklarının durumu incelendiğinde, çoğunlukla lisanslı toplama ve ayrıştırma tesisleri tarafından toplandığı görülmektedir. 2016 yılına kadar geçen zaman diliminde farkındalık ve çalışmalar olmaması nedeniyle ambalaj atıklarının diğer atıklardan ayrıştırılması yeterince yapılmadığı için verilerin yetersiz olduğu görülmektedir. 2016-2020 yılları arasında ambalaj atıklarının sorumluluğu Afyonkarahisar Çevre Hizmetleri Birliği'ne devredilmiştir. Ambalaj atıkları belirlenen alanlardaki kafeslere atılarak belirli aralıklarla firmalarla birlikte toplanmaktadır. 2021 yılında merkezi ambalaj atıklarının sorumluluğu Afyonkarahisar Belediyesi'ne ve diğer ilçeler kendi belediyelerine devredilmiştir. Bu tarihten sonra belediyeler kendi sorumluluğunda oldukları için toplama ve ayırma tesisi ile anlaşma yapma veya kendi ambalaj atıklarını toplama çalışmalarına devam etmektedir. Bu nedenle belediyelerde oluşan ambalaj atıkları ile ilgili net verilere bu tarihten sonra ulaşılamamış, 2016-2020 yılları arasındaki ambalaj atıkları çalışmada incelenmiştir.

Bu çalışma Afyonkarahisar merkez ve ilçelerinde oluşan ambalaj atığı miktarını belirlemek amacıyla yapılmıştır. Çalışma alanı bölgeleri ve mevzuat dikkate alınarak araştırılmıştır. Çalışma alanlarında oluşan ambalaj atığı miktarına ilişkin veriler incelenmiştir. Yıllar ve bölgeler birbirleriyle karşılaştırılarak istatistikler ve grafikler üretilmiştir.

Karşılaştırma sonucunda ambalaj atıklarının en fazla olduğu yıllar ve bölgeler belirlendi. Bu bölgelerdeki sosyal ve ekonomik etkiler incelenecek ve ambalaj miktarındaki rolü hakkında bilgi verilecektir.

Anahtar Kelimeler: Ambalaj, Atık, Afyonkarahisar, Sosyal ve Ekonomik Etki

ABSTRACT

Globalization, the rapid and uncontrolled increasing world population and the increase in people's needs have forced businesses to consume more resources. Along with increasing resource consumption, packaging waste generation is also increasing. However, the natural balance is disturbed and the damage to the environment increases. At this point, the importance of recycling emerges. The more the amount of packaging waste sent for recycling increases, the greater the economic benefit and the less damage to the environment.

When the situation of packaging wastes generated in Afyonkarahisar city center and its districts in the last 10 years is examined, it is seen that it is mostly collected by licensed collection and sorting facilities. Due to the lack of awareness and studies in the time period until 2016, it is seen that the data are insufficient because the separation of packaging waste from other wastes is not done enough. Between 2016-2020, the responsibility of packaging waste was transferred to Afyonkarahisar Environmental Services Association. Packaging wastes are thrown into the cages in the designated areas and collected with companies at regular intervals. In 2021, the responsibility of central packaging waste was transferred to Afyonkarahisar Municipality and other districts to their own municipalities. After this date, the municipalities continue to work on making agreements with the collection and sorting facility or collecting their own packaging wastes, since the municipalities are under their own responsibility. For this reason, clear data on packaging waste generated in municipalities could not be reached after this date, and packaging wastes between 2016-2020 were examined in the study.

This study was carried out in order to determine the amount of packaging waste generated in Afyonkarahisar center and its districts. It has been researched by considering the study area regions and legislation. The data on the amount of packaging waste generated in the study areas were examined. Statistics and graphs were produced by comparing the years and regions with each other.

As a result of the comparison, the years and regions in which the packaging wastes were generated the most were determined. Social and economic effects in these regions will be examined and information will be given about its role in the amount of packaging.

Keywords: Packaging, Waste, Afyonkarahisar, Social and Economic Impact

HEMEN HEMEN KENMOTSU (κ, μ, ν) –UZAYIN TOTAL GEODEZİK
ALTMANİFOLDLARI
TOTAL GEODESIC SUBMANIFOLDS OF ALMOST KENMOTSU (κ, μ, ν) –SPACE

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ÖZET

Modern analizde, altmanifoldların geometrisi giderek artan önemli bir kavram haline gelmiştir. Son zamanlarda özellikle uygulamalı matematik ve teorik fizikteki önemli uygulamaları ile büyük bir ilgi ve dikkat çekmeye başlamıştır. Örneğin invaryant altmanifold kavramı, lineer olmayan denklem sistemlerinin özelliklerini incelemek için kullanılmaktadır. Ayrıca geodezik kavramı görelilik teorisinde çok önemli bir rol oynamaktadır ve matematikte olduğu kadar fizikte de oldukça önemlidir.

$(2n + 1)$ –boyutlu kontak metrik manifold kavramı iyi bilinmektedir. $\tilde{M}(\phi, \xi, \eta, g)$ kontak metrik manifoldun (κ, μ) -nullity dağılımı, her $X, Y \in \Gamma(T\tilde{M})$ için

$$\tilde{R}(X, Y)Z = \kappa[g(Y, Z)X - g(X, Z)Y] + \mu[g(Y, Z)hX - g(X, Z)hY]$$

şeklinindedir. Eğer ξ karakteristik vektör alanı (κ, μ) –nullity dağılımına aitse

$$\tilde{R}(X, Y)\xi = \kappa[\eta(Y)X - \eta(X)Y] + \mu[\eta(Y)hX - \eta(X)hY]$$

sağlanır ve bu özelliği sağlayan kontak metrik manifolda (κ, μ) -kontak metrik manifold denir. Eğer $d\eta = 0$ ve $d\Phi = 2\eta\wedge\Phi$ ise hemen hemen kontak metrik manifolda hemen hemen Kenmotsu manifoldu denir. Eğer hemen hemen Kenmotsu manifoldu (κ, μ, ν) -nullity dağılımına sahip ise, bu manifolda hemen hemen Kenmotsu (κ, μ, ν) -uzay denir.

Bu çalışmada hemen hemen Kenmotsu (κ, μ, ν) -uzayın invaryant altmanifoldları ele alınmıştır. İnvaryant altmanifold için pseudoparalellik araştırılmış, total geodezik altmanifold olması için gerekli ve yeterli koşullar elde edilmiştir.

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Anahtar Kelimeler: İnvaryant Altmanifold, Total Geodezik Altmanifold, Hemen hemen Kenmotsu (κ, μ, ν) -uzay

ABSTRACT

In modern analysis, the geometry of submanifolds has become an increasingly important concept. Recently, it has started to attract great attention and attention, especially with its important applications in applied mathematics and theoretical physics. For example, the concept of invariant submanifold is used to examine the properties of nonlinear systems of equations. In addition, the concept of geodesics plays a very important role in the theory of relativity and is very important in physics as well as mathematics.

The concept of $(2n+1)$ -dimensional contact metric manifolds is well known. The (κ, μ) -nullity distribution of a contact metric manifold $\tilde{M}(\phi, \xi, \eta, g)$ for the pair $(\kappa, \mu) \in \mathbb{R}^2$ is distribution

$$\tilde{R}(X, Y)Z = \kappa[g(Y, Z)X - g(X, Z)Y] + \mu[g(Y, Z)hX - g(X, Z)hY]$$

for all $X, Y \in \Gamma(T\tilde{M})$. So if the characteristic vector field ξ belongs to the (κ, μ) -nullity distribution, then

$$\tilde{R}(X, Y)\xi = \kappa[\eta(Y)X - \eta(X)Y] + \mu[\eta(Y)hX - \eta(X)hY]$$

and the manifold is called (κ, μ) -contact metric manifold. If $d\eta = 0$ and $d\Phi = 2\eta\wedge\Phi$, an almost contact metric manifold is an almost Kenmotsu manifold. If an almost Kenmotsu manifold has a (κ, μ, ν) -nullity distribution, it is called an almost Kenmotsu (κ, μ, ν) -space.

In this study, invariant submanifolds of almost Kenmotsu (κ, μ, ν) -space are considered.

Pseudoparallelity was investigated for invariant submanifold, necessary and sufficient conditions were obtained for it to be a total geodesic submanifold.

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Keywords: Invariant Submanifold, Total Geodesic Submanifold, Almost Kenmotsu (κ, μ, ν) -space

**ORTA OKULLARDA MATEMATİK ÖĞRETİMİNDE ÖĞRENCİLERDE
GRAFİK BECERİLERİN OLUŞUMUNDA GRAPH PROGRAMININ KULLANILMASI**
USING THE GRAPH SOFTWARE IN FORMING STUDENTS' GRAPHIC SKILLS WHILE
TEACHING MATHEMATICS IN GENERAL EDUCATION SCHOOLS

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ÖZET

Günümüzde bilgi toplumunun gereklerini karşılayan, bilim ve eğitim dahil hayatın her alanında elektronik eğitim kaynaklarını kullanabilen uzmanlara büyük ihtiyaç duyulmaktadır. Bu nedenle, modern eğitim standartlarına uygun, işgücü piyasasında rekabet eden profesyonel kalitede uzmanların yetiştirilmesine genel eğitim okullarından başlamak gerekir. Matematik de dahil olmak üzere genel okul konularının öğretiminde öğrencilerin mantıksal düşüncelerinin, matematik kültürünün, araştırma becerilerinin oluşturulmasında ve bilişsel etkinliklerinin artırılmasında bilgisayar teknolojilerinin kullanılması gerekmektedir.

Makale, ortaokullarda matematik öğretiminde bilgisayar teknolojilerinin kullanılmasının rolünü ve önemini tartışmaktadır. Matematik öğretiminde öğrencilerde grafik becerilerinin oluşumu için Graph 4.4 uygulama programında grafiklerin bilgisayar ortamında oluşturulması ile ilgili çeşitli çalışmaların çözümlenmesi yöntemi göz önünde bulundurulmuştur.

Araştırma sonucunda, matematik öğretiminde Graph programı kullanılarak öğrencilerde grafik becerilerinin oluşturulmasının mümkün olduğu belirlenmiştir.

- Graph yazılımı, grafik oluşturmak ve sonuçları sunmak için vazgeçilmezdir ve aynı zamanda lise öğrencileri için en iyi görsel öğrenme aracıdır.
- Graph yazılımı öğretmenin materyali açıklamasına yardımcı olur ve aynı zamanda öğrencilerin çalışılan materyali derinlemesine anlamalarına yardımcı olur. Öğrencilerin temel fonksiyonların grafiklerine doğru ve anlaşılır bir şekilde hakim olmaları, gelecekte daha karmaşık fonksiyonların grafiklerini oluşturma yönünde becerilerinin oluşumu için zemin hazırlar.
- Graph uygulama programı sayesinde, hesaplamalarda hatalardan kaçınmak ve grafikleri daha kusursuz işlemek, grafiklerin oluşturulması sırasında zamandan tasarruf etmek mümkündür. Bu programın uygulanması, ders kitabının kullanımını kolaylaştırır, öğrenme ve uygulama odaklı çalışma çözümlerinin kapsamlı tartışması için fırsatlar sunar.
- Graph programı da dahil olmak üzere bilgisayar programlarının matematik derslerinde kullanılması öğrenciler için sadece ilgi çekici olmakla kalmaz, aynı zamanda onları yaratıcı

olmaya teşvik eder, matematiğin uygulama yönlerini, kullanım alanlarını keşfetmelerine yardımcı olur.

Anahtar Kelimeler: matematik, Graph programı, fonksiyon, grafik, uygulama

ABSTRACT

At present, there is a great need for specialists who meet the requirements of the information society and are able to use electronic educational resources in all areas of life, including science and education. It is necessary to start the training of specialists of professional quality, who are competitive in the labour market in accordance with modern educational standards, from general education schools. It is essential to use computer technologies in the formation of students' logical thinking, mathematical culture, research skills, and increasing their cognitive activity in the teaching of general school subjects, including mathematics.

The article discusses the role and importance of using computer technologies while teaching mathematics in secondary schools. The method of solving several problems related to the construction of graphs in the Graph 4.4 software on the computer is considered for shaping graphic skills in students while teaching mathematics.

As a result of the research, it was determined that it is possible to develop graphic skills in students by using the software Graph while teaching mathematics.

- Graph is indispensable for constructing graphs and presenting results as well as the best visual learning tool for high school students.
- Graph helps the teacher to explain the material and at the same time helps the students to understand the studied material in depth. Accurate and comprehensible mastering graphs of elementary functions by students paves the way for the formation of skills for constructing graphs of more complex functions in the future.
- With the help of the application program Graph, it is possible to save time during the construction of graphs, prevent errors in calculations, and process graphs more perfectly. The application of this program facilitates the use of the textbook, opens opportunities for extensive discussion of learning and application-oriented work solutions.
- The use of computer software, including Graph, in math classes is not only interesting for students, but also encourages them to be creative, helps them to discover the application and areas of usage of mathematics.

Keywords: maths, Graph software, function, graph, application

**SELF-ORGANIZING CONTROL SYSTEMS IN THE CLASS OF
THREE-PARAMETER STRUCTURALLY STABLE MAPPINGS**

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ABSTRACT

Real control systems are designed and operate under conditions of uncertainty. The ability of a control system to maintain stability under uncertainty is understood as robust stability. When going beyond the boundaries of robust stability of uncertain parameters in a nonlinear dynamic system, a mode of deterministic chaos and instability is generated in linear dynamic systems. Under conditions of uncertainty, the main factor guaranteeing protection against the regime of deterministic chaos and instability is the construction of a self-organizing control system in the class of structurally stable mappings from catastrophe theory.

The paper proposes a method for studying and controlling unstable and deterministic chaotic processes in the form of complete suppression in the class of catastrophes “hyperbolic umbilic” from catastrophe theory for a system with m inputs and n outputs.

The solution of the problem of studying a self-organizing control system in the class of catastrophes “hyperbolic umbilic” is carried out by the gradient-velocity method of the Lyapunov vector functions and the obtained boundaries of aperiodic robust stability are a condition for protection against oscillation, generation of instability and deterministic chaos in the system.

Keywords: Gradient-velocity Method of Lyapunov Vector-functions, Stability, Deterministic Chaos, Hyperbolic Umbilic, Control.

**ZAMAN GECİKMELİ KESİRSEL MERTEBEDEN İŞ DÖNGÜ MODELİNDE
HOPF ÇATALLANMASI**
HOPF BIFURCATION IN TIME DELAYED FRACTIONAL-ORDER
BUSINESS CYCLE MODEL

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ÖZET

Bu çalışmada, Cai [1] tarafından verilen IS-LM iş döngü modeli kesirsel mertebeden ele alınıp, kararlılık ve Hopf çatallanma analizi yapıldı. Caputo türev yardımıyla ekonomik model kesirsel mertebeden zaman gecikmeli IS-LM iş döngü modeline dönüştürüldü. Xie ve ark. [2]'den yararlanılarak kararlı olması için gereken şartlar bulundu. Aşkın bir karakteristik denkleme sahip olan dinamik sistemin hangi şartlar altında kompleks eşlenik köklere sahip olduğu, Deng ve ark. [3] tarafından geliştirilen yeni yöntem yardımıyla bulundu.

Cai [1] sermaye stokundaki yatırım fonksiyonunun değişkenlerinden birisi olan brüt ürüne, zaman gecikmesi uygulayarak, zaman gecikmeli IS-LM iş döngü modelini oluşturdu. Bu çalışmada, Xie ve ark. [2]'den esinlenilerek sermaye stokundaki yatırım fonksiyonuna zaman gecikmesi uygulandı. Böylece, yatırımların geciktirilmesiyle, mevcut sermaye stokundan, gelecekteki beklenti sermaye stokunun hangi şartlar altında ekonomik dalgalanmaya yol açacağı tahmin edildi.

Zaman gecikmeli IS-LM iş döngü modeli için zaman gecikmesi bir çatallanma parametresi olurken, kesirsel mertebeden zaman gecikmeli IS-LM iş döngü modeli için sadece zaman gecikmesinin değil aynı zamanda kesirsel mertebenin derecesinin de Hopf çatallanmanın doğmasında etkili olduğu sayısal örnekler verilerek gösterildi. Yatırım için Kaldor yatırım fonksiyonu ve likidite için Liu ve ark. [4] kullandığı para tercih fonksiyonu kullanıldı. Farklı başlangıç noktaları ve farklı zaman gecikmeler için kesirsel mertebeden iş döngü modelinin faz diyagramları çizildi. Sistemin değişken parametreleri olan brüt ürün (Gross product), faiz oranı (interest rate) ve sermaye stoku (Capital stock)'un asimtotik olarak kararlı olup olmadığı grafiklerle gösterildi. Sabit kesirsel mertebeye için Hopf çatallanma noktasının olduğu, zaman gecikme noktası bulundu. Bu noktadan önce denge noktasının asimtotik olarak kararlı olduğu ve bu noktadan sonra kararlı periyodik yörüngeye sahip olduğu grafikler çizildi.

Anahtar Kelimeler: Kararlılık, Hopf Çatallanması, IS-LM İş Döngü Modeli

ABSTRACT

In this study, the IS-LM business cycle model given by Cai [1] has been considered by a fractional order, and stability and Hopf bifurcation analysis are performed. With the help of Caputo derivative, the economic model is converted from a time-delayed IS-LM business cycle model to a delayed time fractional order IS-LM business cycle model. Using the Xie et al. [2], the necessary conditions for its stability are found. The conditions under which the dynamical system, which has a transcendental characteristic equation, have complex conjugate roots is found with the help of the new method developed by Deng et al. [3].

Cai [1] has considered a time-delayed IS-LM business cycle model by applying a time delay to the gross product, which is one of the variables of the investment function in the capital stock. In this study, Xie et al. [2], a time delay is applied to the investment function in the capital stock. Thus, by delaying investments, it will be estimated from the current capital stock, under which conditions the expected future capital stock would lead to economic fluctuations.

While a time delay is a bifurcation parameter for a delayed time IS-LM business cycle model, numerical examples are shown that not only the time delay but also the degree of the fractional order is effective in the emergence of Hopf bifurcation for the fractional order time delayed IS-LM business cycle model. Kaldor investment function for investment and Liu et al. [4] are used the liquidity preference function. Phase diagrams of the fractional order business cycle models are drawn for different starting points and different time delays. Whether the variable parameters of the system, such as gross product, interest rate, and capital stock, are asymptotically stable, are shown with graphs. The time delay point with the Hopf bifurcation point is found for the fixed fractional order. Graphs are drawn where the equilibrium point is asymptotically stable before this point and has a stable periodic trajectory after this point.

Keywords: Stability, Hopf Bifurcation, IS-LM Business Cycle Model

**ELEKTROEĞRİLMİŞ POLİ(ε-KAPROLAKTON) İSKELESİNİN ORTALAMA LİF ÇAPINI
YAPAY SİNİR AĞINA DAYALI MODEL KULLANARAK TAHMİN EDİLMESİ**
PREDICTING THE AVERAGE FIBER DIAMETER OF ELECTROSPUN POLY(ε-
CAPROLACTONE) SCAFFOLD USING MODEL BASED ON ARTIFICIAL NEURAL
NETWORK

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ÖZET

Doku mühendisliği, hasarlı dokuları korumak, iyileştirmek veya eski haline getirmek için yapı iskelelerini, hücreleri ve biyoaktif molekülleri kullanan disiplinler arası bir alandır. İskeleler, hücrelerin yaşamsal faaliyetlerini yerine getirmeleri için oluşturulmuş geçici üç boyutlu bir mikro ortamdır. İskelenin, ekilen hücrelerin yapısal özelliklerine uygun bir lif çapına sahip olması, ilk hücre yapışmasında hayati rol oynar. Elektroeğirme, alternatif yöntemlere göre avantajları nedeniyle iskele üretiminde sıklıkla tercih edilmektedir. Ancak istenilen lif çapına sahip bir doku iskelesi elde etmek için birçok proses parametresinin optimal olarak ayarlanması gerekir. Bu proses parametrelerinin optimum değerlerinin belirlenmesi sırasında yapılan deney tekrarları hem maddi hem de zaman kaybına neden olmaktadır. Bu kayıpları en aza indirmek için bu çalışmada, elektroegirme yöntemi ile üretilen poli (ε-kaprolakton) (PCL) iskelesinin lif çapını tahmin etmek için Scaled conjugate gradient (SCG) öğrenme algoritması ile eğitilmiş bir YSA modeli geliştirilmiştir. Çalışma kapsamında öncelikle YSA modelinin eğitimi ve test edilmesi için gerekli olan veri seti elde edilmiştir. Veri seti, her biri üç varyasyon seviyesine sahip dört farklı elektroegirme parametresine bağlı ortalama lif çapı (AFD) değerlerini içeren 25 deneysel veri içerir. Daha sonra ileri beslemeli geri yayımlı yapay sinir ağlarına dayalı bir model geliştirilmiş ve model SCG öğrenme algoritması ile eğitilmiştir. YSA modelinin performansı Ortalama Mutlak Yüzde Hatası (MAPE) metriği kullanılarak incelenmiştir. Modelin, sırasıyla %0.84 ve %6.29'luk eğitim ve test hatalarıyla fiber çapını tahmin ettiği bulunmuştur. Sunulan model, daha az deney yapılarak istenen fiber çapına sahip elektroegirilmiş PCL iskelesinin üretilmesinde kullanılabilir.

Anahtar Kelimeler: Elektroegirme, Yapay Sinir Ağı, Lif Çapı, PCL

ABSTRACT

Tissue engineering is an interdisciplinary field that uses scaffolds, cells, and bioactive molecules to maintain, improve or restore damaged tissues. The scaffolds are a temporary three-dimensional microenvironment created for cells to carry out their vital activities. The fact that the scaffold has a fiber diameter suitable for the structural characteristics of the seeded cells plays a vital role in initial cell adhesion. Electrospinning is frequently preferred in scaffold production due to its advantages over alternative methods. However, to obtain a tissue scaffold with the desired fiber diameter, many process parameters need to be optimally adjusted. Experiment repetitions performed while determining the optimum values of these process parameters cause both financial and time loss. In order to minimize these losses, in this study, an ANN model trained with the Scaled conjugate gradient (SCG) learning algorithm was developed to predict the fiber diameter of the poly (ϵ -caprolactone) (PCL) scaffold produced by the electrospinning method. Within the scope of the study, first of all, the data set required for training and testing the ANN model was obtained. The data set contains 25 experimental data, including average fiber diameter (AFD) values dependent on four different electrospinning parameters, each with three variation levels. Then, a model based on feed-forward backpropagation artificial neural networks is developed, and the model has been trained with the SCG learning algorithm. The performance of the ANN model has been examined using the metric of Mean Absolute Percentage Error (MAPE). The model was found to predict the fiber diameter with training and testing errors of 0.84% and 6.29%, respectively. The presented model can be used in producing electrospun PCL scaffold with desired fiber diameter by performing fewer experiments.

Keywords: Electrospinning, Artificial neural networks, Fiber Diameter, PCL

İNSAN SORUMLULUĞU, HÜR İRADE VE KESB KAVRAMI

HUMAN RESPONSIBILITY, THE CONCEPT OF FREE WILL AND KESB

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ÖZET

Toplumlarda arzu edilen sosyal adalet ve ahlâkî düzenin sağlanabilmesi, öncelikle adalet prensibine dayanmaktadır. Bu husus da sonuç itibarıyla insanların işlediği fiillerle alakalıdır. İnsanın hem kendi şahsına hem de topluma karşı sorumlulukları, işlediği fiilleri konusunda hür olmasına bağlıdır. Buna göre hür irade sahibi olan insanın fiil işleyebilecek maddî/fizikî şartlara da sahip olması kaçınılmazdır. Ancak hem irâdî/manevî fiillerin hem de maddî/fizikî fiillerin gerçek sahibi onu yaratandır; yani Hâlik'tir. İnsan ise Kâsib'dir. İşte "Kesb" kavramı, yaratma ile sorumluluk arasında en önemli kilit kavramdır. Bu kavram, Matüridilerde daha doğru bir şekilde kullanılmıştır diyebiliriz. Buna karşılık Mutezile, kul fiillerinin hâlikı/yaratıcısı derken Eş'ariler de kul işlediği fiilleri Allah'ın kulda yaratmış olduğu muhdes/yaratılmış kudretle yaptığını/yapmak zorunda kaldığını söyleyebilmiştir. Mutezile ve Eş'ariler gibi iki zıt ve uç görüşlere kıyasla adalet ve sorumluluk açısından orta yolu tutturana Matüridi düşünce sistemi olmuştur denebilir.

Bu sistemin hem ilahî adalet hem de yaratma ile ilgili sorunların çözümünde önemli rol oynadığı söylenebilir. Mesela bir fiil için iki failin kabulü durumunda ortaya yaratma ve adalet sorunu çıkmaktadır. Belki de bu sorunun çözümü için Mutezile, insanların kendi fiillerini yarattığını iddia etmiştir. Fakat bu iddia, Allah'tan başka yaratıcıların varlığını kabul etmek demektir. Bu durum ise Allah'a ortak koşmak anlamına gelir ve bu da şirk'tir. Sonuçta Mutezile adaleti sağlamak isterken Tevhid akidesine zarar vermiş sayılır. Öte yandan bir fiilin iki faili olamayacağı gerçeği, insanlara ait bütün fiilleri Allah'ın yarattığı sonucunu doğurur. Allah'ın yarattığı fiillerin insanlar üzerinde meydana gelmesi, o fiillerin gerçek failinin Allah olmadığı anlamını taşımaz. Zira burada insan sadece fiillere konu olmuş demektir. Kendi üzerinde yaratılan fiiller hakkında insanın fonksiyonu nedir denecek olursa verilecek cevap şudur: Bu fiillere ait iyi ya da kötü vasıflarını insan belirlemektedir. Bu da gösteriyor ki insana fiilleri konusunda etkili bir irade verilmiştir. İnsanın yaptığı işlerden sorumlu tutulması da bu gerçeğe dayanmaktadır.

Anahtar Kelimeler: Kul, İrade, Kesb, Kader, Fiil, Hâlik, Tercih, Kâsib.

ABSTRACT

Achieving the desired social justice and moral order in societies is primarily based on the principle of justice. This issue is ultimately related to the acts committed by people. A person's responsibilities both to himself and to society depend on being free about the acts he commits. Accordingly, it is inevitable for a person who has free will to have the material/physical conditions to act. However, the real owner of both voluntary/spiritual acts and material/physical acts is the one who created them; that is, Hâlik. Man is Kasib. Here, the concept of "Kesb" is the most important key concept between creation and responsibility. This concept was used more accurately in the Maturidi system of thought. On the other hand, when Mutezile said that the servant was the creator of his acts. As for the Ash'arites they were also able to say that the acts committed by the servant were/had to be done with the immaculate/created power that Allah had created in the servant. It can be said that it was the Maturidi thought system that took the middle path in terms of justice and responsibility compared to two opposite and extreme views such as the Mutezilits and Ash'aris.

It can be said that this system plays an important role in solving problems related to both divine justice and creation. For example, in the case of the acceptance of two perpetrators for an act, the problem of creation and justice arises. Perhaps for the solution of this problem, Mutezile claimed that people created their own actions. But this claim means accepting the existence of creators other than Allah. In this case, it means associating partners with Allah, and this is shirk. As a result, the Mutezile is deemed to have damaged the creed of Tawhid while trying to achieve justice. On the other hand, the fact that an act cannot have two agents leads to the conclusion that all human actions are created by Allah. The fact that the actions created by God are on people does not mean that the real perpetrator of the actions is not God. Here, man is only subject to actions. If one asks what is the function of man about the acts created on him, the answer to be given is this: Human determines the good or bad qualities of these acts. This shows that man has been given an effective will for his actions. It is also based on this fact that people are held responsible for their actions.

Keywords: Servant, Will, Kesb, Destiny, Verb, Hâlik, Preference, Kasib

İBADÂT VE MUAMELÂT AÇISINDAN METAVERSE TEKNOLOJİSİNİN YAKIN GELECEKTEKİ ROLÜ

THE ROLE OF METAVERSE TECHNOLOGY IN THE NEAR FUTURE IN TERMS OF İBADÂT
AND MUAMELÂT

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ÖZET

İnsanlığın yaşadığı dönemin son çeyrek asrına göz atıldığında, internet ve türevi teknolojilerin insan ve toplum hayatına gerek sosyalleşme gerekse ihtiyaçların giderilmesi noktasında ne denli etki ettiği rahatlıkla anlaşılmaktadır. Gelişim hızı günden güne artan internet tabanlı teknolojilerin son ürünü olarak ortaya çıkan Metaverse, Web3 teknolojisinin etkin bir parçasıdır. Teknoloji şirketlerinin de yatırımlarıyla gündeme oturan Metaverse platformundan geleceğe dair beklentiler yüksektir. Web2 teknolojisinden farklı olarak sanal bir dünya tecrübesi sunması ve kullanıcılara yüksek derecede etkileşim imkânı vermesi Metaverse'in öne çıkan en önemli özellikleridir. Metaverse'in içindeki kullanıcı uygulamanın sunduğu hizmetten olabildiğince yüksek derecede verim alacaktır. E-ticaret, e-ihracat gibi ekonomik alanda getirdiği yeni fırsatlar; özellikle riskli eğitimlerin sınırsız ve rahatlıkla pratik yapılabilmesi imkanına bağlı olarak cerrahi operasyonlara yönelik maliyetsiz öğretimler, adı geçen teknolojinin yapısı gereği sunacağı hizmetler arasında görülmektedir. Pratik hayata yansıtacağı olumlu yönleriyle birlikte Metaverse teknolojisinin henüz hukuki bir dayanağa sahip olmayışı ve haksız fiil kapsamında haksız iktisap durumlarının ne derecede adil bir düzene oturtulacağı da zihinlerde bulunan soru işaretleridir. Ayrıca İslam coğrafyasından büyük bir kitlenin de rağbet edeceği öngörülen bu teknolojinin İslam'ın hukuki emir ve yasaklarına uygun olup olmadığı üzerinde durulması gereken bir konudur. Buna göre İslam Hukuku'nda borç işlemleri, alım-satım ve kiralama akitleri gibi muamelat ilişkilerinde Şâri'nin üzerinde durduğu prensipler dikkate alındığında Metaverse'in gerek kripto varlıkları ve NFT gibi telif haklarını koruması gerekmektedir. Metaverse platformunda herhangi bir akit sözleşmesi durumunda kişilerin fiziki uzaklığı suiistimalden uzak olmaları, sözleşmelerin şeri/dini açıdan yürürlük kazanması için önemlidir. Fıkhın münakehat bölümüne ait tasarrufların sanal dünya üzerinden gerçekleştirilmesi daha önceki çalışmalarda hazır olan kişinin tasarrufu olarak değerlendirilmiş ve belli şartlar doğrultusunda geçerli görülmüştür. Görüntü ve ses destekli internet iletişimin yanında daha yüksek hissiyat fırsatı sunan sanal gerçeklikte ailevi-hukuki tasarrufların da gerçekleştirilebileceği söylenebilir. Metaverse biliminin Müslümanlara ibadetlerini ifa etme noktasında

getireceği yeniliklere bakıldığında, hac ibadeti gibi ömürde bir defa yapılan ve karıştırılması sıkça rastlanılan görevin eğitimi bu platformda verilebilir. Günümüzde internet siteleri üzerinden gerçekleştirilen zekât ödemeleri, kurban bağışları da Metaverse ile eda etmeye uygun görünmektedir. Ancak namazın kılınması, haccın edası gibi ibadetlerin ifa edilme durumları sanal dünyada yerine getirilemez. Nitekim bu tür ibadetlerde fiziki meşakkat ve gerçek mekânda bulunma şartları vardır. Eşyada aslolan ibahadır anlayışıyla hayata entegre olan her yeni teknolojiden İslamî kurallar çerçevesince Müslümanların faydalanması, dünya hayatlarını daha rahat yaşamalarını ve kulluk görevlerini de gereğince yerine getirmelerini sağlar.

Anahtar Kelimeler: İbadât, Muamelât, Metaverse, Teknoloji.

ABSTRACT

When we look at the last quarter century of the period in which humanity lived, it is easily understood how the internet and its derivative technologies have affected human and social life in terms of both socialization and meeting needs. Metaverse, which emerged as the latest product of internet-based technologies, whose development speed is increasing day by day, is an active part of Web3 technology. The expectations for the future are high from the Metaverse platform, which is on the agenda with the investments of technology companies. Unlike Web2 technology, the most important features of Metaverse are that it offers a virtual world experience and allows users to interact with a high degree of interaction. The user in Metaverse will get as much efficiency as possible from the service offered by the application. New opportunities in the economic field such as e-commerce and e-export; in particular, due to the possibility of unlimited and comfortable practice of risky trainings, cost-free teaching for surgical operations is seen among the services that the said technology will offer due to its nature. Along with the positive aspects that it will reflect on practical life, the fact that Metaverse technology does not have a legal basis yet and to what extent the unfair acquisition situations will be placed in a fair order within the scope of tort are also question marks in the minds. In addition, it is an issue that should be emphasized whether this technology, which is predicted to be popular with a large audience from the Islamic geography, is in compliance with the legal orders and prohibitions of Islam. Accordingly, considering the principles that Shariah emphasizes in transaction relations such as debt transactions, purchase-sales and lease contracts in Islamic Law, Metaverse should protect copyrights such as crypto assets and NFT. In the case of any contract on the Metaverse platform, it is important for people to keep their physical distance away from abuse and for the contracts to be valid in terms of sharia/religion. The realization of the savings belonging to the allowance section of fiqh over the virtual world has been considered as the savings of the person who is ready in previous studies and has been deemed valid in accordance with certain conditions. It can be said that family-legal savings can also be realized in virtual reality, which offers the opportunity of higher feeling, as well as image and sound supported internet communication. Considering the innovations that metaverse science will bring to Muslims in terms of

performing their prayers, the training of a once-in-a-lifetime task such as the pilgrimage can be given on this platform. Today, zekat payments and qurban donations made through internet sites seem suitable to be paid through Metaverse. However, praying such as performing prayers and performing the pilgrimage cannot be performed in the virtual world. As a matter of fact, there are physical hardships and conditions of being in a real place in such worship. Benefiting from every new technology integrated into life with the understanding that the main thing in things is ibaha, within the framework of Islamic rules, enables Muslims to live their worldly lives more comfortably and to fulfill their duties of servitude properly.

Keywords: İbadât, Muamelât, Metaverse, Technology.

DİN KARŞITI AKIMLAR, ORTAK ÖZELLİKLERİ VE PARADOKSLARI

ANTI-RELIGIOUS CURRENTS, THEIR COMMON FEATURES

AND THEIR PARADOXES

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ÖZET

İnsan yapısal olarak inanmaya, bir şeylere güvenmeye ihtiyaç duyan bir varlıktır. Onun hayatı akli ve inancı ekseninde oluşturduğu değerler çerçevesinde şekillenir. İnsanlık tarihi incelendiğinde mutlaka her dönem her hangi bir dini anlayışa inan insanı bulmak mümkündür. Dün olduğu gibi günümüzde de insanlar büyük çoğunlukla bir dini inanışın içinde yer alırlar. Dine karşı duruş veyahut din adına ortaya konan şeylere muhalefet devam etmesine, mütedeyyinlerin yanırları dine fatura edilmesine, akıl dışı tavırlar dine mal edilmesine rağmen dine tabi olmak bağlamında geçmişten günümüze aslen çok büyük bir deęişiklik söz konusu deęildir.

Din karşıtı guruplardan hepsi aynı tavırda da deęildir. Din kavramının ortaya koyduğu başta Tanrı olmak üzere tüm deęerleri reddedenler olduğu gibi peygamberlik, kitap, melekler veya ahiret inançlarından herhangi birinin veyahut bir kaçının inkârı da söz konusu olmuştur. Ateizm, deizm, agnostizm, septizm, nihilizm, materyalizm, pozitivizm gibi inkârcı gurupların ortak paydasının ne olduğu, nerelerde birleşip nerelerde ayrıştıkları bilgi ve eleştirel düşünceye dayanıp dayanamadıkları, akli nasıl kullandıkları, bilimsel bilgiye, evrensel deęerlere tabi olup olmadıkları soruları konunun anlaşılması bağlamında oldukça önemli veriler ortaya koyacaktır. Birbirinden farklı boyutta ve yönde konuya yaklaşan doğal olarak farklı söylemlerde bulunan bu akımların ortaya koydukları kanaatleri benzeşik gibi görünse de ciddi başkalaşmalar içermektedir. Nitekim her biri konunun bir boyutuna odaklanmış dięerini göz ardı etmiş veyahut sadece meseleyi indirgemeci bir yaklaşımla ele almıştır. Tutumlarındaki ortak ve farklı boyutları objektif veya nesle tutumları ortaya koymaya çalışacağız. Bilgiye dayanan bir metotla kelami bir perspektiften konuya açıklık getireceğiz. Bu çalışma din karşıtı akımların iddia ve düşüncelerini birkaç farklı yönden irdeleyerek sistematik bir şekilde ele alıp, ortak paydayı tespit edip ve sunmayı amaçlamaktadır.

Anahtar Kelimeler: Ateizm, Deizm, Agnostizm, İslam

ABSTRACT:

Human is a creature that needs to believe, to trust in something. His life is shaped within the framework of the values he created on the axis of his mind and belief. When the history of humanity is examined, it is possible to find people who believe in any religious understanding in every period. Despite the fact that the stance against religion or the opposition to the things put forward in the name of religion continues from the past to the present, the mistakes of the religious people are blamed on the religion, and the irrational attitudes are attributed to the religion, there is not a great change from the past to the present in terms of being subject to religion. Not all anti-religious groups take the same stance. While there are those who reject all values, especially God, that the concept of religion reveals, there is also the denial of one or more of the beliefs of prophethood, the book, angels or the hereafter. The questions of what the common denominator of atheism, deism, agnosticism, septism, nihilism, materialism, positivism, etc. denialist groups are, where they unite and where they diverge, will reveal very important data in the context of understanding the subject. Although the opinions of these movements, which naturally have different discourses approaching the subject in different dimensions and directions from each other, seem similar, they contain serious alterations. As a matter of fact, each of them focused on one dimension of the issue, ignored the other or just handled the issue with a reductionist approach. We will try to reveal the common and different dimensions in their attitudes, objectively or attitudes towards the next generation. This study aims to systematically address the claims and thoughts of anti-religious movements in several different directions, to identify and present the common denominator.

Keywords: Atheism, Deism, Agnosticism, Islam

İSLAM DÜŞÜNCESİ AÇISINDAN TEOLOJİK BAĞLAMDA TEKFİR YAKLAŞIMI VE ELEŞTİRİSİ

TAKFİR AND ITS CRITICISM IN THEOLOGICAL CONTEXT IN ISLAMIC THOUGHT

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ÖZET

Tekfir lügatte k-f-r kökünden “örtmek, gizlemek; nankörlük etmek” manasına türeyen tekfir “küfre nispet etmek, bir kişi hakkında kâfir hükmü vermek” demektir. Kavram olarak teolojik mananda inanılması gereken şeylerin tamamına veyahut bir kısmına inanmayan reddedenin din dışı alanda tanımlanmasıdır. Tekfir kavramı küfür itham etme, belli bir inanç dairesinin dışına itme manalarına kullanılmaktadır. Hz. Peygamber döneminde karşılaşmadığımız bu eylem Hz. Peygamber sonrası özellikle siyasi ve teolojik çekişmelerin etkisiyle Müslüman toplumda ortaya çıkan farklı eylem düşünceler birbirleri karşısında her zaman hoş görülmesi bir tavır almamış, bir gurup diğerine yaşam hakkı tanınmamıştır. Bazı durumlarda bireysel ve sosyolojik olaylarla da izah edilebilecek bu dışlayıcı refleks aslen kutsal metinlerden referansla da oluşturulmamıştır. Dolayısıyla süreç içerisinde sergilenen bu dışlayıcı tavır meşrulaştırmak adına teolojik görüş ve düşüncelerle izah edilmeye çalışılmıştır. Erken dönemde Hariciler, sonraki süreçte Mutezile, Ehl-i Sünnet, Şia ve Selefiler olmak üzere hemen her türlü düşünce okulunun dışlayıcı tavrı tekfir şeklinde kendini göstermeye başlamıştır. Tekfirin imkânı, bu ifadeyi her hangi bir kimse için kullanabilme şartları, iddianın ağırlığı karşısında mahcup olmamak adına belli deliller çerçevesinde kavramın kullanılması tartışılmıştır. Aslında zamanla farklılaşan konu, metod ve usuller gibi Hz. Peygamber döneminde olmayan çok sayıda uygulama gibi Kur’an’da mevcut olmamasına rağmen sonraları ortaya çıkarak toplumda ciddi karşılık bulmuştur. Birleştirici tavrı benimseyenlerin ana kitleyi bir arada tutmak adına irca fikrini savunmaları ayrıştırıcı tavrı benimseyenler sloganik tavırla inanan kişi için kalıpla belirleyip tüm insanları kategorize etmeleri oldukça dikkat çekicidir.

Biz çalışmamızda tekfir kavramını ve gelişim sürecini irdeleme ve teolojik değerlendirmeler çerçevesinde izah etmeye, ekollerin tutum ve tavırlarını incelemeye çalışacağız.

Anahtar Kelimeler: Tekfir, İslam Düşüncesi, Kelam Okulları, Ehl-i Sünnet

ABSTRACT

Takfir comes from the root k-f-r in the dictionary, "to cover, to hide; Takfir, which derives from the meaning of "to be ungrateful", means "to attribute unbelief to disbelief, to judge a person as an unbeliever". As a concept, it is defined in the non-religious field who does not believe in all or some of the things that should be believed in theological sense. The concept of takfir is used in the sense of accusing blasphemy and pushing out of a certain belief circle. This action, which we did not encounter in the time of the Prophet, After the Prophet, different action ideas that emerged in the Muslim society, especially with the effect of political and theological conflicts, did not always take a tolerant attitude towards each other, and the right to life was not given to one group of another. In some cases, this exclusionary reflex, which can be explained by individual and sociological events, was not originally created with reference to the sacred texts. Therefore, this exclusionary attitude exhibited in the process has been tried to be explained with theological views and thoughts in order to legitimize it. The exclusionary attitude of almost all schools of thought, such as Kharijites in the early period, Mutezile, Ahl al-Sunnah, Shia and Salafis in the later period, started to show itself as takfir. The possibility of takfir, the conditions for using this expression for anyone, the use of the concept within the framework of certain evidences in order not to be embarrassed by the weight of the claim are discussed. In fact, like the subjects, methods and methods that changed over time, although many practices that were not in the time of the Prophet were not present in the Qur'an, they emerged later and found serious response in the society. It is quite remarkable that those who adopt the unifying attitude defend the idea of irca in order to keep the main audience together, and those who adopt the divisive attitude set a pattern for the believer with a sloganic attitude and categorize all people. In our study, we will try to explain the concept of takfir and its development process within the framework of examination and theological evaluations, and to examine the attitudes and attitudes of the schools.

Keywords: Takfir, Islamic Thought, Kalam Schools, Ahl as-Sunnah

OKUL DIŐI ÖĐRENME ORTAMLARININ ÖĐRETİM SÜRECİNE KATKISINA YÖNELİK SOSYAL BİLGİLER ÖĐRETMENLERİNİN GÖRÜŐLERİ

OPINIONS OF SOCIAL STUDIES TEACHERS ON THE CONTRIBUTION OF OUTSIDE
LEARNING ENVIRONMENTS TO THE TEACHING PROCESS

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ÖZET

Bilim ve teknoloji alanındaki gelişmeler içerisinde bulunduğumuz bu yüzyılda ülkeleri adeta büyük bir rekabetin içerisinde dâhil etmiştir. Bu rekabet her alanda olduğu gibi eğitim alanında da yaşanmaktadır. Ülkeler bu doğrultuda eğitim alanında sürekli kendilerini yenileme ihtiyacı hissetmiş ve yepyeni arayışlara girmiştir. Çünkü dünya başta bilim ve teknoloji olmak üzere çok çeşitli alanlarda hızla ilerleme kaydetmektedir. Çağdaş olunan ülkelerin hızına yetişebilmek ise etkili bir eğitim sistemi ile mümkündür. Ancak günümüzde eğitime yönelik algı dünya çapında önemli değişimlere uğramıştır. Öğrencinin pasif, öğretmenin aktif olduğu, tek bilgi kaynağı olarak kitapların ve tek öğrenme ortamı olarak okulların görüldüğü anlayış iyiden iyiye zayıflamıştır. Son zamanlarda özellikle öğrenci merkezli yaklaşımlar önemini arttırmıştır. Öğrenci merkezli yaklaşımlar öğretmenin rehber olması, öğrencinin eğitim öğretim sürecinde aktif bir şekilde sürece dâhil olması gerektiğini savunmaktadır ve bu düşünce her geçen gün daha fazla benimsenmektedir. Eğitim öğretim ortamları bu yaklaşımlar esas alınarak düzenlenmektedir. Böylece öğrencilerin bilgiyi ilk elden alıp deneyimledikleri ve yapılandırdıkları durumlar ortaya çıkmaktadır. Eğitimciler bu durumların gerçekleşmesi için, öğrencilerin yaşarken öğrenecekleri ve öğrenirken de eğlenecekleri etkinlikleri yapabilecekleri öğrenme ortamlarını araştırmıştır. Günümüzde bu etkinliklerin gerçekleştirileceği, öğrencilerin aktif ve somut bir şekilde öğrenme sürecine dâhil olabileceği yerlerden biri de okul dışı öğrenme ortamlarıdır. Okul dışı öğrenme ortamları her geçen gün önemini arttırmaktadır. Okul dışı öğrenme ortamlarının daha etkili ve verimli bir şekilde kullanılabilmesi ise bu konudaki bilimsel çalışmaların artırılmasıyla mümkündür. Özellikle öğretmen, öğrenci ve velilerin okul dışı öğrenme ortamları hakkındaki görüşleri önemli görülmektedir.

Bu çalışmanın amacı; okul dışı öğrenme ortamlarının öğretim sürecine katkısına yönelik Sosyal Bilgiler dersi öğretmenlerinin görüşlerini ortaya koymaktır. Çalışma nitel bir araştırma olup fenomenoloji yöntemi kullanılmıştır. Araştırmanın örneklem grubu toplamda sekiz Sosyal Bilgiler öğretmeninden oluşmaktadır. Örneklem grubu amaçlı örnekleme yöntemi türlerinden ölçüt örnekleme yöntemiyle belirlenmiştir. Ölçüt olarak: a) En az beş yıldır Sosyal Bilgiler öğretmenliği yapıyor olmaları, b) Öğrencilerini en az bir kez okul dışı öğrenme ortamına götürmeleri tercih edilmiştir. Araştırmanın verileri 2022-2023 eğitim öğretim yılında toplanmıştır. Veri toplama aracı olarak yarı yapılandırılmış görüşme formu kullanılmıştır. Araştırmada elde edilen bulgulardan yola çıkarak öğretmenlerin; okul dışı öğrenme ortamlarının öğretim sürecine olumlu katkıda bulunduğu, okul dışı öğrenme ortamları sayesinde öğrencilerin yaparak yaşayarak öğrendiği ve aktif olduğu, okul dışı öğrenme ortamlarının konuları somutlaştırdığı ve öğretimi daha eğlenceli hale getirdiği görüşünde oldukları sonucuna ulaşılmıştır.

Anahtar Kelimeler: Okul Dışı Öğrenme Ortamları, Sosyal Bilgiler Eğitimi, Sosyal Bilgiler Öğretmeni, Öğretmen Görüşleri

ABSTRACT

The developments in the field of science and technology have included countries in a great competition in this century. This competition is experienced in the field of education as in every field. In this direction, countries have felt the need to constantly renew themselves in the field of education and have entered into new searches. Because countries are making rapid progress in various fields, especially in science and technology. Keeping up with the pace of modern countries is only possible with an effective education system. However, today the perception towards education has undergone significant changes around the world. The understanding in which students are passive, teachers are active, books as the only source of information and schools as the only learning environment has been weakened. Recently, especially student-centered approaches have increased their importance. Student-centered approaches, on the other hand, argue that the teacher should be a guide and the student should be actively involved in the education process. These approaches are being adopted more and more every day. Education and training environments are organized on the basis of these approaches. Thus, situations arise in which students experience and construct knowledge at first hand. In order to realize these situations, educators have searched for learning environments where students can do activities that they will learn while living and have fun while learning. Today, out-of-school learning environments are one of the places where these activities will be carried out and students can be actively and concretely involved in the learning process. Out-of-school learning environments are increasing their importance day by day. More effective and efficient use of out-of-school learning environments is possible by increasing scientific studies on this subject. Especially the opinions of teachers, students and parents about out-of-school learning environments are considered important.

The aim of this study; The aim of this study is to reveal the views of Social Studies course teachers about the contribution of out-of-school learning environments to the teaching process. The study is a qualitative research and phenomenology method was used. The sample group of the research consists of eight Social Studies teachers in total. The sample group was determined by the criterion sampling method, which is one of the purposive sampling methods. As criteria: a) They have been teaching Social Studies for at least five years, b) It was preferred that they take their students to an out-of-school learning environment at least once. The data of the research were collected in the 2022-2023 academic year. A semi-structured interview form was used as a data collection tool. Based on the findings of the research, teachers; It has been concluded that out-of-school learning environments contribute positively to the teaching process, that students learn by doing and are active thanks to out-of-school learning environments, and that out-of-school learning environments embody the subjects and make teaching more enjoyable.

Keywords: Out-of-school Learning Environments, Social Studies Education, Social Studies Teacher, Teacher Opinions

İSVİÇRE’DEKİ ORTAOKULLARDA OKUTULMAKTA OLAN TARİH VE COĞRAFYA DERSLERİ ÖĞRETİM PROGRAMLARININ VATANDAŞLIK EĞİTİMİ BAĞLAMINDA İNCELENMESİ

EXAMINATION OF HISTORY AND GEOGRAPHY TEACHING PROGRAMS TAUGHT IN
SECONDARY SCHOOLS IN SWITZERLAND IN THE CONTEXT OF CITIZENSHIP
EDUCATION

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ÖZET

Her birey farklı özelliklere sahiptir. Ancak her toplum, varlığını devam ettirebilmek için bütün üyelerini belirli ortak özelliklere sahip olarak yetiştirmek istemektedir. Bu bağlamda toplumların ayakta kalabilmesi ve gelişebilmesi, hedeflemiş oldukları ortak özelliklere sahip nesilleri yetiştirebilmelerine bağlıdır. Çünkü aynı toplum içerisinde çok çeşitli özellikler taşıyan insanlar ve gruplar bir arada yaşamaktadır. Bu nedenle bütün bireyleri bazı ortak paydalarda birleştirmek son derece önemlidir. Bireyler içerisinde yaşadıkları toplumun ve vatandaşı oldukları ülkenin varlığını sağlıklı bir şekilde sürdürebilmesi için sorumluluk duygusuna sahip olmalıdırlar. Öte yandan ülkelerin gelişmesi, sadece sorumluluklarını bilen vatandaşlara sahip olmaları ile değil, aynı zamanda haklarını bilen ve gerektiğinde bu haklarını savunan bireylerin yetişmesi ile de ilgilidir. Dünya genelindeki bütün ülkeler hak ve sorumluluklarını bilen ve görevlerinin bilincinde olan vatandaşlar yetiştirmek ister. Ancak her devletin vatandaşlarına tanımış olduğu bu hak ve sorumluluklar farklılık göstermektedir. Bu nedenle ülkelerin hedeflemiş olduğu “ideal vatandaş” profili ülkeden ülkeye değişmektedir. Bu doğrultuda uygulanmakta olan vatandaşlık eğitiminin her ülkede farklı özellikler taşıdığı ifade edilebilir.

Vatandaşlık eğitimi, tarih boyunca bütün uluslar için önemli bir yere sahip olmuştur. Bu nedenle ülkeler hem eğitim sistemlerini hem de uygulamakta oldukları vatandaşlık eğitimi sürekli geliştirme ve güncelleme gereği duymuştur. Bunun yanı sıra ulusal ve küresel çaplı problemlerin artması ülkelerin ve uluslararası kuruluşların vatandaşlık eğitimine daha fazla önem vermelerine neden olmuştur. Çünkü hem ulusal anlamda hem de küresel anlamda çok çeşitli problemler insanoğlunun yaşamını zorlaştırmakta ve hatta tehlikeye atmaktadır. Buna bağlı olarak vatandaşlık eğitimi günümüzde hiç olmadığı kadar önemli bir görev üstlenmektedir. Dünyada yaşanan savaş, göç, terör, salgın hastalık, küresel ısınma ve diğer çevresel sorunların önüne geçilmesinin tek yolu eğitimidir. Ülkelerin mevcut vatandaşlık eğitimi uygulamalarını geliştirmeleri gerekmektedir. Ayrıca bazı ortak paydalarda buluşarak küresel boyutta bir vatandaşlık eğitimi verilmesi için sorumluluk üstlenmeleri kaçınılmazdır. Vatandaşlık eğitimi uygulamalarının geliştirilmesi ve küresel vatandaşların yetiştirilebilmesi ancak diğer ülkelerin bu konudaki mevcut durumunun ve uygulamalarının araştırılıp incelenmesi ile mümkün olabilmektedir. Özellikle gelişmiş olarak kabul edilen ülkelerde verilmekte olan vatandaşlık eğitiminin her yönüyle ele alınması önemli görülmektedir.

Bu çalışmada İsviçre’deki ortaokullarda okutulmakta olan Tarih ve Coğrafya dersleri öğretim programlarının vatandaşlık eğitimi bağlamında incelenmesi amaçlanmaktadır. Nitel bir çalışma olan bu çalışmada doküman analizi yöntemi kullanılmıştır. Elde edilen verilerin çözümlenmesinde betimsel analiz yöntemi tercih edilmiştir. Çalışmada; İsviçre’deki ortaokullarda okutulmakta olan Tarih Dersi Öğretim Programı’nda daha çok İsviçre vatandaşlığı yani ulusal vatandaşlık vurgusunun yapıldığı görülmüştür. Bunun yanı sıra Avrupa vatandaşlığına yönelik öğelerin de sıkça yer aldığı tespit

edilmiştir. Ancak Tarih Dersi Öğretim Programı'nda küresel vatandaşlık ile ilgili öğelerin oldukça sınırlı olduğu anlaşılmıştır. Son olarak öğretim programı ile hak ve sorumluluklarını bilen, gelişime açık, eleştirel düşünebilen ve demokratik özelliklere vatandaşların yetiştirilmesinin amaçlandığı saptanmıştır. İsviçre'deki ortaokullarda okutulmakta olan Coğrafya Dersi Öğretim Programı'nın ise çevreye duyarlı, doğa ve insan arasındaki dengelerin hassasiyetini kavramış, hak ve sorumluluklarının bilincinde vatandaşların yetiştirilmesinin amaçlandığı görülmüştür. Araştırmanın bulgularına ve sonuçlarına dayalı olarak Türkiye'de verilmekte olan vatandaşlık eğitimine yönelik öneriler getirilmiştir.

Anahtar Kelimeler: Vatandaşlık Eğitimi, Tarih Eğitimi, Coğrafya Eğitimi, Öğretim Programı, İsviçre

ABSTRACT

Each individual has different characteristics. However, every society wants to raise all its members with certain common characteristics in order to survive. In this context, the survival and development of societies depends on raising generations with common characteristics that they have targeted. Because people and groups with various characteristics live together in the same society. For this reason, it is extremely important to unite all individuals on some common ground. Individuals should have a sense of responsibility in order to maintain the existence of the society they live in and the country of which they are citizens in a healthy way. On the other hand, the development of countries is not only about having citizens who know their responsibilities, but also about raising individuals who know their rights and defend these rights when necessary. All countries around the world want to raise citizens who know their rights and responsibilities and are aware of their duties. However, these rights and responsibilities that each state has given to its citizens differ. For this reason, the "ideal citizen" profile targeted by countries varies from country to country. In this direction, it can be stated that the citizenship education being implemented has different characteristics in each country.

Citizenship education has had an important place for all nations throughout history. For this reason, countries have felt the need to constantly develop and update both their education systems and the citizenship education they are implementing. In addition, the increase in national and global problems has caused countries and international organizations to give more importance to citizenship education. Because a wide variety of problems, both nationally and globally, complicate and even endanger the life of human beings. Accordingly, citizenship education assumes a more important task than ever before. Education is the only way to prevent war, migration, terrorism, epidemic, global warming and other environmental problems in the world. Countries need to develop their existing citizenship education practices and take responsibility for providing a global citizenship education by meeting on some common ground. Developing citizenship education practices and raising global citizens can only be possible by researching and examining the current situation and practices of other countries on this issue. It is considered important to deal with all aspects of citizenship education, which is given in countries that are considered especially developed.

In this research, it is aimed to examine the History and Geography courses taught in secondary schools in Switzerland in the context of citizenship education. In this qualitative study, document analysis method was used. Descriptive analysis method was preferred in the analysis of the obtained data. In the research; It has been observed that the emphasis is on Swiss citizenship, that is, national citizenship, in the history course curriculum taught in secondary schools in Switzerland. In addition to this, it has been determined that items related to European citizenship are frequently included. However, it has been understood that the elements related to global citizenship in the History Course Curriculum are quite

limited. Finally, it has been determined that the curriculum aims to raise democratic citizens who know their rights and responsibilities, are open to development, can think critically, and are democratic. It has been seen that the Geography Curriculum, which is taught in secondary schools in Switzerland, aims to educate citizens who are sensitive to the environment, who understand the sensitivity of the balance between nature and human, and who are aware of their rights and responsibilities. Based on the findings and results of the research, suggestions were made for the citizenship education given in Turkey.

Keywords: Citizenship Education, History Education, Geography Education, Curriculum, Switzerland

ORMAN OKULU UYGULAMALARININ OKUL ÖNCESİ DÖNEMDEKİ ÇOCUKLARIN GELİŞİMİNE ETKİSİNİN İNCELENMESİ

INVESTIGATION OF THE EFFECT OF FOREST SCHOOL PRACTICES ON THE
DEVELOPMENT OF PRESCHOOL CHILDREN

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ÖZET

Bu araştırmada, “Orman Okulu Eğitim Modeli”nin okul öncesi dönemdeki çocukların gelişimine etkisinin incelenmesi amaçlanmıştır. Araştırmada nitel araştırma yöntemlerinden yararlanılmıştır. Çalışma nitel araştırma yönetiminin bir çeşidi olan durum çalışması modelindedir. Bu doğrultuda eğitimci, öğrenci ve veli olmak üzere üç boyutta inceleme gerçekleştirilmiştir. Çalışma grubunu Canik Belediye Evleri Anaokulu’na devam eden 5-6 yaş grubu öğrenci (n=3) ve öğrenci velileri (n=5) ile Canik Namiye-Mümin Orman Okulu’nda görev yapan eğitimciler (n=4) oluşturmaktadır. Veri toplama aracı olarak yarı yapılandırılmış görüşme formları ve öğrenci gözlem formu kullanılmıştır. Araştırma verileri Nvivo programına aktararak içerik analiz yöntemi ile çözümlenmiştir. Çözümlenen veriler sonucu kod listesi oluşmuştur. Kod listesi önceden oluşturulan uygun temalara atanmıştır. Kodlama sürecinde aynı işaretlemeler görüş birliği farklı olan işaretlemeler ise görüş ayrılığı olarak belirlenmiştir. Güvenirlik hesaplaması “görüş birliği/görüş birliği + görüş ayrılığı x 100” formülüyle hesaplanmıştır. Çalışmada güvenirlilik oranının % 91 olduğu belirlenmiştir.

Anahtar Sözcükler: Orman okulu, Alternatif eğitim, Sınıf dışı uygulamalar

SUMMARY

In this research, it was aimed to examine the effect of the “Forest School Education Model” on the development of preschool children. Qualitative research methods were used in the study. The study is in the case study model, which is a kind of qualitative research management. In this direction, the exam was conducted in three dimensions as an educator, student and parent. The study group consists of 5-6 age group students attending Canik Belediye Evleri Kindergarten (n=3) and student parents (n=5) and educators working at Canik Namiye-Mümin Forest School (n=4). Semi-structured interview forms and student observation form were used as data collection tools. The research data were transferred to the Nvivo program and analyzed by the content analysis method. As a result of the analyzed data, a code list was created. The code list is assigned to the appropriate themes that have already been created. In the coding process, the same signs as the difference of opinion and the signs that are different from the difference of opinion were determined as the difference of opinion. The

reliability calculation was calculated with the formula “consensus/ consensus + disagreement x 100”.
In the study, it was determined that the reliability rate was 91%.

Keywords: Forest school, Alternative education, Out-of-class practices

İHSAN OKTAY ANAR'IN TİAMAT ROMANINDA DİL VE ÜSLUP
LANGUAGE AND STYLE IN İHSAN OKTAY ANAR'S TIAMAT NOVEL

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ÖZET

Cumhuriyet dönemi Türk romanının önemli isimlerinden olan İhsan Oktay Anar, romanlarında felsefe, edebiyat, tarih, masal, destanî mitoloji, din, tasavvuf, halk hikâyesi, meddah hikâyesi, efsane gibi unsurların etkisi görülür. Yazarın 2022 yılında yayımlanan Tiamat adlı son romanı, bilim kurgu, mitoloji, tarih, felsefe, din vb. unsurları ön plana alan bir eserdir. Romanın ismini veren Tiamat, Babil inancına göre ilkel bir tanrıçanın adıdır. Bu romanda 1915 yılında Abdülhamit sınıfı bir tahtelbahirin ele geçirdiği şilepteki esrarengiz sandığın içinden çıkan canavarla olan mücadelesi anlatılır. Anar'ın daha önce yayımladığı Amat romanında olduğu gibi bu romanında da denizde meydana gelen olaylar anlatılır. Amat romanından farklı olarak Tiamat romanında olaylar denizin üstünde değil; denizin altında yaşanır.

Bir yazarı diğerlerinden ayıran en önemli unsur dil ve üslubudur. Üslup, yazarın bir bakıma parmak izidir. Sanatçının sözcükleri kullanma tarzı onun dil ve üslubunu oluşturur. Tiamat adlı romanın önemli bir özelliği de dil ve üslubudur. Yazar, bu romanda günlük konuşma dilinde sözcüklere yer verdiği görülür. Eserde bu kelimeler ağızdan çıkış sesine göre verilmiştir. Mesela bazı yerlerde geçen “Ab-bov!” ifadesi dikkat çekicidir. Bir başka karakterin söylediği şarkı yer yer anlaşılmas seslerle verilir. Bazı karakterlerin ‘juuuuuup!’ diye ses çıkarması da yazarın diğer romanlarında da genelde kullandığı bir seslenme biçimidir. Parlakçı adlı bir karakterin söylediği “Huğ-huuuuuğ! Kocişkooo!” sözler de Anar'ın söylem tarzının bir yönüdür. Romandaki “Zzt-zt zzt zt- zt zzztzzzt-zzzt/zzzt-zzzt- zt-zt zzt-zt zzzt zzt zt/ zzzt-zzzt zzzt zt- zzzt zt-mzzzt zt zt zt” şeklindeki cızırtı sesleri de yazarın birçok romanında görülen bir durumdur. Eserde dinî ifadeler de kullanılır: “Yâ Allah... Yâ Rahman ... Yâ Rahim ... Yâ Mümin ... Yâ Müheymin ...” Bununla beraber romanda şifreli kısaltmalar da önemli yer tutar. Bu çalışmada amaç, İhsan Oktay Anar'ın son romanı olan Tiamat romanını dil ve üslup bakımından incelemektir.

Anahtar Kelimeler: İhsan Oktay Anar, Tiamat Romanı, Dil ve Üslup.

ABSTRACT

İhsan Oktay Anar, who is one of the important names of the Turkish novel of the Republican era, has the influence of elements such as philosophy, literature, history, fairy tales, epic mythology, religion, mysticism, folk tales, meddah stories and legends. The author's last novel, Tiamat, published in 2022, focuses on science fiction, mythology, history, philosophy, religion, etc. It is a work that puts the elements in the foreground. Tiamat, who gave the name of the novel, is the name of a primitive goddess according to Babylonian belief. In this novel, the struggle of an Abdulhamid class tahtelbahir with the monster that came out of the mysterious chest in the freighter is told in 1915. As in Anar's previous novel Amat, this novel also tells about the events that take place in the sea. Unlike the novel Amat, the events in the novel Tiamat are not above the sea; lives under the sea.

The most important factor that distinguishes a writer from others is his language and style. Style is, in a way, the fingerprint of the author. The way the artist uses words creates his language and style. Another important feature of the novel Tiamat is its language and style. It is seen that the author gives place to the words in the daily spoken language in this novel. In the work, these words are given according to the sound of the mouth. For example, "Ab-bov!" expression is remarkable. The song sung by another character is sometimes given in incomprehensible voices. The sound of some characters saying 'juuuuuup!' is also a common way of addressing the author in his other novels. A character named Parlakçı said "Huğ-huuuuuğ! Kochishkooo!" words are also an aspect of Anar's style of discourse. In the novel "Zzzt-zt zzt zt- zt zzztzzzt-zzzt/zzzt-zzzt- zt-zt zzt-zt zzzt zzzt zt/ zzzt-zzzt zzzt zt- zzzt zt-mzzzt" novel sounds in the form of many zzzt zt is the case. Religious expressions are also used in the work: "Yâ Allah ... Yâ Rahman ... Yâ Rahiyim ... Yâ Mümin ... Ya Müheymin ..." In addition, coded abbreviations also have an important place in the novel. The aim of this study is to examine the last novel of İhsan Oktay Anar, Tiamat, in terms of language and style.

Keywords: İhsan Oktay Anar, Tiamat Novel, Language and Style.

TÜRKÇE DERS KİTAPLARINDAKİ ÇİZGİ ROMANLARDA İLETİŞİMSEL BİR AKTARIM TÜRÜ OLARAK KÜLTÜREL ÖGELER

CULTURAL ELEMENTS AS A TYPE OF COMMUNICATIONAL TRANSMISSION IN COMICS
IN TURKISH TEXTBOOKS

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ÖZET

Bu araştırmanın amacı 5, 6, 7 ve 8. sınıf ortaokul Türkçe ders kitaplarında bir metin türü olarak yer alan çizgi romanların kültürel aktarım açısından incelenmesidir. Bu amaç doğrultusunda doküman incelemesi yöntemi kullanılmış, Türkçe ders kitaplarındaki çizgi romanlar, çeşitli kültürel öğelere ne sıklıkta yer verildiği açısından değerlendirilmiştir. Araştırmada Türkçe ders kitaplarındaki çizgi romanların kültürel aktarım açısından nasıl özellikler taşıdıkları incelendiği için doküman analizi tercih edilmiştir. Türkçe ders kitaplarında yer alan kültürel öğelerin tespit edilmesinde “Metinlere Yansıyan Kültürel Öğeler ve Alt Öğeler” başlıklı sınıflama kullanılmıştır. Bu sınıflama kapsamında belirlenen kültürel öğeler; günlük yaşam, kişiler arası ilişkiler, değerler ve eğitim, edebiyat, sanat ve müzik, gelenekler ve folklor, sosyal yaşam, coğrafya ve mekândır. Türkçe ders kitaplarındaki çizgi romanlar, belirlenen nitelikler açısından iki araştırmacı tarafından da incelenmiş, hazırlanan kontrol listesi dikkate alınarak analiz edilmiştir. Elde edilen bulguları destekleyecek örneklere çizgi romanlardan doğrudan alıntılar yapılarak yer verilmiştir. Araştırma sonucunda beşinci ve sekizinci sınıf Türkçe ders kitaplarındaki çizgi romanlarda kültürel öğelere diğer sınıflara nazaran daha az yer verildiği saptanmıştır. Beşinci sınıfta sadece günlük yaşam, kişiler arası ilişkiler, gelenekler ve folklor ile sosyal yaşama yönelik kültürel öğelere rastlanırken; sekizinci sınıftaki çizgi romanlarda günlük yaşam, kişiler arası ilişkiler, sosyal yaşam, coğrafya ve mekân öğelerine yönelik bulgular tespit edilmiştir. Çizgi romanlarda en fazla kültürel öğeye yer verilen sınıf düzeyi ise yedinci sınıftır. Bunu altıncı sınıf Türkçe ders kitaplarında bulunan çizgi romanlardaki kültürel öğeler izlemektedir. Altıncı ve yedinci sınıf Türkçe ders kitaplarındaki çizgi romanlarda günlük yaşam, kişiler arası ilişkiler, değerler ve eğitim, edebiyat, sanat ve müzik, gelenekler ve folklor, sosyal yaşam, coğrafya ve mekâna yönelik alt öğelere yer verildiği saptanmıştır.

Anahtar Kelimeler: Türkçe ders kitabı, çizgi roman, kültürel aktarım

ABSTRACT

The aim of this research is to examine the comics as a type of text in the 5th, 6th, 7th and 8th grade secondary school Turkish textbooks in terms of cultural transmission. For this purpose, the document analysis method was used, and the comics in Turkish textbooks were evaluated in terms of how often various cultural elements were included. In the research, document analysis was preferred because the characteristics of the comics in Turkish textbooks were examined in terms of cultural transmission. The classification titled "Cultural Elements and Sub-Elements Reflected in the Texts" was used to determine the cultural elements in Turkish textbooks. Cultural elements determined within the scope of this classification; everyday life, interpersonal relations, values and education, literature, art and music, traditions and folklore, social life, geography and space. The comics in the Turkish textbooks were examined by both researchers in terms of the determined qualifications and analyzed by considering the prepared checklist. Examples that will support the findings are included by making direct quotations from the comics. As a result of the research, it was determined that cultural elements were given less place in the comics in the fifth and eighth grade Turkish textbooks compared to other classes. In the fifth grade, only daily life, interpersonal relations, traditions and folklore and cultural elements for social life are encountered; Findings related to daily life, interpersonal relations, social life, geography and space elements in eighth grade comics were determined. The class level with the highest number of cultural elements in comics is the seventh grade. This is followed by the cultural elements in the comics in the sixth grade Turkish textbooks. It has been determined that the comics in the sixth and seventh grade Turkish textbooks include sub-items on daily life, interpersonal relations, values and education, literature, art and music, traditions and folklore, social life, geography and space.

Keywords: Turkish textbook, comics, cultural transfer

IVERMECTIN AND SELAMECTIN TREATMENT IN RABBITS INFESTED WITH SARCOPTIC MANGE

SARKOPTİK UYUZ İLE ENFESTE TAVŞANLARIN İVERMEKTİN VE SELAMEKTİN İLE SAĞALTIMI

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ABSTRACT

Parasitic infestations are one of the most common problems in rabbit species. Sarcoptic mange is a highly contagious, non-seasonal, pruritic skin condition caused by *Sarcoptes scabiei* is common dermatological diseases in rabbits. In Sarcoptic mange, lesions are frequently seen in sparsely haired parts of the body such as ears, nose, extremities, feet, and perineal region. Clinical manifestations of sarcoptic scabies include alopecia, pruritus, seborrhea, hypersensitivity reaction, crusting, and hyperkeratosis. It is the most persistent and zoonotically important infectious disease in rabbit species. Traditional treatment of sarcoptic scabies includes the Organophosphates, Pyrethroid compounds or Amitraz, but these drugs must be dosed and used with care because of their many side effects. The aim of this study was to compare the clinical efficacy of Ivermectin and Selamectin against Sarcoptic mange in rabbits. The study included 4 rabbits infested with sarcoptic mange. Ivermectin treatment was applied to 2 rabbits in the study and selamectin treatment was applied to the other two rabbits. Ivermectin treatment was administered subcutaneously at a dose of 400 µg/kg, while Selamectin was administered locally at a dose of 10 mg/kg to the infrascapular region. Skin lesions were evaluated before and after treatment. As a result of the study, it was determined that both Ivermectin and Selamaktin applied in the treatment of Sarcoptic mange infestations in rabbits provided effective treatment. When the short-term clinical efficacy of the drugs used in the treatment was evaluated in this study, it was observed that the treatment with Selamectin gave a faster response than the treatment with Ivermectin.

Keywords: rabbit, ivermectin, selamectin, sarcoptic mange

ÖZET

Parazit enfestasyonları tavşan türlerinde en sık görülen sorunlardan biridir. Sarkoptik uyuz, *Sarcoptes scabiei*'nin neden olduğu oldukça bulaşıcı, mevsimsel olmayan, kaşıntılı bir cilt durumudur ve tavşanlarda sık görülen dermatolojik hastalıklardır. Sarkoptik uyuzda lezyonlar sıklıkla kulak, burun, ekstremiteler, ayaklar ve perineal bölge gibi vücudun seyrek tüylü kısımlarında görülür. Sarkoptik uyuzun klinik belirtileri arasında alopesi, kaşıntı, sebore, aşırı duyarlılık reaksiyonu, kabuklanma ve hiperkeratoz bulunur. Tavşan türlerinde en kalıcı ve zoonotik olarak önemli enfeksiyöz hastalıktır. Sarkoptik uyuzların geleneksel tedavisi Organofosfatlar, Piretroid bileşikleri veya Amitraz'ı içerir, ancak bu ilaçlar birçok yan etkilerinden dolayı dikkatli bir şekilde dozlanmalı ve kullanılmalıdır. Bu çalışmanın amacı, tavşanlarda Sarkoptik uyuz hastalığına karşı İvermektin ve Selamektin'in klinik etkinliğini karşılaştırmaktır. Çalışmaya sarkoptik uyuz bulaşmış 4 tavşan dahil edildi. Çalışmada 2 tavşana ivermektin tedavisi, diğer iki tavşana selamektin tedavisi uygulandı. İvermektin tedavisi subkutan olarak 400 µg/kg dozda, Selamektin ise lokal olarak 10 mg/kg dozda infraskapular bölgeye uygulandı. Deri lezyonları tedavi öncesi ve sonrası değerlendirildi. Çalışma sonucunda tavşanlarda Sarkoptik uyuz enfestasyonlarının tedavisinde uygulanan hem İvermektin hem de Selamektin'in etkili tedavi sağladığı belirlendi. Bu çalışmada tedavide kullanılan ilaçların kısa süreli klinik etkinliği değerlendirildiğinde Selamektin tedavisinin İvermektin tedavisine göre daha hızlı yanıt verdiği gözlemlendi.

Anahtar Kelimeler: tavşan, ivermektin, selamektin, sarkoptik uyuz

ABDOMINAL DOPPLER ULTRASONOGRAPHY IN CATS AND DOGS

KEDİ VE KÖPEKLERDE ABDOMİNAL DOPPLER ULTRASONOGRAFİ

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ABSTRACT

Ultrasonography is an imaging technique based on determining the echoes from different organs, tissues, and surfaces by sending high frequency sound waves to the body. Doppler ultrasonography is a method used to investigate blood flow rate and characteristics. When the USG waves return from moving organs, the rotating waves experience a frequency change. This change is called 'doppler shift'. Doppler shift is the difference between the returning new frequency and the original source frequency sent. Doppler ultrasound method was developed for qualitative and quantitative analysis of blood flow with this physics.

Doppler ultrasonography is a diagnostic method used in the diagnosis of various diseases and pathologies such as portal hypertension, portal vein thrombosis, kidney diseases, pancreatitis, spleen torsion, portosystemic shunts, abdominal tumors, stenosis of abdominal vessels and thrombosis, although doppler ultrasonography utilized especially in echocardiography in cats and dogs. Abdominal doppler ultrasonography in cats and dogs can be performed in the dorsoventral or laterolateral positions relative to organ to be examined, without the need for any sedative agent. It is enough clipping the hairs, cleaning with alcohol and using ultrasound gel to the ultrasound area. Although ultrasonography provides many advantages, the only disadvantage is that it is a method that will contribute to the experience and knowledge of the physician who performs the ultrasound. For this reason, better understanding of ultrasonography and doppler ultrasonography, knowing the physiological and pathological differences of the organ to be ultrasonography, are the crucial points of the doppler ultrasonography examination. Many abdominal pathologies and diseases have been revealed by Doppler ultrasonography in cats and dogs. It is an auxiliary diagnostic method that needs to be developed in our clinical medicine in order to better understand and reveal these findings day by day. The aim of this study is to explain the basic principles of Doppler ultrasonography and to explain the Doppler ultrasonographic findings in various abdominal diseases in cats and dogs.

Keywords: Cat, Dog, Abdominal diseases, Doppler ultrasonography

ÖZET

Ultrasonografi, vücuda yüksek frekanslı ses dalgaları göndererek farklı organ, doku ve yüzeylerden gelen ekoları belirleme esasına dayanan bir görüntüleme tekniğidir. Doppler ultrasonografi ise kan akım hızı ve karakteristiklerini araştırmada kullanılmaya yönelik bir yöntemdir. Ultrason dalgaları hareketli organlardan döndüğü vakit dönen dalgalar bir frekans değişimine uğrar. Bu değişime ‘doppler kayması’ adı verilir. Doppler kayması, geri dönen yeni frekans ile gönderilen asıl frekans arasındaki farktır. Bu fizik kuralından hareketle kan akımının kalitatif ve kantitatif incelenmesi amacıyla doppler ultrasonografi yöntemi geliştirilmiştir. Kedi ve köpek hekimliğinde doppler ultrasonografiden özellikle ekokardiyografide yararlanılıyor olsa da abdominal doppler ultrasonografi portal hipertansiyon, portal ven trombozu, böbrek hastalıkları, pankreatitis, dalak torsiyonu, portosistemik şantlar, abdominal tümörler, abdominal damarların stenozu ve trombozu gibi çeşitli hastalık ve patolojilerin teşhisinde kullanılan bir tanı yöntemidir. Kedi ve köpeklerde abdominal doppler ultrasonografi herhangi bir sedatif ajana gerek kalmadan, muayenesi yapılacak organa göre dorsoventral ya da laterolateral pozisyonda uygulanabilmektedir. Ultrason yapılacak bölgenin traşlanması, alkol ile muamele edilmesi ve jel sürülmesi muayene için yeterlidir. Ultrasonografi birçok avantaj sağlamakla birlikte tek dezavantajı ultrasonu yapan hekimin tecrübe ve bilgisiyle doğru orantıda katkı sağlayacak bir yöntem olmasıdır. Bu nedenle ultrasonografi ve doppler ultrasonografinin daha iyi anlaşılması, ultrasonografi yapılacak organın fizyolojik ve patolojik farklılıklarının bilinmesi, doppler ultrasonografi muayenesinin can alıcı noktalarıdır. Kedi ve köpeklerde doppler ultrasonografi ile birçok abdominal patolojiler ve hastalıklar ortaya konmuştur. Gün geçtikçe bu bulguların daha iyi anlaşılması ve ortaya konulması amacıyla klinik hekimliğimizde gelişimine ihtiyaç duyulan bir yardımcı tanı yöntemidir. Bu çalışmanın amacı, doppler ultrasonografinin temel prensiplerinin anlatılması, kedi ve köpeklerde çeşitli abdominal hastalıklarda doppler ultrasonografik bulguların açıklanmasıdır.

Anahtar Kelimeler: Kedi, Köpek, Abdominal hastalıklar, Doppler ultrasonografi

ÇİLEKTE *Saccharomyces cerevisiae*'NİN BAZI ARBUSKÜLAR MİKORİZAL FUNGUSLAR (AMF) İLE İNTERAKSİYONU

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ÖZET

Mevcut tarım sisteminde, yerel mikrobiyal flora ve faunanın yerini ticari kimyasal gübreler ve pestisitler almaktadır. Ancak bu durum insan ve çevre sağlığı tehdidi başta olmak üzere birçok problemi ortaya çıkarmaktadır. Bu problemlerin ortadan kaldırılması veya minimum düzeyine indirilmesi için toprak biyotasının artırılması veya güçlendirilmesi gerekmektedir. Tarımda toprak biyotasında, arbusküler mikorizal funguslar (AMF)'ın rolünün büyük önem taşıdığına inanılmaktadır. AMF, doğal yaşam alanlarının çoğunda bulunur ve özellikle bitki beslenmesini, stres direncini ve toleransını, toprak yapısını ve doğurganlığı geliştirerek bir dizi önemli ekolojik hizmet sağlarlar. AMF ayrıca tahıllar, sebzeler ve meyve ağaçları da dahil olmak üzere çoğu mahsul bitkisi ile etkileşime girer, bu nedenle sürdürülebilir tarımda potansiyel kullanımları için artan bir ilgi görürler. Mayalar ise tarım alanlarında kullanım potansiyeli son zamanlarda artan önemli bir mikroorganizmadır. Ancak çok az literatür, mayaların bir grup bitki büyümesini teşvik edici aktivite ve biyokontrol edici aktivite üretme yeteneğine sahip olduğunu bildirmiştir. Bu nedenle bu araştırmanın amacı çilek bitkisi üzerinde Mayanın (*Saccharomyces cerevisiae* (Sc)) AMF (*Funneliformis mosseae* (Fm) ve *Gigaspora margarita* (Gm)) ile interaksyonunun ortaya konması ve bu etkinin bitki gelişimine yansımaları ele almıştır. Deneme kapsamında %10'luk AMF karışımı içeren bitki yetiştirme materyallerine çilek fideleri dikimini gerçekleştirilmiştir. Dikimden 7 gün sonra maya inokulasyonu yapılmıştır. Deneme 10 hafta sonra sonlandırılarak, bitki gelişim parametreleri ile bazı biyokimyasal analizlerine bakılmıştır. Ayrıca interaksyonların fosfor alımına olan etkileri de değerlendirilmiştir. Toplam antioksidan miktarında Sc'nin Gm ile interaksyonunda fazla iken toprakta ki AMF spor yoğununda ise Sc'nin Fm ile interaksyonunda artış olduğu belirlenmiştir. Genel olarak bakıldığında ise Sc'nin her iki AMF türü ile oluşturduğu interaksyonda benzer sonuçlar ortaya çıkmıştır.

Anahtar Kelimeler: Çilek, Arbusküler mikorizal funguslar (AMF), *Saccharomyces cerevisiae*

ABSTRACT

In the current agriculture system, local microbial flora and fauna are being replaced by commercial chemical fertilizers and pesticides. However, this situation creates many problems, especially the threat to human and environmental health. In order to eliminate or minimize these problems, soil biota needs to be increased or strengthened. The role of arbuscular mycorrhizal fungi (AMF) in soil biota in agriculture is believed to be of great importance. AMFs are found in most natural habitats and provide a number of important ecological services, particularly by improving plant nutrition, stress resistance and tolerance, soil structure and fertility. AMF also interacts with most crop plants, including grains, vegetables, and fruit trees, so they are receiving increased attention for their potential use in sustainable agriculture. Yeast is an important microorganism whose potential for use in agriculture has increased recently. However, very little literature has reported that yeasts have the ability to produce a group of plant growth promoting activity and biocontrolling activity. Therefore, the aim of this research is to reveal the interaction of yeast (*Saccharomyces cerevisiae* (Sc)) with AMF (*Funneliformis mosseae* (Fm) and *Gigaspora margarita* (Gm)) on strawberry plant and the reflection of this effect on plant development. Strawberry seedlings were planted in plant growing materials containing 10% AMF mixture within the scope of the experiment. Yeast inoculation was done 7 days after planting. The experiment was terminated after 10 weeks and plant growth parameters and some biochemical analyzes were examined. In addition, the effects of interactions on phosphorus uptake were also evaluated. It was determined that the interaction of Sc with Gm was higher in the total antioxidant amount, while the interaction of Sc with Fm was increased in the AMF spore density in the soil. In general, similar results emerged in the interaction of Sc with both AMF types.

Keywords: Strawberry, Arbuscular mycorrhizal fungi (AMF), *Saccharomyces cerevisiae*

TATLI SU MİDYESİNİN (BIVALVIA: UNIONID) ERKEK ve DIŞI BİREYLERİNDE BOY GRUPLARINA GÖRE YAŞ ET VERİMLİLİĞİNİN DEĞERLENDİRİLMESİ
EVALUATION of WET MEAT EFFICIENCY in MALE and FEMALE INDIVIDUALS of FRESHWATER MUSSEL (BIVALVIA: UNIONID) ACCORDING to LENGTH GROUPS

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ÖZET

Hatay ilinin Kırıkhan ilçesine bağlı Gölbaşı Gölü'nde mevcut olan tatlı su midye türleri arasında bulunan *Unio terminalis*, ekonomik değeri olan bir tatlı su midye türüdür. Gölde yaygın olarak mevcut olan *Unio terminalis*'in farklı boy gruplarındaki erkek ve dişi bireylerinin, et ağırlık değerlerine bağlı olarak yaş et verimleri incelenmiştir. Örneklenen midyelerin cinsiyeti, gonadların şırınga yöntemi ile kontrol edilmesine dayalı olarak belirlenmiştir. Cinsiyeti belirlenen erkek ve dişi midyelerin et ağırlık ölçümleri yapılarak, midye kabuk büyüklüğünün belirlenmesi için uzunluk, genişlik ve yükseklik değerleri aylık olarak ölçümlenmiştir. Elde edilen veriler ile farklı boy gruplarındaki erkek ve dişi midyelerde yaş et verimi hesaplanmıştır. Bu değerlendirmelere göre en yüksek yaş et verimi; 7,00-7,49 cm boy aralığındaki dişi midyelerde %31,37±0,65 oranında, 4,50-4,99 cm boy aralığındaki erkek midyelerde ise %32,39±3,26 oranında olduğu tespit edilmiştir. Bu çalışma midyelerin sürdürülebilirliği açısından önemli olup midye avcılığı konusunda en yüksek et verimliliğindeki boy değerini ortaya koymaktadır.

Anahtar Kelimeler: *Unio terminalis*, Yaş Et Verimi, Kabuk Yüksekliği, Unionid, Kabuk Uzunluğu

ABSTRACT

Unio terminalis, which is among the freshwater mussel species found in Gölbaşı Lake in Kırıkhan district of Hatay province, is a freshwater mussel species with economic value. Wet meat yields of male and female individuals of different size groups of *Unio terminalis*, which are widely available in the lake, were investigated depending on their meat weight values. The sex of the sampled mussels was determined based on controlling the gonads with the syringe method. Meat weight measurements of male and female mussels were made, and the length, width and height values were measured monthly to determine the mussel shell size. With the data obtained, the fresh meat yield of male and female mussels in different size groups was calculated. According to these evaluations, the highest fresh meat yield was determined in female mussels between 7.00-7.49 cm in length as 31.37%±0.65%, and in male mussels between 4.50-4.99 cm in length as 32.39±3.26%. This study is important for the sustainability of mussels and it reveals the highest meat productivity in mussel fishing.

Keywords: *Unio terminalis*, Wet Meat Yield, Shell Height, Unionid, Shell Length.

SEM, F-TIR VE XRD: MOLLUSK KABUKLARI
SEM, F-TIR AND XRD: MOLLUSC SHELLS

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ÖZET

Bu çalışmada, Mollusk familyasına ait kabukların karakterizasyonunda kullanılan yöntemlere ve bu yöntemlerin uygulaması hakkında genel bilgilere yer verilmiştir. Son yıllarda sıklıkla kullanılan Taramalı Elektron Mikroskobu (SEM), Fourier transform kızılötesi spektroskopisi (F-TIR) ve X-ışını kırınımı (XRD), kabukların çok yüksek kalitede ayrıntılı yüzey morfolojilerini gözlemlemek için, organik kimyada molekülde bulunan belirli fonksiyonel grupları tanımlayan, absorpsiyon bantlarının benzersiz gruplarını, saf bileşiklerin özelliklerini kolayca tespit edebilen, kristal malzemeleri karakterize etmek için güçlü, tahribatsız, kolay ve oldukça hızlı yöntemlerdir. Kabuklu canlılar ile ilgili kabuğun ayrıntılı mimarisi, kabuk katmanlarının karakterizasyonu, fiziksel ve kimyasal özellikleri araştırma konusu olmuştur.

Anahtar Kelimeler: SEM, F-TIR, XRD, Mollusk, Karakterizasyon, Biyoteknoloji.

ABSTRACT

In this study, the methods used in the characterization of the shells of the mollusc family and general information about the application of these methods are given. Scanning Electron Microscopy (SEM), Fourier transform infrared spectroscopy (F-TIR) and X-ray diffraction (XRD), which have been used frequently in recent years, are used to observe the very high quality detailed surface morphologies of the shells in organic chemistry, where absorption bands, which identify specific functional groups in the molecule, are used. They are powerful, non-destructive, easy and very fast methods for characterizing crystalline materials that can easily detect unique groups and properties of pure compounds. The detailed architecture of the shell, the characterization of the shell layers, and the physical and chemical properties of crustaceans have been the subject of research.

Keywords: SEM, F-TIR, XRD, Mollusc, Characterization, Biotechnology.

**ERZİNCAN'DA ORGANİK VE İYİ TARIM UYGULAMALARININ SÜRDÜRÜLEBİLİR
TARIM AÇISINDAN ÖNEMİ**

THE IMPORTANCE OF ORGANIC AND GOOD AGRICULTURAL PRACTICES FOR
SUSTAINABLE AGRICULTURE IN ERZİNCAN

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ÖZET

Her geçen gün artan nüfusun temel gıda ihtiyacını karşılayacak olan tarımsal üretim hayatı derecede önem taşımaktadır. Gıda arzının nüfusa yetmeme kaygısı, çeşitli kimyasallar ve suni gübre kullanımının artmasına sebebiyet vermiştir. Bu artan kullanımla birlikte toprak da sürdürülemezliklere yol açmış, nadasa bırakmak gibi ilkel tarımsal metotlar denenmiştir. Bu ve benzer sorunlara çözüm yolu olarak alternatif tarım yöntemleri aranmış ve böylece tarım, sürdürülebilirlik kavramından etkilenen ekonomik faaliyetler grubu içerisinde yer almıştır. Çalışmanın amacı, Erzincan ilinde sürdürülebilir tarım yöntemlerinden olan organik ve iyi tarım uygulamalarının mevcut durumunun incelenmesidir. Bu amaç doğrultusunda literatür taraması yapılmış, gerekli kurum ve kuruluşlardan tarım verileri temin edilmiştir. Erzincan ili arazi kullanım haritası hazırlanmış ve ilin mevcut arazi durumu ayrıntılı olarak harita yardımıyla görsel olarak sunulmuştur. Organik bitkisel üretim verilerini hem tür hem de üretim miktarları bakımından kıyaslamalı bir şekilde değerlendirmek adına, 2011 ve 2021 yılı karşılaştırılmıştır. Ürün çeşidi bakımından 2011 yılında daha çok tahıl grubu tercih edilirken, 2021 yılında meyve üretim bakımından ilk sıraya geçmiştir. Ayrıca yıllar içerisinde ürün çeşitliliği de artmıştır. Araştırma sahasındaki arazi dağılımında %36 çayır –mera alanı, %21 ormanlık alan, %18 tarım alanı, %17 diğer alanlar, %8 ise tarıma elverişli alan bulunmaktadır.

Erzincan'ın ilçelere göre organik tarım üretim verilerine göre, üretici ve alan bakımından ilk sırada Tercan gelmektedir. İyi tarımda üretici sayısı bakımından Üzümlü ilçesi birinci sırada yer alırken, Kemah'ta iyi tarım uygulamalarına ayrılan alan daha geniştir. İlde ayrıca organik ve iyi tarım adına hayata geçirilen projelerde mevcuttur. Çoğunluğu Tarım ve Orman Bakanlığı destekli, özellikle meyve tarımını ön plana alan projelerde, eğitimlerde verilmiştir. 67 çiftçi toplamda 97.790 TL organik tarım desteği, 11 çiftçi 19.561 TL iyi tarım desteği almıştır.

Doğu Anadolu Bölgesi'nde iyi tarım uygulanan iller değerlendirildiğinde Erzincan, 11 üretici ile dördüncü sırada yer almaktadır. İyi tarım üretici sayısı bakımından Ardahan bölgede ilk sırada gelmektedir. Ardahan'ı, Kars ve Van illeri takip etmiştir. İlde organik tarım üretimine 67 çiftçi ile 2006 yılında başlanmıştır. Yıllar içerisinde hem çiftçi hem de üretim miktarında artış ve azalışlar yaşanmış olup 2021 yılında 113 çiftçi sayısı ile toplamda 8.097,32 ton organik bitkisel üretim yapılmıştır. Bu da gösteriyor ki, yapılan organik tarım uygulamaları gelişmekte ve sürdürülebilir tarım kavramı her geçen gün daha da önem kazanmaktadır. Kırsal kalkınmanın sağlanması adına, tarımda ekonomik sürdürülebilirliği elde etmek gerekmektedir. Hem bölge hem de çalışma alanı olan Erzincan'da doğal kaynakların uzun vadede kullanımının artırılması için daha çok proje hayata geçirilmelidir. Ayrıca çiftçiye sürdürülebilir tarım metotlarını öğreten, sadece kağıt üzerinde sertifikayla kalmayacak, tarlasında bu uygulamaları yapabilecek daha kapsamlı eğitimler verilmesi önem arz etmektedir.

Anahtar Kelimeler: Sürdürülebilir kalkınma, kırsal kalkınma, iyi tarım, organik tarım,sürdürülebilir tarım.

ABSTRACT

Agricultural production, which will meet the basic food needs of the increasing population, is of vital importance. Concern that the food supply is not sufficient for the population has led to an increase in the use of various chemicals and artificial fertilizers. With this increased use, the soil has also led to unsustainability, and primitive agricultural methods such as fallowing have been tried. Alternative agricultural methods were sought as a solution to these and similar problems, and thus agriculture was included in the group of economic activities affected by the concept of sustainability. The aim of the study is to examine the current situation of organic and good agricultural practices, which are sustainable farming methods, in Erzincan province. For this purpose, a literature review was made and agricultural data were obtained from the necessary institutions and organizations. The land use map of Erzincan province was prepared and the current land situation of the province was presented visually with the help of the map in detail. In order to evaluate organic crop production data in terms of both species and production amounts, 2011 and 2021 were compared. While the cereal group was preferred more in 2011 in terms of product variety, it ranked first in terms of fruit production in 2021. In addition, product diversity has increased over the years. In the distribution of land in the research area, there are 36% meadow-pasture area, 21% forest area, 18% agricultural area, 17% other areas, and 8% arable land.

According to the organic agriculture production data of Erzincan by districts, Tercan comes first in terms of producer and area. While Üzümlü district ranks first in terms of the number of producers in good agriculture, the area allocated to good agricultural practices is wider in Kemah. There are also projects implemented in the province for organic and good agriculture. Most of them were given in the projects and trainings supported by the Ministry of Agriculture and Forestry, especially in fruit farming. 67 farmers received a total of 97,790 TL organic agriculture support, 11 farmers received 19,561 TL good agriculture support.

When the provinces with good agriculture practice in the Eastern Anatolia Region are evaluated, Erzincan ranks fourth with 11 producers. Ardahan ranks first in the region in terms of the number of good agricultural producers. Ardahan was followed by the provinces of Kars and Van. Organic agriculture production in the province started in 2006 with 67 farmers. There have been increases and decreases in both the farmer and the production amount over the years, and a total of 8,097.32 tons of organic plant production was made with the number of 113 farmers in 2021. This shows that organic farming practices are developing and the concept of sustainable agriculture is gaining more importance day by day. In order to ensure rural development, it is necessary to achieve economic sustainability in agriculture. More projects should be implemented in order to increase the long-term use of natural resources in Erzincan, which is both a region and a working area. In addition, it is important to provide more comprehensive trainings that teach sustainable farming methods to the farmer, not only with a certificate on paper, but also to make these practices in her field.

Keywords: Sustainable development, rural development, good agriculture, organic agriculture, sustainable agriculture.

ERZURUM'DA GENÇ VE YAŞLI BAĞIMLI NÜFUSUN GELİŞİMİ
DEVELOPMENT OF THE YOUNG AND OLD DEPENDENT POPULATION IN ERZURUM

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ÖZET

Her ne kadar alt ve üst yaşlara sarkma gerçekliği bulunsa da, Türkiye nüfusunun yaş yapısıyla ilgili çalışmalarda 15-64 yaş grubu ekonomik açıdan faal nüfus olarak kabul edilmektedir. Faal nüfusun yaptığı üretimden, ≥ 65 yaş grubu yaşlı nüfusun yanı sıra çalışma çağı dışındaki 0-14 yaş grubu çocuk nüfusta istifade ettiğinden; nüfus kompozisyonu içerisinde çalışan ve çalışanlara bağımlı iki grup şekillenir. Kendileri çalışmayıp, o toplumdaki çalışanların üretimini tüketen nüfusa bağımlı nüfus ve bu nüfus kitlesinin toplam nüfustaki payına ise bağımlı nüfus oranı denir. Genellikle üretici olmayan 0-14 yaş grubundaki çocuk nüfus ile 65 yaş ve üzerindeki yaşlı nüfus, bağımlı nüfusu meydana getiren en önemli gruplardır. Nüfusun her iki bağımlı grubu, doğum ve ölüm hızlarındaki değişimler ile kontrol edilir. Dünya genelinde olduğu gibi, Türkiye’de de doğum ve ölüm hızlarındaki azalma eğilimi, toplam nüfus içerisinde 0-14 yaş grubu nüfusun azalmasına neden olurken, ≥ 65 yaş grubu nüfusun artmasına yol açmaktadır. 1935 yılında, Türkiye nüfusunun %41.2’si 0-14 yaş grubunda ve %3.9’u ≥ 65 yaş grubunda yer alırken; 2021 yılına gelindiğinde 0-14 yaş grubunun oranı %21’e düşmüş, ≥ 65 yaş grubunun oranı ise %9.7’ye yükselmiştir. Demografik dönüşüm, bağımlı nüfus oranlarında da değişikliklere neden olmuş ve 1935-2021 devresinde, çocuk bağımlı nüfus oranı %75.8 den %35.4’e düşerken, yaşlı bağımlı nüfus oranı %7.1’den %12.7’ye ulaşmıştır.

Çalışma sahası olarak seçilen Erzurum’da 2021 yılı itibarıyla 756.893 nüfus yaşamakta olup, bu nüfusun %24.8’i 0-14 yaş grubunda, %65.8’i 15-64 yaş grubunda, %9.4’ü ise ≥ 65 yaş grubunda yer almaktadır. Çocuk ve yaşlı bağımlı nüfustan oluşan toplam bağımlılık oranı 2007 yılında Türkiye’de %50.4, Erzurum’da %62.5; 2021 yılında ise Türkiye’de %47.4, Erzurum’da %51.9 olarak belirlenmiştir. Toplam bağımlılık oranının düşmesi, olumlu bir gelişme olsa da düşüş nedeninin belirlenmesi son derece önemlidir. Erzurum’da bağımlı nüfusun azalması, çocuk bağımlılık oranının düşmesi ile ilgilidir. İl genelinde yaşlı bağımlılık oranı ise düzenli olarak artma eğilimindedir. Bu gelişim ilerleyen yıllarda Erzurum’da bağımlılık oranının tekrar yükseleceğine ve ekonomik açıdan desteklenmesi gereken potansiyel grubunun büyüyeceğine işaret etmektedir. Gerçekten de doğurganlık seviyelerindeki düşüş, kısa vadede çocuk bağımlı nüfusun çalışma çağı nüfusu üzerindeki baskısını azaltmaktadır. Ancak doğurganlık seviyesinin düşmeye devam etmesi halinde, çalışma çağı nüfusu alt yaş gruplarıyla beslenemediğinden bir süre sonra toplam bağımlılık yeniden yükselmeye başlamaktadır. Ekonomi üzerindeki oluşturduğu baskının kontrol altında tutulabilmesi için, sosyo-ekonomik açıdan desteğe muhtaç bağımlı nüfustaki değişimlerin yakından takip edilmesi son derece önemlidir.

Anahtar Kelimeler: Genç bağımlı nüfus, yaşlı bağımlı nüfus, bağımlı nüfus, bağımlılık oranı, demografik dönüşüm

ABSTRACT

In studies on the age structure of the population, the 15-64 age group is accepted as the economically active population in Turkey. Since the production made by the active population benefits from the elderly population aged ≥ 65 , as well as the child population of 0-14 age group out of working age; Within the population composition, two groups are formed, working and dependent on workers. The dependent population is the population that does not work and consumes the production of the workers in that society, and the share of this population in the total population is called the dependent population ratio. The child population in the 0-14 age group, which is generally not productive, and the elderly population aged 65 and over are the most important groups that make up the dependent population. Both dependent groups of the population are controlled by changes in birth and death rates. As in the rest of the world, the decreasing trend in birth and death rates in Turkey causes a decrease in the population of the 0-14 age group, while it causes an increase in the population of the ≥ 65 age group. In 1935, 41.2% of Turkey's population was in the 0-14 age group and 3.9% was in the ≥ 65 age group; by 2021, the rate of the 0-14 age group has decreased to 21%, while the rate of the ≥ 65 age group has increased to 9.7%. The demographic transformation also caused changes in the dependent population ratios and in the 1935-2021 period, while the child dependent population ratio decreased from 75.8% to 35.4%, the elderly dependent population ratio reached 12.7% from 7.1%.

As of 2021, a population of 756,893 lives in Erzurum, which was chosen as the study area, and 24.8% of this population is in the 0-14 age group, 65.8% is in the 15-64 age group, and 9.4% is in the ≥ 65 age group. The total dependency ratio consisting of child and elderly dependent population was 50.4% in Turkey and 62.5% in Erzurum in 2007; in 2021, it was determined as 47.4% in Turkey and 51.9% in Erzurum. Although the decrease in the total dependency ratio is a positive development, it is extremely important to determine the reason for the decrease. The decrease in the dependent population in Erzurum is related to the decrease in the child dependency ratio. Elderly dependency ratio tends to increase regularly throughout the province. This development indicates that the loyalty rate in Erzurum will increase again in the following years and the potential group that needs to be supported economically will grow. Indeed, the decline in fertility levels reduces the pressure of the child dependent population on the working age population in the short run. However, if the fertility level continues to decrease, the total dependency starts to rise again after a while, as the working age population cannot be fed with the lower age groups. In order to keep the pressure on the economy under control, it is extremely important to closely monitor the changes in the dependent population in need of socio-economic support.

Keywords: Young dependent population, elderly dependent population, dependent population, dependency ratio, demographic transformation

SÜRDÜRÜLEBİLİR BİTKİSEL ÜRETİM METOTLARI
SUSTAINABLE CROP PRODUCTION METHODS

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ÖZET

Sürdürülebilirlik kelime anlamı geniş olan bir kavramdır. Her üretilen maddenin, her faaliyetin sürdürülebilir olması mümkündür. Tarımda sürdürülebilirlik kavramı da kendi içinde geniştir. Bitkisel üretimde, hayvancılıkta ve tarım ekonomisinde sürdürülebilirlik söz konusudur.

Bu çalışmada; bitkisel üretim şartlarında, üretimimizin sürekli ve verimli aynı zamanda toprak fiziksel, kimyasal ve biyolojik koşullarımızın optimum olabilmesi, diğer tükenbilir kaynaklarımızı korumak için neler yapmamız gerektiği, üretimde sürdürülebilirliği sağlamak için uyulması gereken üretim modellerinin neler olduğu açıklanmaya çalışılmıştır.

Sürdürülebilir bitkisel üretim modellerine baktığımızda 3 ana faktöre uyulması gerekmektedir. 1.Ekolojiye uygun bir örtü bitkisi seçerek, örtü bitkisi üzerine ekim yapmak 2.Tek yıllık üretimde ekim nöbeti (münavebe) uygulaması yapmak 3.Özellikle eğimli alanlarda sıfır toprak işlemeli ya da minimum toprak işlemeli tarım yapmak. Bu koşullarda üretim yapıldığında, örtü bitkisi malç görevi görecek; ani toprak ısınma soğuması, su kayıpları, yıkanma ile toprak kayıpları ayrıca yabancı ot sorunu olmayacak aynı zamanda ürün hasadı kolaylaşacaktır. Ekim nöbeti uygulaması ile topraktaki bitki besin maddeleri tek yönlü sömürülmeyecek, toprak yorgunluğu olmayacak, kullanılan gübre miktarı ve hastalık ve zararlı sorunları azalacaktır. Sıfır toprak işleme ile özellikle eğimli alanlarda toprak kayıpları olmayacak, toprağın sürekli aynı derinlikte sürülmesinden kaynaklı pulluk tabanı sorunları ve toprak strüktürü (yapı) bozulmayacaktır. Bitkisel üretimde yukarıda sıraladığımız üretim modelleri benimsenip uygulandığında üretimde sürdürülebilirlikten ve tarımsal girdi kullanımının (İlaç, gübre) azalmasından aynı zamanda toprak ve su kaynaklarımızın korunmasından söz edebiliriz.

Gıda arzının arttığı günümüzde üretimde sürdürülebilirlik zorunlu hale gelmektedir. Kaynakları bugün kullanırken yarına da ulaştırmanın yollarını aramamız, üretici-tüketici-denetleyici olarak elimizden geleni yapmamız gerekmektedir.

Çalışmamızda; Sürdürülebilir bitkisel üretim modellerinin neler olması gerektiği belirtilmeye, bu konuda yapılan çalışmalar ve uygulamalar derlenerek üretim modelleri hakkında öneriler getirilmeye çalışılmıştır.

Anahtar Kelimeler:Sürdürülebilir Tarım, Bitkisel Üretim, Ekim Nöbeti, Gübreleme

ABSTRACT

Sustainability is a concept with a extensive meaning of the word. It is possible for every substance produced, every activity to be sustainable. The concept of sustainability in agriculture is also extensive in itself. Sustainability is in question in crop production, livestock and agricultural economy.

In this study, it has been tried to explain what production models should be followed to ensure sustainability in production, what we should do to protect our other exhaustible resources, so that our production can be continuous and efficient as well as our soil physical, chemical and biological conditions can be optimal under crop production conditions.

When we examine at sustainable crop production models, 3 main factors must be observed. 1.Choosing a cover plant suitable for ecology, sowing on the cover plant 2.Applying rotation in single-year production 3.Zero-till cultivation systems or conservation tillage agriculture, especially in erosion areas. When production is carried out in these conditions, the cover plant will act as a mulch; sudden soil warming cooling, water losses, soil losses by washing will also not be a weed problem, but crop harvesting will be facilitated. With the application of rotation, the soil will not be exploited one-way in terms of plant nutrients, there will be no soil exhaustion, the amount of fertilizer used and disease and pest problems will be reduced. With zero-till cultivation, there will be no soil losses, especially in erosion areas, plow base problems caused by the plow pan of the soil at the same depth and the soil structure will not deteriorate. When the production models listed above are adopted and applied in crop production, we can talk about sustainability in production and reducing the use of agricultural inputs (using agricultural chemical, fertilizers), as well as protecting our soil and water resources.

Nowadays, when the food supply is increasing, sustainability becomes mandatory in production. While using resources today, we need to look for ways to deliver them to tomorrow, and as a producer-consumer-controller, we need to do our best.

In our study; It has been tried to specify what sustainable crop production models should be, to compile studies and applications on this subject and to bring suggestions about production models.

Keywords: Sustainable Agriculture, Crop Production, Rotation, Fertilization.

**KADINA YÖNELİK ŞİDDETLE KURUMSAL MÜCADELE: ŞÖNİM, KADES, ALO 183,
KOLLUK KUVVETİ VE SAĞLIK KURULUŞLARI SEÇİMİNİ DESTEKLEMELİK İÇİN AHP
VE TOPSİS ANALİZİ**

CORPORATE STRUGGLE WITH VIOLENCE AGAINST WOMEN: VPCM, WSA, CALL 183,
LAW ENFORCEMENT AND HEALTH ORGANIZATIONS TO SUPPORT YOUR CHOICE AHP
AND TOPSIS ANALYSIS

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ÖZET

İnsanlığın ortaya çıkışı kadar eski olan şiddet bireysel ve sosyal öğeleri içinde barındırmaktadır. Şiddet çok boyutlu bir kavram olup birçok farklı disiplinler tarafından analiz edilmektedir. Kadına yönelik şiddet ise kadına cinsiyetinden dolayı kamusal ve özel alanda uygulanan fiziksel, psikolojik, cinsel ve ekonomik şiddet olarak tanımlanmaktadır. Bu problem dünyada ve Türkiye de yaşanan önemli toplumsal problemlerin başında gelmektedir. Kadına yönelik şiddetle mücadele Türkiye gerek uluslararası sözleşmelerle gerekte ulusal düzenlemelerle toplumsal ve hukuki alanda birçok gelişmeler gerçekleştirmiştir.

Kadına yönelik şiddetle mücadelede şiddete maruz kalındığında ya da risk altındayken başvurulabilecek kurum ve kuruluşlar; Şiddet Önleme ve İzleme Merkezi (ŞÖNİM), Alo 183 (Aile, Kadın, Çocuk ve Engelli Sosyal Hizmet Danışma Hattı), Sağlık Kuruluşları, Kolluk Kuvvetleri (Polis Merkezleri, Jandarma Karakolları), Cumhuriyet Savcılığı, Belediyelerin Kadın Dayanışma Merkezleri, Baroların Kadın Dayanışma Merkezleri ve Adli Yardım Kurulları, Kadın Sivil Toplum Kuruluşları ve Kadın Destek Uygulaması (KADES) şeklinde sıralanabilmektedir.

Yapılan bu çalışmada şiddet mağduru 10 kadınla görüşülmüş. Bu katılımcılara kadına yönelik şiddetle mücadelede destek mekanizmalarından olan ŞÖNİM, KADES, ALO 183, Kolluk Kuvveti ve Sağlık Kuruluşlarından hangilerini hangi gerekçelerden dolayı tercih edebilecekleri araştırılmıştır. Bu çalışma, çok kriterli karar verme (multi-criteria decision-making) yöntemlerini kullanarak kadına yönelik şiddetle mücadele de bu 5 mekanizmanın 12 kriterle tercih edilmesini açıklamaktadır. Çalışmada, AHP (analytical hierarchy process) ve TOPSIS' (technique for order preference by similarity to deal solution) birlikte kullanan entegre bir yaklaşım benimsenmiştir. AHP, değerlendirme kriterlerinin ağırlıklarını belirlerken, TOPSIS mekanizmaların nihai bir sıralamasını sağlamaktadır.

Anahtar Kelimeler: Kadına Yönelik Şiddet, AHP, TOPSIS

ABSTRACT

Violence which is as old as the emergence of humanity contains individual and social elements. Violence is a multidimensional concept and is analyzed by many different disciplines. Violence against women is defined as physical, psychological, sexual and economic violence applied to women in public and private spheres because of their gender. This problem is one of the most important social problems in the world including Turkey. Fighting against violence against women Turkey has made many social and legal developments both with international conventions and national regulations.

Institutions and organizations that can be applied when exposed to violence or at risk for fighting against violence against women; Violence Prevention and Monitoring Center (VPCM), CALL 183 (Family, Women, Children and Disabled Social Service Hotline), Health Organizations, Law Enforcement Forces (Police Stations, Gendarmerie Stations), Public Prosecutor's Office, Women's Solidarity Centers of Municipalities, Women's Solidarity Centers of Bar Associations and Legal Aid Boards, Women's Non-Governmental Organizations and Women's Support Application (WSA) can be listed as.

In this study, 10 women who were victims of violence were interviewed. It was researched for what reasons these participants might prefer VPCM, WSA, Call 183, Law Enforcement and Health Institutions, which are among the support mechanisms in the fight against violence against women. This study explains the preference of these 5 mechanisms with 12 criteria in combating violence against women by using multi-criteria decision-making methods. In the study, AHP (analytical hierarchy process) and TOPSIS' (technique for order preference by similarity to deal solution) an integrated approach that uses them together has been adopted. While AHP determines the weights of the evaluation criteria, TOPSIS provides a final ranking of the mechanisms.

Keyword: Violence Against Women, AHP, TOPSIS

KLİNİK ÖRNEKLERDEN İZOLE EDİLEN *CANDIDA* TÜRLERİNİN DAĞILIMI VE ANTİFUNGAL DUYARLILIKLARI

DISTRIBUTION AND ANTIFUNGAL SUSCEPTIBILITY OF *CANDIDA* SPECIES ISOLATED
FROM CLINICAL SAMPLES

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ÖZET

Candida türleri deri, ağız ve gastrointestinal sistemin normal florasında bulunmasına rağmen, predispozan faktörlerin etkisiyle yüzeysel mukozal enfeksiyonların yanı sıra yaşamı tehdit eden derin invaziv enfeksiyonlara neden olabilen fırsatçı mikoz etkenleridir. Bu çalışmada çeşitli klinik örneklerden izole edilen *Candida* cinsi mayaların tür düzeyinde tanımlanması ve antifungal ilaç duyarlılıklarının saptanması amaçlanmıştır.

2019 Ekim-2022 Eylül tarihleri arasında Kafkas Üniversitesi Sağlık Araştırma ve Uygulama Hastanesi Mikrobiyoloji Laboratuvarına çeşitli kliniklerden gönderilen örneklerden izole edilen *Candida* cinsi mayalar; Sabouraud Dekstroz Agar (SDA)'daki koloni morfolojileri, mısır unu-tween 80'li jelozda klamidospore, blastospore, gerçek ve yalancı hif oluşumları, çimlenme borusu deneyi, CHROMagar *Candida* (Becton Dickinson, İngiltere) besiyerindeki pigment oluşumu ve ticari Phoenix™ otomatize sistemi (Becton Dickinson Diagnostics, ABD) kullanılarak tür düzeyinde tanımlanmıştır. *Candida* izolatlarının amfoterisin B, flukonazol ve vorikonazol duyarlılığı E-test yöntemi ile belirlenmiştir. Çalışmaya dahil edilen toplam 220 *Candida* izolatının tür düzeyinde dağılımı; *Candida albicans* (n= 99), *Candida parapsilosis* (n= 43), *Candida glabrata* (n=31), *Candida tropicalis* (n= 22), *Candida krusei* (n=11), *Candida kefyr* (n=9), *Candida lusitanae* (n= 3) ve *Candida guilliermondii* (n=2) olarak saptanmıştır. Antifungal duyarlılık sonuçlarına göre izolatların %3,2 (n=7)'sinin amfoterisin B'ye, %11,8 (n=26)'inin flukonazole ve %8,6 (n=19)'sının vorikonazole dirençli olduğu tespit edilmiştir. Sonuç olarak özellikle *albicans* olmayan *Candida* türlerinin tür düzeyinde tanımlanması ve antifungal duyarlılık testlerinin yapılması; ulusal ve uluslararası düzeyde profilaksi ve tedavi için direncin yayılmasının kontrol edilmesinde ve etkili stratejiler oluşturulmasında önemli bir yer tutmaktadır.

Anahtar kelimeler: *Candida spp.*, Fırsatçı Mikozlar, Antifungal Duyarlılık, Antifungal Direnç

ABSTRACT

Candida species are found in the normal flora of the skin, mouth and gastrointestinal tract. They are opportunistic mycosis agents that can cause life-threatening deep invasive infections as well as superficial mucosal infections due to predisposing factors. In this study, it was aimed to identify *Candida* species isolated from various clinical specimens and to determine the antifungal drug susceptibility. *Candida* species isolated from samples sent from various clinics to Microbiology Laboratory of Kafkas University Health Research and Application Hospital between October 2019 and September 2022 were included in this study. The identification of isolates at the species level was carried out using colony morphologies on Sabouraud Dextrose Agar (SDA), chlamidospore, blastospore, true and pseudo hyphae formations in cornmeal-tween 80 agar, germination tube assay, pigment formation in CHROMagar *Candida* medium (Becton Dickinson, England) and commercial Phoenix™ automated system (Becton Dickinson Diagnostics, USA). The drug susceptibility of *Candida* isolates to amphotericin B, fluconazole, and voriconazole was determined by E-test method. The distribution of the species of the total 220 *Candida* isolates included in the study were as follows: *Candida albicans* (n= 99), *Candida parapsilosis* (n= 43), *Candida glabrata* (n=31), *Candida tropicalis* (n= 22), *Candida krusei* (n=11), *Candida kefyr* (n=9), *Candida lusitaniae* (n= 3) ve *Candida guilliermondii* (n=2). According to the antifungal susceptibility results, it was determined that 3.2% (n=7), 11.8% (n=26) and 8.6% (n=19) of the isolates were resistant to amphotericin B, fluconazole and voriconazole, respectively. As a result, identification of non-albicans *Candida* species at the species level and performing antifungal susceptibility tests play an important role in controlling the spread of resistance and establishing effective strategies for prophylaxis and treatment.

Keywords: *Candida spp.*, Opportunistic Mycoses, Antifungal Susceptibility, Antifungal Resistance

CHARACTERISTICS OF VITAMIN D DEFICIENCY IN EARLY INFANCY

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ABSTRACT

Background and Aim: Vitamin D deficiency is a health problem in developing countries. This study aims to investigate the characteristics of children with vitamin D deficiency in early infancy.

Materials and Methods: Hundred and forty infants with vitamin D deficiency (mean age: 3.5 ± 1.7 [0-6] months) and a control group of 200 healthy infants (mean age: 3.4 ± 1.7 [0-6] months) were included in the study. Serum calcium, phosphorus, alkaline phosphatase, parathyroid hormone (PTH), and 25-hydroxyvitamin D (25(OH)D) levels were measured in the patient, control groups, and the mothers of the patients. In 38 patients, radiological findings were evaluated with knee and wrist radiographs. *Thacher Rickets Severity Scoring (RSS)* system was used for radiological evaluation of rickets severity. Binary logistic regression analysis was performed to identify risk factors for vitamin D deficiency.

Results: The most common (42%) complaints were respiratory symptoms, including cough, respiratory distress, and wheezing. The most common finding of physical examination was the rachitic rosary. Serum calcium (Ca^{++}), alkaline phosphatase (ALP), 25(OH) vitamin D, and parathormone (PTH) levels were significantly different in the patient and the control groups. The mean Thacher radiological score of 38 patients was 3.1 ± 2.1 (0-8) points. The mother's dressing style of covering up the whole body, i.e., veiling, increased the infant's risk of vitamin D deficiency by 17.5 times.

Conclusion: Subtle clinical, laboratory, and radiological findings of vitamin D deficiency are detected in early infancy. Vitamin D deficiency should be considered primarily in infants with hypocalcemia whose mothers are less frequently exposed to sunlight due to geographical conditions and their preferred or imposed lifestyle.

Keywords: Vitamin D Deficiency, Infant, Maternal-Fetal Relationships, Secondary Hyperparathyroidism, Thacher Radiological Score

ÖZET

Giriş ve Amaç: D vitamini eksikliği gelişmekte olan ülkelerde sağlık sorunu olmaya devam etmektedir. Bu çalışma erken bebeklik döneminde D vitamini eksikliği olan çocukların özelliklerini araştırmaktadır.

Gereç ve Yöntem: Çalışmaya, yaş ortalaması $3,5\pm 1,7$ (0-6) ay ve D vitamini eksikliği olan 140 infant ve kontrol grubu olarak yaş ortalaması $3,4\pm 1,7$ (0-6) olan 200 sağlıklı bebek alındı. Hasta ve kontrol grupları ile hastaların annelerinin serum kalsiyum, fosfor, alkalen fosfataz, paratiroid hormon ve 25 hidroksivitamin D düzeyleri ölçüldü. 38 hastada radyolojik bulgular diz ve el bileği grafileri ile değerlendirildi. Raşitizm şiddetinin radyolojik değerlendirilmesinde Thacher skoru kullanıldı. D vitamini eksikliği için risk faktörlerini belirlemek için ikili lojistik regresyon analizi yapıldı.

Bulgular: En sık görülen şikâyetler (%42) öksürük, solunum sıkıntısı, hırıltılı solunum gibi solunum yolu semptomları idi. Fizik muayenede en sık rastlanan bulgu raşitik rozary idi. Hasta ile kontrol grubu arasında serum kalsiyum (Ca), alkalen fosfataz (ALP), 25 (OH) D vitamini ve parathormon (PTH) değerleri arasında anlamlı fark vardı. Thacher radyolojik skoru incelenen 38 olgunun ortalama skoru $3,1\pm 2,1$ (0-8) puan idi. Annenin tüm vücudunu kapatacak şekilde giyinmesinin, bebekte D vitamini eksikliği riskini 17,5 kat artırdığı görüldü.

Sonuç: Erken süt çocukluğu dönemindeki D vitamin eksikliğini klinik, laboratuvar ve radyolojik bulguları silik olmaktadır. Yaşanan coğrafya ve yaşam tarzı nedeniyle güneş ışığına az maruz kalan annelerin çocuklarında hipokalsemi var ise öncelikle D vitamini eksikliği düşünülmelidir.

Anahtar Kelimeler: Vitamin D Eksikliği, Bebek, Maternal-Fetal İlişkiler, Sekonder Hiperparatiroidizm, Thacher Radyolojik Skoru

EXPERIENTIAL AND COMPETENCE LEARNING IN HIGHER EDUCATION: A STRUCTURAL EQUATIONS MODEL TO MEASURE PERCEIVED EDUCATIONAL QUALITY

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ABSTRACT

Educational systems are in a process of transition that leaves behind approaches focused on the transmission of content to prioritize pedagogical models that are committed to the development of skills. Therefore, this transformation process should be advocated to enhance the development of skills for the 21st century. To face this challenge of training in skills, new pedagogical perspectives are needed that favor deep learning. Therefore, this research was designed with the objective of analyzing the relationships between the active role of teachers, the development of transversal skills of university students and the perceptions about the achievement of quality education.

A group of university students completed an online questionnaire after participating in an intervention program based on the use of active learning methodologies. After applying a methodology based on a Structural Equations Model, the results allow us to conclude that the performance of an active role of the teacher can have a positive and significant impact on the acquisition of transversal skills in university students who are involved in learning active experiences. Similarly, this development of transversal skills leads to an increase in educational quality fostered by the experimentation of active methodologies. As practical implications, it is proposed that training in transversal skills in the university context should be based on reflective and experimentation processes. Taking into account that practice promotes learning, it is convenient to propose varied activities based on real situations that encourage experiential learning.

Keywords: skills for the 21st century, Structural Equations Model, active role, educational quality, experiential learning.

**TEACHERS' BELIEFS ABOUT DEVELOPING STUDENTS' CREATIVITY AND
PRACTICES IN SCIENCE AND HUMANITIES SUBJECTS IN KAZAKHSTAN**

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ABSTRACT

Creativity manifesting in any subject is a widely accepted belief. However, there is a paucity of comparative research looking into different subject teachers' belief about teaching approaches that stimulate students' creativity. This study explored teachers' beliefs about creative teaching in upper secondary classroom, with a particular focus on the Kazakhstani context. This study explored creative teaching approaches as perceived by a group of upper secondary science (8) and humanities teachers (7) in Kazakhstan. Pre-, and post-observation interviews and class observations were conducted to examine how science and humanities teachers conceptualized creativity in their practice using a multiple-case design to categorize teachers' beliefs. The findings demonstrated that all teachers shared a common view that creativity is essential to foster in students. Although all participants believed that creativity can manifest in all subjects, one third of them viewed that in humanities there are more opportunities to develop creativity. They all agreed that creativity can be developed in any classroom if a conducive learning environment is provided. Most commonly shared teaching approaches to facilitate creative teaching included the use of cooperative and active learning teaching strategies regardless what subject teachers the participants were. Although projects-based learning strategy was also commonly viewed as effective ways of developing students' creativity among all subject teachers, it was mainly mentioned by science teachers. Lab-based learning was also mentioned only by science teachers. The findings were discussed along with their implications for teacher education and future research.

Key words: creativity, teachers' beliefs, science, humanities

VALUING OF EDUCATION AND IMPLICATIONS IN UNDERGRADUATE STUDENTS' LEARNING

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Abstract

The study aimed at exploring valuing of education and its implications in the task-engagement of undergraduate students. Phenomenological design type of qualitative approach was employed and semi-structured interview was used. Fifteen second year and third year Bahir Dar University students were selected through typical-case sampling from two departments. The result has revealed that students did not value education and their aspirations were not concordant with the very aim of education. Students interviewed unveiled that they did not value education, and the situations faced by their graduated counterparts and the life struggle encountered by the beginner employees in government offices were among the reasons they mentioned. Moreover, students were seldom task-oriented and they engaged in tasks and classroom routines in rare conditions. The cases impelling students to engage in academic tasks were fear of inexpedient psychosocial conditions they would face if they get dismissed and their families' exaggerated expectation for themselves. Besides, the result also has indicated that envisioning the value of education in future is negative and again far from the very aim of education. We concluded that if the outside-campus-situations related to job and payment are kept as they are today, other problems, like hatred towards education in general would thrive. Hence, the researchers recommended that relative task novelty in institutions, making the number of newly assigning students compatible with demands in the country, rendering entrepreneurship course to all students in graduating year and facilitation of loans for graduates to create jobs by banks are germane.

Key words: valuing education, envisioning, task engagement

SOCIOCULTURAL ATTITUDES TOWARDS APPEARANCE, BODY CONSCIOUSNESS AND SELF-EFFICACY IN UNIVERSITY STUDENTS

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Abstract

Body dissatisfaction is common now a days in youngsters and causes serious psychological effects which become the reason of many insecurities among them. Social media promote ideals that is a reflection of unattainable looks and beauty among young adults as they mostly rely on social media for every kind of information. Present research aimed to explore relationship among sociocultural attitude towards appearance, body consciousness and self-efficacy among university students. It was hypothesized that there is likely to be a relationship between sociocultural attitude towards appearance, body consciousness and self-efficacy among university students. A sample of 113 (Men= 50, Women= 63) university students was taken. The scales sociocultural attitude towards appearance (SATAQ-4) (Schaefer et al., 2015), self-objectification scale (Fredrickson & Noll, 1997) and general self-efficacy (Schwarzer & Jerusalem, 1981) were administered. Pearson's correlation analysis revealed that there was a non-significant positive relationship between all the sub scales of sociocultural attitudes towards appearance except internalization-thin/low body fat, it had non-significant negative relationship with appearance based body consciousness. In addition, there was a non-significant negative relationship between all the sub scales of sociocultural attitudes towards appearance with competence based body consciousness. Furthermore, the results revealed that all sub-scales of sociocultural attitudes towards appearance was non-significantly negatively correlated except internalization-muscular/athletic, it had non-significant positive relationship with self-efficacy. Moreover, the sub-scales of body consciousness; appearance based and competence based was non-significantly negatively correlated with self-efficacy. Independent sample t-test showed that there was a highly significant gender difference found in internalization-muscular/athletic and pressures-peers. Whereas, men was found to have more internalization-muscular/athletic and peer pressure as compared to women. This research is helpful in understanding the role of self-criticism and self-acknowledgement and their effect on appearance satisfaction in today's social media paced life.

Key Words: Body Dissatisfaction, Self-Efficacy, Self-acknowledgement, Young Adults.

WORKING ENVIRONMENT, EMPATHIC CONCERN, AND PROFESSIONAL QUALITY OF LIFE AMONG FEMALE STAFF NURSES

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ABSTRACT

The study was conducted to explore the relationship between working environment, empathic concern and professional quality of life among female staff nurses. It was hypothesized that 1) there is likely to be a relationship between working environment, empathic concern and professional quality of life among female staff nurses and 2) Working environment and empathic concern are likely to predict professional quality of life among female staff nurses. The correlational research design was used in the present study. About 190 nurses with age range of 19-58 years ($M = 30.79$, $SD = 7.34$) from different hospitals in Lahore including Jinnah Hospital, Sir Ganga Ram Hospital, Govt. Mozanag Hospital and Sheikh Zayed Hospital were approached. The self-constructed demographic sheet, Working Environment Scale (Rossberg et al., 2004), empathic concern subscale of Interpersonal Reactivity Index (Davis, 1983) and Professional Quality of Life scale (Stamm, 2010) were used for assessment. The results of Pearson Product Moment Correlation analysis concluded that self-realization is positively associated with empathic concern and compassion satisfaction among nurses. Further, it was found that workload in work environment is also positively associated with secondary traumatic stress. Further, conflict and nervousness and in the hospital environment is positively associated with burnout and secondary traumatic stress. Results of Multiple Hierarchical Regression analyses showed that self-realization positively predicted compassion satisfaction but negatively predicted burnout among female staff nurses. Further, conflict and nervousness in work environment positively predicted secondary traumatic stress and positively predicted burnout. This study is useful to highlight the factors that affect professional quality of life of nurses and linking with their burnout and secondary traumatic stress. This study can also be used in devising strategies to improve quality of work environment in hospitals influencing quality of life of healthcare profession system and to devise strategies to help improve the professional quality of life of nurses.

Keywords. Compassion satisfaction, burnout, secondary traumatic stress, workload, nervousness, conflict, self-realization, nurses.

SOCIAL APPEARANCE ANXIETY AND PSYCHOLOGICAL DISTRESS AMONG TIKTOK USERS

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ABSTRACT

Anxiety and tension that people experience when they are judged by others based on their physical appearance is known as social appearance anxiety. This study aims to investigate the relationship between social appearance anxiety and psychological distress among tiktok users. Further, it also measures the difference among social appearance anxiety and psychological distress in relation to demographic variables. Using purposive sampling technique, data was collected online from 187 tiktok users (age range 15-30 years). Social Appearance Anxiety Scale (Hartel et al., 2008) and Kessler Distress Scale (Kessler, 2001) were combined along with demographics for data collection. Data was analysed using SPSS. Results revealed a significant correlation between social appearance anxiety and psychological distress ($r^2 = .63$ $p \leq .001$). Furthermore, regressions analysis showed a significant predictive relationship among social appearance anxiety and psychological distress ($R^2 = .420$, $p < .001$). Also the results revealed the substantial role of demographic features like age, gender and socioeconomic status in social appearance anxiety and psychological distress. It is concluded that social appearance anxiety has a worsening effect and leads to psychological distress among tiktokers. Findings would be helpful for psychological counselling experts to design effective intervention and prevention programs by considering social appearance anxiety as a risk factor.

Key words: Social Appearance Anxiety, Psychological Distress, Tiktok Users

THE IMPACT OF BREAST CANCER ON BODY IMAGE AMONG MOROCCAN WOMEN

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ABSTRACT

This paper is premised upon the impact of breast cancer on Moroccan women's body image. Breast cancer alters women's reproductive and sexual lives. These women are, in fact, exposed to marked changes in their physical bodies, such as the disintegration of one or both breasts, hair loss, surgical scars, and other skin changes. In this paper, we shall argue that the loss of female breast organs juxtaposes the loss of their feminine identity. The body has a strong bond with society and its cultural imagery; the breast has multiple functions including the sensual, the visceral, and the joyful. In other words, it is culturally and socially related to sexual life and motherhood. Indeed, this organ 'breast' derives its value from other individuals. However, marginalizing this specific body organ leads to frustration and death of the whole body; hence, throughout this paper, I shall examine the co-relation between female's breasts and self-perception, sex and breastfeeding, cancer, and body image. For data collection, I carried out an online questionnaire survey that consisted of 20 Moroccan women treated for breast cancer (due to Coronavirus pandemic restrictions, we could not conduct our research face-to-face). I will adopt a psychosocial approach which is mainly about examining the social and psychological aspects of patients. This approach fits in with our arguments in the sense that it will allow me to deeply understand the psychosocial state of women who are treated for breast cancer and their saturated relationship with the gaze of society. As this study shows that poor body image disturbance and financial factors lead to psychological depression, anxiety, and distress among women with breast cancer. Findings manifest that these women are faced with social pressures, and thus need for positive psychological treatments to improve their mental and physical health is required.

KeyWords: Moroccan women, breast cancer, body image, psychological distress

INTERPERSONAL DIFFICULTIES IN MIGRAINE PATIENTS: PREDICTING RISK FACTORS

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ABSTRACT

The aim of a current study was to investigate the predictors of interpersonal difficulties in migraine patients, as the frequent attacks of migraine headaches if not treated and managed timely can lead to major psychosocial issues. So drawing the support of strong literature, this study explores the relationship between Psychosocial Issues as a predictor of Interpersonal Difficulties in a sample of 160 Migraine patients through snowball sampling. The present study comprised of demographic sheet, an indigenous “Psychosocial Issues Scale” (Batool & Khadim, 2022), and Interpersonal Difficulties Scale (Ihsan & Mahmood, 2013). Results showed that interpersonal difficulties are positively correlated with psychosocial issues. Hierarchical Regression shows gender and intensity as significant predictors of Interpersonal Difficulties. In terms of gender, women experience more frequent migraine attacks as compared to men and similarly face more psychosocial problems than men whereas ANOVA pointed out the significant difference in employment status, frequency, and duration. The results of the study underlined Intra and interpersonal variables in the cultural framework of psychosocial issues with its clinical implications.

Keywords: Psychosocial Issues, Interpersonal Difficulties, and Migraine Patients

ORTAÖĞRETİM ÖĞRENCİLERİNİN YÜKSEKÖĞRETİM TERCİHİNDE ETKİLİ OLAN DEĞİŞKENLERİN İNCELENMESİ

EXAMINATION OF VARIABLES EFFECTIVE ON HIGHER EDUCATION
PREFERENCES OF SECONDARY EDUCATION STUDENTS

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ÖZET

Ebeveynler genellikle çocuklarıyla birlikte yaşadıkları için, çocuklarının kariyer kararlarını nasıl aldıkları üzerinde güçlü bir etkiye sahip olma eğilimindedirler. Özellikle erken aşamalarda doğrudan veya dolaylı olarak norm ve değerlerinde en çok ihtiyaç duyulan kariyer tavsiyelerini vererek çocuklarının kariyer kararlarını etkileyebilirler. Bireyin tercih edeceği meslek ve kariyer seçimi, toplumdaki varlığını büyük ölçüde etkileyecek, yaşam tarzını ve gelecek planlarını şekillendirecektir. Öğrenciler, öğretmenler, aileler ve karar vericiler, kendi ilgi alanlarına, yeteneklerine, isteklerine ve arzularına göre seçimleri nasıl yaptıkları veya çevreden ne ölçüde etkilendikleri konusunda net olmalıdırlar.

Belirtilen gerçekler doğrultusunda, bu araştırmanın amacı ortaöğretim öğrencilerinin yükseköğretim programı tercihi yaparken bu tercihlerini etkileyen değişkenleri incelemektir.

Araştırmada nitel desenlerinden durum çalışması modeli kullanılmıştır. Bu araştırmada veri toplama aracı olarak görüşme tekniği kullanılmıştır. Veriler araştırmacı tarafından hazırlanan ve alan uzmanları tarafından da uygunluğu tespit edilen yarı yapılandırılmış görüşme formu ile elde edilmiştir. Araştırmada elde edilen veriler betimsel analiz yöntemi ile analiz edilmiştir. Araştırmanın bulgular bölümünde her bir katılımcının görüşlerine uygun doğrudan alıntılara yer verilmiştir. Bu alıntıların araştırma verilerinin geçerlik ve güvenilirliğini arttırması kabul edilebilir. Ayrıca araştırmanın güvenilirliğini sağlamak için uzmanların görüşüne başvurulmuştur.

Analizler sonucunda elde edilen bulgular ekonomik kaygı, mesleğin prestiji, öğrencinin kişilik özelliği, ilgi alanları ve yetenek gibi faktörler öğrenciler ve öğretmenler için mesleki tercihte ortak önem arz etmiştir. Fakat sosyo-kültürel yapı ve aile gibi faktörlerin daha çok öğrenciler için önem arz ettiği görülmüştür. Ayrıca öğrenci ve öğretmenlerden elde edilen bulgular doğrultusunda birçoğunun ekonomik durumlarının çok iyi olmadığı ve çoğunluğun mesleğin ekonomik getirisinin iyi olması gerektiği yönünde fikir beyan etmişlerdir. Öğrencilerin mesleki tercihlerine etkili olan aile, rehberlik servisi, kendi tercihleri ve sosyal çevre gibi faktörlerin öğrenci ve öğretmenler için aynı derecede önem arz ettiği görülmüştür.

Anahtar Kelimeler: Meslek, Mesleki Tercih, Yetenek, Sosyal Çevre

ABSTRACT

Because parents often live with their children, they tend to have a strong influence on how their children make career decisions. They can influence their children's career decisions, especially in the early stages, directly or indirectly, by providing the most needed career advice in their norms and values. The choice of profession and career that an individual will choose will greatly affect his/her existence in society and will shape his/her life style and future plans. Students, teachers, families and decision makers should be clear about how they make choices based on their interests, abilities, aspirations and desires, or to what extent they are influenced by the environment.

In line with the stated facts, the aim of this research is to examine the variables that affect the secondary education students' preferences while choosing a higher education program. The case study model, one of the qualitative patterns, was used in the research. In this study, interview technique was used as a data collection tool. The data were obtained with a semi-structured interview form prepared by the researcher and approved by the field experts. The data obtained in the research were analyzed with the descriptive analysis method. In the findings section of the research, direct quotations suitable for the views of each participant are included. It can be accepted that these citations increase the validity and reliability of the research data. In addition, the opinions of experts were consulted to ensure the reliability of the research. The findings obtained as a result of the analyzes showed that factors such as economic anxiety, prestige of the profession, personality traits of the student, interests and talents were of common importance for students and teachers in choosing a career. However, it has been seen that factors such as socio-cultural structure and family are more important for students. In addition, in line with the findings obtained from the students and teachers, most of them stated that their economic situation is not very good and that the economic return of the profession should be good. It has been seen that factors such as family, guidance service, own preferences and social environment that affect students' professional preferences are equally important for students and teachers.

Keywords: Career, Career Choice, Family, Talent, Social Environment

**TYPES OF ORAL CORRECTIVE FEEDBACK STRATIGIES USED BY EFL TEACHERS
AT SECONDARY SCHOOL**

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ABSTRACT

This study aims to investigate types of oral corrective feedback strategies used by EFL teachers at secondary schools. It also explores teachers' attitudes towards the use of oral corrective feedback inside classrooms . For these purposes, a classroom observation checklist was designed based on Panova and Lyster's (2002) model of study in order to confirm the types of oral corrective feedback strategies used by the teachers, to highlight learners' errors . Besides, a questionnaire was distributed to 50 teachers to explore their attitudes about the effective use of oral corrective feedback in public and private secondary schools. The data obtained from classroom observations and teachers' responses to the questionnaire were identified and analysed . The findings revealed that EFL teachers used different types of oral corrective feedback to learners' errors.

Keywords: Oral Corrective Feedback Stratiges, EFL/ESL, Langyage Learning, Teachung.

CRITICAL THINKING ABILITY AND EFL LEARNERS' LANGUAGE LEARNING STRATEGY USE

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ABSTRACT

Throughout the last few decades, a gradual shift of attention has taken place within the field of teaching English as a foreign or a second language resulting in greater emphasis on the learners' skills and abilities. In this line of endeavour, researchers have been paying more attention to improving the EFL learners' various skills such as 'critical thinking (CT) skills' and 'use of the language learning strategies (LLSs). CT refers to the ability to master a number of skills such as comprehension, analysis, application, synthesis and evaluation. On the other hand, LLSs refer to special ways, of processing information that enhances comprehension, learning or retention of the information. The importance of CT and LLSs has formed a motivation for educators at different fields of education and language teaching/learning in EFL or ESL contexts is no exception. Therefore, it would be of high significance if studies are conducted to investigate the relationship between the EFL students' use of LLSs and their CT ability and also to find out the effect of improving CT among EFL learners on their use of LLSs. To this end, the Strategy Inventory for Language Learning Strategies (SILL) and the Watson-Glaser Critical Thinking Appraisal (WGCTA) were administered among 100 EFL university students. Afterwards, during a fifteen-week period, certain interventions were applied to improve the participants' CT abilities. The findings revealed that there was a statistically significant relationship between the participants' CT abilities and their use of the different LLSs. Moreover, the impact of CT was observed on EFL learners' use of LLSs

EXPERIENCE AND MYSTERY OF THE MARABAR CAVES IN *A PASSAGE TO INDIA*

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Abstract

Adela's visit and Mrs. Moore's experience in the Marabar Caves, what actually happened in the caves and how it affected their mind, and the implications of this significant event - these issues are very crucial to a deeper understanding of E. M. Forster's *A Passage to India*. No one who has entered the caves in *A Passage to India* has escaped untouched. This fate has attended not only Forster's characters but also nearly every critic who has written about this novel.

Several noteworthy evaluations of this novel have been made, but we do not seem to be any nearer the solution than when those two Englishwomen emerged from the darkness of the caves into the sunlight and chaos nearly a century ago.

Those speculations which have been made so far, I believe, are not definitely connected to the real essence of the mystery in the caves. So, in this article I propose to view it from a different angle for the seekers of the mystery of Marabar. Here I want to propose the way which Forster also recognizes that this mystery of human nature is beyond the power of humans, or even gods, to solve. The mystery lies deep within the very soul of man's inner being, and that is where its resolution must take place, if ever it does.

Key Words: Mystery, religion, chaos, vividness, Void

**ASSISTIVE TECHNOLOGY IN HIGHER EDUCATION ENGLISH LANGUAGE
CLASSROOM: PERSPECTIVES AND EXPERIENCES**

Jamila AL SIYABI

Dr. Jamila AL SIYABI

Dr. Victoria TUZLUKOVA

Sultan Qaboos University (Oman)

ABSTRACT

Special needs education has started becoming more prominent in higher education institutions as more learners with diverse learning needs pursue their higher education. In response to that, research on assistive technology is rising where technology is seen as a great asset to the inclusion of learners with diverse impairments in English language classrooms. Large number of studies underscore the role of assistive technology as both a tool and a catalyst for pedagogical change that needs to take place in the context of inclusive English language education, as well as further developments in educational systems and governmental policies worldwide aimed at creating systems of high-quality technology-based language education where students of a wide range of ability feel welcome, and their learning is invigorated. Despite the emphasis on the significance of technology exhibited by substantial research in higher education, there is still a dire need to improve English language practitioners on how to access assistive technology that supports the practice of the inclusive education for the visually impaired. In the context of Oman's tertiary education, inclusive language education is one of strategic directions and priorities together with English language learning and students' communicative skills' enhancement. Language acquisition is understood as a complex cognitive and social process, and therefore assistive technology is used for enhancing English language achievement of students who lack some of its essential aspects. This session explores the impact of assistive technology on possible shifting of practices and perspectives of English language education to being universally accessible, equally usable, more inclusive and tailored to student needs. It specifically looks into how English language teachers perceive the experiences and practices of inclusive language education currently in place at Sultan Qaboos University' Centre for Preparatory Studies with particular focus on significant themes related to integrating assistive technology in the English language classroom.

Key words: assistive technologies, English language classroom, higher education, inclusive education, visually impaired students

DIFFICULTIES FACED BY EFL LEARNER IN LEARNING ENGLISH GRAMMAR

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Difficulties faced by EFL learner in Learning English Grammar-

ABSTRACT

To master a language , it is very important to study its grammar which is one of the most difficult aspect of the language. To master English, it is necessary to know various forms and usages which confuse English as a second/foreign language for EFL/ESL. The appropriateness of an utterance requires a good knowledge of grammar. Learners may learn new grammar rules every day but they find difficulties in applying them when they speak or write in English. This research tires to focus on the grammar topics that college students find challenging. So, it aims at mainly determining easy and difficult grammar topics through learner's perspectives. It also tries to provide some solutions for the students to overcome the difficulties they face.

Keywords- grammar, learning, difficulties, English, solutions.

SOCIAL MEDIA ADDICTION, MORAL VALUES AND MENTAL HEALTH AMONG UNIVERSITY STUDENTS

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ABSTRACT

The purpose of the study was to determine the relationship between social media addiction, moral value and mental health. The study was conducted on university students, from various universities of Lahore. It was hypothesized that there was a significant negative relationship between media addiction and moral value. There was a significant positive relationship between social media and mental health. There was a significant positive relationship between Age and Moral Values. Females are more likely to be more addicted to social media as compared to males. A sample of 200 students was taken through a random sampling technique. Assessment measures used in the study in the study for measuring Social Media Addiction (Sahin, 2008), The Ethics Position Questionnaire (Hans, 1993) and Mental Health Continuum Short form (Keyes, 2012) were used to test the relationship among variables. The data was analyzed through various statistical analysis. The results of person product moment correlation analysis showed that there is a non-significant and negative relationship between social media addiction and moral value. There is a significant and positive relationship between social media and mental health. Results show that there is a likely to be a positive relationship between age and high Moral Value. Moreover, as per results both females and males are addicted to social media. Multiple Hierarchical Regression analysis was conducted to check relation between the variables. The study can help understand the underlying negative consequences of social media usage and how moral values effected by the social media addiction does and what factors affect their mental health.

Keyword:. Social Media Addiction, Moral Values and Mental Health.

ELECTRONIC TRANSLATIONS OF MEXICAN LITERARY WORKS

Tinatin Mshvidobadze

Professor Gori State University(Georgia)

ABSTRACT

Mexican literature is one of the most prolific and influential in Spanish-language literature, along with that of Spain and Argentina.

The article discusses the translations of Mexican literary works as rich narratives, such as: THE “Gringo Champion” by Aura Xilonen, translated by Andrea Rosenberg, “Heavens on Earth” by Carmen Boullosa, translated by Shelby Vincent etc.

More Mexican authors are being translated into English. Translators play an important role in the renaissance of Mexican literature.

This also has to do with the increasing number of online sites (Words Without Borders, Asymptote etc.) that publish reviews, comment and translations of new international writing, before those authors are published in English.

The article contains the translations of Jose Emilio Pacheco, an outstanding writer of 20th century Mexican literature.

Key words: Mexican literary, electronic translations, authors, online sites.

TRANSLATIONS OF MEXICAN LITERARY WORKS

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Mexican literature is one of the most prolific and influential in Spanish-language literature, along with that of Spain and Argentina.

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THE EMOTIONAL UKRAINIAN TRADITIONAL CONCEPT OF «LOVE» IN THE POETRY OF
MYKOLA VINGRANOVSKY

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ABSTRACT

In general, concepts, acting as components of our consciousness, are the subject of studying logic, linguistic and cultural studies, literary studies, cultural studies, etc. In literature, the concept is the interpretation of the surrounding reality by the author, potential to revealing images. With the help of concepts, the national code of a certain people is transmitted, as well as the individual ideas of the author, arising on the basis of artistic associativity.

The emotional concept of «love» belongs to the traditional Ukrainian folklore picture of the world, that reveal meaning of life and the gift of man for good. The concept of «love» in the poetic work of M. Vingranovsky appears in the aspect of support, tender feelings, emotional rapprochement of two people. In some of his works, the author considers the concept of Love as a superior entity. For instance, the poem «It is you? It is you. Thanks...» is about knowledge of the world, fabulous romantic mood, mood surprise.

In the creative work «No One Loves You Like This», Mykola Vingranovsky combines two concepts – «love» and «death». For him, this is an expression of sacrifice. According to the author, love is an aspect that links two people.

Another poem «You, like a path, beloved» begins with a landscape painting, through which the narrator's state of excitement is conveyed. In it the Ukrainian poet and writer admires the unusualness of the youthful worldview and sharpness of impressions.

Consequently, the concept of «love» was depicted by M. Vingranovsky through a lyrical reproduction of the realities of objective and spiritual existence. In his texts, we trace both the Ukrainian folk tradition and the author's worldview.

Keywords: poems of Mykola Vingranovsky, concept, love, folklore, poetic .

CRITICAL SCRUTINY OF FEMALE LEADERSHIP IN MARY BEARD'S *WOMEN AND POWER*

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ABSTRACT

For long time, women have always been considered as the weaker sex in society. She is very often absent in decision-making and are faced with many discriminations .Mary Beard's novel *Women & Power: A Manifesto* exposes the inferiority that society and culture have imposed on women and how modernity has brought many women out of their weak status. The essence of this research work is to show how modernity has given birth to women leaders and how women's leadership impacts women's lives. To achieve my goal, I have used Feminism as literary theory to critically scrutinise the question of **Female leadership** in Mary Beard's under study. It allows to make a thorough exploration of the issue of women's leadership and their rise to power in the book and in the working life. This work thus suggests to consider the female gender and their ability to play at least almost the same roles as men.

Keywords: women, power, leadership, female leadership

**CRITICAL ASSESSMENT OF RELIGION AND HUMAN IN JEANNETTE WINTERSON'S
*ORANGES ARE NOT THE ONLY FRUIT.***

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ABSTRACT

The present study focuses on Religion and Human in Jeanette Winterson's *Oranges Are Not the Only Fruit*. It questions of the impact of Religion on the society and vice versa. To succeed in answering the great concern, I have resorted to New Historicism, psychoanalysis and intertextuality to critically overview the concept of Human and Religion in the novel under study. My discussion reveals mainly that Religion has numerous positive impacts on Human. Moreover, it helps cure many social flaws and plays a prominent role in educating and training people whatever their age, their social rank and profession. But it also shows that Religion's contributions to Human's living conditions' promotion are particularly based on people's social attitudes and faith.

Keywords : Religion, Faith, God, Human, Attitude.

**CRITICAL INTERPRETATION OF ISOLATION IN GEORGE ELIOT'S *SILAS
MARNER***

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ABSTRACT

This paper studies **Isolation** in Victorian Period. It helps to clarify the question of **Isolation** in George Eliot's *Silas Marner*. To this end, I have used New Historicism and psychoanalysis as literary theories to critically interpret the concept of **Isolation** in the novel. This work intends to unravel the main reasons leading to **Isolation** as well as its significance. Ultimately, my analysis has revealed that George Eliot appeals to her fictional work as a strategy to picture the concept of isolation. She also highlights how isolation is a solution for spiritual and social development, and a necessary stage along the way to true community in the Victorian period.

Keywords : Isolation, New Historicism, religion, Victorian period.

SOCIAL APPEARANCE ANXIETY AND PSYCHOLOGICAL DISTRESS AMONG TIKTOK USERS

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Bahauddin Zakariya University, Multan, Pakistan

ABSTRACT

Anxiety and tension that people experience when they are judged by others based on their physical appearance is known as social appearance anxiety. This study aims to investigate the relationship between social appearance anxiety and psychological distress among tiktok users. Further, it also measures the difference among social appearance anxiety and psychological distress in relation to demographic variables. Using purposive sampling technique, data was collected online from 187 tiktok users (age range 15-30 years). Social Appearance Anxiety Scale (Hartel et al., 2008) and Kessler Distress Scale (Kessler, 2001) were combined along with demographics for data collection. Data was analysed using SPSS. Results revealed a significant correlation between social appearance anxiety and psychological distress ($r^2=.63$ $p \leq .001$). Furthermore, regressions analysis showed a significant predictive relationship among social appearance anxiety and psychological distress ($R^2=.420$, $p < .001$). Also the results revealed the substantial role of demographic features like age, gender and socioeconomic status in social appearance anxiety and psychological distress. It is concluded that social appearance anxiety has a worsening effect and leads to psychological distress among tiktokers. Findings would be helpful for psychological counselling experts to design effective intervention and prevention programs by considering social appearance anxiety as a risk factor.

Key words: Social Appearance Anxiety, Psychological Distress, Tiktok Users

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Key words: Social Appearance Anxiety, Psychological Distress, Tiktok Users

***NINSOKU YOSEBA* 人足寄場¹: FROM A REHABILITATIVE TO AN EXPLOITER
INSTITUTION IN EDO JAPAN (1603-1868)**

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ABSTRACT

In Edo Japan (1603-1868), like many other societies, homelessness was a problem due to socio-economic changes and natural disasters. Wandering masterless *samurai* (*rōnin* 浪人) and displaced peasants and townspeople caused insecurity and endangered the social order. Dealing with the problem, *ninsoku yoseba* as an institution for social control and punishment was established in 1790. The goal for the establishment of *ninsoku yoseba* was both a punitive measure for criminals and security measure for innocent homeless or petty offenders to return them to mainstream society by applying reform trainings and skills. Transforming vagrant homeless into skillful workers was the ideal goal of this stockade.

But the institute nature underwent changes in the course of time. Why *ninsoku yoseba* shrank from functioning as a relatively benevolent institution and changed over to a sweatshop?

It seems that the evolution of agricultural economics of pre-modern Japan to mercantilism in Edo era and after Meiji Restoration to capitalism entailed social changes specifically in *ninsoku yoseba* traits.

The rehabilitative aspect of the institution contained moral sermons and job training in accordance with the proposed commutation of the punishments and the substitution of penal servitude for the banishment. Theoretically supported by the Shingaku 心学 doctrines and other scholars, *ninsoku yoseba* was supposed to epitomize “benevolent government” (*jinsei* 仁政) at least in theory. The predominancy of mercantilism and profitability in Edo era substituted job training for servitude in some routine jobs which required no skill. In the wake of deterioration after Meiji Restoration, the pathetic conditions of the hard labor in *ninsoku yoseba* was described as “outright exploitation”, “overt repression” and “mass grievances.” It seems the institute gradually departed from moral and benevolent traits.

By applying comparative-historical method to analyze the historical data and documents the research tries explain this transformation.

Keywords: Edo Japan, *ninsoku yoseba*, Navy’s camp.

**THE ANCIENT EGYPTIAN REFLECTIONS IN THE DILMUNIAN SEALS IN THE
ARABIAN GULF**

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ABSTRACT

The Saudi General Department of Antiquities and Museums in 1988 discovered many seals in Dilmun burials at the so-called the Island "Dilmun" in Arabian Gulf. An Egyptian-style seal was among the finds in the site, with an inscription of the name of the Egyptian kings. The excavation's report neglected studying this scarab, the reason why it existed in these burials, and its purpose. This seal was not the only object representing the Egyptian influence, as it was accompanied by another object that represented Wadjet-eye amulet. The report itself has failed to describe and date these objects.

The significance of this study is clarified by historically contextualising the data in order to identify the function of this scarab. Indeed, due to the purposes of this object in Egypt at the time, was it used as a seal or as a protection amulet? This is considered as it only bears the signs of the name Amun.

In addition, this paper attempted to determine the scarab's date, resulting in dating it to the reign of Ramesses III or his successor at the latest. This reflects the Egyptian presence in the Late Ramesside era, in the northwest of the Arabian Peninsula.

- KEYWORDS

Seals - Dilmun–Arabian Peninsula

ACCORDING TO THE BYZANTINE AND EASTERN CHRISTIAN SOURCES

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ABSTRACT

Modern scholars agree that Christianity found a way to South Arabia before Islam, but the circumstances of its entry did not receive much attention in their studies. The most recent studies focus on the Christian community in Najran at the beginning of the sixth century, and the persecution that it was exposed to at the hands of the Jewish King Yussif Dhū Nawās, for being the most famous incident in the history of Christianity in South Arabia, as well as being the most mentioned in historical sources. In the folds of these studies, source accounts of the entry of Christianity to the region are seldom mentioned. Therefore, this study aims to discuss the various narratives recorded in Byzantine and Eastern Christian sources in an attempt to extract what may indicate the circumstances of the emergence of Christianity in South Arabia.

**THE POPULARITY OF COFFEE AND ITS SPREAD AMONG THE
MECCAN COMMUNITY DURING THE TENTH CENTURY AH /
SIXTEENTH CENTURY AD**

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ABSTRACT

At the beginning of the tenth century AH / sixteenth century AD, a controversy erupted between jurists and scholars about coffee between prohibition and permissibility. Although the number of Hijazi works in this regard is less than their Yemeni, Egyptian and Levantine counterparts, the Hijaz, especially Makkah, was at the heart of this controversy and the center of its launch to Egypt and the Levant during the tenth century AH. It is the crossing point for the coffee drink and its homes to move to the major cities of the Islamic East, such as Cairo and Damascus, and the source of its popularity. Hence, this research comes to try to discuss the different source narratives about the timing and circumstances of the emergence of coffee in Makkah and the degree of its popularity among its society, and how this popularity and the new customs that were associated with the Coffee houses affected .the emergence of debate in the Meccan society in its popular and scientific circles,

**NOSTALGIA AND THE GREAT RETURN IN MILAN KUNDERA'S
WRITING**

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ABSTRACT

The present paper will seek to explore the poetics of nostalgia and the search for identity in Milan Kundera's novel, *Ignorance*. Exposing the inadequacy of the great return in this era of migration and exile, Kundera points out that homeland is a dated and relative concept. Considering national identity a strong European concept, the author questions Europeanness and seeks to prove, through the wanderings of his characters, that the Great Return to one's homeland is no longer a viable solution in a "supranational" Europe. Moreover, I will examine the creative fusion of past and present through the prism of imagination in order to prove that, in the end, one's memory of homeland is a narrative built on selected memories. *Ignorance* becomes, therefore, a pivotal part of remembering.

KEYWORDS: Milan Kundera, *Ignorance*, nostalgia, The Great return, exile.

THE RELATIONS BETWEEN IDIOMS AND LANGUAGE CULTURE IN THE MASS MEDIA SPACE

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ABSTRACT

In recent decades, experts and the general public have constantly stated that the vocabulary and speech of contemporary people is gradually losing its general sophistication and refinement. This is evident in formal and informal speech, at home, in the street, at the workplace, in front of a microphone, camera, in parliament and in other areas of communication. Why is that so? It is perhaps partly a consequence of the "over-technological" world and the related scientific and technical progress and the unlimited increase in the comfort of today's people, which leads to a general laxity and, in the case of language skills, to a noticeable stunting. For example, an elementary school student would rather watch a fairy tale on DVD or the Internet than read it in a book. He has no idea what he loses when he doesn't engage his imagination when reading the text. He loses many thoughts and ideas that mechanical watching of a fairy tale will not provide him. A similar problem arises when the given ideas from the fairy tale are to be formulated into sentences or a plot outline. He remembers the statements of the characters, even entire lines of conversations, but it is more difficult to formulate the plot of the fairy tale in his own words. However, the initial mistake happens earlier, when parents choose similarly simpler solutions with children of preschool age and through various media carriers, tablets, mobile phones, Internet channels, etc. they provide children with fairy tales, videos, music and other forms of distraction, which they even often use as a means of putting children to sleep in the evening. But above all, such a weakening of language and expression skills is also the result of a weak influence on the level of speech culture, on the level of language expression of a person in general. And the media, all forms of media content, certainly have a strong position here. They are a powerful factor in building and refining expressive skills, they go hand in hand with school education, and they are literally a textbook of the mother tongue and a reflection of the society in which we live. Even in adulthood, the media shape expressive skills and the refinement of speech. We do not have to look for one of the possible solutions to the issue of improving the quality of speech in the near or distant future, but on the contrary - we could benefit from the past, from history. An example can also be provided by the current older generation of our population, whose speech is interspersed with eloquent, figurative, dense and juicy phrases or entire sentence constructions. They are specific for their variety and wisdom, which reflects the captured long-term experience of previous generations, their wit and intelligence. We call them phraseologisms/idioms.

Key words: idioms, phraseology, didactics, teaching idioms, literacy

INTERCULTURAL COMPETENCE AND PERFORMANCE IN FOREIGN LANGUAGE TEACHING

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ABSTRACT

Cultural content presented to students within the foreign language classes contributes to the development of a new competence - intercultural competence. Our aim in the theoretical paper is to present the views of experts on the nature of intercultural competence and intercultural dialogue. It is important to emphasize that communicative competence itself is not enough to master conversation in foreign language. Teaching foreign language should become a process which prepares students for communication in multicultural world. When acquiring language skills, it is important to focus on the knowledge of the culture, values and attitudes of the target language culture. The integration of cultural competence is necessary not only in foreign language teaching but also in the curricula and education of future teachers of foreign languages.

We try to improve the situation in Slovakia by changing curricula in several subjects, e.g., Civic Education, Ethics, Geography, etc.) The researches show that the main focus in foreign language teaching at basic and secondary schools is almost exclusively on grammatical and lexical competence. The integration of cultural content into foreign language teaching and the development of intercultural communicative competence is secondary. This has to be changed. It can be achieved by the selection and structuring of cultural content which can be presented to students during foreign language classes so it can become the precondition for successful intercultural communication. Teaching a foreign language cannot be separated from teaching the target language culture. In the rapidly changing world of the 21st century nothing is more important. To perceive and understand each other on the background of our cultures means to be an interculturally competent person.

Keywords: foreign language, teaching languages, cultural content, intercultural competence, Common European Framework for Languages

SIGNIFICANT CHANGES IN MARKETING COMMUNICATION AND CONSUMER MOVEMENTS IN THE SPORTS INDUSTRY

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ABSTRACT

Sport is an irreplaceable phenomenon that plays an important role in modern society. It represents a way of spending free time, relaxation, fun and a healthy lifestyle. And so, as in other industries, it is necessary to use the means of marketing communication promoting various sports centres or sports clubs. In recent years they have understood that without appropriate promotion there will not be any financial resources necessary for the operation of sports activities. Moreover, especially they will not have customers who can contribute in a very significant way to the positive development of the sports facility. It is therefore very important that they know how to properly promote their activity, the products and services they offer, as well as build a positive image in the eyes of the public, or increase their position on the market. And these are the reasons why marketing and marketing communication play an irreplaceable role in sports. Due to the influence of new technologies that continuously push marketing forward, the Internet environment is also developing, and with it also the purchasing behaviour of consumers. The rapid onset of digitization and the COVID-19 pandemic also affected the sports industry. The paper points out the most significant trends in marketing and changes in marketing communication, which in recent years have led to a large increase in the use of online tools. Its concept consists in a set of online marketing tools, or channels, which are compiled in such a way as to comprehensively cover the needs of the company in accordance with its strategy. They therefore represent a suitable means of influencing consumer behaviour and communication towards potential and current customers in the sports industry.

Keywords: Marketing and its trends, digital marketing, marketing communication, online communication, COVID-19, sports industry.

WAYS TO REPRESENT KNOWLEDGE OF THE WORLD

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ABSTRACT

One of the objects of research in modern science is human thinking. Philosophers, psychologists, physiologists, mathematicians and linguists conducted a number of studies aimed at creating artificial intelligence, the purpose of which was to establish how the process of information perception, its processing, storage, transformation and structuring takes place. Due to these studies, a science has emerged that combines different approaches to the study of human thinking – cognitive science or cogitology.

Basic notions of cognitive linguistics are world perception and its reflection in the conceptual and language images of the world, categorization, mental lexicon, concept, information procession channels, knowledge and its representation and some others.

For linguistics, work with knowledge, which underlies the modern period of development of artificial intellect is of greater interest. The structure of this direction involves such stages as the extraction of knowledge from various sources, methods of representing knowledge (semantic networks, frames, logical systems, etc.), knowledge representation systems, knowledge bases, etc.

Knowledge of the world can be "primitive," obtained using perceptual information channels (orientation in space, smell, color, form, etc.), arising from human social activities and transmitted through communication channels from generation to generation, as well as purely individual, inherent in each language personality.

Of all the methods and models known to us for representing knowledge developed by scientists, such models as figurative-conceptual, production, schematic, metaphorical, metonymic, structural, semantic networks, proposition, frame deserve attention.

Keywords: Cognitive linguistics, Knowledge, Knowledge representation systems

BURNOUT, JOB SATISFACTION AND SUBJECTIVE WELL-BEING IN TEACHERS WORKING IN SPECIAL EDUCATION AND GENERAL EDUCATION SCHOOLS

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ABSTRACT

Objective: The purpose of present study was to explore burnout, job satisfaction and subjective well-being in school teachers including teachers working in special education schools system and general education schools system. After extensive literature review following hypothesis were formulated, **Hypotheses.** 1). There would be a significant correlation of job satisfaction, subjective well-being and burnout in school teachers (including special education and general education school teachers). 2). There would be significant difference of job satisfaction, subjective well-being and burnout among special education and general school teachers. 3). There would be significant difference of job satisfaction, subjective well-being and burnout between male and female school teachers (including special education and general education school teachers). 4). Age differences would exhibit significant differences on burnout, wellbeing and job satisfaction in special education and general education school teachers. **Sample:** Sample of this study was consisted of total 280 school teachers including 140 male and female teachers from special education schools and 140 male and female teachers from general education schools. Data was collected from different schools including special education and general education schools located in Lahore, Lahore-Pakistan through convenient sampling methods. **Measures:** In the current study ICP subjective well-being scale by (Moghal, & Khanum, 2013); job satisfaction scale (Spector, 1985) and Oldenburg Burnout Inventory (Demerouti & Bakker, 2008) were used. Pearson correlation, analysis of variance (ANOVA) and independent sample T-Test were used to calculate the results. **Results:** our first, third and fourth hypotheses of this study were partially approved ($P < 0.05$) while the second hypothesis of the study does not approved completely ($P > 0.05$). All the detail discussed in the discussion chapter.

Key words: Burnout, Job satisfaction and Subjective well-being, Special education

**THE CHARACTERIZATION OF MENTAL HEALTH IN TRANSGENDERS
ACROSS LIFE SPAN**

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ABSTRACT

To study the examined the association of characterization of mental health in transgenders across life span. Correlation research design was used. Total sample was 300 between ages 16 to 50. Warwick Edinburgh Mental Health Well Being Scale (WEMWBS), Depression Anxiety Stress Scale (DASS), Brief Resilience Scale (BRS), Adult Hope Scale (AHS) and Multidimensional Scale Perceived Social Support (MSPSS) were used as measurement tools. Significant positive correlation of family system ($p < .001$), income ($p < .00$), age category ($p < .001$), Brief resilience ($p < .000$), Mental health wellbeing ($p < .002$). It indicated that age category, family system and income affect the mental health of transgenders. The present study investigated that there is negative relationship between resilience and mental health wellbeing and also negative correlation between resilience and DASS. The current study also investigated that there is positive relationship between resilience and Adult hope and significant positive relationship between mental health and social support. This present study explores that transgenders have mental health problems because they don't receive family support as well as society also doesn't accept them. This leads them to increase in mental health problems across their lifespan. Results suggest transgenders have mental health problems. They need to cope with problems.

Key Words: Mental health, Characterization; Transgenders, Life span

**STUDY ON DETERMINANT FACTORS OF WORK ENGAGEMENT ON
KINDERGARTEN TEACHERS IN ALBANIA**

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ABSTRACT

The purpose of this study is to evaluate the level of work engagement and to examine the factors that affect the work engagement on Albanian kindergarten teachers. In the case of Albanian kindergarten teachers, the work engagement depend by the determining factors of energy, dedication and absorption. Their work engagement is evaluated at the "moderate" level. Demographic features, age, work experience, civil status and family status, of kindergarten teachers have statistically significant effects in their work engagement. The increase in age and seniority at work as kindergarten teachers are accompanied by an increase in their level of work engagement. Kindergarten teachers who are mothers with children are more engaged in work. The work engagement of kindergarten teacher not depend by propriety status of kindergarten, public or private and the residential area, urban or rural areas

Keywords: Kindergarten teacher, Work engagement, Demographic feature, Social and economic factors, Albania

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Keywords: Kindergarten teacher, Work engagement, Demographic feature, Social and economic factors, Albania

**DISCRIMINATORY ETHNIC PROFILES. THE CHALLENGES OF
DIVERSITY**

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ABSTRACT

The present work aims to highlight the way minorities or minority groups are perceived, the discriminations that can appear in society and the favoritism factors, as well as the way in which discriminatory ethnic profiles can appear. The theoretical perspectives emphasize from three different points of view: symbolic interactionism, functionalism and conflict theory how discrimination occurs and the factors favoring it. Researches emphasize the fact that encouraging cultural pluralism can be a form of preventing ethnic and racial discrimination in fact which is a concern of contemporary social policy.

Keywords: ethnic profiles, discrimination, ethnicities, minority groups, races

ANALYSIS OF MARKETING STRATEGY FOR PORT COMPETITIVENESS IN INDONESIA UNDER CONTAINER SHIPPING DYNAMICS

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ABSTRACT

The phenomenon of economic globalisation and dynamic maritime environment have affected port business and they are substantially changing the business environment in which large-scale container trade growth is being facilitated. Port managers are now challenged to redefine their marketing strategy in order to enhance customer value, achieve sustainable growth for the company and retain a competitive edge. In this paper will illustrate the dynamic features of port users, discuss the port competition strategy and analyse the marketing strategic for port business under transition phases. We develop such marketing approach to the effectiveness of the marketing strategies implemented by the company. The findings in this paper could prove to be of importance for policy and marketing alike in designing the most appropriate business conditions in order to increased customer satisfaction because customers are not only looking for the service excellence but also trying to gain the company's care and engagement.

Keywords : Port Competition, Marketing Strategy, Indonesia Port

HOSPITALITY IN DIFFERENT CULTURES

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ABSTRACT

While cultures all over the world can be regarded as unique and different, we could say there is one common value in all of them: hospitality. Welcoming guests is a universal aspect all over the world. Throughout history, various rituals have been created and practiced with respect to welcoming guests and travelers.

The present paper will go through the rituals that are practiced for welcoming guests, such as serving coffee and tea, in order to find what common rituals can be found, in which area of the world, afterwards proceeding to answer the question “Why this ritual in this culture?” A question that follows would be “What are the specific traits of a certain culture that lead to having such rituals?” Features of cultures that will be checked will be Hofstede’s cultural dimensions, such as power distance, individualism vs collectivism, femininity vs masculinity, indulgence vs restraint, long term vs short term orientation, high vs low uncertainty avoidance. Other features examined will be those related to communication type, such as direct or indirect communication. Direct communication cultures say exactly what they mean, including “no” when they mean “no”, while indirect communication cultures may say “yes” when they mean “no”, however hinting through pauses and hesitations that they mean “no”. Strong background cultural knowledge is required for an outsider to understand what is meant in indirect communication cultures. Some rituals required of guests can have to do with direct vs indirect communication cultures, since in some cultures guests are required, in order to be polite, either to accept food offered right away and eat it all, or at first deny then accept and in some cases leave some food on the plate.

Keywords: Politeness, Culture Dimensions, Western Cultures, Asian Cultures, Communication

ÖĞRETMENLERİN DRAMA UYGULAMA YETERLİK ALGILARININ BELİRLENMESİ

DETERMINING TEACHERS' DRAMA APPLICATION PERCEPTIONS

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ÖZET

Drama, 1980li yıllardan bu yana ülkemizde eğitim sisteminde yer almaya başlamıştır. Eğitimsel anlamda drama, eğitim etkinliklerinde kazanımları gerçekleştirmek için kullanılan bir teknik ya da araçtır. Çocukların yaparak yaşayarak öğrenmelerine imkân tanıyan, çocukları aktif kılan ve eğlenceli öğrenme deneyimleri sunan drama yöntemi öğretim sürecinde tercih edilen yöntemlerden biridir. Drama, birçok farklı branşta ve farklı kademelerde görev yapan öğretmenlerin tercih ettiği bir yöntemdir. Bu bağlamda öğretmenlerin kendilerini drama konusunda yeterli görüp görmedikleri araştırılmaya değer bir konu olarak görülmektedir. Bu doğrultuda araştırmanın amacı öğretmenlerin drama uygulama yeterlik algılarını belirlemektir. Bu genel amacın yanında öğretmenlerin algılarının cinsiyete, kıdeme, mezun olunan fakülteye, görev yapılan okulun kademesine ve drama eğitimi alma durumlarına göre farklılık gösterip göstermediği de incelenmiştir. Araştırmanın evreni Orta Karadeniz Bölgesindeki bir ilin merkezinde görev yapan öğretmenlerdir. Çalışma grubu amaçlı örneklem seçme yöntemlerinden maksimum çeşitlilik örnekleme yöntemi ile seçilmiştir. Çalışmada maksimum çeşitliliği sağlayabilmek için, okul öncesi, ilkökul, ortaokul ve lisede görev yapan 181 öğretmen çalışmaya dahil edilmiştir. Öğretmenlerin drama uygulama yeterlik algılarının belirlenmesinde Karadağ, Çalışkan, Korkmaz ve Yüksel (2008) tarafından geliştirilen “Drama Lideri Olarak Öğretmen ve Eğitimsel Drama Uygulama Yeterliği Ölçeği” kullanılmıştır. Ölçek üç alt boyuttan oluşmaktadır. Birinci alt boyut olan “Dramayı planlama yeterliği” 6 madde; ikinci boyut olan “Dramayı gerçekleştirme yeterliği” 18 madde ve üçüncü boyut olan “Dramayı değerlendirme yeterliği” 6 madde olmak üzere ölçekte toplam 30 madde bulunmaktadır. Beşli Likert türünde hazırlanan ölçek, Her zaman; Çoğu zaman; Ara sıra; Nadiren; Hiçbir zaman olarak cevaplanmaktadır. Araştırma kapsamında toplanan veriler betimsel istatistik yöntemleri ile analiz edilmiştir. Veriler normal dağılım göstermediği için non-parametrik analiz teknikleri kullanılmıştır. Yapılan analizler sonucunda öğretmenler drama sürecini gerçekleştirme ve değerlendirme boyutlarında kendilerini “çoğu zaman” yeterli bulurken, planlama boyutunda kendilerini “ara sıra” yeterli bulmaktadır. Çalışmada elde edilen sonuçlardan biri de öğretmenlerin bu algılarının cinsiyet, kıdem ve mezun olunan fakülteye göre değişmediğidir. Bunun yanında öğretmenlerin drama uygulama yeterlik algıları öğretmenlerin görev yaptığı okulun kademesine ve drama eğitimi alma durumuna göre farklılaşmaktadır. Okul öncesi öğretmenlerin yeterlik algıları dramayı planlama, gerçekleştirme ve değerlendirme boyutlarında ilkökul, ortaokul ve lise öğretmenlerine göre daha yüksektir. İlkokul öğretmenlerinin drama uygulama yeterlik algıları ise dramayı planlama ve drama sürecini gerçekleştirme boyutlarında ortaokul ve lise öğretmenlerine göre daha yüksek düzeydedir. Drama eğitimi alan öğretmenlerin drama yeterlik algıları almayanlara göre daha yüksektir. Okul öncesi ve ilkökul öğretmenlerinin yeterlik algılarının diğer kademelerdeki öğretmenlere göre daha yüksek olması öğretmenlerin

çalıştıkları yaş grubu dikkate alındığında bu yaş gurubu öğrencilerle drama etkinliklere daha fazla yer verilmesinden kaynaklanmış olabilir.

Anahtar Kelimeler: Drama, öğretmen, yeterlilik algısı.

ABSTRACT

Drama has started to take place in the education system in our country since the 1980s. In educational sense, drama is a technique or tool used to realize the gains in educational activities. The drama method, which allows children to learn by doing, makes them active and offers fun learning experiences, is one of the preferred methods in the teaching process. Drama is a method preferred by teachers working in many different branches and at different levels. In this context, it is seen as a subject worth investigating whether the teachers consider themselves competent in drama. In this direction, the aim of the research is to determine the teachers' perceptions of drama practice efficacy. In addition to this general purpose, it has also been examined whether the perceptions of teachers differ according to gender, seniority, graduated faculty, the level of the school they work at, and their status of receiving drama education. The universe of the research is the teachers working in the center of a province in the Central Black Sea Region. The study group was selected with the maximum variation sampling method, one of the purposeful sampling methods. In order to provide maximum diversity in the study, 181 teachers working in pre-school, primary school, secondary school and high school were included in the study. The "Teacher as a Drama Leader and Educational Drama Application Competence Scale" developed by Karadağ, Çalışkan, Korkmaz and Yüksel (2008) was used to determine the teachers' perceptions of drama practice efficacy. The scale consists of three sub-dimensions. The first sub-dimension "Drama planning competence" consists of 6 items; There are a total of 30 items in the scale, the second dimension of which is "Efficacy to realize the drama" 18 items and the third dimension "The competency to evaluate the drama" is 6 items. The scale prepared in five-point Likert type, Always; Most of the time; Sometimes; Rarely; It is never answered. The data collected within the scope of the research were analyzed with descriptive statistical methods. Since the data did not show normal distribution, non-parametric analysis techniques were used. As a result of the analyses, while the teachers find themselves sufficient "most of the time" in the dimensions of realizing and evaluating the drama process, they find themselves "occasionally" sufficient in the planning dimension. One of the results obtained in the study is that these perceptions of teachers do not change according to gender, seniority and graduated faculty. In addition, teachers' perceptions of drama practice proficiency differ according to the level of the school where the teachers work and the status of receiving drama education. Preschool teachers' efficacy perceptions are higher than primary, secondary and high school teachers in planning, realizing and evaluating drama. Primary school teachers' drama practice efficacy perceptions are higher than secondary and high school teachers in terms of planning drama and realizing the drama process. The perception of drama efficacy of the teachers who receive drama education is higher than those who do not. The fact that the efficacy perceptions of preschool and primary school teachers are higher than those of teachers at other levels may be due to the fact that drama activities are given more space with students in this age group, considering the age group the teachers work for.

Keywords: Drama, teacher, perception of competence.

OKUL ÖNCESİ EĞİTİM PROGRAMLARI DERSİNİ ALAN ÖĞRENCİLERİN BU DERSE YÖNELİK GÖRÜŞLERİ

THE OPINIONS OF THE STUDENTS TAKING THE PRESCHOOL EDUCATION PROGRAMS
ON THIS COURSE

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ÖZET

Bu araştırmanın amacı okul öncesi eğitim programları dersini alan öğrencilerin bu derse yönelik görüşlerini incelemektir. Araştırmanın nitel araştırma olarak tasarlanmış olup olgubilim deseninde yürütülmüştür. Araştırmanın evreni bir devlet üniversitesinin sağlık bilimleri fakültesinde çocuk gelişimi bölümünde öğrenim gören öğrencilerdir. Bu öğrencilerden amaçlı örnekleme yöntemlerinden biri olan ölçüt örnekleme yoluyla öğrenciler seçilmiştir. Bu ölçütleri karşılayan 69 öğrenci araştırmaya dahil edilmiştir. Ancak öğrencilerin bazıları sorulan sorulara eksik cevap vermiş, bazıları ise hiç cevap vermediği için araştırmaya katılmamıştır. Bu nedenle araştırmada 41 öğrencinin verdiği cevaplar incelenmiştir. Katılımcıların 36'sı kadın (%88), 5'i erkektir (%12). Katılımcıların 32'si (%78) Anadolu Lisesi; 3'ü (%7) İmam Hatip Lisesi; 2'si (%5) Mesleki ve Teknik Anadolu Lisesi; 2'si (%5) Kız Lisesi ve 2'si (%5) Sosyal bilimler Lisesi mezunudur. Araştırmanın verileri araştırmacı tarafından hazırlanan anket ile toplanmıştır. Anket, araştırmanın amacı doğrultusunda dört açık uçlu sorudan oluşmaktadır. Bu soruların uzman görüşü alındıktan sonra uygulanmıştır. Açık uçlu sorulardan ve kişisel bilgilere ait sorulardan oluşan anket Google form olarak tasarlanmış ve online olarak öğrencilere gönderilmiş ve öğrencilerin soruları cevaplamaları istenmiştir. Kişisel bilgiler ile ilgili veriler betimsel analiz ile incelenmiştir. Öğrencilerin açık uçlu sorulara verdikleri cevaplar ise içerik analizi ile incelenmiştir. Okul öncesi eğitim programları dersini alan öğrencilerin bu derse yönelik görüşlerinin incelendiği bu araştırmada genel olarak öğrencilerin dersin hem teorik hem de uygulama bölümü ile ilgili olumlu görüşlere sahip oldukları ortaya çıkmıştır. Dersin teorik kısmı ile ilgili olarak teorik olarak verilen konuların özellikle dersin uygulaması için temel oluşturduğu, yeterli olduğu, verimli geçtiği, öğretici ve eğlenceli olduğu yönünde görüşleri olduğu belirlenmiştir. Dersin uygulama kısmında özellikle dersin teorik kısmında öğrendikleri bilgileri uygulama fırsatı buldukları, yapılan uygulamaların öğrencilerin çocuk gelişimi mesleği için gerekli becerileri kazandırdığı ve mesleki gelişime katkı sağladığı, yararlı, eğlenceli olduğu belirlenmiştir. Dersin uygulaması ile ilgili katılımcıların çoğu herhangi bir sorun yaşamazken, bazı öğrenciler okul öncesi öğretmenin olumsuz tutumunun sorun yarattığını belirtmişlerdir. Bunun yanında az da olsa yeni etkinlik bulma, materyal eksikliği, idare ve öğrenciler ile de bazı sorunlar yaşandığı belirlenmiştir. Katılımcılar okul öncesi eğitim programları dersinin yürütülmesi ve niteliğinin artırılması için özellikle uygulama süresinin yarım günden tam güne ya da haftada bir günden birkaç güne çıkarılmasını, uygulama günlerinden sonra deneyimlerin paylaşılması için belli aralıklarla toplantılar yapılmasını, özel okul ya da köy okullarında da uygulama yapılmasına fırsat tanınmasını önermişlerdir.

Anahtar Kelimeler: Okul Öncesi Eğitim Programı, Olgubilim, Öğrenci Görüşü.

ABSTRACT

The aim of this research is to examine the opinions of the students who take the preschool curriculum course about this course. The research was designed as a qualitative research and was carried out in a phenomenological pattern. The universe of the research is the students studying in the child development department of the health sciences faculty of a state university. Among these students, students were selected through criterion sampling, which is one of the purposive sampling methods. 69 students who met these criteria were included in the study. However, some of the students gave incomplete answers to the questions asked, and some did not participate in the research because they did not answer at all. For this reason, the answers given by 41 students were examined in the study. Thirty-six (88%) of the participants were female and 5 were male (12%). 32 (78%) of the participants were Anatolian High School; 3 (7%) Imam Hatip High Schools; 2 (5%) Vocational and Technical Anatolian High Schools; 2 (5%) of them graduated from Girls' High School and 2 (5%) of them were graduated from Social Sciences High School. The data of the study were collected by a questionnaire prepared by the researcher. The questionnaire consists of four open-ended questions in line with the purpose of the research. This question was applied after receiving expert opinion. The questionnaire, consisting of open-ended questions and questions about personal information, was designed as a Google form and sent to the students online, and the students were asked to answer the questions. Data related to personal information were analyzed with descriptive analysis. The answers given by the students to the open-ended questions were analyzed by content analysis. In this study, in which the opinions of the students who took the pre-school curriculum course were examined, it was revealed that the students generally had positive views about both the theoretical and practical parts of the course. It has been determined that the theoretical topics related to the theoretical part of the course are especially the basis for the application of the course, it is sufficient, productive, instructive and entertaining. In the practical part of the course, it was determined that they had the opportunity to apply the knowledge they learned especially in the theoretical part of the course, that the applications made the students gain the necessary skills for the child development profession and contributed to the professional development, were useful and fun. While most of the participants did not experience any problems regarding the implementation of the course, some students stated that the negative attitude of the preschool teacher caused a problem. In addition, it has been determined that there are some problems with finding new activities, lack of materials, administration and students, albeit a little. Participants suggested that the implementation period should be increased from half a day to a full day or from one day a week to a few days in order to increase the quality and conduct of the pre-school education programs, to hold meetings at regular intervals to share experiences after the practice days, and to provide an opportunity to practice in private or village schools. .

Keywords: Preschool curriculum, Phenomenology, Student View.

A STUDY OF HYBRID LSB-MSB AND OTHER STEGANOGRAPHY TECHNIQUES USED FOR INFORMATION HIDING

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ABSTRACT

Information hiding has acknowledged considerable attention for years as information security received much attention in this internet era. The sharing of confidential information via modern communication channel has become unavoidable, Steganography is the information hiding art and science gaining much more attention. Today's modern world is surrounded with secret communication, where people of all kinds are transferring information as innocent as an encoded credit card number to an online-store and as insidious as a terrorist plot to hijackers. Steganography is a skill where modern data compression, information theory, spread spectrum, and cryptography technologies are conveyed together to satisfy the requirement for confidentiality on the Internet. This paper is an effort to analyse the Hybrid LSB-MSB and other techniques used in steganography and to identify parts in which these techniques can be applied, so that they can be at great benefit to human race at large.

Keywords: Stego-image, cover image, information hiding, least significant bit, most significant bit.

EFFECT OF BANANA LEAVE ASH ON THE MICRO, PHYSICAL, AND MECHANICAL PROPERTIES OF CEMENT PASTE AND CONCRETE

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ABSTRACT

Concrete is most widely used construction material due to its good compressive strength and durability. The increasing demand in cement as constituent of concrete has inspired researchers in both developed and developing countries around the world to explore and consider alternative materials as partial replacement of cement both in concrete and in mortar. Banana Leaves Ash (BLA) was used as partial replacement of cement in concrete. Microanalysis inform of Fourier Transform Infrared Spectroscopy (FTIR) and X-Ray Diffraction Analysis (XRD) was carried out on the powdered BLA and the lateritic soil and its oxide composition using X-Ray Fluorescence (XRF). The FTIR of the hydrated banana leave ash and cement was also carried out after 28 days of curing. Concrete cubes were produced using various replacement levels of 0, 5, 10, 15 and 20 percent of Ordinary Portland cement (OPC) with BLA. A total of 45 cubes of size 100 x 100 x 100 mm were produced and cured by immersing in water for 7, 14, and 28 days respectively. Properties such as density, aggregate impact value, aggregate crushing value, standard consistency, sieve analysis, specific gravity, soundness, slump test, and compressive strength were determined. The XRD microanalysis test shows the presence of calcite, quartz, Sylvite and Magantite at 56 %, 25 %, 13 % and 6 %. XRF chemical composition results shows BLA of SiO₂ at 27.37 %, Al₂O₃ of 2.21 % and Fe₂O₃ of 1.41 %. This compounds it is pozzolanic. BLA was acting as a retarder as it delays the initial and final setting time of OPC Grade 42.5 at 15 and 20%. All other preliminary test met the requirement. The target grade of 15 N/mm² was achieved at replacement of up to 5 % for the compressive strength.

Keywords: Banana Leave Ash, Fourier Transform Infrared Spectroscopy (FTIR), Ray Diffraction Analysis (XRD), X-Ray Fluorescence (XRF), Compressive strength

MODIFICATION OF LATERITIC SOIL BANANA LEAVES ASH

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ABSTRACT

High cost of building materials has been the bane of construction industry in the country leading to the growing awareness in research on local materials and its modification as alternatives for the construction of functional but low-cost dwellings both in the urban and rural areas. Crystalline phase identification in form of X-Ray Diffraction (XRD) was carried out on the Banana Leave Ash (BLA) and the lateritic soil and its oxide composition using X-Ray Fluorescence (XRF). Engineering characteristics and classification of the lateritic soil sample and lateritic soil sample with modifiers were determined in 2 %, 4 %, 6 % and 8 % by weight of the lateritic soil in accordance with BS1377. The XRD shows that the BLA contains calcite, quartz, sylvite and magnetite which are 56 %, 25 %, 13 % and 6 % respectively. While that of laterite shows that it contains kaolinite, quartz and Hematite with 70 %, 27 % and 3 % respectively. The XRF shows that the BLA contain SiO₂ at 27.37 %, Al₂O₃ of 2.21 % and Fe₂O₃ of 1.41 %. The result of the particle grain size passing through the sieve No .0.075 and 0.45 are 66.5 % and 80.3 %, this implies that it is silty-clay (USCS) and A-7-5(8) (AASHTO). The Atterberg limit test shows the lateritic soil is high and medium plasticity. The natural soil has moisture content and the maximum dry density of 19.2 % and 1.68 Mg/m³. The optimum moisture content increases with increase in the modifiers content, ranging from 18.6 % -23.5 % for the BLA and laterite mix. While maximum dry density decreases with increases in the modifiers ranging from 1.63 Mg/m³ to 1.68 Mg/m³ for BLA.

Keywords: Lateritic Soil, Banana Leave Ash (BLA), X-Ray Diffraction (XRD), X-Ray Fluorescence (XRF)

ANALYSIS OF EXISTING DESIGNS OF SEEDING MACHINES

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ABSTRACT

A huge number of machines with various operating principles and devices are used in agriculture. Seeders are distinguished by a variety of principles of action, structures, and working bodies; therefore, identifying the advantages and features of structures, directions of development, as well as principles of action, is an urgent task. In modern agro-industrial production, a high level of mechanization of ongoing processes prevails. The materials of the article show the relevance of work to improve the designs and increase the efficiency of sowing machines. An overview of existing sowing complexes is given, as well as a classification of sowing machines is presented, and an analysis of the merits of the presented designs is carried out.

The study is funded by the Science Committee of the Ministry of Education and Science of the Republic of Kazakhstan (grant No. AP14869252 "Development of the universal sowing complex with increased productivity for the agro-industrial production of the Republic of Kazakhstan").

Keywords: sowing complex, seeder, technological process, design, working process.

INVESTIGATION OF THERMAL ENERGY ACCUMULATION USING SOIL LAYER FOR BUILDINGS' ENERGY EFFICIENCY

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ABSTRACT

cold climate countries require high energy consumption for buildings' heating. According to EU directives and national law, buildings' energy efficiency is increasing due to higher investment in the sector. Primary energy consumption for space heating still comprises a large part of global energy consumption. It is essential to develop technological solutions and innovations to reduce energy consumption by using newer, smarter, more natural energy generation and accumulation. The soil layer could be used as a natural material for thermal energy accumulation. The soil's temperature is higher than atmospheric air in the heating season and is lower in the non-heating season. Underground buildings placed in a soil medium could use less thermal energy for buildings' heating and cooling during its life cycle. The impact of the wind is eliminated in this underground building case. As the soil temperature rises, the difference in temperature of the buildings inside air and the soil decreases. This means that the heat loss into the soil generates the conditions acting against the heat loss. However, heat spreads further and dissipates in the surrounding soil medium. The analysis of this research results showed that the savings in energy could reach 28 percent in the case of the underground building. Heat loss to the soil could be treated as the charge of the soil by thermal energy. The charging by heat and heat dissipation in the soil was researched experimentally. The dependence of the intensity of the charge on time was analysed and presented in this paper also.

Keywords: underground building; soil; temperature profile; heat charge and accumulation; heating and cooling; building energy demand

ДЕФЕКТЫ В УЗЛАХ МАНСАРДНОГО ЭТАЖА

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ABSTRACT

Одной из основных проблем, имеющей свое начало еще на стадии строительства дома, является то, что потенциальный застройщик не обращает внимания на то, что мансардная крыша – это не совсем обычная конструкция, которая должна выполнять не только функции крыши, но и располагать к комфортной жизни в помещении. Чтобы выполнялись оба условия, необходимо понимать суть конструкции, а так же нюансы процессов ее монтажа.

COMPUTER SCIENCE

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ABSTRACT

INTRODUCTION:

Computer Science is the study of computers and computational systems. Unlike electrical and computer engineers, computer scientists deal mostly with software and software systems; this includes their theory, design, development, and application.

Principal areas of study within Computer Science include artificial intelligence, computer systems and networks, security, database systems, human computer interaction, vision and graphics, numerical analysis, programming languages, software engineering, bioinformatics and theory of computing.

- Father of computer science is **CHARLES BABBAGE**.

HISTORY:

The **history of computer science** began long before the modern discipline of computer science, usually appearing in forms like mathematics or physics. Developments in previous centuries alluded to the discipline that we now know as computer science.^[1] This progression, from mechanical inventions and mathematical theories towards modern computer concepts and machines, led to the development of a major academic field, massive technological advancement across the Western world, and the basis of a massive worldwide trade and culture.

IBM's role in the birth of computer science began with an awkward meeting between two starkly different individuals. One of them, IBM Chief Executive Thomas J. Watson Sr., the son of a farmer and lumber dealer who grew up near remote Painted Post, NY, only graduated from high school. The other, Benjamin Wood, was a professor at Columbia University and head of the university's Bureau of Collegiate Educational Research.

FUTURE/SCOPE OF COMPUTER SCIENCE:

Computer Science is a popular and exciting subject that emphasizes the core elements of computer programming, networking, and futuristic technology. Aspirants all across India and abroad opt for a degree program in Computer Science at either undergraduate or post-graduate level. CS inculcates information system management through knowledge, design ideation, and IT development.

Automation, Machine Learning, Artificial Intelligence, and digital platforms are some of the recent advancements in the world that have refined the scope of computer science. This has marked the beginning of a seismic shift, further generating numerous opportunities in computer science to bridge the gap between humans and machines.

PATIENT RISK IDENTIFICATION USING MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE

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ABSTRACT

According to WHO, 1 among 4 people in the world will be affected by mental or neurological disorders at some point in their lives. Inappropriate diagnosis of mental health leads to wrong treatment and sometimes premature death. Considering US alone, around 12 million people are diagnosed incorrectly per year. The diagnosis of Mental Health in most of the cases depends on Psychiatrists interrogating a patient by asking a set of questions and interpreting the answers. This task in certain cases depends on the experience, intuition and quite a trail and basis method. The severity of Mental Disorders is noteworthy which in few cases leads to acute depression, hypertension and leading even towards suicides. About 8, 00,000 people commit suicide worldwide every year, of these 1, 35,000(17 %) are from India alone, a nation with 17.5% of world's population.

Existing machine learning approaches has made attempts to predict the quality of sleep, sleep disorders, bipolar disorder, hyper-tension, stress levels and other mental diseases. However, each with its own limitations and state-of-the art comprehensive generalized machine learning models are still in evolution and presents a wider scope for researchers to look into this interesting area of research. The objectives of this research review paper are to serve as a guideline for researchers who are new to machine learning area and want to contribute to it. It provides state-of-the-art survey of machine learning and application of machine learning techniques in the health prediction. It also provides further research directions required into health prediction system using machine learning.

Keywords: machine learning, mental or neurological disorders, health prediction

RAPID IDENTIFICATION OF VAGINAL INFECTION BY USING *IN SITU* HYBRIDIZATION

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ABSTRACT

The diagnosis and treatment of infections depends on the identification of the pathogen causing the disease. For this, several techniques could be used, including the culture of a vaginal exudate sample that needs several days to obtain results. There is also the characterization of the specific pathogen of that infection using PCR, such determination is laborious and costly and not all laboratories have the personnel and material to carry it out. The Fluorescence in situ Hybridization (FISH) is currently being used for rapid detection of bacterial infections in human medicine. This technique consists of the specific union of fluorescent nucleic acid probes with complementary DNA sequences of the microorganism (16S ribosomal RNA for bacteria and 18S for fungi). Here, we will present the advantage of FISH technique in detection of vaginal infections.

Keywords: Fluorescence in situ Hybridization (FISH), Pathogen disease, RNA, Vaginal infections

SALAL - THIOSEMICAZONE COMPLEXES OF RUTHENIUM(II): SYNTHESIS AND CHARACTERIZATION

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ABSTRACT

Studies on thiosemicarbazones are of important class of ligands which possesses various optical, antibacterial, antifungal, anticancer activities, etc. Incorporation of these bioactive ligands into the active metals, resulting in the synthesis of new bioactive compounds. With this information in mind, we herein prepared the new End substituted thiosemicarbazone ligand in ethanol solvent by adding ethoxy salicylaldehyde solution into phenyl thiosemicarbazone solution. The ruthenium(II) complexes was prepared with the newly synthesized ligand. The new ligand along with the ruthenium complexes were characterized and the resulting investigation reveals the octahedral geometry of the complexes. These hetero atom containing complexes may act as bioactive compound to inhibit the activity of bacteria and viruses.

Key words: Ruthenium, Thiosemicarbazone, Antimicrobial, Anticancer

**INFLUENCE OF OTME-INDUSTRY PARTNERSHIP ON SUSTAINABLE NATIONAL
DEVELOPMENT AS PERCEIVED BY LECTURERS IN FEDERAL COLLEGE OF
EDUCATION (TECHNICAL) AKOKA, YABA, LAGOS STATE**

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ABSTRACT

The study was poised to examine influence of OTME-industry partnership on sustainable national development as perceived by lecturers in Federal College of Education (Technical) Akoka, Yaba, Lagos state. In an attempt to achieve the objectives of this study, three research questions were raised for the study. Survey research designed was used for the study. The population covered all the eleven (11) Office Technology and Management (OTM) lecturers who are currently working in Federal College of Education (Technical), Akoka, Lagos state. All the OTME lecturers were sampled for the study. Questionnaire on OTME-Industry partnership on sustainable national development (QOIPSND) was used to elicit information from OTME lecturers. The questionnaire assumed 4-points rating scale and was validated by an expert in educational evaluation. Data collection for the study was done during working hours of the College. All the data collected were analysed using mean and standard deviation so as to answer the formulated research questions. the study found out that, employability skills needed for economic development can be easily enhanced through OTME-Industry partnership; OTME Department working in partnership with business organisations often leads to enriched entrepreneurial skills acquisition which reduces unemployment among graduates and also, in the provision of scholarships to improve educational achievement of people in OTME. The study recommended that, microfinance banks and other financial institutions charged with the responsibility of funding small businesses should be encouraged to work in partnership to fund OTME graduates with good and viable business ideas so as to create more jobs in the society.

Keywords: OTME, Industry, Partnership and Sustainable National Development.

INTERNATIONAL TRADE: PRESENT AND FUTURE

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ABSTRACT

This is an ever-changing and ever-competitive global arena. It's called globalization of economic affairs. After the WWII a significant number of international financial institutes and economic mechanisms including World Bank, IMF, SWIFT System, WTO (GATT), International Stock Exchanges as well as global Reserve Currency have been developed to create a borderless economic world, called American World Order.

Due to global market economy and borderless economic world whole world has become a global village and the movement of goods, capital and people has been widened. Economic activities have been faster, diversified, and widespread in one hand and on the other hand the outer influence on an economy has become very significant. Inter-exchange of products and services and inter-dependability among the nations are the global scenarios in the modern world.

On the contrary, these financial institutions and economic mechanisms are being used as western leverage and being politicized and weaponized to counter the rival states which created massive economic turmoil in national and global economies during last several decades. In this very condition it's a big question mark which Economic System the world going to foster in future.

The main purpose of the study is to analyze the impacts of International Trade in national and global economy and outer influence and politicizing and weaponizing of economic mechanism and international financial institutions on a particular economy and on global economy in large and The Future Economic System for the world.

The study is mainly based on secondary sources of data including scholarly journal, articles, books, research materials, news of media outlets and other relevant sources pertaining to the subject.

The finding of the study will contribute to counter the unusual economic situation, deter the counterproductive economic measures of hostile outsiders and suggest a mechanism and framework for an Alternative Economic System to form a multipolar economic world to neutralize the western domination.

RANKING OF SELECTED CULTURAL TOURISM SITES IN SHIRAZ (IRAN)

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ABSTRACT

Introduction: Tourism development as a cultural phenomenon develops the cultural exchange opportunities between tourists and host community. Form, structure and construction of public spaces and so on are elements which shape the historical identity of cities and the construction of these buildings and many other urban constructions make urban areas more appealing. Cultural tourism is a move from people to visit cultural attractions with the aim to obtain new information and experience in order to satisfy the cultural needs. **Aims:** Shiraz can be considered as one of the world's major cities and a unique exception due to the body of the city which can be regarded as a valuable solid unit carrying specific thinking and viewpoints. Shiraz is not only a crystallization of a worldview but because of its spatial variation, it is one of the most unique cities with dozens of historical, cultural, religious, and natural attractions. The current attempt is applied developmental one aimed to rank the selected cultural tourism sites of this city. **Method:** For the cultural- historical tourism analysis of Shiraz, we provided indices in five dimensions of economic, competitive, socio-cultural, facilities and services and attraction. The defined standards and criteria were implemented and evaluated in the AHP (Analytical Hierarchy process) model. **Results and Interpretation:** Results showed that Vakil bazaar has the first rank and Arg Karim Khan has the second rank in the historical attractions of Shiraz. Also, based on paired comparisons between criteria, social-cultural criteria and attractions have got the highest priority; thus, they are influential in historical-cultural tourism development.

Key words: cultural tourism, historical attractions, Shiraz, AHP

**INVESTIGATION OF SOCIAL HARMS AND THEIR EFFECT ON SECURITY
PERCEPTION OF TOURISTS, CASE STUDY OF SHIRAZ (IRAN)**

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ABSTRACT

The feeling of security is one of the important factors in the development of tourism. In examining the effects of tourism activities, more attention is paid to economic and physical issues and social and cultural issues are given less attention, while the sustainability of tourism activities is related to social and cultural issues. The purpose of this research is to explain the place of foreign tourists' sense of security on their willingness to visit Shiraz again. The research method is a correlational survey and the analyzes were done using inferential descriptive statistics. Comparing the feeling of social security of foreign tourists for a return trip indicates; African tourists feel the most secure and European tourists the least secure. Chi-square test shows that there is no significant difference between foreign tourists in terms of feeling of social security. But there are differences between background variables such as age, gender and education.

Keywords: Tourism, security, perception, social harms, Shiraz, Iran

**PERCEIVED EFFECT OF ADOPTION OF EXPORT STANDARD PRACTICES (ESP) IN
COFFEE FARMERS' PRODUCTIVITY IN KOGI STATE, NIGERIA**

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ABSTRACT

The study investigated perceived effect of adoption of Export Standard Practices (ESP) on Coffee farmers' productivity in Kogi State, Nigeria. Specifically, the study examined the personal characteristics of the respondents, extent of adoption of ESP and effect of adoption of ESP on coffee productivity. Multistage random sampling was used to select two hundred and twenty seven (227) coffee farmers. Interview schedule was used for data collection and analysis was by the use of descriptive (frequency, percentages and weighted mean score). The results revealed a mean age of 43.74 years, majority of the respondent were male (84.1%), married (86.8%) with mean household size of 8.52 persons and mean farm size of 5.8ha. The extent of adoption of ESP among the coffee farmers' is very low indicated by the result analysis. The effect of adoption of ESP (Mean = 2.59) did not contribute to farmers' productivity.

Keywords: Adoption, practice, coffee, farmer, effect, export standard practices.

RAPID PROTOYPING AND INNOVATION IN MULTINATIONAL ENTERPRISES

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ABSTRACT

As one of the phases of design thinking, Rapid Prototyping is a remarkable tool for teaching innovation in graduate engineering programs. The Innovation and Development Engineering Program from CETYS Universidad in Baja California, Mexico receives most of its students from multinational enterprises (MNEs), who are interested in innovation as a time and cost effective path to find creative solutions mostly for industrial processes. In this context, technology readiness level methodology is a practical scale to measure technology maturity of the kind of prototypes that are developed by the students from Industry in their innovation projects. In this paper we present a review of some value proposition cases at multinational enterprises (MNE) in Baja California, Mexico. Additionally, we present a description of a typical scale for measuring levels of maturity from those prototypes to innovate industrial processes.

Keywords: Rapid prototyping, Kaizen, Poka Yoke.

**AN ANALYSIS OF MICRO, SMALL AND MEDIUM ENTERPRISES AND ECONOMIC
DEVELOPMENT: CASE STUDY OF GADAG DISTRICT IN KARNATAKA.**

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Abstract

The Micro, Small & Medium Enterprises (MSMEs) is one of the most vital sectors of any Economy in general and India in particular in ensuring equitable, inclusive & employment friendly economic growth. MSMEs have been playing a momentous role in overall economic development of a country like India where millions of people are unemployed or underemployed. This sector solves the many problems viz. poverty & unemployment through providing immediate large-scale employment, with lower investments and proves to be a second largest manpower employer, after agriculture. By contributing to more than fifty per cent industrial production in value accumulation terms, this sector occupies a position of prominence in Indian economy.

MSMEs play very important role in socio-economic development of Indian economy on account of their inherent advantages like low capital requirement, high employment generation, and decentralization of industrial activity, utilization of locally available resources and widening of entrepreneurial base. MSMEs have a place of pride in Indian economy. The growth rate recorded by this sector has normally been higher than that of the industrial sector as a whole. The small scale industrial sector has emerged over five decades as a highly vibrant and dynamic sector of the Indian economy. MSMEs has performed exceedingly well and enabled the country to achieve a wide measure of industrial growth and diversification. The employment generating potential of this sector reveals its aptness for labor surplus economy like India. The major objectives of the proposed study will be an analysis of MSMEs role in economic development in Karnataka. The study will have following specific objectives. To study the MSMEs contribution in overall industrial sector growth in Karnataka. An evaluation of the governments (State & Central) role in MSMEs development in Karnataka.

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MASSTIGE MARKETING IN COMMODITY MARKET: FACTORS INFLUENCING PURCHASE OF PRODUCTS

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ABSTRACT

Purpose – This paper seeks to develop a framework for understanding of how masstige marketing is being adopted in cement industry and what drives customer segments to buy a product at higher price.

Design/methodology/approach – The paper reviews empirical studies made in transformation of commodity to a brand, particularly in the context of cement and concept of masstige marketing of premium products and customers' willingness to pay. It compares and analyses the results from explorative field studies and conceptual articles with prior research on transformation of commodity to brand and drivers of premium products.

Findings – The study finds that product quality and packaging, distribution, service, and promotion through celebrity endorsement are prime independent constructs in fetching price premium focusing on the cement sector and highlights the role of value generation as a reflective construct to command price premium in the market. Willingness to pay premium (WTP) is the dependent construct which primarily is linked with the independent constructs through value generation. Relevant variables (design of packaging, quality of product, reputation of celebrity, technical support etc.) specific to cement are identified and proposed for future research for validation and further investigation.

Practical implications – The development of a conceptual model brings to the table a multi-dimensional structure of masstige marketing of premium products of cement which considers packaging, product quality, service, distribution, and celebrity endorsement both individually and collectively for contributing towards premiumisation of cement.

Originality/value – The paper provides a framework for understanding, conceptualizing, and identifying variables of masstige marketing and drivers of willingness to pay premium for cement. The paper puts up research questions, which on further exploration would provide insights to marketers to decide on marketing spend and customised value proposition across customer segments. In addition, there is contribution to the general field of commodity to brand transformation and premiumisation of products.

Keywords: Cement, Masstige Marketing, Value, Willingness to Pay Premium

SEPARATION AND PURIFICATION OF POLYUNSATURATED FATTY ACIDS:

A CRITICAL REVIEW

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ABSTRACT

Polyunsaturated fatty acids (PUFA) are considered essential compounds for human nutrition and health. And mainly the human body produces only small amounts of PUFA. However, global population growth, combined with a better consumer understanding of healthy eating, leads to the depletion of traditional sources, resulting in increased demand for PUFA for human consumption and aquaculture. Recent developments in the production of Polyunsaturated fatty acid concentrates have been examined with a focus on scientific papers published since 2010. First, a description of the role of essential fatty acids in the body and the influence of PUFA on human health is presented. A review of the literature published in previous years regarding the production or isolation of fatty acids is then provided. Publications published during the 13 years have been classified into two groups, one concerning the production of PUFA from fish, The other is the isolation of alternative sources by various extraction techniques, mainly the method of separation by crystallization with urea, crystallization by low temperature solvent, membrane, distillation and chromatography technique. The review suggests that the safest method to use is separation with low-temperature solvents or low-temperature solvent crystallization. Studies show that this method is easy to apply, requires a low production cost, and can produce high-purity PUFA-rich fractions.

Keywords : Polyunsaturated fatty acids, conventional separation methods, crystallization

**OPTICAL ABSORPTION IN SINGLE AND MULTIPLE QUANTUM WELLS FOR
ELECTRONIC AND OPTOELECTRONIC APPLICATIONS**

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ABSTRACT

This paper exhibits a numerical simulation study of the $1s \rightarrow 2p$ ISB-related linear and nonlinear optical absorption in single, double, and triple QWs considering the effects of the compositions, temperature, and QW's number. Our calculations were performed numerically as part of the effective mass approximation using finite element analysis. Our results reveal that for different nanostructures, optical absorption in quantum wells strongly depends on geometry, compositions, and temperature. Furthermore, we have found that optical absorption is greater and more sensitive to compositions and temperature variations in single QW than in double and triple QWs. In addition, a red-shift (blue-shift) associated with an enhancement (fall) of the resonance peaks of the optical absorption spectrum was obtained under the variation of composition, temperature, and number of QW per structure. However, we noticed that adding a QW causes a dramatic decrease in optical absorption due to the high loss rate due to oblique tunneling and non-radiative optical transitions in double and multiple QWs compared to a single QW. We hope that this study will make a modest contribution to the field of theoretical and computational condensed matter physics.

Keywords: Optical absorption, QW's number, Compositions, Temperature.

PRINCIPLES OF THE DETECTOR OF HIGHLY CHARGED PARTICLES IN SPACE

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Abstract

We have developed and tested the Aether-1 particle detector designed to detect highly charged particles that are part of cosmic radiation. This device bypasses its competitors in size and cost. The principle of its operation is based on the analysis of the data obtained on the matrix and the construction of the particle track. This principle has been tested by us in numerous experiments and results have also been obtained when launching a stratospheric satellite.

Key words

Highly charged particle detector, space dust, space radiation matrix

**POSTULATED THEORETICAL ENTITIES vs. TECHNOLOGICAL REAL ENTITIES :
REMARKS ON HACKING AND GIERE**

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ABSTRACT

Hacking (Hacking 1983) and Giere (Giere 1988) have argued that the successful technological use of a theoretical entity gives evidence that the entity exists and is not a mere theoretical construct. Electrons, quantum dots, nanocrystals exist in this sense, as natural entities with natural properties in a mind- language- and theory-independent natural world.

How good is their argument? I shall argue that the pragmatic warrants Hacking and Giere appeal to in favour of their existence and independence claims may very well yield a notion of technological construct which turns out to be as controversial as the notion of theoretical construct they wish to avoid, and perhaps even as dubious as that of sociological construct (under a rather unfair construal of their argument).

I shall develop two points in response to Hacking and Giere.

1. Despite the fact that Hacking and Giere advocate a structural and technological model of scientific theories, the argument in favour of the existence and independence claims may be expressed within the framework of the the so-called ‘statement view’ typical of, say, logical empiricism, a view they both wish to reject.

2. The constructive realism they advocate relies on a notion of technological verification which needs to be refined. Without substantial restrictions on the notion, it remains open to familiar arguments, most notably those proposed by Church (Church 1948-1949) and van Fraassen against verificationism simpliciter (van Fraassen 1980).

I shall finally briefly comment on van Fraassen’s constructive empiricism in contrast to Hacking and Giere’s constructive realism.

PROLIFERATION OF SMALL ARMS AND LIGHT WEAPONS

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ABSTRACT

It is a fact that, we must considerably improve the recording and reporting of data to measure all forms of SALW proliferation as well as the incidence and patterns of violence committed with SALW. We owe that role to ourselves as a global community. However, we have been failing to collect and make available accurate data to develop measures that will effectively counter the dangers of proliferation of small arms and light weapons and its destructive capability on stability and peace. Our main role and responsibility for collecting accurate data and issuing reliable reports on SALWs is to help in conflict prevention, political stability, peace and well-being. We must note that its a global struggle as the menace of uncontrollable inflow of small arms and light weapons. Statistics can be flawed, due to errors in collection, recording, or conveying. The poorest countries and territories and those affected by conflict and severe state repression are generally lagging furthest behind. The proliferation of Small Arms and Light Weapons (SALWs) is a major national security challenge in Nigeria and globally. The insecurity resulting from insurgency, banditry, militancy, kidnapping, armed robbery, ethno-religious and communal conflicts have become worrisome in Nigeria, echoed by proliferation of SALWs. All this, are perpetrated with small arms and light weapons, which are easily concealed and used to unleash violence in any society. This study measures the relationship between proliferation of small arms and light weapons and violent crimes in Nigeria. There is hardly any week that passes by, without a report of one attack or the other somewhere in Nigeria. The world has become a global community that the effect of proliferation of small arms in one country can affect another country instantly. This security challenges perpetrated with SALWs have destroyed lives and properties, and displaced a lot of people many of whom are farmers thereby, threatening food security. Again, Boko-Haram insurgency has over the years increased the availability of SALWs in the state. Porosity of Nigerian borders in Adamawa state axis has equally made it much easier for criminals to smuggle in SALWs into the state from neighboring Cameroon. Social survey method of research is used for data collection. Quantitative research is employed to allow for statistical analysis. The security agencies that are saddled with the responsibility to check this are complicit, as the bad ones facilitate the smuggling or are themselves sources of SALWs. Today, there is mutual distrust and deep seated grievances among the various ethnic groups co-habiting the state due to injustice. This study strongly recommend regulations to prevent uncontrollable flow of small arms and light weapons. This study is also capable of mitigating crimes and insecurity in Nigeria. The deep seated grievances have made groups to acquire SALWs for self-help and retaliation has only further lead to insecurity and suspicion. Suspicion is commonplace and many people have lost trust and faith in the security architecture of the state government. This study has also added to existing knowledge on the relationship of proliferation of small arms and light weapons and insecurity.

FUZZY TECHNIQUE SIMULATION OF MOBILE PHONE HEATSINK

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ABSTRACT

The thermal analysis of heat sinks for mobile devices is the subject of this study. At this point, the most significant problem that individuals encounter is the creation of heat by their smartphones. As a result of this problem, heat sinks are utilized on mobile devices to limit the amount of heat produced. Aluminum alloy is by far the most common material for use in heat sinks. This is because aluminum is more affordable than copper. In this study, the authors investigate the elements that influence the amount of heat generated by smartphones.

MATLAB software was utilized to perform the simulation of fuzzy logic. Most of the time, systems are rule-based or knowledge- and consideration-based. The most critical component of a fuzzy system is a knowledge base that contains fuzzy IF-THEN rules. To construct logic, two inputs and two outputs are required. To begin, we have employed a relation of 1 to 1, which indicates that one input is connected to 1 output. The use of a two-to-one connection thereby indicates that two inputs are dependent on a single output. The length is the first input taken, and the temperature is the second input taken. The first output measured is the discharge rate, and the dual output measured is the efficiency. The length is the first input taken, and the temperature is the second input taken. The first output measured is the discharge rate, and the dual output measured is the efficiency. The output discharge rate error was determined to be 0.32%, while the efficiency error was found to be 0.4%.

Keywords: Heat sink, Fuzzy Smartphones

ALTERATION OF IMMUNOMODULATING AGENTS AND HEPCIDIN IN DIABETIC PATIENTS

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ABSTRACT

Aim: This study was carried out to evaluate the levels of serum immunomodulating agents and hepcidin on diabetics in Owerri, Nigeria. **Materials and Methods:** A case control study involving two hundred diabetics between the ages of 45 and 60 were involved. Also, two hundred apparently healthy persons within the ages of 45 and 60 years served as control. Fasting venous blood was collected for the determination of serum immunomodulating agents and hepcidin levels. The serum immunomodulating agents and hepcidin level were determined by enzymelinked immunoassay (ELISA) The Independent Student t test was used for statistical analysis. **Results:** The serum immunomodulating agents and hepcidin level were significantly higher in diabetes when compared with the control. ($p < 0.05$),. **Conclusion:** The result suggests, that diabetes could probably be linked with increased serum immunomodulating agents and hepcidin levels which probably reduce immune system in diabetes

Key Words: serum immunomodulating agents and hepcidin, diabetes

KOLOGRAFI TEKNİĞİNDE ALTERNATİF ARAYIŞLAR VE UYGULAMA ÖRNEKLERİ

ALTERNATIVE SEARCHES and PRACTICE EXAMPLES in COLLAGRAPHY TECHNIQUE

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ÖZET

Özgün baskiresim, çeşitli malzemeler aracılığıyla oluşturulan kalıpların kağıt ve benzeri yüzeylere aktarılmasıyla elde edilen çalışmaları kapsamaktadır. Baskiresim, yaygın olarak; yüksek baskı, çukur baskı, düz baskı ve elek baskı olmak üzere 4 farklı grupta incelenmektedir. Bir çalışmanın özgün baskiresim olarak kabul görmesi için bir takım özellikleri taşıması gerekmektedir. Bu özellikler arasında; Boya Transferi, Ton Değerleri, Kağıtta Deformasyon, Kalıpta Deformasyon, Edisyon Takibi gibi özellikler sayılabilir. Bir özgün baskiresim tekniği olarak Kolografi, çeşitli malzemeleri ve dokuları plaka üzerine sabitleyerek ya da sabitlenmeden, yüksek baskı veya çukur baskı teknikleriyle oluşturulan kalıpların kağıda aktarılmasıyla elde edilmektedir. Kolografi tekniği, baskı sanatlarında yaygın biçimde kullanılan zararlı kimyasallara alternatif olarak günlük yaşamdan malzemelerin kullanımına imkân tanıyan geniş bir üretim alanı sağlamaktadır. Geleneksel özgün baskiresim yöntemleri olan metal baskı, ağaç baskı, taş baskı ve serigrafide elde edilen dokusal etkilere getirilebilecek alternatifleri bir dizi çalışma yoluyla araştırmak ve sunmak, bu araştırmanın önemini oluşturmaktadır. Bu önem doğrultusunda, kolografinin baskiresme özgü yöntemlerle nasıl uygulandığını açıklamak ve örnekler sunmak amaçlanmıştır. Bu amaçlarla, baskiresim atölyesinde farklı malzemelerin bir araya getirilmesiyle oluşturulmuş beş farklı kalıptan baskılar alınmıştır. Bu kalıplar, kum, akrilik pasta, asetat, çatlatma medyum, derici kağıdı malzemelerinin mukavva üzerine eklenmesiyle oluşturulmuştur. Bu çalışmada atölyede yürütülen baskı süreçlerinde sürekli amaçlı ve yapılandırılmış gözlemler gerçekleştirilmiştir. Bu gözlemlerde, özgün baskiresmin özellikleri olarak sayılan; Boya Transferi, Ton Değerleri, Kağıtta Deformasyon, Kalıpta Deformasyon, Edisyon Takibi esas alınmıştır. Sonuç olarak, geleneksel özgün baskiresmin dokusal etkilerine getirilebilecek alternatifler, bir dizi atölye çalışması yoluyla baskiresme özgü özellikler açısından araştırılmış ve örneklerle detaylı biçimde sunulmuştur.

Anahtar Kelimeler: Özgün baskiresim, Edisyon, Baskı kalıbı

ABSTRACT

Printmaking extend to works obtained by transferring patterns created through various materials on to paper and similar surfaces. Printmaking is commonly examined in four different groups: high print, intaglio, flat print and screen print. In order for a work to be accepted as an printmaking, it must have certain characteristics. These features include; Paint Transfer, Tone Values, Paper Deformation, Mold Deformation, Edition Tracking. As an printmaking technique, collagraphy is obtained by transferring the patterns, created by high printing or intaglio techniques to paper by fixing either various materials and textures or not, on the plate. As an alternative to the adverse chemicals commonly used in the printmaking arts, the colography technique provides a wide production area that allows the use of materials from daily life. The significant of this research is to explore and present alternatives to the textural effects achieved in traditional printmaking methods which are metal printing, wood printing, lithography and screen printing, through a series of studies. According to this importance, it is aimed to explain how collagraphy is applied with printmaking-specific methods and to present examples. For these purposes, prints were taken from five different molds created by combining different materials in the printmaking studio. These molds are created by adding sand, acrylic paste, acetate, cracking medium, leatherette paper materials on cardboard. . In this research, continuous purposeful and structured observations were made during the printing processes in the studio. These observations are based on the following characteristics of printmaking: Paint Transfer, Tone Values, Paper Deformation, Mold Deformation and Edition Tracking. As a result, alternatives to the textural effects of traditional printmaking have been explored in terms of printmaking-specific characteristics through a series of workshops and presented in detail with examples.

Keywords: Printmaking, Edition, Printing Block

HÜSEYİN BAHİRİ ALPTEKİN'İN YAPITLARINDA, KAMUSAL ALAN, KÜLTÜREL MİRAS, KÜLTÜREL ANTROPOLOJİ, SANAT SOSYOLOJİSİ TARTIŞMALARI EKSENİNDE ÖREN YERLERİ VE ÇAĞDAŞ SANAT İLİŞKİSİ

THE RELATIONSHIP BETWEEN ARCHAEOLOGICAL SITES AND CONTEMPORARY ART IN
HÜSEYİN BAHİRİ ALPTEKİN'S WORKS, WITHIN THE FRAMEWORK OF PUBLIC SPACE,
CULTURAL HERITAGE, CULTURAL ANTHROPOLOGY, SOCIOLOGY OF ART DEBATES

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ÖZET

Türkiye’de Çağdaş Sanatın temsil ve gösterim alanlarını araştırmaya başladığımızda özellikle başlangıç dönemi olarak tanımlayabileceğimiz 90’lı yıllara gerçekleştirilen etkinlikler söz konusu olduğunda karşımıza önemli bir kavram olan kamusal alan çıkar. Bu dönem gerçekleştirilen etkinlikler kapsamında, hem o dönem için kolay kabul gören, alışlageldik sanatsal üretilere yer vermediğinden hem de galeri, müze gibi sanat eserlerinin temsiliyetini üstlenen alanların sayıca yetersizliğinden ötürü sanatçılar kamusal alanlara, geçici sergi ve etkinlik mekanlarına, ören yerleri ve tarihsel yapılara yönelmişlerdir. Uluslararası prestijli bir sanat etkinliği olan İstanbul Bienali kapsamında Yere Batan Sarnıcının, Ayasofya’nın, Darphane-i Amire’nin birkaç yıl boyunca kullanılmasının, uluslararası çağdaş sanatçıların çalışmalarına ev sahipliği yapmasının nedenlerinden biri de bu olmuştur. 1995 yılında benzer bir çaba ile İzmir’in Selçuk şehrinde yer alan Efes Antik Kenti bu bağlamda uluslararası katılımın olduğu önemli bir çağdaş sanat sergisi olan “Tarihin Tahayyülü” adlı etkinliğe ev sahipliği yapmıştır. Serginin önemi, Türkiye için bir kültürel miras ve ören yeri olma özelliği ile arkeolojik ve tarihsel turizm adına en değerli unsurlarından Efes Antik Kenti’nin, burada gerçekleştirilmiş büyük uluslararası pop müzik konserlerinden sonra ilk kez bir Çağdaş Sanatı Sergisi alanı olarak kullanılmasından kaynaklanmaktadır. Serginin katılımcılarından olan Hüseyin Bahri Alptekin sanatçı Michael Morris ile söz konusu ören yerinde iki enstalasyon gerçekleştirmişlerdir. Bu araştırma kapsamında Sanatçı Alptekin’in bu sergi kapsamında üretilmiş çalışmalarından yola çıkılarak, sanatçının 2005 tarihinde 9.İstanbul Bienali’nde sergilenen "H- Faktörü: Atlar ve Kahramanlar" adlı çalışmasına” değin, gerçekleştirdiği üretimleri bağlamında Kültürel miras, Tarih, Mit, Hafıza, Sınırlar, Aidiyet, Geçmiş ve Gelecek, Turist olma hali gibi kavramlar tartışmaya açılacaktır.

Araştırmanın amacı Çağdaş Sanat çalışmalarının kamusal alan olan tarihsel yerleşkelerde sergilenmesi olgusundaki sanat eseri, mekân ve izleyici deneyimine odaklanmaktır. Bu meseleyi bugünün kültürel, sanatsal üretiminin yıllar öncesine dair bir kültürel yaşam alanı ile aynı zeminde buluştuğunda ortaya çıkardığı etkileşim bağlamında değerlendirmektir.

Anahtar Kelimeler: Kamusal Alan, Çağdaş Sanat, Kültürel Miras, Hüseyin Bahri Alptekin, Tarihin Tahayyülü

ABSTRACT

When we start to investigate the fields of representation and representation of Contemporary Art in Turkey, especially in the context of the activities carried out in the 90s that can be defined as the beginning period, we come across an important concept, the public space. Within the scope of the activities carried out in this period, artists turned to public spaces, temporary exhibition and event venues, archaeological sites and historical structures for they did not adopt the usual artistic productions that were easily accepted for that period, and because of the insufficient number of spaces that undertook the representation of works of art such as galleries and museums. This is one of the reasons why the Cistern, Hagia Sophia, and the Darphane-i Amire were used for several years and hosted the works of international contemporary artists within the scope of an internationally prestigious art event, the Istanbul Biennial. In 1995, with a similar effort, the ancient city of Ephesus, located in the Selçuk city of Izmir, hosted an event called "The Imagination of History", an important contemporary art exhibition with international participation in this context. The importance of the exhibition originates from the fact that the ancient city of Ephesus, which is one of the most valuable components in the scope of archaeology and historical tourism with its feature of being a cultural heritage and archaeological site of Turkey, is used as a Contemporary Art Exhibition venue for the first time after the great international pop music concerts held here. Hüseyin Bahri Alptekin and artist Michael Morris, the participants of the exhibition, realized two installations at the said archaeological site. Within the extent of this research, concepts such as Cultural heritage, History, Myth, Memory, Borders, Belonging, Past and Future, and Becoming a Tourist will be discussed on the basis of the works of Artist Alptekin, produced within the scope of the aforementioned exhibition and in the context of his works until the artist's "H-Factor: Horses and Heroes", which was exhibited at the 9th Istanbul Biennial in 2005.

The aim of the study is to focus on the artwork, space and audience experience in the case of exhibiting contemporary art works in historical settlements as public spaces; besides evaluating this issue in the context of the interaction that today's cultural, artistic production generates when it comes together with a cultural space of past on the same stage.

Keywords: Public Space, Contemporary Art, Cultural Heritage, Hüseyin Bahri Alptekin, Imagination of History

AVRUPA'DA AŞIRI SAĞ PARTİLERİN PROPAGANDA AFİŞLERİNE YANSIYAN KADIN
İMGESİ

THE IMAGE OF WOMEN REFLECTED ON THE PROPAGANDA POSTERS OF THE FAR RIGHT
PARTIES IN EUROPE

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ÖZET

2000'li yılların başında Avrupa'da yaşanan Avro krizi ve 11 Eylül saldırıları sonrası Orta Doğu'da yaşanan Arap Baharıyla birlikte ortaya çıkan sosyal ve siyasi çalkantılar neticesinde gelişmiş Batı ülkelerine yönelen kitlesel göç hareketleri Avrupa'yı sosyal, siyasal ve ekonomik açıdan olumsuz etkiler. Mülteci akınıyla birlikte artan güvenlik endişelerinin toplumda yarattığı huzursuzluk, Avrupa Birliği sınırlarında uygulanan açık kapı politikalarını tartışmaya açar. Gelişmiş Batı Avrupa ülkelerinde sayısı her geçen gün artan yabancı nüfusa karşı oluşan önyargı siyasi alanda da karşılık bulur. Özellikle etnik ve kültürel kimlik üzerinden mültecileri hedef alan popülist söylemlerin artarak gündeme taşınması, halk tarafından aşırı sağ siyasi partilere desteği artırır.

Kamuoyunda kendi ideoloji ve politikalarını görünür kılmak amacıyla görsel ve basılı medyayı etkin bir şekilde kullanan aşırı sağ siyasi partiler, yürüttükleri seçim kampanyalarında başarılı bir siyasal iletişim stratejisi izleyerek seçmen davranışları üzerinde etkili olur. Sokaktaki sıradan vatandaşın duygularına hitap eden propaganda afişleriyle kararsız seçmeni ikna etmeye çalışan aşırı sağ popülist partiler, yabancılar üzerinden ötekileştirici görsel bir dil geliştirir. Toplumsal duyarlılıkları harekete geçirmek amacıyla planlı bir tasarım süreci sonunda ortaya çıkan propaganda afişlerinde "kadın" tasvirine sıklıkla yer veren aşırı sağ partiler, kadın imgesini kendi ideolojilerini besleyen bir obje olarak kullanır. Kadın temsili üzerinden etnik ve kültürel bir ayrıştırma yaparak, seçmeni kendi politik çıkarları doğrultusunda yönlendirir. Bu kapsamda değerlendirildiğinde, bu çalışma Avrupa'da siyasi rekabetin arttığı seçim dönemlerinde aşırı sağ partilerin propaganda afişlerinde sıklıkla yer verilen "kadın" imgesini grafik biçim ve içerik açısından ele alır.

Anahtar Kelimeler: Grafik Tasarım, Propaganda Afişi, Kadın İmgesi, Zenofobi, Göç, Göçmen Karşıtlığı, Siyasal İletişim.

ABSTRACT

As a result of the social and political turmoil that emerged with the Arab Spring in the Middle East after the Euro crisis in Europe in the early 2000s and the September 11 attacks, mass migration movements towards developed Western countries negatively affect Europe socially, politically and economically. The unrest caused by the increasing security concerns with the influx of refugees causes the open door policies of the European Union to be discussed. The prejudice in society against foreigners, whose population is increasing rapidly, deeply affects European politics. Increasingly, populist discourses targeting refugees over ethnic and cultural identity increase the support of the far-right parties by the voters.

The far-right parties, which use the visual and printed media effectively in order to make their ideology and policies visible to the public, have an impact on voter behavior by following a successful political communication strategy in their election campaigns. Trying to persuade undecided voters with propaganda posters that appeal to the feelings of ordinary citizens on the street, far-right populist parties develop a visual language that otherizes against foreigners. The far-right parties, which often include the depiction of "women" in their propaganda posters, which emerged as a result of a planned design process in order to activate social reflexes, use the image of woman as an object supporting their own ideology. By making an ethnic and cultural distinction through the representation of women, it directs the electorate in line with its own political interests. When evaluated in this context, this study deals with the image of woman, which is frequently used by far-right parties in their propaganda posters, in terms of graphic form and content during the election periods when political competition increases in Europe.

Keywords: Graphic Design, Propaganda Poster, Image of Women, Xenophobia, Immigration, Anti-Immigration, Political Communication.

**MÜZELİK HİKAYELER” SERGİLEMESİNDE BİR HETEROTOPYA OLARAK
“İSTANBUL RESİM HEYKEL MÜZESİ”**

ISTANBUL PICTURE AND SCULPTURE MUSEUM” AS A HETEROTOPIA IN THE
EXHIBITION OF “MUSEUMS, STORIES”

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ÖZET

Bu çalışma İstanbul Resim Heykel Müzesi’nde Mimar Sinan Güzel Sanatlar Üniversitesi İstanbul Devlet Konservatuvarı öğrencileri ile gerçekleştirilen sahne sanatları ve müzik alanlarını bir araya getiren ve multidisipliner bir çalışma olan “Müzelik Hikayeler” sergilemesi üzerine yapılmıştır. Bu sergilemede oyun metni Haldun Taner öykülerinden derlenmiştir ve 24-26 Mart 2022 tarihinde ve seyirciyle buluşturulmuştur. Bu sergileme içeriği ve uygulandığı bakımından bir çok disiplini bir araya getirerek bir sahneleme yapıldığı için Wagner’in de belirtmiş olduğu “Ortak Sanat Yapıtı ” kavramına da gönderme yapmaktadır. Bahsedildiği üzere tüm müzik (4 yaylı enstrümandan oluşan bir oda müziği orkestrası), bale, opera, beden perküsyonu ve tiyatro öğeleri bir araya getirilmiş ve bu sergileme müzedeki diğer eserlerle birlikte sergilenen bir sanat yapıtına dönüştürülmüştür. Eserde yer alan tüm Haldun Taner öyküleri İstanbul Resim Heykel Müzesi’ndeki mekanlar doğrultusunda seçilmiştir ve bu mekana uygun bir biçimde mimari özellikler de göz önüne alınarak kurgulanmıştır. Bu sergilemeyle multidisipliner olarak kurgulanan tiyatro eseri müzede ziyaret edilen bir sanat yapıtına dönüşmüştür. Müzedeki diğer eserlerin sergilenmesi aşamasında göz edilen seçki ve kurgulama bu çalışmada da var olmaktadır. Çalışma bu yönü ile çağdaş sergileme ve müzecilik alanlarına da katkı sağlamaktadır. Bu çalışmada Müzelik Hikayeler sergilemesinin kavramsal alt yapısı Foucault’nun “heterotopya” kavramı ile alternatif mekân kullanımları açısından irdelenecektir. Sergilemenin incelenmesi sonucu hem müzede sahneleme hem de tiyatro alanında oyun sahneye koyma anlamında derlenmiş bir çalışma olarak, gelecekteki alternatif sahneleme çalışmalarına kaynak olacaktır

Anahtar Kelimeler: Müze, Tiyatro, Heterotopya, Haldun Taner

ABSTRACT

This article was written about to “Museum Stories”, which is a multidisciplinary stage performance study that brings together the fields of performing arts and music, realized with the students of Mimar Sinan Fine Arts University Istanbul State Conservatory in Istanbul Painting and Sculpture Museum. In this exhibition, the text of the play was compiled from the stories of Haldun Taner and was brought together with the audience on 24-26 March 2022. This exhibition also refers to the concept of "Gesamtkunstwerk", which Wagner also stated, as a staging was made by bringing together many disciplines in terms of its content and implementation. As mentioned, all music in the play (a chamber orchestra consisting of 4 string instruments) and other art disciplines ballet, opera, body percussion and theater elements were brought together and this exhibition was turned into a work of art and exhibited with other works in the museum. All Haldun Taner stories in the work have been selected in line with the spaces in the Istanbul Painting and Sculpture Museum and have been designed in accordance with this space, taking into account the architectural features. With this exhibition, the theatrical work, which was constructed as a multidisciplinary, has turned into a work of art that is visited in the museum. The selection and editing observed during the exhibition of other works in the museum also exist in this study. With this aspect, the study also contributes to the fields of contemporary exhibition and museology. In this study, the conceptual infrastructure of the Museum Stories exhibition will be examined in terms of Foucault's concept of "heterotopia" and alternative space uses. As a result of the examination of the exhibition, it will be a source for future alternative staging studies as a compiled work in terms of both staging in the museum and staging a play in the theater field.

Keywords: Museum, Theatre, Heterotopya, Haldun Taner

SHOES OF GOD AND GODDESS IN ROME: SIMILARITIES AND DIFFERENCES

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ABSTRACT

In accordance with literature on the historical evolution of footwear, shoes were originally created only for protection. However, this necessity has been substituted over time by aesthetics, ergonomics, and visual symbols used to indicate social distinction and even religious representation. Thus, footwear acquired a distinct character in social life and became an essential component of garment.

Analyzing the footwear styles in archaeological findings and objects that have endured for centuries, it is evident that footwear was fashioned differently based on the cultures of the populations and the region in which they lived. Particularly in plastic figures and sculptures, it is observed that the portrayals in the created compositions developed under the influence of faith and acquired new formal qualities. Therefore, it is possible to state that footwear figures commenced to appear in artifacts in a particular order. To illustrate, spiritual figures are typically depicted wearing sandals, boots, and sandals prior to the birth of Jesus and his recognition as a prophet. Following Jesus, however, most spiritual figures began to be depicted barefoot. It is debatable if this is related to the transition to monotheism, but it is also reasonable to comprehend the rationale for the removal of footwear from spiritual portrayals in the compositions as a desire to create a relationship between the barefoot and the ideals of purity, cleanliness, and heaven. Analyzing Roman sculptures reveals parallels and contrasts in footwear styles, as well as gods depicted barefoot, as stated previously.

The Romans, whose beliefs and values were shaped by their consumption of Greek mythology, particularly their extremely realistic sculptural designs, have allowed information regarding Roman life and religious beliefs to be transmitted to the present day. The aim of the present study is to comment on whether the footwear styles in the sample god and goddess sculptures, which express this belief in art, differ according to gender or according to the gods' and goddesses' abilities, traits, what they symbolize, and attire. Within this scope, the footwear styles on the statues of six gods and five goddesses on display at the Antalya Museum were investigated, and conclusions were drawn by comparing them with each other and with the figures on the statues of ordinary men and women.

Keywords: Footwear in Roman Sculpture, Footwear in Roman Gods, Roman Gods and Footwear, Roman Goddesses and Footwear.

**ОБ ИННОВАЦИОННЫХ ПРОЦЕССАХ В СОВРЕМЕННОМ ВЫСШЕМ
ГУМАНИТАРНОМ ОБРАЗОВАНИИ**

**ON INNOVATION PROCESSES IN MODERN HUMANITIES EDUCATION IN HIGER
EDUCATION**

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ABSTRACT

In the age of globalization, it would be hardly possible to apply any innovation to humanities in general and music education in particular without referring to culture. Since culture is the origin of music and other human activities, its systematic analysis gains particular significance especially when education of new generations is under consideration. Unlike other studies which deal with Azerbaijani humanities and music education as separate from its roots, this study aims at filling this gap in literature by considering investigation of culture as necessary aspect of the process. Methodically, this investigation is based on culturology which as a discipline has recently gained popularity in humanities. It is crucial for understanding cultural background of any nation as well as its humanities and music education. Drawing on analytical tools and discoveries offered by culturology, and analyzing cultural specificities of Azerbaijani music, the study defines innovational processes of Azerbaijani music education as field of humanities, and proposes necessary steps for innovation processes. Specifically, the study differentiates music education as innovational education and reveals the constituent parts of it. Finally, the study lists critical issues present in music education in Azerbaijani higher education system, solving which may lead to considerable developments and innovations. The suggestions in this article can be generalized to different contexts while carrying out innovation processes in humanities education and specifically music education in higher education institutions.

Keywords: Humanities Education, Music Education, Higher Education, Azerbaijan,

**BİREYSEL ÇALGI EĞİTİMİNDE ÇALIŞMA ALIŞKANLIKLARININ ÇEŞİTLİ
DEĞİŞKENLERLE İLİŞKİSİ**
THE RELATIONSHIP OF STUDY HABITS WITH VARIOUS VARIABLES IN INDIVIDUAL
INSTRUMENT TRAINING

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ÖZET

Bu çalışmada, çalgı çalışma alışkanlıkları ile araştırmalarda öne çıkan cinsiyet, mezun olunan lise ve sınıf değişkenleri arasındaki ilişki incelenmiştir. Ayrıca, çalışma alışkanlıkları ile mevcut araştırmalarda göz ardı edilen ve alışkanlıkları şekillendirme gücüne sahip olan çalgıyı kendi isteği ile seçme ve çalgı dersini yeterli görme değişkenleri arasındaki bağlantı ele alınmıştır. Çalışmaya, Türkiye'deki bir devlet üniversitesinin Müzik Öğretmenliği Programı'na kayıtlı olan toplam 78 öğrenci katılmıştır. Veriler Küçükosmanoğlu vd. tarafından geliştirilen ve 18 maddeden oluşan 'Bireysel Çalgı Çalışma Alışkanlıkları Ölçeği' ile toplanmıştır. Değişkenleri belirleyebilmek için araştırmacılar tarafından oluşturulan bir kişisel bilgi formu kullanılmıştır. Verilerin analizinde, çıkarımsal istatistik tekniklerinden t-test, Mann-Whitney U, Tek Yönlü Varyans Analizi ve Kruskal-Wallis testleri kullanılmıştır.

Çalışmada, çalışma alışkanlığı puanlarının, ölçeğin geneli dikkate alındığında, cinsiyet, mezun olunan lise ve sınıf düzeyine göre farklılaşmadığı; buna karşın çalgıyı kendi isteğiyle seçen ve çalgı dersi süresini yeterli görmeyen öğrencilerin çalışma alışkanlığı puanlarının yüksek olduğu belirlenmiştir. Alt boyutlara ilişkin bulgular; ilgi ve istek alt boyutunda erkek öğrencilerin puanlarının kadınlara göre daha yüksek olduğunu göstermiştir. Diğer taraftan çalışmaya değer verme, ilgi ve istek, çalışmaya hazırlık alt boyutlarında çalgıyı kendi isteğiyle seçen öğrencilerin kendi isteği ile seçmeyen öğrencilere göre daha yüksek puan aldıkları; çalışmaya değer verme, çalışmaya hazırlık, zamanı doğru kullanma ve düzenli çalışma alt boyutlarında ise çalgı dersi süresini yeterli görmeyen öğrencilerin puanlarının yeterli gören öğrencilere göre yine daha yüksek olduğu saptanmıştır. Ulaşılan sonuçların, Türkiye'deki çalgı çalışma alışkanlıkları temalı alanyazına ve çalgı eğitimcilerine katkı sağlaması beklenmektedir.

Anahtar Kelimeler: Çalgı çalışma alışkanlıkları, cinsiyet, mezun olunan lise, sınıf düzeyi, çalgıyı kendi isteğiyle seçme, çalgı dersi süresini yeterli görme

ABSTRACT

In this study, the relationship of instrument study habits with gender, graduated high school, and grade variables, which are prominent in research, were examined. In addition, the relationship between study habits and the variables of choosing the instrument voluntarily and seeing the instrument course as sufficient, which have the power to shape habits and are ignored in current studies, are discussed. A total of 78 students enrolled in the Music Teaching Program of a public university in Türkiye participated in the study. The data were collected with the 'Individual Instrument Practice Habits Scale' which consists of 18 items and was developed by Küçükosmanoğlu et al. A personal information form created by the researchers was used to determine the variables. For the analysis of the data, inferential statistical techniques t-test, Mann-Whitney U, One-Way Analysis of Variance, and Kruskal-Wallis tests were used.

In the study, when the overall scale of the scale is taken into account, it was found that the scores of study habits did not differ according to gender, graduated high school, and grade level. On the other hand, it was determined that students who chose the instrument voluntarily and did not find the duration of the instrument course sufficient had high study habit scores. Results related to sub-dimensions showed that male students' scores were higher than female students in the sub-dimension of interest and desire. On the other hand, in the sub-dimensions of valuing study, interest and desire, and preparation for study, students who chose the instrument voluntarily got higher scores than students who did not choose it voluntarily. In the sub-dimensions of valuing study, preparation for study, using time correctly and studying regularly, it was determined that the scores of the students who did not consider the instrument course duration sufficient were higher than the students who considered it sufficient. It is expected that the results will contribute to the literature on instrument study habits and instrument educators in Türkiye.

Keywords: Instrument study habits, gender, graduated high school, grade, choosing the instrument voluntarily, considering the duration of the instrument course sufficient

TÜRKİYE’DE UYGULANAN MÜZİK ÖĞRETMENLİĞİ LİSANS PROGRAMLARINA GENEL BAKIŞ

OVERVIEW OF MUSIC TEACHER TRAINING CURRICULUMS APPLIED IN TÜRKİYE

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ÖZET

Günümüzde teknoloji baş döndürücü biçimde gelişmekte ve bilgi geniş kitlelere hızlı biçimde ulaşmaktadır. Bu hızlı dönüşüm bir taraftan bireylerin sahip olması gereken niteliklerin çerçevesini genişletmiş diğer taraftan eğitim sistemlerinin ve öğretmen yetiştirme politikalarının değişime ve gelişime ayak uydurmasını zorunlu kılmıştır. Özden’in (2010) ifadesiyle, öğretmen yetiştirme sistemini yapı, işleyiş ve öğretim programı olarak eğitim gerçekleri ve güncel ihtiyaçlar doğrultusunda sürekli yeniden düzenlemek gerekir. Nitekim, özellikle 2000’li yıllardan sonra Türkiye’de eğitim alanında yaşanan felsefi dönüşüme bağlı olarak öğretim programlarında köklü bir değişim yaşanmıştır. Bu değişim diğer branşlarda olduğu gibi, müzik öğretmenlerinin sınıf dışı süreçlerdeki kurumsal ve mesleki yükünü arttırmıştır. Buna karşın sınıf içi öğretim süreçlerindeki hayati görevini değiştirmemiştir. Müzik öğretim programlarının işlerlik kazanmasını sağlayan en önemli aktörler, geçmişte olduğu gibi bugün de müzik öğretmenleridir. Bu bağlamda müzik öğretmeni yetiştirme amacıyla uygulanan öğretim programları ayrı ayrı önem kazanmaktadır.

Türkiye’de okul müzik eğitimi programları ve müzik öğretmeni yetiştirme programları 1990’lı yıllardan itibaren belli aralıklarla revize edilmiştir. Her revizyon doğal olarak tartışmaları da beraberinde getirmiştir. Bu tartışmalar, 2006 tarihli İlköğretim Müzik Dersi Öğretim Programı ve 2006 tarihli Müzik Öğretmenliği Lisans Programı üzerinde yoğunlaşmıştır. Öztürk’ün (2022) vurguladığı gibi, her yeni program güncel gelişmeleri merkeze almalı, mevcut sorunlara çözüm üretebilmeli, önceki programların açıklarını kapatabilmeli ve güncel tartışmaların şiddetini azaltabilmelidir. Bu bağlamda, göreceli olarak yeni olan 2018 tarihli Müzik Öğretmenliği Lisans Programı’nı merkeze alan çalışmaların sayıca henüz yeterli olmadığı görülmektedir. Bu konuda yapılacak olan araştırmaların ilgili tartışmalara katkı sağlayacağı düşünülmektedir.

Bu çalışmada, Türkiye’de uygulanan güncel Merkezi Müzik Öğretmenliği Lisans Programı’na odaklanılmıştır. Mevcut program; önceki programlarla karşılaştırılarak ve alanyazındaki çalışmalarla desteklenerek genel bir bakışla incelenmiştir. Çalışmanın, güncel programın artı ve eksilerine ilişkin bazı ipuçları sunması ve yakın gelecekteki olası program revizyon çalışmalarına katkı sağlaması beklenmektedir.

Anahtar Kelimeler: Müzik öğretmenliği mesleği, müzik öğretmenliği lisans programları

ABSTRACT

Today, technology is vertiginously developing and knowledge reaches large masses rapidly. This rapid transformation has expanded the framework of the qualifications that individuals should have, on the other hand, it has made it necessary for education systems and teacher training policies to keep up with change and development. As Özden (2010) emphasized, it is necessary to constantly re-organize the teacher training system in line with the realities of education and current needs in terms of its structure, functioning, and curriculum. There has been a radical change in curricula due to the philosophical transformation experienced in the field of education in Türkiye, especially after the 2000s. This change has increased the institutional and professional workload of music teachers in out-of-class processes, as in other branches. However, it did not change their vital role in classroom teaching processes. The most important actors that enable music curriculums to become functional are music teachers today, as they were in the past. In this context, the curricula applied for training music teachers gain importance separately.

School music curriculums and music teacher training curriculums in Türkiye have been revised periodically since the 1990s. Each revision naturally brought discussions. The discussions focused on School Music Curriculum dated 2006 and Music Teacher Training Curriculum dated 2006. As Öztürk (2022) emphasizes, every new program should center on current developments, produce solutions to current problems, close the gaps of previous programs, and reduce the intensity of current discussions. In this context, it is seen that the number of studies centered on the relatively actual Music Teacher Training Curriculum dated 2018 is not sufficient yet. It is thought that the research to be conducted on this subject will contribute to the related discussions.

This study focuses on the current Music Teacher Training Curriculum applied in Türkiye. The Curriculum has been examined with an overview by comparing it with previous curriculums and supported by studies in the literature. It is expected to provide some clues about the plus and minus of the current curriculum and contribute to possible revision studies soon.

Keywords: Music teaching profession, music teacher training curriculums

POSTMODERN MODA

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ÖZET

Modanın oluşturulması tek yönlü bir süreç değildir. Moda değişen eğilimleri fark edebilen şirketler ve tercihlerinde seçici olan müşteri yapısı ile çift yönlü bir etkileşim içerisinde. 1990'lı yıllarda İngiliz moda sektöründe düşük fiyat rekabet avantajından, hızlı ve yüksek moda ögesi içeren tasarımlara geçiş yapılmıştır. Hızlı moda, müşterinin ihtiyaç ve arzularını kendisi dahi fark etmeden keşfeden, dinamik ve taze tasarım yeteneği ve hızlı, etkileşimi yüksek tedarik süreçlerinin kısa süreli sezonlarla müşteriye sunulması temelinde şekillenmektedir. Hızlı moda ile sezonlar çeşitlenmiş ve süreleri kısalmıştır. İki hafta gibi kısa süre içerisinde raflarda ürün değişimi sağlanmaktadır. Böylece mağazaya her gittiğinde yeni, farklı ve kendini anlatan tasarımlarla karşılaşan müşterinin sadakati korunmuştur. Tüketim, bugün bilinen anlamından uzaklaşıp müşterinin kim olduğunu, duygularını ve çevreleriyle iletişimini ifade etmek amacıyla kullanılmaktadır. Yaşam tüketimle anlamlandırılmakta, imaj, düşler ve fantezilerin yaratılması yolu ile her birey tekrar var olmaktadır. Bu çalışmada modern sonrası postmodern tüketimin yapısı irdelenerek günümüz tüketicilerinin hızlı moda bağlamında modayı nasıl algıladığı, yaşadığı, oluşturduğu incelenmiştir. Günümüz tüketicilerinin moda ile aralarındaki bağın özellikleri, modanın onlar için ne ifade ettiği, günlük ve özel yaşamlarının neresinde olduğu, tüketici benliği ve kimliği etrafında irdelenmiştir. Çalışma, postmodern moda tüketicisi yapısını ve bu yapıyı destekleyen ya da oluşturan tüketim anlayışını ortaya koymayı hedeflemiştir. Çalışmada literatür taraması ve hızlı modanın öncü firmalarının analizleri yapılmıştır.

Anahtar Kelimeler: Postmodern tüketici, hızlı moda, tüketim, moda tüketimi, moda algısı

ABSTRACT

The creation of fashion is not a unidirectional process. Fashion are in dual interaction with companies can realize the changing trends and the customer of selective. In the 1990s the British fashion industry was transferred into designs with including fast and high-fashion item from competitive advantage of low prices. Fast fashion is shaped on the basis of the design ability a dynamic and fresh customer's needs and desires without realizing they discovered and supply chain fast, a high interaction by short-season. Season is diversified and shortened with the fast fashion. Product replacement on the shelves are provided in a short time like two weeks. So, customer loyalty that experiencing a new, different, self-describing designs every time goes to store. Today, consumption get away from its basic meaning and is used to who is customer feelings and communicate with their environment. Life is given meaning by consumption, and each individual exists again through the creation of images, dreams and fantasies. In this study, structure of the modern post-postmodern consumer was examined and today's consumers analyzed the context of fast fashion, how they perceive fashion, how live and form it? Features of postmodern costumer between fashion,

what is meaning of fashion for them?, where is it on their life are discussed around the costumer individuality and identity. This study is aimed to profound the structure of consumers and approach of consumption supporting or form this structure.

Keywords: Postmodern consumer, fast fashion, consumption, consumption of fashion, fashion perception

**BAHÇELİEVLER'DE KAMUSAL ALAN VE DÖNÜŞÜM POTANSİYELLERİNE BİR
YAKLAŞIM: ŞİRİNEVLER ULU CAMİ VE ÇEVRESİ**
AN APPROACH TO PUBLIC SPACE AND TRANSFORMATION POTENTIALS IN
BAHÇELIEVLER: ŞİRİNEVLER ULU MOSQUE AND SURROUNDINGS

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ÖZET

Türkiye’de kentleşme, dünyadaki kentleşme serüvenine paralel olarak yoğun göç dalgaları ile hatırlanmaktadır. Bu göçlerin temel sacayağı büyük kentlerdeki sanayi bölgelerinde iş bulma fırsatları dolayısıyla ortaya çıkan gecekondulaşma dalgasıdır. Erken Cumhuriyet Dönemi’nde büyük çabalarla yürütülmeye çalışılan mimari, altyapı ve planlama çabalarına rağmen ideal bir kentleşme formu veya düşüncesi yakalamak kolay olmamıştır. Bilhassa politik argümanlarla planlama standartların göz ardı edilmesi, nüfus yoğunluğunun kontrolsüz artışı ile fiziki ve sosyal çevre yetersizliği beraberinde birçok sorunu taşımıştır.

Kentin odağı olan kamusal alanların azlığı fiziksel çevrede nefes alınacak alanlara ihtiyaç bırakmaktadır. Kamusal alanlar olası bir kentsel planlama fırsatının doğması durumunda ele alınması zaruri konuların başında gelmektedir. Bu çalışmada İstanbul Bahçelievler İlçesi üzerinden bir kamusal okuması yapılarak fiziki ve sosyal problemlerin karşısında duran bölge potansiyelleri etüt edilmektedir. Kamusal mekân, konut ve ticaret yapılaşmaları, bunların birbirleriyle ve toplumla ilişkileri Şirinevler Ulu Camii ve çevresi özelinde değerlendirilmekte, dönüşüm potansiyelleri bakımından yapılması gerekenler ile ilgili tespit ve öneriler geliştirilmeye çalışılmaktadır.

Anahtar Kelimeler: Kamusal Alan, Gecekondulaşma, Kentsel Planlama.

ABSTRACT

Urbanization in Turkey; in parallel with the urbanization adventure in the world, it is remembered with intensive migration waves. The main pillar of these migrations is the resulting wave of squatters due to opportunities to find jobs in industrial areas in large cities. Despite the architectural, infrastructural and planning efforts that were attempted to be carried out with great efforts in the early Republican Period of Türkiye, it was not easy to catch an ideal form of urbanization or thought. In particular, ignoring planning standards with political arguments, uncontrolled increase in population density, and inadequacy of physical and social environment brought many problems with it.

The lack of public spaces, which are the focus of the city, leaves people in need of breathing in physical environment. Public spaces are one of the essential issues to be addressed in case of a possible urban planning opportunity. In this study, a publicity reading is made over the Bahçelievler District of Istanbul, and the potentials of the region that stand against physical and social problems are studied. Public space, residential and commercial structures and their relations with each other and with the society have been evaluated in the context of Şirinevler Ulu Mosque and its surroundings. It is tried to develop determinations and suggestions about what needs to be done in terms of transformation potentials.

Keywords: Public Space, Squatting, Urban Planning

**DOĞU AKDENİZ BÖLGESİ SÜT SIĞIRCILIĞI İŞLETMELERİNDE BUZAĞI YETİŞTİRME
UYGULAMALARI**

CALF RAISING PRACTICES IN DAIRY FARMS IN THE EASTERN MEDITERRANEAN REGION

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ÖZET

Bir süt sığırcılığı işletmesinin karlılığı ve devamlılığına sadece o sürüdeki bir inekten bir yılda elde edilen buzağı sayısı değil, buzağuların uygun şekilde ve düşük maliyetle büyütülerek üretime dahil edilmelerinin de katkısı vardır. Buzağuların, özellikle yaşamlarının ilk dönemlerinde maruz kaldıkları bakım ve besleme, hem buzağı büyütme maliyetini hem de yaşama gücü ve gelecek dönem performansını etkiler. Bu nedenle bu çalışmada Doğu Akdeniz Bölgesi Süt Sığırcılığı işletmelerinin buzağı yetiştiricilik uygulamalarının tespiti amaçlanmıştır. Bu amaçla 30 işletme ziyaret edilmiş ve görüşülmüştür. Bu amaçla işletmelerde buzağı yetiştirme uygulamaları ile göz ardı edilebilen kritik noktalar açısından incelenmesi amacıyla yerinde ziyaret yapılmış, hazırlanan anket soruları ve gözlem metodu ile de tespitler yapılmaya çalışılmıştır. Çalışma kapsamında yetiştiricinin fazla vaktini almayacak kısa ve net sorulardan oluşan anket oluşturulmuş ve cevaplamayı kabul eden yetiştiriciler ile yüz yüze uygulanmıştır. Anketlerde kuru inek ve yeni doğan yönetimi, sıvı besleme, barınma ve sağlık yönetimi konularına yoğunlaşmıştır.

Anahtar kelimeler: Süt Sığırcılığı, İşletme, Buzağı, Yetiştirme, Uygulamalar

ABSTRACT

The profitability and continuity of a dairy cattle business also depends on the number of calves obtained and their inclusion in production by raising them appropriately and at low cost. The care and feeding that calves are exposed to, especially in the early stages of their life, affects both the cost and survival rate and future performance. For these purpose in this study, it is aimed to examine the calf raising practices in the enterprises in east Mediterranean region. For this purpose, on-site visits and prepared survey questions and observation methods were used to examine the critical points that may cause calf loses in dairy farms. Within the scope of the study, survey questions consisting of short and clear questions that will not take the time of the breeder were formed and it was carried out by face-to-face with the breeders who agreed to answer. In addition, observations and determinations made during the farm visits were also used in the evaluations. The questionnaires focused on dry cow and newborn management, liquid feeding, housing and health care.

Keywords: Dairy Cattle, Business, Calf, Raising, Practices

HAYVANCILIK ÇİFTLİKLERİNİN YANGIN GÜVENLİĞİ AÇISINDAN İNCELENMESİ

INVESTIGATION OF LIVESTOCK FARMS IN TERMS OF FIRE SAFETY

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ÖZET

Bu çalışmada, Türkiye hayvancılık işletmelerinin yangın güvenliği açısından incelenmesi amaçlanmıştır. Bu amaçla hayvancılıkla uğraşan işletmelerde yangınlara neden olabilecek göz ardı edilen kritik noktalar açısından incelenmesi için yerinde ziyaret ve hazırlanan anket soruları ve gözlem metodu kullanılmıştır. Çalışma kapsamında yetiştiricinin vaktini almayacak kısa ve net sorulardan oluşan anket soruları oluşturulmuş ve cevaplamayı kabul eden yetiştiriciler ile yüz yüze uygulanarak gerçekleştirilmiştir. Ayrıca çiftlik ziyaretlerinde yapılan gözlem ve tespitlerden de değerlendirmelerde yararlanılmıştır. Hayvancılık işletmelerinde çalışanların %50'nin İlkokul- Ortaokul mezunu olduğu, % 43,33'nün 32-43 yaş aralığında yer aldığı ve %50'nin 6 ile 10 yıl arasında hayvancılık işletmelerinde deneyimi olduğu anlaşılmaktadır.

Ahırlarda saman bulunduran işletme sayısı 25, örümcek ağları, toz ve tahıl tozu tespit edilen 24, boya bulunan 6, pestisitler ve herbisitler bulunan işletme 24, saman depolama alanı sıcaklık ölçümü yapan işletme sayısı 12, yangının yayılma hızını artıran maddeleri (benzin, gazyağı, sıvı yağ, aerosol kutuları, tiner vs.) ayrı yerde tutan işletme sayısı ise 15 olarak belirlenmiştir. İşletmeler genel olarak incelendiğinde yangın güvenliği açısından yeterli altı yapı, plan ve donanımına sahip olmadıkları anlaşılmaktadır. Olası bir yangında algılama ve korunma sistemlerinin olmaması kayıpların büyümesine neden olacaktır. Yangından korunmak için erken uyarı stratejileri, alet ve çeşitli ekipmanlar mevcuttur. Ancak işletmelerde yeterince kullanılmadığı anlaşılmıştır. Tespit, uyarı, bastırma ve acil müdahale sistemlerinin etkinliği, uygun tasarım, yönetim, planlama ve acil durum tatbikatlarıyla etkili sonuç verebilir. İşletmelerin kendi koşulları için

yangın güvenliği risk değerlendirmesi yapılmalıdır. Yangın riski değerlendirmesi, ortadan kaldırılabilecek veya azaltılabilecek riskleri belirlemeye ve insanları güvende tutmak için alınması gereken önlemlerinin niteliğine ve kapsamına karar vermeye yardımcı olacaktır.

Anahtar kelimeler: Yangın, iş güvenliği, hayvancılık, işletmeleri, riskler

ABSTRACT

This study aims to examine the livestock enterprises in Turkey in terms of fire safety. For this purpose, on-site visits and prepared survey questions and observation methods were used to examine the critical points that may cause fires in livestock enterprises. Within the scope of the study, survey questions consisting of short and clear questions that will not take the time of the breeder were formed and it was carried out by face-to-face with the breeders who agreed to answer. In addition, observations and determinations made during the farm visits were also used in the evaluations. It is understood that 50% of the employees in livestock enterprises are primary school-secondary school graduates, 43.33% are between the ages of 32-43, and 50% have experience in livestock enterprises between 6 and 10 years.

The number of businesses with straw in the barns is 25, spider webs, dust, and grain dust are detected 24, there are 6 with dyes, 24 with pesticides and herbicides, and 12 are the number of businesses that measure the temperature of the straw storage area. These substances increase the rate of fire (gasoline, Kerosene, Liquid) oil, aerosol cans, thinner, etc.) and the number of businesses that keep them separately is determined as 15. When the enterprises are examined in general, it is understood that they do not have adequate six structures, plans, and equipment regarding fire safety. The absence of detection and protection systems in a possible fire will cause the losses to grow. Early warning strategies, tools, and various equipment are available for fire protection. However, it has been understood that it is not used enough in enterprises. The effectiveness of detection, warning, and emergency response systems can yield effective results with appropriate design, management, planning, and emergency practice. A fire safety risk assessment should be made for the conditions of the farms. The fire risk assessment will help identify risks that can be eliminated or mitigated and decide the nature and extent of actions that need to be taken to keep people safe.

Keywords: Fire, occupational safety, livestock, businesses, risks

**BAZI YABANCI OT TOHUMLARININ ÇİMLENMESİ ÜZERİNE L-DOPA'NIN
ALLELOPATİK ETKİSİ**
ALLELOPATHIC EFFECT OF L-DOPA on THE GERMINATION of SOME WEED SEEDS

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ÖZET

Bazı bitki türleri tarafından çevreye salınan fitokimyasallar, metabolik aktivitelerini değiştirerek veya toprakta yaşayan diğer bitkiler üzerinde olumsuz etki yaratarak etrafındaki bitkilerin çimlenmesini ve büyümesini engellerler. Bu durum allelopati olarak tanımlanmaktadır. L-dopa bu tür fitokimyasallardan birisidir. Genellikle L-Dopa olarak bilinen Levodopa aynı zamanda Parkinson hastalığını (PD) tedavi etmek için kullanılan bir amino asittir ve dopaminin doğrudan öncüsü olarak hizmet eder. L-Dopa, bitkilerdeki birçok alkaloid, katekolamin ve melaninin öncüsüdür ve çevresindeki bitki türlerinin gelişmesini engelleyen bakla bitkisi ve mukuna dahil olmak üzere çeşitli bitkiler tarafından toprağa salınmaktadır.

Çalışma; L-dopanin buğday tarımında yaygın olarak görülen bazı yabancı ot türleri ile (*Sinapis arvensis* L., *Galium tricornerutum* Dandy., *Convolvulus arvensis* L. *Avena barbata* Pott ex Link subsp. *barbata*) iki buğday çeşidine (Sömez-Bezosta) olan allelopatik etkilerinin belirlenmesi amacıyla laboratuvar koşullarında tesadüf parselleri deneme desenine göre 4 tekrarlı olarak yürütülmüştür. Çalışmada L-dopa 5 doz (Kontrol, 300 mg/L, 600 mg/L, 900 mg/L ve 1200 mg/L) olarak gerçekleştirilmiştir. Farklı L-dopa konsantrasyonlarının buğday ve yabancı ot tohumlarına olan etkisinde; ortalama çimlenme zamanı (OÇZ (gün)), ortalama çimlenme oranı (%) ve Normal-Anormal fide oranı (%) parametreleri ele alınmıştır. Elde edilen sonuçlara göre yabancı ot türlerinde kontrole kıyasla ortalama çimlenme oranında anlamlı ($p<0,05$) azalış görülmüş olup, OÇZ ve Normal-Anormal fide oranında da istatistiki anlamda önemsiz olmakla birlikte artışlar gözlemlenmiştir.

Anahtar Kelimeler: L-DOPA, Yabancı ot tohum, Çimlenme, Allelopati

ABSTRACT

Phytochemicals released into the environment by plant species prevent the germination and growth of nearby plants by changing their metabolic activities or having a negative effect on other plants living in the soil. This process is known as allelopathy. L-dopa is one such phytochemical. Levodopa, commonly known as L-Dopa, is also an amino acid used to treat Parkinson's disease (PD) and serves as a direct precursor to dopamine. L-Dopa is a precursor to many alkaloids, catecholamines, and melanins in plants, and is released into the soil by a variety of plants, including faba bean and mucuna, which inhibit the growth of surrounding plant species. The study was conducted to determine the allelopathic effects of L-dopa on several weed species (*Sinapis arvensis* L., *Galium tricornerutum* Dandy., *Convolvulus arvensis* L. *Avena barbata* Pott ex Link subsp. *barbata*) and two wheat cultivars (Sömez-Bezosta) in a randomized plot design with four replications. Five dose of L-dopa (control, 300 mg/L, 600 mg/L, 900 mg/L, and 1200 mg/L) were performed. In the effect of different L-dopa concentrations on wheat and weed seeds; mean germination time (MGT (days)), mean germination rate (%), and Normal-Abnormal seedling rate (%) parameters are considered. According to the results, there was a statistically significant ($p < 0.05$) decrease in the average germination rate in weed species compared to the control, and statistically insignificant increases in the mean germination time and Normal-Abnormal seedling rates.

Keywords: L-DOPA, Weed Seeds, Germination, Allelopathy

CURRENT APPROACHES TO THE PRODUCTION OF NEW NON-DAIRY PROBIOTIC FOODS

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ABSTRACT

Probiotic foods are the fastest growing area of functional food development. Traditional delivery vehicles for probiotic bacteria are dairy products. However, several disadvantages associated with the consumption of dairy products (lactose intolerance, cholesterol content and allergenic milk proteins, requirement for cold storage, short shelf life) limit their use. Therefore, it is important to develop new non-dairy probiotic products. In this direction; probiotic cultures have been successfully applied in different types of food matrices in recent years, and a large number of non-dairy probiotic foods are present on the global market. Probiotic food products obtained by fermentation of cereal, fruit and vegetable and meat products attract the attention of the scientific world as well as consumers. Furthermore, current studies have also investigated the possibilities of many different products such as bread, chocolate, confectionery products and salad dressing to be carriers of probiotics.

The application of probiotic cultures in different food matrices (dairy and non-dairy), could represent a great challenge for the viability of probiotics. Probiotic products must contain sufficiently high levels of viable probiotic strain(s) during processing, storage and consumption. Many factors may affect the viability of probiotic bacteria in foods including pH, storage temperature, oxygen content, and the presence of inhibitors. Additionally, the probiotics in the food product shouldn't have a negative impact on the sensory or product quality. Current techniques such as microencapsulation, the addition of prebiotics, the use of oxygen barrier packaging, new cell protective agents and the use of probiotic edible films are included in non-dairy probiotic food production studies.

The purpose of the present study is to review the application of probiotics in new non-dairy foods and current methods applied to improve probiotic stability and viability in these food matrices.

Key words: Non-dairy probiotic foods, viability, microencapsulation

ÖZET

Probiyotik gıdalar, fonksiyonel gıda geliştirme alanının en hızlı büyüyen grubunu oluşturmaktadır. Probiyotik bakterilerin geleneksel taşıyıcıları süt ürünleridir. Bununla birlikte, süt ürünlerinin tüketimi ilgili çeşitli dezavantajlar (laktoz intoleransı, kolesterol içeriği ve alerjenik süt proteinleri, soğukta depolama gerekliliği, nispeten kısa raf ömrü) bu ürünlerin kullanımlarını sınırlandırmaktadır. Bundan dolayı süt ürünü olmayan probiyotikli yeni ürünlerin geliştirilmesi önem kazanmaktadır. Bu doğrultuda; son yıllarda probiyotik kültürler farklı tipte gıda matrislerine başarıyla uygulanmış ve süt ürünü olmayan çok sayıda probiyotik gıda küresel pazarda yer bulmuştur. Tahıl, meyve ve sebze ve et ürünlerinin fermantasyonu ile elde edilen probiyotik gıda ürünleri tüketicilerin yanı sıra bilim dünyasının da ilgisini çekmektedir. Ayrıca son yıllardaki bilimsel çalışmalarda ekmek, çikolata, şekerleme ürünleri, salata sosu gibi birçok farklı ürünün probiyotik taşıyıcısı olabileme imkanları araştırılmıştır.

Probiyotik kültürlerin farklı gıda matrislerinde uygulanması, probiyotik canlılığı açısından bazı zorluklar teşkil etmektedir. Probiyotik ürünlerin işleme, depolama ve tüketim sırasında yeterince yüksek seviyelerde probiyotik suş(lar) içermesi gerekmektedir. Gıda matrisindeki probiyotik canlılığı; pH, depolama sıcaklığı, oksijen seviyesi ve inhibitörlerin varlığı gibi faktörlere bağlıdır. Aynı zamanda gıda ürünündeki probiyotik varlığı, ürün kalitesini veya duyu özelliklerini olumsuz etkilememelidir. Bu çerçevede süt ürünü olmayan probiyotik gıda üretim çalışmalarında; mikroenkapsülasyon, prebiyotik ilavesi, oksijen bariyerli ambalaj kullanımı gibi uygulamaların yanı sıra hücre koruyucu yeni ajanlar ve probiyotik yenilebilir film kullanımı gibi güncel teknikler de yer almaktadır.

Bu derlemede; süt kaynaklı olmayan probiyotik yeni gıdalar ve bu gıda matrislerinde probiyotik stabilitesi ve canlılığını geliştirmek amacıyla uygulanan güncel yöntemler hakkında bilgi verilmesi amaçlanmıştır.

Anahtar Kelimeler: Süt ürünü olmayan probiyotik gıda, canlılık, mikroenkapsülasyon

**EFFICACY OF PHOSPHITES ON TOMATO BACTERIAL SPECK DISEASE CAUSED BY
PSEUDOMONAS SYRINGAE PV. *TOMATO***

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ABSTRACT

Tomato (*Solanum lycopersicum* L.), is a common vegetable crop grown world-wide. Bacterial speck disease caused by *Pseudomonas syringae* pv. *tomato* (*Pst*) is one of the most destructive seed-borne bacterial diseases of tomato. On tomato leaves, the early symptoms of the infection are small, water-soaked, dark brown specks encircled by a yellow halo. The phosphites, inorganic salts of phosphorous acid, are used as fertilizers and systemic fungicides in agriculture. The present study was conducted to investigate the performance of five distinct phosphites (calcium, copper, magnesium, potassium and zinc/manganese phosphites) and a plant activator, Fosetyl-Al to reduce the *Pst* development on leaves. The phosphites were sprayed directly onto the leaves of the *Pst*-inoculated plants that were grown in pots for a total of four weeks at one-week intervals until run-off. The plants were maintained in a greenhouse at a temperature of 22-24 °C and a relative humidity of 75-90 % till the symptoms of disease emerged in the plants. The efficacies of the treatments were around 42% and 75% in the first trial, however, they ranged between 22% and 90% in the second trial, respectively. According to the findings, Zn/Mn phosphites showed the highest disease suppression. The study recommended that phosphites have the ability to prevent the tomato leaves from *Pst* infection. This study is a Master's thesis and granted by Erciyes University Scientific Research Projects Coordination Unit (FYL-2022-11632).

Keywords: fertilizer, fungicide, phosphite, tomato, *Pseudomonas*

**ÜREME MEVSİMİ DIŞINDAKİ TUJ KOYUNLARINDA KISA VEYA UZUN SÜRELİ
PROGESTERON DESTEKLİ ÖSTRUS SENKRONİZASYONUNUN KUZULAMA ORANI,
KUZU VERİMİ ve YAŞAMA GÜCÜNE ETKİSİ**

THE EFFECT OF SHORT-TERM OR LONG-TERM PROGESTERONE-BASED ESTRUS
SYNCHRONIZATION ON LAMBING RATE, LAMB YIELD AND SURVIVOR RATE IN TUJ
EWES DURING THE NON-BREEDING SEASON

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ÖZET

Bu çalışmada amaç, üreme sezonu dışındaki Tuj koyunlarında kısa veya uzun süreli progesteron emdirilmiş vaginal sünger ve kısrak koryonik gonadotropini (eCG) ile östrus senkronizasyonunun kuzulama oranı, kuzu verimi ve yaşama gücüne etkisinin belirlenmesidir. Çalışma Mart-Mayıs ayları arasında gerçekleştirildi ve klinik olarak sağlıklı toplam 47 Tuj koyunu seçildi. Grup I'e (G1, n = 15) progesteron emdirilmiş sünger (60 mg, medroksiprogesteron asetat) vaginaya yerleştirildi (0. gün) ve 5 gün sonra 500 IU eCG kas içi enjekte edildi. Sünger 7 gün sonra vaginadan uzaklaştırıldı. Grup II'ye (G2, n = 17) progesteron emdirilmiş sünger vaginaya yerleştirildi ve 10 gün sonra 500 IU eCG kas içi enjekte edildi. Süngerler 12 gün sonra vaginadan uzaklaştırıldı. Grup III'e (G3, n = 15) herhangi bir hormon uygulaması yapılmadı. Tüm gruplara sünger uzaklandırdıktan 24 saat sonra koç katımı yapıldı. Östrus takibi 6 saat arayla 5 gün yapıldı. Gebelik muayenesi çiftleştikten 30 ± 3 gün sonra transrektal ultrasonografi ile yapıldı. İstatistiksel analizler SPSS® ve GraphPad Prism® programında yapıldı. Gruplar arası kuzulama oranı, ikizlik oranı, fekondasyon, kuzu verimi ve yaşama gücü istatistiksel olarak farklı değildi ($P>0.05$). Sonuç olarak, Tuj koyununda üreme sezonu dışında kısa veya uzun süreli progesteron emdirilmiş vaginal sünger tedavisi kuzulama oranı, kuzu verimi ve yaşama gücü üzerine benzer etkiliydi. Bundan dolayı da üreme mevsimi dışında kısa süreli östrus senkronizasyon protokolleri de tercih edilebilir.

Anahtar Kelimeler: Kısa veya uzun süreli, kuzu verimi, kuzulama, medroksiprogesteron asetat, östrus senkronizasyonu, Tuj koyunu, yaşama gücü

ABSTRACT

The aim of this study is to determine the effect of estrus synchronization on lambing rate, lamb yield and survivor rate with short-term or long-term progesterone-impregnated vaginal sponge and equine chorionic gonadotropin (eCG) in Tuj ewes during the non-breeding season. The study was conducted between March and May and a total of 47 Tuj ewes that were clinically healthy were selected. In Group I (G1, n = 15), progesterone-impregnated sponge (60 mg, medroxyprogesterone acetate) was inserted into the vagina (d-0) and 500 IU eCG was injected i.m. 5 d later. The sponge was removed 7 d later. In Group II (G2, n = 17), progesterone-impregnated sponge was inserted into the vagina and 500 IU eCG was injected i.m. 10 d later. The sponges were removed 12 d later. Group III (G3, n = 15) did not receive any hormone treatment. All groups were exposed to the ram 24 h after the sponge was removed. Estrus was monitored at 6-h intervals for 5 d. Pregnancy diagnosis was performed by transrectal ultrasonography 30 ± 3 d after mating. SPSS[®] and GraphPad Prism[®] programs were used for statistical analysis. Lambing rate, twinning rate, fecundation, lamb yield and survivor rate were not statistically different between the groups ($P > 0.05$). In conclusion, short-term or long-term progesterone-impregnated vaginal sponge treatment outside the breeding season had similar effects on lambing rate, lamb yield and survivor rate in Tuj ewes.

Keywords: Equine chorionic gonadotropin, estrus synchronization, lamb yield, lambing, survivor rate, medroxyprogesterone acetate, short-term or long-term, Tuj ewes.

SİĞIRLARDA AXIS'İN MORFOMETRİK ANALİZİ

MORPOMETRIC ANALYSIS OF AXIS IN CATTLE Dr.Nimet TURGUT

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ÖZET

Amaç: Sığırlarda, kranioservikal kompleksin caudal bölümünü oluşturan axis'in, morfometrik özellikleriyle ilgili sınırlı bilgi bulunmaktadır. Bu çalışmada, konik ışınli BT görüntüleri ve 3B modelleme yöntemi kullanılarak sığırdaki axis'in morfometrik özelliklerinin belirlenmesi hedeflenmiştir.

Gereç ve Yöntem: Çalışmada, sağlıklı 4 (2 yaşlı, dişi) farklı sığır ırkına ait masere edilmiş axis kullanıldı. Kemikler kurumaya izin verilmeden BT ile tarandı ve görüntüler kaydedildi. Görüntüler MIMICS programına aktarıldı ve kemikler modellendi. Modeller üzerinde dokuz adet lineer ölçüm yapıldı. Kemiğe ait deliklerin genişlik, yükseklik ve alan ölçümleri ise aynı programın MPR ekranı kullanılarak gerçekleştirildi. Elde edilen veriler kullanılarak yedi adet index hesaplandı. Sonuçlar ortalama ± standart sapma olarak tablo'da sunuldu.

Bulgular:

Parametreler (mm)	Ort. ± S.S	Parametreler (mm) (mm ²)	Ort. ± S.S
Vertebra yüksekliği (HV)	97.21±15.99	For. vertebrale laterale yüksekliği (HLVF)	7.97±1.02
Vertebra uzunluğu (LV)	107.60±16.56	For. transversarium yüksekliği (HTF)	3.90±0.66
Arcus vertebra uzunluğu (LA)	79.32±10.34	For vertebrale alanı (AVF)	449.12±79.78
Corpus vertebra genişliği (WB)	47.58±8.12	For vertebrale laterale alanı (ALVF)	56.75±14.28
Proc. transversus genişliği (WTP)	88.01±12.79	For. transversarium alanı (ATF)	19.04±6.89
Proc. articularis caudalis genişliği (WCAP)	63.03±9.49	Index 1 (HV/LV)	0.89±0.05
Facies articularis cranialis genişliği (WCAS)	92.64±9.50	Index 2 (LA/LV)	0.73±0.04
Proc. spinosus uzunluğu (LPS)	62.96±9.56	Index 3 (WTP/LV)	0.81±0.06
For. vertebrale uzunluğu (LVF)	80.82±12.33	Index 4 (WVF/WTP)	0.26±0.01
For vertebrale genişliği (WVF)	23.89±2.36	Index 5 (WB/WTP)	0.53±0.03
For vertebrale laterale genişliği (WLVF)	9.14±1.24	Index 6 (ALVF/AVF)	0.12±0.008
For. transversarium genişliği (WTF)	6.12±0.95	Index 7 (ATF/AVF)	0.03±0.01
For vertebrale yüksekliği (HVF)	22.16±2.10		

Sonuç: Farklı sığır ırklarına ait bu veriler, kranioservikal bölgede gerçekleştirilecek çalışmalar için referans olarak kullanılabilir.

Anahtar Kelimeler: BT, Foramen transversarium, Vertebrae

ABSTRACT

Objective: In cattle, there is limited information on the morphometric features of the axis, which forms the caudal part of the craniocervical complex. This study aimed to determine the morphometric properties of the axis in cattle by using cone beam CT images and the 3D modeling method.

Material and Methods: In the study, the macerated axis of 4 different healthy cattle breeds (2 years old, female) was used. The bones were scanned with CT without allowing them to dry and images were recorded. Images were transferred to the MIMICS program and bones were modeled. A total of 9 linear measurements were performed on the models. The width, height, and area measurements of foramina were made using the MPR screen of this program. A total of 7 indices were calculated using the obtained data. The results are presented in the table as mean \pm standard deviation.

Results:

Parameters (mm)	Mean \pm SD	Parameters (mm)(mm ²)	Mean \pm SD
Height of vertebra (HV)	97.21 \pm 15.99	Height of lateral vertebral foramen (HLVF)	7.97 \pm 1.02
Length of vertebra (LV)	107.60 \pm 16.56	Height of transverse foramen (HTF)	3.90 \pm 0.66
Length of arch (LA)	79.32 \pm 10.34	Area of vertebral foramen (AVF)	449.12 \pm 79.78
Width of body (WB)	47.58 \pm 8.12	Area of lateral vertebral foramen (ALVF)	56.75 \pm 14.28
Width across transverse process (WTP)	88.01 \pm 12.79	Area of transverse foramen (ATF)	19.04 \pm 6.89
Width across caudal articular process (WCAP)	63.03 \pm 9.49	Index 1 (HV/LV)	0.89 \pm 0.05
Width across cranial articular surface (WCAS)	92.64 \pm 9.50	Index 2 (LA/LV)	0.73 \pm 0.04
Length of spinous process (LSP)	62.96 \pm 9.56	Index 3 (WTP/LV)	0.81 \pm 0.06
Length of vertebral foramen (LVF)	80.82 \pm 12.33	Index 4 (WVF/WTP)	0.26 \pm 0.01
Width of vertebral foramen (WVF)	23.89 \pm 2.36	Index 5 (WB/WTP)	0.53 \pm 0.03
Width of lateral vertebral foramen (WLVF)	9.14 \pm 1.24	Index 6 (ALVF/AVF)	0.12 \pm 0.008
Width of transverse foramen (WTF)	6.12 \pm 0.95	Index 7 (ATF/AVF)	0.03 \pm 0.01
Height of vertebral foramen (HVF)	22.16 \pm 2.10		

Conclusion: These four cattle data are maybe used as a reference for studies to be performed in the craniocervical region.

Keywords: CT, Transverse foramen, Vertebrae

ÇEVRE ÜLKELERİN BORÇ KRİZİNİN ELEŞTİREL DEĞERLENDİRMESİ

A CRITICAL ASSESSMENT OF THE DEBT CRISIS OF PERIPHERY COUNTRIES

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ÖZET

Çevre ülkelerin borç krizlerinin ağırlaştığı yıllar ile neoliberal paradigma değişiminin yaşandığı dönem örtüşmektedir. Borç silsilesi içindeki çevre bölgelere Uluslararası Para Fonu (IMF) ve Dünya Bankası (DB) önderliğinde çözüm olarak sunulan politika paketi, liberal politikalar çatısı altında toplanmış Washington Konsensüsüdür (WK). Mali disiplin, serbest ticaret, esnek döviz kuru politikaları, finansal serbestleşme, ihracata yönelik büyüme politikalarından oluşan WK, çevre bölgelere bir zorunluluk olarak dayatılmıştır. Ancak iddia edilenin aksine çevre ülkelerin borç krizleri 1970'lerde başlayan neoliberal dönüşümün ardından sıklaşmıştır. Bu tezata uluslararası örgütlerin cevabı ise WK'nin yönetim, özelleştirme, bağımsız idari otoriteler vb. politikaları içerecek biçimde güncellenmiş hali, Post WK'dir.

Covid 19 salgını, süregelen dış borç krizi içindeki çevre ülke ekonomilerini daha büyük bir çıkmaza sürüklemiştir. Çevre bölgelerin krizine yönelik uluslararası kuruluşların iddiası önerilen politika paketlerinin yanlış uygulanması iken heterodoks çalışmalar durumu kapitalizmin krizlere içkin olması ile açıklamaktadır. Ana akım literatür az gelişmişliğin (çevre olmanın) nedenini kapitalist sistem dışında aramakta ama çözümü kapitalist sistem içinde sunmaktadır. Böylece az gelişmişliğin sürekliliği ile kapitalist sistem arasındaki sürekliliği göz ardı etmektedir. Ek olarak, çevre ülke olmaktan kurtulmaya yönelik çözüm önerileri de ülkelerin yapısal farklılıklarını, özgül koşullarını içermeyen, aşağı yukarı on yıllardır önerilen aynı politiklardır.

Bu çalışmanın amacı, çevre ülkelerin, Covid 19 küresel pandemi krizi ile daha da şiddetlenen borç krizlerini ekonomi politik bir düzlemde, Bağımlılık Okulu'na referansla ve Jason W. Moore aracılığı ile literatüre giren kapitalosen kavramına atıfla değerlendirerek çözümün kapitalist sistem dışında olduğunun ortaya konulmasıdır.

Çalışma çevre ülkelerin kapitalist sistem için gerekli olduğu ve kapitalist yeniden üretim sürecinin çevre coğrafyanın sağladığı ucuz ham madde, ucuz emek gücü, geniş tüketici potansiyeli, süreklileşen kredi borç ödemeleri olmadan sekteye uğrayacağı sonucuna ulaşmıştır. Çevre olmaktan kurtulmanın yolu kapitalist sistem dışında aranmalıdır.

Anahtar Kelimeler: Borç Krizi, Bağımlılık Okulu, Kapitalosen, Covid 19.

ABSTRACT

The years in which the debt crises of the periphery countries worsened and the period of neoliberal paradigm shift coincide. The policy package presented as a solution to the periphery regions within the debt chain, under the leadership of the International Monetary Fund (IMF) and the World Bank (WB), is the Washington Consensus (WK), gathered under the roof of liberal policies. WK, which consists of fiscal discipline, free trade, flexible exchange rate policies, financial liberalization, and export-oriented growth policies, has been imposed on the surrounding regions as a necessity. Nevertheless, contrary to what is claimed, debt crises of periphery countries became more frequent after the neoliberal transformation that started in the 1970s. The answer of international organizations to this contrast is WK's governance, privatization, independent administrative authorities, etc. The updated version to include policies is Post WK.

The Covid 19 epidemic has dragged the economies of the surrounding countries, which are in the ongoing foreign debt crisis, to a greater stalemate. While the claim of international organizations for the crisis of the periphery regions is the incorrect implementation of the proposed policy packages, heterodox studies explain the situation with the immanence of capitalism in crises. Mainstream literature seeks the cause of underdevelopment (being the environment) outside the capitalist system, but offers the solution within the capitalist system. Thus, it ignores the continuity between the continuity of underdevelopment and the capitalist system. In addition, the solution proposals for getting rid of being a periphery country are the same policies that have been proposed for decades, which do not include the structural differences and specific conditions of the countries.

The aim of this study is to reveal that the solution is outside the capitalist system by evaluating the debt crises of the surrounding countries, which are exacerbated by the Covid 19 global pandemic crisis, on a political economy, with reference to the Addiction School and with reference to the concept of capitalocene, which entered the literature through Jason W. Moore.

The study has concluded that the periphery countries are necessary for the capitalist system and the capitalist reproduction process will be interrupted without cheap raw materials, cheap labour power, large consumer potential, and continuous loan debt payments provided by the periphery geography. The way to get rid of being an periphery country should be sought outside the capitalist system.

Keywords: Debt Crisis, Dependency School, Capitalocene, Covid 19.

ULUSLARARASI ENERJİ AJANSI ÜLKELERİNDE ENERJİ VERİMLİLİĞİ: İSTENMEYEN ÇIKTI ALTINDA ETKİNLİK ANALİZİ

ENERGY EFFICIENCY IN INTERNATIONAL ENERGY AGENCY COUNTRIES: EFFICIENCY ANALYSIS UNDER UNDESIRABLE OUTPUT

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ÖZET

Enerji verimliliğinin sağlanması pek çok ülkenin öncelikli hedefleri arasında yer almaktadır. Ancak enerji verimliliği hedeflerine ulaşırken eş zamanlı olarak çevre üzerindeki baskıların azaltılması sürdürülebilirlik için kritik derecede önemlidir. Bu motivasyondan hareketle bu çalışmada, 2000-2020 döneminde Uluslararası Enerji Ajansı (IEA) Üyesi 29 ülkede veri zarflama analizi (VZA) yöntemi kullanılarak istenmeyen çıktı altında ülkelerin toplam faktör enerji verimliliği ve verimlilik değişimlerinin kaynakları hesaplanmıştır. Bu amaçla iki çıktı, üç girdiden oluşan üretim modeli esas alınarak IEA ülkeleri hem verimli enerji kullanımı hem de karbon emisyonlarının azaltılması hedefleri bakımından karşılaştırılmıştır. Temel üretim modelinde çıktı değişkeni olarak GSYH, istenmeyen çıktı değişkeni olarak enerji kaynaklı toplam karbondioksit emisyonu kullanılırken, enerji tüketimi, sabit sermaye oluşumu ve toplam işgücü değişkenleri girdi değişkeni olarak kullanılmıştır. Ampirik bulgular, söz konusu dönemde tüm örneklem için ortalama enerji verimliliğinin yüzde 0,4 arttığını ve bu artışın tamamen teknolojik değişim kaynaklı olduğunu göstermiştir. Ayrıca ilgili dönemde örneklemdaki 21 ülkede verimlilik artışı yaşanırken, bir ülkenin verimliliği sabit kalmış ve geri kalan 7 ülke de ise verimlilik azalmıştır. Toplam faktör enerji verimliliğindeki en yüksek artışın %2,2 ile Yunanistan'da, en yüksek azalışın ise %4,5 ile Estonya'da gerçekleştiği gözlemlenmiştir. Bir diğer bulgu ise, 2008 krizi ve Covid-19 salgını dönemlerinin diğer yıllardan pozitif yönde ayrışmasıdır. İlgili yıllarda, ekonomik aktivitedeki durgunluğun enerji verimliliğinde görece yüksek değerlere neden olduğu düşünülmektedir.

Anahtar Kelimeler: Enerji Verimliliği, Çevre, Veri Zarflama Analizi, İstenmeyen Çıktı

ABSTRACT

Ensuring energy efficiency is among the main goals of many countries. However, reducing pressures on the environment while simultaneously achieving energy efficiency goal is critically important for sustainability. Based on this motivation, in this study, the sources of the total factor energy efficiency and productivity changes of the countries under the undesirable output are calculated by using the data envelopment analysis (DEA) method in 29 International Energy Agency (IEA) member countries in the period of 2000-2020. For this purpose, by using a production model consisting of two outputs and three inputs, IEA countries are compared in terms of both efficient energy use and reduction of carbon emissions. In the basic production model, GDP is used as output variable and total carbon dioxide emission originating from energy is used as undesired output variable, while energy consumption, fixed capital formation and total labor force are used as input variables. Empirical findings show that the average energy efficiency for the entire sample increased by 0.4 percent in the period and this increase is entirely due to technological change. In addition, while there is an increase in productivity in 21 countries in the sample in the period, the productivity of one country remained stable and the productivity decreased in the remaining 7 countries. It is observed that the highest increase in total factor energy efficiency is realized in Greece with 2.2% and the highest decrease in Estonia with 4.5%. Another finding is that the 2008 crisis and the Covid-19 epidemic periods differ positively from other years. In the relevant years, it is thought that the stagnation in economic activity caused relatively high values in energy efficiency.

Keywords: Energy Efficiency, Environment, Data Envelopment Analysis, Undesirable Output

**STARTUP KURUCULARININ SOSYAL VE BEŞERÎ SERMAYESİ İLE ÖRGÜT
PERFORMANSI İLİŞKİSİ: DÖNÜŞÜMCÜ LİDERLİK VE İŞE ADANMIŞLIĞININ ARACI
ROLÜ**

THE RELATIONSHIP BETWEEN SOCIAL AND HUMAN CAPITAL OF STARTUP FOUNDERS
AND ORGANIZATIONAL PERFORMANCE: THE MEDIATING ROLE OF
TRANSFORMATIONAL LEADERSHIP AND WORK ENGAGEMENT

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ÖZET

Günümüz rekabet ortamında yenilikçilik ve değişim performansı, iş dünyasının en önemli değerleri haline gelmiştir. Bu durum ise startup işletmelerini doğurmuştur. Startup, kendini gerçekleştirme, riskli ve öngörülemez fikirleri geliştirme ve uygulama fırsatının birleşimi olan ve özel bir girişim türünü yansıtan firmaları ifade etmek için kullanılan bir kavramdır. Ülkelerin ekonomi ve istihdam performansı üzerinden toplumlar üzerinde önemli etkilere sahip olması ve oldukça yaygınlık kazanması nedeniyle startup işletmeleri, çok sayıda akademik çalışmaya konu olmuştur. Bu şirketler, büyük şirketlere kıyasla, daha hızlı bir şekilde yeniliklere ayak uyduran ve kendilerini çok hızlı dönüştüren girişim firmalarıdır. Bu işletmeler yeni kurulmuş ya da yaşam döngüsünün henüz başındadır. Dolayısıyla performansları da büyük oranda kurucu liderlerin başarısına bağlıdır. Literatür incelendiğinde, kurucuların sahip olduğu sosyal ve beşerî sermaye ile startupların performansı ilişkisini ele alan çok sayıda çalışma olduğu görülmektedir. Bu çalışmalarda, sosyal ve beşerî sermayenin startup firmalarının performansını etkilediği ortaya konulmuştur. Bu çalışmalarda çeşitli aracı mekanizmalar da tanımlanmış olmasına karşılık, liderlik ve işe adanmışlığının birlikte ele alındığı bütüncül bir modelin ortaya konulması ihmal edilmiştir. Araştırmacıların, direk ilişkilerden ziyade, değişkenler arasındaki ilişki mekanizmalarını ortaya çıkarmaları gerektiği gerçeğinden hareketle, bu çalışmanın temel amacı, startup kurucularının sosyal ve beşerî sermayesinin örgüt performansı ile ilişkisi ve bu ilişkide liderlik ile çalışanların işe adanmışlığın aracı rolü ele alınmaktadır. Çalışma, literatür incelemesine dayalı olarak söz konusu ilişkilerin teorik alt yapısını ortaya çıkarmayı hedeflemektedir. Bu bağlamda yapılan incelemeler sonucunda kurucu liderlerin sosyal ve beşerî sermayesi onların liderlik kabiliyetlerini, liderlik kabiliyetleri ise çalışanların adanmışlığını pozitif yönde etkilemektedir. Liderlik, sosyal ve beşerî sermaye ile örgüt performansı ilişkisinde, işe adanmışlık ise liderlik ve örgüt performansı ilişkisinde aracı etkiye sahiptir. Çalışmada, bu ilişkilere yönelik önermeler geliştirilmiş ve bunlar sonuç kısmında literatürle kıyaslı olarak tartışılmıştır.

Anahtar Kelimeler: Sosyal Sermaye, Beşerî Sermaye, Dönüşümcü Liderlik, İşe Adanmışlık, Örgüt Performansı.

ABSTRACT

In today's competitive environment, the innovation and change performance has a great importance for the business world. This situation gave a birth to startup businesses. Startup refer to the firms that are a special type of enterprise, which is a combination of self-realization, the opportunity to develop and implement risky and unpredictable ideas. Startups have been the subject of many academic studies, as they have significant effects on societies through the economy and employment performance of countries, and have become quite widespread. These companies are venture firms that keep up with innovations and transform themselves very quickly compared to large companies. These are the firms that newly established or just at the beginning of their life cycle. The performance of these businesses has largely depended on the success of the founding leaders. When the literature is examined, it is seen that there are many studies dealing with the relationship between the social and human capital of the founders and the performance of startup companies. In these studies, it has been revealed that social and human capital affect the performance of startup companies. Although various intermediary mechanisms have also been defined in these studies, it has been neglected to present a holistic model in which leadership and employees' work engagement are considered together as mediators. Starting from the fact that researchers should reveal the relationship mechanisms between variables, rather than direct relationships, the main purpose of this study is to examine the relationship between the social and human capital of startup founders and organizational performance, and the mediating role of leadership styles and work engagement in this relationship. Based on the literature review, the study aimed to reveal the theoretical background of these relations. As a result of the examinations made in this context, the social and human capital of the founding leaders demonstrates a strong correlation with their leadership abilities, and their leadership abilities positively affect the work engagement. Leadership has a mediating effect on the relationship between social and human capital and organizational performance, while work engagement has a mediating effect on the relationship between leadership and organizational performance. In the study, propositions for these relations were developed and these were discussed in the conclusion part in comparison with the literature.

Keywords: Human Capital, Social Capital, Transformational Leadership, Work Engagement, Organizational Performance.

**TÜKENMİŞLİK VE İŞTEN AYRILMA NİYETİ ARASINDAKİ İLİŞKİNİN META ANALİZ
YÖNTEMİYLE İNCELENMESİ: TÜRKİYE BAĞLAMINDA BİR ARAŞTIRMA**
INVESTIGATION THE RELATIONSHIP BETWEEN BURNOUT AND INTENTION TO LEAVE
THROUGH META-ANALYSIS: A STUDY IN TURKISH CONTEXT

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ÖZET

Bu çalışmanın öncelikli amacı, tükenmişlik ile çalışanların işten ayrılma niyetleri arasındaki düzeyini meta-analiz yöntemiyle belirlemektir. Çalışmanın ikincil amacı ise, tükenmişlik ile çalışanların işten ayrılma niyetleri arasındaki ilişkide sektör, çalışma türü ve çalışma yılı değişkenlerinin anlamlı bir etkisinin olup olmadığını irdelemektir. Meta-analiz, belirli bir alanda belirli bir süre içinde yürütülen birkaç bağımsız çalışma aracılığı ile o alanda genel çıkarımlar ve yorumlamalar yapmaya yarayan, incelenen konuya kapsamlı bir bakış açısı sağlayan ve incelenen konu için genel bir sonuç geliştiren istatistiksel bir metodolojidir.

Çalışmanın amaçları doğrultusunda, tükenmişlik ile işten ayrılma niyeti arasındaki ilişkiyi irdeleyen bireysel çalışmalar değerlendirilmeye alınmıştır. Meta analiz sonuçlarının güncelliğinin sağlanması amacıyla, 2017 ve 2021 yılları arasındaki beş yıllık dönemi kapsayan çalışmalar mevcut meta-analiz çalışması kapsamında değerlendirilmiştir. Bahsi geçen dönemde tükenmişlik ve işten ayrılma niyeti arasındaki ilişkiyi inceleyen çalışmaların meta-analiz kapsamında değerlendirilebilmesi için bu çalışmada bazı bilimsel seçim kriterleri uygulanmıştır. Uygulanan kriterler sonrasında, tükenmişliğin alt boyutlarını oluşturan duygusal tükenmişlik ve duyarsızlaşma ile işten ayrılma niyeti arasındaki ilişkiyi inceleyen 20 ve kişisel başarı hissinde azalma ile işten ayrılma niyeti arasındaki ilişkiyi inceleyen 19 bireysel çalışma mevcut meta analiz kapsamına dâhil edilmiştir.

Araştırmada yayın yanlılığına dair herhangi bir bulguya rastlanmamıştır. Dolayısıyla mevcut meta analiz çalışmasına ait sonuçların güvenilir olduğu belirtilebilir. Araştırmada, çalışmalar yüksek derecede heterojenlik göstermektedir. Bu sebeple, değişkenler arasındaki etki büyüklüğünün tespit edilmesi amacıyla rastgele etkiler modeli ve bu değerlerin hesaplanışında Fisher-z katsayısı kullanılmıştır. Araştırmaya ait veriler Comprehensive Meta Analysis 3.0. paket programı ile analize tabi tutulmuştur. Araştırmanın bulgularına göre duygusal tükenmişlik, duyarsızlaşma ve kişisel başarı ile işten ayrılma niyeti arasında sırasıyla yüksek, orta ve düşük düzeyde bir ilişkinin varlığı tespit edilmiştir.

Araştırmada, tükenmişliğin alt boyutları ve iş tatmini arasındaki ilişkiyi etkileyebileceği düşünülen çalışmanın türü, çalışmanın yapıldığı yıl ve sektör değişkenleri moderatör (düzenleyici) değişken olarak öngörülmüştür. Yapılan analizler sonucunda duyarsızlaşma ile işten ayrılma niyeti arasında çalışmanın yapıldığı yıl değişkeni moderatör değişken olarak tespit edilmiştir. Dolayısıyla tükenmişliğin alt boyutları ile işten ayrılma niyeti arasındaki yapılan çalışmalarda yıllara göre farklılıklar gözlemlenebilmektedir. Bu sebeple, tükenmişlik düzeyi ile işten ayrılma niyeti arasında yapılacak lan gelecek çalışmalarda, içinde bulunulan dönemin (yılın) konjonktürel yapısı da ele alınmalı ve bu doğrultuda ilişkiler derinlemesine incelenmelidir.

Anahtar Kelimeler: Tükenmişlik, İşten Ayrılma Niyeti, Meta Analiz

ABSTRACT

Using meta-analysis, the primary objective of this study is to determine the level of relationship between burnout and employees' intention to leave. The secondary objective of the study is to determine if industry, type, and years of study have a significant impact on the relationship between burnout and employees' intention to leave. Meta-analysis is a statistical method that allows generalizations and interpretations to be derived from a limited number of independent studies conducted over a period of time, provides a broad perspective on the subject under investigation, and generates a general result for the topic being studied.

Individual studies examining the relationship between burnout and intention to leave were analyzed for the purposes of the study. In order to maintain the validity of the meta-analysis results, publications published between 2017 and 2021 were evaluated within the scope of the current meta-analysis study. In order to analyze the research examining the relationship between burnout and intention to leave within the scope of meta-analysis within the specified time period, this study utilized a set of scientific selection criteria. After the applied criteria, 20 individual studies examining the relationship between emotional exhaustion and depersonalization, which are the sub-dimensions of burnout, and intention to leave, and 19 individual studies examining the relationship between a decrease in personal accomplishment and intention to leave were included in the current meta-analysis.

No findings on publication bias were found in the study. Therefore, it can be stated that the results of the current meta-analysis study are reliable. Studies in research demonstrate a great degree of heterogeneity. Therefore, the random effects model was utilized to determine the effect size between the variables, and the Fisher-z coefficient was utilized to calculate this value. Research data is analyzed by Comprehensive Meta Analysis 3.0. package program. According to the study's findings, a strong, moderate, and weak relationship exists between emotional exhaustion, depersonalization, and personal achievement and intention to leave, respectively.

In the study, the type of study, the year of study and the sector variables, which are thought to affect the relationship between the sub-dimensions of burnout and job satisfaction, were predicted as moderator variables. As a result of the analyzes, the variable of the year in which the study was conducted between depersonalization and intention to leave was determined as the moderator variable. Therefore, in the studies conducted between the sub-dimensions of burnout and the intention to leave, differences can be observed according to years. For this reason, in future studies to be conducted between the level of burnout and the intention to leave, the cyclical structure of the current period (year) should also be addressed, and the relations in this direction should be examined in depth.

Keywords: Burnout, Intention to Leave, Meta Analysis

**META ANALİZ YÖNTEMİYLE ÖRGÜTSEL ADALET VE ÖRGÜTSEL SINIZM
ARASINDAKİ İLİŞKİNİN İNCELENMESİ: TÜRKİYE BAĞLAMINDA BİR ARAŞTIRMA**
INVESTIGATION OF THE RELATIONSHIP BETWEEN ORGANIZATIONAL JUSTICE AND
ORGANIZATIONAL CYNICISM THROUGH META-ANALYSIS: A STUDY IN TURKISH
CONTEXT

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ÖZET

Bu araştırmanın birincil amacı, çalışanların örgütsel adalet ile örgütsel sinizm algıları arasındaki ilişkiyi meta analiz yoluyla irdelemektir. İlaveten, örgütsel adalet ve örgütsel sinizm arasındaki ilişkiye etkisi olabileceği düşünülen moderatör (düzenleyici) değişkenlerin varlığının tespit edilmesi de araştırmanın ikincil amacını oluşturmaktadır. Bu bağlamda, örgütsel adalet ve örgütsel sinizm arasındaki ilişkide sektör, çalışma türü ve çalışma yılı moderatör değişkenlerinin anlamlı bir etkisinin olup olmadığını irdelemek gereklidir.

Çalışmada örgütsel adalet ve örgütsel sinizmin alt boyutları ele alınarak ilişkisel bir meta analiz çalışması gerçekleştirilmiştir. Bu kapsamda, 2017-2021 yılları arasında yayınlanan, örgütsel adalet ve örgütsel sinizm alt boyutları arasındaki ilişkiyi ele alan, korelasyon katsayısını içeren ve meta analiz için gerekli olan örneklem sayısını barındıran çalışmaların meta analizleri yapılmıştır.

Araştırmada Comprehensive Meta Analysis 3.0. (CMA 3.0) programı kullanılarak veriler analiz edilmiştir. Veri analizi kapsamında örgütsel adalet ve örgütsel sinizmin alt boyutları arasındaki etki büyüklüğü değerleri hesaplanmıştır. Etki değerinin hesaplanışında Fisher-z katsayısı kullanılmıştır. Ayrıca çalışma verilerinin güvenilirliği açısından yayın yanlılığı testleri gerçekleştirilmiştir. Araştırmaya dâhil edilen bireysel çalışmaların niteliğinin benzer ya da farklı olup olmadığınıın tespiti için heterojenlik testi yapılmıştır. Yapılan yayın yanlılığı analizlerine göre mevcut meta analiz çalışmasında herhangi bir yayın yanlılığı bulgusuna rastlanmamıştır. Yapılan heterojenlik testine göre, mevcut çalışmada yüksek düzeyde heterojenlik tespit edilmiştir. Bu analize göre, araştırmaya dâhil edilen bireysel çalışmaların niteliğinin farklı olduğu belirtilebilir.

Rastgele etkiler modeli temel alınarak gerçekleştirilen analizlere göre, örgütsel adalet ve örgütsel sinizm alt boyutları arasındaki ilişkiler şöyledir: Bilişsel sinizm ile dağıtım, işlemsel ve etkileşim adaleti arasında sırasıyla orta, yüksek ve yüksek düzeyde negatif yönde anlamlı bir ilişki tespit edilmiştir. Duyuşsal sinizm ile dağıtım, işlemsel ve etkileşim adaleti arasında sırasıyla orta, orta ve yüksek düzeyde negatif yönde anlamlı bir ilişki tespit edilmiştir. Davranışsal sinizm ile dağıtım, işlemsel ve etkileşim adaleti arasında orta düzeyde negatif yönde anlamlı bir ilişki tespit edilmiştir.

Örgütsel adalet ve örgütsel sinizm arasında yapılan düzenleyici etki analizlerine göre şu ilişkiler tespit edilmiştir Bilişsel ve duyuşsal sinizm ile dağıtım adaleti arasındaki ilişkide çalışmanın yapıldığı yıl düzenleyici bir role sahiptir. İlaveten, bilişsel sinizm ile işlem adaleti ve etkileşim adaleti arasında çalışmanın yapıldığı yılın düzenleyici bir rol oynadığı tespit edilmiştir. Son olarak, duyuşsal sinizm ile işlemsel adalet arasında çalışmanın yapıldığı yılın düzenleyici bir rolü olduğu görülmüştür. Dolayısıyla, örgütsel adalet ve örgütsel sinizm arasında yapılacak gelecek çalışmalarda çalışmanın yapıldığı yıla ait

konjonktür dikkate alınmalıdır. Böylece çalışmanın yapıldığı konjonktür dikkate alınarak, örgütsel adalet ve örgütsel sinizm arasında daha derinlemesine sonuçlar ortaya çıkarılabilir.

Anahtar Kelimeler:Örgütsel Adalet, Örgütsel Sinizm, Meta Analiz

ABSTRACT

Through meta-analysis, the primary purpose of the research is to assess the relationship between employee perceptions of organizational justice and organizational cynicism. The secondary purpose of the study is to assess the presence of moderator variables, which are thought to affect the relationship between organizational justice and organizational cynicism. In this context, it is vital to determine if sector, type and year of the published papers year have an impact on the relationship between organizational justice and organizational cynicism.

In the study, a relational meta-analysis study was carried out by considering the sub-dimensions of organizational justice and organizational cynicism. In this context, studies published between 2017-2021, dealing with the relationship between organizational justice and organizational cynicism sub-dimensions, including the correlation coefficient and the number of samples required for meta-analysis, were conducted.

Comprehensive Meta Analysis 3.0 (CMA 3.0) software was used to analyze the data. The effect size values between the subdimensions of organizational justice and organizational cynicism were computed as part of the data analysis. Utilizing the Fisher-z coefficient, the effect value was computed. Additionally, publication bias tests were performed to test the reliability of the data. The heterogeneity test was performed to evaluate if the content of the individual studies included in the study was similar or unique. According to the analysis of publication bias, no publication bias was detected. The test for heterogeneity revealed a high amount of heterogeneity. Based on this analysis, it is possible to conclude that the content of the individual studies included in the research varies.

According to the analyzes based on the random effects model, the relationships between organizational justice and organizational cynicism sub-dimensions are as follows: A moderate, high and high negative significant relationship was found between cognitive cynicism and distributive, procedural and interactional justice, respectively. There was a moderate, moderate and high level of negative significant relationship between affective cynicism and distributive, procedural and interactional justice, respectively. A moderately negative and significant relationship was found between behavioral cynicism and distributive, procedural and interactional justice.

According to the regulative effect analyzes between organizational justice and organizational cynicism, the following relationships were determined: The year the study was conducted has a moderator role in the relationship between cognitive and affective cynicism and distributive justice. In addition, it was determined that the year of the study played a moderator role between cognitive cynicism, procedural justice and interactional justice. Finally, the year in which the study was conducted had a moderating role between affective cynicism and procedural justice. Therefore, in future studies on the relationship between organizational justice and organizational cynicism, the conjuncture of the year the study was conducted should be taken into account. Thus, considering the conjuncture in which the study was conducted, more

in-depth interpretations and inferences can be made in explaining the relationship between organizational justice and organizational cynicism.

Keywords: Organizational Justice, Organizational Cynicism, Meta Analysis

NİCEL KARAR VERME TEKNİKLERİNDEN VERİ ZARFLAMA ANALİZİ ÜZERİNE BİR ARAŞTIRMA

A STUDY ON DATA ENVELOPMENT ANALYSIS IN QUANTITATIVE DECISION-MAKING
TECHNIQUES

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ÖZET

Bu çalışmada karar bilimi içerisinde yer alan ve çok kriterli karar verme tekniklerinden biri olan veri zarflama analizi ile ilgili yapılan çalışmaların incelenmesi amaçlanmıştır. Bu amaçla 2012-2021 yılları arasında karar bilimi ve veri zarflama analizi ile ilgili dünya genelinde yapılan çalışmalar Scopus/SciVal veri tabanı üzerinden incelenmiştir. Veri tabanından elde edilen çalışmaların bilimsel çıktı sayısı, görüntülenme sayısı, atıf sayısı ve alan ağırlıklı atıf etkisi gibi değerlerin yıllara göre dağılımı bulunmuştur. Ayrıca veri zarflama analizi ile ilgili üretilen bilimsel çıktılar için kurulan işbirlikleri ve en fazla bilimsel çıktıya sahip üniversite bilgilerine de yer verilmiştir. İlgili yıllar arasında yapılan çalışmaların mevcut durumları değerlendirilerek yapılacak çalışmalara yön vermesi hedeflenmektedir.

Anahtar Kelimeler: Karar Bilimi, Veri Zarflama Analizi, Scopus/SciVal

ABSTRACT

This study, it is aimed to examine the studies on data envelopment analysis, which is one of the multi-criteria decision-making techniques in decision science. For this purpose, worldwide studies on decision science and data envelopment analysis between 2012-2021 were examined through the Scopus/SciVal database. The distribution of values such as the number of scholarly outputs, the number of views, the number of citations, and the field-weighted citations impact of the studies obtained from the database was found according to years. In addition, the collaborations established for the scientific outputs related to data envelopment analysis are explained. In addition, university information with the highest scholarly outputs is also included. It is aimed to evaluate the current status of the studies carried out between the relevant years and to guide the studies to be carried out.

Keywords: Decision Science, Data Envelopment Analysis, Scopus/SciVal

ÖRGÜTSEL SINIZM'IN ÖRGÜTSEL GURUR ÜZERİNDEKİ ETKİSİ: ENDÜSTRİ İŞLETMELERİ ÜZERİNDE BİR ARAŞTIRMA

THE EFFECT OF ORGANIZATIONAL CYINSM ON ORGANIZATIONAL PRIDE: A RESEARCH ON INDUSTRIAL COMPANIES

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ÖZET

Örgütsel sinizm araştırmaları kavramı, çalışanların örgütlerine ilişkin olumsuz tutumları olarak değerlendirmektedir. Bu durum, belirli amaçlar için kurulmuş olan örgütlerin yapı ve işleyişini olumsuz etkileyebilir. Örgütsel gurur ise çalışanların örgütüne yönelik olumlu inançlarını yansıtmaktadır. Mesela bir çalışan, örgütünün performansından tatmin yaşadığında örgütünü bir gurur kaynağı olarak değerlendirebilir. Bununla birlikte, çalışanların, içerisinde yer aldıkları örgütlerine yönelik düşünce ve algılarına eğilim gösteren ve buna bağlı insan kaynakları stratejileri geliştiren işletmelerin güçlü rekabet ortamında avantaj sağlayacağı açıktır. Bu nedenle örgütsel sinizm ve örgütsel gurur gibi çalışanların inanç ve değerlendirmelerini içeren değişkenler arasındaki ilişkinin incelenmesi önemli görülmektedir. Bu kapsamda bu araştırma, örgütsel sinizmin örgütsel gurur üzerindeki etkisini incelemek amacıyla gerçekleştirilmiştir. Diğer ifadeyle araştırmada, örgütsel sinizm boyutlarının (bilişsel sinizm, duygusal sinizm ve davranışsal sinizm), örgütsel gururun iki boyutuna (duygusal ve tutumsal gurur) olan etkisi incelenmiştir. Önerilen model doğrultusunda belirlenen hipotezler test edilmiştir. Araştırmanın evrenini Gaziantep Organize Sanayi Bölgesi'nde yer alan endüstri işletmeleri oluşturmaktadır. Bu kapsamda Organize Sanayi Bölgesi'nde yer alan altı endüstri işletmesinin çalışanlarından veri toplanmıştır. Araştırmada kolayda örneklem yöntemi kullanılmış, verilerinin elde edilmesinde anket tekniğinden yararlanılmıştır. Anket formları hem fiziksel hem de çevrimiçi olarak çalışanlara dağıtılmıştır. Araştırmanın örneklem sayısı ise 345 anket formunda yer alan verilerden yola çıkarak değerlendirilmiştir. Önerilen yapısal modeli test etmek için Smart PLS kullanılmıştır. Yol analizi sonuçları incelendiğinde bilişsel, duygusal ve davranışsal sinizmin duygusal gurur üzerinde anlamlı ve negatif etkisi olduğu sonucuna ulaşılmıştır. Araştırmada ayrıca bilişsel, duygusal ve davranışsal sinizmin tutumsal gurur üzerinde anlamlı ve negatif etkiye sahip olduğu sonucuna ulaşılmıştır. Araştırmada, elde edilen sonuçlara bağlı olarak, endüstri işletmelerinin insan kaynakları stratejileri geliştirmelerinde etkili olabilecek birtakım öneriler sunulmuştur.

Anahtar Kelimeler: Örgütsel sinizm, Örgütsel gurur, endüstri işletmeleri

ABSTRACT

The concept of organizational cynicism studies evaluates the negative attitudes of employees towards their organizations. This situation may adversely affect the structure and functioning of organizations established for specific purposes. Organizational pride, on the other hand, reflects the positive beliefs of employees towards their organization. For example, when an employee is satisfied with the performance of his organization, he may consider his organization as a source of pride. However, it is clear that businesses that tend to the thoughts and perceptions of employees towards their organizations and develop human resources strategies based on this will gain an advantage in a strong competitive environment. For this reason, it seems important to examine the relationship between variables involving the beliefs and evaluations of employees such as organizational cynicism and organizational pride. In this context, this research was conducted to examine the effect of organizational cynicism on organizational pride. In other words, the effect of organizational cynicism dimensions (cognitive cynicism, affective cynicism and behavioral cynicism) on two dimensions of organizational pride (emotional and attitudinal pride) was examined in the research. The hypotheses determined in line with the proposed model were tested. The universe of the research is the industrial enterprises in Gaziantep Organized Industrial Zone. In this context, data were collected from the employees of six industrial enterprises located in the Organized Industrial Zone. Convenience sampling method was used in the research and the questionnaire technique was used to obtain the data. Questionnaires were distributed to employees both physically and online. The number of samples of the research was evaluated based on the data in 345 survey form. Smart PLS was used to test the proposed structural model. When the path analysis results were examined, it was concluded that cognitive, affective and behavioral cynicism has a significant and negative effect on emotional pride. In the research, it was concluded that cognitive, emotional and behavioral cynicism has a significant and negative effect on attitudinal pride. In the research, depending on the results obtained, some suggestions that may be effective in the development of human resources strategies of industry companies were presented.

Keywords: Organizational cynicism, Organizational pride, Industrial companies

TÜRKİYE'DE GELİR VERGİSİNDE ASGARI ÜCRETE YÖNELİK VERGİ İSTİSNASININ DEĞERLENDİRİLMESİ

EVALUATION OF THE TAX EXCEPTION FOR THE MINIMUM WAGE IN INCOME TAX IN
TURKEY

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ÖZET

Vergilemede daha adil bir yapının sağlanabilmesi için düşük gelir gruplarının vergi yükünün mümkün olduğunca hafifletilmesi oldukça önemlidir. Verginin gelir ve servet eşitsizliğinin giderilmesinde bir araç olarak kullanılabilmesi anlamına gelen sosyal fonksiyonunun sağlanabilmesi ve gelir dağılımındaki adaletsizliğin mümkün olduğunca giderilebilmesi için gelir düzeyi düşük olanlara yönelik vergi muafiyeti ve istisna uygulamaları ön plana çıkmaktadır. Asgari ücretin emeği ile geçinen kişilere hayatlarını sürdürebilmeleri için verilen en düşük ücret olduğu dikkate alınır, toplum içinde asgari ücretlilere yönelik vergi teşviklerinin uygulanması adil bir vergilemenin yanı sıra, verginin sosyal fonksiyonunun ve gelir dağılımında adaletin sağlanabilmesi için oldukça önemlidir.

OECD ülkelerinin birçoğunda gelir vergisinde özellikle düşük gelire sahip mükelleflerin vergi yükünü hafifletmek amacıyla, kişisel ödenek (personal allowance) uygulaması uygulanmaktadır. Bu uygulama ile yükümlülerin yıl boyu elde ettikleri gelirin bir bölümü onların kişisel ödeneği kabul edilir ve bu ödenek vergi dışı tutulmaktadır. Üye ülkeler arasında; Belçika, Estonya, Japonya, Kore, Litvanya, Letonya, Lüksemburg, Meksika, Norveç, Polonya, Slovakya, Slovenya, İspanya, Birleşik Devletler ve İsveç'te gelir vergisinde tüm mükellefleri kapsayan kişisel ödenek uygulanmaktadır (OECD; 2020). Kişisel ödenek mükelleflerin yıl boyu vergiden muaf oldukları geliri ifade etmekle beraber, tüm mükellefleri de kapsadığından dolayı en az geçim indirimine benzetilmektedir.

OECD ülkelerinde kişisel ödenek uygulamasının yanı sıra gelir vergisinde tüm mükellefleri kapsayan ilk vergi diliminde belli bir kazançta kadar %0 vergi oranı uygulanmaktadır. Bu şekilde mükelleflerin gelir vergisi tarifesinin ilk dilim aralığı içinde yer alan kazançlarına %0 gelir vergisi uygulanmaktadır. Toplam geliri bu tarifenin ilk dilim aralığında olan mükelleflerden ise Gelir Vergisi alınmamaktadır. Bu uygulamanın kişisel ödenekte olduğu gibi daha çok düşük gelirli mükelleflerin vergi yükünü hafifletmek amacıyla kullanıldığı ifade edilebilir. Üye ülkeler arasında Avustralya, Avusturya, Şili, Kolombiya, Finlandiya, Fransa, Almanya, Lüksemburg, İsveç ve İsviçre'de gelir vergisinde ilk dilime kadar %0 vergi oranı uygulanmaktadır. Bu şekilde söz konusu ülkelerde kazancı gelir vergisi tarifesi ilk eşiği arasındaki mükelleflerden gelir vergisi alınmamaktadır (OECD; 2020).

Türkiye'de 22 Aralık 2021 tarihinde kabul edilen 7349 sayılı kanun ile tüm ücret ve maaşların asgari ücret tutarı kadar olan kısmı gelir ve damga vergisinden istisna tutulacaktır. Türkiye'de gelir vergisinde sadece gerçek usulde ücret geliri elde edenlere yönelik olan ve asgari ücreti esas alan Asgari Geçim İndirimi (AGİ) yöntemi ile mükelleflerin kendilerine, çalışmayan ve geliri olmayan eşlerine, çocuk sayısına göre farklı oranlarda vergi indirimi uygulamaktaydı. Yeni düzenleme ile AGİ uygulamasına gerek kalmamış ve bu uygulama 1 Ocak 2022 tarihinden itibaren yürürlükten kaldırılmıştır.

Çalışmanın amacı, Türkiye’de 7349 sayılı Kanun’la ücret ve maaş gelirisinin asgari ücrete denk gelen kısmının gelir vergisinden istisna tutulmasına yönelik uygulamanın, diğer OECD’ye üye ülkelerdeki benzer uygulamalarla karşılaştırarak değerlendirmektir. Çalışmada öncelikle Türkiye’de asgari ücret tutarına yönelik vergi istisnası uygulaması incelenecektir. Sonraki bölümde, OECD ülkelerinde uygulanan yıllık asgari ücret tutarları ve Gelir Vergisinde tüm mükellefleri kapsayan indirimler araştırılacaktır. Sonuç bölümünde, Türkiye’deki uygulamanın etkinliği OECD ülkeleri ile karşılaştırılarak değerlendirilerek, sonuç ve öneriler ele alınacaktır.

Türkiye’de asgari ücret tutarının tamamı gelir vergisinden istisna tutulurken, OECD ülkeleri arasında bazı ülkeler asgari ücretin üzerinde bir tutarı gelir vergisinden istisna tutarken, bazı ülkeler asgari ücretin altında bir tutarı istisna tutmaktadır. Buna göre; 2020 yılında Şili ve Kolombiya’da Gelir Vergisinde asgari ücretin üzerinden bir vergi istisnası uygulanmaktadır. Buna göre Kolombiya’da asgari ücretin yıllık tutarı 12.289.242 peso iken, yıllık 38.812.000 pesoya kadar elde edilen gelirden %0 gelir vergisi uygulanırken, Şili’de ise yıllık asgari ücret 3.807.000 peso iken, 8.266.698 pesoya kadar olan gelire %0 gelir vergisi uygulanmaktadır. Kolombiya’da asgari ücretin yaklaşık 3,15 katı elde edilen gelire %0 gelir vergisi oranı uygulanırken, Şili’de bu oran 2,17 katıdır. OECD ülkeleri arasında gelir vergisinde tüm mükellefleri kapsayan ve asgari ücrete en yakın vergi istisnası uygulayan ülkeler arasında; Estonya asgari ücretin 0,86’sına kadar olan gelire kişisel ödenek uygulanırken, bu oran Birleşik Devletlerde 0,83, Letonya’da 0,70, Litvanya’da 0,66, Slovakya’da 0,63 seviyelerindedir. Ayrıca Fransa’da asgari ücretin 0,55’ine kadar olan gelirlere %0 gelir vergisi uygulanırken, bu oran Almanya’da 0,51, Avustralya’da 0,47 seviyelerindedir.

Yapılan yeni düzenleme ile asgari ücret tutarının vergi dışı bırakılması, ücret geliri ile geçinen emek sahibi mükelleflere yönelik vergi avantajı sağlarken, bu mükelleflerin vergi yükü hafifletilmiştir. Asgari ücretin adı üstünde en düşük ücretle çalışan mükellefler olduğu göz önüne alınırsa, bu kişilerin gelirlerinin gelir vergisinden istisna tutulması ve ayrıca tüm emek sahibi olan ücret ve maaş geliri elde edenlerin de bu istisnadan yararlanmaları ayırma ilkesi uygulamasına benzemekte ve vergilemede adalet ilkesine olumlu yansımaktadır. Yapılan bu yeni düzenleme sonucu uzun yıllar tartışılan asgari ücretin gelir vergisine tabi olması ve hatta artan oranlı tarife uygulaması nedeniyle yıl içinde bir üst dilimden vergilendirilmesi sorunu ortadan kalkmıştır. Ayrıca bu düzenleme ile sadece asgari ücretlilere cüzi oranda fayda sağlayan AGİ uygulamasına gerek kalmayarak kaldırılmış ve ücret geliri elde edenlerin vergilendirilmesinin daha adil, sade ve anlaşılır olması sağlanmıştır. İlave olarak, gelir vergisinde üç, dört ve beşinci dilimlerinde uygulanan ayırma ilkesine gerek kalmamış, AGİ uygulamasında olduğu gibi bu uygulamanın da kaldırılması gündeme getirilebilir.

AnahtarKelimeler: Asgari Ücret, Gelir Vergisi, Vergi İstisnası.

ABSTRACT

In order to ensure a fairer structure in taxation, it is very important to alleviate the tax burden of low-income groups as much as possible. In order to ensure the social function of tax, which means that it can be used as a tool to eliminate income and wealth inequality, and to eliminate the injustice in income distribution as much as possible, tax exemption and exception applications for those with low income levels come into prominence. Considering that the minimum wage is the lowest wage given to people who live by their labor to sustain their lives, the application of tax incentives for minimum wage earners in the society is very

important in order to ensure fair taxation as well as the social function of tax and justice in income distribution.

In most of the OECD countries, personal allowance is applied in order to alleviate the tax burden of especially low-income taxpayers in income tax. With this practice, a portion of the income of the taxpayers throughout the year is considered their personal allowance and this allowance is excluded from taxation. Among the member countries; Belgium, Estonia, Japan, Korea, Lithuania, Latvia, Luxembourg, Mexico, Norway, Poland, Slovakia, Slovenia, Spain, the United States and Sweden apply personal allowances to all taxpayers (OECD; 2020). Personal allowance expresses the income that taxpayers are exempt from tax throughout the year, it is likened to the minimum living allowance because it includes all taxpayers.

In addition to the personal allowance application in OECD countries, 0% tax rate is applied up to a certain income in the first tax bracket covering all taxpayers in income tax. In this way, 0% income tax is applied to the earnings of the taxpayers within the first slice of the income tax tariff. Income Tax is not collected from taxpayers whose total income is in the first slice of this tariff. It can be stated that this application is mostly used to alleviate the tax burden of low-income taxpayers, as in personal allowance. Among the member countries, Australia, Austria, Chile, Colombia, Finland, France, Germany, Luxembourg, Sweden and Switzerland apply 0% tax rate up to the first tranche in income tax. In this way, income tax is not collected from taxpayers whose earnings are between the first threshold of the income tax tariff in these countries (OECD; 2020).

With the law numbered 7349 adopted on 22 December 2021 in Turkey, the minimum wage amount of all wages and salaries will be exception from income and stamp tax. In Turkey, with the Minimum Living Allowance (AGI) method, which is only for those who earn real wage income and is based on the minimum wage, taxpayers applied tax deductions at different rates depending on the number of children. With the new regulation, AGI application was no longer needed and this application was abolished as of January 1, 2022.

The aim of the study is to evaluate the practice of exempting the wage and salary income corresponding to the minimum wage from income tax with the Law No. 7349 in Turkey, by comparing it with similar practices in other OECD member countries. In the study, first of all, the tax exemption application for the minimum wage in Turkey will be examined. In the next section, annual minimum wage amounts applied in OECD countries and reductions in Income Tax covering all taxpayers will be investigated. In the conclusion part, the effectiveness of the practice in Turkey will be evaluated by comparing it with the OECD countries, and the results and recommendations will be discussed.

While the entire minimum wage is exempt from income tax in Turkey, some countries among OECD countries exempt an amount above the minimum wage from income tax, while some countries exempt an amount below the minimum wage. According to this; In Chile and Colombia in 2020, a tax exemption is applied on the minimum wage in Income Tax. Accordingly, while the annual minimum wage in Colombia is 12,289,242 pesos, 0% income tax is applied on income up to 38,812,000 pesos per year, while in Chile, the annual minimum wage is 3,807,000 pesos, up to 8,266,698 pesos. 0% income tax applies. In Colombia, a 0% income tax rate is applied to income that is 3.15 times the minimum wage, while this rate is 2.17 times in Chile. Among the OECD countries, which covers all taxpayers in income tax and applies the tax exemption closest to the minimum wage; A personal allowance applies to income up to 0.86 of the Estonian minimum wage, compared to 0.83 in the United States, 0.70 in Latvia, 0.66 in Lithuania, and 0.63 in

Slovakia. In addition, 0% income tax is applied to incomes up to 0.55 of the minimum wage in France, while this rate is 0.51 in Germany and 0.47 in Australia.

With the new regulation, the exclusion of the minimum wage amount from tax provides tax advantages for the taxpayers who live on wage income, while the tax burden of these taxpayers is alleviated. Considering that the minimum wage is the taxpayers working with the lowest wage, exception of the income of these people from income tax and also benefiting from this exception for all those who have wage and salary income is similar to the application of the principle of differentiation and reflects positively on the principle of justice in taxation. As a result of this new regulation, the problem of taxing the minimum wage, which has been discussed for many years, from being subject to income tax and even from the upper segment during the year due to the application of progressive tax, has been eliminated. In addition, with this regulation, the AGI application, which only provides a small amount of benefit to the minimum wage earners, was eliminated and the taxation of those who earn wage income was made more fair, simple and understandable. In addition, there is no need for the separation principle applied in the third, fourth and fifth tranches of income tax, and it can be brought to the agenda to abolish this application, as in the AGI application.

Keywords: Minimum Wage, Income Tax, Tax Exemption.

BİR YÖNETİM STRATEJİSİ OLARAK YUMUŞAK GÜÇ: MICHEL FOUCAULT VE JOSEPH S. NYE'DE İKTİDAR VE RIZA İLİŞKİSİ

SOFT POWER AS A MANAGEMENT STRATEGY: POWER AND CONSENT IN MICHEL FOUCAULT AND JOSEHP S. NYE

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ÖZET

Michel Foucault, felsefik ve toplumsal kavramlar üzerine farklı ve yeni bakış açıları sunan önemli düşünce insanlarından. Foucault, İktidar kavramının düşünce tarihi içindeki yerini analiz ederek, Antik Yunan ve Hristiyanlıktan günümüze iktidarın kurumsallaşma biçimlerini ve dönüşümünü ele almaktadır. Foucault'nun iktidar olgusuna yönelik yaklaşımında iktidar, yalnızca teorik bir sorun olarak değil, aynı zamanda insan deneyimlerinin bir parçasıdır. İktidar sorunu olgusal bir gerçekliğe dayanmakta ve bir ilişkiler ve deneyimler ağı içinde analiz edilmektedir. Bu bağlamda iktidar, güç ilişkileri ve yönetim stratejisi bağlamında gittikçe daha sofistike hale getirilmiş tahakküm ve rıza ilişkilerini kapsamaktadır. Joseph S. Nye ise rıza ve tahakküm ilişkisini uluslararası ilişkiler bağlamında ele almakta ve yeni bir iktidar biçimi olarak yumuşak güç kavramını önermektedir. Nye, kültürel, politik ve teknik değerlere dayanan yumuşak gücü uluslararası ilişkilerde bir yönetim stratejisi olarak önermektedir.

Bu çalışma Micheal Foucault ve Joseph S. Nye'in iktidar ve güç kavramına yönelik yaklaşımlarını rıza, tahakküm ve yönetim stratejisi kavramları bağlamında karşılaştırmalı bir şekilde analiz etmektedir.

Çalışma üç aşamadan oluşmaktadır. Birinci aşamada Foucault'un iktidar olgusuna yönelik yaklaşımı değerlendirilmekte, ikinci aşamada yumuşak güç kavramı ve bileşenlerine yer verilmektedir. Çalışmanın son aşamasında ise her iki düşünürün görüşleri karşılaştırmalı bir şekilde rıza, tahakküm ilişkileri ve yönetim stratejileri bağlamında değerlendirilmektedir.

Anahtar Kavramlar: Michel Foucault, Joseph S. Nye, İktidar, Yönetim Stratejisi, Yumuşak Güç

ABSTRACT

Michel Foucault is an important thinker who produces thoughts on philosophy and society. Foucault analyzes the place of the concept of Power in the history of thought. In his works, he deals with the forms of institutionalization and transformation of power from Ancient Greece and Christianity to the present. In Foucault's approach to the phenomenon of power, power is not only a theoretical problem, but also a part of human experience. The problem of power is based on a factual reality and is analyzed in a network of relationships and experiences. In this context, Power includes relations of domination and consent that have become increasingly sophisticated in the context of power relations and management strategy. Joseph S. Nye, on the other hand, deals with the relationship of consent and domination in the context of international relations. He defines power based on consent and persuasion as soft power. Nye proposes soft power based on cultural, political and technical values as a management strategy in international relations.

This study comparatively analyzes Michel Foucault and Joseph S. Nye's approaches to the concept of power in the context of the concepts of consent, domination and management strategy.

The study consists of three stages. In the first stage, Foucault's approach to the phenomenon of power is evaluated, in the second stage, the concept of soft power and its components are included. In the last stage of the study, the views of both thinkers are analyzed comparatively in the context of consent, domination relations and management strategies.

Key Words: Michel Foucault, Joseph S. Nye, Power, Management Strategy, Soft Power

**AKILLI TELEFON SEKTÖRÜNDE MARKALARIN KİTLESEL PRESTİJ (MASSTIGE)
DEĞERİ ALGISI VE MARKA SADAKATIYLA ETKİLEŞİMİ ÜZERİNE BİR SAHA
ÇALIŞMASI**

THE PERCEPTION OF MASS PRESTIGE VALUE OF BRANDS AND ITS INTERACTION WITH
BRAND LOYALTY – A FIELD STUDY IN THE SMART PHONE INDUSTRY

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ÖZET

Araştırmalara göre dünya çapında lüks marka üreticisi firmaların gelirleri 2016 yılında 269 milyar ABD dolarından 2022'de 349,10 milyar ABD dolarına yükselmiştir (Statista 2022). Bu gelişmenin arkasındaki gerçek olarak orta sınıfın gelir düzeyindeki artış, istek ve beklentilerindeki gelişim nedeniyle “lüks” ün çağrıştırdığı kavram ve ürünlerde önemli bir küresel değişim olduğu söylenmektedir (Mundel, Huddleston ve Vodermeier, 2017). Buna ek olarak söz konusu bu büyüme “lüksün demokratikleşmesi” ya da “yeni lüks” olarak tanımlanabilen lüksün artık belirli bir seçkin kitlenin elinden çıkarak daha geniş bir tabana doğru yayılma eğilimine (Aksoy, 2015) bağlanmaktadır. Kapferer ve Bastien (2009) lüksün dönüşümünü; artan gelir gücüyle birlikte satın alma gücünün yükselmesi, küreselleşme ve iletişim olmak üzere dört itici güce bağlı olarak açıklamaktadır. Uluslararası yazında akademisyenlerce ilgi gören bu konuyla ilişkili çalışmalarda da, kitlesel prestij markalarının satışlarındaki birincil nedenin küreselleşme olduğu vurgulanmıştır (Soni, 2022).

Tüm bu gelişmelerin etkisinde Silverstein ve Fiske (2003) tarafından “kitlesel prestij markaları (mass prestige-masstige)” olarak tanımlanan yeni bir lüks marka kategorisi ortaya çıkmıştır (Kumar, Paul ve Unnithan, 2020; Mansoor ve Paul, 2022). Bu markalar, 80’li ve 90’lı yıllarda ekonomik büyümenin harcanabilir gelire olumlu etkisi, düşük işsizlik oranları ve gelişmekte olan ülkelerde büyüyen zengin sınıfları sayesinde dikkat çeker hale gelmiştir. Geleneksel lüks markalar gibi kitlesel prestij markaları da benzersizlik özelliğini öne çıkararak orta sınıf tüketicilerin özsaygısına hitap ederek simgesel ve sanatsal değer sunmaktadır (Das vd., 2022). Kitlesel prestij markaları için en önemli örnekler arasında Apple, Starbucks, Ray-Ban, Victoria’s Secret, Calvin Klein, Mavi, Longchamp ve Shinola sayılmaktadır (Soni, 2022).

Bu çalışmanın amacı akıllı telefon sektöründeki iki markanın algılanan kitlesel prestij (masstige) değerinin ortaya konması ve bu değer markanın sürdürülebilirliği için büyük öneme sahip olan marka sadakatiyle ilişkisinin incelenmesidir. Markaların kitlesel prestij değerinin belirlenebilmesi için uluslararası yazında bazı çalışmalar bulunmakla beraber (Paul, 2015; Paul, 2018; Baber, Upadhyay ve Kaurav, 2020; Gupta ve Nair, 2021; Das vd., 2022) ulusal yazında bu konuyla ilgili bir çalışmaya ulaşılamamıştır. Bu noktada araştırmanın hem kitlesel prestij konusunu incelemesi hem de kitlesel prestij kavramının marka sadakati ile ilişkilendirmesi açısından literatüre ek katkı sağlamak hedeflenmiştir. Saha çalışması sonucunda ulaşılabilecek markaların kitlesel prestij değer algısı sonuçlarından hareketle marka yöneticilerine ipuçları verilerek uygulamaya da katkı sağlanması hedeflenmiştir.

Çalışma amacı çerçevesinde araştırma soruları ve hipotezleri şu şekilde oluşturulmuştur:

1. Akıllı telefon sektöründe Türkiye’de rekabet içinde olan iki markanın tüketiciler tarafından algılanan Kitlesel Prestij Ortalama Endeks Değeri (Masstige Mean Index Value) kaçtır?
2. Bu iki marka arasında algılanan kitlesel prestij değerleri anlamlı bir şekilde birbirinden farklılaşıyor mudur?
3. Bu markaların algılanan kitlesel prestij değeri ile marka sadakati arasında bir ilişki var mıdır?

H1: Markanın algılanan kitlesel prestij (masstige) değerinin marka sadakati üzerinde istatistiksel açıdan anlamlı etkisi vardır.

H2: Marka A ve Marka B’nin algılanan kitlesel prestij (masstige) değeri istatistiksel açıdan anlamlı bir şekilde farklılaşır.

Araştırma sorularını cevaplayabilmek ve çalışma amacına ulaşabilmek için kolayda örnekleme yöntemiyle ulaşılan 356 katılımcıyla çevrimiçi anket yöntemi kullanılarak bir saha çalışması gerçekleştirilmiştir. Ankette kitlesel prestij (masstige) algısı 10 ifadeyle (Justin, 2015), marka sadakati ise 4 ifadeyle (Chaudhuri and Holbrook, 2001) ölçümlenmiştir. İki değişken için de 7’li Likert tipi ölçekten faydalanılmıştır. Seçilen markaların Kitlesel Prestij Ortalama Endeks Değeri (Masstige Mean Index Value) Justin (2015) tarafından geliştirilen endeks yardımıyla hesaplanmıştır.

Araştırma amacı kapsamında kullanılan ölçek geçerliliğinin testi için Keşfedici Faktör Analizi yapılmıştır. Kitlesel prestij (masstige) algısı ifadelerinin hepsi tek bir faktör altında toplanmış (KMO:0,903 p=0,000) olup hiçbir ifade analizden çıkartılmamıştır. Ölçek güvenilirliğinin ($\alpha=0,800$) kabul edilebilir düzeyde olduğu görülmüştür. Marka sadakati ifadeleri tek boyut altında toplanmış olup (KMO:0,797 p=<0,001) burada da hiçbir ifade analizden çıkartılmamıştır. Marka sadakati ölçek güvenilirliğinin ($\alpha=0,917$) yüksek bir düzeyde olduğu belirlenmiştir.

Analiz sonuçlarına göre, markanın algılanan kitlesel prestij (masstige) değerinin marka sadakati üzerinde istatistiksel açıdan anlamlı ve güçlü bir etkisinin olduğu tespit edilmiş ($\chi^2=0,812$ p=<0,001 $R^2=0,659$) ve birinci hipotez desteklenmiştir. İkinci hipotezin test sonuçlarına göre ise, iki markanın kitlesel prestij (masstige) değeri istatistiksel açıdan birbirinden anlamlı şekilde farklılaşmaktadır ($t(175)=5,147$, p=<0,001). Bu bulgu ikinci hipotezin de desteklenmesini sağlamıştır. Endeks değerlerine bakıldığında A markasının B markasına göre daha yüksek bir kitlesel prestij değerine sahip olduğu görülmüştür.

Çalışma sonuçlarına göre akıllı telefon sektöründeki A markasının Türkiye pazarında kitlesel prestij yaratmada başarılı olduğu ve tüketicileri tarafından kitlesel prestije sahip bir marka olarak algılandığı görülmüştür. Ancak A markasının “marka hatırlamada ilk marka (top of mind)” olmadığı tespit edilmiştir. Bunun yanı sıra B markasının ilgili örneklem tarafından Türkiye’de A markasına kıyasla kitlesel prestiji daha düşük olarak görüldüğü; fakat gelecekte kitlesel prestij yaratabilecek seviyede olduğu sonucuna ulaşılmıştır. Hindistan’da Baber vd. (2021) tarafından yine akıllı telefon kategorisinde aynı markalar için yürütülmüş olan araştırma sonuçlarıyla bu çalışmanın sonuçları benzerlik göstermiştir.

Araştırma daha önce kitlesel prestij ile ilişkisi incelenmemiş olan marka sadakatini ele alarak kitlesel prestij marka sadakati üzerinde anlamlı bir etkisi olduğu sonucunu ortaya koymuştur. Buna göre markalar kitlesel prestij stratejisi benimseyerek, tüketici zihninde prestijli ama ulaşılabilir algısı yaratacak uzun süreli başarıya yol açacak olan marka sadakatini oluşturabilir hatta belki “aşk markası (love marks)” haline gelmesi mümkündür.

Lüks ürün/marka pazarlaması alanında çalışan akademisyenler için bu çalışma, kitlesel prestij markası olarak tanımlanan iki akıllı telefon markasının algılanan kitlesel prestij değerini göstererek alanda yeni çalışmalara kapı aralamıştır. Bunun dışında çalışma, piyasada bulunan diğer akıllı telefon markalarının pazarlama stratejilerini kitlesel prestij değeri açısından değerlendirmesi ve uyarlaması için de faydalı olacaktır.

Tüm bu değerlendirmeleri çalışmanın kısıtları çerçevesinde değerlendirilmesi gerektiği unutulmamalıdır. Bu kısıtlardan ilki zaman ve maliyet unsurları dikkate alınarak tercih edilen kolayda örnekleme yönteminden kaynaklanmaktadır. Buna ek olarak çevrimiçi anketle veri toplanması nedeniyle, örneklemin internet kullanıcılarıyla sınırlı kalmış olması da bir kısıt olarak değerlendirilebilir. Araştırmada örneklem Türkiye’yi temsilen İstanbul ilinde ikamet eden ve 18 yaş üzeri A ve B marka akıllı telefon kullanıcılarıyla sınırlandırılmıştır. Bu noktada gelecek çalışmalarda daha fazla ilde, daha büyük bir örnekleme tekrarlanması önerilmektedir. Diğer yandan günümüzde akıllı telefon kullanımının 18 yaş altı kullanıcılara da ulaştığı düşünülecek olursa araştırmanın bu grup tüketicilerle de gerçekleştirilerek daha farklı sonuçlarla karşılaştırılması mümkün olabilir. Yine gelecek çalışmalarda seçilen A ve B markalarına ek olarak farklı akıllı telefon markaları için de araştırmaların yürütülmesi, diğer taraftan aynı markalar için farklı kültürlerden ve ekonomik gelişmişlik düzeyinden ülkeler arası karşılaştırmalar yapılması önerilmektedir.

Araştırmaların daha detaylı sonuçlar sunması adına, yürütülecek araştırmalarda kitlesel prestij görüşünün yaş/gelir/medeni durum/egitim gibi sosyo-demografik özelliklere göre farklılaşarak farklılaşmadığının da irdelenmesi önerilmektedir. Diğer yandan araştırma pek çok farklı kategori ve sektöre uygulanabilir; restoranlar, oteller gibi hizmet sektöründe yer alan markalar için bu noktada oldukça aydınlatıcı bulgulara ulaşılması muhtemeldir.

Anahtar Kelimeler: Kitlesel Prestij, Marka Yönetimi, Lüksün Demokratikleşmesi, Marka Sadakati

ABSTRACT

According to researchs, the revenues of luxury brand manufacturers worldwide increased from US\$ 269 billion in 2016 to US\$ 349.10 billion in 2022 (Statista 2022). In terms of the reality underlying this

accretion, it is asserted that there has been a significant global change in the concepts and products associated with "luxury" due to the increase in the income level of the middle class and the development of their demands and expectations. (Mundel, Huddleston and Vodermeier, 2017). Furthermore, this growth is attributed to the tendency of luxury, which can be defined as the "democratization of luxury" or "the new luxury", to disprivilege a certain elite class and to have this tendency widely disseminated (Aksoy, 2015). Kapferer and Bastien (2009) explain the transformation of luxury in terms of four driving forces: increase in purchasing power incidental to increasing income power, globalization and communication. According to the studies related to this subject, which has attracted academicians' attention in the international literature, it has been emphasized that the primary reason for the sales of mass prestige brands is globalization (Soni, 2022).

Under the influence of all these developments, a new luxury brand category has emerged (Kumar, Paul and Unnithan, 2020; Mansoor and Paul, 2022), which had been defined as "mass prestige brands (masstige)" by Silverstein and Fiske (2003). These brands have become more remarkable due to the positive impact of economic growth in the 80s and 90s on disposable income, low unemployment rates and growing wealthy and propertied classes in developing countries. Mass prestige brands, like traditional luxury brands, offer symbolic and artistic value by emphasizing uniqueness and appealing to the self-esteem of middle-class consumers (Das et al., 2022). Most important examples of mass prestige brands include Apple, Starbucks, Ray-Ban, Victoria's Secret, Calvin Klein, Mavi, Longchamp and Shinola (Soni, 2022).

The aim of this study is to reveal the perceived mass prestige value of two brands in the smartphone industry and to examine the relationship of this value with brand loyalty, which has great importance for the sustainability of the brand. Although there are some studies in the international literature to determine the mass prestige value of brands (Paul, 2015; Paul, 2018; Baber, Upadhyay and Kaurav, 2020; Gupta and Nair, 2021; Das et al., 2022), a study addressing this subject could not be found in the national literature. At this point, it is aimed to make an additional contribution to the literature in terms of both examining the subject of mass prestige and associating the concept of mass prestige with brand loyalty. Based on the results of the mass prestige value perception of the brands to be achieved as a result of the study, it is motivated to contribute to the practice by giving hints to the brand managers.

The research questions and hypotheses were formulated as follows within the framework of the purpose of the study:

1. What is the Masstige Mean Index Value as perceived by consumers of the two brands that are competing with each other in the smartphone industry in Turkey?
2. Do the perceived mass prestige values differ significantly between these two brands?
3. Is there a correlation between the perceived mass prestige value of these brands and brand loyalty?

H1: The perceived mass prestige (masstige) value of the brand has a significant effect on brand loyalty.

H2: The perceived mass prestige value of Brand A and Brand B differs significantly.

Convenience sampling method was used in order to answer the research questions and achieve the study purpose. A field study was conducted using the online survey method with 356 participants. In the survey, Mass Prestige perception was measured with 10 items (Justin, 2015), while Brand Loyalty was measured with 4 items (Chaudhuri and Holbrook, 2001). A 7-point Likert type scale was used for both variables. The

Mass Prestige Mean Index Value of the selected brands was calculated with the help of the index which is developed by Justin (2015).

Exploratory Factor Analysis was conducted to test the validity of the scale used within the scope of the research aims. All items of mass prestige perception were gathered under a single factor (KMO: 0.903 $p=0.000$), and no expression was excluded from the analysis. The reliability of the scale ($\alpha=0.800$) was found to be at an acceptable level. Brand loyalty statements were gathered under one dimension (KMO: 0.797 $p<0.001$) and no item was excluded from the analysis here as well. Brand loyalty scale reliability ($\alpha=0.917$) was determined to be at a high level.

According to the results of the analysis, it was determined that the perceived mass prestige (masstige) value of the brand has a statistically significant and strong effect on brand loyalty ($\beta=0.812$ $p<0.001$ $R^2=0.659$), and thus the first hypothesis was supported. Also according to the test results of the second hypothesis, the mass prestige value of the two brands differs statistically significantly from each other ($t(175)=5,147$, $p<0,001$). This finding led to the support of the second hypothesis. When the index values are examined, it is seen that brand A has a higher mass prestige value than brand B.

According to the results of the study, it has been seen that the Brand A in the smartphone industry is successful in creating mass prestige in the Turkish market and also is perceived as a brand to which mass prestige is contributed by its consumers. However, it has been determined that brand A is not "top of mind". In addition, Brand B is seen by the relevant sample as having lower mass prestige compared to Brand A in Turkey; but it has been concluded that it is at a level that has a possibility to create mass prestige in the future. The results of this study were similar to the results of the research in India, which was conducted for the same brands in the smartphone category (Baber et al., 2021).

The research has revealed that mass prestige has a significant effect on brand loyalty, for which relationship with mass prestige has not been examined before. Accordingly, by adopting a mass prestige strategy, brands can create a "prestigious but accessible" perception in the minds of consumers, creating brand loyalty that will lead to long-term success, and probably becoming a "love mark" as a matter of fact.

For academicians working in the field of luxury product/brand marketing, this study has cracked the door open for further new studies in the field by disclosing the perceived mass prestige value of two smartphone brands defined as mass prestige brands. Apart from that, the study will also be beneficial for other smartphone brands in the market to evaluate and adapt their marketing strategies in terms of mass prestige values.

It should be noted that all these evaluations should be considered within the framework of the limitations of the study. The first of these limitation arises from the convenience sampling method, which is preferred by considering time and cost factors. Additively, the fact that the sample was narrowed down to internet users can be considered as a limitation due to data collection through an online survey. In the research, the sample was limited to Brand A and Brand B smartphone users residing in Istanbul, representing Turkey, and over the age of 18. At this point, it is recommended that future studies be repeated in more provinces with a larger sample. On the other hand, if it is considered that nowadays the use of smartphones is much

more common among users under the age of 18, it may be possible to encounter different results by conducting the research with this group of consumers.

In further research, it is recommended to run researches for different smartphone brands in addition to the selected A and B brands, and to make cross-country comparisons for the same brands based on different cultural backgrounds and economic development levels. In order for the studies to provide more detailed results, it is recommended to examine whether the opinion of mass prestige differs according to socio-demographic characteristics such as /income/martial status/education in future studies. On the other hand, research can be applied to many different categories and sectors; it is possible to reach quite enlightening findings at this point for brands in the service sector such as restaurants and hotels.

Keywords: Masstige, Brand Management, Democratization of Luxury, Brand Loyalty

SPIRITUAL PSYCHOTHERAPEUTIC MODEL IN INDIAN PALLIATIVE END-OF-LIFE CARE

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ABSTRACT

The primary focus of palliative end-of-life care is not to prolong life, rather to deliver 'quality of life.' However, the absence of quality of life in the present scenario of palliative end of life care, India is consider as one among the worst place to die by many. Majority of the terminal ill patients died with unfulfilling wishes and without meeting their primary needs, which were the core components for quality of life and well-being. At present, the failure of Indian palliative end-of-life care in delivering holistic care and quality of life lies in confining itself mainly within the contemporary medicines, which does not value the biopsychosocial-spiritual model of health care in many cases. Thus, the failure of contemporary medicines in delivering total care for the well-being of the whole, gave rise to the needs for biopsychosocial-spiritual model of health care, which is the modern humanistic and holistic approach that viewed illness as the complex interplay between the biological, social, psychological, and the spiritual factors.

Key Words: Spirituality, holistic care, terminal illness, depression, and quality of life.

Aim and Objective: Considering the urgent needs of the whole person treatment in modern end-of-life care in the country, the present study is form with an aim to achieve the goal of patient quality of life by meeting the social, psychological, biological, and spiritual needs of the dying individual's. The purpose of the study is also to let the doctors, nurses, and other caregivers to be effective communicators and an ethical practitioner of the art and sciences of modern holistic medicines, for holistic and quality care.

**DEVELOPMENTS OF THE INTERNATIONAL SYSTEM MANAGEMENT OF THE
INTERNATIONAL CRISIS MANAGEMENT OF THE GREAT POWER OF THE RUSSIAN
FEDERATION AND US AMERICA AFTER THE COLD WAR IN THE UKRAINIAN
CRISIS**

**AMERICA IS THE CAUSE OF THE CRISIS IN UKRAINIAN AND ALSO SEEKS TO
MANAGEMENT CRISIS**

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ABSTRACT

The methods of managing the international crises by the Russian Federation and the United States before and after the Cold War, and its use to understand the transition of the international system and complex conditions can be an important scientific effort. The experiences of the Russian Federation of the United States in the management of international crises are fed from their military, political, economic and strategic culture, the nature of international crises has shown that the Russian and the United States Federation in a multilateral structure, in parallel with cooperation and competition. It seeks to stabilize the equivalent of power in its international state. Due to the crisis and war in Ukraine, there have been signs of this type of relationship with the Russian Federation. The most important features of these relationships are concepts such as encouragement, containment, renunciation, agreement and resolution of the crisis. But what is important is the developments of the international system before and after the Cold War and its impact on decision -making structure. For this reason, this is an attempt to address the important question of how the new developments in the international system have on the decision -making structure of the Russian and US Federation of America in managing international crises in the Ukrainian crisis and war. In this article, following the two special questions in the Ukrainian crisis and war:

- 1) What are the causes of crisis and war in Ukraine among Russia led by the United States and in the post -Cold War era?
- 2) What are the ways and scenarios of decision -making in the Ukrainian crisis management of Russia, and in particular the US management of the United States, what will be the case of their special competition and cooperation in resolving the Ukrainian War?

Finally, the findings and conclusions of this article deals with their interests and goals in the aftermath of the Cold War, each of the powers of the US and Russia in the post -Cold War era.

Keywords: International Crisis Management, Russian Federation, USA, Ukraine crises.

CHAOTIC VACCINATION DIPLOMACY AND GLOBAL HEALTH SECURITY INEQUITY IMPACT OF GLOBAL COVID-19 AND MONKEYPOX GLOBAL HEALTH EMERGENCIES

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ABSTRACT

Introduction: The uncontrolled outbreaks proliferate worldwide, triggering a worsening economic crisis and social strife as the economic losses driven by the pandemic, an estimated \$500 billion per month. The Scoping paper assesses the chaotic vaccination diplomacy and global health security inequity impact of global COVID-19 and Monkeypox global health emergencies in recent times worldwide. **Results and discussions:** Our findings showed that dominance of vaccine nationalism persists into the next phase—as promising safe and efficacious vaccines become available for mass use, the odds are high that the wealthy and powerful will secure access while the less wealthy and less powerful are left to wait in uncertainty by blending nationalism and internationalism and conspiracies, as to embrace the values of equity, access, transparency, and diplomacy. We found that powerful, wealthy countries are pursuing similar nationalist paths, determined to lock down vaccine supply for their sovereign purposes, simultaneously joining and supporting COVAX funds and political will, a nascent international initiative to develop and equitably distribute Covid-19 vaccines to benefit all countries, rich and poor, compared to MPXV. We documented a chaotic and inequitable outcome will prolong suffering and insecurity, thwart economic recovery, and stoke global discontent and poor global leadership weakening the core national security interests through rapid and pervasive spread of misinformation and disinformation, coupled with weak comprehensive national plan in affected and at risk countries. Amid considerable uncertainty, engaging high levels diplomacy, coordination and contribution rather than prematurely grant Emergency Use Authorization to a vaccine(s) candidate that has not yet been fully vetted for safety and efficacy, poor vaccine quality and regulation could be a double-edged sword and counterproductive. Promoting equitable access to vaccines globally and maintaining a robust domestic/national vaccination campaign efforts and market logic are obvious return of investments and benefits to Pharmaceuticals firms and stakeholders. We documented the failure of the global community and developed nations to control the global spread, set the stage for disappointment and backlash, government mistrust and reduced confidence, public confusion and frustration, skeptical, cautious, and even fearful or resistance. Results are discussed in boosting *togetherness and committed cooperation in improving and* speeding up development, production, and equitable access to Covid-19 diagnostics, therapeutics, and vaccines, in an effort to stem gross inequities is core. **Conclusion and steps forward:** The global Covid-19 and Monkeypox vaccine landscape is a patchwork of narrow nationalist approaches and broader international initiatives. Advocacy and scale COVAX efforts is needed in forging a national vaccine manufacturing and distribution plan in close coordination with state and local governments buy-in and access are *fundamental to ending the pandemic, restarting the world's economy, and mitigating recovery actions* in low- and lower-middle-income countries

Key words: Global, inequity, Monkeypox outbreak, vaccination, health diplomacy, health security, Africa

SYNTHESE DE NOUVEAUX DERIVES PYRAZOLIQUES A ACTIVITÉS PHARMACOLOGIQUES POTENTIELLES

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RESUME

Les pyrazoles sont des hétérocycles à cinq chaînons qui constituent une classe de composés particulièrement utiles en synthèse organique. Ils sont l'un des groupes de composés les plus étudiés de la famille des azoles. La présence du noyau pyrazole dans différentes structures conduit à des applications diversifiées dans différents domaines tels que la technologie, la médecine et l'agriculture. En particulier, ils sont décrits comme des agents anticancéreux, anti-inflammatoires, antidépresseurs, antioxydants, antiviraux, antibactériens et antifongiques, ainsi que des agents des inhibiteurs de la glycation des protéines. L'ensemble de notre travail s'inscrit dans la poursuite du thème de recherche du laboratoire de chimie thérapeutique, à savoir la synthèse de nouvelles molécules hétérocycliques potentielles analogues des pyrazoles, notamment les dérivés hydrazones. Les molécules à visée thérapeutique ainsi synthétisés seront testés pour leurs activités pharmacologiques.

Les hydrazones et leurs dérivés constituent une classe polyvalente de composés en chimie organique. Ces composés présentent des propriétés biologiques intéressantes : activité anti-inflammatoire, analgésique, antitumorale, antituberculeuse, anti-VIH et antimicrobienne.

Mots clés : synthèse, pyrazole, hydrazone, Activité, Pharmacologies

RELATIONSHIPS BETWEEN ENVIRONMENTAL EDUCATION AND COMMUNITY-SUPPORTED AGRICULTURE IN HUNGARY

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ABSTRACT

Local food systems based on consumer and producer cooperation have/can positively affect the local economy and community. We aim to present some good practices in this field in our study. Several scientific studies have examined the positive effects of farming on community quality of life, but the role of communities in supporting local agriculture has received little attention.

Most international and Hungarian literature thinks that the local economy's actors are the basis of sustainable development. This aspect of the problems of the 21st century was already dealt with in the document entitled "Local Agenda 21", born as a result of the Rio Conference in 1992, which outlined the aspects and concrete steps that can be taken into account to implement measures that ensure socially and environmentally sustainable development. It was based on a broad international consensus, as 179 countries indicated their agreement with the contents of the document by signing it. It defines the preparation of a local sustainability program as a general goal, which is realised with the municipality's active participation and the population's support.

A customer community-type direct sales channel organised from the bottom up and typically at the initiative of consumers, or with a maximum of one intermediary, is an alternative sales option for small food-producing farms that have fallen into the background due to global competition. To describe the characteristics of this sales channel in Hungary, we considered it essential to investigate a modern marketing strategy point of view. To reposition themselves in the Hungarian food market, we strategically need to map the opportunities inherent in local food systems supported by the community and examine them as a sales alternative.

In our research, it was a cardinal question to examine how the interviewees relate to locally produced food and how important the consumption of these foods is to them in terms of their consumer behaviour. High-added-value products from local and nearby producers can be purchased in customer communities; therefore, from the point of view of exploring their expansion/development possibilities, it is necessary to know whether there is a demand/need for these products among consumers.

Keywords: local food systems, sustainability, local economic development, primary research

METHOD OPTIMIZATION AND CHARACTERIZATION OF ESSENTIAL OILS NANO-EMULSIONS

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ABSTRACT

Citrus essential oils are complex mixtures of volatile compounds with manifold possibilities to be used as active antioxidant and antimicrobial ingredients in food, cosmetics or pharmaceutical products.

These uses are limited by their susceptibility to external factors such as: light, temperature, pH, oxygen, and humidity. In order to enhance the physical-chemical stability of citrus essential oils, they were encapsulated into nano-emulsions. In this study, nano-emulsions were prepared through the ultrasonication method, using citrus oils as lipidic phase, Tween 80 and ethanol as surfactant, and co-surfactant, respectively. Five types of citrus oil nano-emulsions were prepared by mixing 8% (v/v) of oil phase (bergamot, tangerine, orange, pomelo and lemon essential oils) with 1% (v/v) of Tween 80, 1% (v/v) of ethanol and 90% of deionized water using a magnetic stirrer and sonication at 72 amplitudes for 15 minutes. The PDI, turbidity, morphology, volatile profile and bioactive properties were investigated and their stability was monitored under different environmental conditions (storage at room temperature, at 37°C, refrigeration, freezing). Each emulsion exhibited different degrees of gravitational separation, the one stored at 37°C being the most unstable, showing coalescence. Gas chromatography mass spectrometry (GC-MS) coupled with headspace solid phase micro-extraction (HS-SPME) was used to characterize the volatile fingerprint of nano-emulsions. Based on the results obtained from the chromatographic analysis, the main compound present in all studies was D-limonene with a concentration varying between 103.804 ± 8.112 mg/kg and 172.962 ± 25.012 mg/kg. In addition, other aroma compounds specific to citrus essential oils were identified, from the class of aldehydes, terpenes and terpenoids, but in lower concentrations.

In the present research work, we demonstrated that nanotechnology has an important role in preserving and potentiating the properties of the bioactive compounds in citrus essential oils. In addition, citrus oil nano-emulsions represent a good alternative to chemical additives that harm the food industry and human health.

Keywords: chromatography, citrus essential oils, nano-emulsions, nanotechnology, optimization method.

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POPULATION DYNAMICS OF FRINGESCALE SARDINELLA (*Sardinella fimbriata*, Cuvier and Valenciennes, 1847) IN SAVU SEA MARINE NATIONAL PARK, EAST NUSA TENGGARA, INDONESIA

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ABSTRACT

Fringescale sardinella (*Sardinella fimbriata*, Cuvier and Valenciennes, 1847) is one of the largest fishery resources in the Savu Sea. This species is one of the economically important fish resources found in Savu waters. The increasing demand comes along with the high economic value of this fish making it one of the main targets of capture. The intensive utilization of this species might result in overfishing. Hence, the purpose of this study was to investigate the population dynamics of fringescale sardinella in Savu Sea Marine National Park (SMNP), East Nusa Tenggara through length-frequency samples collected for consecutive 6 months (June to November 2020) from fishermen's catches. A total of 3,281 fish sampled from 2 locations of SMNP were assessed and showed the total length (TL) range from 60.9 mm to 144.2 mm. Further, the data were analyzed using FISAT II Software, and gave the following results: the length-weight relationship in Kupang Bay and Ledean-Sabu waters were $W = 0.0001L^{2.9583}$, and $W = 0.8879L^{2.9853}$, respectively. While, the negative allometric growth pattern and growth equation in Kupang Bay and Ledean-Sabu waters were $L_t = 164.21 (1 - \exp^{0.840(t + 0.1251)})$ and $L_t = 150.53 (1 - \exp^{1.700(t + 0.0509)})$, respectively. The age of *S. fimbriata* consisted of 1-3 cohorts. Recruitment of *S. fimbriata* in the SMNP occurred throughout the year with the highest peaks in May, July, and October. The size of the first caught fish (L_c) ranged from 48.42 mm to 96.98 mm TL. The total mortality rate (Z) was 1.67-2.43 per year, natural mortality (M) was 0.99-1.58 per year and fishing mortality (F) was 0.68-0.97 per year. The exploitation rate of *S. fimbriata* is estimated at 0.35-0.41 per year, this implies that the stock does not exceed the optimum exploitation rate ($E = 0.5$) or overfishing has not occurred in the Savu Sea.

Keywords: length-weight relationship, growth pattern, mortality rate, exploitation rate, population dynamics

A THEORY FASTER THAN DFT FOR MOLECULAR DYNAMICS SIMULATIONS: DFTB

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ÖZET

Atom ve moleküllerin titreşim, geçiş ve dönme enerjileri gibi her türlü hareketleri bazı kuantum mekaniksel teorilerin çözümlenmesiyle anlaşılmaktadır. Bu hususta bazı teoriler birbirine hesaplamasal zamanı açısından bazıları da hem hesaplama maliyeti hem de deneysel kesinlik sağlaması açısından birbirlerine üstünlük sağlarlar. Bu hususta, DFT (Density Functional Theory) metodu kadar kesin sonuç veren DFTB (Density Functional Theory Tight-Binding) ve diğer TB (Tight- Binding) fonksiyonları bu çalışmada kıyaslanacaktır. Bunu anlamak için Yüksek sıcaklıkta (plazma sıcaklığı ve ona yakın sıcaklıklarda) moleküllerin kararsız oluşumlarını, elektronik yapılarını belirlemek üzerine bir örnek ele alınacaktır. Günümüzdeki atmosferik çalışmalardaki sensörlerin bu oluşumlara duyarlı olmaması ve bu konuda yapılan çalışmaların yıldırım çakması süresinden sonraki oluşumlarla ilgilenilmesi, bu tarz atmosfer olayında teorilerin ve metotların gelişimini, belli yaklaşımlar altında gösterebilmiştir. Bazı atmosferik reaksiyonların reaksiyon hızları ve ürünlerin oluşma ihtimaliyetleri göz önünde bulundurularak, toplam molekül miktarına katkı sağlayan reaksiyonların şok dalgasının gelişimi süresi de düşünülerek, en etkili oluşum gösteren moleküllerin hangi reaksiyonlar tarafından sağlandığı belirlenmiş olur. AMS (Amsterdam Modelling Suit) programındaki moleküler dinamiği destekleyen yarı-deneysel metot aracılığı ile zamana bağlı olarak, ısınma ve soğuma kanalı simülasyonu yaratılarak, hangi tür atmosferik oluşumların meydana gelebileceği gösterebilen bir programdır. Ayrıca, bu süreçte kaç çeşit reaksiyon gerçekleşeceği (meydana gelen parçacıkların hangi reaksiyonlardan kaynaklandığı) ve oluşan ürünlerin literatürdeki konsantrasyon ve reaksiyon hızları ile kıyaslanması çalışmanın asıl amaçları arasındadır. Şok dalgasına başlamadan önce her bir sistemin öncelikle sabit sıcaklıklarda meydana gelme süreleri incelenecektir. Bu süre, sistemde moleküler konsantrasyonların zamana bağlı olarak sabit kaldığı duruma kadardır. Sistem çalışmanın sonunda, popülasyonun yanı sıra, ilgili popülasyonların hangi reaksiyonlar sonunda oluştuğu ve hız sabitleri hakkında da bilgi vermektedir. Şok dalgası ise, bu bahsedilen reaksiyon zamanlarından daha uzun zaman dilimidir. Çünkü yıldırım çakması neredeyse milisaniye mertebesine kadar ısınma kanalı yaratabilmektedir. Ancak bireysel sıcaklıklar altında belirlenen kararlı durumlar ile şok dalgasındaki artık zamanı hesaba katmayarak (zamanla konsantrasyonların değişmediği zaman dilimlerini hesaba katmamak) reaksiyona katkı sağlayan zaman adımları ile şok dalgası yaratılacaktır.

Anahtar Kelimeler: DFT, DFTB, Tight-Binding Yaklaşımı, Atmosfer Kimyası

ABSTRACT

All kinds of movements of atoms and molecules such as vibration, transition and rotational energies can be understood by analyzing some quantum mechanical theories. In this regard, some theories outperform each other in terms of computational time, and others in terms of both computational cost

and experimental precision. In this regard, DFTB (Density Functional Theory Tight-Binding) and other TB (Tight-Binding) functions, which give as accurate results as the DFT (Density Functional Theory) method, will be compared in this study. In order to understand this, an example will be considered on determining the unstable formations and electronic structures of molecules at high temperature (plasma temperature and close to it). The fact that the sensors in today's atmospheric studies are not sensitive to these formations and that the studies on this subject are interested in the formations after the lightning flash period have shown the development of theories and methods in this type of atmospheric phenomenon under certain approaches. Considering the reaction rates of some atmospheric reactions and the probability of formation of products, considering the development time of the shock wave of the reactions that contribute to the total amount of molecules, it is determined which reactions provide the most effective molecules. It is a program that can show what kind of atmospheric formations can occur by creating a heating and cooling channel simulation, depending on time, through the quasi-experimental method that supports molecular dynamics in the AMS (Amsterdam Modeling Suit) program. In addition, the main objectives of the study are how many types of reactions will take place in this process (from which reactions the particles formed) and the resulting products are compared with the concentration and reaction rates in the literature. Before starting the shock wave, the occurrence times of each system at constant temperatures will be examined first. This is until the molecular concentrations in the system remain constant over time. At the end of the study, the system also gives information about the reaction results and rate constants of the relevant populations, as well as the population. The shock wave is a longer time period than these mentioned reaction times. Because a lightning flash can create a heating channel up to the order of milliseconds. However, by ignoring the steady states determined under individual temperatures and the residual time in the shock wave (not taking into account the time periods where the concentrations do not change with time), the shock wave will be created with time steps that contribute to the reaction.

Keywords: DFT, DFTB, Tight-Binding Approach, Atmosphere Chemistry.

ДЕФЕКТЫ В УЗЛАХ МАНСАРДНОГО ЭТАЖА

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Одной из основных проблем, имеющей свое начало еще на стадии строительства дома, является то, что потенциальный застройщик не обращает внимания на то, что мансардная крыша – это не совсем обычная конструкция, которая должна выполнять не только функции крыши, но и располагать к комфортной жизни в помещении. Чтобы выполнялись оба условия, необходимо понимать суть конструкции, а так же нюансы процессов ее монтажа.

Перекрытие мансардного этажа, коньковый узел

Конструкция крыши мансардного этажа имеет две наиболее распространенных конфигурации: когда используется все подкровельное пространство, чаще всего двускатная крыша, и, когда сооружается дополнительный каркас в подкровельном пространстве для придания правильных форм помещению – двускатная ломанная, либо вальмовая крыша [1]. На рисунке 1 представлены схемы наиболее распространенных и применяемых типов каркаса мансардного этажа при частном домостроении.

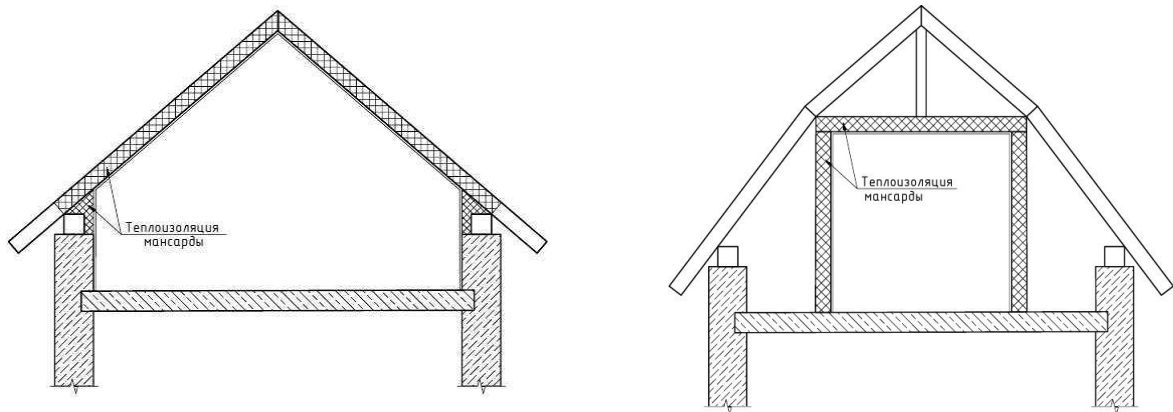


Рисунок 1 – Схема основных типов каркаса мансардного этажа

Принципиальная схема конструкции мансардного этажа рассматриваемого объекта представляет собой комбинированный вариант рассмотренных выше двух типов. Часть помещения мансардного этажа представляет собой деревянный «сруб» из бруса 100x180, а часть выполнена в виде деревянного каркаса, стены которого защищены досками с теплоизоляционным материалом «Пеноизол» между ними. Стены мансардного помещения оштукатурены с наружной стороны глиняной штукатуркой по дранке, теплоизоляция брусовой стены отсутствует.

Перекрытие мансардного этажа выполнено по деревянным балкам сплоченных из плах 180x50, шаг балок соответствует шагу стропильных ног в плоскости кровли. Теплоизоляция перекрытия выполнена из минераловатных материалов «Isover standart» по глиняной засыпке.

Узел сопряжения наружных стен мансардного этажа.

При возведении мансардного этажа, для увеличения пространства и полезной площади, а так же сохранения необходимых условий по высоте потолков, в соответствии с требованиями [2], существуют варианты, когда внешние несущие стены возвышают над перекрытием первого этажа на

рекомендуемую пропорцию высоты к площади - $\frac{1}{2}$ [1], тем самым получая более благоприятные условия для пребывания людей.

Как правило, материал и конструкция таких стен полностью аналогична материалу стен всего здания, такой прием является и наиболее рациональным. Однако существуют варианты, когда конструкция несущих стен мансарды выполняется из других, более легких, материалов, либо используется каркасное строение. Применение разнородных материалов не всегда целесообразно, поскольку разные материалы требуют более тщательного сопряжения, а в процессе эксплуатации здания, разнородные материалы будут иметь разную степень усадки, что может привести к деформациям конструкции.

Применение данного варианта устройства мансардного этажа в свою очередь требует тщательного подхода к теплоизоляции не только самой кровли, но и стен здания. При недостаточной теплоизоляции несущих стен, именно в этом узле будет повышенная концентрация проникающего холодного воздуха, а теплофизические процессы, возникающие на границах тепловых потоков, могут привести к нарушению целостности всей ограждающей конструкции.

Ограждающая конструкция стен мансардного этажа рассматриваемого объекта имеет в разных уровнях разную структуру: в уровне пола и лестничного марша материал стен – кирпич, выше – брус сечением 200x200.

Расчет стационарного теплопереноса, выполненный на основе конструктивных данных обследуемого объекта, выявил значительные теплопотери в местах стыка наружных стен, а так же в местах сопряжений разнородных материалов ограждающих конструкций, результаты расчета представлены в таблицах 1, 2.

Анализируя результаты расчета узла 1, можно сделать вывод, что толщины теплоизоляции наружной стены в 50 мм. недостаточно, температура поверхности несущей стены по внутреннему контуру составила $-7,41^{\circ}\text{C}$, что является недопустимым. Однако на практике показатели могут быть еще хуже, так как обнаруженные ранее дефекты теплоизоляции могут способствовать выносу тепла из помещения.

Картина теплового поля узла 2 имеет практически идентичный характер показателей с узлом 1: наибольшие теплопотери возникают именно в месте стыка наружных стен. Промерзание стыка возможно и по причине низкой плотности сопрягаемых деталей конструкции, так как на практике обеспечить плотное прилегание бруса к кирпичной стене очень трудно. Однако показатели температурного поля деревянной стены из-за лучших характеристик материалов по теплопроводности, узел 2, имеют положительные показатели по сравнению со значениями температур поверхностей узла 1.

Рекомендации по устранению/недопущению выявленных дефектов.

Для решения по устранению дефектов в узле сопряжения наружных стен здания, необходима комплексная система мер, заключающаяся в полной переработке теплоизоляционной схемы узла.

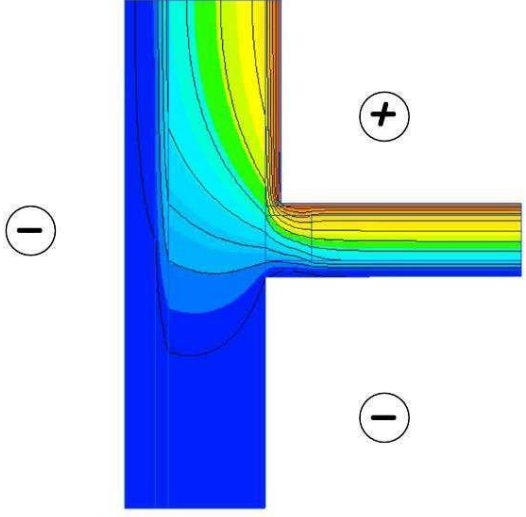
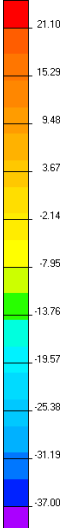
Для снижения инфильтрации холодных потоков воздуха и устранения недостатков кладки, необходимо зачеканить цементно-песчаным раствором все щели и пропуски в кладке несущей стены. Для обеспечения надежной теплоизоляции, необходимо подобрать утеплитель и его толщину по расчету, соответствующего нормам и требованиям СП [3].

При укладке теплоизоляции необходимо обеспечить ее надежное и герметичное прилегание к стене, а при использовании нескольких слоев, для обеспечения необходимой толщины, обязательное ее расположение сперехлестом швов без допущения образования щелей и пропусков. Проведенные исследования «АрхГеоЛайн» доказали, что при наличии зазоров между плитами утеплителя в 5 мм, существенно снижается теплозащита конструкции, как при однослойном, так и при многослойном утеплении [4].

Таблица 1 – Результаты расчета узла 1: конструкция стыка кирпичных наружных стен мансарды

Температура наружного воздуха $t_{н.} = -37^{\circ}\text{C}$;			
Температура воздуха внутри помещения $t_{в.} = +22^{\circ}\text{C}$;			
Температурное поле			T, °C
Теплотехнические характеристики материалов по направлению от внутреннего контура			
Наименование слоя	Толщина слоя, мм	Тепловой поток, Вт.	Средняя температура поверхности $T_s, ^{\circ}\text{C}$.
ГКЛ	12	101.07	16.29
«Isover стандарт»	50	16.23	13.61
Кладка стены	380	101.53	0.64
Теплотехнические характеристики материалов по направлению от внешнего контура			
Кладка облицовочная	125	15.82	-6.66
Минераловатный утеплитель	50	15.82	-0.65
Кладка стены	380	15.81	-5.61

Таблица 2 – Результаты расчета узла 2: конструкция стыка наружных стен мансарды из разнородных материалов

Температура наружного воздуха $t_n = -37^\circ\text{C}$;			
Температура воздуха внутри помещения $t_{в} = +22^\circ\text{C}$;			
Температурное поле			T, °C
			
Теплотехнические характеристики материалов по направлению от внутреннего контура			
Наименование слоя	Толщина слоя, мм	Тепловой поток, Вт.	Средняя температура поверхности $T_s, ^\circ\text{C}$.
ГКЛ	12	48.95	19.75
«Isover стандарт»	50	15.44	14.33
Кладка стены	380	15.84	-6.77
Стеновой щит из досок	40	33.88	10.95
Пеноизол	180	29.42	1.39
Теплотехнические характеристики материалов по направлению от внешнего контура			
Кладка облицовочная	125	12.53	-6.73
Минераловатный утеплитель	50	12.53	-5.47
Кладка стены	380	12.54	18.29
Штукатурный слой	25	32.48	-5.50
Стеновой щит из досок	40	31.59	-9.66
Пеноизол	180	28.82	-8.83

Для предотвращения промерзания угла, необходимо обеспечить его теплоизоляцию с обеих сторон, с нахлестом теплоизолирующего материала на сопрягаемую стену не менее чем на 500 мм. Так же необходимо загерметизировать стык между кладкой и стойкой из деревянного бруса при помощи уплотнительных лент или напыляемых материалов.

Поскольку помещение мансарды на рассматриваемом объекте занимает не все подкровельное пространство, то необходимо выполнить условия обеспечения теплоизоляции не только наружных стен, но и стен, расположенных со стороны чердачного пространства. Такие мероприятия снизят теплопотери через локально – неоднородные по геометрическим или теплофизическим параметрам участки ограждения.

Основываясь на исследования о влиянии краевых зон на общие теплопотери здания [4], можно сделать вывод, о необходимости тщательного устройства наружных ограждений, в частности их стыков между собой и с разнородными материалами.

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