



CUKUROVA
11TH INTERNATIONAL
SCIENTIFIC
RESEARCHES CONFERENCE
August 22-24, 2023
ADANA



ABSTRACT BOOK

EDITOR

Assist. Prof. Dr. Kemal GÖÇER

ISBN: 978-625-367-278-2

CUKUROVA 11th INTERNATIONAL SCIENTIFIC RESEARCHES CONFERENCE

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Issued: 13.09.2023

ISBN: 978-625-367-278-2

CONFERENCE ID

CONFERENCE TITLE

CUKUROVA 10th INTERNATIONAL SCIENTIFIC RESEARCHES CONFERENCE

DATE AND PLACE

August 22-24, 2023 Adana, TURKIYE

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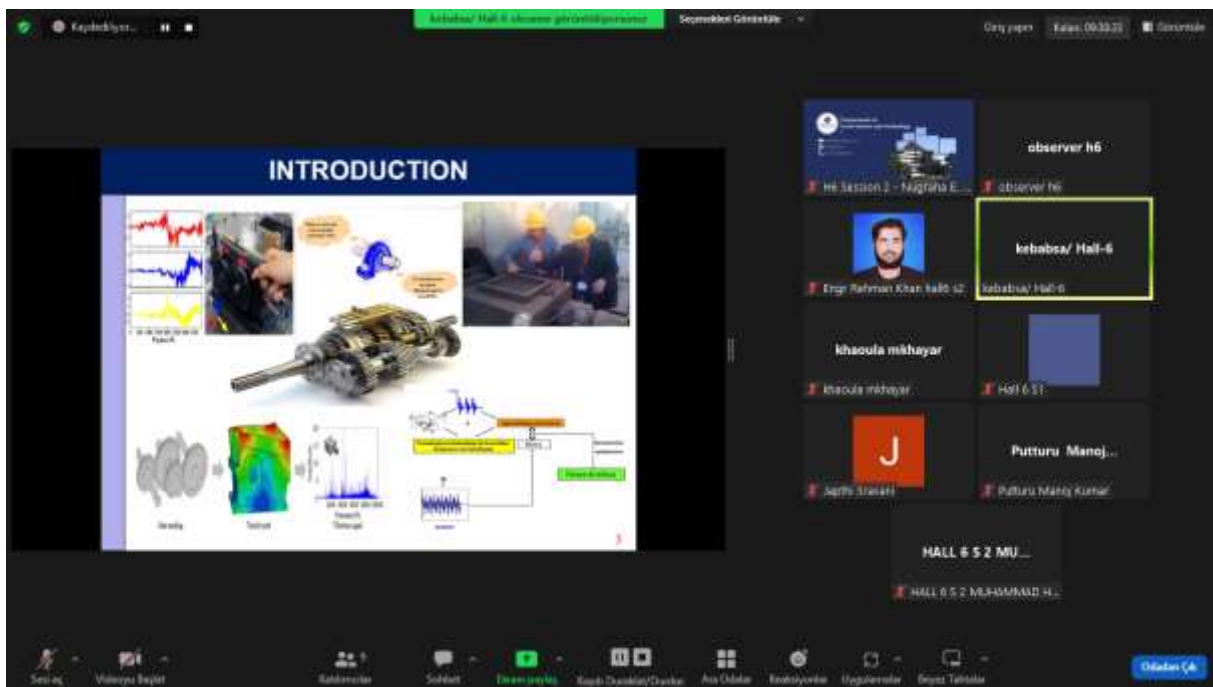
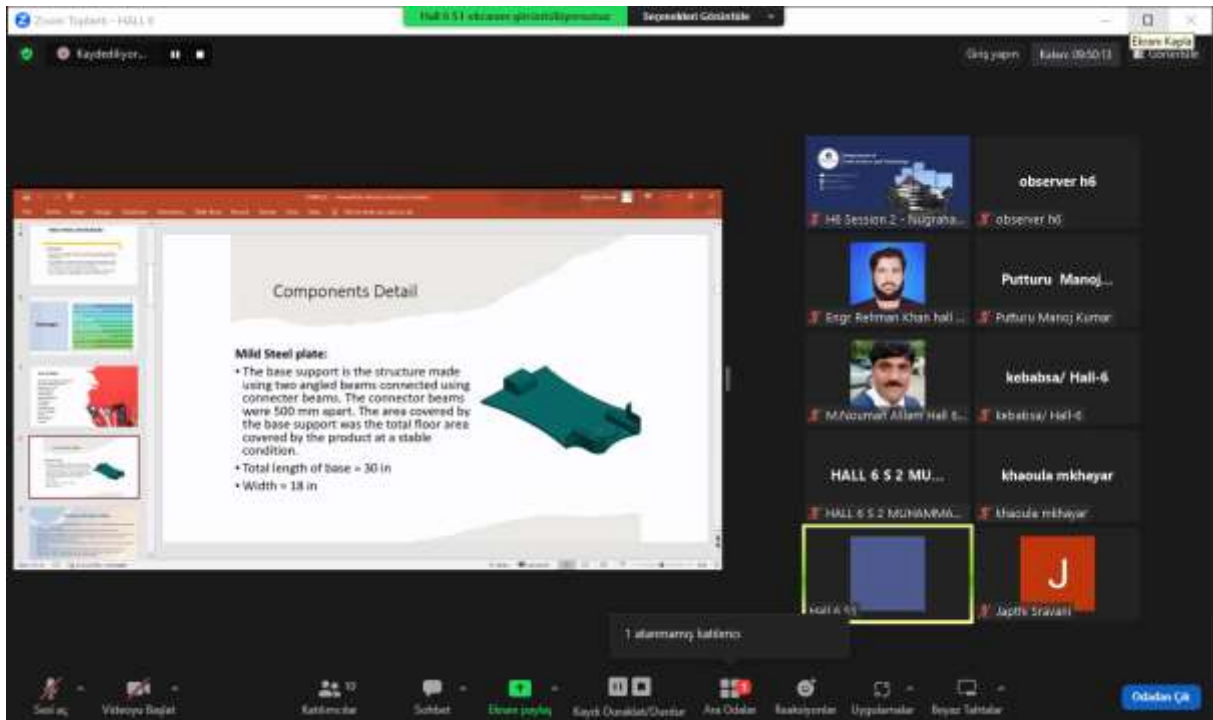




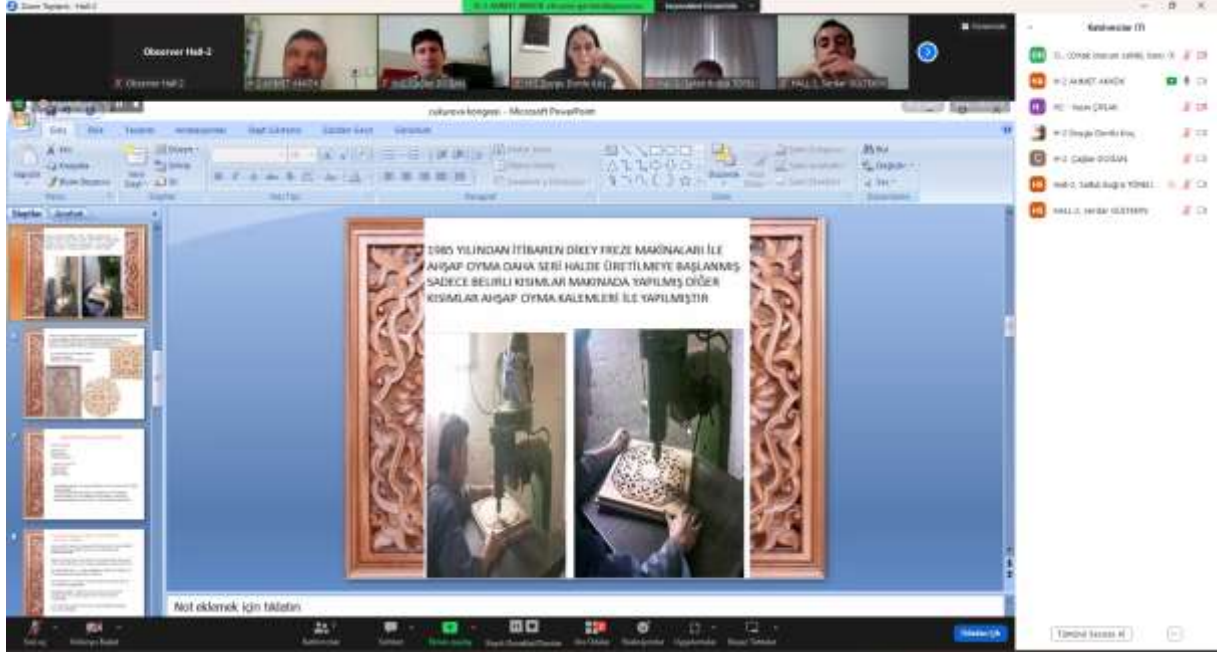












CUKUROVA 11th INTERNATIONAL SCIENTIFIC RESEARCHES CONFERENCE

August 22-24, 2023
ADANA, TURKEY



CONFERENCE PROGRAM

Meeting ID: **897 4638 7231**

Passcode: **123456**

Participant Countries (37): Türkiye, Morocco, Algeria, Malaysia, Iran, Pakistan, Indonesia, Nigeria, Bangladesh, Azerbaijan, India, Vietnam, Hungary, Kosovo, Albania, Portugal, Tunisia, France, Kingdom of Saudi Arabia, Iraq, Oman, Serbia, Italy, Brazil, Romania, Belarus, Colombia, Spain, Chile, Bosnia And Herzegovina, Argentina, Benin Republic, Philippines, Ukraine, Greece, Bangladesh, Congo

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22.08.2023 / Session-1

Ankara Time
13⁰⁰ : 15⁰⁰

Türkmen Riverside Hotel
Adana

HEAD OF SESSION: Assist. Prof. Dr. Mehmet Arif İÇER

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Aynur APAYDIN TOSUN	<i>Ministry of Education (Türkiye)</i>	A CASE STUDY ON THE IMPACT OF EFFECTIVE LEADERSHIP ON
Abdulkadir ÇELİK	<i>Ministry of Education (Türkiye)</i>	EVALUATION OF THE REFLECTIONS OF THE INCLUSIVE EDUCATION PROGRAM FOR SCHOOL ADMINISTRATORS REALIZED BY THE MINISTRY OF NATIONAL EDUCATION WITHIN THE FRAMEWORK OF "EDUCATION 2023 VISION"
Res. Assist. Dr. Şükriye ULAŞKIN	<i>Aksaray University (Türkiye)</i>	A CRITIQUE OF MODERN BUSINESS LIFE IN THE CONTEXT OF CLASS AND CONSUMPTION RELATIONS: THE BABBITT NOVEL
Assist. Prof. Dr. Şerife ŞİMŞEK	<i>Aksaray University (Türkiye)</i>	KEMALIST IDEOLOGY AND THE CULT OF ATATURK IN THE PERIOD OF SEPTEMBER 12
Rukiye GÜLPİNAR	<i>Erciyes University (Türkiye)</i>	THE DUAL USE OF RELIGIOUS IMAGES IN SHEIKH AHMED HÜSÂMÎ DİVÂNİ
Res. Assist. Ali GÜNAY Assoc. Prof. Dr. İrfan GÜLMEZ	<i>Haliç University (Türkiye) Marmara University (Türkiye)</i>	INVESTIGATION OF Q ANGLE AND RECTUS FEMORIS MUSCLE ACTIVATION VALUES IN FORWARD LUNGE EXERCISE
Assist. Prof. Dr. Mehmet Arif İÇER Prof. Dr. Hilal YILDIRAN	<i>Amasya University (Türkiye) Gazi University (Türkiye)</i>	INVESTIGATION OF THE ROLE OF NUTRITIONAL HABITS ON THE DEVELOPMENT OF CORONARY ARTERY DISEASE
Assist. Prof. Dr. Mehmet Arif İÇER	<i>Amasya University (Türkiye)</i>	INVESTIGATION OF ADULT CONSUMERS' KNOWLEDGE LEVELS ABOUT GEOGRAPHIC INDICATION

22.08.2023 / Session-2

Ankara Time
15⁰⁰ : 17⁰⁰

Türkmen Riverside Hotel
Adana

HEAD OF SESSION: Prof. Dr. Nazım AGHAYEV

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Gökay GURBUZ Ömer COŞKUN İpek ŞAHİN Onur Can KIRIT	<i>Koluman Otomotiv Endüstri A.Ş. (Türkiye)</i>	IMPROVEMENT OF TARPAULIN FRAME DESIGN, LIGHTWEIGHTING, AND MINIMIZATION OF WELDING OPERATIONS
Tanver TALAS	<i>Koluman Otomotiv Endüstri A.Ş. (Türkiye)</i>	AERODYNAMIC SOLUTIONS FOR SEMI TRAILERS AND VECTO TOOL INFORMATIONS
Hakan GORGUN Mehmet VURGUN Tuğba GEDİK	<i>Koluman Otomotiv Endüstri A.Ş. (Türkiye)</i>	DESIGN IMPROVEMENT, LIGHTENING AND RESOURCE REDUCTION IN COMPLEX ELECTRIC CLIPBOARD SHEET
Msc.Fatih Harun ÖZDUMAN	<i>Başak Traktör (Türkiye)</i>	VISIBILITY EVALUATION FOR BACKHOE LOADER OPERATORS
Res. Assist. Çağla GÜNEY	<i>Uskudar University (Türkiye)</i>	ROLES OF c-MYC, p53, pRB AND RAS IN CELL CYCLE AND APOPTOSIS
Ipek ŞAHİN Burak BAL Evren ÖZKAYNAR	<i>Koluman Otomotiv Endüstri A.Ş. (Türkiye)</i>	ANALYSIS OF SURFACE MORPHOLOGY DEFORMATIONS IN S960QL STEEL MATERIAL AT VARIOUS AMPERAGE VALUES
Prof. Dr. Nazım AGHAYEV	<i>Fatih Sultan Mehmet Vakif University (Türkiye)</i>	ARIZ METHOD IN DEVELOPING CREATIVITY IN SCHOOL EDUCATION
Kardelen OZDAŞ Assoc. Prof. Dr. Erdal YABALAK	<i>Mersin University (Türkiye)</i>	THERMAL AND CATALYTICAL EFFECTS OF EGGSHELL ON THE PERSULFATE OXIDATION OF AZE DYE
Assoc. Prof. Dr. Nurhan KOÇAN	<i>Bartın University (Türkiye)</i>	PLANNING AND MANAGEMENT OF OPEN GREEN SPACES FOR AFTER EARTHQUAKE

22.08.2023, Tuesday

Ankara Time
10⁰⁰ : 12⁰⁰

Hall-1
Session-1

HEAD OF SESSION: Assoc. Prof. Dr. Tuncay İLHAN

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Uğur SÜER	<i>Selçuk University (Türkiye)</i>	SOME ALTERNATIVE ROUGHAGE SOURCES IN RUMINANTS
Assist. Prof. Dr. Kamıl SAĞLAM Derya SARIOĞLU Prof. Dr. Halil Selçuk BİRİCİK	<i>19 Mayıs University (Türkiye) Karaman Training and Research Hospital (Türkiye) Afyon Kocatepe University (Türkiye)</i>	DETERMINATION OF FIRE BRIGADE SEARCH AND RESCUE TEAMS CAPACITIES
Dr. Tarık ŞAFAK Dr. Öznur YILMAZ	<i>Kastamonu University (Türkiye) Siirt University (Türkiye)</i>	UNILATERAL UTERINE PROLAPSE IN PERSIAN CAT
Assoc. Prof. Dr. Tuncay İLHAN	<i>Bursa Uludağ University (Türkiye)</i>	GHRELIN AND CAPSAICIN
Dr. Ahmet SAİT	<i>Istanbul Pendik Veterinary Control Institute (Türkiye)</i>	WEST NILE VIRUS AND ONE HEALTH CONCEPT
Assoc. Prof. Dr. Sakine ULKUM ÇİZMECİ Assoc. Prof. Dr. Ayşe Merve KÖSE	<i>Selçuk University (Türkiye) Hatay Mustafa Kemal University (Türkiye)</i>	EMBRYO PRODUCTION AND TRANSFER IN COW
Assoc. Prof. Dr. Ayşe Merve KÖSE Assoc. Prof. Dr. Sakine ÜLKÜM ÇİZMECİ	<i>Hatay Mustafa Kemal University (Türkiye) Selçuk University (Türkiye)</i>	INVIVO EMBRYO PRODUCTION AND TRANSFER IN SHEEP AND GOATS
Assist. Prof. Dr. Ece KOLDAŞ ÜRER Prof. Dr. Murat FINDIK	<i>Hatay Mustafa Kemal University (Türkiye) Samsun Ondokuz Mayıs University (Türkiye)</i>	THE EFFECT OF INTRAUTERINE POVIDON IODINE APPLICATION IN EARLY POSTPARTUM UTERINE INFECTIONS AND FERTILITY PARAMETERS IN COWS

22.08.2023, Tuesday

Ankara Time
10⁰⁰ : 12⁰⁰

Hall-2
Session-1

HEAD OF SESSION: Assoc. Prof. Dr. Sadık Alper YILDIZEL

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Assoc. Prof. Dr. Sadık Alper YILDIZEL Dr. Mehmet UZUN	<i>Karamanoğlu Mehmetbey University (Türkiye)</i>	NATURAL FIBERS REINFORCED CONCRETE AND THE INVESTIGATION OF SOME MECHANICAL PROPERTIES
Assoc. Prof. Dr. Sadık Alper YILDIZEL Dr. Mehmet UZUN	<i>Karamanoğlu Mehmetbey University (Türkiye)</i>	FIBER REINFORCED FOAM CONCRETE
Ahmad MECHREF Assist. Prof. Dr. Hamdi TEKİN Assoc. Prof. Dr. İsmail Cengiz YILMAZ	<i>İstanbul Arel University (Türkiye)</i>	TECHNO-ECONOMIC COMPARATIVE ANALYSIS OF THE CONSTRUCTION SECTORS OF TURKEY AND THE UNITED ARAB EMIRATES
Mustafa GÜNEY Assoc. Prof. Dr. Sema ALACALI	<i>Yildiz Technical University (Türkiye)</i>	PREDICTION OF COMPRESSIVE STRENGTH AND STRAIN MODEL OF FRP- CONFINED RECTANGULAR CONCRETE COLUMNS USING GENE EXPRESSION PROGRAMMING
Dr. Tülay Suğra KÜÇÜKERDEM ÖZTÜRK Assoc. Prof. Dr. Kemal SAPLIOĞLU	<i>Süleyman Demirel University (Türkiye)</i>	ESTIMATION OF BURSA POPULATION WITH GREY MODELING
Zhainakbek ERGESHOV Ezgi ÖRKLEMEZ Assoc. Prof. Dr. Serhan İLKENTAPAR Assoc. Prof. Dr. Uğur DURAK Prof. Dr. Okan KARAHAN Prof. Dr. Cengiz Duran ATIŞ	<i>Erciyes University (Türkiye)</i>	INVESTIGATION OF THE MECHANICAL PROPERTIES AND HIGH TEMPERATURE RESISTANCE OF FLY ASH BASED GEOPOLYMER MORTARS CONTAINING SILICA FUME
Dr. Seda TAT Assoc. Prof. Dr. Mahmut REİS	<i>Kahramanmaraş Sütçü İmam University (Türkiye)</i>	DETERMINATION OF DEAD WOOD CARBON STORAGE CAPACITY IN PURE AND MIXED STANDS
Dr. Murat ŞENTÜRK	<i>Süleyman Demirel University (Türkiye)</i>	KARSTIC DEPRESSION AREAS IN KONYA BASIN: HAZARD POTENTIAL AND RISK ANALYSIS

22.08.2023, Tuesday

Ankara Time
10⁰⁰ : 12⁰⁰

Hall-3
Session-1

HEAD OF SESSION: Prof. Dr. Leyla SARAÇ

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Lect. Dr. Abdüsselam TURGUT Kasım YAKUT	<i>Hitit University (Türkiye)</i>	EFFECTS OF GINSENG ON HEALTH AND PERFORMANCE
Assist. Prof. Dr. Rıdvan ERGİN Caner MUMCU	<i>Recep Tayyip Erdoğan University (Türkiye) Ministry of Education (Türkiye)</i>	RELATIONAL ANALYSIS OF SOME PERFORMANCE PARAMETERS: HANDBALL
Egemen EREN	<i>Sivas Cumhuriyet University (Türkiye)</i>	LEADERSHIP IN SPORTS ADMINISTRATION
Assist. Prof. Dr. Metin YÜCEANT	<i>Aksaray University (Türkiye)</i>	INDIVIDUAL DIFFERENCES IN OPTIMAL ANXIETY: EXAMPLE OF ELITE ATHLETES
Assist. Prof. Dr. Gizem BAŞKAYA	<i>Bandırma Onyedey Eylül University (Türkiye)</i>	DOES LEG STRENGTH AFFECT JUMP, ACCELERATION, SPRINT AND CHANGE OF DIRECTION PERFORMANCE IN YOUNG FOOTBALLERS?
Lect. Dr. Hande YAZICIOĞLU ÇALIŞAN Assoc. Prof. Dr. Çalık Veli KOÇAK	<i>Aksaray University (Türkiye)</i>	THE EFFECT OF SPORTS MOVEMENT EDUCATION ON MOTOR DEVELOPMENT, SOCIAL ANXIETY, MENTAL HARMONY AND QUALITY OF LIFE IN CHILDREN IN NEED OF PROTECTION
Prof. Dr. Zeynep F. DİNÇ Prof. Dr. Leyla SARAÇ	<i>Çukurova University (Türkiye) Mersin University (Türkiye)</i>	THE RELATIONSHIP BETWEEN POST-EARTHQUAKE TRAUMA LEVELS AND EARTHQUAKE COPING STRATEGIES IN SPORTS SCIENCES FACULTY STUDENTS

22.08.2023, Tuesday

Ankara Time
10⁰⁰ : 12⁰⁰

Hall-4
Session-1

HEAD OF SESSION: Dr. KHAMMAR Farida

AUTHOR(S)	ORGANISATION	TOPIC TITLE
S. Djouimaa N.Handel F.Khamar S. Missaoui H.Houam	University of Mohamed MOROCCO Mohamed Cherif Messaadia University MOROCCO Chadli Ben Djedid University MOROCCO University of August 20, MOROCCO	ENHANCING SOIL REINFORCEMENT WITH FIBERS AND GEOGRIDS
Maza Mekki Nadia Tebbal Zine El Abidine Rahmouni	Msila University ALGERIA	MICRO CONCRETE ADMIXED WITH WHITE CEMENT WITH POLYSTYRENE
Nadia Tebbal Zine El Abidine Rahmouni Maza Mekki Messaoud Belouadah	Msila University ALGERIA	VALORIZATION OF A MINING WASTE BETWEEN THE LITERATURE AND THE EXPERIMENTAL TESTS
Monapriya Naidu Kerinasamy Naidu Ramesh Kasi Ramesh T. Subramaniam B. Vengadaesvaran	University of Malaya MALAYSIA	STUDY OF CORROSION PROTECTION PERFORMANCE OF ORGANIC COATINGS DEVELOPED FROM NATURAL RUBBER BASED MATERIALS
Khelil F. Benaoum	Université Mustapha Stambouli ALGERIA	THE fLEXURAL DEFLECTIONS OF CONCRETE BEAM REINFORCED WITH FRP PATCH
Dr. Naoual Handel Dr. Farida Khammar Dr. Sarah Djouimaa	Mohamed Cherif Messaadia University ALGERIA	MECHANICAL BEHAVIOR OF SELF- COMPACTING CONCRETE MADE FROM INDUSTRIAL WASTE
Ali Zandifar Feridun Esmailzadeh	Shiraz University IRAN	NOVEL TERNARY CEO 2 /ZNO/AC-DERIVED FROM WASTE WOOD PHOTOCATALYSTS BY SONO-PHOTOCHEMICAL DEPOSITION: CATALYST CHARACTERIZATION AND OPTIMIZATION OF ORGANIC DYE DEGRADATION
Muhammad Sufaid Khan	University of Chitral PAKISTAN	REMOVAL OF DYE FROM AQUEOUS SOLUTION BY USING COPPER OXIDES NANOPARTICLES CON) AS ADSORBENT: KINETIC APPROACH
Boughedir nadia RafikAbdelkrim Boudia .Mehdi Adjdir MiloudMohamed Mazari	University OranI Ahmed Ben Bella MOROCCO University of Saïda Dr.TaharMoulay ALGERIA Université de Tlemcen ALGERIA université de Aïn t émouchent ALGERIA	THE PRODUCTION OF ZEOLITES IN THE INDUSTRY
Dr. KHAMMAR Farida Dr. HANDEL Naoual	University of Souk Ahras ALGERIA	STUDY AND DIAGNOSIS OF THE RELIABILITY OF AN INDUSTRIAL SYSTEM

22.08.2023, Tuesday

Ankara Time
10⁰⁰ : 12⁰⁰

Hall-5
Session-1

HEAD OF SESSION: Iskenderova Gunay Zahid

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Hicham ZITOUN Abdelouahed HAJJAJI Adil LAAZIZ Rajae BELKHOU	<i>Sidi Mohamed Ben Abdellah University MOROCCO</i>	INTEGRATED PEST MANAGEMENT STRATEGIES AS ALTERNATIVES TO FUNGICIDES TO CONTROL APPLE SCAB CAUSED BY VENTURIA INAEQUALIS: A LITERATURE REVIEW
Mohammed Mitache Aziz Baidani Bouchaib Bencharki Omar Idrissi	<i>National Institute of Agricultural Research MOROCCO Hassan First University of Settat MOROCCO</i>	ACCELERATING LENTIL BREEDING PROGRAMS: HARNESSING SPEED BREEDING AND EXTENDED PHOTOPERIOD FOR GLOBAL FOOD SECURITY
Supanjani Fahrurrozi Lilis Septiana	<i>Bengkulu Jalan WR Supratman INDONESIA</i>	VEGETATIVE AND REPRODUCTIVE GROWTH OF 4 STRAWBERRY VARIETIES TO POTASSIUM IN THE LOWLANDS
APATA, O.C.	<i>University of Ibadan NIGERIA</i>	AWARENESS AND CONSUMPTION PATTERN OF SOURSOP JUICE AMONG THE TOURISTS IN OLUMO TOURIST COMPLEX
Salaheddine Farsad Asma Amjlef Ayoub Chaoui Aboubakr Ben Hamou Noureddine El Alem	<i>Ibn Zohr University MOROCCO</i>	UTILIZING FOOD WASTE DIGESTATE FOR EFFICIENT METHYLENE BLUE ADSORPTION
Mst. Shahinur Khatun Taiba Akter Laboni Zannatul Mawa Md. Rabiul Hasan Most. Farida Parvin Md. Yeamin Hossain	<i>University of Rajshahi BANGLADESH</i>	REPRODUCTIVE STRATEGIES AND CONSERVATION IMPLICATIONS FOR ANABAS TESTUDINEUS IN THE GAJNER BEEL WETLAND, BANGLADESH, AMIDST SHIFTING ECO-CLIMATIC CONDITIONS: TOWARDS OPTIMAL AQUACULTURE PRACTICES
SAGHOURI EL IDRISSE Imane KETTANI Rajae FERRAHI Moha EL FECHTALI Mohamed ZIRI Rabea BRHADDA Najiba Najiba	<i>National Institute of Agronomic Research MOROCCO University of Ibn Tofail MOROCCO</i>	INTER-RELATIONSHIPS BETWEEN SEED YIELD AND FOUR RELATED TRAITS OF SIXTEEN DURUM WHEAT GENOTYPES IN WATER-STRESSED AND STRESS-FREE ENVIRONMENTS
Iskenderova Gunay Zahid	<i>MSERA Institute of Zoology AZERBAIJAN</i>	VERTICAL MIGRATION OF THE BLACK BEAN APHID (APHIS FABAE SCOP.) ON PLANTS
Anukriti Rani Meenakshi Chug Mahendra Kumar Savita	<i>Naraina Vidyapeeth Engineering and Management Institute INDIA</i>	BENEFITS OF HERBAL TEA ON HUMAN HEALTH
Adebayo, O. A. Oyewo, I.O. Azeez, F.A Farayola C.O	<i>Federal College of Forestry NIGERIA Agricultural and Rural Management Training Institute NIGERIA</i>	ENVIRONMENTAL MANAGEMENT TRAINEES' GREEN ENTREPRENEURIAL INTENTIONS, EVENTS AND FEARS IN NIGERIA

22.08.2023, Tuesday


Ankara Time
10⁰⁰ : 12⁰⁰


Hall-6
Session-1

HEAD OF SESSION: Dr. Minh Le Thi

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Ratheesh E R	<i>Affiliated to M G University Kottayam INDIA</i>	ECONOMICS OF CLIMATE CHANGE AND THE POLICY INTERVENTIONS OF THE GOVERNMENT
OYEWOLE MOJISOLA FAUZIYAH	<i>University Of Ibadan NIGERIA</i>	WOMEN FARMERS ATTITUDE TOWARDS ANCHOR BORROWERS' PROGRAMME IN OYO STATE, NIGERIA
Dalila Khalifa Oussama Meghlaoui Abdelouahab Benretem	<i>Annaba University ALGERIA</i>	INDUSTRIAL RISK ANALYSIS AND CONTROL CASE STUDY «TERMINAL ARRIVE EL KALA GK03 SONATRACH ALGERIA »
Dr. Aarti Rosy Dhall Mikul Deepa Bagdi	<i>Maharshi Dayanand University INDIA</i>	THE INABILITY OF SMES TO OPTIMISE THEIR ORGANISATIONAL PERFORMANCE AND ITS INFLUENCE ON THE EMERGING ECONOMY
Isah, Hassan Alhassan Isa, Rasheed Babatunde Ihedigbo, Kingsley Sunday	<i>Federal University of Technology NIGERIA</i>	INFLUENCE OF DIGITALISATION ON CONSTRUCTION PROJECT DELIVERY: A REVIEW
Dr. Minh Le Thi	<i>Thu Dau Mot University VIETNAM</i>	VIETNAM'S POLICY ON CO 2 EMISSIONS IN THE CONTEXT OF ACCESSING INTERNATIONAL AGREEMENTS
Dr. Nadeem Bhatti Shoukat Rafiue Awan Dr.Faiz Muhammad Shaikh	<i>Lahore Leads University PAKISTAN</i>	IMPACT OF MEGA FLOOD 2022 AND POST COVID-19 ON BANKING INDUSTRY OF PAKISTAN: A CASE STUDY OF HBL BANK
Dr.C.Vijai Dr.P.Sasikumar Mr.M.Elayaraja	<i>Institute of Science and Technology INDIA</i>	OPPORTUNITIES AND RISKS OF ARTIFICIAL INTELLIGENCE IN FINANCE
Bekir Bytyqi Bukurije Hoxha	<i>University of Debrecen HUNGARY University of Prishtina Hasan Prishtina KOSOVO</i>	ENVIRONMENTAL IMPACT OF THE ENERGY SECTOR IN KOSOVO

22.08.2023, Tuesday

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12³⁰ : 14³⁰

Hall-1
Session-2

HEAD OF SESSION: Assist. Prof. Dr. Tekin SANCAR

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Assist. Prof. Dr. Tekin SANCAR	<i>Iğdır University (Türkiye)</i>	MEDIATING EFFECT OF DESTINATION TRUST IN THE EFFECT OF DESTINATION IMAGE ON REVISIT DECISION: AN APPLICATION IN THE THERMAL TOURISM SECTOR
Assist. Prof. Dr. Tekin SANCAR	<i>Iğdır University (Türkiye)</i>	THE EFFECT OF THERMAL TOURISM DESTINATION IMAGE AND SATISFACTION ON REVISIT INTENTION: AN APPLICATION ON TOURISTS VISITING THERMAL FACILITIES IN AFYON
Assist. Prof. Dr. Mehmet Fetih YANARDAĞ MA. Mehtap KARAKAYA	<i>Kahramanmaraş Sütçü İmam University (Türkiye)</i>	ANALYSIS OF OĞUZ ATAY'S STORY "THE MAN IN THE WHITE COAT" AND ITS EVALUATION ON THE IMAGE OF THE WHITE COAT
Dr. Gülşah ŞİŞMAN	<i>Independent Researcher (Türkiye)</i>	AN EVALUATION OF LEAN PRACTICES IN HEALTHCARE ORGANIZATIONS
Assist. Prof. Dr. Buket SAVRANLAR	<i>Istanbul Nisantasi University (Türkiye)</i>	THE RELATIONSHIP BETWEEN TRANSPORTATION SECTOR INFRASTRUCTURE INVESTMENTS AND ENVIRONMENTAL POLLUTION: A RESEARCH ON OECD COUNTRIES
Ozlem ALTINTAŞ Assist. Prof. Dr. Şenol YAVUZ	<i>Hitit University (Türkiye)</i>	ASBEST STUDIES IN TERMS OF OCCUPATIONAL HEALTH AND SAFETY

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Hall-2
Session-2

HEAD OF SESSION: Assoc. Prof. Dr. Latif PINAR

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Dr. Özge ERDÖLEK KOZAL	<i>Ege University (Türkiye)</i>	EXAMINING THE DETERMINANTS OF INDIVIDUALS' PERCEPTIONS ON THE TRADE-OFF BETWEEN ECONOMIC GROWTH -ENVIRONMENTAL CONCERNS IN TURKEY
Dr. Gülçin GÜREL GÜNAL	<i>Ege University (Türkiye)</i>	MARKET ENTRY MOTIVATIONS IN LOW AND MEDIUM TECHNOLOGY SECTORS: THE TOP 500 INDUSTRIAL ENTERPRISES
Assist. Prof. Dr. Ömer YILMAZ Prof. Dr. Taner AKÇACI	<i>Gaziantep University (Türkiye)</i>	EXAMINING THE IMPACT OF FINANCIAL FREEDOM, FOREIGN DIRECT INVESTMENT AND TRADE OPENNESS ON ECONOMIC GROWTH: THE CASE OF BRICS COUNTRIES
Prof. Dr. Taner AKÇACI Assist. Prof. Dr. Ömer YILMAZ	<i>Gaziantep University (Türkiye)</i>	THE IMPACT OF EXPORTS, ECONOMIC FREEDOM AND URBANIZATION ON ECONOMIC GROWTH: TURKEY ARDL BOUNDS TEST ANALYSIS
Res. Assist. Dr. Seher GÖKPINAR	<i>Hitit University (Türkiye)</i>	THE GLOBAL DEBT PROBLEM AND THE SEARCH FOR A SOLUTION
Assist. Prof. Dr. Selman SAÇ	<i>Kütahya Dumlupınar University (Türkiye)</i>	POLITICS AS A EMANCIPATIVE ACT IN RANCIERE, LACLAU AND BADIOU
Assoc. Prof. Dr. Latif PINAR Res. Assist. Yusuf Mehmet AKAY	<i>Karabük University (Türkiye)</i>	CONTRIBUTION OF THE MEDIA TO NATIONAL POWER IN THE CASE OF THE UNITED STATES
Assoc. Prof. Dr. Latif PINAR Res. Assist. Yusuf Mehmet AKAY	<i>Karabük University (Türkiye)</i>	REFLECTIONS OF AMERICAN FOREIGN POLICY ON HOLLYWOOD FILMS

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Hall-3
Session-2

HEAD OF SESSION: Assoc. Prof. Dr. Ayşegül ŞAKIR

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Nadiye ERTAN Assist. Prof. Dr. Özge ÖZEL	<i>Mehmet Akif Ersoy University (Türkiye)</i>	EXAMINING PROBLEMS FACED BY PRE-SCHOOL TEACHERS WHEN TEACHING IN RURAL AREA: THE EXAMPLE OF ISPARTA
Melike YÖRÜKO Assist. Prof. Dr. Özge ÖZEL Assist. Prof. Dr. Gül DALGAR	<i>Mehmet Akif Ersoy University (Türkiye)</i>	IMMIGRANT CHILDREN IN TURKEY: INVESTIGATING ARABIC AND SLAVIC CHILDREN'S PLAY PREFERENCES AND BEHAVIORS IN EARLY CHILDHOOD EDUCATION
Fulya ÖCAL Prof. Dr. Begüm ÖZ	<i>Çanakkale Onsekiz Mart University (Türkiye)</i>	TRAINER'S OPINIONS ON ONLINE ORFF-SCHULWERK APPROACH APPLICATIONS IN PRE-SCHOOL PERIOD
Dr. Nuray KOÇ İbrahim Onur GÖKDOĞAN	<i>Bursa Uludağ University (Türkiye) Ministry of Education (Türkiye)</i>	EXAMINING THE SCHOOL ADAPTATION OF PRESCHOOL CHILDREN IN DIFFERENT COUNTRIES IN TERMS OF FAMILY ATTITUDES AND TEACHER SELF-EFFICIENCY
Yasemin ALTINIŞIK Dr. Hilal KARABULUT Dr. Hasan GÖKÇE Assoc. Prof. Dr. İshak Afşin KARİPER	<i>Erciyes University (Türkiye) Ministry of Education (Türkiye) Erciyes University (Türkiye)</i>	THEMATIC ANALYSIS OF SOME STUDY ON VIRTUAL MUSEUM IN EDUCATION IN TURKIYE
Assoc. Prof. Dr. Ayşegül ŞAKIR	<i>Kırşehir Ahi Evran University (Türkiye)</i>	21st CENTURY SKILLS AND EARLY CHILDHOOD EDUCATION
Dr. Emine KULUŞAKLI	<i>Malatya Turgut Özal University (Türkiye)</i>	EMERGENCY REMOTE TEACHING THROUGH THE LENS OF ACADEMICIANS IN HIGHER EDUCATION

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Hall-4
Session-2

HEAD OF SESSION: Prof. Assoc. Dr. Llesh LLESHAJ

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Dr. Ishwar Mittal Mikul Simran Sikka Sharmila	<i>Maharshi Dayanand University INDIA</i>	INSIGHTS INTO THE UNDERPINNINGS OF CONSUMER-BASED BRAND EQUITY
Manita Arora	<i>Amity University INDIA</i>	ROLE OF BRAND EXPERIENCE IN BUILDING CONSUMER LOYALTY – A CONCEPTUAL STUDY
Sowmya Sridhar	<i>R.M.K Engineering College INDIA</i>	MEMA -MEDICAL EMERGENCY AND MANAGEMENT APPLICATION
Norbaizura Ramzi Hartini Ahmad Nazlina Zakaria	<i>Universiti Utara MALAYSIA</i>	GOAL SETTING THEORY FOR SMART MANUFACTURING: EMPLOYEES' PERFORMANCE
Prof. Assoc. Dr. Llesh LLESHAJ	<i>University of Tirana ALBANIA</i>	THE SYMBIOTIC RELATIONSHIP BETWEEN JOB PERFORMANCE AND SOFTWARE APPLICATION COMPETENCIES BY POSTGRADUATE STUDENTS IN FINANCE AND ACCOUNTING, CASE OF ALBANIA
Prof. Dr. João Leite Ribeiro Prof. Dr. Delfina Gomes	<i>University of Minho PORTUGAL</i>	TALENT MANAGEMENT: STRATEGIES AND PRACTICES ADOPTED BY HUMAN RESOURCES MANAGEMENT IN PORTUGAL
Zulkifli Mohamed Udin Hartini Ahmad	<i>Universiti Utara MALAYSIA</i>	IMPACT OF SUPPLY CHAIN TECHNOLOGY AND BUSINESS PROCESS MANAGEMENT ON HALAL SUPPLY CHAIN PERFORMANCE OF THE FOOD INDUSTRY
Ifta Firdausa Nuzula	<i>Universitas Aisyiyah Yogyakarta INDONESIA</i>	CELEBRITY ENDORSERS IN ONLINE MARKETING AND THEIR IMPACT ON PURCHASE INTENTION: A STUDY IN THE INDONESIAN CONTEXT
Ismail Olaniyi MURAINA	<i>Lagos State University of Education NIGERIA</i>	YOUTH EMPOWERMENT, GREEN SKILLS ACQUISITION, AND ENVIRONMENTAL NEEDS & SUSTAINABILITY: ANALYSIS AND EMPHASIS ON CORRELATIONAL AND INFLUENTIAL FACTORS

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Hall-5
Session-2

HEAD OF SESSION: Assoc.Prof. Valbon Bytyqi

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Vaibhav Kant Singh	Central University INDIA	DIGITAL IMAGE PROCESSING SYSTEM
Vaibhav Kant Singh	Central University INDIA	OVERLAPPING FIELDS WITH IMAGE PROCESSING
Mounira Ben Yamna Nabil Dakhli Hedia Bellali Hedi Sakli	MACS Research Laboratory RL16ES22 TUNUSIA University of Carthage TUNUSIA Tunis El Manar University TUNUSIA ETA Consulting, 5 Rue du Chant des Oiseaux, 78360 Montesson FRANCE	NOVEL RECTIFIER USING CONCURRENT DUAL BAND IMPEDANCE MATCHING NETWORK
RAJA MOHAMMAD LATIF	Prince Mohammad Bin Fahd University KINGDOM OF SAUDI ARABIA	Ws-IRRESOLUTE MAPPINGS IN TOPOLOGICAL SPACES
RAJA MOHAMMAD LATIF	Prince Mohammad Bin Fahd University KINGDOM OF SAUDI ARABIA	Ws-COMPACT TOPOLOGICAL SPACES
Sowmya Sridhar	R.M.K Engineering College INDIA	VIRTUAL VOICE ASSISTANT MAX
Assoc.Prof. Valbon Bytyqi	University of Pristina KOSOVO	SPATIO-TEMPORAL CHANGES OF ARTIFICIAL SURFACES REGARDING PHYSIOGRAPHIC FEATURES ON A RIVER BASIN – AN EXAMPLE FROM KOSOVA
Vaibhav Kant Singh	Central University INDIA	STEPS IN IMAGE PROCESSING
Vaibhav Kant Singh	Central University INDIA	DIGITAL IMAGE REPRESENTATION IN MATLAB
MUHAMMAD SHAFI	Kohat University PAKISTAN	THE EFFECTS OF INTUITIONISTIC FUZZY DOMBI-ARCHIMEDEAN OPERATORS AND THEIR APPLICATIONS

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Hall-6
Session-2

HEAD OF SESSION: Assoc. Prof. Dr. Nugraha Edhi Suyatma

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Andleeb Anwar	<i>University of Lahore PAKISTAN</i>	LEGAL CHALLENGES IN REGULATING AUTONOMOUS VEHICLES: PAVING THE WAY FOR SAFER ROADS
Japthi Sravani P. Manoj Kumar	<i>G Pulla Reddy Engineering College INDIA</i>	EFFECT OF DOLOMITE POWDER ON MECHANICAL PROPERTIES OF M30 GRADE CONCRETE
P. Manoj Kumar Japthi Sravani	<i>G Pulla Reddy Engineering College INDIA</i>	EXPERIMENTAL INVESTIGATION ON PARKING VOLUME STUDIES IN NANDYAL TOWN
Engr Muhammad Nouman Engr Rehman Khan Huzaiifa Anwar Muhammad Hamza Fahad Arshad	<i>Swedish College of Engineering and Technology Wah Cantt PAKISTAN</i>	DESIGN AND FABRICATION OF SEGWAY HOVERBOARD
Vaibhav Kant Singh	<i>Central University INDIA</i>	DIGITAL IMAGE PROCESSING BASICS
Khaoula Mkhayar Kaouakeb El khattabi Rachid Haloui Ossama Daoui Samir Chtita Rachida Elkhlabi Souad Elkhattabi	<i>Mohamed Ben Abdellah- Fez University MOROCCO Mohammed V University MOROCCO University of Casablanca MOROCCO Sidi Mohamed Ben Abdellah-Fez University MOROCCO</i>	EXPLORATION OF THE ANTIBACTERIAL POTENTIAL OF 2-aryloxy-1,4-NAPHTHOQUINONE DERIVATIVES AGAINST ESCHERICHIA COLI: INSIGHTS FROM IN SILICO INVESTIGATIONS UTILIZING 3D-QSAR, ADMET ANALYSIS AND MOLECULAR DOCKING
Monapriya Naidu Kerinasamy Naidu Ramesh Kasi Ramesh T. Subramaniam B.Vengadaesvaran	<i>University of Malaya MALAYSIA</i>	STUDY OF CORROSION PROTECTION PERFORMANCE OF ORGANIC COATINGS DEVELOPED FROM NATURAL RUBBER BASED MATERIALS
KEBABSA Tarek Ammar Mrabti	<i>University 8 Mai 1945 Guelma ALGERIA</i>	A CYCLOSTATIONARY STUDY TO IDENTIFY DEFECTS IN A TURBOMACHINE
Sri Utami, BSc Assoc. Prof. Dr. Nugraha Edhi Suyatma Assoc. Prof. Dr. Muhammad Arpah	<i>IPB University INDONESIA</i>	STUDY ON THE USE OF ZEOLITE AND CALCIUM OXIDE AS HEATING SOURCES FOR SELF-HEATING CAN

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Hall-1
Session-3

HEAD OF SESSION: Assoc. Prof. Dr. Ertuğrul DEMİRDEL

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Assist. Prof. Dr. Muhammed Semih GEDİK Physiotherapist Vuslat KARAİBİŞ	<i>Kahramanmaraş Sütçü İmam University (Türkiye)</i> <i>Kırşehir Ahi Evran University (Türkiye)</i>	HEALTH SERVICES PROVIDED AFTER THE KAHRAMANMARAŞ EARTHQUAKE ON FEBRUARY 6, 2023 AND THE PROBLEMS AND SUGGESTIONS IN THE HEALTH SYSTEM
Fzt. Şemsinur DEMİRPARMAK Uzm. Dr. Mustafa DANIŞMAN Uzm. Dr. Gamze ZENGİN İSPİR Assoc. Prof. Dr. Ertuğrul DEMİRDEL	<i>Ankara Yıldırım Beyazıt University (Türkiye)</i>	COMPARISON OF STATIC AND DYNAMIC BALANCE BETWEEN INDIVIDUALS WITH AND WITHOUT ALCOHOL USE DISORDER, PILOT STUDY
Fzt. Beyza Gül AŞKIN Assoc. Prof. Dr. Ertuğrul DEMİRDEL	<i>Ankara Yıldırım Beyazıt University (Türkiye)</i>	MUSCULOSKELETAL PROBLEMS IN INDIVIDUALS WITH SUBSTANCE USE DISORDER: MINI REVIEW
Fzt. İrem GÖKÇE Lect. Eylem KÜÇÜK Assoc. Prof. Dr. Gürsoy COŞKUN	<i>Independent Researcher (Türkiye)</i> <i>Amasya University (Türkiye)</i> <i>Hacettepe University (Türkiye)</i>	COMPARISON OF THE EFFECTS OF FACE-TO-FACE AND ONLINE CLINICAL PILATES EXERCISES ON CORE MUSCLE ENDURANCE IN HEALTHY WOMEN
Assist. Prof. Dr. Senem DEMİRDEL Assist. Prof. Dr. Mustafa Ertuğrul YAŞA Physiotherapist Süleyman Furkan HANGÜN Prof. Dr. Mehmet İlkin NAHARCI	<i>University of Health (Türkiye)</i>	INVESTIGATION OF THE EFFECT OF BACKWARD WALKING TRAINING ON FUNCTIONAL CAPACITY AND PHYSICAL ACTIVITY LEVEL IN OLDER ADULTS
Assist. Prof. Dr. Caner KARARTI Assoc. Prof. Dr. Hakkı Çağdaş BASAT	<i>Kırşehir Ahi Evran University (Türkiye)</i>	DETERMINANTS OF HIGH-LEVEL OF KINESIOPHOBIA FOLLOWING SMALL AND MEDIUM SIZED ROTATOR CUFF TEARS

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Hall-2
Session-3

HEAD OF SESSION: Assist. Prof. Dr. Sevgi DENİZ DOĞAN

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Esra Nur GUZEL Assist. Prof. Dr. Ayşegül KOÇ	Ankara Yıldırım Beyazıt University (Türkiye)	CARDIAC REHABILITATION AND NURSING CARE
Assist. Prof. Dr. İpek KÖSE TOSUNOZ Assist. Prof. Dr. Sevgi DENİZ DOĞAN Lect. Pınar KAYA	Hatay Mustafa Kemal University (Türkiye) Isparta University of Applied Sciences (Türkiye) Süleyman Demirel University (Türkiye)	INVESTIGATION OF NURSING THESES ON THE USE OF MUSIC IN PAIN MANAGEMENT IN TURKEY: A SYSTEMATIC REVIEW
Assist. Prof. Dr. Sevgi DENİZ DOĞAN Lect. Pınar KAYA	Isparta University of Applied Sciences (Türkiye) Süleyman Demirel University (Türkiye)	POST-SURGERY PAIN AND NURSING APPROACH: TRADITIONAL REVIEW
Huri ÇİLLİK PARÇA Assist. Prof. Dr. Ayşegül KOÇ	Ankara Yıldırım Beyazıt University (Türkiye)	PULMONARY REHABILITATION IN RESPIRATORY SYSTEM DISEASES AND THE ROLE OF THE NURSE
Shukran ALI HUSSEIN HUSSEIN Assist. Prof. Dr. Gökçe Banu ACAR GÜL	Çankırı Karatekin University (Türkiye)	EVALUATION OF THE KNOWLEDGE LEVELS OF PREGNANT WOMEN ON FOLIC ACID USE
Gözde KARABULUT Assist. Prof. Dr. Sevinç SÜTLÜ	Mehmet Akif Ersoy University (Türkiye)	WOMAN AND HEALTH

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Hall-3
Session-3

HEAD OF SESSION: Assist. Prof. Dr. Lokman DURMAZ

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Asiye MURATOĞULLARI Prof. Dr. Gonca ALAK Assoc. Prof. Dr. Arzu UÇAR Prof. Dr. Muhammed ATAMANALP	<i>Atatürk University (Türkiye)</i>	INVESTIGATION OF THE INTEGRATION OF SEAFOOD PRODUCTS WITH FERMENTED PRODUCTS ERZURUM PROVINCE PALANDÖKEN EXAMPLE
Emre YILMAZ Zeynep Neda YILMAZ Assoc. Prof. Dr. İbrahim DEMİRKALE	<i>Çukurova University (Türkiye)</i>	PROBLEMS AND SOLUTIONS ENCOUNTERED IN FRESHWATER FISHERIES IN TURKEY
Emre YILMAZ Zeynep Neda YILMAZ Assoc. Prof. Dr. İbrahim DEMİRKALE	<i>Çukurova University (Türkiye)</i>	DISEASE PROBLEMS AND SOLUTIONS ENCOUNTERED IN BROODSTOCK FISH STOCKS IN FISHERIES
Prof. Dr. Suat DIKEL Assoc. Prof. Dr. İbrahim DEMİRKALE Res. Assist. Ece EVLİYAOĞLU	<i>Çukurova University (Türkiye)</i>	HISTORY OF AQUACULTURE FROM ANTIC AGES TO THE PRESENT
Prof. Dr. Suat DIKEL Assoc. Prof. Dr. İbrahim DEMİRKALE Res. Assist. Ece EVLİYAOĞLU	<i>Çukurova University (Türkiye)</i>	SEAFOOD GASTRONOMY IN THE ANCIENT WORLD
Sevgi SÜMERLİ ÇAKMAK Assist. Prof. Dr. Adnan YAVIÇ	<i>Van Yüzüncü Yıl University (Türkiye)</i>	GOOD AGRICULTURAL PRACTICES FOR SUSTAINABLE AGRICULTURE
Hasine KÜÇÜKYILDIRIM	<i>Harran University (Türkiye)</i>	A STUDY ON HERBAL RECLAMATION IN SALT AND SALT-SODIC SOILS
Assist. Prof. Dr. Lokman DURMAZ Prof. Dr. İlhami GÜLÇİN	<i>Erzincan Binali Yıldırım University (Türkiye) Atatürk University (Türkiye)</i>	INVESTIGATION OF FORMONONETIN EFFECTS ON HUMAN CARBONIC ANHYDRASE ISOENZYMES (hCA I AND II)

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Hall-4
Session-3

HEAD OF SESSION: Prof. Dr. Selvaraj Mohana Roopan

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Duha Ahmed Mohamed Rehab Kadhim Raheem Al-Shemary	University of Baghdad IRAQ	SYNTHESIS AND CHARACTERIZATION, DFT ON STUDY AND ANTIBACTERIAL ACTIVITY OF METAL (II) SCHIFF BASE COMPLEXES
Zainb Ali Hammeed Rehab Kadhim Raheem Al-Shemary	University of Baghdad IRAQ	SYNTHESIS, SPECTRAL, CHARACTERIZATION, MOLECULAR MODELING, ANTIMICROBIAL AND CYTOTOXICITY ACTIVITIES STUDIES OF A NEW METAL(II) SCHIFF BASE COMPLEXES
CHARIF Rania MAKHLOUFI Rachid	University of Biskra ALGERIA	SOLID-STATE SYNTHESIS AND CHARACTERIZATION OF A ZnSb ₂ O ₆ - CuSb ₂ O ₆ COMPOSITE
Subhashish Dey	Gudlavalleru Engineering College INDIA	SYNTHESIS AND CHARACTERIZATION OF PARTHENIUM BIOSORBENTS FOR REMOVAL OF CHLORIDES AND HARDNESS FROM THE AQUEOUS SOLUTIONS
Rajeev Arora	Principal, Krishna institute of polytechnic INDIA	NANO TITANIUM DI-OXIDE AND CONDUCTING POLYMER POLYANILINE BASED NANOCOMPOSITE FILM AND IT'S CHARACTERIZATION
Talha Usman	University of Technology and Applied Sciences OMAN	MITTAG-LEFFLER BASED HERMITE POLYNOMIALS
Prof. Dr. Selvaraj Mohana Roopan	Vellore Institute of Technology INDIA	Cu ₃ TiO ₄ PHOTOCATALYST FOR MULTICOMPONENT REACTIONS UNDER VISIBLE LIGHT IRRADIATION
Salaheddine Farsad Asma Amjlef Ayoub Chaoui Aboubakr Ben Hamou Noureddine El Alem	Ibn Zohr University MOROCCO	UTILIZING FOOD WASTE DIGESTATE FOR EFFICIENT METHYLENE BLUE ADSORPTION
CHARIF Rania MAKHLOUFI Rachid	University of Biskra ALGERIA	SOLID-STATE SYNTHESIS AND CHARACTERIZATION OF SPINEL CuBi ₂ O ₄

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Hall-5
Session-3

HEAD OF SESSION: Dr. Rozina Khattak

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Folashade Sarah Ojeleye Olamide Racheal Oyekunle Theresa Onyeche Isama Jessica Kasham John Talatu Patience Markus Ochuko Orakpoghenor	<i>Nigerian Institute of Leather and Science Technology NIGERIA Ahmadu Bello University NIGERIA</i>	BRYOPHYLLUM PINNATUM ETHANOLIC LEAF EXTRACT: AN INVESTIGATION OF ITS PROXIMATE, ANTI-NUTRITION, PHYTOCHEMICAL COMPOSITIONS, AND ANTI-BACTERIAL ACTIVITY
Hassane Boudad Atman Adiba Mentag Rachid El Fazazi Kaoutar Abdelmajid Haddioui Jamal Charafi	<i>National Institute of Agricultural Research MOROCCO University of Sultan Moulay Slimane MOROCCO</i>	ASSESSING THE INFLUENCE OF CULTIVAR VARIABILITY ON BIOCHEMICAL CHARACTERISTICS OF APPLE (MALUS DOMESTICA L.) IN MOROCCAN CONDITIONS'
Dr. Rozina Khattak	<i>Shaheed Benazir Bhutto Women University PAKISTAN</i>	DEGRADATION OF BASIC GREEN 4 IN AQUEOUS MEDIUM BY APPLICATION OF GREENLY SYNTHESIZED PHOTOCATALYST
Dr. Rozina Khattak	<i>Shaheed Benazir Bhutto Women University PAKISTAN</i>	REMOVAL OF VICTORIA GREEN B USING WASTE MATERIAL-BASED BIOSORBENT FROM WATER FOR ENVIRONMENTAL REMEDIATION
Hicham ZITOUN Abdelouahed HAJJAJI Adil LAAZIZ Rajae BELKHOUCHE	<i>Sidi Mohamed Ben Abdellah University MOROCCO Sultan Moulay Slimane University MOROCCO</i>	INTEGRATED PEST MANAGEMENT STRATEGIES AS ALTERNATIVES TO FUNGICIDES TO CONTROL APPLE SCAB CAUSED BY VENTURIA INAEQUALIS: A LITERATURE REVIEW
Darwin H Pangaribuan Yohannes C Ginting Agus Karyanto M Syamsuel Hadi Afifa Meilin N Prayogo Danang	<i>Universitas Lampung INDONESIA</i>	THE EFFECT OF LIQUID ORGANIC FERTILIZER BASED ON GOAT URINE, MORINGA LEAF, AND BANANA STEM ON THE GROWTH AND YIELD OF MUSTARD GREENS (Brassica rapa L.) AND PAKCOY (Brassica rapa L.)
K.R.Padma M.Reshma Anjum M.Sankari P.Josthna	<i>Women's University INDIA Bharath University INDIA Women's University INDIA</i>	WILD EDIBLE MUSHROOMS AND THEIR BIOACTIVE COMPOUND HAVE REVEALED THERAPEUTIC POTENTIAL AGAINST VARIOUS DISEASES
HOUNDJI Pamphile AHOMADIKPOHOU Dèdègbè Louis	<i>Université d'Abomey- Calavi BENIN</i>	LA QUESTION DE L'INNOVATION DES TECHNIQUES AGRICOLES DANS LA COMMUNE DE SAKETE AU BENIN
BSc. Almedina Topalli BSc. Valdete Hasani M.Sc. Learta Kovaçi Prof. D-r. Vesna Karapetkovska - Hristova	<i>University of Prishtina "Hasan Prishtina" KOSOVO University "St. Kliment Ohridski" KOSOVO</i>	FROM HIVE TO TABLE: EXPLORING NUTRIENT – RICH SPREAD RECIPES ENHANCED BY UNIQUE VARIETAL HONEY

22.08.2023, Tuesday

Ankara Time
15⁰⁰ : 17⁰⁰

Hall-6
Session-3

HEAD OF SESSION: Prof. Dr. Michele Benedetti

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Prof. Dr. Marija Radmilović-Radjenović Prof. Dr. Branislav Radjenović Dr. Nikola Bošković	<i>University of Belgrade SERBIA</i>	THREE-DIMENSIONAL MODELING OF MICROWAVE TUMOR ABLATION
Prof. Dr. Branislav Radjenović Prof. Dr. Marija Radmilović-Radjenović Dr. Nikola Bošković	<i>University of Belgrade SERBIA</i>	THE DEVELOPMENT OF A THREE-DIMENSIONAL MODEL OF ELECTROSURGICAL PROCEDURES
Prof. Dr. Michele Benedetti	<i>University of Salento ITALY</i>	PLATINATED NUCLEOSIDE ANALOGUES AS EMERGING CANDIDATES FOR ANTITUMOR AND ANTIVIRAL APPLICATIONS
Dr .Fella Chebbah Dr .Djouini Amina Smili Chaima Dr.Retem Chahira Pr.Bairi Abdelmadjid	<i>Badji Mokhtar Annaba University ALGERIA</i>	EFFECT OF GALLIC ACID AND LAVENDER ESSENTIAL OIL TAKEN SEPARATELY AND/OR COMBINED ON COGNITIVE AND BEHAVIOURAL ABILITIES OF POST-STROKE MALE WISTAR RATS
Kapil Dev Dhunna	<i>University of Delhi INDIA</i>	ANTHROPOMETRIC CHARACTERISTICS OF SPRINTERS, MIDDLE DISTANCE AND LONG-DISTANCE RUNNERS – A COMPARATIVE STUDY
Claudiana Storchi Karine Angeli Indianara Coelli Jeferson de Oliveira Micheli Pegoraro Susinei Bossle Mateus David Finco	<i>Federal University of Paraiba BRAZIL</i>	TYPE OF GYMNASTICS THAT SCHOOL-AGE CHILDREN MOST IDENTIFY
Shahla Raghibdoust Shohreh Mokhtari	<i>University of Allameh Tabataba'i IRAN</i>	ANALYSIS OF PREPOSITION 'ZIR' BASED ON COGNITIVE PERSPECTIVE
V.Varalakshmi R. Devi Dr.R.SRINIVASAN	<i>Bharath Institute Of Higher Education And Research INDIA</i>	DIABETIC PERIPHERAL NEUROPATHY AND PHARMACOLOGICAL TREATMENT
Dr. Mateus David Finco	<i>Federal University of Paraiba BRAZIL</i>	VIDEO GAMES WITH BODY INTERACTION: FOR AN ACTIVE AND HEALTHY LIFESTYLE
Abdelghani Bouchyous Mohamed Kouighat abdelmadjid khabbach khalil hammani Abdelghani Nabloussi	<i>Sidi Mohamed Ben Abdallah University MOROCCO</i>	EVALUATING THE TOLERANCE OF SOME RAPESEED (BRASSICA NAPUS L.) GENOTYPES TO DROUGHT STRESS INDUCED BY PEG DURING GERMINATION AND EARLY SEEDLING GROWTH PHASES

23.08.2023, Wednesday

Ankara Time
10⁰⁰ : 12⁰⁰

Hall-1
Session-1

HEAD OF SESSION: Assist. Prof. Dr. Kemal GÖÇER

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Irem OZERSAY Assist. Prof. Dr. Orhan Erdem HABERAL	<i>Başkent University (Türkiye)</i>	QCM-BASED BIOSENSOR DEVICE DESIGN FOR DETERMINATION OF BLOOD COAGULATION TIME
Assoc. Prof. Dr. Aslı AKDENİZ KUDUBEŞ Elif SALTAN	<i>Bilecik Şeyh Edebali University (Türkiye)</i>	NANDA DIAGNOSIS AND NIC INTERVENTIONS AND NURSING CARE IN A PEDIATRIC PATIENT DIAGNOSED WITH BACTERIAL PNEUMONIA: A CASE REPORT
Aytül ÇOBAN Assist. Prof. Dr. Zerrin ÇİĞDEM Lect. Filiz SOLMAZ	<i>Hasan Kalyoncu University (Türkiye) Istanbul Topkapı University (Türkiye) Harran University (Türkiye)</i>	A STUDY ON THE EFFECT OF ANXIETY ON ACUTE PAIN AND NAUSEA- VOMITING IN POST-SURGERY CHILDREN
Huri SÖKMEN Hasan Alaa Wahhab ALANTAKE Assist. Prof. Dr. Mehmet ÇİMENTEPE Assoc. Prof. Dr. Özlem ÖZGÜR GÜNDEŞLIOĞLU Prof. Dr. Fügen YARKIN	<i>Çukurova University (Türkiye) Çukurova University (Türkiye) Harran University (Türkiye) Çukurova University (Türkiye) Çukurova University (Türkiye)</i>	INCIDENCE OF VIRAL CENTRAL NERVOUS SYSTEM INFECTIONS IN THE ÇUKUROVA REGION
Uzm. Dr. Ahmet Numan DEMİR	<i>Istanbul University- Cerrahpasa (Türkiye)</i>	CAROTID INTIMA-MEDIA THICKNESS MAY BE A GOOD MARKER FOR DETERMINING EARLY CARDIOVASCULAR RISK IN CUSHING SYNDROME
Assist. Prof. Dr. Kemal GÖÇER	<i>Kahramanmaraş Sütçü İmam University (Türkiye)</i>	THE ROLE OF FRAGMENTED QRS IN THE DEVELOPMENT OF ATRIAL FIBRILLATION IN HEMODIALYSIS PATIENTS
Çiğdem DEMİREL Assoc. Prof. Dr. Filiz KİBAR Prof. Dr. Salih ÇETİNER Assist. Prof. Dr. Gülçin DAGLIOĞLU Lect. Dr. Hatice Hale GÜMÜŞ Prof. Dr. Akgün YAMAN	<i>Çukurova University (Türkiye)</i>	SIDE EFFECTS SEEN AFTER COVID-19 VACCINES IN HEALTHCARE WORKERS
Assist. Prof. Dr. Orhan ÇİÇEK	<i>Zonguldak Bülent Ecevit University (Türkiye)</i>	DOES THE 2D:4D RATIO EXHIBIT SEXUAL DIMORPHISM IN SKELETAL MALOCCLUSIONS? A RETROSPECTIVE STUDY

23.08.2023, Wednesday

Ankara Time
10⁰⁰ : 12⁰⁰

Hall-2
Session-1

HEAD OF SESSION: Assist. Prof. Dr. Çağlar DOĞAN

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Lect. Ahmet AKKÖK Lect. Ahmet LEBLEBİCİ	Adıyaman University (Türkiye)	ARTISTIC EXAMINATION OF KAHRAMANMARAŞ WOOD CARVING WHICH RESISTS AGAINST DEVELOPING TECHNOLOGY
Serdar GULTEKİN Assoc. Prof. Dr. Işıl BİRLİK	Dokuz Eylül University (Türkiye)	EFFECT OF ACID CONCENTRATION ON SURFACE AREA OF SOL-GEL DERIVED Y2O3
Hazal (ENGİN) KILIÇARSLAN Çağan SATIR	SUPTEK Yağ Keçeleri San. Ve Tic. A.Ş. (Türkiye)	EXAMINATION AND DEVELOPMENT OF HEAT AGING PROPERTIES OF ACM, FKM AND NBR ELASTOMERS IN DIFFERENT OILS
Res. Assist. Saltuk Buğra TÖRELİ Prof. Dr. Vural Emir KAFADAR Prof. Dr. Fatih Mehmet EMEN Chemist Ramazan ALTINKAYA	Adana Alparslan Türkeş Science and Technology University (Türkiye) Gaziantep University (Türkiye) Mehmet Akif Ersoy University (Türkiye) Mehmet Akif Ersoy University (Türkiye)	THERMOLUMINESCENCE INVESTIGATION OF Nd/Dy/Na TRIPLE-DOPED BORATE COMPOUND
Büşra (AKTAŞ) ÖZYURT	SUPTEK Yağ Keçeleri San. Ve Tic. A.Ş., (Türkiye)	EXAMINATION OF THE EFFECTS OF SINTERING PARAMETERS ON SEALING PERFORMANCE IN ROTARY SHAFT SEALS WITH PTFE LIP
Duygu Durdu KOÇ Assoc. Prof. Dr. Aslı ABDULVAHİTOĞLU	Ulusoy Tekstil San. ve Tic. A.Ş. (Türkiye) Adana Alparslan Turkes Science and Technology University (Türkiye)	EFFICIENT USE OF ENERGY AND ENHANCING COMPETITIVENESS IN A TEXTILE FACTORY THROUGH PRODUCTIVITY INITIATIVES
Yasin ÇIPLAK Şule ÖZGENÇ Recep ATEŞ	Başak Traktör (Türkiye)	DETERMINATION OF MECHANICAL PROPERTIES OF CONNECTING ROD MATERIAL AND SIMULATION WITH FINITE ELEMENTS
Assist. Prof. Dr. Çağlar DOĞAN	Istanbul University (Türkiye)	NON-RENORMALIZABLE GRAND UNIFICATION UTILIZING THE LEPTOQUARK MECHANISM OF NEUTRINO MASS

23.08.2023, Wednesday

Ankara Time
10⁰⁰ : 12⁰⁰

Hall-3
Session-1

HEAD OF SESSION: Assist. Prof. DR. Onur AKAR

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Necati IŞIL	<i>Çukurova Makina İmalat ve Ticaret A.Ş. (Türkiye)</i>	DYNAMIC ANALYSIS OF THE FRONT SUSPENSION SYSTEM OF MULTI-PURPOSE 8/9 TON ROLLING CHASSIS VEHICLES USING MSC ADAMS VIEW SOFTWARE
Dr. Fırat AYDEMİR Dr. Gürcan YAVUZ	<i>Kütahya Dumlupınar University (Türkiye)</i>	PERFORMANCE ANALYSIS OF MANTA RAY ALGORITHM IN EXPENSIVE OPTIMIZATION
Çağrı Doğuş İYİCAN Ahmet ÇINAR Prof. Dr. M. Fatih AKAY	<i>Trendyol (Türkiye) Trendyol (Türkiye) Çukurova University (Türkiye)</i>	A SIMULATION BASED OPTIMIZATION MODEL FOR MINIMIZING THE TOTAL ROUTE LENGTH FOR FIRST-MILE LOGISTICS IN E-COMMERCE SECTOR
İbrahim ŞENDOĞAN Gizem ERDOĞAN Zehra Sude SARI Ceren ULUS Prof. Dr. M. Fatih AKAY	<i>Smartiks Software (Türkiye) Smartiks Software (Türkiye) Çukurova University (Türkiye) Çukurova University (Türkiye) Çukurova University (Türkiye)</i>	MACHINE LEARNING BASED SENTIMENT CLASSIFICATION MODELS FOR CUSTOMER REVIEWS ON E-COMMERCE MARKETPLACES
Burak TAHTACI Ferhat ÇİL Ceren ULUS Prof. Dr. M. Fatih AKAY	<i>Trendyol (Türkiye) Trendyol (Türkiye) Çukurova University (Türkiye) Çukurova University (Türkiye)</i>	DEVELOPMENT OF A SOFTWARE BASED WEB APPLICATION FIREWALL
Derya Yeliz COŞAR SOGUKKUYU Ezgi Şiir CALAP Volkan DERELİOĞLU Hülya TOPAL Veli ERGÜN	<i>Altınbaş University (Türkiye) FLO (Türkiye) FLO (Türkiye) FLO (Türkiye) FLO (Türkiye)</i>	APPLYING MACHINE LEARNING TECHNIQUES FOR FOOTWEAR DEMAND FORECASTING IN E-COMMERCE MARKETPLACES
Gonca ÇAM Assist. Prof. DR. Onur AKAR	<i>Marmara University (Türkiye)</i>	TECHNOLOGICAL DEVELOPMENTS OF SMES SYSTEMS IN DISTRIBUTION NETWORKS

23.08.2023, Wednesday

Ankara Time
10⁰⁰ : 12⁰⁰

Hall-4
Session-1

HEAD OF SESSION: Gheorghe GIURGIU

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Mr. Bourougaa Lotfi Prof. Dr. Ouassaf Mebarka	<i>University of Biskra ALGERIA</i>	DISCOVERY OF POTENTIAL BIOLOGICAL AGENTS AGAINST INFLUENZA VIRUS USING MOLECULAR MODELING
Dr. Nizar Sakli Dr. Chokri Baccouch Dr. Ahmed Zouinkhi Dr. Hedia Bellali Prof. Dr. Mustapha Najjari	<i>Gabes University TUNUSIA Tunis El Manar University TUNUSIA</i>	IoT AND EMBEDDED AI FOR REMOTE SENSING AND REMOTE MONITORING OF ATRIAL FIBRILLATION IN ELDERLY PATIENTS
Dr. Nizar Sakli Dr. Haifa Ghabri Dr. Ahmed Zouinkhi Dr. Hedia Bellali Prof. Dr. Mustapha Najjari	<i>Gabes University TUNUSIA Tunis El Manar University TUNUSIA</i>	A DEEP LEARNING APPROACH FOR MULTICLASS CLASSIFICATION OF CARDIOVASCULAR DISEASES USING ELECTROCARDIOGRAM WAVEFORMS
Dr. Haifa Ghabri Dr. Wyssem Fathallah Dr. Hedia Bellali Dr. Hedi Sakli	<i>Gabes University TUNUSIA Sousse University TUNUSIA Tunis El Manar University TUNUSIA EITA Consulting, 5 Rue du Chant des Oiseaux, 78360 Montesson RFANCE</i>	BREAST CANCER DIAGNOSIS: AUTOMATED SEGMENTATION OF ULTRASOUND IMAGES USING U-NET MODEL
Muhammad Irfan Said Wempie Pakiding Zulkharnaim Paulina Taba Asdar Gani Yuny Erwanto Hasma Nurjannah Bando Muhammad Nuswandi Muhammad Arsy Al Ihram	<i>Hasanuddin University INDONESIA Gadjah Mada University INDONESIA Mataram University INDONESIA</i>	THE EFFECT OF SINTERING TEMPERATURE ON THE HYDROXYAPATITE QUALITY OF BOVINE LEG BONES
Major Gheorghe GIURGIU Prof dr med Manole COJOCARU	<i>Deniplant-Aide Sante Medical Center, Biomedicine ROMANIA Titu Maiorescu University ROMANIA</i>	THE THERAPEUTIC EFFECTS OF DENIPLANT NUTRACEUTICALS ON THE GUT MICROBIOME IN PATIENTS WITH PSORIASIS
Manojkumar S. Mahajan Aman B. Upaganlwar Chandrashekhar D. Upasani	<i>SNJB's Shriman Sureshdada Jain College of Pharmacy INDIA</i>	THE COMBINED ADMINISTRATION OF FERULIC ACID & PROTOCATECHUIC ACID PREVENTS PROGRESSION OF DIABETIC NEPHROPATHY IN RATS
Kashaf Arif Ma'am Asma Ijaz	<i>University of Management and Technology INDIA</i>	EMOTIONAL NEGLECT, IDENTITY AND DELINQUENT TENDENCIES IN ADOLESCENT BOYS
Suela Hoxha Xheneta Hoxha	<i>University of Prishtina KOSOVO</i>	IMPLANT'S SENSITIVITY TO PERIODONTAL DISEASES

23.08.2023, Wednesday

Ankara Time
10⁰⁰ : 12⁰⁰

Hall-5
Session-1

HEAD OF SESSION: Dr. HANDEL Naoual

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Loubna JABIR Hayat EL HAMMI Hicham AIT LAASRI Mohammed NOR Omar AZOUGAGH Soumya ESSAYEH Prof. Soufian EL BARKANY Prof. Mohamed ABOU-SALAMA	Mohamed First University MOROCCO Abdelmalek Essaadi University MOROCCO Mohamed First University MOROCCO	SYNTHESIS, CHARACTERIZATION OF A NOVEL GREEN OF LAYER SODIUM COBALT OXIDE NIBS
Hayat El HAMMI Loubna JABIR Soumya ESSAYEH Omar Azougagh Mohammed NOR Prof. Mohamed ABOU-SALAMA Prof. Soufian EL BARKANY	Mohamed First University MOROCCO Abdelmalek Essaadi University MOROCCO Mohamed First University MOROCCO	MODIFICATION OF CELLULOSE BY GREEN WILLIAMSON REACTION
Mohamed BRAHMI Kamal ESSIFI Sara MOUMNASSI Abdeslam ASEHRAOU Abdesselam TAHANI	Mohamed First University MOROCCO Mohammed Premier University MOROCCO	IN VITRO ASSESSMENT OF ANTIOXIDANT AND ANTIMICROBIAL ACTIVITIES OF MONTMORILLONITE CLAY MINERAL-ENCAPSULATED THYME ESSENTIAL OIL VIA GAS PHASE ADSORPTION
Dr. Muhammad Usman Hamadia Sultana	Government College University PAKISTAN	MICELLAR FLOCCULATION FOR THE EFFICIENT REMOVAL OF AQUEOUS DYESTUFFS: A SUSTAINABLE APPROACH
AMINA Mumtaz Aqsa Afzal Amina Asghar	PCSIR Laboratories complex PAKISTAN University of Education PAKISTAN	SYNTHESIS AND CHARACTERIZATION AND BIOLOGICAL POTENTIAL STUDY OF SCHIFF BASE TRANSITION METAL COMPLEXES DERIVED FROM CEPHALOSPORIN'S DRUG
EL GHALBI KHALLAF JDIA MUSTAPHA	Mohamed First University MOROCCO	THE EFFECT OF SCARCE RAINFALL ON RUNOFF FROM THE LOWER ZIZ VALLEY IN SOUTHEASTERN MOROCCO
Jdaba N. Algouti A. Aydda A. Hadach F. Ezaidi A. Et Tabit A.	University of Ibn Zohr MOROCCO	THE PHOSPHATE SERIES OF THE AGADIR BASIN, MOROCCO: SEDIMENTOLOGY AND BIOSTRATIGRAPHY
Dr. HANDEL Naoual Dr. KHAMMAR Farida Dr. DJOUIMAA Sarah	Mohamed Cherif Messaadia University ALGERIA	EXPERIMENTAL STUDY ON THE USE OF CERAMIC WASTE AS A PARTIAL CEMENT SUBSTITUTE IN CONCRETE PRODUCTION
Mustafa Alper KALYONCU Assoc. Prof. Dr. Adem YURTSEVER	Hasan Kalyoncu University (Türkiye) Istanbul University- Cerrahpasa (Türkiye)	SUSTAINABLE WASTE MANAGEMENT PRACTICES AT AIRPORTS: ISTANBUL AIRPORT

23.08.2023, Wednesday


Ankara Time
10⁰⁰ : 12⁰⁰


Hall-6
Session-1

HEAD OF SESSION: Prof. Dr. Gianluca Mattarocci

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Panche Motta Ribeiro	<i>Candido Mendes University BRAZIL</i>	SOCIAL MOBILITY AND BLACK WOMEN IMPOVERISHMENT DUE TO NON-FLUENCY IN THE ENGLISH LANGUAGE: AN ANALYSIS OF EMPLOYMENT VACANCIES
Houria Boudad Mohammed Khalis	<i>University of Sultan Moulay Slimane MOROCCO</i>	DYSLEXIA AND MODERN REFORMS IN MOROCCO
Fatime Hoxha Almira Hoxha	<i>University of Prishtina Hasan Prishtina KOSOVO</i>	AGGRESSIVENESS OF CHILDREN AS A RESULT OF UNCONTROLLED USE OF TECHNOLOGY
PhD Prof. Mircea Radu GEORGESCU PhD Anca Elena LUNGU	<i>Alexandru Ioan Cuza University of Iasi ROMANIA</i>	EVALUATING THE INNOVATION FRAMEWORK: A SPOTLIGHT ON EU COUNTRIES
Shiza Zawar Dr Asma Seemi Malik Dr Amjad Mahmood	<i>National college of business administration and economic INDIA</i>	DROP BY DROP: HOW COMMUNITY ENGAGEMENT IS CRITICAL TO CONSERVING URBAN WATER RESOURCES
Dr. Naseem Akhter	<i>Women University PAKISTAN</i>	CONTRIBUTIONS AND ROLES OF WOMEN IN THE TREATY OF HUDAIBIYA (A HISTORICAL REVIEW)
Dr. Naseem Akhter	<i>Women University PAKISTAN</i>	THE CALIPHATE OF ABU BAKR (RA): A HISTORICAL STUDY OF SOCIO-POLITICAL STRUCTURES
Dr Monisa Qadiri Umer Iqbal Dr Rabia Noor	<i>Islamic University of Science and Technology INDIA</i>	EXPLORING THE INTERSECTION OF CULTURE AND DATA: IMPLICATIONS OF GENERATIVE AI
Prof. Dr. Gianluca Mattarocci	<i>Tor Vergata University ITALY</i>	MAPPING DIGITAL COMPETENCIES OF SENIOR ADULTS: EVIDENCE FROM THE DIGILIFE PROJECT

23.08.2023, Wednesday

Ankara Time
12³⁰ : 14³⁰

Hall-1
Session-2

HEAD OF SESSION: Dr. Bülent KAYA

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Hayat AYAZ Dr. Süreyya ÖZDEMİR BAŞARAN Assist. Prof. Dr. Fırat AŞIR	Dicle University (Türkiye)	INVESTIGATION OF BETA AMYLOID PROTEIN EXPRESSION IN THE PLACENTA OF PREECLAMPSIA CASES
Dr. Bülent KAYA	Çukurova University (Türkiye)	A RARE CAUSE OF FOCAL SEGMENTAL GLOMERULOSCLEROSIS: HETEROZYGOUS MUTATION IN NPHS1 GENE AND HOMOZYGOUS MUTATION IN CD2AP GENE
Dr. Bülent KAYA	Çukurova University (Türkiye)	RECURRENT PNEUMOTHORAX DUE TO FABRY DISEASE
Uzm. Dr. Murat KÜÇÜK	Batman Training and Research Hospital (Türkiye)	A RARE CASE: THE INTENSIVE CARE PROCESS OF THE PATIENT DIAGNOSED WITH STEVENS-JOHNSON SYNDROME
Assist. Prof. Dr. Çağrı Safa BUYURGAN Assist. Prof. Dr. Akif YARKAÇ	Mersin University (Türkiye)	A RARE CASE IN THE EMERGENCY DEPARTMENT: SPLENIC ABSCESS
Dr. Halim ULUGÖL	Acıbadem University (Türkiye)	SUCCESSFUL ANESTHESIA MANAGEMENT OF UPPER EXTREMITY SURGERY AND INGUINAL HERNI REPAIR WITH TWO DIFFERENT BLOCKS IN A HIGH RISK PATIENT: A CASE REPORT
Uzm. Dr. Zehra KARA	Istanbul University-Cerrahpasa (Türkiye)	OPERATED NONFUNCTIONAL PITUITARY ADENOMAS IN THE GERIATRIC POPULATION
Zeynep Tuğba GÜVEN Selma KARAAHMEŖTOĐLU Dr. Mutlu DOĐAN	Adana City Hospital (Türkiye) Adana City Hospital (Türkiye) Dr. Abdurrahman Yurtaslan Ankara Oncology Training and Research Hospital (Türkiye)	RETROSPECTIVE EVALUATION OF OUR PATIENTS DIAGNOSED WITH ADVANCED PANCREATIC CANCER

23.08.2023, Wednesday

Ankara Time
12³⁰ : 14³⁰

Hall-2
Session-2

HEAD OF SESSION: Dr. Semra CAN MAMUR

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Hasan Alaa Wahhab ALANTAKE Assist. Prof. Dr. Melda MERAL ÖCAL Eylem TEMEL Prof. Dr. Fatih KÖKSAL	Çukurova University (Türkiye)	PNEUMONIAE AND ATHEROSCLEROSIS BY 16S RRNA SEQUENCING METHOD
Huri SOKMEN Hasan Alaa Wahhab ALANTAKE Assist. Prof. Dr. Mehmet ÇİMENTEPE Assoc. Prof. Dr. Özlem ÖZGÜR GÜNDEŞLIOĞLU Prof. Dr. Fügen YARKIN	Çukurova University (Türkiye) Harran University (Türkiye)	INCIDENCE OF VIRAL CENTRAL NERVOUS SYSTEM INFECTIONS IN THE ÇUKUROVA REGION
Ayçanur BOZDAĞ Hatice ÇELİK YILMAZ Prof. Dr. Hacı Halil BIYIK Assoc. Prof. Dr. Esin POYRAZOĞLU Prof. Dr. Yüksel ŞAHİN	Aydın Adnan Menderes University (Türkiye)	EVALUATION OF KUŞADASI/CENTRAL PUBLIC BEACH IN TERMS OF MICROPLASTIC POLLUTION
Hatice ÇELİK YILMAZ Ayçanur BOZDAĞ Assoc. Prof. Dr. Esin POYRAZOĞLU Prof. Dr. H. Halil BIYIK Prof. Dr. Yüksel ŞAHİN	Aydın Adnan Menderes University (Türkiye)	EVALUATION OF MICROPLASTIC POLLUTION OF VENUS BEACH 1 (DAVUTLAR/AYDIN)
Hamdi GÖKAHMETOĞLU	Çukurova University (Türkiye)	PURIFICATION OF PECTIN LYASE ENZYME FROM ALKALINE BACILLUS SP. STRAINS AND ITS EFFECT ON ORANGE JUICE
Assoc. Prof. Dr. Aykut TOPDEMİR Tuba OKUTAN	Fırat University (Türkiye)	INVESTIGATION OF TOTAL PHENOLIC, TOTAL FLAVONOID AND ANTIOXIDANT ACTIVITIES IN CALLUS CULTURES OF Fritillaria Baskilensis BEHÇET, AN ENDEMIC SPECIES
Assoc. Prof. Dr. Aykut TOPDEMİR Busenaz TUNCAY Dr. Fadime KARABULUT Tuba OKUTAN	Fırat University (Türkiye) Gazi University (Türkiye) Fırat University (Türkiye) Fırat University (Türkiye)	PRODUCTION OF Fritillaria baskilensis BEHÇET ENDEMIC SPECIES IN VITRO WITH DIFFERENT PLANT GROWTH REGULATORS
Lect. İbrahim Hakkı ARSLAN Prof. Dr. Ömer Faruk KAYA Assist. Prof. Dr. Hatice TOSYAGÜLÜ ÇELİK	Harran University (Türkiye) Harran University (Türkiye) İğdır University (Türkiye)	PHYTOCHEMICAL ANALYSIS OF ACTIVE PHENOLIC COMPOUNDS IN SOME PLANTS USED AS TRADITIONAL FOLK DRUGS FOR CANCER AND META- ANALYSIS OF THEIR ANTI-CANCER EFFECTS
Dr. Semra CAN MAMUR	Yunus Emre State Hospital (Türkiye)	THE ROLE OF ARGINASE AND NITRIC OXIDE IN CARDIOVASCULAR DISEASES

23.08.2023, Wednesday

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12³⁰ : 14³⁰

Hall-3
Session-2

HEAD OF SESSION: Prof. Dr. Nuray GÜZELER

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Assist. Prof. Dr. Tuğba KÜÇÜKKASAP CÖMERT	University of Health Sciences (Türkiye)	EVALUATION OF THE RELATIONSHIP BETWEEN COOKING AND FOOD PREPARATION SKILLS AND SUSTAINABLE AND HEALTHY NUTRITIONAL BEHAVIORS IN FACULTY OF HEALTH SCIENCES STUDENTS
Assist. Prof. Dr. Tuba YALÇIN Assist. Prof. Dr. Seda ÇİFTÇİ	Izmir Kâtip Celebi University (Türkiye) Izmir Democracy University (Türkiye)	THE RELATIONSHIP between OBESITY PREJUDICE and ORTHOREXIA NERVOSA in WOMEN
Elif GÜRBÜZ Prof. Dr. Taner BAYSAL	Ege University (Türkiye)	INVESTIGATION OF THE EFFECT OF COLD PLASMA TECHNOLOGY ON AFLATOXIN DETOXIFICATION IN DRIED FIGS
Sümeyya AKTÜRK Prof. Dr. Nuray GÜZELER	Çukurova University (Türkiye)	THYME IN TURKEY
Pınar ÇORUHLU Prof. Dr. Taner BAYSAL	Ege University (Türkiye)	THE EFFECT OF CHITOSAN FILMS CONTAINING THYME OIL ON THE MICROBIOLOGICAL QUALITY OF TABLE OLIVES
Zeynep ÇETİN Prof. Dr. Zeynep Dilek HEPERKAN	Istanbul Aydın University (Türkiye)	USING MICROORGANISMS IN THE INACTIVATION OF PENICILLIUM EXPANSUM MOLD IN VINEGAR
Assist. Prof. Dr. Elif ÇAKIR Züleyha KATRAN	Istanbul Aydın University (Türkiye)	THE EFFECT OF ALTERNATIVE PLANT-SOURCED FLOURS ON THE PROPERTIES OF WHEAT FLOUR CAKES

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HEAD OF SESSION: Prof. Diego PENAGOS-VÁSQUEZ

AUTHOR(S)	ORGANISATION	TOPIC TITLE
S. K. Kango G. C. Rana	NSCBM Government College INDIA	THERMAL CONVECTION ON JEFFREY FLUID IN PRESENCE OF SUSPENDED PARTICLES IN A POROUS MEDIUM: A MATHEMATICAL THEOREM
Prof. Dr. Sevilyan KIRCI SERENBAY	Harran University (Türkiye)	COMPARISON OF TRUNCATED AND NON- TRUNCATED MAX-PRODUCT TYPE OPERATORS
Shahida Perveen Dr. Abdus Saboor	Kohat University PAKISTAN	A STUDY OF TWO PARAMETERS BASED FLEXIBLE PROBABILITY MODEL WITH PROPERTIES AND APPLICATIONS
Bibhajyoti Tamuli Binod Chandra Tripathy	Tripura university INDIA	GENERALIZED DIFFERENCE LACUNARY WEAK CONVERGENCE OF SEQUENCES
Mikhail Shchukin	Belarusian national technical university BELARUS	ON N-HOMOGENEOUS -ALGEBRAS GENERATED BY FINITE NUMBER OF IDEMPOTENT GENERATORS
Lect. Dr. Neslihan AKIN ÖZDEMİR	Zonguldak Bulent Ecevit University (Türkiye)	CLUSTERING OF PROVINCES IN TURKEY BY TRIMMED K-MEANS METHOD ACCORDING TO VIOLENT CRIMES
Dr. Rahman AYDIN Assist. Prof. Dr. Anil LÖGÜN	Bitlis Eren University (Türkiye) Atatürk University (Türkiye)	THE RELATIONSHIP BETWEEN TAX REVENUES, PUBLIC EXPENDITURES AND ECONOMIC GROWTH: THE CASE OF TURKEY
Seracchiani Marco Maurilio D'Angelo Alessio Zanza Rodolfo Reda Chiara Bramucci Chiara Seracchiani Dario Di Nardo Luca Testarelli	Sapienza University ITALY	THE ROLE OF CM WIRE IN THE DAILY ENDODONTIC PRACTICE
Prof. Diego PENAGOS- VÁSQUEZ Prof. MsC. Sebastián VÉLEZ GARCÍA Prof. MsC. Jonathan GRACIANO-URIBE Prof. PhD. Luis GRISALES- NOREÑA	Instituto Tecnológico Metropolitano COLOMBIA Universitat de Girona 4, SPAIN Universidad de Talca CHILE	NUMERICAL SIMULATION OF A PUMP OPERATING AS A TURBINE USING CFD TOOLS: EFFICIENCY AND HYDRAULIC BEHAVIOR ANALYSIS
Samrati Gorka and Kuldip Raj	Shri Mata Vaishno Devi University INDIA	DEFERRED WEIGHTED MEAN IN COMPLEX UNCERTAIN SEQUENCES

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HEAD OF SESSION: Dr. John Erwin Prado Pedroso

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Dr. Saima Arzeen Dr. Naeema Arzeen Dr. Kalsoom Kaisar	University of Peshawar PAKISTAN	THE RELATIONSHIP BETWEEN MARITAL SATISFACTION AND PSYCHOLOGICAL WELL-BEING IN COUPLES: THE ROLE OF GRATITUDE AS A MODERATOR
R. Surenderkhanna Dr. Rajasekaran. V	Vellore Institute of Technology INDIA	"EK LADKI KO DEKHA TOH AISA LAGA" (2019): UNVEILING IDENTITIES AND FOSTERING INCLUSIVITY IN BOLLYWOOD
Ana-Marija ILIĆ Gordana DUKIĆ	University of Business Studies GERMANY Independent University of Banja Luka BOSNIA AND HERZEGOVINA	HIERARCHY IN GRAPHIC DESIGN
Pérez Gamón Carolina Margarita	Universidad del Nordeste- Facultad de Humanidades- ARGENTINA	LATIN AMERICA TURNING TO THE LEFT OR DÉJÀ VU IN THE 21ST CENTURY
Fr. Baiju Thomas	Ramakrishna Mission Vivekananda Educational and Research Institute INDIA	EXPLORING THE BARRIERS AND CHALLENGES WOMEN FACE IN EDUCATION IN THE MODERN INCLUSIVE INDIAN SOCIETY
Amadou SALAMI Israël Sunday DOTCHAMOU Kevin Agossa DAHEOU	University of Abomey- Calavi BENIN REPUBLIC	INVESTIGATING THE IMPORTANCE OF TEACHING TRANSLATION IN UNIVERSITY: CASE STUDY OF THE DEPARTMENT OF ENGLISH (CENTRE UNIVERSITAIRE D'ADJARRA)
Dr. Nadeem Bhatti Dr. Faiz Muhammad Shaikh Shoukat Rafiue Awan Iqra Soomro Dr. Anwar Ali Shah G. Syed	Lahore Leads University PAKISTAN	DOMESTIC VIOLENCE AGAINST WOMEN ENTREPRENEUR IN CULTURAL HAND MADE CLOTHS DURING POST COVID-19 PANDEMICS: A CASE STUDY OF JACOBABAD SINDH-PAKISTAN
John Erwin P. Pedroso Ryan Michael F. Oducado Ace Roger S. Ocampo Virmari S. Tan Khen A. Tamdang	West Visayas State University PHILIPPINES John B. Lacson Foundation Maritime University PHILIPPINES	FACTORS INFLUENCING INTENTION TO USE VIDEOCONFERENCING TOOLS IN ONLINE DISTANCE EDUCATION AMONG STUDENTS IN PHILIPPINE MARITIME SCHOOLS
Dr. John Erwin Prado Pedroso	West Visayas State University PHILIPPINES	STUDENTS' VIEWS FROM WEBINARS: A QUALITATIVE STUDY
Sándor Földvári	Debrecen University HUNGARY	RED WINE WAS PROPOSED FOR BOOKS: HISTORICAL BACKGROUND OF BOOK-TRADE BETWEEN BISHOP ESZTERHÁZY (EGER, NORTH HUNGARY) AND THE POCHAIV LAVRA IN VOLHYNIA (UKRAINE)

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HEAD OF SESSION: Prof. Dr. Elizabeth Sara Lewis

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Dr. John Erwin Prado Pedrosa	<i>West Visayas State University PHILIPPINES</i>	SCHOOL ON WHEELS AND MULTIMEDIA-AIDED INSTRUCTIONS AS MEDIATORS OF STUDENTS' LOCAL CULTURAL HERITAGE AWARENESS
Dr. John Erwin Prado Pedrosa	<i>West Visayas State University PHILIPPINES</i>	UNDERSTANDING CASA MARIQUIT AS AN ILONGGO CULTURAL HERITAGE SITE: TOWARDS THE DEVELOPMENT OF A VIDEO DOCUMENTARY INSTRUCTIONAL MATERIAL
Svitlana Hanaba	<i>National Academy of the State Border Guard Service of Ukraine named after Bohdan Khmelnytskyi UKRAINE</i>	THE PROBLEM OF SPIRITUALITY IN THE INFORMATION SOCIETY
Prof. Dr. Elizabeth Sara Lewis	<i>Pontifical Catholic University of Rio de Janeiro BRAZIL</i>	FOR AN EMBODIED VIEW OF LANGUAGE IN APPLIED LINGUISTICS AND THE SOCIAL SCIENCES
Research Assistant PHD. Roxana Maria CREȚU	<i>West University of Timișoara ROMANIA</i>	MUSINGS ON THE CHROMATIC EPITHET IN EMINESCU'S POETRY
Paschalidis Christos Dimitrios Petropoulos Dimitrios Panagiotis Sotiropoulos Stavros Sotirios Paschalidis Dimitrios Christos	<i>University of Peloponnese GREECE</i>	THE AGRICULTURAL SECTOR HAS ALWAYS BEEN A STRUCTURAL FEATURE OF GREEK SOCIETY
Dr. Dora Chostelidou Athina Karakasidou	<i>Aristotle University of Thessaloniki GREECE</i>	EXPLORING THE INTEGRATION OF KEY COMPETENCES FOR LIFELONG LEARNING IN THE FL CURRICULUM OF GREEK STATE SCHOOLS
Prof. Ass. Dr. Suada A. Džogović Adelisa Kolenović, student	<i>University Haxhi Zeka KOSOVO</i>	ARTIFICIAL INTELLIGENCE IN SCIENCE AND HIGHER EDUCATION
Khate Aponte Willmi Grace Juanico Reyken Chiefe	<i>West Visayas State University PHILIPPINES</i>	PAIGUON ANG TION: TIME MANAGEMENT INTERVENTIONS OF WORKING STUDENTS IN THE WORKPLACE

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HEAD OF SESSION: Dr. Nesibe KANTAR

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Yiğit Kağan TUNCER	<i>Bartın University (Türkiye)</i>	GENERALLY MATURIDI TRADITION AND OPINIONS
Assist. Prof. Dr. Mehmet Fetih YANARDAĞ Havva GÜVEN	<i>Kahramanmaraş Sütçü İmam University (Türkiye)</i>	MUSIC IN THE CONTEXT OF WESTERNISATION IN FATİH HARBIYE, SİNEKLI BAKKAL AND HUZUR NOVELS
Buse Nur ÇELİK Assoc. Prof. Dr. Didem ARDALI BÜYÜKARMAN	<i>Yıldız Technical University (Türkiye)</i>	REPRESENTATIONS OF AGE IN SELÇUK BARAN'S STORIES
Psychological Counselor Şeymanur TAPAN Assist. Prof. Dr. Yağmur ULUSOY	<i>İnönü University (Türkiye)</i>	INVESTIGATION OF THE EFFECT OF THE EMOTION REGULATION PSYCHO-EDUCATION PROGRAM ON THE EMOTION REGULATION SKILLS OF ADOLESCENTS IN EARTHQUAKE
Dr. Nesibe KANTAR	<i>Kırşehir Ahi Evran University (Türkiye)</i>	THE EFFECTS OF INFORMATION REVOLUTION AND ARTIFICIAL INTELLIGENCE ON PHENOMENOLOGY
Assist. Prof. Dr. Fatmanur ALİBEKİROĞLU EREN	<i>Çukurova University (Türkiye)</i>	AN INSIDE LOOK AT THE SCIENCE BASIN OF SAMARKAND: AL-MĀTURĪDĪ AND THE SCIENTIFIC ENVIRONMENT FROM THE PERSPECTIVE OF IBN YAHYA AL-BESHĀĠARĪ
Assist. Prof. Dr. Aygül DÜZENLİ	<i>Çukurova University (Türkiye)</i>	WOMEN'S AGENDAS IN MAMLŪK MAZĀLIMS
Nurbanu GEDİK	<i>Kahramanmaraş Sütçü İmam University (Türkiye)</i>	DERIVATIVE FINANCIAL INSTRUMENTS

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

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Assoc. Prof. Dr. Gökhan ÖZTÜRK Assoc. Prof. Dr. Özlem ÖZTÜRK	<i>Bolu Abant İzzet Baysal University (Türkiye)</i>	THESES OF COOPERATIVE LEARNING IN MUSIC EDUCATION: COMPARATIVE CONTENT ANALYSIS
Assoc. Prof. Dr. Gökhan ÖZTÜRK Assoc. Prof. Dr. Özlem ÖZTÜRK	<i>Bolu Abant İzzet Baysal University (Türkiye)</i>	EVALUATION OF RESEARCH THEMED 'MUSIC TEACHER PEDAGOGIC FORMATION PROGRAM'
Assist. Prof. Dr. Serkan DORA	<i>Istanbul Arel University (Türkiye)</i>	CONTRIBUTIONS OF EADWEARD MUYBRIDGE, THE INVENTOR OF THE MOVING IMAGE, TO CINEMA
Assist. Prof. Dr. Fatih DİREN	<i>Niğde Ömer Halisdemir University (Türkiye)</i>	A NEW FILM ANALYSIS TECHNIQUE: ANALYSIS OF NOSTALGIA MOVIES
Assist. Prof. Dr. Betül AYDOĞAN ÜNAL	<i>Ege University (Türkiye)</i>	THE SIGNIFICANCE OF BACKBENCHERS IN PARLIAMENTARY SETTINGS: A CRITICAL ANALYSIS
Assoc. Prof. Dr. Cengiz ŞAVKILI Oğuz KÖSELER	<i>Kahramanmaraş Sütçü İmam University (Türkiye)</i>	1950 ELECTIONS AND LOCAL DYNAMICS IN TURKISH POLITICS: THE MARAŞ PERSPECTIVE
Res. Assist. Dr. Pınar GÜLTÜRK DOĞRUYOL	<i>Tekirdağ Namık Kemal University (Türkiye)</i>	ROOF GARDENS IN URBAN SETTLEMENTS AND APPLICATION EXAMPLES IN THE WORLD
Assist. Prof. Dr. Özge BOZGEYİK Prof. Dr. Fazilet Duygu SABAN	<i>Hasan Kalyoncu University (Türkiye) Çukurova University (Türkiye)</i>	A REVIEW ON THE ORGANIZATION OF MISSIONARY BUILDINGS IN THE URBAN SPACE - THE CASE OF GAZİANTEP
Beyza SAVA Assoc. Prof. Dr. Candan KUŞ ŞAHİN Assist. Prof. Dr. Büşra ONAY	<i>Süleyman Demirel University (Türkiye) Süleyman Demirel University (Türkiye) Afyon Kocatepe University (Türkiye)</i>	A RESEARCH ON THE CONCEPT OF AUDIO LANDSCAPE (SOUNDSCAPE)

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HEAD OF SESSION: Dr. Sagaya Aurelia

AUTHOR(S)	ORGANISATION	TOPIC TITLE
Dr. MESSAI Bahia Dr. MAKHLOUFI Rachid	<i>Biskra University</i> ALGERIA	EFFECTS OF SR 2+ SUBSTITUTION ON THE STRUCTURAL, DIELECTRIC, AND PIEZOELECTRIC PROPERTIES OF PZT-SAS CERAMICS
Dr. KHAMMAR Farida Dr. HANDEL Naoual	<i>University of Souk Ahras</i> ALGERIA	STUDY OF THE AERODYNAMIC BEHAVIOR OF A LARGE HORIZONTAL AXIS WIND TURBINE ROTOR
Sujon Kumar Mitro Sohail Ahmad	<i>Bangamata Sheikh Fojilatunnesa Mujib Science & Technology University BANGLADESH</i> <i>King Khalid University SAUDI ARABIA</i>	JUSTIFICATION OF CRYSTAL STABILITY AND INTRIGUING OPTOELECTRONIC PROPERTIES OF GE- AND SN-BASED METAL HALIDE PEROVSKITES
Aina Nabilah Zulkifli Hartini Ahmad Zulkifli Mohamed Udin	<i>Universiti Utara</i> MALAYSIA	THE CORRELATIONS BETWEEN RISK MANAGEMENT IN ENGINEERING MAINTENANCE AND PROFESSIONAL CERTIFICATIONS
Ms. Sunita Kumawat Prof. Sumit Kumar Vishwakarma	<i>Birla Institute of Science and Technology Pilani</i> INDIA	TRANSFERENCE OF CSH WAVES IN A CYLINDRICAL STRUCTURE COMPOSED OF PIEZO-REINFORCED MATERIALS
MD.HELAL HOSSAIN	<i>Dhaka University</i> BANGLADESH	FABRICATION OF SILICON-BASED COMPOSITE COATING FOR ENERGY STORAGE AND SEMICONDUCTOR APPLICATIONS
Md Shariful Islam Md Mehedi Hasan Pramanik Dr. David Rintu Das Dr. Yahia Mahmud	<i>Bangladesh Fisheries Research Institute</i> BANGLADESH	FOOD, FEEDING HABIT AND BREEDING BIOLOGY OF RHINOMUGIL CORSULA (HAMILTON) REARED IN FRESHWATER POND FOR BROOD DEVELOPMENT
BSc. Almedina Topalli BSc. Valdete Hasani M.Sc. Learta Kovaçi Prof. Dr. Vesna Karapetkovska - Hristova	<i>University of Prishtina "Hasan Prishtina"</i> KOSOVO	FROM HIVE TO TABLE: EXPLORING NUTRIENT – RICH SPREAD RECIPES ENHANCED BY UNIQUE VARIETAL HONEYES
Dr. Sagaya Aurelia	<i>CHRIST University</i> INDIA	AI DRIVEN SOLUTIONS FOR ENHANCED IMMERSIVE TECHNOLOGIES BASED APPLICATIONS: WIDE SPREAD OPPORTUNITIES
Rakesh Ranjan Mohammad Javed Alam	<i>Technology and Technical Education Department</i> INDIA <i>National Institute of Technology Jamshedpur</i> INDIA	AN EXPONENTIALLY FITTED NUMERICAL INTEGRATION METHOD OF FIRST ORDER FOR SINGULARLY PERTURBED DELAY DIFFERENTIAL EQUATIONS WITH SMALL SHIFT
DEVIA NARRANIA KULDIP RAJ	<i>Shri Mata Vaishno Devi University</i> INDIA	STATISTICAL MEASURABLE CONVERGENCE WITH RESPECT TO POWER SERIES FOR DOUBLE SEQUENCES AND ITS APPLICATION

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Ahmad Fauzi Ita Rodiah	Postgraduate of UIN Sunan Kalijaga INDONESIA	UNDERSTANDING OF OUTCOME-BASED EDUCATION PRACTICES IN HIGHER EDUCATION
KIMBOUALA NKAYA OBI MIERE Harron Gornelas ANGOUNDOU Jean-Jacques	Marien Ngouabi University CONGO	THE IMPACT OF COMMUNICATIVE GAMES ON CONGOLESE EFL LEARNERS' SPEAKING SKILLS. AN EXPLORATION OF THE PICTURE READING GAME IN THE TEACHING OF VOCABULARY
Dr. Marsida KENUTI (MORINA) Dr. Eliona GREMI Dr. Mirësi Çela	University of Elbasan "Aleksander Xhuvani" ALBANIA	CHALLENGES AND PERSPECTIVES OF THE IMPLEMENTATION OF "FISCALIZATION LAW", IN ALBANIAN ENTITIES
John Erwin Prado Pedroso Albert Jan Gordon Clara Belle Ponesto Melchie Liza Alcarde	West Visayas State University PHILIPPINES	CHALLENGES AND OPPORTUNITIES FACED BY WORKING STUDENTS AMIDST PANDEMIC
Payal Miteshbhai Siddhpura Dr. Ashvin Solanki	Saurashtra University INDIA	PREDICTION MODEL FOR FINANCIAL DISTRESS: USING PROPOSED DATA MINING
Md. Alamgir Hasan Dr. Md. Abul Kalam Azad	Rajshahi university BANGLADESH	MEASUREMENT OF HORN EVENTS BY VEHICLES: A MAJOR CAUSE OF NOISE POLLUTION IN RAJSHAHI CITY, BANGLADESH
Dr. Naeema Arzeen Dr. Saima Arzeen	University of Peshawar PAKISTAN	ROLE OF ICT SELF-EFFICACY AND SELF- DIRECTED LEARNING IN E- LEARNING READINESS AND STUDENT ENGAGEMENT
Prof. Dr. Slađana MILENKOVIĆ MA Darko DRAZIĆ Marijana RISTIĆ	College of Vocational Studies for preschool teachers and business IT specialists SERBIA	ROLE OF THE MEDIA IN LEARNING OF PRESCHOOL CHILDREN
Glib Aleksin, PhD	Kyiv National Economic University UKRAINE	INSTITUTIONS' ROLE IN UKRAINE'S POST- WAR RECONSTRUCTION
Mroueh Ali Hussein	Bucharest University of Economic Studies ROMANIA	UNVEILING THE LATEST DYNAMICS IN CORPORATE REPORTING: INSIGHTS FROM LITERATURE

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A CASE STUDY ON THE IMPACT OF EFFECTIVE LEADERSHIP ON

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ÖZET

Toplumun hem maddi hem de manevi olarak gelişiminde önemli kurumlardan biri olan okulların hedeflerine ulaşabilmesi için işini severek, isteyerek yapan aktif rol üstlenmekten çekinmeyen öğretmenler olması gerektiği kabul görmüş bir gerçektir. Her bakımdan daha iyi bir nesil ancak işiyle bütünleşmiş, işini severek yapan, gerektiğinde sorumluluk almaktan kaçınmayan, çevresine liderlik eden öğretmenlerin elinde yükselecektir. Bunun sağlanabilmesi için hem öğretmen liderliğinin teşvik edilerek öğretmenlerin okullarda daha aktif ve saygın roller alması sağlanmalı hem de okullarda daha sağlıklı iklimlerin temelleri atılarak çalışılan kurum sevilesi bir hal almalıdır. Ancak bu şartlar sağlandığında öğretmenler mesleklerini bir iş olmaktan öte görüp daha özverili çalışabilirler ve çalıştıkları kuruma daha sağlıklı, sevgi dolu bağlarla bağlanabilirler. İşine dört elle sarılan öğretmenlerin toplumun refahı için ve okulların amaçlarını gerçekleştirebilmeleri için gerekli olduğu herkes tarafından kabul edilmektedir.

Eğitim kurumlarında öğretmen takımlarının ve öğretmen liderliğinin her ne kadar oldukça önemli olduğu açık olsa da günümüzde bu konuda yeterli çalışma yoktur. Öte yandan bu alanda yapılan sınırlı çalışmalar, liderlik ve öğretmen takımlarının eğitim ve öğretimde önemli katkılar sağlayabileceğini göstermektedir.

Anahtar Kelimeler: Liderlik, Öğretmen, Öğretmen Liderliği.

ABSTRACT

It is an accepted fact that schools, which are one of the important institutions in the development of society both financially and spiritually, must have teachers who do their job fondly and willingly, who do not hesitate to take an active role in order to achieve their goals. A better generation in all respects will rise only in the hands of teachers who are integrated with their job, who do their job fondly, who do not avoid taking responsibility when necessary, and who lead their environment. In order to achieve this, both teacher leadership should be encouraged and teachers should take more active and respected roles in schools, and the institutions that work in schools should become beloved by laying the foundations of healthier climates. However, when these conditions are met, teachers can see their profession as more than a job and work more selflessly and they can be connected to the institution they work in through healthier, loving bonds. It is recognised by all that teachers who cling to their jobs are essential for the welfare of the community and for schools to achieve their goals.

Although it is clear that teacher teams and teacher leadership are very important in educational institutions, there are not enough studies on this subject today. On the other hand, limited studies in this area show that leadership and teacher teams can make significant contributions in education and training.

Keywords: Leadership, Teacher, Teacher Leadership.

**MİLLİ EĞİTİM BAKANLIĞININ ‘EĞİTİM 2023 VİZYONU’ ÇERÇEVESİNDE
GERÇEKLEŞTİRDİĞİ OKUL YÖNETİCİLERİNE YÖNELİK KAPSAYICI EĞİTİM
PROGRAMININ VE OKULA YANSIMALARININ DEĞERLENDİRİLMESİ**
EVALUATION OF THE REFLECTIONS OF THE INCLUSIVE EDUCATION PROGRAM
FOR SCHOOL ADMINISTRATORS REALIZED BY THE MINISTRY OF NATIONAL
EDUCATION WITHIN THE FRAMEWORK OF "EDUCATION 2023 VISION"

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ÖZET

Bu araştırma, Milli Eğitim Bakanlığının ‘Eğitim 2023 vizyonu’ çerçevesinde gerçekleştirdiği okul yöneticilerine yönelik kapsayıcı eğitim programının okula yansımalarının değerlendirilmesini amaçlamaktadır. Araştırma nitel araştırma modelinin fenomenoloji desenine göre yapılandırılmıştır. Araştırmaya 2023 eğitim vizyonu kapsamında 2018 yılından itibaren mesleki eğitime katılan Adıyaman ilinden, mahalli ve merkezi hizmet içi kapsamında düzenlenen kapsayıcı eğitime katılan okul yöneticilerinden rastgele seçilen 13 müdür veya müdür yardımcısı katılmıştır. Araştırmaya katılan okul yöneticilerine uzman görüşü çerçevesinde hazırlanan çeşitli yarı-yapılandırılmış görüşme soruları sorulmuş olup, görüşmeler Covid-19 salgını dolayısıyla kursa katılan okul yöneticilerine telefon ile gerçekleştirilmiştir. Görüşmeler genel olarak 15-30 dakika sürmüştür. Araştırmada elde edilen ses kayıtları yazıya aktarılmış, veriler içerik analizine tabi tutulmuştur. Çalışmanın bulgularına göre okul yöneticilerimizin, 2023 vizyonu kapsamında aldıkları eğitimlerin okullara yansımalarını anlamak için araştırmaya ayrıntılı bir bakış açısı getirmiştir. Araştırma okul yöneticilerinin aldıkları kapsayıcı eğitimin okullarda ne kadar önemli rolü olduğunu ve okullara nasıl yansıdığını göstermektedir. Bunlar; Kapsayıcılık kavramının kapsamına ilişkin farkındalık, kapsayıcı olmayan davranışların fark edilmesi, dezavantajlı öğrencilerin önemsenmesi, sosyal projelere daha çok zaman ayırma ve bütüncül bakış açısı kazanma olarak görülmektedir. Çalışmada ayrıca, eğitimi alan okul yöneticilerinin aldıkları eğitimlerin, dezavantajlı öğrencileri öne çıkaran, onları önemseyen, işbirlikçi ve eğitimde fırsat eşitliğini ortaya çıkaran yansımaları sonucuna varılmıştır.

Anahtar Kelimeler:2023 Milli Eğitim Vizyonu, Mesleki Eğitimler, Okul yöneticiliği, Kapsayıcı Eğitim

ABSTRACT

This research aims to evaluate the reflections on school of inclusive training program for school managers that is carried out in the frame of ‘Education Vision in 2023’ by Ministry of Education. This research was designed according to phenomological pattern of qualitative research model. Within the scope of Turkey’s education vision 2023, 13 principals or vice principals, that were chosen randomly from a bunch of directors who have attended vocational trainings in Adiyaman, local and central inclusive in-service training, have been involved in the study. Various semi-structured interviewing questions, which were prepared in expert opinion, were asked to school managers and the interviews conducted on phone because of Covid-19. Approximately, the interview lasted 15-30 minutes. The recordings scripted and collected data were analysed through content analysis. According to the findings of the research, the inclusive training program within the scope of education vision 2023 brought in a new perspective to identify the reflections of the program on schools. Research shows that the inclusive training program has an important role and how effective it is in schools. These are; the awareness in the scope of the concept of inclusion, the recognition of the uninclusive behaviours, caring about disadvantageous students, sparing more time for social projects, and gaining a holistic view. Beside that, the study draws a conclusion that the training program puts disadvantageous students forward, cares them, supports collaboration and equal opportunities in education.

Key words: Education Vision 2023, Vocational Trainings, School Managing, Inclusive Training

**SINIF VE TÜKETİM İLİŞKİLERİ BAĞLAMINDA MODERN İŞ HAYATINA
YÖNELİK BİR ELEŞTİRİ: BABBİTT ROMANI**

A CRITIQUE OF MODERN BUSINESS LIFE IN THE CONTEXT OF CLASS AND
CONSUMPTION RELATIONS: THE BABBİTT NOVEL

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ÖZET

Bu bildiride, modern iş hayatına yönelik eleştirilerin romanlara yansımalarının nasıl olduğu sorusuna cevap aranmaktadır. Romanların son dönem yönetim ve örgüt araştırmalarında kullanılan bir veri kaynağı olması ve yazıldıkları dönem hakkında detay bilgiler içermesi sebebiyle bu çalışmada veri kaynağı olarak roman tercih edilmiştir. Nitel araştırma yönteminin kullanıldığı çalışmada veriler doküman analizi yoluyla çözümlenmiştir. Verilere amaçlı örnekleme tekniği kullanılarak ulaşılmıştır. Bu çalışmaya konu olan Nobel Edebiyat Ödülüne sahip Babbitt romanı 1922 yılında Amerika'lı Sinclair Lewis tarafından yazılmıştır. Eserde 20. yüzyıl Amerikan iş dünyası, romanın ana kahramanı George Babbitt'in yaşamı üzerinden eleştirel bir şekilde anlatılmaktadır. Toplumda saygın bir konuma sahip olan Babbitt, emlak komisyonculuğu yapan bir işadamdır. Babbitt sözcüğü aynı zamanda orta sınıfın değerlerine ve materyalizme bilinçsizce bağlı olan kendini beğenmiş kişi anlamına gelmekte ve Amerikan toplumsal yaşamının tipolojilerinden birini oluşturmaktadır. 20. yüzyıl Amerikan kapitalizminin eleştirisinin yapıldığı roman, dönemin iş dünyasının temel dinamiklerinin anlaşılmasına katkı sunmaktadır. Roman bilimsel yönetim düşüncesinin, seri üretimin ve tüketim toplumunun izlerini Babbitt'in iş, aile ve toplumsal yaşamı üzerinden okuma imkânı sunmaktadır. Babbitt'in iş yaşamı iktisadi akıl ve rekabetin ön planda olduğu, yer yer kazanç uğruna iş ahlakının yok sayıldığı, çalışma fikrinin gündelik yaşamın merkezinde olduğu bir evrende geçmektedir. Babbitt'in çeşitli cemiyetler vasıtasıyla üniversite profesyonelleri, sanatçılar ve din adamları ile aynı mekânlarda bulunma ve onlarla irtibat kurma ayrıcalığına erişmesi kapitalist toplumda iş dünyasının yükselen konumuna işaret etmektedir. Yanı sıra olay örgüsünün yaşandığı Zenith şehrinde geleneksel mimarinin yerini almaya başlayan kuleler ve ofis binaları da yeni kapitalist iş yaşamının göstergelerinden biri olarak sunulmuştur. Babbitt'in gerek bireysel gerekse toplumsal yaşamını şekillendiren sınıf alışkanlıkları tüketim toplumunun dinamiklerine uygun bir yaşam tarzıdır. Otomobil, ev eşyaları, kıyafetler, yemekler, mekânlar gibi birçok tüketim figürü sınıfsal konumun sürekliliğinin sağlanmasında önem arz etmektedir. Ait olduğu sınıfın tüketim alışkanlıklarına uygun davranma zorunluluğu Babbitt için zaman içerisinde toplumsal bir baskı haline dönüşmüştür. Babbitt, sınırlı hayatının farkına varıp kendi bireyselliğini inşa etmeye çalışsa da ait olduğu sınıfın standartları en büyük engel olarak karşısına çıkmış ve yine eski yaşam tarzını devam ettirmek zorunda kalmıştır.

Bu çalışmada elde edilen bulgular Babbitt romanının yönetim ve organizasyon bilim dalının çeşitli alt alanları açısından kullanılabilecek bir kaynak olduğunu göstermektedir. İş dünyası ve toplumsal yaşam ilişkilerine dair fikir veren Babbitt romanı *iş sosyolojisi* araştırmalarında kullanılabilecek bir eserdir. Yanı sıra 20. yüzyıl Amerikan iş dünyasına yön veren ilkeler ve işadamlarının içerisinde bulunduğu sosyal alanı göstermesi bakımından ilgili dönem üzerine çalışmak isteyen *işletmecilik tarihi* araştırmacıları için de fikir verici niteliktedir. Yönetici ve işadamlarının yaşadığı zorluklar, iş dünyasında anlam yitimi ve anlam arayışı, iş hayatında kısır döngü ve bunun etkileri gibi konularla ilgilenen *örgütsel davranış* araştırmacıları için de referans alınabilecek kaynaklardan biridir. Bu çalışmanın, çeşitli sosyal olgular ile yazıldıkları

dönem hakkında detaylı fikir veren romanların örgüt arařtırmalarında kullanılmasına imkân sađlayan yeni fikirlere ilham vereceđi düşünölmektedir.

Anahtar kelimeler: İş sosyolojisi, işadamları, modern iş hayatı, kapitalizm, işletmecilik tarihi, sınıf, tüketim

ABSTRACT

This paper seeks to answer the question of how the criticisms of modern business life are reflected in novels. Since novels are a source of data used in recent management and organizational research and contain detailed information about the period in which they were written, novels were preferred as a data source in this study. In the study, in which qualitative research method was used, the data were analyzed through document analysis. The data were accessed using purposive sampling technique. The novel *Babbitt*, which is the subject of this study and the winner of the Nobel Prize in Literature, was written by American Sinclair Lewis in 1922. In the work, the 20th century American business world is critically described through the life of George Babbitt, the main protagonist of the novel. Babbitt, who has a respected position in society, is a businessman who works as a real estate broker. The word Babbitt also means an arrogant person who unconsciously adheres to the values of the middle class and materialism and constitutes one of the typologies of American social life. Criticizing 20th century American capitalism, the novel contributes to the understanding of the basic dynamics of the business world of the period. The novel offers the opportunity to read the traces of scientific management thought, mass production and consumer society through Babbitt's work, family and social life. Babbitt's business life takes place in a universe where economic reason and competition are at the forefront, work ethics are sometimes ignored for the sake of profit, and the idea of work is at the center of daily life. The fact that Babbitt has the privilege of being in the same spaces with university professionals, artists, and clergymen through various societies and of communicating with them points to the rising position of the business world in capitalist society. In addition, the towers and office buildings that have started to replace traditional architecture in the city of Zenith, where the plot takes place, are presented as one of the indicators of the new capitalist business life. The class habits that shape both Babbitt's individual and social life are a lifestyle in line with the dynamics of the consumer society. Many consumption figures such as automobiles, household goods, clothes, food and places are important in ensuring the continuity of class position. The obligation to act in accordance with the consumption habits of the class to which he belongs has become a social pressure for Babbitt over time. Although Babbitt realizes his limited life and tries to build his own individuality, the standards of the class he belongs to are the biggest obstacle and he is forced to continue his old lifestyle.

The findings of this study show that the *Babbitt* novel is a source that can be used in various sub-fields of management and organization science. *Babbitt* novel, which gives an idea about the relations between the business world and social life, is a work that can be used in *sociology of work* research. In addition, it is also an insightful work for *business history* researchers who want to work on the relevant period, as it shows the principles that shape the 20th century American business world and the social sphere in which businessmen live. It is also a reference source for *organizational behavior* researchers interested in the difficulties experienced by managers and businessmen, the loss of meaning and the search for meaning in the business world, the vicious circle in business life and its effects. It is thought that this study will inspire new ideas that enable the use of novels, which provide detailed information about various social phenomena and the period in which they were written, in organizational research.

Keywords: Sociology of work, Businessmen, Modern business life, Capitalism, Business history, Class, Consumption

12 EYLÜL DÖNEMİNDE KEMALİST İDEOLOJİ VE ATATÜRK KÜLTÜ

KEMALIST IDEOLOGY AND THE CULT OF ATATURK IN THE PERIOD OF SEPTEMBER 12

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ÖZET

12 Eylül 1980'deki askeri müdahale ilk günden itibaren mevcudiyet ve meşruiyetini Atatürk'le ilişkilendirerek açıklamıştır. Bu ilişkilendirme Kemalist ideolojiyi ara rejimin belirlediği biçimde devlet ve toplumun kalıcı gündemi haline getirmiştir. 12 Eylül'deki adlandırmasıyla Atatürkçülüğün etkinliği Atatürk'ün tarihteki kişisel yaşamının ve devlet hayatını ilgilendiren çeşitli yanlarının işlenişinde başvurulan simgelerin etkinliğiyle yakından ilgilidir. Dönemin kültürel elitlerinin ve askeri yönetimin söylemleri ideolojiyi güçlendiren bir unsur olarak 'anma' ve 'hatırlamanın' ideolojiyi toplumsallaştırma açısından önemi üzerinde durmaktadır. Atatürkçülük devlet sisteminin resmi ideolojisine dönüştürüldüğü aşamada Türk İslam Sentezinin fikrî ve organik işbirliğiyle toplumsal hafızada kurucusunun nezdinde sürekli kılınmaya çalışılmıştır. Devletle, toplumla, kültürle ilgili konulara dair fikirlerini çeşitli mecralarda belirten kültür adamı diye anabileceğimiz kişilerin Kemalist hassasiyetlerle sarf ettiği görüşler arasında Atatürk'ü tarihsel-sosyolojik bağlamı aşan bir kahraman olarak ele alma eğilimi belirgindir. Tarihi olaylar ve koşulların zorlukları teleolojik yorumla önceden belirli bir sonu haber veren işaretler olarak görülür. Bazen sadece yüksek vasıflarla donanmış insani, bazen tanrısala çeşitli derecelerde yakın olan Atatürk imgesi genellikle seferberlik günlerindeki ve barış zamanındaki tarihsel, politik olayların paydaşlarını görünmezleştiren, önemsizleştiren biçimde anlatılır. Tarihi belli bir biçimde okuma ve yorumlama perspektifine dayanan buna benzer yorumlar Atatürk kimliğini kurumsallaştıran askeri iktidardan birçok bakımdan ayrılır. Bununla birlikte Kemalist aydınlar sıklıkla simgesel düzeydeki eylemlerin önemini altını çizerler. Bazı Kemalist aydınlarca Atatürk temsillerinin milli-manevi anlamda yaratacağı inanç ve bağlılığın ideolojinin anlaşılması, sistemleştirilmesi ve bilgiye dayalı bir bilince dönüşmesi açısından yaratabileceği çelişkiye dikkat çekilmektedir. Ancak bu Atatürk'ü kültürleştirme anlayışına yönelik eleştirel bir bakış içermemektedir. Bu dönemde dikilen Atatürk heykelleri kendi fikriyatıyla birlikte gelişmektedir. Dikilen heykel ve büst sayısıyla Cumhuriyet tarihinde önemli bir dönemi oluşturan 12 Eylül'de heykel ideolojik açıdan ikamesiz görülmektedir. Bu bildiride 12 Eylül döneminde Atatürk kültürüne dair söylemler ve heykel pratikleri ele alınacaktır.

Anahtar Kelimeler: Kemalizm, Atatürk Kültü, 12 Eylül 1980

ABSTRACT: The military intervention on September 12, 1980 explained its existence and legitimacy from the first day by associating it with Atatürk. This association made the Kemalist ideology the permanent agenda of the state and society as determined by the interim regime. The effectiveness of Kemalism, as it was named on September 12, is closely related to the

effectiveness of the symbols used in the treatment of Atatürk's personal life in history and various aspects of his state life. The discourses of the cultural elites of the period and the military administration emphasize the importance of 'commemoration' and 'remembering' as an element that strengthens the ideology in terms of socializing the ideology. At the stage when Kemalism was transformed into the official ideology of the state system, it was tried to be perpetuated in the social memory with the intellectual and organic cooperation of the Turkish-Islamic Synthesis. Among the views expressed with Kemalist sensitivities by those who we can call a man of culture, who express their ideas about the state, society and culture in various media, the tendency to consider Atatürk as a hero that transcends the historical-sociological context is evident. Historical events and difficulties of circumstances are seen teleologically as signs foretelling a certain end. The image of Atatürk, which is sometimes only humane equipped with high qualifications, sometimes close to the divine in various degrees, is usually depicted in a way that makes invisible and trivializes the stakeholders of historical and political events in the days of mobilization and in peacetime. Such interpretations, based on the perspective of reading and interpreting history in a certain way, differ in many respects from the military that institutionalized Atatürk's identity. However, Kemalist intellectuals often underline the importance of practices at the symbolic level. Some Kemalist intellectuals draw attention to the contradiction that the national-spiritual belief and loyalty created by the symbols can create in terms of understanding, systematizing and transforming the ideology into a knowledge-based consciousness. However, this does not include a critical view of the understanding of cultisation Atatürk. Atatürk statues erected in this period are developing with their own ideas. On September 12, which constitutes an important period in the history of the Republic with the quantity of statues and busts erected, the statue is seen as irreplaceable in terms of ideology. In this paper, discourses on the cult of Atatürk and sculpture practices in the September 12 period will be discussed.

Keywords: Kemalism, Cult of Atatürk, September 12, 1980

ŞEYH AHMED HÜSÂMÎ DÎVÂNÎ'NDA DİNÎ İMGELERİN ÇİFT YÖNLÜ İŞLENİŞİ

THE DUAL USE OF RELIGIOUS IMAGES IN SHEIKH AHMED HÜSÂMÎ DÎVÂNÎ

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ÖZET

Şeyh Ahmed Hüsâmî Efendi Dîvânî'nın müellifi olan Ahmed Hüsâmî, 18. yüzyıl ortalarında İstanbul'da yaşamış bir Uşşâkî şeyhidir. Söz konusu dîvân, Uşşâkîlik tarikatının kurucusu ile ilgili bilgiler ihtiva eden iki temel eserden biri olması sebebiyle önem taşımaktadır. Bu eser, tarikatlerin Osmanlı coğrafyasında yayılma imkânı bulduğu bir dönemde Uşşâkîlik'in daha sonraki bir müntesibince yazılan ana metinlerinden olduğu için önemli sayılmaktadır. Dinî-tasavvufî nitelikli eserlerde Müslüman dünyasının başlıca konuları sıklıkla zahirî anlamlarından ziyade bâtinî ya da manevî, insanın ruhsal tarafını ilgilendiren yönüyle işlenmektedir. Bu bildiride Şeyh Ahmed Hüsâmî Efendi Dîvânî'ndeki dinî unsurlardan bazılarının çift yönlü işlenişine bakılacaktır. Tespit edilen çift yönlülükler birbirine zıt anlamlar taşısa da bu bir çelişki olarak görülmemekte, birbirini bütünleyen özellikler olarak ele alınmaktadır.

Dîvânda tespit edilen çift yönlülüklerden bazıları şöyle açıklanabilir: Allah, tasavvufî eserlerin karakteristik bir özelliği olarak Şeyh Ahmed Hüsâmî Dîvânî'nda da diğer konu ve kavramların kendi etrafında şekillenmesini sağlayan esas konu olmuştur. Tüm varlığın, insan ve kâinatın yaratıcısı olan Allah, yüce güç ve mutlak varlık sahibidir. Dîvân'ın Allah'ın yüceliği ve Hz. Adem'in yaratılışını anlatan beyitlerle başlaması yüce yaratıcıya atfedilen değer kanıtıdır. Allah'ın bir korku unsuru olması, O'nun azâmeti karşısında insanoğlunun âciz olmasının neticesi olarak değerlendirilebilir. Bunun yanında Allah ayıpları ve günahları örten, kalpleri açandır. Bu sıfatlar yaratıcının insanoğlu için korkulan bir varlık olmasının yanında ümit verici olduğunu da göstermektedir. Dîvân edebiyatında sevgiliyle ilişkili olarak zikredilen cennet, eserde tasavvufî bir yaklaşımla işlenmektedir. Şair; Rıdvân, Hûrî, Tûbâ gibi cennete mahsus isimleri ilâhî hakikati anlamının yolunu göstermek için kullanmaktadır. Cennetin maddi tarafı manevi tarafından daha az önemli görülmektedir. Cennetle ilgili özlem ve beklenti bir âşığın gözünden maddi zevklerin ötesinde kalbi manevi tatmine ulaştıracak arzulara dönüşmektedir. Cennet, içindeki hûri, gılman gibi varlıklardan dolayı değil sevgiliye vuslatın bir aracı olması sebebiyle gidilmek istenen yerdir. Cennetin karşıtı olarak düşünülen cehennem ise ateşi ile

yanmaktan korkulan bir yer olmasının yanı sıra dünya ile ilişkilendirilmektedir. Örneğin dergâhtan uzak kalmak da şair için cehennemde olmak gibidir.

Bu çift yönlülükte dinî unsurlar manevi ve insani tarafa daha yakın durmakta, insanın manevi yükselişiyle ilgili olarak ele alınmaktadır. Tasavvufî unsurların yukarıda Şeyh Ahmed Hüsâmî Efendi Dîvânı'ndan bazı örneklerle açıklanmaya çalışıldığı gibi çift yönlü işlenmesinin amaçlarından biri kutsal varlıkların insanla ünsiyetini, bağ kurmayı kolaylaştırmak; kutsalı insana yaklaştırmaktır.

Anahtar Kelimeler: Şeyh Ahmet Hüsâmî Efendi, Divân şiiri, Uşşakilik, Tasavvuf.

ABSTRACT

Ahmed Hüsami, the author of the Divan of Sheikh Ahmed Hüsami Efendi, is an Uşşaki sheikh who lived in Istanbul in the mid-18th century. The divan in question is important because it is one of the two main works containing information about the founder of the Uşşaki sect. This work is considered important because it is one of the main texts of Uşşakilik written by a later follower at a time when the sects had the opportunity to spread in the Ottoman geography. In works of religious-mystical nature, the main subjects of the Muslim world are often handled with their esoteric or spiritual aspect that concerns the spiritual side of human, rather than their apparent meaning. In this paper, the double-sided process of some of the religious elements in the Divan of Sheikh Ahmed Husami will be examined. Although the detected dualities have opposite meanings, this is not seen as a contradiction, but is considered as complementary features.

Some of the dualities identified in the Divan can be explained as follows: God, as a characteristic feature of mystical works, has been the main subject in Sheikh Ahmed Husami's Divan, which also allows other subjects and concepts to be shaped around own. Allah, the creator of all existence, human beings and the universe, is the owner of supreme power and absolute existence. The majesty of Allah and Hz. The fact that Adam begins with couplets describing his creation is proof of the value attributed to the supreme creator. The fact that Allah is an element of fear can be evaluated as the result of human being's helplessness in the face of its majesty. Besides, Allah is the One who hides faults and sins and opens hearts. These adjectives show that the creator is hopeful as well as being a feared creature for human beings. Besides, Allah is the One who hides faults and sins and opens hearts. These adjectives show that the creator is hopeful as well as being a feared creature for human beings.

Paradise, which is mentioned in relation to the beloved in Divan literature, is handled with a mystical approach in the work. Poet; He uses heavenly names such as Rıdvân, Hûrî and Tuba to show the way to understand the divine truth. The material side of heaven is seen as less important than the spiritual side. Longing and expectation about heaven turn into desires that will bring spiritual satisfaction to the heart beyond material pleasures in the viewpoint of a lover. Paradise is a place where you want to go because it is a means of reuniting with the beloved, not because of the creatures such as houri and gilman. Hell, which is thought to be the opposite of heaven, is associated with the world as well as being a place where it is feared to burn with its fire. For example, staying away from the dervish lodge is like being in hell for the poet.

In this duality, religious elements stand closer to the spiritual and human side, and are dealt with in relation to the spiritual ascent of person. As tried to be explained above with some examples from Sheikh Ahmed Hüsami Efendi's Divan, one of the purposes of the two-way processing of sacred elements is to facilitate the intimacy and bonding of sacred beings with human beings; to bring the holy to person.

Key Words: Sheikh Ahmed Hüsami Efendi, Divan Poem, Uşşakilik, Mysticism

**ÖNE HAMLE ADIM EGZERSİZİNDE Q AÇISI İLE REKTUS FEMORİS KAS
AKTİVASYONU DEĞERLERİNİN İNCELENMESİ**
**INVESTIGATION OF Q ANGLE AND RECTUS FEMORIS MUSCLE ACTIVATION
VALUES IN FORWARD LUNGE EXERCISE**

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ÖZET

Bu çalışmanın amacı sporcular ve antrenörler tarafından sıklıkla kullanılan öne hamle adım egzersizlerinin, kuadriseps açısı ile rektus femoris kas aktivasyonu arasındaki ilişkinin incelenmesidir.

Kuadriseps açısı, spina iliaca ile patellanın ortasından ve patellanın ortası ile tuberositas tibiae'den geçen çizginin kesiştiği açı olarak tanımlanmaktadır. Q açısı değerleri normal değerlerin dışında olduğunda diz yaralanmaları riski artmaktadır. Sporcular ve antrenörler ise hem sporcu yaralanmasını önlemek hem de performansı arttırmak amacıyla öne hamle adım egzersizlerini uygulamaktadırlar. Öne hamle adım egzersizleri uygulayıcılar tarafından güvenli olarak önerilmektedir. Ancak q açısı ile rektus femoris kas aktivasyonunu karşılaştıran bir çalışmaya rastlanmamıştır. Bu nedenle bu çalışmanın amacı kuadriseps açısı ile rektus femoris kas aktivasyonu değerlerinin incelenmesidir.

Bu çalışma, Marmara Üniversitesi Spor Bilimleri Fakültesi laboratuvarında yapılmıştır. Çalışmaya, diz yaralanması hikayesi olmayan ve minimum 6 yıl spor yapan ve aktif spor yapmaya devam eden 23.9 ± 1.4 yaş ve 21.0 ± 5.0 BMI değerlerine sahip 15 erkek gönüllü katılım sağlamıştır. Katılımcılar, demografik bilgileri alındıktan sonra q açısı ölçülmüştür. Daha sonra rektus femoris kasının yeri belirlenerek en şişkin olan kısma elektrodlar yerleştirilmiştir. Elektrodlar SENIAM protokolüne uygun olarak yerleştirilmiştir. Sporcular 5 dakikalık ısınmadan sonra sandalyede oturarak maksimum istemli kasılma (MVC) değerleri ölçülmüştür. Sporcular kuvvet platformu yüksekliğindeki basamaktan kuvvet platformuna inerek hareketi gerçekleştirmişlerdir. Hareket üç defa tekrarlanmıştır.

Veriler, kuvvet platformundaki verilere bakılarak eksantrik ve konsantrik faza ayrılmıştır. Daha sonra Matlab programında butterworth filtresinden geçirilerek, her tekrar için ayrı ayrı MVC'ye oranı belirlenmiştir. Sağ bacak kasılma değerleri eksantrik ve konsantrik sırasıyla (51 ± 21.9 % 46.7 ± 26.4) olarak bulunmuştur. Sol bacak kasılma değerleri eksantrik ve konsantrik sırasıyla

(%105±42.4 %136.9±41.4) olarak bulunmuştur. Q açısı değerleri ise sağ bacak 13.5±4, sol bacak 12.73±2.8 olarak bulunmuştur. Yapılan istatistiksel değerlendirme sonucunda sporcuların Q açısı değerleri ile rektus femoris kas aktivasyonu arasında anlamlı ilişkiye rastlanmamıştır ($p<0.05$).

Yapılan istatistiksel değerlendirme sonucunda, veriler MVC değerleri ile oranlandığında sağ bacak kas aktivasyonu oranı sol bacak kas aktivasyonu oranından daha düşük bulunmuştur. Sağ bacak kuadriseps açısı değerleri daha fazla, sağ kas aktivasyonu ise daha düşük bulunmuştur. Ancak anlamlı korelasyon görülmemiştir. Yapılan bu çalışma sonucunda sporcuların kas aktivasyonu değerlerinin kuadriseps açısından etkilenmediği bulunmuştur.

Anahtar Kelimeler: EMG, Kas Aktivasyonu, Q açısı, Kuvvet Platformu

ABSTRACT

The aim of this study was to investigate the relationship between quadriceps angle and rectus femoris muscle activation in forward lunge step exercises frequently used by athletes and coaches.

The quadriceps angle is defined as the angle between the spina iliac and the middle of the patella and the intersection of the line passing through the middle of the patella and the tuberositas tibia. When Q angle values are outside the normal values, the risk of knee injuries increases. Athletes and coaches perform forward lunge step exercises to prevent injury and improve performance. Forward lunge step exercises are recommended as safe by practitioners. However, there is no study comparing q angle and rectus femoris muscle activation. Therefore, the aim of this study was to investigate the values of quadriceps angle and rectus femoris muscle activation.

This study was conducted in the laboratory of Marmara University, Faculty of Sports Sciences. Fifteen male volunteers with an age of 23.9±1.4 years and a BMI of 21.0±5.0, who had no history of knee injury and who had been active in sports for a minimum of 6 years and continued to do active sports, participated in the study. After demographic information was obtained, q angle was measured. Then, the rectus femoris muscle was located and electrodes were placed on the most bulging part. Electrodes were placed in accordance with SENIAM protocol. After a 5-minute warm-up, the athletes sat in a chair and maximum voluntary contraction (MVC) values were measured. The athletes performed the movement by descending from the step at the height of the force platform to the force platform. The movement was repeated three times.

The data were separated into eccentric and concentric phase by looking at the data on the force platform. Then, the ratio to MVC was determined for each repetition separately by passing through butterworth filter in Matlab program. Right leg contraction values were found as eccentric and concentric (51±21.9% and 46.7±26.4%), respectively. Left leg contraction values were found as eccentric and concentric (105±42.4%, 136.9±41.4%), respectively. Q angle values were found to be 13.5±4 for the right leg and 12.73±2.8 for the left leg. As a result of

the statistical evaluation, no significant relationship was found between Q angle values and rectus femoris muscle activation ($p < 0.05$).

As a result of the statistical evaluation, when the data were compared with the MVC values, the right leg muscle activation rate was found to be lower than the left leg muscle activation rate. Right leg quadriceps angle values were found to be higher and right muscle activation was found to be lower. However, no significant correlation was observed. As a result of this study, it was found that muscle activation values of athletes were not affected by quadriceps angle.

Keywords: EMG, Muscle Activation, Q angle, Force Plate

YETİŞKİN TÜKETİCİLERİN COĞRAFI İŞARETLEME İLE İLGİLİ BİLGİ DÜZEYLERİNİN İNCELENMESİ
INVESTIGATION OF ADULT CONSUMERS' KNOWLEDGE LEVELS ABOUT GEOGRAPHIC INDICATION

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ÖZET

Yerel değerler arasındaki karmaşanın önlenmesi ve ürünün taklitlerinden ayrılmasını, ürünün özdeşleştiği yerle tescillenmesini sağlamak amaçlı ürünlere ve lezzetlere “Coğrafi İşaretleme” yapılmaya başlanmıştır. Coğrafi işaretlerin tüketicilerin tüketim ve satın alım tercihlerini etkileyen etmenlerden biri olabileceği bildirilmektedir. Bu çalışmada yetişkin tüketicilerin coğrafi işaretleme ile ilgili bilgi düzeylerinin incelenmesi amaçlanmaktadır.

Bu çalışma yaşları 18-60 yıl arasında değişen 236 kadın ve 266 erkek olmak üzere toplam 502 sağlıklı birey üzerinde 10.02.2023-20.06.2023 tarihleri arasında yürütülmüştür. GPower 3.0.10 programı kullanılarak yapılan güç analizi sonucunda; %80 güç, %5 hata payı ile toplamda en az 500 örnek sayısı yeterli bulunmuştur. Çalışmada bireylere yüz yüze görüşme yöntemi ile anket formu uygulanmıştır. Anket formuyla bireylere ait tanımlayıcı bilgiler (yaş, cinsiyet, medeni durum, eğitim düzeyi, meslek, vücut ağırlığı ve boy uzunluğu) ve coğrafi işaretleme ile ilgili bilgi düzeylerinin ölçülmesi yönelik bilgiler sorgulanmıştır. Araştırmanın etik komisyon izni 07 Şubat 2023 tarih ve 02 sayılı toplantı kararı ile Gazi Üniversitesi Etik Komisyonu’ndan alınmıştır. Tüm hastalardan imzalı bilgilendirilmiş onam alınmış ve bu çalışma Helsinki Deklarasyonu'na uygun olarak gerçekleştirilmiştir. Çalışmadan elde edilecek verilerin değerlendirilmesi ve tabloların oluşturulması amacıyla SSPS 23.0 (Statistical Package of Social Sciences) programı kullanılmıştır. Bütün istatistiksel analizlerde %95’lik güven aralığında, anlamlılık $p < 0.05$ düzeyinde kabul edilmiştir.

Çalışmada erkek bireylerin yaş ortalaması ($30,85 \pm 10,61$ yıl) kadın bireylerden ($27,88 \pm 9,68$ yıl) istatistiksel açıdan anlamlı düzeyde daha yüksektir ($p < 0,05$). Ayrıca evli olma ve ilde yaşama oranlarının da erkek cinsiyette daha yüksek olduğu saptanmıştır ($p < 0,05$). Kadın cinsiyette ve toplam katılımcılarda coğrafi işaretlemenin tanımını doğru bilenlerin bilmeyenlere göre evli olma oranlarının daha düşük, eğitim seviyelerinin ise daha yüksek olduğu görülmektedir ($p < 0,001$). Ayrıca kadın cinsiyette coğrafi işaretlemenin tanımını doğru bilenlerin bilmeyenlere göre ilde yaşama oranlarının daha yüksek olduğu tespit edilmiştir ($p < 0,05$). Hem her iki cinsiyette hem de toplam katılımcılarda coğrafi işaretlemenin tanımını doğru bilenlerin bilmeyenlere göre yöreye özgü gastronomik ürünlerin coğrafi işaretleme almış olmasının avantajlarını bilme oranlarının daha yüksek olduğu saptanmıştır ($p < 0,05$).

Bazı sosyodemografik özelliklerin coğrafi işaretlemenin tanımını doğru bilme durumu üzerinde etkili olduğu ve coğrafi işaretleme tanımını doğru bilmenin yöreye özgü gastronomik ürünlerin coğrafi işaretleme almış olmasının avantajlarını bilme oranlarını artırdığı sonucuna varılabilir. Toplumdaki bireylere coğrafi işaretleme tanımının öğretilmesi, coğrafi işaretlemenin getirdiği

avantajlarının farkına varılmasına ve ileriki yıllarda daha fazla yöresel ürünün coğrafi işaretleme alması yönünde başvuruların artmasına fayda sağlayacaktır.

Anahtar Kelimeler: Coğrafi İşaretleme, Bilgi Düzeyi, Demografik Özellikler

ABSTRACT

In order to prevent confusion between local values, to distinguish the product from imitations and to register the product with the place it is identified with, “Geographical Indication” has begun to be applied to products and flavors. It is reported that geographical indications may be one of the factors affecting the consumption and purchasing preferences of consumers. In this study, it is aimed to examine the knowledge levels of adult consumers about geographical indication.

This study was carried out on a total of 502 healthy individuals, 236 women and 266 men, aged between 18-60 years, between 10.02.2023 and 20.06.2023. As a result of the power analysis using the GPower 3.0.10 program; A total of at least 500 samples were found to be sufficient with 80% power and 5% margin of error. In the study, a questionnaire form was applied to the individuals by face-to-face interview method. The descriptive information (age, gender, marital status, education level, occupation, body weight and height) of the individuals and information about measuring the level of knowledge about geographical indications were questioned with the questionnaire form. Ethics commission permission of the research was obtained from Gazi University Ethics Commission with the meeting decision numbered 02 and dated 07 February 2023. Signed informed consent was obtained from all patients and this study was conducted in accordance with the Declaration of Helsinki. The SSPS 23.0 (Statistical Package of Social Sciences) program was used to evaluate the data to be obtained from the study and to create the tables. In all statistical analyses, significance was accepted at the $p<0.05$ level, with a confidence interval of 95%.

In the study, the mean age of male individuals (30.85 ± 10.61 years) was statistically significantly higher than female individuals (27.88 ± 9.68 years) ($p<0.05$). In addition, the rates of being married and living in the province were found to be higher in males ($p<0.05$). It is seen that the rate of being married is lower and the education level is higher for those who know the definition of geographical indication correctly in female gender and total participants than those who do not know ($p<0.001$). In addition, it was determined that the rate of living in the province was higher for those who knew the definition of geographical indication correctly in the female gender than those who did not ($p<0.05$). It was determined that the rate of knowing the advantages of having geographical indication of gastronomic products specific to the region was higher than those who did not know the definition of geographical indication correctly in both genders and total participants ($p<0.05$).

It can be concluded that some sociodemographic characteristics have an effect on knowing the definition of geographical indication correctly and knowing the correct definition of

geographical indication increases the rate of knowing the advantages of having geographical indication of gastronomic products specific to the region. Teaching the definition of geographical indication to individuals in society will help to realize the advantages of geographical indication and increase the number of applications for more local products to receive geographical indication in the coming years.

Keywords: Geographical Indication, Level of Knowledge, Demographics

**BESLENME ALIŞKANLIKLARININ KORONER ARTER HASTALIĞI GELİŞİMİ
ÜZERİNDEKİ ROLLERİNİN İNCELENMESİ**
INVESTIGATION OF THE ROLE OF NUTRITIONAL HABITS ON THE
DEVELOPMENT OF CORONARY ARTERY DISEASE

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ÖZET

Koroner arter hastalığı (KAH), dünya çapında ilk sıralarda yer alan en önemli morbidite ve mortalite nedenlerinden birisidir. Bu çalışmanın amacı öğün sayısı, yemeklerde tuz kullanımı, su ve toplam sıvı tüketimi gibi beslenme alışkanlıklarının KAH gelişimi üzerindeki rollerinin belirlenmesidir.

Bu çalışma 18 Aralık 2020-11 Ekim 2021 tarihleri arasında konvansiyonel koroner anjiyografi ile KAH tanısını yeni almış yaşları 35-75 yıl arasında olan 34 hasta birey (vaka grubu) ve konvansiyonel koroner anjiyografi ile KAH tanısı almamış 40 birey (kontrol grubu) üzerinde yürütülmüştür. Çalışmanın verileri anket formu aracılığıyla yüz yüze görüşme tekniği kullanılarak toplanmıştır. Anket formuyla bireylere ait tanımlayıcı bilgiler, (yaş, cinsiyet, medeni durum, eğitim düzeyi, sigara, alkol ve ilaç kullanma durumları) ve beslenme alışkanlıkları sorgulanmıştır. Çalışmadaki bütün katılımcıların antropometrik ölçümleri alınmış ve vücut bileşimi analizleri yapılmıştır. Araştırmanın etik kurul izni 26 Kasım 2020 tarih ve 810 karar no ile Gazi Üniversitesi Tıp Fakültesi Klinik Araştırmalar Etik Kurulu'ndan alınmıştır. Tüm katılımcılardan imzalı bilgilendirilmiş gönüllü olur formu alınmış ve çalışma Helsinki Bildirgesi'ne uygun olarak yürütülmüştür. Bu çalışma Gazi Üniversitesi Bilimsel Araştırma Projeleri Birimi tarafından TDK-2021-7067 kodu ile desteklenen 796516 nolu doktora tezinden üretilmiştir.

Bireylerin yaş ortalaması: vaka grubunda $57,44 \pm 7,89$ yıl, kontrol grubunda ise $54,95 \pm 7,69$ yıl olarak saptanmıştır ($p > 0,05$). Bireylerin hastalık durumu ile BKİ (kg/m^2), vücut ağırlığı (cm), vücut analizleri, medeni durum, eğitim durumu, sigara içme durumu, içilen sigara miktarı ve alkol kullanma durumu arasında istatistiksel olarak anlamlı ilişki olmadığı tespit edilmiştir ($p > 0,05$). Bireylerin hastalık durumu ile ana öğün sayısı, ara öğün sayısı, öğün atlama durumu, atlanan ana öğün, öğün atlama nedeni ve yemeklerin tadına bakmadan tuz atma alışkanlığı arasında anlamlı bir farklılık görülmemiştir ($p > 0,05$). Vaka grubundaki katılımcıların günlük su alım ortalamaları $1458,82 \pm 654,18$ mL, toplam sıvı alım ortalamaları ise $2491,18 \pm 804,67$ mL olarak saptanmışken, bu değerler kontrol grubunda sırasıyla $1800,00 \pm 778,23$ mL ve $2936,50 \pm 859,97$ mL'dir. Kontrol grubundaki bireylerin günlük su ve toplam sıvı alım ortalamalarının vaka grubuna göre daha yüksek olduğu görülmektedir ($p < 0,05$).

Koroner arter hastalarında sıvı tüketiminin düşük olabileceği ve beslenme alışkanlıkları sorgulanırken sıvı tüketiminin sorgulanması gerektiği sonucuna varılabilir. Bu nedenle kardiyovasküler sağlığın korunması için toplumdaki bireylere su tüketim alışkanlığının kazandırılması önem arz etmektedir.

Anahtar Kelimeler: Koroner Arter Hastalığı, Beslenme Alışkanlıkları, Antropometrik Ölçümler

ABSTRACT

Coronary artery disease (CAD) is one of the most important causes of morbidity and mortality worldwide. The aim of this study is to determine the role of dietary habits such as the number of meals, salt use in meals, water and total fluid consumption on the development of CAD.

The study was carried out on 34 male participants (case group) who were newly diagnosed with CAD by conventional coronary angiography between 18 December 2020 and 11 October 2021 and 40 male participants without CAD (control group) aged between 35-75 years. The data of the study were collected using a face-to-face interview technique through a questionnaire. Descriptive information about the participants (age, gender, marital status, education level, smoking, alcohol and drug use) and nutritional habits were questioned with the questionnaire form. Anthropometric measurements of all participants in the study were taken and body composition analyzes were performed. Gazi University Faculty of Medicine Clinical Research Ethics Committee approved the study on 26 November 2020 with approval number 810. All participants gave signed informed consent and the study was conducted in accordance with Helsinki Declaration. This study was produced from the doctoral thesis numbered 796516, which was supported by the Scientific Research Projects Unit of Gazi University with the code TDK-2021-7067.

The mean age of the participants was 57.44±7.89 years in the case group and 54.95±7.69 years in the control group ($p>0.05$). It was determined that there was no statistically significant relationship between the disease status of the participants and BMI (kg/m^2), body weight (cm), body analysis, marital status, education status, smoking status, amount of cigarette smoked, and alcohol use ($p>0, 0$). There was no significant difference between the disease status of the participants and the number of main meals, the number of snacks, the status of skipping meals, the main meal skipped, the reason for skipping meals, and the habit of using salt without tasting the meals ($p>0.05$). While the mean daily water intake of the participants in the case group was 1458.82±654.18 mL and the total fluid intake average was 2491.18±804.67 mL, these values were 1800.00±778.23 mL and 2936.50±859.97 mL in the control group, respectively. It is seen that the daily water and total fluid intake averages of the participants in the control group were higher than the case group ($p<0.05$).

It can be concluded that fluid consumption may be low in patients with coronary artery disease and fluid consumption should be questioned when questioning their nutritional habits. For this

reason, it is important for individuals in society to acquire the habit of water consumption in order to protect cardiovascular health.

Keywords: Coronary Artery Disease, Nutritional Habits, Anthropometric Measurements

**BRANDA KARKASI TASARIM İYİLEŞTİRME, HAFİFLETME VE KAYNAK
OPERASYONUNUN MİNİMİZE EDİLMESİ**

**IMPROVEMENT OF TARPAULIN FRAME DESIGN, LIGHTWEIGHTING, AND
MINIMIZATION OF WELDING OPERATIONS**

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ÖZET

Dünyada en çok kullanılan taşıma yöntemlerinden biri olan karayolu taşımacılığıdır. Karayolu taşımacılığında yarı römork araçlar çok önemli bir rol oynamaktadır. Yarı römorklar ailesinde yer alan hububat (kuru yük) taşıyıcı araçlarda, yüklü durumdayken kullanılması gereken branda, yüksüz durumdayken katlanarak yarı römorkta bir yerde taşınmalıdır. Bunun için yarı römorkün ön duvarında branda taşıma karkası bulunmaktadır. Yapılan tasarım değişikliği ile daha kolay üretim, daha ergonomik bir yapı ve yeşil dönüşüm kapsamında daha az kaynak kullanılarak CO2 salınımını azaltmak hedeflenmiştir.

Mevcut durumdaki branda karkası 1,1 m² yüzey alanına, 11,4 kg ağırlığa ve 720mm kaynak uzunluğuna sahiptir. Toplamda 17 adet parçanın birbirine kaynaklanmasıyla oluşturulan branda karkası kullanımı zor kafes yapısına sahiptir.

Yapılan çalışma ile branda karkası 0,8 m² yüzey alanına, 10,1 kg ağırlığa ve 440mm kaynak uzunluğuna sahip bir yapıya dönüştürülmüştür. Toplamda 7 adet parçanın birbirine kaynaklanmasıyla oluşturulan branda karkası daha ergonomik bir yapıya sahiptir.

Anahtar Kelime: Tasarım İyileştirme, Kaynak Azaltma, Parça Hafifletme

ABSTRACT

One of the most commonly used transportation methods in the world is road transportation. Semi-trailer vehicles play a significant role in road transportation. In the category of semi-trailers, tarpaulin (dry cargo) carrier vehicles require the tarp to be used when loaded and folded when unloaded, to be transported in a space on the semi-trailer. For this purpose, there is a tarp carrying frame on the front wall of the semi-trailer. The aim of the design modification is to achieve easier production, a more ergonomic structure, and a reduction in CO₂ emissions by using fewer resources in the context of green transformation.

The current state of the tarpaulin frame has a surface area of 1.1 m², weighs 11.4 kg, and has a welding length of 720mm. The tarpaulin frame created by welding a total of 17 pieces together has a complex cage structure that makes it difficult to use.

Through the conducted study, the tarpaulin frame has been transformed into a structure with a surface area of 0.8 m², weighing 10.1 kg, and having a welding length of 440mm. The tarpaulin frame, created by welding a total of 7 pieces together, has a more ergonomic structure.

Keywords: Design Improvement, Welding Reduction, Part Lightweighting

**AERODYNAMIC SOLUTIONS FOR SEMI TRAILERS AND VECTO
TOOL INFORMATIONS**

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ABSTRACT

With effect of the Paris Agreement, European Union Committees have target to reduce gas emission %30 percentage in 2030 and %50 percentage in 2050 year. All industries are working on reducing CO2 emissions during the manufacturing and their own products.

This study includes importance of aerodynamic effect on the vehicle and some examples of aerodynamic solutions for semi trailer according to the EU 2022/1362 directive that published by Working Part Organization.

Manufacturer can validate their aerodynamic product by using CFD analyses or physical tests.

In addition this, Vehicle Energy Calculation Tool (VECTO) has been published for using calculate aerodynamic efficiency for every registered vehicle after 1 July 2024. This study also includes some information about importance of the VECTO system.

Keywords: Aerodynamic, semi trailer, VECTO, directive

**KOMPLEKS ELEKTRİK PANO SACINDA TASARIM İYİLEŞTİRME,
HAFİFLETME VE KAYNAK OPERASYONUNUN MİNİMİZE EDİLMESİ**

DESIGN IMPROVEMENT, LIGHTENING AND RESOURCE REDUCTION IN
COMPLEX ELECTRIC CLIPBOARD SHEET

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ÖZET

Dünyada en çok kullanılan taşıma yöntemlerinden biri olan karayolu taşımacılığıdır. Karayolu taşımacılığında yarı römork araçlar çok önemli bir rol oynamaktadır. Bunun ile birlikte römorkün çekici ile birleşmesi için ön panosuna ihtiyaç duyulmaktadır. Bu pano çekicinin girmesine engel olmaması için açılı , aynı zamanda elektrik ve hava bağlantıları içinde uygun olması gerekmektedir.

Önceki durumda; malzeme 4mm kalınlığa sahip olup üç ayrı parçadan kaynaklı birleştirme yöntemi ile elde edilmektedir. Bu yöntemde 300mm kaynak uygulanmaktadır. Ayrıca ölçülerin doğruluğunun sağlanması için fikstür kullanılmaktadır.

Yapılan çalışma ile komplike bir malzeme haline getirildiğinden kalınlığı 3mm ye düşürülerek öncelikle hafifletilmesi sağlanmıştır. Böylece soğuk şekillendirmede oluşabilecek yırtılmaların da önüne geçilmiştir. Daha sonraki adım ise açığa sahip olan parçanın montaj noktaları değiştirilmeden abkant tezgahında seri şekilde bükülmesi için dayama noktaları uygun hale getirilmiş ve kaynak miktarı %65 oranında azaltılmıştır.

Anahtar Kelimeler: Tasarım İyileştirme, Kaynak Azaltma, Parça Hafifletme

ABSTRACT

It is road transport, which is one of the most used transportation methods in the world. Semi-trailer vehicles play a very important role in road transport. With this, a front board is needed to combine the trailer with the hammer. In order for this clipboard to prevent the hammer from entering, it must be angled, as well as suitable for electrical and air connections.

In the previous case; The material is 4mm thick and is obtained by the joining method from three separate parts. In this method, 300mm resources are applied. Fixtures are also used to ensure the accuracy of the measures.

Since it was made into a complicated material with the work done, it was reduced to 3mm in thickness and was primarily eased, so that the tears that could occur in cold forming were also prevented. The next step is that the loading points are adapted for the part with the angle to be bent in series on the abkant bench without changing the mounting points and the amount of welding is reduced by 65%

Keywords: Design Improvement, Resource Reduction, Part Lighting

VISIBILITY EVALUATION FOR BACKHOE LOADER OPERATORS

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ABSTRACT

A system has been designed to measure the visibility of construction machine operators and evaluated according to ISO standards. Visibility measurements were carried out with 2 different methods according to the ISO 5006 standard, these are the light bulb shadow test and the calculation test method. In the Light Bulb Shadow Test, two bulbs used to simulate the operator's eyes were mounted on a bar with a support frame. The 12-meter vision test circle was divided into six vision sectors and the test machine was placed in the center of the circle. Artificial light was provided in the dark environment and shadow or masking effects around the 12 m circle were measured manually. In the calculation method, the eyes were simulated and tested in the software with the drawing to be simulated. To conclude visibility evaluation is an effective way to enable proper and safe operation for construction machine operators. Including this visibility evaluation test in general testing might aid construction machine manufacturers. The results indicate that shading is present in Zone A, which is welded from the exhaust pipe. Zones B, C, D, and E exhibit shading due to cabin poles, while Zone F has a shading area created by the backhoe part. All the shadings occur at the standard's lower limit and confirm the machine's reliability according to ISO standards.

Keywords: Construction Machine, Field of view, Operator visibility, Test Standard

ROLES OF c-MYC, p53, pRB AND RAS IN CELL CYCLE AND APOPTOSIS

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ABSTRACT

In cell cycle, cell reproduces by duplication and distributes chromosome and other components of the cells into two daughter cells. Several proteins regulate this process through the phases of the cell cycle. Cell cycle includes 4 phases as G1, S, G2 and M. Born of each cell is completed in M phase which includes the mitosis and cytokinesis. Control of the cell cycle is important since many cancer cases are caused by the disruptions in the cell cycle regulation.

Programmed cell death is required for maintaining homeostasis, embryonic development, establishment of immune self-tolerance, killing by immune effector cells, and regulation of cell viability by hormones and growth factors. Both the extrinsic and intrinsic signals play role in this programmed cell death. Apoptosis is the mostly studied pathway for programmed cell death in which cell commits a suicide when dedicated intracellular program is activated.

There are many proteins playing roles in cell cycle and apoptosis. They are important for growing, reproduction and homeostasis of the cell. In this paper, c-Myc, p53, pRb and Ras proteins are examined for their roles in cell cycle and apoptosis.

Rb gene is a tumor suppressor gene which is inactive in most of the cancer. Its protein product which is retinoblastoma protein (Rb) prevents cell growth by inhibiting cell cycle progression in G1 until the cell is ready to divide. Therefore, it is important for preventing unprepared cell division. If it fails to prevent cell dividing before it is ready, other factors can be stimulated to induce apoptosis.

TP53 is tumor suppressor gene and its product p53 protein is guardian of the genome which is also called as master regulator. It plays roles in cell proliferation and apoptosis as a negative regulator of genome. p53 protects cell against genomic rearrangement and accumulation of mutations by responding DNA damage. p53 prevents genomic instability and oncogene expression by arresting cell from cell cycle or inducing apoptosis.

Myc is a protooncogene that can be oncogene to cause cancer if it is produced in a deregulated manner. Its protein product Myc can act as a transcription factor for driving expression of a large cohort of target genes products of which drives the cell cycle progression. Gene products of these genes affect and enhance cell proliferation.

Ras is also a protooncogene which can turn into oncogene to cause cancer. Binding of growth factors to receptors of protein product Ras in cell membrane causes downstream signaling for Ras to become active and promote proliferation.

Since inducing apoptosis would inhibit the tumor development, inhibiting of the apoptosis is one of the hallmarks of cancer. In cancer, tumor suppressor genes are mutated and oncogenes are overexpressed. Since *Myc* and *Ras* are protooncogenes, their over-expression makes them oncogene to induce tumor development. Thus, apoptosis cannot be activated and cancer cells can proliferate.

In conclusion, cell cycle is tightly regulated according to environmental stimuli and cellular stress in order to promote proliferation of the cells properly and prevent cancer development. c-Myc, p53, pRb and Ras proteins play tremendously important roles in regulating cell cycle and apoptosis.

Keywords: Cell Cycle, Apoptosis, Cell Cycle Regulation, Tumor Suppressor Gene, Oncogene, p53, Ras

**ANALYSIS OF SURFACE MORPHOLOGY DEFORMATIONS IN S960QL STEEL
MATERIAL AT VARIOUS AMPERAGE VALUES**

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ABSTRACT

The aim of this study is to achieve higher strength by using S960QL steel instead of conventional steel materials commonly used in the automotive industry. S960QL material, which is a high-strength steel, offers many advantages in terms of mechanical properties due to its high yield strength (960 MPa) and tensile strength (980/1150 MPa). In this study, MIG welding was performed on S960QL material with different heat inputs and various amperage values. Sample specimens were taken from the welded S960QL material, and Scanning Electron Microscope (SEM-EDX) analysis, SEM-EDS mapping, and X-Ray Diffraction (XRD) examinations were conducted. As a result of the conducted research, the changes in surface morphology due to heat input were investigated.

Keywords: S960QL, MIG welding, SEM, Surface Morphology"

OKUL EĞİTİMİNDE YARATICILIĞIN GELİŞTİRİLMESİNDE ARİZ YÖNTEMİ
ARIZ METHOD IN DEVELOPING CREATIVITY IN SCHOOL EDUCATION

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ÖZET

Ülkelerin eğitim sistemlerinde alternatif yaklaşımların önemi giderek artmaktadır. Bu bağlamda, alternatif eğitim yöntemlerinin etkileri ve faydaları üzerine yapılan bilimsel araştırmalar da dikkat çekmektedir. Araştırmacılar, alternatif eğitim yaklaşımlarının öğrenci merkezli öğrenme ortamları oluşturarak, öğrencilerin özgüvenlerini ve öğrenme motivasyonlarını artırabileceğini vurgulayarak bu metotlarının öğrenci yaratıcılığını desteklediği ve problem çözme becerilerini geliştirdiği gözlemlenmiştir. Alternatif eğitim yaklaşımlarının geleneksel eğitim modellerine kıyasla daha esnek ve kişiye özel bir öğrenme deneyimi sunabileceği sonucuna varılmıştır. Bu nedenle, geleceğin eğitim sisteminde alternatif yaklaşımlara daha fazla yer verilmesi ve bu yaklaşımların etkilerinin daha kapsamlı şekilde araştırılması önerilmektedir.

TRİZ (Yaratıcı Problem Çözme Tekniği), pedagoji alanında alternatif ve etkili bir yaklaşım olarak dikkat çekmektedir. Kökeni mühendislik ve yenilik alanlarına dayanan bir problem çözme metodolojisi olsa da, son yıllarda eğitimde de kullanılan TRİZ pedagojisinin öğrencilere yaratıcı düşünme ve problem çözme becerileri kazandırmada etkili olduğu görülmüştür. Özellikle STEM (Science, Technology, Engineering, Mathematics) alanlarında öğrencilerin analitik düşünme ve yenilikçi yaklaşımlarını geliştirmede potansiyel taşıdığı görülmektedir. TRIZ pedagojisi, öğrencilerin problem çözme süreçlerini derinlemesine anlamalarını ve farklı disiplinler arası bağlantıları kurabilmelerini teşvik ederek, geleceğin karmaşık zorluklarına daha etkili çözümler üretmelerine yardımcı olabilir. Bu çalışmanın amacı, okul çocuklarının eğitiminde TRIZ'in algoritmik yapısını oluşturan ARIZ araçlarının kullanımına yönelik pratik örnekleriyle beraber bilgiler vermektir.

Anahtar Kelimeler: Eğitimde Alternatif Yaklaşımlar, TRİZ Uygulamaları, Problem Çözme, Yaratıcılık

ABSTRACT

The importance of alternative approaches in the education systems of countries is gradually increasing. In this context, scientific research on the effects and benefits of alternative education methods draws attention. Researchers emphasized that alternative education approaches can increase students' self-confidence and learning motivation by creating student-centered learning environments, and observed that these methods support student creativity and improve problem-solving skills. It has been concluded that alternative education approaches can offer a more flexible and personalized learning experience compared to traditional education models. For this reason, it is recommended to include more alternative approaches in the education system of the future and to investigate the effects of these approaches more comprehensively.

TRIZ (Creative Problem Solving Technique) draws attention as an alternative and effective approach in the field of pedagogy. Although its origin is a problem-solving methodology based on engineering and innovation, TRIZ pedagogy, which has also been used in education in recent years, has been found to be effective in helping students gain creative thinking and problem-solving skills. Especially in STEM (Science, Technology, Engineering, Mathematics) fields, it is seen that students have the potential to develop analytical thinking and innovative approaches. TRIZ pedagogy can help students produce more effective solutions to the complex challenges of the future by encouraging students to gain a deep understanding of problem-solving processes and to make connections between different disciplines. The purpose of this study is to provide information with practical examples of the use of ARIZ tools, which form the algorithmic structure of TRIZ, in the education of school children.

Keywords: Alternative Approaches in Education, TRIZ Applications, Problem Solving, Creativity

**THERMAL AND CATALYTICAL EFFECTS OF EGGSHELL ON THE
PERSULFATE OXIDATION OF AZE DYE**

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ABSTRACT

The textile industry, which has grown rapidly in the last ten years, has also created various environmental problems. Textile factories that use various dye types depending on their production processes use high amounts of water in each of the cleaning, rubbing, bleaching, dyeing, etc. stages. Depending on the production processes and differences in raw materials and products, the properties of textile wastewater can vary greatly. However, in the end, the common feature of all of them is that the waste textiles wastewaters from the mentioned enterprises contain various organic compounds and toxic substances that are harmful to humans, especially to fish and other aquatic organisms, and even known to be carcinogenic. If the treatment of these wastewater discharged into natural receiving waters is ensured, these health risks can be eliminated and they can be brought to acceptable levels for public consumption. Therefore, the removal of dyes from textile wastewater is essential.

This study has been carried out to investigate the effect of the persulfate oxidation method, which is known to be effective, on the removal of Astrazon brilliant red, an azo dye that is determined as a model pollutant. The response surface methodology (RSM) was applied to determine the effects of temperature on persulfate oxidation, hydrolyzed eggshell used as a catalyst, as well as application time and persulfate concentration.

The highest (97.45%) color removal was obtained at 333 K of temperature, using 0.1 g/L of hydrolyzed eggshell and 0.004 mM of $K_2S_2O_8$ in 47.5 min of treatment time. ANOVA exhibited that the applied RSM model was significant according to the model and lack of fit F values of 23.67 and 4.03, respectively. Also, R^2 and adjusted R^2 were 0.9567 and 0.9163, respectively. According to the approximation model obtained, though the concentration of $K_2S_2O_8$ is the most favorable parameter in the color removal, eggshell was also catalyzed $K_2S_2O_8$ to obtain radical species, which play essential roles in the degradation process.

Keywords: Eggshell, Persulfate, Azo dye, Textile, wastewater

**DEPREM SONRASI KULLANIMLARI İÇİN AÇIK YEŞİL ALANLARIN
PLANLAMA VE YÖNETİMİ**
PLANNING AND MANAGEMENT OF OPEN GREEN SPACES FOR AFTER
EARTHQUAKE

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ÖZET

İnsanlar varoluşlarından itibaren doğanın kaynaklarına bağlı olarak yaşamaktadır. Önceleri doğal alanlar üzerinde başlayan yaşam alanları sonradan doğaya hükmeden yaşam alanlarına dönüşmüştür. Bunun sonucunda kentler ve metropol alanlar oluşmuştur. Bazı kentler kentleşme süreciyle doğal alan ve kaynaklarını korusa da pek çoğu doğal niteliklerden uzak kalmıştır. Kent yaşamının insanlara sunduğu pek çok fırsat yanında insanın fiziksel ve ruhsal varlığına hizmet eden açık yeşil alanlar birçok kentte yetersiz kalmıştır. Açık yeşil alanlar günlük hayatta birçok fonksiyonu üstlenerek insanlara faydalı olmasının yanı sıra özellikle felaket sonralarında insanlar için ekstra görevler üstlenerek yaşamın devamını sağlamakta ve kolaylaştırmaktadır. Bu çalışmada Türkiye gibi deprem ülkesi birçok ülkede deprem sonrasında açık yeşil alanların kullanım planlaması ve yönetimine ilişkin değerlendirmeler yapılmıştır. Dünya’da ve Türkiye’de yaşanan deprem felaketleri sonrasında izlenen ihtiyaç ve kriz çözümlerinden yola çıkılarak yönetici ve karar vericilere rehber olabilecek bir açık alan kullanım stratejisi üretilmiştir.

Anahtar Kelimeler: Doğal afetler, Deprem, Açık Yeşil Alanlar, Alan Yönetimi, Alan Planlama.

ABSTRACT

People have been living depending on the resources of nature since their existence. The living spaces, which first started on natural areas, later turned into living spaces that dominate nature. As a result, cities and metropolitan areas were formed. Although some cities protect their natural areas and resources with the urbanization process, most of them have remained away from natural qualities. In addition to the many opportunities that urban life offers to people, areas such as open green spaces that serve the physical and spiritual existence of people have been insufficient in many cities. In addition to being beneficial to people by undertaking many functions in daily life, open green spaces provide and facilitate the continuation of life by taking on extra tasks for people, especially after disasters. In the study, evaluations were made regarding the use planning and management of open green spaces that can be applied after the earthquake in many countries. In the study, earthquake disasters were reviewed in the world and in Turkey, an open space usage strategy was produced by evaluating the needs and crisis. The solutions can help the city managers and decision makers.

Keywords: Natural Disasters, Earthquake, Open Green Areas, Land Management, Landscape Planning.

RUMİNANTLARDA BAZI ALTERNATİF KABA YEM KAYNAKLARI
SOME ALTERNATIVE ROUGHAGE SOURCES IN RUMINANTS

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ÖZET

Hayvan beslemede kuru madde oranı yüksek olan birçok madde (samanlar, kuru otlar, silajlar, kök yemler, yumru yemler, vs) kaba yem kaynağı olarak kullanılabilir. Kaliteli kaba yem tüketimi ise kesif yemlere ihtiyacı azaltmaktadır. Birçok ülkede olduğu gibi ülkemizde de tahıllar en fazla yetiştirilen bitki grubudur. Bu bitkilerden elde edilen ot kısmı ise temel kaba yem kaynağını oluşturmaktadır. Ancak rasyonların ekonomik şekilde getirilmeye çalışılması veya tahıl kaynaklı yeterince kaba yem üretilmemesi ise farklı kaba yem kaynaklarına ihtiyaç duyulmasına neden olmaktadır. Ayrıca bitki kaynaklı endüstri yan ürünlerinin de ekonomiye kazandırılması amacı ile farklı kaba yem kaynakları üretilmeye çalışılmaktadır. Bu bildiride ruminant besleme kullanılabilecek farklı kaba yem kaynakları hakkında bilgiler verilmeye çalışılmıştır.

Anahtar kelimeler: Ruminant, alternatif kaba yem

ABSTRACT

Many materials with high dry matter content in animal nutrition (straw, hay, silage, root fodder, tuber fodder, etc.) can be used as a source of roughage. Consumption of high-quality roughage reduces the need for concentrated feed. As in many countries, cereals are the most grown plant group in our country. The grass part obtained from these plants constitutes the main roughage source. However, trying to make the rations economically or not producing enough roughage from grain causes the need for different roughage sources. In addition, different roughage sources are tried to be produced in order to bring plant-based industrial by-products to the economy. In this paper, it has been tried to give information about different roughage sources that can be used in ruminant feeding.

Keywords: Ruminants, alternative roughage sources

İTFAYE KÖPEKLİ ARAMA KURTARMA EKİPLERİNİN KAPASİTESİNİN BELİRLENMESİ

DETERMINATION OF FIRE BRIGADE SEARCH AND RESCUE TEAMS CAPACITIES

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ÖZET

Bu çalışmada İtfaiye bünyesindeki köpekli arama-kurtarma ekiplerinin kapasitesi incelenmiştir. Türkiye'nin farklı illerinde bulunan 9 çalışanla yapılan anket sonuçları değerlendirilmiştir. Araştırmanın örneklem grubunu oluşturan katılımcılar 18-49 yaş arasındaki çalışanlardan oluşmaktadır. Mesleki deneyimleri 0-20 yıl arasında olan çalışanların hepsinin köpekli arama eğitimi aldıkları ve toplamda 37 arama kurtarma köpeğine sahip oldukları görülmüştür. Çalışanlar genellikle arazide kayıp ve enkaz-göçük vakaları konusunda tecrübe sahibidirler. Çalışanların büyük çoğunluğu köpekli arama kurtarma ekipmanlarını etkin olarak kullanmaktadırlar. Hayvan kurtarmada başarı düzeyini artırmak için katılımcılar köpekli arama-kurtarma sırasında İtfaiye haricinde AFAD, gönüllü kuruluşlar, kayıpların yakınları, askeri arama-kurtarma birlikleri ve görgü tanıklarıyla da işbirliği içinde çalışmalarını yürütmektedirler.

Anahtar kelimeler: İtfaiye, köpekli arama kurtarma

ABSTRACT

In this study, the capacities of the fire brigade canine search and rescue teams were examined. The data were collected as a result of the survey conducted with 9 employees in different provinces of Turkey. Participants in the sample group of the study consisted of individuals aged 18-49. The professional experience of the employees is between 0-20 years, and it is seen that all of them received canine search and rescue training and they have a total of 37 search and rescue dogs. Employees often encounter cases of lost in field and dents. The vast majority of

employees have canine search and rescue equipment. It is seen that the participants are working in cooperation with AFAD, volunteer organizations, relatives of the disappeared people, military search and rescue units and eyewitnesses besides the fire brigade.

Keywords: Fire brigade, canine search and rescue

UNILATERAL UTERINE PROLAPSE IN PERSIAN CAT

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ABSTRACT

Uterine prolapse, which is rarely observed and reported in queens, usually occurs immediately after parturition/abortion or within 48 hours in primiparous and multiparous cats. There are two types of prolapse: complete or bilateral prolapse, in which both uterine horns prolapse, and unilateral prolapse, in which one uterine horn prolapses with or without the uterine body. Prolapse can be caused by the protrusion of both horns from the vulva or by the protrusion of only one part of the uterine body. Although the exact cause of uterine prolapse is unknown, powerful oxytocin-induced contractions during labor, extreme dilatation of the cervix, relaxation and stretching of the pelvic musculature, and incomplete separation of the placental membranes are all risk factors.

A Persian cat that was 10 months old and weighed 2.93 kilograms was brought into the Department of Obstetrics and Gynecology at the Faculty of Veterinary Medicine at Siirt University. She was suffering from unilateral uterine prolapse. She had her first litter and delivered one kitten that was still alive. Five hours after parturition, the owner discovered that the vulva was still displaying a large, red mass that had protruded from it. On examination, it was determined that the uterus had prolapsed unilaterally. The cat's body temperature was 39.0°C, his heart rate was 130 beats/per minute, and his respiratory rate was 25/minute. The hematological blood values were within the acceptable range. She was determined to be surgically suitable. However, the owner did not want to have the cat ovariohysterectomy later in order to have offspring. The owner insisted on the rejection of the prolapsed tissues. At the request of the cat owner, the prolapsed tissue was cleaned with an antiseptic solution (povidone iodine 0.2%). It was washed with hyperosmotic dextrose solution (30% dextrose) to reduce edema. The tissue was rejected by gently massaging. The patient was examined approximately once every seven days for approximately one month. Additionally, it was observed that his health improved without any complication. She returned to good health.

Keywords: Persian cat, Uterine prolapse,

GHRELİN VE CAPSAİCİN
GHRELIN AND CAPSAICIN

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ÖZET

Ghrelin, öncelikli olarak midedeki endokrin X(A) hücreleri tarafından salgılanan polipeptid yapıda bir hormondur. Ghrelin, büyüme hormonunun salınımı, enerji dengesi, besin alımı ve vücut ağırlığının ayarlanmasında görev alır. 28 aminoasitten oluşan moleküler yapıya sahip olan ghrelin etkisini özellikle kendisine özgü olan büyüme hormonu salgılatıcı reseptöre bağlanarak gösterir. Merkezi sinir sistemi aracılığı ile reproduktif sistemin kontrol edilmesinde de rol oynadığı düşünülmektedir.

Ghrelinin sentezi büyük oranda midede gerçekleşmesine rağmen bağırsak, kalp, böbrek, karaciğer, akciğer, pankreas, plasenta gibi birçok organda varlığı tespit edilmiştir. Büyüme hormonu salgılatıcı hormonun salınımını uyaran ghrelin, başta kemik, kıkırdak, kas olmak üzere vücudun büyüme yeteneğinde olan hemen bütün dokularında dolayısıyla metabolizma üzerinde etkin bir role sahiptir.

Acı kırmızı biber, botanik biliminde Solanacea familyasına ait bir bitki olup, Capsicum annum olarak tanımlanmaktadır. Capsaicin, acı kırmızı biberin etken maddesidir. Capsaicin; capsaicine duyarlı primer sensorik fibrillerden substans P(SP) ve kalsitonin gen-ilişkili peptid (CGRP) salınımını uyarak, hücrelerin metabolik aktivitelerini artırır ve hiperemi oluşumunu uyarır. Aynı zamanda histolojik incelemeler ile capsaicin uygulamalarının doku hasarlarını azalttığı, belli kanser hücrelerinde apoptozu indükleyerek kanserde koruyucu rolü olduğu da gösterilmiştir.

Ayrıca, capsaicinin karbonhidrat metabolizmasını ve karaciğer enzimlerinin aktivitesini arttırdığı, lipid metabolizmasını uyarak yağ dokudaki lipidin yakılmasını kolaylaştırdığı, oksijen tüketimini arttırdığı, solunumu başlangıçta arttırdığı sonra azalttığı, serum glikoz ve insülin seviyesini arttırdığı, karaciğer glikojeninde hızlı bir azalmayla birlikte serum trigliseridlerinde dereceli artış sağladığı, dolaşım sisteminin fonksiyonuna yardımcı olduğu ve bunun sonucunda metabolizma üzerine genel uyarıcı etki yaptığı belirtilmiştir.

Capsaicin ve ghrelin, bir çok organ, sistem ve metabolizma üzerinde etkin rol almaktadır. Bu incelemede, capsaicin uygulamalarının ghrelinin ekspresyonu ve fonksiyonları üzerindeki etkilerinin, literatür bilgisi ve tamamlamış olduğum çalışmaların bulguları doğrultusunda değerlendirilmesi amaçlanmıştır.

Anahtar Kelimeler: Capsaicin, Ghrelin, Metabolizma

ABSTRACT

Ghrelin is a polypeptide hormone secreted primarily by endocrine X(A) cells in the stomach. Ghrelin is involved in the release of growth hormone, energy balance, food intake and body weight regulation. With a molecular structure of 28 amino acids, ghrelin exerts its effect by binding to a specific growth hormone secretagogue receptor. It is also thought to play a role in controlling the reproductive system via the central nervous system.

Although the synthesis of ghrelin occurs mostly in the stomach, its presence has been detected in many organs such as intestine, heart, kidney, liver, lung, pancreas and placenta. Ghrelin, which stimulates the release of growth hormone-releasing hormone, has an active role in almost all tissues of the body capable of growth, especially bone, cartilage and muscle, and thus on metabolism.

Red hot pepper, known as *Capsicum annum*, belongs to Solanacea family in botany. Capsaicin is the pungent extract of red hot pepper. Capsaicin (N-vanillyl-8-methyl-alpha-nonenamide) is a spicy component of hot chilli pepper. Capsaicin induces hyperaemia produced by substans P(SP) and calcitonin gene-related peptide (CGRP) release from capsaicin-sensitive primary sensory fibres, which increases the metabolic activity of the cells. Histological investigations also revealed that the capsaicin treatment significantly reduces tissue damage, induces certain cancer cells to undergo apoptosis and has a putative role in cancer chemoprevention.

It has also been reported that capsaicin increases carbohydrate metabolism and the activity of liver enzymes, facilitates the burning of lipid in adipose tissue by stimulating lipid metabolism, increases oxygen consumption, increases respiration initially and then decreases it, increases serum glucose and insulin levels, provides a gradual increase in serum triglycerides with a rapid decrease in liver glycogen, helps the function of the circulatory system and as a result has a general stimulating effect on metabolism.

Capsaicin and ghrelin play an active role in many organs, systems and metabolism. In this review, it was aimed to evaluate the effects of capsaicin administration on the expression and functions of ghrelin in accordance with the literature and the findings of the studies I have completed.

Keywords: Capsaicin, Ghrelin, Metabolism

WEST NİLE VİRUS VE TEK SAĞLIK KONSEPTİ

WEST NILE VIRUS AND ONE HEALTH CONCEPT

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ÖZET

West Nile Virus (WNV), vektör sivrisineklerin, omurgalı rezervuarların ve son konakçıların etkileşimini gerektiren karmaşık bir yaşam döngüsüne sahip bir arbovirüstür. Klinik olarak, WNV enfeksiyonu hem beşeri hem de veteriner sahada tespit edilebilmektedir. İklim koşulları, özellikle ortam sıcaklığı ve yağış, endemik bölgelerde sivrisinek bolluğunun ve WNV'nin çoğalmasını ve enfeksiyon dinamizmini etkileyen temel faktörlerdir.

WNV enfeksiyonu, sınırları aşan bir sağlık problemidir ve Tek Sağlık konseptinin bir konusudur. WNV'nin endemik olmayan bölgelere yayılabilmesinde etkili olan çeşitli faktörler vardır. Bu faktörlerden bazıları sivrisineklerin gemiler, uçaklar veya rüzgarla taşınmasıdır. Kuş göçü, kuş ticareti ve insan hareketleri de WNV'nin yayılmasında etkili olabilecek diğer faktörlerdir. Virusun sınırları aşabilmesi ile ilgili hipotez, 1998'de İsrail'de ölü bir kazdan izole edilen BNV_{NY99} ve BNV arasındaki yakın genetik ilişki ile desteklenmiştir.

Çalışmalar, hayvanlarda olduğu kadar insanlarda da WNV prevalansı ile çevre arasındaki ilişkinin önemli olduğunu göstermiştir. Arazi kullanımı, kentleşme ve tarım gibi insan faaliyetleri tarafından WNV rezervuarlarının ve vektörlerinin doğal yaşam alanlarının değiştirilmesi, endemik bölgelerde insanlarda WNV prevalansının artmasına neden olmuştur. Avrupa'da, arazi sulama ile artan WNV enfeksiyonu insidansı arasında doğrudan bir ilişki tespit edilmiştir. Ayrıca pirinç tarlaları, durgun sular ve sulak alanlar, sivrisineklerin çoğalması için elverişli ortamlar sağlayarak WNV enfeksiyonunun insidansının artmasına neden olmaktadır.

İnsanlardaki WNV enfeksiyonu insidansı hava sıcaklığı ve yağış durumu ile ilişkilendirilmiş, ve dolayısıyla WNV'nin mevsimsel durumla yakın ilişkili olduğu gösterilmiştir. Araştırmacılar, 1999'daki ABD BNV salgınının, aşırı yaz sıcaklıkları ve yağmurları takiben sivrisinek popülasyonundaki aşırı artışın sonucu olduğunu ileri sürdüler. Ayrıca, Avustralya'da 2011 WNV_{KUN} enfeksiyonunun patlaması, Doğu Avustralya'da meydana gelen muazzam bir sel olayının ardından artan *Cx annulirostris* popülasyonunu ile ilişkilendirilmiştir.

Küreselleşme, seyahat ve ticaret de endemik olmayan bölgelere WNV'nin yayılması ile ilişkilendirilmiştir. Birleşik Krallık'ta bildirilen tüm WNV enfeksiyonu vakaları, genellikle endemik bölgelere yapılan seyahatlerle ilişkilendirilmiştir. Seyahatlere ek olarak, WNV insidansının, insanların kültürü, gelenekleri ve davranışlarıyla ilişkili olduğuna dair kanıtlar bulunmaktadır.

Çoğu viral enfeksiyonda olduğu gibi, BNV enfeksiyonu için spesifik bir tedavi yoktur. Şu anda hastalığın kontrolü, atların aşılınması, vektör kontrolü ve insanlar ve diğer duyarlı türler için aşı geliştirilmesinden oluşmaktadır.

Bu kapsamda, Batı Nil Virus ve Tek Sağlık Konsepti açısından önemine vurgu yapılması hedeflenmiştir. WNV ile ilgili çalışmaların insan ve hayvan sağlığına önemli katkılar sağlayacağı düşünülmektedir.

Anahtar Kelimeler: Batı Nil Virusu, Arbovirus, Tek Sağlık Konsepti

ABSTRACT

West Nile Virus (WNV) is an arbovirus with a complex life cycle that requires the interaction of vector mosquitoes, vertebrate reservoirs, and final hosts. WNV infection can be detected clinically in both humans and animals. Climatic conditions, especially ambient temperature and **rainfall**, are the main factors affecting the mosquito quantity, proliferation of WNV and infection dynamism in endemic areas.

WNV infection is a cross-border health problem and is a subject of the One Health concept. There are several factors that affect the spread of WNV to non-endemic areas. Some of these factors are the transportation of mosquitoes by ships, airplanes or wind. Bird migration, bird trafficking, and human movements are other factors that may contribute to the spread of WNV. The hypothesis that the virus could cross borders was supported by the close genetic relationship between BNV_{NY99} and BNV, which was isolated from a dead goose in Israel in 1998.

Studies have shown that the relationship between WNV prevalence and the environment is important in humans as well as animals. Alteration of natural habitats of WNV reservoirs and vectors by human activities such as land use, urbanization, and agriculture has resulted in increased prevalence of WNV in humans in endemic areas. In Europe, a direct relationship has been found between land irrigation and an increased incidence of WNV infection. In addition, rice fields, stagnant waters and wetlands provide favorable environments for mosquito reproduction, leading to an increased incidence of WNV infection.

The incidence of WNV infection in humans has been associated with air temperature and precipitation, and thus WNV has been shown to be closely related to seasonal status. Moreover, the researchers suggested that the US WNV epidemic in 1999 was the result of the extreme increase in the mosquito population following extreme summer temperatures and rains. Furthermore, the 2011 outbreak of WNV_{KUN} infection in Australia has been associated with an increased population of *Cx annulirostris* following a massive flooding event in eastern Australia.

Globalization, travel and trade have also been associated with the spread of WNV to non-endemic areas. All reported cases of WNV infection in the UK have generally been associated

with travel to endemic areas. In addition to travel, there is evidence that the incidence of WNV is associated with people's culture, customs, and behavior.

As with most viral infections, there is no specific treatment for WNV infection. Currently, disease control consists of equine vaccination, vector control, and vaccine development for humans and other susceptible species.

In this context, it is aimed to emphasize the importance of West Nile Virus and One Health Concept. It is thought that studies on WNV will make significant contributions to human and animal health.

Keywords: West Nile Virus, Arbovirus, One Health Concept

SIĞIRLARDA EMBRİYO ÜRETİMİ VE TRANSFERİ
EMBRYO PRODUCTION AND TRANSFER IN COW

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ÖZET

Türkiye hayvan sayısı bakımından Avrupa Birliği'nde 2. Dünyada ise 6. Sıradadır. Hayvan sayılarının yüksek olmasının aksine verim düzeylerinin düşük olması nedeniyle hayvansal gıda üretimi açısından lider ülkelerin oldukça gerisinde yer almakta ve hala en büyük hayvan ithalatçısı ülkeler arasında bulunmaktadır. Teknolojinin ilerlemesi ve bilimsel çalışmaların artması ile biyoteknolojinin hayvancılık sektörüne faydaları da artmaktadır. Suni tohumlama, İn vivo - in vitro embriyo üretimi ve transferi, oosit, sperma ve embriyo dondurma, transgenik hayvan üretimi, klonlama, embriyonik kök hücre teknolojisi ve nanoteknoloji ileri yardımcı üreme teknikleri (YÜT)'dir. Embriyo transferi, in vivo veya in vitro yolla üretilmiş embriyoların senkronize edilen taşıyıcılara transfer edilmesidir. Sığırlarda embriyo üretimi ve transferi üstün genetik özelliklere sahip gen kaynağının kısa sürede çoğaltılması, gen kaynağının transferi ve korunması, hastalıkların kontrolü ve korunması, cinsiyeti belirlenmiş yavru elde edilmesi, ikizliğin artırılması amacıyla kullanılmaktadır. Sığırlarda ise embriyo transferi (ET) ilk kez 1949 yılında denenmiş fakat ET ile ilk buzağı 1951 yılında doğmuştur. In vitro fertilizasyon (IVF) ile ilk canlı yavru 1959 yılında tavşandan, 1981 yılında ise inekten elde edilmiştir. In vitro embriyo üretimi (IVEP) ile ilk buzağı 1987'de doğmuştur. Ülkemizde yapılan ilk in vitro embriyo üretimi tavşanlarda 1984 yılında gerçekleştirilmiştir. İn vivo embriyo üretimi donör hayvanların seçimi, senkronizasyon ve süperovulasyon uygulamaları, suni tohumlama, embriyoların rektovaginal yolla toplanması, değerlendirilmesi ve transfer yada dondurulması aşamalarını içermektedir. İn vitro embriyo üretimi ise oosit toplama, maturasyon, fertilizasyon ve kültür aşamalarını içermektedir. Elde edilen embriyolar taşıyıcı hayvanlara transfer edilebilmekte yada daha sonra transfer edilmek üzere dondurularak saklanabilmektedir. Sunulan çalışmada sığırlarda embriyo üretimi ve transferi konularında bilgi verilmeye çalışılacaktır.

Anahtar Kelimeler: Sığır, Embriyo, İn vivo, İn vitro, Transfer

ABSTRACT

The number of animals in Türkiye is 2nd in the European Union and 6th in the world. Due to the low yield limit in achieving the high results of animal numbers, it is far behind the leading schools in terms of animal food production and is still among the largest animal importing countries. With the advancement of technology and scientific uses, the benefits of biotechnology to the livestock industry are also increasing. Artificial insemination, in vivo - in vitro Embryo production and transfer, oocyte, semen and embryo freezing, transgenic animal production, cloning, embryonic stem cell technology and nanotechnology are advanced assisted reproduction (ART) techniques. Embryo transfer is the transfer of embryos produced in vivo or in vitro to synchronized carriers. Embryo production and transfer in cattle are used to reproduce the gene source with superior genetic characteristics in a short time, transfer and protect the gene source, control and protect the diseases, obtain sex-determined offspring, and increase twinning. In cattle, embryo transfer (ET) was first tried in 1949, but the first calf with ET was born in 1951. By in vitro fertilization (IVF), the first live offspring was obtained from a rabbit in 1959 and from a cow in 1981. The first calf with in vitro embryo production (IVEP) was born in 1987. The first in vitro embryo production in our country was carried out in rabbits in 1984. In vivo embryo production includes selection of donor animals, synchronization and superovulation practices, artificial insemination, rectovaginal collection, evaluation and transfer or freezing of embryos. In vitro embryo production includes oocyte collection, maturation, fertilization and culture stages. The resulting embryos can be transferred to surrogate animals or stored frozen for later transfer. In the presented study, it will be tried to give information about embryo production and transfer in cattle.

Keywords: Bovine, Embryo, In vivo, In vitro, Transfer

KOYUN VE KEÇİLERDE İNVİVO EMBRİYO ÜRETİMİ VE TRANSFERİ

INVIVO EMBRYO PRODUCTION AND TRANSFER IN SHEEP AND GOATS

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ÖZET

Küçükbaş hayvan üretimi dünya çapında önemli bir sosyoekonomik ve çevresel role sahiptir. Koyun ve keçiler, küresel gıda ve yün üretiminde önemli katkılar sağlar. Sürekli artan dünya nüfusunda, küçükbaş hayvanlar, esas olarak gelişmekte olan ülkelerin ekonomileri için ve özellikle sert iklim koşullarına veya verimsiz topraklara sahip olanlar için önemli bir role sahiptir.

Hayvancılık alanında biyoteknolojik yöntemlerden yararlanarak birim hayvan başına verimin artırılabilmesi ve yüksek verimli yavrular elde edilebilmesinin yanı sıra memeli hayvanların mevcut gen kaynaklarının korunması için de sürekli gelişen ve yeni boyutlar kazanan birçok yardımcı üreme teknikleri kullanılmaktadır. Küçükbaş hayvanlar mevsimsel üremeye sahip oldukları için bu türlerde genetik kazanımı iyileştirmek adına yardımcı üreme teknolojileri daha da önemli hale gelmiştir. Bu biyoteknolojik yöntemler ile birim zamanda yüksek verimli hayvanlardan çok sayıda yavru elde edilebilmesi, üstün erkek veya dişi genotipin yaygınlaştırılabilmesi, düşük verimli dişilerin taşıyıcı olarak daha etkin kullanılabilmesi mümkündür. Ayrıca embriyo transferi sayesinde embriyoların dondurularak uzun yıllar saklanması ve kolaylıkla farklı bölgelere nakli sağlanabilir. Dondurulan embriyolar ile canlı hayvan ithalatı yerine embriyo ithalatı sağlanarak maliyet düşürülüp hastalıkları taşıma riski de azaltılabilir. Ayrıca mevcut popülasyonları yok olma tehlikesi ile karşı karşıya olan yerli hayvan türlerine ait embriyoların dondurularak genetik materyallerin uzun süre saklanması da mümkün olabilmektedir. Günümüzde kullanılan yardımcı üreme tekniklerinin başlıcaları; suni tohumlama, embriyo transferi ve embriyoların dondurulması tekniğidir.

Bu çalışma; koyun ve keçilerde invivo embriyo üretimi ve transferi aşamalarının özetlenerek aktarılması amacıyla ele alınmıştır. İnvivo embriyo üretimi ve transferi aşamaları; donör ve taşıyıcı hayvanların seçimi, donör ve taşıyıcılarda östrusun senkronizasyonu, donörlerin süperovulasyonu, donörlerde doğal aşım veya suni tohumlama, donörlerden embriyoların elde edilmesi ve değerlendirilmesi ile embriyoların taşıyıcılara transferini içermektedir. Bu bildiride küçük ruminantlarda invivo embriyo üretimi ve transferi basamakları ile ilgili bilgiler verilecektir.

Anahtar Kelimeler: Embriyo, İn vivo, Transfer, Koyun, Keçi

ABSTRACT

Around the world, small ruminant breeding plays a significant socioeconomic and environmental importance. Sheep and goats make important contributions to global food and wool production. In the ever-increasing world population, small ruminants play an important role, mainly for the economies of developing countries and especially for those with harsh climatic conditions or unproductive soils.

In the field of animal husbandry, many assisted reproductive techniques constantly developing and gaining new dimensions, are used to increase the yield per unit animal and obtain high-yielding offspring by using biotechnological methods, as well as to protect the existing gene resources of mammals. Since small ruminants have seasonal reproduction, assisted reproductive technologies have become even more important in order to improve genetic gain in these species. With these biotechnological methods, it is possible to obtain a large number of offspring from high-yielding animals in a short period of time, to spread the superior male or female genotype, and to use low-yielding females as carriers more effectively. In addition, thanks to embryo transfer, embryos can be frozen for many years and easily transferred to different regions. Both the expense and the risk of disease transmission can be decreased by providing frozen embryos rather than importing live animals. In addition, it is possible to freeze the embryos of native animal species whose current populations are in danger of extinction and to store genetic materials for a long time. The main assisted reproductive techniques used today are artificial insemination, embryo transfer, and freezing of embryos.

In this study, in vivo embryo production and transfer stages in sheep and goats were summarized and discussed. In vivo embryo production and transfer stages include selection of donor and surrogate animals, synchronization of estrus in donors and surrogates, superovulation of donors, natural insemination or artificial insemination in donors, obtaining and evaluating embryos from donors, and transfer of embryos to surrogates. In this proceeding, information about in vivo embryo production and transfer steps in small ruminants will be given.

Keywords: Embryo, In vivo, Transfer, Sheep, Goat

POSTPARTUM DÖNEMDEKİ İNEKLERE İNTRAUTERİN YOLLA POVIDON İYOT UYGULAMALARININ POSTPARTUM UTERUS ENFEKSİYONLARI VE REPRODÜKTİF PARAMETRELER ÜZERİNE ETKİLERİ

THE EFFECTS OF INTRAUTERINE ADMINISTRATION OF POVIDONE-IODE IN POSTPARTUM PERIOD ON POSTPARTUM UTERINE INFECTIONS AND REPRODUCTIVE PARAMETERS IN COWS

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ÖZET

Doğum sonrası dönemde bakteriyel kontaminasyon uterus enfeksiyonlarının en yaygın nedenidir. Bu çalışmanın amacı ineklerde erken postpartum dönemde intrauterin povidon iyot solüsyonu kullanarak intrauterin bakteri yükünü azaltmak, kendiliğinden oluşan postpartum (pp) involüsyon problemlerini ve involüsyon sürecini iyileştirmek, ve fertilitate parametrelerini fizyolojik ve ekonomik sınırlar içinde tutmaktır. Altmış dokuz adet sağlıklı Holstein-Fresian ırkı inek rastgele iki gruba ayrıldı. Çalışma grubuna (ÇG, n=34) 100 mL %2 dilüsyon povidon-iyot, kontrol grubuna (KG, n=35) 100 mL %0,9 NaCl solüsyonu intrauterin olarak postpartum 24 saat içinde verildi. İntrauterin uygulamadan sonra plasentanın atılma süresi ve retensiyonu kaydedildi. Doğum sonrası 8 gün boyunca rektal ısı ölçüldü. Postpartum 40. güne kadar vajinal, rektal ve ultrasonografik muayeneler beşer gün aralıklarla gerçekleştirildi. Vajinal akıntının doğası ve kokusu vajinal yoldan araştırıldı. Kornu ve serviks uteri çaplarını ölçmek için ultrason kullanıldı. Postpartum 15. gün ve ilk östrusta iki sefer intrauterine mikrobiyolojik örnekler alındı. Invölüsyon döneminde şekillenen uterus enfeksiyonları kaydedildi. Gruplarda ilk tohumlama gebelik oranı (ITGO), ikinci tohumlama gebelik oranı (ITGO), üçüncü tohumlama gebelik oranı (ÜTGO) ve tohumlama indeksi (TI) 80, 150 ve 400. günlerde değerlendirildi. Rektal ısı, vajinal akıntının karakter ve kokusu, kornu uteri ve serviks kalınlığı ile ovaryumlardaki folikül çapları, uterus mikrobiyal yükü, plasenta atılma zamanı ve Retensiyon sekundinarum oranı, uterus involüsyon süresi ya da postpartum uterus enfeksiyonları oranı, İTGO, İKTGO, ÜTGO, TGO, TI değerleri arasındaki fark ÇG ve KG arasında istatistik açıdan anlamlı derecede farklı değildi ($P>0,05$). Sonuç olarak, erken postpartum döneminde intrauterin povidon iyot kullanımının üreme performansında izotonik solüsyonundan farklı önleyici veya zararlı bir etkisi bulunmamaktadır.

Anahtar Kelimeler: fertilité, inek, uterusüçi, metritis, povidon-iyot

ABSTRACT

Bacterial contamination during the postpartum period is the most common cause of uterine infections. The aim of this study was to use intrauterine povidone iodine solution in early pp to reduce intrauterine bacterial load and spontaneously occurring pp involution problems improve the involution process, and keep fertility parameters within physiological and economical limits in cows. Sixty-nine healthy Holstein-Friesian cows were divided in to two groups randomly. The study group (SG, n = 34) received 100 mL of 2% dilution povidone-iodine, while the control group (CG, n=35) received 100 mL of 0.9% NaCl solution intrauterine within 24 hours pp. Placental expulsion time and retention were recorded after intrauterine administration. For 8 days, the rectal temperature was measured. Up to the 40th day, vaginal, rectal, and ultrasound examinations were performed at five-day intervals. The nature and odor of vaginal discharge were investigated vaginally. Ultrasound was used to measure the cornu and cervix uteri diameters. Intrauterine microbiological samples were collected twice, once on the 15th day pp and once during the first oestrus. Uterine infections that were occurred during the involution period was evaluated. In groups, the first insemination pregnancy rate (FIPR), second insemination pregnancy rate (SIPR), third insemination pregnancy rate (TIPR), and insemination index (II) were assessed at 80, 150, and 400 days pp. There were no statistically significant difference in rectal temperature, the vaginal discharge character or odor, the cornu, cervix and the ovarian follicles diameter, the microbial load of uterus, in placental expulsion or retention rate, the time of uterine involution or pp uterine infections, on FIPR, SIRP, TIRP, II between SG and CG ($P>0,05$). In conclusion, there is no preventative or harmful effect of intrauterine povidone iodine usage during the early PP period on reproductive performance.

Keywords: fertility, cow, intrauterine, metritis, povidone-iodine

ELYAFLARLA GÜÇLENDİRİLMİŞ KÖPÜK BETONLAR

FIBER REINFORCED FOAM CONCRETE

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ÖZET

Köpük beton, inşaatta vazgeçilmez bir özelliğe sahip olan, iyi ısı ve ses yalıtımı ile muhteşem malzemelerden biridir. Köpük beton, çimento, dolgu maddesi, su ve köpürtücü maddeden oluşan hafif bir betondur. Köpük betonun birçok avantajına rağmen, en büyük dezavantajları düşük mukavemet ve büzülme etkisinde boyutsal stabilitesini kaybetmesidir. Büzülme etkisini en aza indirmede ve çekme dayanımını arttırmada doğal ve sentetik fiber kullanımının çok büyük önemi vardır. Çeşitli köpük beton türleri arasında fiber takviyeli köpük beton daha iyi çekme mukavemeti, tokluk, basınç mukavemeti ve süneklik özellikleri ile araştırmacıların ilgi odağında bulunmaktadır. Ayrıca köpük beton yapıya gelen yükleri azalttığı gibi düşük maliyetli işçiliğe gereksinim duymaktadır. Bu çalışma kapsamında elyaflarla güçlendirilmiş köpük beton (EGKB) konusu üzerinde yapılan çalışmalar derlenmiş ve gelecek çalışmalar için ışık tutulması amaçlanmıştır.

Anahtar kelimeler: Beton, fiber, köpük, köpük beton, fiberle güçlendirilmiş köpük betonlar

ABSTRACT

Foam concrete is one of those that has an indispensable architecture in construction, which it can achieve perfectly with good heat and sound insulation. Foam concrete is a lightweight concrete consisting of cement, filler, water, and foaming agent. Despite the many advantages of concrete, the main disadvantages are low durability and loss of dimensional stability under foam shrinkage effect. The use of natural and synthetic fibers is of great importance in minimizing shrinkage effects and increasing tensile strengths. Among the various types of foam concrete, fiber-reinforced foam concrete is at the center of attention of researchers with its better tensile strength, toughness, compressive strength, and ductility properties. In addition, the foam concrete structure can be produced with low-cost workmanship as well as decreasing the structural loads. The fiber reinforced foam concrete (FRFC) was investigated within the scope of this study, and it was also aimed to contribute to the related future studies.

Keywords: Concrete, fiber, foam, foam concrete, fiber reinforced foam concretes.

**DOĞAL FİBERLERLE GÜÇLENDİRİLMİŞ BETONLAR ve BAZI MEKANİK
ÖZELLİKLERİNİN İNCELENMESİ**

NATURAL FIBERS REINFORCED CONCRETE AND THE INVESTIGATION OF SOME
MECHANICAL PROPERTIES

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ÖZET

Fiberler uzun yıllardır yapı malzemelerinin güçlendirilmesi için yaygın olarak kullanılmaktadırlar. Geçmişte yapılan çalışmalar incelendiğinde fiber eklenmesinin betonda mekanik özellikleri iyileştirdiği görülmektedir. Kullanılan bu fiberler doğal ve sentetik fiberler olarak iki ana başlık altında incelenmektedir. Doğal fiberler sentetik fiberlere göre üretim enerjilerinin çok düşük ya da yok olması ve gördükleri işlemlerin ucuz olması gibi nedenlerle son yıllarda yaygın olarak tercih edilmektedirler. Mevcut çalışma kapsamında doğal fiberlerin kullanımlarının beton özelliklerine etkileri incelenmiş ve kritik lif oranları tek bir çalışma altında toplanarak ilgili analizler gerçekleştirilmiştir.

Anahtar kelimeler: Beton, fiber, doğal fiberler, doğal fiberle güçlendirilmiş betonlar

ABSTRACT

Fibers have been widely used for reinforcing building materials for many years. When the previous studies are examined, it is seen that the addition of fiber improves the mechanical properties of concrete. These fibers used are classified under two main headings as natural and synthetic fibers. Natural fibers have been widely preferred in recent years due to the low or non-production energy compared to synthetic fibers and the relatively low cost required processes they undergo. Within the scope of the current study, the effects of the utilization of natural fibers on the concrete properties were examined and the critical fiber ratios were collected under a single study and related analyzes were carried out.

Keywords: Concrete, fiber, natural fibers, natural fiber reinforced concretes.

**TÜRKİYE VE BİRLEŞİK ARAP EMİRLİKLERİ İNŞAAT SEKTÖRLERİNİN
TEKNO-EKONOMİK KARŞILAŞTIRMALI ANALİZİ**
**TECHNO-ECONOMIC COMPARATIVE ANALYSIS OF THE CONSTRUCTION
SECTORS OF TURKEY AND THE UNITED ARAB EMIRATES**

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ÖZET

Birleşik Arap Emirlikleri (BAE) ve Türkiye'deki inşaat sektörleri, her iki ülkenin ekonomik kalkınmasında çok önemli bir rol oynamaktadır. İnşaat sektörü; yine her iki ülkenin GSYİH büyümesine, istihdam yaratılmasına ve altyapı gelişimine önemli ölçüde katkıda bulunur. BAE ve Türkiye'nin inşaat endüstrileri arasındaki benzerlikleri ve farklılıkları anlamak, potansiyel işbirliği, bilgi paylaşımı ve iyileştirme alanlarını belirlemek için hayati öneme sahiptir. Bu araştırmada, kullanılan kaynakların tekno-ekonomik bir analizinin yapılarak, iki ülkenin inşaat endüstrilerini şekillendiren faktörler hakkında yeterli bilgiler sağlamak amaçlanmaktadır. Bunun için; malzeme, işçilik, teknoloji ve sürdürülebilirlik uygulamaları dahil olmak üzere her iki ülkedeki inşaat sektörü karşılaştırılmış ve sektörü etkileyen faktörler ortaya çıkarılmıştır. Bu faktörler incelenerek, BAE ve Türkiye'nin inşaat sektörlerindeki benzerlikler, farklılıklar güçlü, zayıf yönler ve zorluklar vurgulanmıştır.

Anahtar Kelimeler: İnşaat sektörü, tekno-ekonomik analiz, sürdürülebilirlik, faktör analizi

ABSTRACT

The construction industries in the United Arab Emirates (UAE) and Turkey play a very important role in the economic development of both countries. Construction industry; it also contributes significantly to GDP growth, job creation and infrastructure development in both countries. Understanding the similarities and differences between the UAE and Turkey's construction industries is vital to identify potential areas of cooperation, knowledge sharing and improvement. In this research, it is aimed to provide sufficient information about the factors that shape the construction industries of the two countries by making a techno-economic analysis of the resources used. For this; the construction sector in both countries, including materials, workmanship, technology and sustainability practices, was compared and the factors affecting the sector were revealed. By examining these factors, the similarities, differences, strengths, weaknesses and challenges in the construction sectors of the UAE and Turkey are highlighted.

Keywords: Construction industry, techno-economic analysis, sustainability, factor analysis

**LİF TAKVİYELİ POLİMER İLE SARGILI DİKDÖRTGEN KESİTLİ BETON
KOLONLARIN BASINÇ DAYANIMI VE ŞEKİL DEĞİŞTİRME MODELİNİN GEN
İFADESİ PROGRAMLAMA İLE TAHMİN EDİLMESİ**

PREDICTION OF COMPRESSIVE STRENGTH AND STRAIN MODEL OF FRP-
CONFINED RECTANGULAR CONCRETE COLUMNS USING GENE
EXPRESSION PROGRAMMING

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ÖZET

Deneysel araştırmalar dikdörtgen kesitli beton kolonların lif takviyeli polimer (FRP) ile sargılanmasının kolonun aksenal basınç dayanımı ve sünekliliğini artırdığını kanıtlamıştır. Yapısal tasarımda, FRP ile sargılı kolonlardaki aksenal basınç dayanımı ve şekil değiştirmedeki artışın duyarlı belirlenmesi, yapısal sistemin güvenilirliği açısından önemlidir. Günümüze dek, sözkonusu kolonların basınç dayanımı ve şekil değiştirme değerini belirlemek için çok sayıda deneysel araştırma yapılmış ve bağıntılar önerilmiştir. Bu çalışmada ise, son yıllarda yaygın olarak kullanılan makine öğrenimi algoritmalarından gen ifadesi programlama ile literatürdeki deneysel veriler göz önüne alınarak kolonların basınç dayanımı ve şekil değiştirme değerine ilişkin yeni bağıntılar tahmin edilmiştir. Bağıntıların tahmininde, dikdörtgen kesitli kolon deney numunelerinin kısa kenar uzunluğu (b), uzun kenar uzunluğu (h), yuvarlatma yarıçapı (r), beton basınç dayanımı (f_{co}), lifli polimerin çekme elastisite modülü (E_f), lifli polimerin kalınlığı (nt_f), betonun şekil değiştirme değeri (ϵ_{co}) ve lifli polimerin göçme anında etkili şekil değiştirmesi ($\epsilon_{h,rup}$) parametreleri göz önüne alınmıştır. Elde edilen bağıntılar, mevcut yönetmeliklerin ve farklı araştırmacıların önerdikleri bağıntılarla istatistiksel olarak karşılaştırılmıştır. Karşılaştırmada R^2 (Belirleme Katsayısı), COV (Varyasyon Katsayısı), M (Ortalama Değer), SD (Standart Sapma), MAPE (Ortalama Mutlak Yüzde Hata) ve RMSE (Kök Ortalama Kare Hata) istatistiksel ölçütleri göz önüne alınarak en güvenilir bağıntıların belirlenmesi amaçlanmıştır. Yapılan istatistiksel değerlendirmede, bu çalışmada betonun basınç dayanımı için tahmin edilen bağıntının $R^2=0.876$, $COV=0.150$, $M=1.017$, $SD=0.153$, $MAPE=11.625$, $RMSE=7.128$, şekil değiştirme için tahmin edilen bağıntının ise $R^2=0.884$, $COV=0.580$,

M=1.132, SD=0.656, MAPE=36.445, RMSE=0.006 istatistiksel deęerleri ile deneysel sonularla en uyumlu olduęu kanıtlanmıřtır.

Anahtar Kelimeler: Gen İfadesi Programlama (GEP), Lif Takviyeli Polimer (FRP), Betonun Basın Dayanımı, řekil Deęiřtirme, Dikdörtgen Kolon.

ABSTRACT

Experimental studies have demonstrated that the confinement of the rectangular cross-section concrete columns with fiber-reinforced polymer (FRP) increases the axial compressive strength and ductility of the column. In structural design, sensitive determination of the increase in axial compressive strength and strain in FRP-confined columns is important for the reliability of the structural system. To date, many experimental studies have been carried out and equations have been proposed to determine the compressive strength and ultimate strain of these columns. In this study, new equations for the compressive strength and ultimate strain of the columns were predicted by considering the experimental data in the literature with gene expression programming, which is one of the machine learning algorithms that have been widely used in recent years. In the prediction of the these equations, the short side length (b), long side length (h), rounding radius (r), concrete compressive strength (f_{co}), elastic modulus of the fiber-reinforced polymer (E_f), thickness of the fiber-reinforced polymer (nt_f), the strain of the concrete (ϵ_{co}) and effective strain of the fiber-reinforced polymer at the ultimate limit state ($\epsilon_{h,rup}$) of the rectangular cross-section concrete columns were taken into account. The obtained equations were statistically compared with the equations proposed by the existing regulations and previous researchers. In the comparison, it was aimed to determine the most reliable equations by considering the statistical criteria of R^2 (Coefficient of Determination), COV (Coefficient of Variation), M (Mean Value), SD (Standard Deviation), MAPE (Mean Absolute Percentile Error) and RMSE (Root Mean Square Error). In the statistical evaluation, it has been proved that the predicted equations in the current study were most in agreement with the experimental results based on the statistical values of $R^2=0.876$, $COV=0.150$, $M=1.017$, $SD=0.153$, $MAPE=11.625$, $RMSE=7.128$ for compressive strength, and $R^2=0.884$, $COV=0.580$, $M=1.132$, $SD=0.656$, $MAPE=36.445$, $RMSE=0.006$ for ultimate strain.

Keywords: Genetic Expression Programming (GEP), Fiber-Reinforced Polymer (FRP), Stress, Strain, Rectangular Column.

BURSA İLİ NÜFUSUNUN GRİ MODELLEME İLE TAHMİN EDİLMESİ
ESTIMATION OF BURSA POPULATION WITH GREY MODELING

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ÖZET

Su temini sistemlerinin projelendirilmesinde öncelikli olarak sistem kapasitesi belirlenmelidir. Sistem kapasitesinin hesaplanmasında; kullanım miktarı ve su sağlanacak alandaki nüfus bilgileri temin edilmelidir. Su temini sistemleri gelecek 30-50 yıl sonra oluşabilecek nüfusun ihtiyaçlarını karşılayabilecek şekilde tasarlandığından gelecekteki nüfusun güvenilir bir şekilde tahmin edilebilmesi gerekmektedir. Bu çalışmada Bursa ili için Gri Modelleme GM (1,1) ile nüfus tahmini yapılmıştır. 2010-2022 yılları nüfus verileri kullanılmıştır. Çalışmada 5 model oluşturulmuştur. Verilerden sırası ile ilk 4,5,6,7,8 tanesi modeli oluşturmak için kullanılırken; sırası ile 9,8,7,6,5 tanesi doğrulama için kullanılmıştır. Bununla birlikte; aynı veriler için literatürde en sık kullanılan İller Bankası yönteminden elde edilen sonuçlar ile karşılaştırılmıştır. Gri Modelleme yönteminden elde edilen sonuçların da nüfus tahmin etmede kullanımının mümkün olduğu sonucuna ulaşılmıştır.

Anahtar Kelimeler: Su Temini Sistemleri, Nüfus Tahmini, İller Bankası Yöntemi, Gri Model

ABSTRACT

System capacity should be determined primarily in the design of water supply systems. In the calculation of the system capacity; information on the amount of use and the population in the area where water will be provided should be known. Since the water supply systems are designed to meet the needs of the population that may occur in the next 30-50 years, it is necessary to reliably predict the future population. In this study, population estimation was made for Bursa province with Gray Modeling GM (1,1). Population data for the years 2010-2022 were used. In the study, 5 models were created. While the first 4,5,6,7,8 of the data were used to create the model, respectively; 9,8,7,6,5 of them were used for validation, respectively. With this; For the same data, the results obtained from the İller Bank method, which is most frequently used in the literature, were compared. It has been concluded that the results obtained from the Gray Modeling method can also be used in population estimation.

Keywords: Water Supply Systems, Population Estimate, İller Bankası Method, Grey Model

**SİLİS DUMANI İÇEREN UÇUCU KÜL TEMELLİ GEOPOLİMER HARÇLARIN
MEKANİK ÖZELLİKLERİNİN VE YÜKSEK SICAKLIK DİRENÇLERİNİN
İNCELENMESİ**

INVESTIGATION OF THE MECHANICAL PROPERTIES AND HIGH TEMPERATURE
RESISTANCE OF FLY ASH BASED GEOPOLYMER MORTARS CONTAINING SILICA
FUME

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ÖZET

İklim değişikliği konusu son yıllarda giderek önem kazanmaktadır. İklim değişikliği ile mücadelede Avrupa Yeşil Mutabakatı (European Green Deal), 2021 ve 2022 Yeşil Mutabakat Eylem Planı, 2030 (Fit for 55) ve 2050 (Carbon neutrality by 2050) hedeflerinin gerçekleştirilmesi için önlem alınması büyük önem arz etmektedir. Bu hedeflerin gerçekleştirilebilmesinde önlem alınması gereken sektörlerden birisi de çimento sektörüdür. Çimento üretimi enerji yoğun bir sektör olmakla birlikte dünyada atmosfere salınan CO₂'in yaklaşık % 8 inden sorumludur. Bu sebeple çimento kaynaklı CO₂ salınımının azaltılması günümüzde daha önemli hale gelmiştir.

Mineral katkıların beton sektöründe çimento ile ikame edilmesi uzun yıllardır bilinmektedir. Ancak çimentosuz yapı malzemelerinin üretimi yani sadece mineral katkılarla üretilen yapı malzemeleri (doğal mineraller, endüstriyel atıklar, gibi...) son yıllarda ülkemizde ve dünya da yaygınlaşmaktadır. Bu çimentosuz sistemler dünya literatüründe geopolimer olarak

adlandırılırken, üretimi esnasında endüstriyel atık olan uçucu kül, silis dumanı, yüksek fırın cürufu gibi malzemeler kullanılmaktadır.

Bu çalışmada Adana Sugözü termik santralinden temin edilen uçucu kül ve Antalya Eti Elektrometalurji tesisinden elde edilen silis dumanını kullanılarak geopolimer harçlar üretilmiştir. Üretilen harç numunelerde silis dumanı %2, 4, 6, 8, 10 oranlarında uçucu kül ile ikame edilmiştir. Karışımlarda aktivatör olarak NaOH kullanılmıştır. Üretilen geopolimer harçlar 24, 48, 72 saat 75°C de ısı küre tabii tutulmuştur. Üretilen taze harçların işlenebilirlik değerleri ölçülmüştür. Isıl kür süresi tamamlanan harçlar eğilme ve basınç dayanımı deneylerine tabii tutulmuştur. Ayrıca 48 saat 75°C’de ısı küre uygulanan harçların 300 °C, 600°C ve 900°C sonrasında yüksek sıcaklık dirençleri incelenmiştir.

Elde edilen sonuçlara göre silis dumanı ikamesi geopolimer harçlarda işlenebilirliği artırmıştır. Eğilme ve basınç dayanımı sonuçlarına göre 24 ve 48 saat ısı küre sonrasında %2 ve %4 silis dumanı ikamesi genellikle olumlu sonuç vermiştir. %8 ve %10 silis dumanı ikamesi mekanik dayanımların düşmesine sebep olmuştur. 75°C’de 72 saat ısı küre süresi silis dumanı ikameli harçlarda mekanik dayanımlarda olumlu etki yapmamıştır. Geopolimer harçların yüksek sıcaklık dirençleri incelendiğinde 300°C ve 600°C sonrasında mekanik dayanımların giderek azaldığı sonucuna varılmıştır. Ancak 900°C sonrasında %4, %6, %8 ve %10 silis dumanı ikameli harçların mekanik dayanımlar incelendiğinde, mekanik dayanımların 600°C sonrasına göre daha yüksek olduğu görülmüştür. Silis dumanı ikamesinin uygun kür koşullarında uçucu kül tabanlı geopolimerlerde mekanik dayanımı artırdığı ve özellikle 900 C sıcaklık sonrasında mekanik dayanımlara olumlu katkı sağladığı sonucuna ulaşılmıştır.

Anahtar Kelimeler: Uçucu kül, Silis dumanı, Geopolimer, Mekanik dayanım, Yüksek Sıcaklık direnci

Bu çalışma; Erciyes Üniversitesi Bilimsel Araştırma Projeleri Birimi tarafından FLY-2021-10905 kodlu proje ile desteklenmiştir.

ABSTRACT

Climate change has become increasingly important in recent years. In the fight against climate change, it is of great importance to take measures to achieve the European Green Deal, 2021 and 2022 Green Deal Action Plan, 2030 (Fit for 55), and 2050 (Carbon neutrality by 2050) targets. The cement industry is one of the sectors that need to be taken precautions in order to achieve these targets. Although cement production is an energy-intensive sector, it is responsible for approximately 8% of the CO₂ released into the atmosphere in the world. For this reason, the reduction of cement-induced CO₂ emissions has become more important today.

The substitution of mineral additives with cement in the concrete industry has been known for many years. However, the production of cementless building materials, that is, building materials produced only with mineral additives (natural minerals, industrial wastes, etc.) has become widespread in our country and in the world in recent years. While these cementless systems are called geopolymers in the world literature, industrial waste materials such as fly ash, silica fume, and blast furnace slag are used during their production.

In this study, geopolymer mortars were produced by using fly ash from Adana Sugözü thermal power plant and silica fume obtained from the Antalya Eti Electrometallurgy facility. In the produced mortar samples, silica fume was replaced with fly ash at the ratios of 2, 4, 6, 8, and 10 %. NaOH was used as an activator in the mixtures. The produced geopolymer mortars were heat cured at 75°C for 24, 48, and 72 hours. The workability values of the fresh mortars were measured. After heat curing flexural and compressive strength tests were conducted on geopolymer mortar. In addition, the high-temperature resistance of the mortars heat cured at 75°C for 48 hours was investigated after 300°C, 600°C, and 900°C.

According to the results obtained, silica fume substitution increased the workability of geopolymer mortars. According to the flexural and compressive strength results, 2% and 4% silica fume substitution after 24 and 48 hours of heat curing generally gave positive results. 8% and 10% silica fume substitution caused a decrease in mechanical strength. The heat curing time of 72 hours at 75°C did not have a positive effect on the mechanical strength of the silica fume substituted mortars. When the high temperature resistance of geopolymer mortars was examined, it was concluded that the mechanical strengths gradually decreased after 300°C and 600°C. However, when the mechanical strengths of 4%, 6%, 8%, and 10% silica fume substituted mortars were examined after 900°C, it was seen that the mechanical strengths were higher than after 600°C. It has been concluded that silica fume substitution increases the mechanical strength of fly ash-based geopolymers under suitable curing conditions and contributes positively to the mechanical strength, especially after 900 °C temperature.

Keywords: Fly ash, Silica fume, Geopolymer, Mechanical strength, High temperature resistance

This study was supported by Erciyes University Scientific Research Projects Unit with the project code FLY-2021-10905.

¹“The European Green Deal”

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52019DC0640>

²“Yeşil Mutabakat Eylem Planı”

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³ “Yeşil Mutabakat Çalışma Grubu Yıllık Faaliyet Raporu”

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**SAF VE KARIŞIK MEŞCERELERDE ÖLÜ ODUN KARBON DEPOLAMA
KAPASİTESİNİN BELİRLENMESİ**
DETERMINATION OF DEAD WOOD CARBON STORAGE CAPACITY IN PURE AND
MIXED STANDS

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ÖZET

Küresel karbon döngüsünde önemli bir role sahip olan ormanlar aynı zamanda ekosistemdeki karbonun canlı biyokütle, ölü örtü, ölü odun ve toprak gibi farklı karbon havuzlarında depolanmasını sağlamaktadırlar. Orman ekosistemlerinde karbon dinamiğinin uzun vadede tahmini için ölü odunda depolanan karbon miktarının belirlenmesi önemli bir rol oynamaktadır. Farklı ağaç türlerinin karbon depolama miktarları ve ölü odun karbon havuzuna olan etkilerini belirlemek amacıyla yapılan bu çalışma; Kahramanmaraş ili, Başkonuş Orman İşletme Şefliği sınırları içerisinde yer alan Başkonuş Araştırma ve Uygulama Ormanı'nda gerçekleştirilmiştir. Çalışmada benzer koşullarda yayılış gösteren saf Toros Sediri (*Cedrus libani* A. Rich.), Kermes Meşesi (*Quercus coccifera* L.), Karaçam/Sedir/Gökmar (*Pinus nigra* Arnold/ *Cedrus libani* A. Rich./ *Abies cilicica* Carr.) karışık meşçeresi ile tampon zon olarak belirlenen karışık Karaçam/Sedir/Gökmar meşçerelerinin ölü odun ve ölü dal karbon depolama kapasitelerinin (tC/ha) farklı ağaç türlerine göre değişimi belirlenmiştir. Çalışma kapsamında ölü ağaçların sınıflandırılması, ölü odun ve ölü dalda depolanan karbonun belirlenmesi amacıyla IPCC (Intergovernmental Panel Climate Change) kılavuzunda önerilen yaklaşımlardan yararlanılmıştır. Örnek alanlardaki ölü ağaçlara ait; ölü odun gövde kesitleri (dikili ve yatık kuru ağaç, dip kütük) ve ölü dal (ince ve kalın çaplı) ile örnek alanların yetiştirme ortamına ait bazı ölçümler araştırmanın ana hattını oluşturmuştur. Sonuç olarak ağaç türlerine göre ortalama ölü odun karbon depolama miktarları sırasıyla; Sedir meşçeresinde 7.416 tC/ha; Karaçam/Sedir/Gökmar meşçeresinde 2.246 tC/ha ve Karaçam/Sedir/Gökmar (Tampon zon) meşçeresinde 7.448 tC/ha olarak belirlenmiştir. Ağaç türlerine göre ortalama ölü dal karbon depolama miktarı bakımından en yüksek değer ise 3.718 tC/ha ile Sedir meşçeresinde, en düşük değer ise 1.258 tC/ha ile Meşe meşçeresinde bulunmuştur. Bu araştırmanın, ölü odunda depolanan karbon miktarıyla ilgili gelecekte bu alanda yapılacak olan diğer çalışmalara bilimsel veri sunması açısından önemli olduğu düşünülmektedir.

Anahtar Kelimeler: Orman Ekosistemi, Ölü Ağaç, Ölü Odun Bileşenleri, Karbon Depolama Kapasitesi

ABSTRACT

Forests, which have an important role in the global carbon cycle, also ensure that the carbon in the ecosystem is stored in different carbon pools such as living biomass, litter, dead wood and soil. Determining the amount of carbon stored in dead wood plays an important role in the long-term prediction of carbon dynamics in forest ecosystems. This study, which was carried out to determine the carbon storage amounts of different tree species and their effects on the dead wood carbon pool; it was carried out in Başkonuş Research and Application Forest, which is located within the borders of Başkonuş Forest Management Chief in Kahramanmaraş. In the study, pure Taurus Cedar (*Cedrus libani* A. Rich.), Kermes Oak (*Quercus coccifera* L.), Black pine/Cedar/Fir (*Pinus nigra* Arnold/ *Cedrus libani* A. Rich./ *Abies cilicica* Carr.) mixed stand the variation of dead wood and dead branch carbon storage capacities (tC/ha) of mixed Black pine/Cedar/Fir stands determined as buffer zone with different tree species was determined. Within the scope of the study, the approaches suggested in the IPCC (Intergovernmental Panel Climate Change) guide were used to classify dead trees, to determine the carbon stored in dead wood and dead branches. Belonging to dead trees in the sample areas; dead wood trunk sections (standing and lying dry tree, bottom stump) and dead branches (thin and thick diameter) and some measurements of the habitat of the sample areas formed the main line of the research. As a result, the average dead wood carbon storage amounts according to tree species are respectively; it was determined as 7.416 tC/ha in the Cedar stand, 2. 246 tC/ha in the Black pine/Cedar/Fir stand and 7.448 tC/ha in the Black pine /Cedar/Fir (Buffer zone) stand. According to tree species, the highest value in terms of average dead branch carbon storage was found in Cedar stand with 3.718 tC/ha and the lowest value was found in Oak stand with 1.258 tC/ha. It is thought that this research is important in terms of presenting scientific data for other future studies on the amount of carbon stored in dead wood.

Keywords: Forest Ecosystem, Dead Tree, Dead Wood Components, Carbon Storage Capacity

**KONYA HAVZASI'NDAKİ KARSTİK ÇÖKÜNTÜ ALANLARININ TEHLİKE
POTANSİYELİ VE RİSK ANALİZİ**

**KARSTIC DEPRESSION AREAS IN KONYA BASIN: HAZARD POTENTIAL AND
RISK ANALYSIS**

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ÖZET

Karstik çöküntü alanları, kireçtaşı gibi çözünebilir kayaların yeraltı suları tarafından aşındırılması sonucu oluşan doğal depresyonlardır. Bu alanlar, jeolojik, hidrolojik ve ekolojik açıdan önemli olmakla birlikte, tehlike ve risk oluşturabilirler. Bu çalışmada, Konya Havzası'nda karstik çöküntü alanlarının dağılımı, özellikleri, oluşum mekanizmaları ve tehlike potansiyeli araştırılmıştır. Çalışma kapsamında, karstik çöküntü alanlarının haritalanması için uydu görüntüleri, sayısal yükseklik modelleri ve coğrafi bilgi sistemleri kullanılmıştır. Karstik çöküntü alanlarının tehlike analizi için ise, etkileyen faktörlerin belirlenmesi, ağırlıklandırılması ve entegre edilmesi yöntemi uygulanmıştır. Elde edilen sonuçlara göre, Konya Havzası'nda 10.000'den fazla karstik çöküntü alanı tespit edilmiş ve bunların %70'i tarım alanları üzerinde bulunmuştur. Karstik çöküntü alanlarının büyük çoğunluğu küçük boyutlu (<100 m) ve düşük derinlikli (<10 m) olup, genellikle tekil veya grup halinde dağılmıştır. Karstik çöküntü alanlarının oluşumunda, jeoloji, topoğrafya, iklim, bitki örtüsü ve insan faaliyetleri gibi faktörler etkili olmuştur. Karstik çöküntü alanlarının tehlike değerlendirmesinde ise, büyüklük, derinlik, eğim, mesafe ve yoğunluk gibi parametreler dikkate alınmıştır. Tehlike haritası oluşturulmuş ve karstik çöküntü alanlarının %15'inin yüksek veya çok yüksek tehlike seviyesinde olduğu belirlenmiştir. Bu çalışma, Konya Havzası'nda karstik çöküntü alanlarının karakterizasyonu ve tehlike analizi için kapsamlı bir veri sağlamak ve karstik çöküntülerin yönetimi ve korunması için öneriler sunmaktadır.

Anahtar Kelimeler: Karstik çöküntü alanları, Konya Havzası, haritalama, tehlike analizi, yönetim

ABSTRACT

Karstic depression areas are natural depressions formed by the dissolution of soluble rocks such as limestone by underground waters. These areas are significant from geological, hydrological, and ecological perspectives, but they can also pose hazards and risks. In this study, the distribution, characteristics, formation mechanisms, and hazard potential of karstic depression areas in the Konya Basin were investigated. Satellite images, digital elevation models, and geographic information systems were utilized to map the karstic depression areas. For the hazard analysis of these areas, a method was applied involving the identification, weighting, and integration of influencing factors. The results revealed the presence of more than 10,000 karstic depression areas in the Konya Basin, with around 70% of them situated over agricultural lands. Most of these areas are small-sized (<100 m) and shallow (<10 m), typically occurring in singular or clustered patterns. Factors such as geology, topography, climate, vegetation, and human activities have played a role in the formation of these karstic depression areas. In the hazard assessment, parameters like size, depth, slope, distance, and density were considered. A hazard map was generated, indicating that approximately 15% of the karstic depression areas are at high or very high risk levels. This study provides comprehensive data for characterizing and analyzing the hazards of karstic depression areas in the Konya Basin, and offers recommendations for their management and preservation.

Keywords: Karstic depression areas, Konya Basin, mapping, hazard analysis, management

GİNSENGİN SAĞLIK VE PERFORMANS ÜZERİNE ETKİLERİ

EFFECTS OF GINSENG ON HEALTH AND PERFORMANCE

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ÖZET

Ginseng sarmaşıkgiller (Araliaceae) familyasına ait kışın yapraklarını döken, yavaş büyüyen ve gölgeyi seven çok yıllık bir bitkidir. Ginseng, Panax cinsinden olan botanik için genel bir terimdir. Ginseng köklerinden hazırlanmış ürünler, geleneksel Çin tıbbında yüz yıllar boyunca dayanıklılığı ve canlılığı artırmak için tonik olarak kullanılmıştır. Başlıca beş türü bulunmaktadır. Bunlar; Korean ginseng, American ginseng, Panax notoginseng, F.H. Chen, ve Japanese ginseng'dir. Bu çalışmanın amacı Korean Ginseng olarak da bilinen Panax Ginseng'in ergojenik yardımcı olarak incelenmesidir. Bu çalışma doküman analiz yöntemi ile hazırlanmış derleme bir araştırmadır. Araştırmayı gerçekleştirmek için Google Scholar, EBSCO ve PubMed akademik veri tabanlarında ilgili kelimeler ile aramalar yapılmıştır. Bu aramalar sonucunda konu ile ilgili yayınlar seçilerek çalışmaya dâhil edilmiştir. Sonuç olarak ginsengin; Ginsengin bağışıklık sistemi üzerine olumlu etkisi olduğu; bilişsel kapasiteyi artırdığı, hafızayı, özellikle görsel hafızayı güçlendirdiği; damar genişletici etkisi ile kardiyovasküler sağlığı korumaya yardımcı olduğu ve kalp ve damar hastalıkları üzerinde olumlu etkileri olabileceği; sindirim sistemini desteklediği, hatta mide ülserleri üzerinde olumlu etkileri olduğu; erkek cinsel fonksiyonlarını iyileştirebileceği; kanser tedavisi üzerine olumlu etkileri olabileceği ve genel olarak ağrı kesici etkisinin olduğu tespit edilmiştir. Ancak bu bitkinin kullanımında bazı kanser ilaçları ile etkileşime girerek yan etki oluşturduğu, kadınlarda göğüs kanserinde hastalığı ilerlettiği ve kanamalara neden olduğu, hatta bazı durumlarda ölüme sebep olabilecek yan etkiler ortaya çıkartabileceği anlaşılmıştır. Ayrıca sportif performans üzerine kalp atış hızını dengeleyerek yorgunluğun gecikmesini sağlama, antrenman sonrası kas ağrısını azaltma, kas kuvvetini artırma ve antrenmana bağlı oksidatif stresi azaltma ve egzersize psikolojik olarak direnç gösterme yeteneğinde artış gibi olumlu etkileri olabileceği anlaşılmıştır.

Anahtar Kelimeler: Korean Ginseng, Sportif Performans, Yan Etki.

ABSTRACT

Ginseng is a perennial herb belonging to the Araliaceae family, which sheds its leaves in winter, grows slowly and loves shade. Ginseng is a general term for the botanical of the genus Panax. Products prepared from ginseng roots have been used in traditional Chinese medicine for centuries as a tonic to increase stamina and vitality. These; Korean ginseng, American ginseng, Panax notoginseng, F.H. Chen, and Japanese ginseng. The aim of this study is to examine Panax Ginseng, also known as Korean Ginseng, as an ergogenic aid. This study is a compilation research prepared by document analysis method. In order to carry out the research, Google Scholar, EBSCO and PubMed academic databases were searched with related words. As a result of these searches, publications related to the subject were selected and included in the study. As a result, ginseng; Ginseng has a positive effect on the immune system; increases cognitive capacity, strengthens memory, especially visual memory; it helps to protect cardiovascular health with its vasodilating effect and may have positive effects on cardiovascular diseases; it supports the digestive system and even has positive effects on stomach ulcers; can improve male sexual functions; It has been determined that it can have positive effects on cancer treatment and that it has a painkiller effect in general. However, it has been understood that the use of this plant can cause side effects by interacting with some cancer drugs, advance the disease in breast cancer in women, cause bleeding, and even cause death in some cases. In addition, it has been understood that it may have positive effects on sportive performance such as delaying fatigue by balancing heart rate, reducing muscle pain after training, increasing muscle strength and reducing training-related oxidative stress and increasing the ability to psychologically resist exercise.

Keywords: Korean Ginseng, Sportive Performance, Side Effect.

BAZI PERFORMANS PARAMETRELERİNİN İLİŞKİSEL ANALİZİ: HENTBOL
RELATIONAL ANALYSIS OF SOME PERFORMANCE PARAMETERS: HANDBALL

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ÖZET

Amaç: Bu araştırmanın amacı, liseli hentbolcularda patlayıcı kuvvet ile sürat arasında herhangi bir ilişkinin olup olmadığının araştırılmasıdır.

Materyal ve Metot: Araştırma modelinde nicel araştırma yöntemi kullanılmıştır. İlaveten, örnekleme yöntemi ise amaçsal örneklemedir. Gönüllü katılım gösteren çalışma grubunda 25 (Erkek 13; Kadın 12; yaş 16.6 ± 1.5 yıl; boy uzunluğu 1.71 ± 0.10 metre; vücut ağırlığı 63.68 ± 11.50 kg) liseli hentbolcu bulunmaktadır. Veri toplama araçlarında; kişisel bilgi formu (yaş, boy uzunluğu ve vücut ağırlığı), durarak uzun atlama testi (patlayıcı kuvvet) ve 20 metre sürat testi bulunmaktadır. Verilerin normallik varsayımına bakılıp (Shapiro-Wilk= $p > 0.05$) parametrik olduğuna karar verilmiştir. Böylece, ikili karşılaştırmalar için Pearson testi kullanılmıştır. Anlamlılık, $\alpha = 0.05$ olarak alınmıştır.

Bulgular: Tanımlayıcı istatistiklere bakıldığında, durarak uzun atlama testinde hentbolcular 1.83 ± 0.45 metre uzağa atlamıştır. 20 metre sürat testinde ise hentbolcular 3.65 ± 0.24 saniye koşmuştur. İlişkisel analiz sonuçlarına bakıldığında, patlayıcı kuvvet ile sürat arasında istatistiki olarak herhangi bir ilişki ($r = -0.315$, $p > 0.05$) bulunamamıştır. Bunun yanı sıra, boy uzunluğu ile patlayıcı kuvvet arasında ($r = .784$, $p < 0.01$) pozitif yönlü bir ilişki bulunmuştur.

Sonuç ve Öneriler: Sonuç olarak, liseli hentbolcularda patlayıcı kuvvet ile sürat arasında herhangi bir istatistiksel sonuç bulunmamıştır. Bunun yanı sıra, boy uzunluğunun durarak uzun atlama parametrelerine olumlu yönde ilişkili olduğu görülmüştür. Farklı spor dallarıyla bu araştırma yöntemine benzer çalışmaların yapılması önerilmektedir.

Anahtar Kelimeler: Hentbol, Lise, Patlayıcı Kuvvet, Sürat.

ABSTRACT

Aim: The aim of this research is to investigate whether there is any relationship between explosive force and speed in high school handball players.

Material and Method: Quantitative research method was used in the research model. In addition, the sampling method is purposive sampling. There were 25 (Male 13; Female 12; age 16.6 ± 1.5 years; height 1.71 ± 0.10 meters; body weight 63.68 ± 11.50 kg) high school handball players in the study group that participated voluntarily. In data collection tools; personal information form (age, height and body weight), standing long jump test (explosive force) and 20 meters speed test. Considering the normality assumption of the data (Shapiro-Wilk= $p > 0.05$), it was decided that they were parametric. Thus, the Pearson test was used for pairwise comparisons. Significance was taken as $\alpha = 0.05$.

Results: Looking at the descriptive statistics, handball players jumped 1.83 ± 0.45 meters in the standing long jump test. In the 20 meters sprint test, handball players ran for 3.65 ± 0.24 seconds. Considering the results of the relational analysis, no statistical relationship ($r = -0.315$, $p > 0.05$) was found between explosive force and speed. In addition, a positive correlation was found between height and explosive force ($r = .784$, $p < 0.01$).

Conclusion and Suggestions: As a result, no statistical results were found between explosive force and speed in high school handball players. In addition, it was observed that height was positively related to standing long jump parameters. It is recommended that studies similar to this research method should be conducted with different sports branches.

Keywords: Handball, High School, Explosive Force, Speed.

SPOR YÖNETİMİNDE LİDERLİK
LEADERSHIP IN SPORTS ADMINISTRATION

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ÖZET

İnsanlar çeşitli ihtiyaçlarını karşılamak için değişik örgütleri oluşturmuşlardır. Örgütler bir anlamda insanların ortak nitelikteki ihtiyaçlarının sonuçlarıdır. İnsanların yani toplumların mutluluk ve refahı, örgütsel amaçların gerçekleşme düzeyi ile eşanlamdadır. Örgütsel amaçların gerçekleşmesi de örgütlerin yönetimine bağlıdır. Yönetim, insan ve diğer kaynakların belirlenen amaçları gerçekleştirmede kullanılmasıdır. Bu anlamda örgüt ve yönetim ayrılmaz kavramlardır. Yönetim denildiğinde, yöneten yani formal veya informal lider çok önemlidir. Bütün alanlarda olduğu gibi spor yöneticilerinin de başarıya ulaşması yöneticilerinin liderlik özellikleriyle yakından ilişkilidir.

Anahtar Kelimeler: Spor Yönetimi, Liderlik, İnsan

ABSTRACT

People have established different organizations to meet their various needs. In a sense, the organizations have appeared as a result of people's common needs. The realization of the objectives of the organizations has a close relation with the happiness and prosperity of the society and dedepends on the administraron of the organizations. The administariton is the use of human and other sources for the realization of the certain objectives. In this sense, the organization and the administration are not sepárete terms. In administration, the administrator in other words formal or informal leader is very important.

As in all fields the success of the sports administration is closely related to the characteristics of the leadership of the administrators.

Key Words: Sports Administration, Leadership, Human

OPTİMAL KAYGIDA BİREYSEL FARKLILIKLAR: ELİT SPORCULAR ÖRNEĞİ
INDIVIDUAL DIFFERENCES IN OPTIMAL ANXIETY: EXAMPLE OF ELITE
ATHLETES

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ÖZET

Bireysel farklılıklar insanları birbirlerinden farklı kılan bir takım özellikler olarak ifade edilmektedir. Bireyler *boy, kilo, göz/saç rengi gibi* fiziksel özellikleri, *düşünce, ilgi gibi* zihinsel özellikleri, *stres, endişe, korku, kaygı gibi* duygusal özellikleri ve tüm bu özelliklerin bir araya gelmesi sonucu ortaya çıkan kişilik özellikleri açısından birbirlerinden farklılık göstermektedir. Bakıldığında bireylerin özelliklerini ve bu özelliklerindeki bireysel farklılıkları dış görünüşlerinden veya davranışlarından anlamak mümkün olabilmekte ancak bu durum duygusal özelliklerini anlamada yetersiz kalmaktadır. Stres, endişe, korku, kaygı gibi duygusal özellikler spor ortamlarındaki sporcuların yeteneklerini ortaya çıkarabilmelerinde ve iyi bir performans gösterebilmelerinde son derece önemli husus olarak karşımıza çıkmaktadır. Sporcular açısından bu denli önemli olduğu bilinen duygusal özelliklerde de bireysel farklılıklar söz konusudur. Yapılan incelemelerde de bazı sporcuların düşük seviyede, bazılarının orta seviyede, bazılarının ise yüksek seviyede stres, endişe ve kaygıya sahipken iyi bir performans gösterdiği yönünde bulgulara rastlanmıştır. Sporcuların spor ortamlarında daha iyi bir performans gösterebilmesi için uygun koşulların sağlanabilmesi, gelişimi için ihtiyacı olan gereksinimlerin karşılanabilmesi ve geleceğe ilişkin motivasyonunun artırılabilmesi için bu bireysel farklılıkların belirlenmesi gerekmektedir. Dolayısıyla bu araştırma elit sporcuların en iyi performansı gösterdiği müsabakalarda optimal kaygı düzeylerini incelemek ve bireysel farklılıkları belirlemek amacıyla gerçekleştirilmiştir. Araştırma grubunu Türkiye Tenis Federasyonu ile Türkiye Eskrim Federasyonu'nun 2023 yılı faaliyet programında yer alan müsabakalara katılan 50 sporcu oluşturmuştur. Araştırma haftasonu turnuvası müsabakalarına katılan 30 tenis sporcusu ve eskrim federasyon kupası müsabakalarına katılan 20 eskrim sporcusu ile gerçekleştirilmiştir. Araştırmada veri toplama aracı olarak Smith, Smol ve Schutz (1990) tarafından geliştirilen, Akyol, Altıntaş, Sezer ve Aşçı (2016) tarafından Türkçe'ye uyarlanan Spor Kaygı Ölçeği ile Spielberger, Gorsuch ve Lushene (1970) tarafından geliştirilen, Öner ve LeCompe (1983) tarafından Türkçe uyarlaması yapılan Spielberger Durumluk Kaygı Envanteri kullanılmıştır. Araştırmada sporcuların en iyi performansı sergilediği ve rakibine üstünlük sağladığı maçlardan elde edilen veriler değerlendirmeye alınmıştır. Elde edilen verilerin analizinde her bir sporcunun ayrı ayrı optimal kaygı puanlarını belirlemek amacıyla tanımlayıcı istatistiklerden aritmetik ortalama ve standart sapma tekniklerinden yararlanılmıştır. Yapılan incelemede araştırmaya katılan 30 tenis sporcusunun 15'inin optimal kaygı düzeylerinin düşük, 9'unun orta, 6'sının ise yüksek olduğu görülmüştür. Araştırma grubunda yer alan 20 eskrim sporcusunun ise 11'inin düşük, 6'sının orta, 3'ünün yüksek düzeyde optimal kaygıya sahip olduğu tespit edilmiştir. Buradan hareketle her bir sporcunun optimal kaygı düzeylerinin

birbirinden farklı olduğu ve sporcular arasında bireysel farklılıkların olduğu sonucuna ulaşılmıştır.

Anahtar Kelimeler: Kaygı, Bireysel Farklılık, Elit Sporcu

ABSTRACT

Individual differences are expressed as a set of features that make people different from each other. Individuals differ from each other in terms of physical characteristics such as height, weight, eye/hair color, mental characteristics such as thought and interest, emotional characteristics such as stress, anxiety, fear and anxiety, and personality characteristics that emerge as a result of the combination of all these characteristics. When looked at, it is possible to understand the characteristics of individuals and the individual differences in these features from their appearance or behavior, but this situation may be insufficient to understand their emotional characteristics. Emotional characteristics such as stress, anxiety, fear, anxiety appear as an extremely important issue for athletes in sports environments to reveal their talents and perform well. There are also individual differences in emotional characteristics, which are known to be so important for athletes. In the examinations, it was found that some athletes performed well while they had low level, some moderate level, and some had high level of stress, anxiety and anxiety. It is necessary to determine these individual differences in order to provide suitable conditions for athletes to perform better in sports environments, to meet the needs they need for their development and to increase their motivation for the future. Therefore, this research was carried out to examine the optimal anxiety levels in the competitions where elite athletes performed best and to determine individual differences. The research group consisted of 50 athletes participating in the competitions included in the 2023 activity program of the Turkish Tennis Federation and the Turkish Fencing Federation. The research was carried out with 30 tennis players participating in the weekend tournament competitions and 20 fencing athletes participating in the fencing federation cup competitions. The Sports Anxiety Scale developed by Smith, Smol, and Schutz (1990) and adapted to Turkish by Akyol, Altıntaş, Sezer, and Aşçı (2016) and developed by Spielberg, Gorsuch, and Lushene (1970) were used by Öner and LeCompe (1983) adapted into Turkish by Spielberg State Anxiety Inventory. In the research, the data obtained from the matches in which the athletes showed the best performance and outperformed their opponents were evaluated. In the analysis of the data obtained, arithmetic mean and standard deviation techniques from descriptive statistics were used to determine the optimal anxiety scores of each athlete separately. In the study, it was seen that 15 of the 30 tennis players participating in the study had low optimal anxiety levels, 9 had medium and 6 had high. It was determined that 11 of the 20 fencing athletes in the research group had low, 6 moderate and 3 high optimal anxiety. From this point of view, it was concluded that the optimal anxiety levels of each athlete are different from each other and there are individual differences among the athletes.

Keywords: Anxiety, Individual Difference, Elite Athlete

**GENÇ FUTBOLCULARDA BACAK KUVVETİ SIÇRAMA, İVMELLENME, SPRINT
VE YÖN DEĞİŞTİRME PERFORMANSINI ETKİLER Mİ?**
**DOES LEG STRENGTH AFFECT JUMP, ACCELERATION, SPRINT AND CHANGE OF
DIRECTION PERFORMANCE IN YOUNG FOOTBALLERS?**

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ÖZET

Bu çalışmanın amacı, genç futbolcularda bacak kuvvetinin sıçrama, ivmelenme, sprint ve yön değiştirme performansları üzerindeki etkisini ve bu parametrelerin birbirleriyle olan ilişkisini belirlemektir.

Çalışmaya 2022-2023 sezonunda U17 liginde mücadele eden 21 futbolcu (ant. yaşı ort. 7.30 ± 1.894 yıl; vücut ağırlığı ort. 69.37 ± 7.758 kg ve boy uz. ort. 178.50 ± 7.308 cm) katılmıştır. Futbolculara performans testleri olarak bacak kuvveti, countermovement jump (CMJ), squat jump (SJ), 10m ivmelenme, 40m sprint ve illinois çeviklik testleri (COD) kullanıldı. Verilerin normal dağılımı Shapiro-Wilks testi ile analiz edilmiş ve değişkenler arasındaki ilişki Pearson korelasyon testi ile belirlenmiştir.

Genç futbolcuların CMJ yüksekliği ile SJ yüksekliği ($r=.839$; $p<.01$), 10m ivmelenme ($r=-.437$; $p<.05$) ve 40m sprint arasında ($r=-.531$; $p<.05$); SJ yüksekliği ile 10m ivmelenme ($r=-.448$; $p<.05$) ve 40m sprint arasında ($r=-.498$; $p<.05$); 10m ivmelenme ile 40m sprint ($r=.665$; $p<.01$) ve COD arasında ($r=.551$; $p<.01$) ve 40m sprint ile COD arasında ($r=.794$; $p<.01$) anlamlı ilişkiler bulunmuştur. Bacak kuvveti ile hiçbir performans parametresi arasında anlamlı bir korelasyon bulunamamıştır ($p>.05$).

Sonuç olarak, genç futbolcular için ivmelenme ve sürat performanslarının belirlenmesinde bacak kuvvetinin yerine CMJ ve SJ testleri sırasındaki güç çıkışının bilgilendirici olduğu; hareket paternlerine göre antrenmanlar dizayn edilerek performans gelişiminin planlanması gerektiği söylenilebilir.

Anahtar Kelimeler: Futbol, kuvvet, performans, sprint, yön değiştirme

ABSTRACT

The aim of this study was to determine the effect of leg strength on jumping, acceleration, sprint and change of direction performances and the relationship between these parameters in young footballers.

In the study, 21 football players competing in the U17 league in the 2022-2023 season (training age mean 7.30 ± 1.894 years; body weight mean 69.37 ± 7.758 kg and height mean 178.50 ± 7.308 cm) participated in the study. Leg strength, countermovement jump (CMJ), squat jump (SJ), 10m acceleration, 40m sprint and Illinois agility tests (COD) were used as performance tests. The normal distribution of the data was analysed by Shapiro-Wilks test and the relationship between the variables was determined by Pearson correlation test.

The correlation between CMJ height and SJ height ($r=.839$; $p<.01$), 10m acceleration ($r=-.437$; $p<.05$) and 40m sprint ($r=-.531$; $p<0.05$); SJ height and 10m acceleration ($r=-.448$; $p<.05$) and 40m sprint ($r=-.498$; $p<0.05$); between 10m acceleration and 40m sprint ($r=.665$; $p<.01$) and COD ($r=.551$; $p<.01$) and between 40m sprint and COD ($r=.794$; $p<.01$). No significant correlation was found between leg strength and any performance parameter ($p>0.05$).

In conclusion, it can be said that power output during CMJ and SJ tests are informative instead of leg strength in determining acceleration and sprint performances for young footballers and performance development should be planned by designing training programmes according to movement patterns.

Key Words: Football, strength, performance, sprint, change of direction

**SPORTİF HAREKET EĞİTİMİNİN KORUNMAYA MUHTAÇ ÇOCUKLARDA
MOTOR GELİŞİM, SOSYAL KAYGI, RUHSAL UYUM VE YAŞAM KALİTESİNE
ETKİSİ**

THE EFFECT OF SPORTS MOVEMENT EDUCATION ON MOTOR DEVELOPMENT,
SOCIAL ANXIETY, MENTAL HARMONY AND QUALITY OF LIFE IN CHILDREN IN
NEED OF PROTECTION

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ÖZET

Bugünün çocuğunun toplumun geleceğinde rol alacağını düşündüğümüzde çocukların yararlı bireyler olarak yetiştirilmesi büyük bir öneme sahiptir. Toplum, çocuğun ahlaki, kişisel ve sosyal bakımdan kazanımlar elde etmesiyle, ilk eğitim kurumu olan ailesinde önemsemektedir. Her çocuk, gelişim sürecini sağlıklı bir aile ile birlikte geçirebilecek kadar şanslı olmamış ya da ailesi olmadan gelişimlerini sürdürmek zorunda kalmışlardır. Korunmaya muhtaç çocuklar buna örnek olarak gösterilebilir. Korunmaya muhtaç çocukların topluma entegre olmalarında, toplumda yaşama bilinçlerinin oluşmasında, sosyal beceri ve davranışlarında olumsuzluklar görülebilmektedir. Bundan dolayı korunmaya muhtaç çocuklarda fiziksel, ruhsal ve davranışsal sorunlar ortaya çıkabilmektedir. Bu bağlamda korunmaya ihtiyacı olan çocukların eksikliklerini azaltmaya yönelik araştırmaların yetersiz olduğu görülmektedir. Bu sebeple korunmaya ihtiyacı olan çocukların uyum düzeylerine katkı sağlayacak araştırmalara ihtiyaç duyulduğu düşünülmüştür. Dolayısıyla sportif hareket eğitiminin korunmaya muhtaç çocuklarda motor gelişim, sosyal kaygı, ruhsal uyum ve yaşam kalitesine etkisini belirlemek çalışmanın amacını oluşturmaktadır. Çalışmaya Aksaray çocuk evlerinde yaşayan çocuklar katılmıştır. Çalışmaya katılan uygulama grubundaki çocuklara 12 hafta boyunca haftada üç (3) gün 60'ar dk. süreden oluşan sportif hareket eğitimi çalışma programı uygulanmıştır. Araştırmaya katılan uygulama ve kontrol grubundaki çocuklara uygulama öncesi ve sonrasında "Eurofit Test Bataryası, Hacettepe Ruhsal Uyum Ölçeği, Çocuklar için Sosyal Kaygı Ölçeği Yenilenmiş Form, Çocuklar için Yaşam Kalitesi Ölçeği" uygulanmıştır. Sportif hareket eğitimi alan uygulama grubundaki korunmaya muhtaç çocukların Eurofit test bataryası, sosyal kaygı düzeyi, ruhsal uyum düzeyi, yaşam kalitesi düzeyi ön test ve son test puanları arasında anlamlı farklılık ortaya çıktığı belirlenmiştir. Sonuç olarak; sportif hareket eğitiminin korunmaya muhtaç çocuklarda

motor beceriyi olumlu etkileyerek geliřtirdiđi, sosyal kaygıyı azalttıđı, ruhsal uyum düzeylerini artırdıđı, yařam kalitesini artırdıđı söylenebilir.

Anahtar Kelimeler: Sportif hareket eđitimi, korunmaya muhtaç çocuk, motor geliřim, sosyal kaygı, ruhsal uyum, yařam kalitesi

ABSTRACT

When we think that today's children will play a role in the future of society, it is of great importance to raise children as useful individuals. The society cares about the family, which is the first educational institution, as the child gains moral, personal and social gains. Not every child has been lucky enough to spend their development period with a healthy family, or they have had to continue their development without a family. Children in need of protection can be given as an example. Negative effects can be seen in the integration of children in need of protection into the society, in the formation of their awareness of living in the society, and in their social skills and behaviors. Therefore, physical, mental and behavioral problems may occur in children in need of protection. In this context, it is seen that researches aimed at reducing the deficiencies of children in need of protection are insufficient. For this reason, it is thought that there is a need for research that will contribute to the adjustment levels of children in need of protection. Therefore, the aim of the study is to determine the effect of sportive movement training on motor development, social anxiety, mental adaptation and quality of life in children in need of protection. Children living in Aksaray children's homes participated in the study. Children in the application group participating in the study were given 60 minutes each three (3) days a week for 12 weeks. A sportive movement training program consisting of a period of time was applied. "Eurofit Test Battery, Hacettepe Mental Adaptation Scale, Social Anxiety Scale Renewed Form for Children, Quality of Life Scale for Children" were applied to the children in the application and control groups participating in the study before and after the application. It was determined that there was a significant difference between the Eurofit test battery, social anxiety level, mental adjustment level, quality of life level pretest and posttest scores of the children in need of protection in the application group who received sportive movement training. In conclusion; It can be said that sportive movement training improves motor skills by positively affecting children in need of protection, reduces social anxiety, increases psychological adjustment levels, and increases quality of life.

Keywords: Sportive movement training, child in need of protection, motor development, social anxiety, mental adaptation, quality of life

*Doktora tezinden üretilmiřtir.

**DEPREM SONRASI TRAVMA DÜZEYİ VE DEPREM STRESİ İLE BAŞ ETME
STRATEJİLERİ İLİŞKİSİNİN SPOR BİLİMLERİ FAKÜLTESİ
ÖĞRENCİLERİNDE İNCELENMESİ**
**THE RELATIONSHIP BETWEEN POST-EARTHQUAKE TRAUMA LEVELS AND
EARTHQUAKE COPING STRATEGIES IN SPORTS SCIENCES FACULTY STUDENTS**

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ÖZET

Bu araştırmanın amacı, deprem sonrası travma düzeyi ve deprem stresi ile baş etme stratejilerinin spor bilimleri fakültesi öğrencilerinin cinsiyetine göre farklılaşp farklılaşmadığını ortaya koymak ve öğrencilerin deprem sonrası travma düzeyi ve deprem stresi ile baş etme stratejileri arasında ilişki olup olmadığını incelemektir.

Araştırma ilişkisel tarama modelinde tasarlanmıştır. Araştırmaya %49.4'ü kadın, %50.6'sı erkek olmak üzere, kolay ulaşılabilir örneklem yöntemi ile seçilen toplam 77 spor bilimleri fakültesi öğrencisi katılmıştır. Öğrencilerin %28.6'sı beden eğitimi öğretmenliği, %44.2'si antrenörlük eğitimi ve %27.3'ü spor yöneticiliği bölümü öğrencisidir. Kadın öğrencilerin yaş ortalaması 21.89, erkek öğrencilerin 23.54'dür. Araştırmada veri toplama amacı ile "Davranış Problemleri", "Heyecansal Sınırlık", "Duyuşsal", "Bilişsel Yapı" ve "Uyku Problemleri" alt boyutlarından oluşan Deprem Sonrası Travma Düzeyini Belirleme Ölçeği ve "Dini Baş Etme", "Olumlu Yeniden Arama" ve "Sosyal Destek" alt boyutlarından oluşan Deprem Stresi ile Baş Etme Stratejileri Ölçeği kullanılmıştır. Verilerin toplanması sürecinde, gerekli olan etik kurul onayı ve verilerin toplanacağı kurumdan resmi izni alınmıştır. Verilerin analizinde IBM SPSS 21.0 istatistik analiz programı kullanılmıştır. Deprem sonrası travma düzeyi ve deprem stresi ile baş etme stratejilerinin cinsiyete göre farklılaşp farklılaşmadığını ortaya koymak amacı ile Mann-Whitney U, deprem sonrası travma düzeyi ve deprem stresi ile baş etme stratejileri arasında ilişki olup olmadığının incelenmesi amacı ile de Spearman's Korelasyon analizi kullanılmıştır.

Araştırma bulguları, spor bilimleri fakültesi kadın öğrencilerinin deprem sonrası travma düzeyi alt boyutlarından Heyecansal Sınırlık, Duyuşsal, Bilişsel Yapı ve Uyku Problemleri ve deprem sonrası travma düzeyi toplam puanının, erkek öğrencilerden daha yüksek olduğunu ortaya koymuştur. Deprem sonrası travma düzeyi alt boyutlarından Davranış Problemleri puanının ise kadın ve erkek öğrencilerde farklılaşmadığı da analiz sonucunda görülmüştür. Deprem stresi ile baş etme stratejileri açısından cinsiyet farkı incelendiğinde ise, Dini Baş Etme, Olumlu Yeniden Arama ve Sosyal Destek alt boyut puanlarının kadın ve erkek öğrencilerde benzer olduğu ortaya konmuştur. Deprem sonrası travma alt boyut ve deprem stresi ile baş etme stratejileri arasındaki ilişki incelendiğinde; kadın öğrencilerin deprem sonrası travma düzeyi ile

Dini Bař Etme, Olumlu Yeniden Arama ve Sosyal Destek alt boyut puanları arasında negatif ynde iliřki olduęu; ancak bunun tersine erkek ęrencilerin deprem sonrası travma dzeyi ile Dini Bař Etme, Olumlu Yeniden Arama ve Sosyal Destek alt boyut puanları arasında anlamlı iliřki olmadığı ortaya konmuřtur.

Arařtırma sonucunda deprem sonrası travma dzeyinin cinsiyete gre farklılařtıęı ve deprem sonrası travma dzeyi ve deprem stresi ile bař etme stratejilerinin kadın ęrencilerde iliřkili olduęu bulunmuřtur.

Anahtar Kelimeler: Deprem, Travma, Stresle Bař Etme, Spor Bilimleri

ABSTRACT

The purpose of this study is to determine whether the post-earthquake trauma level and strategies for coping with earthquake stress differ by gender among students in the faculty of sports sciences, as well as to investigate whether there is a relationship between the post-earthquake trauma level and the strategies for coping with earthquake stress. A correlational model was used to design the study. The study included 77 students from the faculty of sports sciences, 49.4% of whom were female and 50.6% of whom were male, who were chosen using a convenience sampling method. Of the 77 students, 28.6% are students of the physical education teaching department, 44.2% are students of the coaching education department, and 27.3% are students of the sports management department. Female students have an average age of 21.89, while male students have an average age of 23.54. In the study, with the aim of collecting data, the Post-Earthquake Trauma Level Determination Scale, which consists of the sub-dimensions of "Behavior Problems", "Emotive Limitedness", "Affective", "Cognitive Structures" and "Sleep Problems", and the Strategies for Earthquake Stress Coping Scale, which consists of "Religious Coping", "Seeking Social Support" and "Positive Reappraisal" sub-dimensions, was used.

The required ethical committee approval and official permission from the institution where the data will be collected were received before the data collection process. The data was analyzed using IBM SPSS 21.0, a statistical analysis tool. Mann-Whitney U was used to determine whether the post-earthquake trauma and the coping strategies for earthquake stress differed by gender, and Spearman's correlation analysis was used to determine whether there was a relationship between the the post-earthquake trauma and the coping strategies for earthquake stress.

The study found that female students in the faculty of sports sciences had greater post-earthquake trauma level sub-dimensions of Emotive Limitedness, Affective, Cognitive Structures, and Sleep Problems, as well as a higher post-earthquake trauma level overall score. The analysis also revealed that the Behavioral Problems score, one of the sub-dimensions of the post-earthquake trauma scale, did not differ between male and female students. When the gender differences in coping strategies for earthquake stress were explored, it was discovered that the sub-dimension scores of Religious Coping, Seeking Social Support and Positive Reappraisal were found to be similar in male and female students. When the relationship between the post-earthquake trauma level and the strategies to cope with earthquake stress was examined, it was discovered that there was a negative correlation between the post-earthquake trauma level of female students and their Religious Coping, Seeking Social Support and Positive Reappraisal sub-dimension scores; however, there was no significant relationship between the post-earthquake trauma level of male students and their Religious Coping, Seeking Social Support, and Positive Reappraisal sub-dimension scores.

The research discovered that the level of post-earthquake trauma differed by gender, and that the level of post-earthquake trauma and the strategies to cope with earthquake stress were associated in female students.

Keywords: Earthquake, Trauma, Coping with Stress, Sports Sciences

**IMPACT OF MEGA FLOOD 2022 AND POST COVID-19 ON BANKING INDUSTRY
OF PAKISTAN: A CASE STUDY OF HBL BANK**

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Abstract

This study aims to investigate Impact of Mega Flood 2022 and Post COVID-19 on Banking Industry of Pakistan: A case study of HBL the key performance indicators for this purpose were liquidity, profitability and stability. This study covers a period of six years from 2019-203 and the Year 2019 was taken as base year on the basis of that the impact and performance was gauged by using financial ratios as measuring tool. The financial ratios meant for Profitability, liquidity and capital structure were calculated and average of selected ratios were used to avoid disparity in size. Also impact on performance of loans was evaluated to relate it with globalization. A survey was made by developing a close ended questionnaire; a five-point Likert scale was used as a measuring tool to evaluate the response of Bankers, scholars & customers. The main findings are (I) there seems significant impact on deposits, liquidity and profitability of banking system. (II) Non-Performing Loans were accumulated significantly after multiyear better performance of healthy loans due to increase of interest rates by central bank to maintain the liquidity in system (III) It was also revealed that the cost of deposits was increased to maintain the books and confidence of stakeholders which has adversely affected the profitability of well-established five big bank of the country.

Keywords: Mega Flood, OVID-19, Deposits, Liquidity, profitability, Non-Performing Loans

**DOMESTIC VIOLENCE AGAINST WOMEN ENTREPRENEUR IN CULTURAL
HAND MADE CLOTHS DURING POST COVID-19 PANDEMICS: A CASE STUDY
OF JACOBABAD SINDH-PAKISTAN**

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ABSTRACT

The current research investigates Domestic Violence against Women Entrepreneur in cultural hand made cloths During Post COVID-19 pandemics: A Case study of Jacobabad Sindh-Pakistan.

Data were collected from 400 working women from various district Jacobabad villages Muhammad pur Odho, village Thaheem, Hamyoon and Mubarakpur by using simple random technique were used. A Structural questionnaire was developed for the reliability and validity of Data. It was revealed that impact on working women during COVID-19 pandemic is measured by psychological distress scale, work satisfaction scale and family satisfaction scale, researcher apply the quantitative research and numerical analysis of the data using the random sampling method taking only female working women which works in education sector, Health Centers, NGOs, Welfare Dept. It was revealed that during COVID-19 pandemic working women suffer a lot because of lack of transportation and social issues. It was further revealed that Similarly they have less access to join social gathering because it may suffer their work or they have less number of leaves. 150 respondents, 37 from education department, 13 were doctors, 27 were nurses, 33 were employees of various NGOs and 40 were sales representatives in various cellular companies were selected for current study. Working women face difficulties to look after their homes.

**MEMA -MEDICAL EMERGENCY AND MANAGEMENT
APPLICATION**

Sowmya Sridhar

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ABSTRACT:

Many road accidents occur nowadays as a result of increased traffic or rash driving on highways. In many cases, family members or ambulance authorities are not notified in a timely manner. This causes a delay in providing medical assistance to the victim, which can be fatal at times. The primary goal of our paper 'Ambulance Tracking and Accident Notification System' is to prevent such blunders. The vehicle tracking system protects all vehicles by continuously tracking them, whereas accident notification saves people who have been in an accident by detecting accidents with the help of various sensors. Both systems improve vehicle security and prevent death due to delayed treatment by utilizing the Global Positioning System

Keywords: GSM, GPS, GPRS, accelerometer, smoke sensor, shock sensor.

VIRTUAL VOICE ASSISTANT MAX

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ABSTRACT

An AI Assistant, also called AI Virtual Assistant or digital assistant, is an application program. It understands natural language voice commands and completes tasks for the users. This is a private assistant for individual users. The Artificial Intelligence Virtual Assistant uses advanced Artificial Intelligence (AI), RPA, natural language processing, and machine learning to extract information and complex data from conversations to understand and process them accordingly. Some virtual assistants are equipped to comprehend spoken language and answer with synthetic voices. Users can use voice commands to manage other basic chores like email, to-do lists, and calendars in addition to asking their assistants questions, controlling home automation devices, and controlling media playing and other day-to-day activities. These virtual assistants are becoming part of human life these days

Keywords: Artificial Intelligence (AI), RPA, natural language processing, and machine learning.

**NANO TITANIUM DI-OXIDE AND CONDUCTING POLYMER POLYANILINE
BASED NANOCOMPOSITE FILM AND IT'S CHARACTERIZATION**

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ABSTRACT

Nano Titanium di-oxide (7nm TiO₂/50nm TiO₂) and conducting polymer polyaniline (PANI) films were developed with polyvinyl alcohol (PVA). In-situ polymerization technique was utilized for developing the nanocomposite material of PANI-TiO₂. Nanocomposite materials of different sizes (7nm/50nm) PANI-TiO₂ doped into PVA to develop the nanocomposite film. SEM and DC conductivity measurements did the nanocomposite film characterizations. The effect of size nanoparticles was observed for the morphology with the SEM larger size nanoparticles give the amorphous structure while the smaller nano-size particles provide crystallization structure. It was also found in the observations of the nonlinear electrical conductivity behavior of small-size nanoparticles and linear electrical conductivity for the larger nano-size of particles.

STUDY ON THE USE OF ZEOLITE AND CALCIUM OXIDE AS HEATING SOURCES FOR SELF-HEATING CAN

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ABSTRACT

Active packaging is packaging that can change the condition of packaged food into certain conditions aimed at extending shelf life or improving safety or sensory properties of the packaged food. While the active self-heating can is the packaging that has a heating system in it so that can help heat ready-to-eat food or drinks in packaging. This packaging generally utilizes the reaction of calcium oxide (CaO) with water which produces exothermic heat so that the heat generated can be transferred to food products. However, CaO as a heating source is considered to be not eco-friendly, while zeolite is postulated to be more environmentally friendly than CaO because the waste has a lower pH than CaO waste. However, study on the use of zeolite as a heating source for self-heating can is not yet reported.

This study aims to examine the use of zeolite as an alternative heating source for self-heating cans that generally use CaO. In this study, the calcination process was carried out at a temperature of 550 °C for 24 hours in both zeolite and calcium oxide for initial combustion to remove any impurities that were not desired. Then the reaction of all ratios of samples and water mixture was measured by their temperature changes. The result shows that the reaction of water with calcium oxide produces the highest temperature at a ratio of 3:1 with an average temperature change of 46.37 °C. While the reaction of water with zeolite produces the highest temperature at a ratio of 1:2 with an average temperature change of 39.27 °C. The calcium oxide mass used is 5.00 grams and the zeolite used is 28.00 grams. Then the volume of the sample reacted with water was measured, the result is calcium oxide and water had a volume increase of 1.00 ml while zeolite had a volume increase of 2.00 ml. From this study, it can be concluded that zeolite is not yet capable to be the alternative of calcium oxide as the heat source of self-heating can from the heat capacity aspect and the economical aspect.

Keywords: active packaging, self-heating can, calcium oxide, zeolite

MITTAG-LEFFLER BASED HERMITE POLYNOMIALS

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ABSTRACT

Special function is a basic and important field of mathematics because of applications in mathematical analysis, functional analysis, physics and statistics. The special function can be defined in a formal way but all the functions which are important enough and assigned by their own names like exponential function, logarithmic function, hypergeometric function, Appell function, Lauricella function, Laguerre polynomials and Hermite polynomials etc. are considered to be special functions. In this manuscript, we define the new kind of generating functions of the Mittag-Leffler based Hermite polynomial, generalized Mittag-Leffer based Hermite polynomial and discuss their Rodrigues formulae, recurrence relation and differential equation.

Key words: Hermite Polynomial, Mittag-Leffler Function and Generalization.

DESIGN AND FABRICATION OF SEGWAY HOVERBOARD

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ABSTRACT

This project aims to create a three-wheeled Segway. This electric stand-up scooter is more flexible than traditional vehicles and can be used for personal transportation in urban areas. The two-wheeled Segway, known for its zero-turn radius, is commonly used, but the three-wheeled version can have the same movements. The difference is that it uses a simple swivel wheel instead of expensive electronics like accelerometers and gyros as its third point of contact for added stability, affordability, and safety. The vehicle is controlled by two driver wheels and the swivel wheel for balance, and it utilizes differential drive, skid steering, and electro-dynamic braking with two separately operated DC motors.

Keywords: Swivel wheel, BLDC motors, 2D Assembly, 3D Assembly, Stress analysis, Static displacement, a Test result of Inclination Climbed, Speed testing on a flat surface.

**FACTORS INFLUENCING INTENTION TO USE VIDEOCONFERENCING TOOLS
IN ONLINE DISTANCE EDUCATION AMONG STUDENTS IN PHILIPPINE
MARITIME SCHOOLS**

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Virmari S. Tan ^b and Khen A. Tamdang ^c**

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ABSTRACT

Studies exploring the determinants of intention to use videoconferencing tools among maritime students received little attention. Schools and learning communities utilizing such technologies must be cognizant of the factors that influence students' intention to continue using these platforms for learning to fully exploit its value and benefits for education. This study determined the factors associated with the intention to use videoconferencing tools in online distance education among maritime students. A cross-sectional study was conducted using the administration of an online survey tool among 234 male students in two Philippine maritime schools. Multiple linear regression analysis demonstrated that attitude towards videoconferencing, perceived class engagement in virtual conferences, perceived ease of use, and perceived usefulness of videoconference technology predicted videoconferencing utilization intention among maritime students. Videoconferencing technology remains a valuable platform that facilitates and supports educational activities during the COVID-19 outbreak.

Keywords: Distance education; intention; maritime education; technology; videoconferencing

STUDENTS' VIEWS FROM WEBINARS: A QUALITATIVE STUDY

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ABSTRACT

This research study aimed to describe the lessons which students learned from joining webinars. This utilized qualitative- narrative analysis methodology and involved six informants through purposive sampling based on inclusion criteria. In-depth interviews and focus group discussions using semi-structured interviews and written reflection based on Gibb's reflective model were employed to gather data. The data were transcribed, analyzed, compared, and rigidly categorized into different themes to provide a backbone of the narratives. Lessons that students learned from joining webinars were 1. Simple, yet deep descriptions, 2. Humble, yet genuine feelings, 3. Objective, yet, heartfelt evaluation, 4. Patchy, yet holistic analysis, 5. Innovative, yet personal conclusions, and, 6. Firm, yet purposeful actions. The findings of this study have significant implications on social studies teachers, curriculum planners, and school policymakers in considering the importance of webinars in teaching and learning in the new normal.

**SCHOOL ON WHEELS AND MULTIMEDIA-AIDED INSTRUCTIONS AS
MEDIATORS OF STUDENTS' LOCAL CULTURAL HERITAGE AWARENESS**

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ABSTRACT

Countless stories are told about local heritage sites. Because these stories are one-of-a-kind, they present a significant challenge to students' knowledge and awareness of their cultural background. Furthermore, literature is scarce on students' historical and architectural knowledge of local cultural heritage places. This study determined the level of local cultural heritage sites knowledge of sixty (60) students through school on wheels and multimedia-aided instructions. The study made use of a duly-validated researcher-made Local Cultural Heritage Sites Questionnaire. Frequency count, mean, and standard deviation were the descriptive statistics used while t-test was used for inferential statistics set at 0.05 level of significance using the Statistical Packages for Social Sciences (SPSS) software. The results revealed that the level of students' historical and architectural knowledge of local cultural heritage sites was "moderate" and shifted to "high" when school on wheels and multimedia-aided instructions were introduced. There were significant differences in the historical and architectural knowledge of the students on local cultural heritage sites. Students' knowledge is improved via teaching and learning activities that give experiential and meaningful learning. Increased local cultural heritage knowledge of students is a step forward in promoting cultural heritage conservation and preservation.

Keywords: School On Wheels, MultimediaAided Instructions, Local Cultural Heritage Awareness

**UNDERSTANDING CASA MARIQUIT AS AN ILONGGO CULTURAL HERITAGE
SITE: TOWARDS THE DEVELOPMENT OF A VIDEO DOCUMENTARY
INSTRUCTIONAL MATERIAL**

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ABSTRACT

Casa Mariquit, an old, well-preserved heritage house fabricated upright in Jaro, Iloilo City. This exquisite mansion is named after the wife of the late Vice President Fernando Lopez, Sr., Maria Salvacion "Mariquit" Javellana-Lopez (Alegre, 2012). An Ilonggo Cultural Heritage that accentuates Ilonggos' lives at the same time illuminates the social values, beliefs, religion, and customs of their ancestors. Notably in the food they eat, clothes they wear, the faith they follow, and skills acquired by Ilonggos which continue to live on up to this day. Constructivism, Symbolic Interactionism, and Theory on Cultural Reproduction served as the foundation for this study. The Interpretivist Methodology (Crotty, 2003) research design is a hybrid of Grounded Theory, Oral History, and Participatory Action Research. Snowball technique was employed in identifying the informants. Data sources include interview questionnaires, photographs, field notes, published articles, videos, students' portfolios, and interview voice records of informants. It is found out that Casa Mariquit reflects Ilonggo Elite Lifestyle, Its Residents are Sources of Ilonggo Superstitious Beliefs Stories, An Architectural Wonder, A Residence of Marian Devotion, and A Museum Today. Furthermore, a video documentary was produced and used as instructional material.

Keywords: Casa Mariquit, Ilonggo Culture, Video Documentary

**Cu₃TiO₄ PHOTOCATALYST FOR MULTICOMPONENT REACTIONS UNDER
VISIBLE LIGHT IRRADIATION**

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ABSTRACT

Photocatalysts have become a subject of interest in natural synthesis due to their capability to utilize solar energy to propel chemical reactions. Cu₃TiO₄ photocatalyst (CTP) has emerged as a potential candidate for multicomponent reactions (MCRs) under visible light exposure. With its distinct benefits of energy conservation, superior efficiency, and environmentally friendly protection, CTP has attracted significant attention in the field of photocatalysis. CTP has been researched for its potential as a visible-light photocatalyst for MCRs.

In this investigation, the CTP photocatalyst was utilized for the synthesis of acridines under visible light exposure. CTP were effectively prepared from lemon juice extract and were examined using diffraction, morphological, and spectroscopic approaches. From the characterization techniques, the alignment made for CTP was verified and possesses a high crystalline nature, exceptional stability, good emission and absorption of light properties, and chemical states of the compound. The limited band gap (~2.21 eV) was exploited to provide more visible light-absorbing capacity to CTP. The formulated photocatalyst has commendable activity, reduced reaction time, high yields, and ease of recovery from the reaction mixture.

Keywords: Cu₃TiO₄, Lemon extract, MCRs, Photocatalyst, Visible light.

THE EFFECT OF SINTERING TEMPERATURE ON THE HYDROXYAPATITE
QUALITY OF BOVINE LEG BONES

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ABSTRACT

Bone is one of the by-products of the livestock industry. Bones from slaughtered cattle are easily subjected to the process of decay, so they require quick and precise handling. As a result, bone by-products can be a source of the spread of harmful microorganisms. Behind the negative impact, beef bones contain high minerals calcium and phosphorus. Bone by-product has potential as a high nano calcium source for hydroxyapatite (HAp) synthesis material. This study aims to characterize the by-product of bovine leg bone (*os Metacarpus*) as HAp material. This study used 3 stages of the HAp production process, namely: calcination, precipitation, and sintering. HAp production results were then evaluated. The calcination process uses a temperature of 900°C for 5 hours and is then evaluated by X-Ray Diffraction (XRD). Followed by a precipitation process with 0.3 M HPO₄. The sintering process uses a temperature of 550°C, 600°C, 650°C, 700°C, 750°C, 800°C. Sintering results were evaluated by X-Ray Diffraction (XRD) and SEM analysis. The results of the XRD analysis showed that the calcium phosphate compound was the dominant compound formed as a result of the sintering process. The results of the microstructural analysis showed that there was an agglomeration process in the HAp molecule due to the sintering process. The sintering temperature of 700°C indicated the optimum temperature in the process of forming HAp molecules with better properties.

Keywords: Leg bone, Sintering, Temperature, Bovine, Quality

**AN EXPONENTIALLY FITTED NUMERICAL INTEGRATION METHOD OF
FIRST ORDER FOR SINGULARLY PERTURBED DELAY DIFFERENTIAL
EQUATIONS WITH SMALL SHIFT**

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ABSTRACT

This article proposes a new exponentially fitted method for the numerical treatment of a class of singularly perturbed delay differential equations with small negative shift (delay) δ whose solution has a boundary layer at left end point of the underlying domain. The term containing delay is approximated by the use of Taylor's series expansion procedure first, and then, a combination of the exact and approximate rule of integration with the non-symmetric finite difference approximations of first derivative is used to derive a new three term scheme. To get the uniformly convergent solutions, a constant fitting factor is introduced in the derived new scheme using the theory of singular perturbations. Well known Thomas algorithm is used to solve the resulting tri-diagonal system of equations. Theoretical convergence analysis of the scheme and the numerical experiments performed on three example problems show that the method is of first order convergence rate. Applicability and efficiency of the proposed scheme is demonstrated by presenting the computational results in terms of maximum absolute errors for various values of the step-size h , delay parameter δ and perturbation parameter ε . The effect of delay parameter on the boundary layer behaviour of the solution is studied by plotting the graphs of the solution for fixed ε and different values of δ . It is easily observed that the method is capable of producing uniformly convergent solutions.

Keywords: singularly perturbed differential-difference equation, negative shift, boundary layer, Stability and convergence of numerical methods.

2010 Mathematics Subject Classification: 65L11, 65L10, 65L20.

**WILD EDIBLE MUSHROOMS AND THEIR BIOACTIVE COMPOUND HAVE
REVEALED THERAPEUTIC POTENTIAL AGAINST VARIOUS DISEASES**

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ABSTRACT

Since the early days of documented history, people have eaten mushrooms. The Greeks thought that eating mushrooms gave warriors more power in combat, while the Romans thought of them as "Food of the Gods." Mushrooms have long been revered in Chinese culture as a nourishing food and a "elixir of life." They have been a part of human society for countless years, and because of their sensory qualities, they have piqued people's interest in the most significant civilizations in history. They are also known for having appetising culinary qualities. Because they are minimal in calories, carbs, fat, and sodium, as well as being cholesterol-free, mushrooms are valued foods in today's society. These are a good source of minerals including iron and phosphorus, as well as vitamins like riboflavin, thiamine, ergosterol, niacin, and ascorbic acid. They also contain bioactive components such as secondary metabolites (terpenoids, acids, alkaloids, sesquiterpenes, polyphenolic chemicals, lactones, sterols, nucleotide analogues, vitamins, and metal chelating agents) and polysaccharides, primarily beta-glucans and glycoproteins. Biologically active compounds in mushrooms make them potential hepatoprotective, immune-potentiating, anti-cancer, antiviral, and hypocholesterolemic drugs. Due to their low fat and high fibre content, as well as the fact that they are one of the main sources of natural antioxidants beneficial in lowering oxidative damages, they have a tremendous potential to prevent cardiovascular illnesses. The objective of this review is to give readers a thorough understanding of commercially grown, wild edible, and medicinal mushrooms as well as detailed information on their phytochemical contents and qualities as food and medicine for potential future use. Future prospects and potential difficulties related to the production and processing of these functional foods are also highlighted.

Keywords: Mushroom, Glycoproteins, Biologically active compounds, Functional foods, Natural antioxidants.

**LA QUESTION DE L'INNOVATION DES TECHNIQUES AGRICOLES DANS LA
COMMUNE DE SAKETE AU BENIN**

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Résumé

L'agriculture contribue au processus de développement de la commune de Sakété. Mais un mouvement de transformation s'impose donc à l'agriculture pour répondre à l'augmentation des besoins générés par la croissance de la population. La présente recherche vise à étudier l'innovation des techniques agricoles dans la commune de Sakété.

La méthodologie adoptée dans le cadre de cette recherche s'articule autour de la collecte des données, du traitement des données et l'analyse des résultats. La recherche documentaire et les enquêtes de terrain ont été les techniques de collecte des données. Les outils utilisés pour la collecte des données sont essentiellement un questionnaire, un guide d'entretien et une grille d'observation. 224 chefs ménages ont été enquêtés. Le modèle FFOM (Forces, Faiblesses, Opportunités, Menaces) a été utilisé pour l'analyse des résultats.

Il ressort de l'analyse des résultats que dans la commune, les actifs agricoles sont faibles (5,22 %) dans les arrondissements urbains (Sakété I et Sakété II) contrairement aux arrondissements ruraux (Aguidi, Ita-djebou, Takon Yoko) qui ont vu les actifs augmenté (94,77 %). Les systèmes de culture identifiés dans la commune sont la monoculture, la rotation des cultures, l'association des cultures, l'assolement et les techniques culturales. Il existe plusieurs étapes dans l'application des herbicides sélectifs dans les spéculations. La réalisation des traitements des insecticides obéit à une logique appelée fenêtre. Pour avoir un bon rendement de cette spéculation, il faut en moyenne six (06) voir sept (07) traitements et au plus 12 traitements avant la récolte selon le cas. L'usage de l'énergie solaire sur les exploitations contribue à la réduction de la dépendance énergétique sur elles et contribue à l'autonomie des systèmes de production.

Mots clés : Sakété ; innovation technologiques ; producteurs ; population.

Abstract

Agriculture contributes to the development process of the commune of Sakété. But a movement of transformation is therefore essential for agriculture to meet the increase in needs generated by population growth. This research aims to study the innovation of agricultural techniques in the municipality of Sakété.

The methodology adopted in the context of this research revolves around data collection, data processing and analysis of the results. Documentary research and field surveys were the data collection techniques. The tools used for data collection are essentially a questionnaire, an interview guide and an observation grid. 224 heads of households were surveyed. The SWOT (Strengths, Weaknesses, Opportunities, Threats) model was used to analyze the results.

It emerges from the analysis of the results that in the commune, agricultural workers are low (5.22%) in the urban districts (Sakété I and Sakété II) unlike the rural districts (Aguidi, Ita-djebou, Takon Yoko) which saw assets increase (94.77%). The cropping systems identified in the municipality are monoculture, crop rotation, crop association, rotation and cropping techniques. There are several steps in the application of selective herbicides in speculations. The realization of insecticide treatments obeys a logic called window. To have a good yield from this speculation, it takes an average of six (06) or even seven (07) treatments and at most 12 treatments before harvesting, depending on the case. The use of solar energy on farms contributes to the reduction of energy dependence on them and contributes to the autonomy of production systems.

Keywords: Sakété ; technological innovation; producers; population.

**THE THERAPEUTIC EFFECTS OF DENIPLANT NUTRACEUTICALS
ON THE GUT MICROBIOME IN PATIENTS WITH PSORIASIS**

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ABSTRACT

Background A growing body of evidence highlights that intestinal dysbiosis is associated with the development of psoriasis. The gut–skin axis is the novel concept of the interaction between skin diseases and microbiome through inflammatory mediators, metabolites and the intestinal barrier. The gut microbiome affects skin homeostasis through its influence on the signaling pathways that coordinate epidermal differentiation.

The objective of this study was to synthesize current data on the Deniplant natural modulator of the gut microbiome in patients with psoriasis.

Materials and methods All studies confirmed the association of psoriasis and gut microbiota dysbiosis. We describe the recent advances regarding the interplay between gut microbiota and the skin. Thus, the microbiome can be considered an effective therapeutical target for treating this disorder.

Results This presentation provides a detailed and comprehensive systematic study regarding gut microbiome in patients with psoriasis. These results are supported by clinical observations based on a case serie showing improvement in psoriatic skin lesions after Deniplant natural modulator. It is still not clear whether psoriasis is an effect or a cause of the observed disbalance between beneficial and pathogenic microbes. In this context, the study provides very interesting results, showing significantly greater changes in the gut microbiome of patients with psoriasis treated Deniplant natural modulator

Conclusion There is a significant association between alterations in gut microbial composition and psoriasis. Intestinal dysbiosis is a state of imbalanced gut microbiome that eventually has a negative impact on skin function and integrity. Deniplant natural modulator is a potential therapeutic strategy in patients with psoriasis

Keywords: dysbiosis, microbiome, psoriasis, gut-skin axis, gut barrier, Deniplant nutraceuticals

**THERMAL CONVECTION ON JEFFREY FLUID IN PRESENCE OF SUSPENDED
PARTICLES IN A POROUS MEDIUM: A MATHEMATICAL THEOREM**

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ABSTRACT

In this study, the thermal convection on Jeffrey fluid in the presence of suspended particles in a porous medium is examined. Linear stability theory based on normal modes is employed to derive a mathematical theorem on thermal convection in a porous layer saturating a Jeffrey fluid which states that the viscoelastic thermal convection at marginal state cannot manifest as stationary convection if the thermal Rayleigh number R , the medium permeability parameter P_1 , the Jeffrey parameter λ_3 and suspended particles parameter B , satisfy the inequality

$$R \leq \frac{2\pi^2}{B(1+\lambda_3)P_1}.$$

Keywords: Jeffrey fluid, porous medium, suspended dust particles, thermal convection.

**PROBABILITY MODEL WITH PROPERTIES AND
APPLICATIONS**

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ABSTRACT

Statistical analysis of lifetime data is an important topic in reliability engineering, biomedical and social sciences and others. In this paper, a new one- parameter unit probability distribution called new unit rational sine distribution is proposed. It is more flexible than some existing well-known distribution due to its different shapes of the hazard function and probability density functions. We study some of its statistical properties. We obtain explicit expressions for moments, quantile function and order statistics. The method of maximum likelihood is used to estimate the model parameters. The parameters related to the proposed distribution are estimated using well known estimation methods. A numerical simulations study is conducted for reinforcement of the results. In the end, we considered three real data sets to illustrate the applicability of the proposed model.

Statistical distributions are of immense importance to describe and predict the phenomenon of real world. In several logical analysis, the selection of a suitable statistical model is required. Though, a number of distributions have been developed, but there is always room for developing distributions, either having more flexibility in terms of shapes or fitting to the real world situations. Probability distributions are developed for solving different real world problems in different areas, some of the distributions are defined on the positive real line and some are defined on the whole real line.

Key Words: SH distribution; Order statistics, Maximum likelihood method; Monte Carlo Simulation.

**A STUDY OF TWO PARAMETERS BASED FLEXIBLE
PROBABILITY MODEL WITH PROPERTIES AND
APPLICATIONS**

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ABSTRACT

Statistical analysis of lifetime data is an important topic in reliability engineering, biomedical and social sciences and others. In this paper, a new one- parameter unit probability distribution called new unit rational sine distribution is proposed. It is more flexible than some existing well-known distribution due to its different shapes of the hazard function and probability density functions. We study some of its statistical properties. We obtain explicit expressions for moments, quantile function and order statistics. The method of maximum likelihood is used to estimate the model parameters. The parameters related to the proposed distribution are estimated using well known estimation methods. A numerical simulations study is conducted for reinforcement of the results. In the end, we considered three real data sets to illustrate the applicability of the proposed model.

Statistical distributions are of immense importance to describe and predict the phenomenon of real world. In several logical analysis, the selection of a suitable statistical model is required. Though, a number of distributions have been developed, but there is always room for developing distributions, either having more flexibility in terms of shapes or fitting to the real world situations. Probability distributions are developed for solving different real world problems in different areas, some of the distributions are defined on the positive real line and some are defined on the whole real line.

Key Words: SH distribution; Order statistics, Maximum likelihood method; Monte Carlo Simulation.

**EFFECTS OF SR²⁺ SUBSTITUTION ON THE STRUCTURAL, DIELECTRIC, AND
PIEZOELECTRIC PROPERTIES OF PZT-SAS CERAMICS**

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ABSTRACT

In this study, solid-state synthesis was used to create the SrCO₃ modified Lead Zirconate Titanate ceramic with Zr/Ti = 43/52 near the morphotropic phase boundary (MPB), whose chemical formula is Pb_{1-x}Sr_x(Zr_{0.43}Ti_{0.52})(Al_{0.5}Sb_{0.5})_{0.05}O_{3-2x}F_{2x}. Tetragonal and Rhombohedral symmetry phases coexisted in the system, according to the powder x-ray diffraction (PXRD) analysis of phase formation. A microstructural analysis using a scanning electron microscope (SEM) revealed a non-uniform distribution of large grains over the sample surface as well as the presence of a few micro-sized pores. We studied frequency and temperature dependencies of impedance and electric modulus in a wide frequency range (0.1kHz-1MHz) at different measuring temperatures (300-700K). The results showed the contributions of grains to the material's capacitive and resistive properties. As seen from the Nyquist graph, grains contribute to the resistance and capacitance of the complex impedance plots. The Nyquist plot was applied to an electrical circuit that was equivalent. At all temperatures, precise fitting steps were used to determine the grain resistance and capacitance values. It is assumed that the substitution of Sr²⁺ ions at the Pb-site causes an increase in the dielectric constant at higher temperatures.

Keywords: Perovskite, PXRD, SEM, impedance.

**GOAL SETTING THEORY FOR SMART MANUFACTURING: EMPLOYEES'
PERFORMANCE**

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ABSTRACT

The food industry has been revolutionized by the use of smart manufacturing technologies which enable automation, data analysis, and real-time monitoring of production processes. These technologies have not only improved production efficiency and product quality but have also resulted in new demands on employees. Literature indicates that the integrated approach has not been applied since most studies examined the factors that influence performance separately. Goal Setting Theory (GST) offers integration of the key human factors which is a hard but attainable goal for optimal success. As in SM, once that limit is achieved, higher aspirations are no longer motivating. Henceforth, higher goals lead to better objective outcomes in a meta-analysis of the negotiation of change required such as in smart manufacturing. Using a quantitative approach and SmartPLS, the study revealed that the relationship between managerial skills, knowledge sharing, transformational leadership, and employee performance is statistically significant. The study contributes mainly to the GST application for smart manufacturing for performance improvement.

Keywords: Food industry, smart manufacturing, goal setting theory, employee performance, managerial skills, transformational leadership, knowledge sharing.

UTILIZING FOOD WASTE DIGESTATE FOR EFFICIENT METHYLENE BLUE ADSORPTION

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ABSTRACT

This study focuses on the dual benefits of ecologic and economic gains achieved through food waste treatment. To address these issues, a combination of anaerobic digestion and adsorption was employed, leading to synergistic effects that enhanced productivity. Firstly, anaerobic digestion of food waste at mesophilic conditions (38°C) resulted in a substantial production of methane, serving as an energy source, and generated a biologically activated digestate. Secondly, the residual digestate was utilized as a raw material to create a cost-effective adsorbent for dye removal, known as porous carbon (PC-HNO₃). The main objective of this research was to assess the adsorption capacity of the designed porous carbon in removing methylene blue (MB) from aqueous solutions, a targeted pollutant. The results demonstrated that PC-HNO₃ exhibited an impressive maximum dye adsorption capacity of 310.10 mg/g. Furthermore, the adsorption process was best described by Langmuir and pseudo-second order kinetic models.

Keywords: anaerobic digestion, food waste, digestate, adsorption, dye removal.

THREE-DIMENSIONAL MODELING OF MICROWAVE TUMOR ABLATION

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ABSTRACT

Computer modeling is confirmed to be an effective tool to improve the performance of microwave tumor ablation. Most of the existing numerical models of microwave ablation of tumors are two-dimensional axis-symmetric within the assumption of a homogeneous medium. Since tumors have no regular shapes, the development of three-dimensional predictive models of the microwave ablation procedure including all details of the targeted tissue characteristics and the antenna design is essential for further ablation studies with a promising possibility of application in the treatment planning adjusted for each patient.

Conventional microwave ablation technique for treating liver tumor typically used only a single antenna to deliver energy, resulting in relatively small ablation zones and increased risks of local tumor residual, intrahepatic recurrences, or distant metastases. It was reported that using multiple antennas enables creation of substantially larger ablation zones.

It was shown that two-antenna configurations are less invasive than the single-antenna configuration. Ablation zones created using two antennas are smaller causing less damage to the healthy tissue as compared to those created using a single antenna. Two-antenna configurations produce more uniform thermal profiles and higher peripheral tissue temperatures.

Keywords: Computer, microwave ablation, treatment plan.

This research was supported by the support of the Science Fund of the Republic of Serbia, GRANT 7739583, SimSurgery.

**THE DEVELOPMENT OF A THREE-DIMENSIONAL MODEL OF
ELECTROSURGICAL PROCEDURES**

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ABSTRACT

Nowadays more than 90% of all surgical operations use electrosurgery as the preferred way to cut, coagulate, ablate, and desiccate tissue. Despite the unquestionable benefits of electrosurgery, the interaction of the electrosurgical tools with the tissue may result in tissue damage. Besides the experimental methods, computer modeling is proven to be an effective approach to improve the performance of electrosurgery. The study is aimed to create a multiphysics software package for simulation of electrosurgery, from the current flow through the tissue to the topology changes of the tissue due to thermal effects with greater physical fidelity than already implemented in existing simulators. Realistic tissue modeling involving continuum thermo-mechanics model is included. The main goal is transferring the treatment plan based on the simulation outputs into an accurate and safe electrosurgical procedure.

The primary aim of this study is a better understanding of the effect of various conditions (electrode geometry, the applied voltage, pulse waveforms, power) on the prevention of sparking between electrodes during an electrosurgical procedure. The simulation model has been developed based on a multi-component plasma fluid model. Calculations were performed for different electrode arrangements (cylinder-cylinder, sphere-sphere, and cylinder-sphere) representing the shapes of surgical electrodes. The obtained simulation results could be useful for determining which electrode configuration will more easily lead to the sparking, to prevent complications of electrocautery procedures.

Keywords: Multi-component, electrosurgery, skin burns.

This research was supported by the support of the Science Fund of the Republic of Serbia, GRANT 7739583, SimSurgery.

**STUDY OF THE AERODYNAMIC BEHAVIOR OF A LARGE HORIZONTAL AXIS
WIND TURBINE ROTOR**

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ABSTRACT

Renewable energy sources, allowing decentralized production of electricity, can help solve the problem of electrification of isolated sites where a large number of individuals are deprived of any energy input, wind turbines have become a means of making substantial savings on their energy consumption and thus reducing their electricity bills.

The aim of this work is to study the aerodynamic behavior of a large horizontal axis wind turbine rotor. The objective is to improve the efficiency and power of the high-energy rotor turbine used in the production of electrical energy depending on the wind speed, which is important in this study. In order to achieve the intended objective, we have combining two theories; the blade element theory and the axial flow theory to determine the optimal geometric parameters and the aerodynamic forces which act on the studied blades.

In addition to its economic profitability of this study, wind energy also has the advantage of being ecologically very clean since a wind farm does not emit pollutants or greenhouse gases and does not generate waste. Finally, wind turbines at the end of their life can be easily recycled and the site can be restored to its natural or agricultural state without significant expense.

Key Words: renewable energy, wind, aerodynamic forces, aerodynamic behavior, wind speed;

THE PROBLEM OF SPIRITUALITY IN THE INFORMATION SOCIETY

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ABSTRACT

Researchers characterize the current stage of society's development as informational. Such a society is connected with the unfolding of the information and technological revolution, which extends to all spheres of social, cultural and economic activity. Knowledge and information are the basis of social progress.

Knowledge generation, information processing, and symbolic communication are considered indicators of the productivity of a society that needs creative workers. The modern era causes a whole series of changes in the inner world of a person. It changes a person's picture of the world, his worldview, life position, lifestyle. The ideal of the pragmatic present is recognized as maximum effectiveness in achieving material benefits, which is manifested in the tacit agreement of the majority of the population with the opinion that "the end justifies the means." The technocratic distortion of modern civilization leads to the desire to satisfy only human flesh, to create comfortable conditions for his life, to increase luxury, which inevitably leads to the leveling and impoverishment of the moral and spiritual origins of man. Such circumstances produce a cultural and moral catastrophe, the dehumanization of human activity, the decline and destruction of a person's personal spiritual principles, and thus, his true spiritual death. Morality presupposes the presence of a universally recognized ethical minimum, which must be implemented. If a person has formed a certain system of values and moral guidelines, then this creates a certain internal harmony of the individual, his spiritual world. Spirituality gives meaning to life, meaning also to suffering, joys, various efforts, etc. Conclusions. The main condition for the moral development of society and the individual is the creation of objective conditions for expanding the moral freedom of the individual, expanding opportunities for moral choice. The criterion of moral progress is the degree of spiritual maturity of the individual, the ability to make humanistic universal values the meaning of one's own life. Moral values play an important role in the process of spiritual unity with the help of those values that allow a person to navigate in life, educate him as a consciously and spiritually developed personality.

Key words: morality, values, man, society, ethics, spirituality.

**THE SYMBIOTIC RELATIONSHIP BETWEEN JOB PERFORMANCE AND
SOFTWARE APPLICATION COMPETENCIES BY POSTGRADUATE STUDENTS
IN FINANCE AND ACCOUNTING, CASE OF ALBANIA**

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ABSTRACT

Background: In many job industries, directly to customers, it is well-known that customer relationship management software and job performance are strongly correlated. Moreover, they substantially affect company performance (significant activities benefit firms by raising revenues and reducing costs.), especially in the financial services industry. Today employers of graduated students in finance and accounting require different soft skills, but the most essential are technical skills in software applications and technologies. In this context, various business problems have been solved, and job performance has increased through the diversified functions of application software. *Purpose:* This study deals with the self-assessment of the level of professional competencies of postgraduate students in finance and accounting in Albania and their performance on the job related to technological knowledge and software applications. The study aims to identify the ability to use advanced software at work, apply professional knowledge as specialist advisors in financial software applications, and the need for training (because the university curriculum is not updated). *Design/Methodology:* A survey is conducted to estimate the technological competencies of postgraduate students studying a Master of Science in Finance or Accounting and Auditing at the Faculty of Economics, University of Tirana. According to official data (2022-2023 academic year), the population is 270 students (for two successive academic years), and the sample is 180. Proceeding with these data are two econometric models with multi factors with index variables, measured by the self-assessment of employed students and their work performance. *Findings:* Students have great self-confidence perception in technological skills for any professional job, and they can apply professional knowledge as an advisor in financial measurement through software applications. Providing work performance by their team leaders or direct managers, students need training on the job for financial software applications, and they have no statistical significant competence to apply professional knowledge as specialist advisors in financial software applications. *Practical Implications:* Needed enrichment improvement of university curricula focusing on software applications to minimize the gap in technological knowledge. Businesses should be involved in adapting these curricula by work-integrated learning.

Keywords: technological software applications, self-assessment and work performance, postgraduate students in finance and accounting

**TALENT MANAGEMENT: STRATEGIES AND PRACTICES ADOPTED BY
HUMAN RESOURCES MANAGEMENT IN PORTUGAL**

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Financial Support:

Delfina Gomes has conducted the study at Research Center in Political Science (UIDB/CPO/00758/2020), University of Minho/University of Évora and supported by the Portuguese Foundation for Science and Technology (FCT) and the Portuguese Ministry of Education and Science through national funds.

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ABSTRACT

Talent management has become relevant for organizations for several reasons, and one of those reasons is competition between employers both at local and global levels. The need to manage talent and the globalization of talent management is associated with the requirement to create new HRM tools, methods and processes. The present study aims to understand how different organizational actors characterize and define talent management and their perception about HRM practices and strategies to manage talent in their companies. This study used 22 interviews conducted with different organizational actors belonging to different Portuguese organizations from different areas of activity. Based on the interviewees' perception it can be highlighted that there was a difficulty in defining what can be considered talent, combined with different meanings and different ways of perceiving what can be a talent. In fact, several participants report having difficulty in identifying effective talent management strategies in the organization in which they work. The dominant perception of the interviewees is that both talent and talent management should be perceived, analyzed not as something disconnected from everything else in the organization, but as something comprehensive and transversal to the organization's management. Finally, the study highlights that properly managing talented people, distinguished groups and organizations that thrive in a volatile, uncertain, complex and ambiguous world, requires that management in general and HRM in particular transform much of the rhetoric into effective practices.

Keywords: Talent, Talent Management, Human Resource Management.

**VALORIZATION OF A MINING WASTE BETWEEN THE LITERATURE AND
THE EXPERIMENTAL TESTS**

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ABSTRACT

This work investigated the effect of combining a granulated slag of El- hadjar (Algeria) and silica fume on the characteristics of the elaborate high performance concretes up to 12 months. We formulated high performance concrete with and without cementitious addition. The mode of conservation is the gypsum water (corrosive condition).

The results show that the concrete containing (5wt. % silica fume and 10wt. % slag granulated), give a higher physico-mechanical propertied than that of the concrete without cementitious addition.

Keywords: High performance concrete, mechanical strength, granulated slag, silica fume, durability

MICRO CONCRETE ADMIXED WITH WHITE CEMENT WITH POLYSTYRENE

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ABSTRACT

In the construction field, the current research is oriented to the recovery of materials in general, is especially local materials to fight both the soaring prices that knows the way and at the same time ensured the balance nature by solving the problem of pollution that allows the survival of several species that are the major links to the balance of nature.

The objective of our work is to lighten the micro-concrete by adding different percentages of polystyrene, and to improve the fluidity and the mechanical strength of the micro-concrete by the incorporation of adjuvant. The results obtained from this research confirm that the rate of 30% of polystyrene gives the most alleviation, 1.5% of adjuvant gives good fluidity and increases the mechanical strength.

Keywords : Polystyrene, Adjuvant, Micro concrete, Mechanicals proprieties.

**MAPPING DIGITAL COMPETENCIES OF SENIOR ADULTS:
EVIDENCE FROM THE DIGILIFE PROJECT**

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ABSTRACT

Digital divide is a key problem for the current society where over 65 cannot have access to all the services offered digitally by public and private institutions. Countries that are characterized by an higher presence of people that are already retired are those that are experiencing problems in offering some services with online tools.

The Covid-19 experience has boosted the quality and the quantity of services offered online and nowadays for people that have no more than 40-50 years there is no problem in requesting services online when needed. Elder people is still facing problems in using mobile phones, tablets, and computers and they are still struggling in using online tools and apps without the help of their relatives.

DIGILIFE is an Erasmus KA2 project that aims to monitor the gap in digital skills among seniors in Italy, Spain, Grece and Portugal in order to underline the main differences among digital competences needs in four of the European countries with an higher percentage of over-65. The survey is submitted to a representative sample of older adults (around 100 by country) and it focuses on the digital gap related to accessing to public and private services that are necessary for the day-by-day activity of the citizens.

Results of the survey show that over 65 cannot be considered digitally customers for public and private services and, even if they normally have the devices for accessing online services, they do not use internet channels due to a lack of knowledge and a lack of confidence. Problems are not only related to laptop and software and even user-friendly applications studied for young generations (e.g. social media) may be too complex for elder people.

Elder people are frequently not independent in accessing to private or public services and for those that cannot have the support of their relatives is necessary to develop training programs that allow them to fill the gap.

Keywords: Digitalization, Digital Divide, Education

**FOR AN EMBODIED VIEW OF LANGUAGE IN APPLIED LINGUISTICS AND
THE SOCIAL SCIENCES**

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ABSTRACT

This paper argues that applied linguists and social scientists need to reflect more on the embodied nature of language (Bucholtz & Hall, 2016; Bonfante, 2020) and the role of affect when doing intersectional analyses (Díaz-Benítez, 2020) of discursive identity constructions. Based on Puar's (2007) view of the subject as material, embodied and always in transformation, and her conceptualization of sexuality not as an identity, but as a mosaic of affects (Puar, 2020), we suggest that applied linguists and social scientists must consider affect toward others and the way bodies are materialized through speech when studying how gender and sexuality identifications are constructed through language. In order to exemplify our ideas, we shall analyze transcriptions of two narratives of non-heteronormative persons, one the coming-out story of a bisexual woman who has doubts about her sexuality due to certain interactions with her partner, and the other the story of a non-heteronormative man about some relationship difficulties between him and his partner. The analysis shows that their gender and sexuality identifications, and doubts about them, cannot be fully understood simply through looking at the intersections of gender and sexuality categories unless we also consider the role of affect and of the body in their discourse.

Keywords: Embodied nature of language, Intersectionality, Gender, Sexuality

**FROM HIVE TO TABLE: EXPLORING NUTRIENT – RICH SPREAD RECIPES
ENHANCED BY UNIQUE VARIETAL HONEYS**

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ABSTRACT

In the domain of gastronomic creativity and advancing health consciousness, the development of nutrient-rich spreads that captivate the taste receptors while providing wholesome benefits has gained significant popularity. Nutritional spreads enriched with different types of honey present a fusion of taste, nutrition, and sensory delight.

This laboratory study was conducted over the period from June to July 2023, with three repetitions carried out in the Laboratory of the Faculty of Natural Sciences at Pristina University.

The article explores the art of creating these spreads, employing various types of honey (meadow and forest) to skilfully combine flavours and well-being benefits. By introducing elements like nuts, black seed, peanut butter and dried fruits, these spreads were enriched with essential nutrients such as healthy fats, protein, and fibres.

Honey's natural sweetness reduces reliance on processed sugars, while the array of flavours offers a spectrum of taste experiences. Incorporating nutrient-rich components underscores the intention to offer spreads that cater to both pleasure and nourishment.

Experimenting with various combinations and proportions unveiled an exciting array of textures and flavours. This exploration ranges from the earthy richness of almonds to the exotic allure of coconut, offering a diverse palate of sensory encounters.

In conclusion, the creation of nutrient-rich spreads using different honey types encapsulated the essence of harmonizing taste and nutrition. While the article doesn't delve into intricate nutritional specifics, it effectively communicates the potential of these spreads for sensorial satisfaction while promoting a balanced diet. The fusion of various honey varieties and an assortment of ingredients elevated spreads to a realm of nutritive innovation, inviting individuals to embark on a journey where flavour and nourishment come together in each delightful spread.

Keywords: Nutrient-rich spreads, Honey, Gastronomic creativity, Sensory delight.

SOLID-STATE SYNTHESIS AND CHARACTERIZATION OF SPINEL CuBi_2O_4

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ABSTRACT

The objective of this research is to synthesize and characterize a ceramic material with the chemical formula CuBi_2O_4 . This compound, known as Copper Bismuth Oxide, falls under the category of spinel oxides. It's a type of mixed metal oxide where copper (Cu^{2+}) and bismuth (Bi^{3+}) ions are combined with oxygen (O^{2-}) ions.

Spinel-structured CuBi_2O_4 mixed oxide, with a narrow band-gap of 1.5 eV, is a compound with intriguing properties. These distinct characteristics have motivated investigations into its potential applications. Notable among these applications are its magnetic, dielectric, and optical traits. Moreover, it shows promise in the field of photocatalytic pollutant degradation.

In our particular study, the sample was prepared using the solid-state synthesis route. Stoichiometric quantities of CuO and Bi_2O_3 were intimately mixed and then subjected to a 24-hour calcination process at 950 °C within an electric furnace under an air atmosphere. The characterization was carried out by various techniques, such as powder X-ray diffraction (PXRD), scanning electron microscopy (SEM) and infrared spectroscopic analysis (FTIR).

Keywords : Solid state reaction, spinel CuBi_2O_4 , PXRD, FTIR, SEM.

***BRYOPHYLLUM PINNATUM* ETHANOLIC LEAF EXTRACT: AN
INVESTIGATION OF ITS PROXIMATE, ANTI-NUTRITION, PHYTOCHEMICAL
COMPOSITIONS, AND ANTI-BACTERIAL ACTIVITY**

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Abstract

The era of drug resistance has necessitated the need to sought alternatives to conventional medications. These alternatives are majorly in the form of herbal medications which have gained societal acceptance. In this study, the proximate, anti-nutrition, phytochemical composition, and antibacterial activity of *Bryophyllum pinnatum* (miracle leaf) ethanolic leaf extract was investigated. The ethanolic extract of fresh *Bryophyllum pinnatum* leaves collected from Samaru market, Zaria, Kaduna State, Nigeria, was prepared using standard laboratory procedure. Proximate and phytochemical analyses were performed using standard techniques. Antibacterial activity was assessed at different concentrations against some multi-drug resistant bacteria (*Escherichia coli*, *Proteus spp*, *Pseudomonas aeruginosa*, *Salmonella typhi*, *Staphylococcus aureus*). Minimum inhibitory concentration (MIC) and minimum bactericidal

concentration (MBC) were determined. Results of proximate analysis revealed carbohydrate (61.98%), crude fiber (12.8%), crude protein (5.22%), ash content (10%), crude fat (2%) and moisture content (8%). Tannins and phytate (0.23% each) were the anti-nutrients; alkaloids, tannins, flavonoids, saponins, quinones, steroids and terpenoids were the phytochemicals identified. The extract had higher activity against *Proteus* spp, and *Salmonella typhi* at 200 mg/mL, and 100 mg/mL, respectively. MIC showed no turbidity at 200 mg/mL and less turbidity at 100 mg/mL against *Proteus* spp and *Salmonella typhi*. MBC revealed bactericidal (at 200 mg/mL) and bacteriostatic (at 100 mg/mL) activity against *Proteus* spp and *Salmonella typhi*. In conclusion, this study further asserted that leaves of *B. pinnatum* constitutes a source of nutrients, phytochemicals and could be used as potential antibacterial. It was therefore recommended that further studies on its antibacterial components and mechanisms should be carried out.

Keywords: phytochemical, antibacterial, *Bryophyllum pinnatum*, leaves, Zaria Kaduna State

**IMPACT OF SUPPLY CHAIN TECHNOLOGY AND BUSINESS PROCESS
MANAGEMENT ON HALAL SUPPLY CHAIN PERFORMANCE OF THE FOOD
INDUSTRY**

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ABSTRACT

Purpose – The paper reveals the impact of supply chain technology on halal supply chain performance, and which business process management intervened in that relationship. Supply chain technology is used as a competitive weapon in the food industry to heighten the halal supply chain performance.

Design/methodology/approach – As the research framework study is underpinned by the Systems Theory, it used a deductive approach on the impact of supply chain technology and business process management on the halal supply chain performance of the food industry.

Findings – Using analytic techniques used PLS-SEM, the study found that supply chain technology is more impactful to the supply chain performance, through business process management.

Research limitations/implications – The model explains the impact of supply chain technology and halal supply chain performance, through business process management which bridges the gaps in the field of study. Furthermore, this study used Systems Theory and future research could measure SCM costs using the Transaction Cost Economics for the entire supply chain management.

Practical implications – The research provides the tools that could be deployed to guide practitioners to increase halal supply chain performance. The sustainability of supply chain management using supply chain technology, and through business process management creates predominant variables.

Originality/value – Bridging the supply chain performance in halal ecosystems is hoped to provide academics and practitioners with expansions of knowledge and predominant variables in the research context.

Keywords: Systems theory, supply chain technology, business process management, supply chain performance, halal.

Paper type: Research paper

**CELEBRITY ENDORSERS IN ONLINE MARKETING AND THEIR IMPACT ON
PURCHASE INTENTION:A STUDY IN THE INDONESIAN CONTEXT**

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ABSTRACT

Moving on to the context of Indonesia, where the celebrity endorser phenomenon is widely embraced by marketers, we delve into the dynamic landscape of celebrity endorsements in the realm of online marketing. Indonesia's vibrant entertainment industry and the strong influence of social media have given rise to a multitude of celebrity partnerships with brands. With numerous examples of successful celebrity endorsements shaping consumer perceptions and driving purchasing decisions, we'll explore how this trend reflects the evolving strategies adopted by marketers to navigate the Indonesian market. Online marketing has transformed the way brands connect with consumers, and the involvement of celebrity endorsers has become a prominent strategy to enhance consumer engagement. This study examines the role of celebrity endorsers in online marketing campaigns and their influence on consumers' purchase intentions within the Indonesian market. Indonesia, with its dynamic digital landscape and vibrant celebrity culture, offers a unique context to explore this phenomenon. Leveraging a mixed-methods approach, this research combines quantitative analysis of consumer responses to online campaigns featuring celebrity endorsers with qualitative insights into the cultural and psychological factors that shape consumers' purchase intentions. The findings shed light on how the presence of celebrity endorsers in online marketing can impact Indonesian consumers' perception of brands and their intent to purchase. Additionally, this study discusses the challenges and opportunities associated with utilizing celebrity endorsements in the context of Indonesia's diverse cultural landscape. The research contributes to the understanding of the interplay between celebrity endorsements, online marketing strategies, and consumer behavior within the Indonesian context, offering actionable insights for marketers seeking to harness the power of celebrity influencers effectively.

**EXPLORING THE INTERSECTION OF CULTURE AND DATA: IMPLICATIONS
OF GENERATIVE AI**

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ABSTRACT

The digital era has ushered in a profound transformation in the way cultures interact with and are influenced by data-driven technologies especially in India. This research delves into the intricate interplay between culture and data, focusing on the impacts of generative AI. As Artificial Intelligence (AI) technologies become increasingly integrated into our societies, it is imperative to critically examine their implications for cultural identity, social dynamics, and ethical considerations.

Generative AI, exemplified by systems like ChatGPT, Google Bard, and others have showcased remarkable abilities to mimic human conversation, raising questions about the preservation of linguistic nuances, authenticity, and creativity. This research investigated how generative AI interacts with different cultural contexts and contributes to the evolution of communication norms.

This research aims to provide a comprehensive overview of the complex relationship between culture and data-driven technologies. By examining the intersections of generative AI, it seeks to shed light on both the opportunities and challenges that arise in the realm of cultural evolution. As societies navigate these technological advancements, a holistic understanding is vital for informed decision-making, policy formulation, and the preservation of diverse cultural identities.

Keywords: culture, data, generative AI, cultural identity, ethics, technology impacts.

**GENERALIZED DIFFERENCE LACUNARY WEAK CONVERGENCE OF
SEQUENCES**

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ABSTRACT

The initial work on lacunary sequence is found in Freedman et al. [6]. They studied strongly Cesàro summable sequences with general lacunary sequence θ . Further lacunary sequences have been investigated by Dowari and Tripathy [2-4], Ercan et al. [5], Gumus [7], Tripathy and Baruah [10] Tripathy and Mahanta [11], and others.

The concepts of weak convergence introduced by Banach [1] is of exceeding interest, but in certain respects are rather restricted. One may refer to Kreyszig [8] and Limaye [9]. Many of the results concerned with these concepts are in general valid only for separable spaces.

**CONTRIBUTIONS AND ROLES OF WOMEN IN THE TREATY OF HUDAIBIYA
(A HISTORICAL REVIEW)**

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ABSTRACT

Early Islamic history is dominated by the Hudaibiya Treaty, which is noteworthy for its crucial moment and for elucidating the Holy Prophet Muhammad's (PBUH) leadership. However, one perspective that has received limited attention is the significant and complex roles that women play in reducing the negative impacts of this system. This investigative piece includes a thorough, convincing analysis of the roles that women played throughout the negotiations and execution of the Hudaibiya Settlement. This study clarifies the crucial roles played by women, such as Umm Salama and others, in examining intricate hereditary and political components, provoking the beneficial outcome of the conflict between Muslims and the Quraysh. This is done through an analysis of fundamental Islamic sources and scholarly understandings.

This article examines how women actively engaged in decision-making, offered Prophet Muhammad and the Muslim community strategic advice, and provided insightful observations based on historical accounts and contemporary scholarly research. Their contributions went beyond merely providing assistance; instead, they shown fortitude, tolerance, and diplomatic skill in the face of difficulty. The goal of this study is to shed light on the frequently underappreciated aspects of women's agency in historical events and their crucial role in forming the early Islamic society.

The study also explores how women's responsibilities in the Hudaibiya Treaty have wider ramifications. It talks about how their input not only affected the discussions' immediate conclusion but also helped set the stage for later occurrences, such the ultimate capture of Mecca. The importance of these historical insights in the present-day debates over leadership, gender equality, and conflict resolution is also highlighted in this article.

The enormous and varied contributions made by women to the Treaty of Hudaibiya are demonstrated by this historical analysis, which acts as its conclusion. We acquire a clearer understanding of the intricacies of historical dynamics and the enduring effects of their action by re-evaluating their positions within the framework of this treaty. These women provide insightful advice for contemporary society by their wit and tenacity, highlighting the significance of inclusive involvement in influencing transformational events. This research paper can be informative and useful for new scholars.

Keywords: Hudaibiya Treaty, Islamic History, Holy Prophet Muhammad (PBUH), Women

THE CALIPHATE OF ABU BAKR (RA): A HISTORICAL STUDY OF SOCIO-POLITICAL STRUCTURES

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ABSTRACT

The Caliphate of Abu Bakr, otherwise called the Rashidun Caliphate, denotes a basic period in Islamic history following the passing of Prophet Muhammad (PBUH). Abu Bakr (RA) offered his services as the first caliph and he led the Muslim people group during a period of combination. This research work explores the socio-political structures that were laid out during Abu Bakr's caliphate. This work could investigate how initiative, administration, and managerial frameworks were coordinated, taking into account the special difficulties looked by the early Muslim people group. The review could explore how the standards of equity, discussion (Shura), and law and order were executed during this period.

Moreover, the this research could explore into the connection between the caliphate and tribal structures, the role of religious leaders, and how social and economic strategies were figured out and executed. The effect of outer variables, like struggles and partnerships, on the socio-political scene of the time could likewise be a subject of examination.

The research study, explains a broad cognizance of the socio-political plans of the Caliphate of Abu Bakr (RA), uncovering knowledge into how these plans added to the foundation and improvement of the early Islamic state. Such investigation could offer information into obvious organization models and their importance to contemporary discussions about organization, leadership, and social affiliation.

Keywords: Hadrat Abu Bakr, Rashidun Caliphate, Holy Prophet Muhammad (PBUH), Socio-Political Structures

ASSESSING THE INFLUENCE OF CULTIVAR VARIABILITY ON BIOCHEMICAL CHARACTERISTICS OF APPLE (*MALUS DOMESTICA* L.) IN MOROCCAN CONDITIONS"

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ABSTRACT

Twenty-six different apple cultivars grown in Morocco were selected, and their physicochemical (total soluble solids, titratable acidity, maturity index, phenolic compounds, flavonoids, sugars and anthocyanins) and antioxidant properties of the fruits were compared. Indeed, the results showed a substantial variation among apple cultivars across all measured attributes. The chemical assessment revealed that the apple fruit exhibited a range of total soluble solids concentration, spanning from 13.46 to 18.29 °Brix. The titratable acidity, on the other hand, showcased variation between 0.044% and 0.143% expressed as citric acid content. From a biochemical perspective, significant differences were observed among the apple cultivars subjected to testing. The quantified total sugar content exhibited a range spanning from 113.96 to 142.57 g GE L⁻¹, whereas the total phenolic content showcased variability extending from 1.56 to 23.29 g GAE L⁻¹. Furthermore, the antioxidant activity displayed considerable variability, ranging between 19.13% and 90.53%, respectively. The data analyses also revealed that the cultivar 'INRA-22' demonstrated the most substantial annual growth in shoots throughout the year, whereas the cultivar 'INRA-16' showcased the greatest expansion in leaf area. To summarize, these findings underscore the cultivar's pronounced influence on not only fruit yield but also the physical, biochemical, and vegetative attributes of apples. Consequently, these outcomes serve to enrich our comprehension of the myriad apple cultivars and their prospective utilities across diverse domains, encompassing breeding, cultivation, and the culinary sector.

Keywords: *Malus domestica* L., cultivar, productive potential, vegetative growth, biochemical traits.

**DROP BY DROP: HOW COMMUNITY ENGAGEMENT IS CRITICAL TO
CONSERVING URBAN WATER RESOURCES**

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Abstract

Urban water conservation is a major problem, and encouraging sustainable water usage behaviors requires community involvement. With an emphasis on the social and environmental dimensions of water conservation, this study examines how community involvement and water conservation relate in urban settings. To examine the connection between community involvement and water conservation, a mixed-methods approach was adopted. The study includes conducting surveys of 150 participants to get quantitative information on households' water-saving attitudes and actions and 7 interviews with significant stakeholders to gather qualitative information on community involvement in water conservation programs. In Pakistan's bustling urban neighborhood of Lahore, an extensive series of surveys and interviews were meticulously conducted to shed light on the complex relationship between community participation and water conservation. The profound results of this comprehensive study not only establish a clear link between these two factors but also underscore their vital importance in addressing pressing water-related challenges in urban environments.

The findings unequivocally suggest that active community involvement plays a pivotal role in fostering water conservation practices within urban areas. By actively engaging residents in various water conservation initiatives, a multitude of benefits can be attained. First and foremost, such endeavors serve as potent vehicles for increasing awareness among community members about the alarming issue of water scarcity, ensuring that it resonates deeply within their consciousness. This heightened awareness, in turn, stimulates a sense of urgency and personal responsibility, driving individuals to adopt water-saving behaviors as part of their daily lives.

Within the context of this study, it was discovered that households exhibiting higher levels of community participation displayed a greater propensity to embrace water-saving practices. Simple yet impactful actions, such as promptly fixing leaky taps, utilizing low-flow showerheads to minimize water usage, and actively engaging in the collection of rainwater, emerged as tangible manifestations of the positive influence of community involvement. These behaviors not only contribute to conserving precious water resources but also inspire a collective ethos of responsibility and sustainable living among community members.

Moreover, the research underscores the significance of considering the social and environmental dimensions of water conservation. By actively involving the community, it

becomes possible to identify and prioritize local water conservation needs, ensuring that efforts are precisely tailored to the specific requirements and challenges faced by the neighborhood. In this way, community participation becomes a dynamic and invaluable feedback mechanism, providing crucial insights into the effectiveness of ongoing water conservation initiatives, allowing for continuous improvement and refinement.

Beyond the immediate benefits, it is important to recognize the broader ramifications of water scarcity in urban areas. The study illuminates the multifaceted nature of this issue, revealing its potential to instigate conflicts over water resources, escalate energy consumption, and contribute to greenhouse gas emissions. These interconnected consequences underscore the urgent need for a holistic approach to sustainable water resource management in urban environments.

In light of these insights, the promotion of community participation in water conservation initiatives emerges as an imperative step toward achieving long-term and sustainable water resource management. By fostering an inclusive and collaborative environment, where individuals feel empowered to actively contribute to water conservation efforts, communities can collectively address the challenges posed by water scarcity, cultivating a culture of responsible resource stewardship that reverberates far beyond the boundaries of Lahore's urban neighborhood.

**DEGRADATION OF BASIC GREEN 4 IN AQUEOUS MEDIUM BY
APPLICATION OF GREENLY SYNTHESIZED PHOTOCATALYST**

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ABSTRACT

This study examines the hazardous dye; Basic Green 4 (BG4) degradation by peroxydisulfate-mediation. A greenly synthesized photocatalyst based on silver oxide was used for the degradation acceleration. Most of the dye (83%) was degraded in solar radiation/silver oxide in 180 minutes demonstrated the MPs' significant photoactivity. The fact that BG4 was completely broken down in just 21 minutes was evidence that peroxydisulfate significantly increased the activity of the photocatalyst. This technique demonstrates a practical and environmentally friendly way to degrade cationic dyes in wastewater using a silver oxide-based photocatalyst.

Keywords: Photocatalysis, Degradation Kinetics, Solar radiations

**REMOVAL OF VICTORIA GREEN B USING WASTE MATERIAL-BASED
BIOSORBENT FROM WATER FOR ENVIRONMENTAL REMEDIATION**

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ABSTRACT

Victoria Green B (VGB) is a toxic dye that is harmful to both humans and other living species. Despite its toxicity, it is frequently employed in a variety of industries to dye everyday things. When industrial effluents containing this dye and other comparable dyes are released into water and soil resources, they harm the environment and cause pollution. The VGB dye was removed from the water in this investigation using waste material. The majority of the dye was removed within 600 seconds under optimal circumstances, resulting in a good outcome that may lead to the implementation of this technology for environmental cleanup.

INTEGRATED PEST MANAGEMENT STRATEGIES AS ALTERNATIVES TO
FUNGICIDES TO CONTROL APPLE SCAB CAUSED BY *VENTURIA INAEQUALIS*:
A LITERATURE REVIEW

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ABSTRACT

Apple scab, caused by the fungus *Venturia inaequalis*, is a serious disease that affects apple orchards around the world. Its intensity is strongly influenced by environmental factors. Damage to fruits, leaves and flowers leads to significant economic losses. To control this disease, apple growers rely heavily on fungicides, which can lead to resistance problems and an impact on the environment and human and animal health. This literature review focuses on the study of the scab reproduction mode and the identification of climatic factors favoring its spread in apple orchards. The objective of this study is to highlight the importance of good cultural and agricultural practices to reduce excessive dependence on fungicides. Indeed, several alternatives to fungicides are considered. On one hand, the use of resistant varieties combined with adapted cultural methods proves to be an effective strategy. On the other hand, prophylactic measures, such as the destruction of infected leaves and fruits, make it possible to reduce the primary inoculum and the risks of infection. Apple varieties carrying specific scab resistance genes have also shown promise in limiting the disease in orchards. In addition, tetraploid varieties show greater resistance to scab. Furthermore, the use of biocontrol agents such as the endophyte fungus, mycoparasitic "*Microsphaeropsis ochracea*", algae oligosaccharides, fructans and lipopeptides produced by *Bacillus subtilis* offer potential antifungal alternatives to traditional chemical fungicides. An innovative approach is to break the life cycle of *Venturia inaequalis* by hybridization between two special forms of the fungus, which could significantly reduce the population of *V. inaequalis* in orchards and reduce the use of chemicals. By integrating these different alternatives into an integrated pest management strategy, it is possible to control effectively apple scab while minimizing the impact on the environment and reducing production costs. Continued research in this area is essential to developing sustainable management approaches for this major apple orchard disease.

Keywords: Apple scab, *Venturia inaequalis*, fungicide resistance, fungicide alternatives, cultural practices, integrated pest management, biocontrol.

**ENVIRONMENTAL MANAGEMENT TRAINEES' GREEN ENTREPRENEURIAL
INTENTIONS, EVENTS AND FEARS IN NIGERIA**

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ABSTRACT

Going green has created significant enthusiasm across society and green entrepreneurial intention is still at the evolving stage. The main objective of this study was to assess the green entrepreneurial intention, events and fear of environmental management trainees in Nigeria. A cross-sectional survey was conducted through a structured questionnaire among the environmental management trainees. A multi-staged sampling technique was used to select 240 respondents. The findings of the results revealed that a majority of the respondents (79.2 %) had a family size of less than or equal to 6 while the mean family size of the respondents is approximately 5 persons. A majority of the respondents (49.2 %) are between the ages of 21 to 25 years of age while the mean age of the respondents is approximately 22 years, received a student's monthly stipend (52.2 %) of between ₦ 10,000 and ₦ 20,000 while the mean students' monthly allowance was ₦ 16,017.70. The entrepreneurial intention (3.32), entrepreneurial event (3.13) and entrepreneurial fear (3.18) of the respondents were on average. The result of the study seeks to provide information to the stakeholders to explore opportunities for green entrepreneurial ventures among environmental management trainees. Colleges may offer adapted academic courses, or training programs to trigger the green business initiative among the students and this will be beneficial for the students in learning the essentials of green entrepreneurial intention, thus enhancing a better entrepreneurial experience and reducing entrepreneurial fright.

Keywords: environmental management, trainees, green entrepreneurial intentions, events, fears

THE COMBINED ADMINISTRATION OF FERULIC ACID & PROTOCATECHUIC ACID PREVENTS PROGRESSION OF DIABETIC NEPHROPATHY IN RATS

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ABSTRACT

A major consequence of diabetes mellitus known as diabetic nephropathy (DN) causes gradual kidney damage and impairment. The prevalence of DN remains a major problem despite improvements in diabetes control. Natural substances like protocatechuic acid (PCA) and ferulic acid (FA) have demonstrated promise in reducing diabetes complications. This study examines the individual and combined effects of FA and PCA in a rat model of experimental diabetic nephropathy. Five groups of male Wistar rats were created: the control, diabetic control, FA (100 mg/kg, p.o.), PCA (100 mg/kg, p.o.), and FA + PCA groups. Streptozotocin injection (55 mg/kg, i.p.) was used to induce diabetes, and for eight weeks, oral administration of FA, PCA, or their combination was given to the treatment groups. oxidative stress indicators, renal function, and histological alterations were analysed at the end of study duration. In the diabetic control group, renal tissues displayed histopathological anomalies impaired renal function, and raised oxidative stress. There was a considerable improvement in renal function after treatment with FA, PCA, and FA + PCA, demonstrated by lower levels of serum creatinine, blood urea nitrogen, and albumin in the urine. Furthermore, these therapies lessened oxidative stress indicators and restored the activity of antioxidant enzymes. When FA and PCA were combined, the outcomes were more obvious than when they were administered individually, boosting kidney function and histological changes suggesting renoprotective effects of FA and PCA in diabetic nephropathy.

KEYWORDS: Diabetic nephropathy; ferulic acid; protocatechuic acid; streptozotocin; renal function; oxidative stress.

**AI DRIVEN SOLUTIONS FOR ENHANCED IMMERSIVE TECHNOLOGIES
BASED APPLICATIONS : WIDE SPREAD OPPORTUNITIES**

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ABSTRACT

As we navigate the digital frontier, the rise of immersive technologies, including virtual reality (VR), augmented reality (AR), and mixed reality (MR), is profoundly influencing various sectors. This study probes the transformative effects, prevailing challenges, and untapped potential of these groundbreaking tools. Immersive tech is poised to usher in a new era of human-computer interaction, creating avenues for deeper, more meaningful engagements. Fields such as healthcare, education, tourism, and entertainment stand to benefit immensely, blurring the lines between our tangible reality and digital augmentations. Nonetheless, innovation isn't without its roadblocks. Ethical concerns, steep adoption costs, potential health issues, and the risk of exacerbating technological disparities are pressing matters that warrant attention. Yet, the horizon brims with promise. As tech ecosystems evolve and become more interconnected, immersive technologies are set to redefine user experiences, promoting global connectivity and fostering inventive applications. With the impending global rollout of advanced networks and the convergence of AI-driven solutions, we're on the cusp of a paradigm shift where digital augmentations become integral to our daily lives. This study advocates for a holistic approach, championing the benefits of immersive tech while addressing its associated challenges, envisioning a world where digital enhancements harmoniously integrate with our reality.

Keywords: AI, AR, VR, immersive technologies

**UNDERSTANDING OF OUTCOME-BASED EDUCATION PRACTICES IN HIGHER
EDUCATION**

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ABSTRACT

The Higher Education Curriculum in Indonesia is prepared to advance higher education in Indonesia. One of the curricula in Higher Education is the OBE (Outcome-Based Education) curriculum as a learning approach which focuses not only on delivering material, but focuses on achieving clear and measurable learning outcomes. In simple terms, it emphasizes innovation, skills, effectiveness and interactivity in accordance with real world needs and labor market needs. This research is a qualitative research with a descriptive approach in the Interdisciplinary Islamic Studies Postgraduate of UIN Sunan Kalijaga. The results of this study indicate that the OBE curriculum is running well and students have succeeded in publishing their work in the form of scientific articles published in several national and international journals, both reputable and not.

Keywords: Curriculum, Outcome-Based Education, higher education

**THE IMPACT OF COMMUNICATIVE GAMES ON CONGOLESE EFL
LEARNERS' SPEAKING SKILLS. AN EXPLORATION OF THE PICTURE
READING GAME IN THE TEACHING OF VOCABULARY**

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ABSTRACT

Language is a tool for self-expression, giving opinion, solving the problem, and it is really important in communication, both in verbal and non- verbal ways. That is why in this globalization era English is one language that has spread widely and becomes a major language among the other language in the international relationship. For these reasons, some countries, such as the Republic of Congo, have made English as a major part of their teaching curricula. So, English is taught from junior secondary school up to the university. Unfortunately, despite seven years devoted to the teaching and the learning of English, Congolese EFL learners still have problems to communicate freely in English when they enter University. To reverse the current situation, teachers of English should design the learning process likely to encourage the learners to communicate actively in the target language. The present research work which is an experimental one has investigated the impact of picture reading game on the Congolese EFL learners' speaking skills, in general, and on the vocabulary development, in particular. The results of the posttest have shown that, thanks to the use of picture reading game, learners from experimental group have significantly scored better than the control group. That is to say, the use of the picture reading game has offered useful opportunities for learners to learn new vocabulary without much constraint. It has also led to increase the interactivity and verbal communication among experimental group's learners.

Keywords: Communication, game, picture, reading, vocabulary

**SYNTHESIS, CHARACTERIZATION OF A NOVEL GREEN OF LAYER SODIUM
COBALT OXIDE NIBs**

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ABSTRACT

Energy storage plays an important role in the development of portable electronic devices, electric vehicles and large-scale electrical energy storage applications for renewable energy, such as solar and wind power. Lithium-ion batteries (LIBs) have dominated most of the first two applications due to the highest energy density and long cycle life. Room-temperature sodium-ion batteries (SIBs) have re-attracted great attention recently, especially for large-scale electrical energy storage applications. This is on one hand due to the abundant and widely distributed sodium resources and on the other hand due to the predicted

lower cost from using Na [1-2-3]. In This work we reported on a novel approche to green and ecofriendly of synthesizing nearly stoichiometric P2-type layered oxides $\text{Na}_{0.74}\text{CoO}_2$. The phase was confirmed using structural analyzes (FTIR ,TGA/DTA ,XRD and Raman),and the Rietveld refinement analysis show that the $\text{Na}_{0.74}\text{CoO}_2$ can be indexed to the hexagonal structure of the P 63/mmc (no 194) space group, and hexagonal platelet-like morphology was observed by SEM . The conductivity properties of the sample were studied using complex impedance.

Keywords: sodium cobalt oxide, X-ray diffraction, conductivity.

MODIFICATION OF CELLULOSE BY GREEN WILLIAMSON REACTION

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ABSTRACT

In order to create novel Rosemary Essential Oil (REO) dispersion-loaded biodegradable plastic coacervates, the "Dispersive Coacervation (D-Coac)" was researched as a new approach in this study. To develop vector systems and drug delivery matrices, the active principle (REO) was coated utilizing the D-Coac model technique. The Benzyl cellulose acrylate coacervates, which are made in the dispersion aqueous phase utilizing the Williamson green etherification process of cellulose. The proposed chemical structures were confirmed by the recorded results on the vibrational (FTIR-ATR), nuclear resonance (¹H NMR and ¹³C NMR-APT) and X-ray diffraction patterns. In addition, the contact angle results showed the extreme modifications of the Cac hydrophilic to BC hydrophobic character, where the contact angle increased from 15° to 90°, respectively. On the other hand, the structural results were in good agreement with that showed by SEM-images and EDX-spectra of samples.

Keywords: Dispersive Coacervation (D-Coac), Benzyl cellulose, williamson.

**IN VITRO ASSESSMENT OF ANTIOXIDANT AND ANTIMICROBIAL
ACTIVITIES OF MONTMORILLONITE CLAY MINERAL-ENCAPSULATED
THYME ESSENTIAL OIL VIA GAS PHASE ADSORPTION**

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ABSTRACT

This study aims to develop a new environmentally friendly method for the encapsulation of active agents from thyme essential oil to enhance their biological response. To achieve this, a phase gas adsorption process was conducted to encapsulate thyme's volatile compounds into the montmorillonite structure. The adsorption isotherm of the volatile compounds into montmorillonite revealed a maximum adsorption capacity of 144 mg/g, achieved at 180 hours. The adsorption of thyme essential oil volatile compounds was confirmed by GC-MS analysis, while FTIR analysis indicated the appearance of new peaks corresponding to the carvacrol structure, which was found to be the major compound comprising 88% of the encapsulated content. DRX results suggested that carvacrol predominantly adsorbs to the external surface of the clay. The hybrid composites exhibited enhanced antioxidant and antifungal activities compared to the direct application of the volatile compounds. This research demonstrates the potential of the developed green encapsulation method to improve the biological activities of thyme essential oil volatiles, opening new possibilities for their application in various industries.

**CHALLENGES AND PERSPECTIVES OF THE IMPLEMENTATION OF
“FISCALIZATION LAW”, IN ALBANIAN ENTITIES**

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University of Elbasan “Aleksander Xhuvani “, Economic Faculty

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ABSTRACT

Our country took a very important step at the beginning of 2020 when it decided to use a different tax reporting system for Albanian entities. The so-called fiscalization law, in its beginnings, encountered many debates and controversies. Businesses were unprepared to transition to a fully online, real-time reporting system. Many difficulties were encountered in the first transitional period and there are still issues that need changes. Based on this, we undertook this study to provide a clearer and more concise overview of the problems and recommendations for changes.

To achieve the objectives of this study, secondary data obtained from the literature review as well as primary data obtained through the analysis of questionnaires. The drafted questionnaire was distributed to business economists, approved accountants and authorized accounting experts in three districts of Tirana, Durrës, Elbasan. Descriptive analysis is the basis for conducting this study. From them, we received valuable opinions that serve us later to give the recommendations of the study.

Keywords : tax reporting, fiscalization, SME-s, implementation challenges

JEL Classification: M40,

DYNAMIC BIOMETRIC FEATURES FOR DIGITAL SECURITY SYSTEMS

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ABSTRACT

The goal of this project is to create a dynamic biometric algorithm that can accurately confirm a person's physical presence continuously by analyzing biometrics features including head length, eye blinking, iris tracking, head movements. If someone has problem in the eyes, there is lips movement also. Although facial recognition software is readily available, 2D images or movies can trick it. On the other hand, dynamic biometric features provide ongoing authentication, access to more behavioral data, protection from spoofing attempts, and application in circumstances when other options are unfeasible.

The growing demand for digital security and the susceptibility of static biometric traits, such as fingerprints and facial features, to hacking and impersonation serve as the driving forces behind this initiative. This technology has the potential to improve security in a number of areas, including immigration services, military operations, and healthcare monitoring, by providing a trustworthy approach to evaluating physical appearance. In order to track iris and pupil motions and ascertain whether a person is physically present in front of a system, the proposed approach involves watching the movement of a ball on a screen to check the watching direction pattern. Computer vision and mathematical concepts are used to implement this system. This project's overall goal is to use dynamic biometric features to enhance security and prevent unauthorized access to digital systems.

Keywords: Digital Security, Biometric Features, Computer Vision

**EMOTIONAL NEGLECT, IDENTITY AND DELINQUENT TENDENCIES IN
ADOLESCENT BOYS**

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ABSTRACT

The objective of the study was to find out the relationship between Emotional Neglect, Identity, and Delinquent Tendencies in adolescent boys. For this purpose, data was collected from 300 adolescent boys aged 13-20 years from different private and government schools and colleges of Lahore, Pakistan. Culturally relevant measures such as Emotional Neglect Scale for Adolescents (Karamat et al., 2022), Identity Scale for Adolescents (Saleem et al., 2019) and Self-Reported Delinquency Scale (Naqvi and Kamal, 2008) were used for data collection. The results showed the mean age of participants was between 16 ± 2 . Pearson correlation analysis revealed that Emotional neglect had significant positive relationship with Negative identity and Delinquent tendencies in adolescent boys meanwhile, it was negatively correlated with Positive identity. Regression analysis showed that joint family system, negative identity and emotional neglect were significant positive predictors of delinquent tendencies in adolescent boys. Participants from the joint family system had increased perception of emotional neglect. Boys from 1st year rated highest on delinquent tendencies as compared to others. The evidence suggests that adolescent boys perceive emotional neglect with increased sensitivity, and it has a significant influence on negative identity and delinquent tendencies. This emphasizes the need to explore this phenomenon further and its implications in designing effective preventative measures for delinquency.

Keywords: emotional neglect, delinquent tendencies, identity, adolescent boys, Pakistan.

IMPLANT'S SENSITIVITY TO PERIODONTAL DISEASES

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ABSTRACT

Tooth loss has been and is a crucial problem in Dentistry, and is treated as a special case. Seeing the importance of teeth in the mouth since ancient times, different methods have been tried to replace these lost teeth. In Kosovo, as in the world, the number of patients who choose dental implants has increased, so the number of patients with implant complications is expected to increase. We are also witnesses that the use of implants in Kosovo is relatively new, and this means that the experience for the application as well as the management of complications is small. Therefore, the importance of treating such periodontal diseases is very great, and the control of these diseases is essential for all those who want to achieve long-term positive results with implants.

Keywords: tooth, implants, periimplantitis, mucositis.

STUDY AND DIAGNOSIS OF THE RELIABILITY OF AN INDUSTRIAL SYSTEM

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ABSTRACT

An industrial company interacts with its environment: markets for selling manufactured products, suppliers, labor market, competition, legislation in force, geographical location, etc. Since this environment evolves, the company is condemned to adapt or disappear. In particular, the company is condemned to adapt to technological progress and to acquire new technologies so that it remains competitive in the market. The absence of reliable data and effective tools for processing this data has reduced the maintenance function to troubleshooting tasks, and by extension, to a function whose costs are constantly increasing and whose contribution to the business performance is unclear..

This work concerns an attempt to study the FMD (reliability, maintainability, availability), and to develop an adequate maintenance policy for the Ingersol drilling rig. The approach envisaged consists of highlighting the system under study, with all its specificities, with a view to making it familiar and subsequently defining priorities in its management. This work must be based on prior knowledge of the behavior of the machine in operation operating experience feedback. The identification of the most failing organs and those responsible for the breakdown of the assembly makes it possible to remedy them and to establish the best strategies to ensure longevity and good reliability, as well as the optimization of productivity.

Key Words: industrial company, maintenance function, the FMD, optimization,

**CHALLENGES AND OPPORTUNITIES FACED BY WORKING
STUDENTS AMIDST PANDEMIC**

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ABSTRACT

The COVID-19 pandemic brought drastic changes in various institutions worldwide. It catalyzed the implementation of new-normal learning through alternative learning modalities. This descriptive phenomenological study aimed to explore the challenges and opportunities encountered by working students during the pandemic. The researchers have purposively chosen nine (9) working students from a public state university using criteria. A written interview questionnaire was utilized to gather data, which the researchers sent to the informants through the Messenger application. The informants were instructed to answer the question using the Gibbs' Reflective Model as a guide, where they needed to elaborate the description of their experience, feelings, evaluation, analysis, conclusion, and action plan. The gathered data were analyzed using thematic data analysis. The themes that surfaced in the study are (1) challenges perceived and the (2) opportunities gained while working and studying. Further, the researchers generated six (6) categories from the analyzed data. It revealed that working students during the pandemic encounter challenges since they (1) recognize emotional and physical-self limitations and (2) experience lesser in-person connection and mobilization. Regardless, they gained opportunities (3) to develop character and skills, (4) in their finances, (5) to establish a positive outlook, and (6) to develop coping mechanisms. Thus, working students encounter obstacles in this new normal yet obtain benefits integral to their education and personal development.

Keyword: challenges, COVID-19 Pandemic, opportunities, public state university, working students

**PREDICTION MODEL FOR FINANCIAL DISTRESS: USING PROPOSED DATA
MINING**

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ABSTRACT

The issue with financial distress in current research is that banks don't understand the risks of financial failure and how it will affect the continuation of their operations in the future. This is because traditional methods used to predict financial failure through financial analysis based on financial ratios produce inaccurate results and cannot be trusted to determine whether banks' operations will continue. Which calls for the development of cutting-edge methods that can detect failure and a loss of continuity in advance. The study attempts to use data mining technology to forecast bank financial failure and examine how it can offer data that can be used to assess how long banks will continue to function. This attempt recommended creating a predictor system using an artificial neural network with established back propagation. The proposed module was tested using banks from the Free Iraq Stock Exchange dataset. The investigative results show a useful way to identify failing banks with a high rate of discovery and a low rate of false alarms.

Keywords: Financial, Manufacturing, Iraq Stock Exchange

**NUMERICAL SIMULATION OF A PUMP OPERATING AS A TURBINE USING
CFD TOOLS: EFFICIENCY AND HYDRAULIC BEHAVIOR ANALYSIS**

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ABSTRACT

The present study focuses on the numerical simulation carried out to validate the efficiency of a pump as turbine (PAT), as reported in the literature. The process involved key steps: parametrization of the impeller, modeling of the impeller's control volume, modeling of the control volume of the volute and pipes, mesh generation and evaluation, and simulation setup and conditions.

The parametrization of the impeller was conducted using specialized modules like Ansys Vista CPD and BladeGen to obtain an approximate hydraulic profile. The modeling of the impeller's control volume, the volute geometry, as well as the inlet and discharge pipes, was done using SpaceClaim software. Subsequently, the discretization of the control volume was performed through a meshing process. The Richardson extrapolation method was applied to determine a suitable mesh that ensures convergence and accuracy in the results. The chosen mesh was developed using the Ansys Meshing module. Finally, boundary conditions were set, and the SST $k-\omega$ turbulence model was applied for the simulation.

As a result, a relative error higher than 10% but lower than 17% was obtained. On the other hand, efficiency exhibited a different behavior concerning the error. The maximum error value was 16.92%, while as the flow rate increased, the error reduced to 0.570%. The error at the Best Efficiency Point (BEP) was 5.372%, at a simulated head of 62.650m. The sources of the relative error were attributed to the reverse engineering applied for modeling and simplification of the components of the turbomachine, which did not include the upper and lower chambers due to lack of information.

Keywords: Pump as turbine, Impeller, Efficiency, Turbine head, Numerical simulation.

DEFERRED WEIGHTED MEAN IN COMPLEX UNCERTAIN SEQUENCES

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ABSTRACT

In this paper, we present a new version of deferred weighted convergence in an uncertain environment. We establish the notion of deferred weighted convergence in almost surely and deferred weighted convergence in measure of complex uncertain sequences. Further, we investigate the relationship of these newly defined notions with other convergences.

Keywords: Uncertain sequence, deferred weighted mean, uncertain measure and complex uncertain variable.

STATISTICAL MEASURABLE
CONVERGENCE WITH RESPECT TO POWER SERIES FOR DOUBLE
SEQUENCES AND ITS APPLICATION

DEVIA NARRANIA AND KULDIP RAJ

Abstract. In this paper, we introduce and study a new types of convergences using statistical convergence via the power series method and measurable convergence. We also study their relationship with the other convergences. Further, we demonstrate Korovkin-type approximation theorems for double sequences of positive linear operators using these newly specified convergences, and we also provide illustrations that demonstrate how our proven theorems are better than their classical counterpart.

Key words: Double sequences of functions, statistical measurable convergence, Korovkin-type theorem, power series method.

**MEASUREMENT OF HORN EVENTS BY VEHICLES: A MAJOR CAUSE OF
NOISE POLLUTION IN RAJSHAHI CITY, BANGLADESH**

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ABSTRACT

Rajshahi has earned a reputation as a green city for its effective management of air pollution and tree plantations. But with the rapid growth of urbanization, traffic-induced noises are becoming more prevalent in this city. Honking is treated as the major contributor to abnormal noise during traffic congestion. The current study deals with the measurement of horn events by vehicles. For this purpose, traffic volume along with honking events of various categories of vehicles were counted manually every 15 minutes at three busy road intersections from July to August 2023 in Rajshahi, Bangladesh, during specified times of the morning, afternoon, and evening. The findings revealed that between 67% and 74% of vehicles honked their horns, with three-wheeled autorickshaws accounting for the majority of these (62% to 67% of all incidents) and two-wheeled motorbikes (24% to 30%). The evening hours produced the greatest amount of honking. Traffic noises are the most prevalent in Rajshahi despite its lack of an industrial city. The peaceful environment that was meant for the study area was really disturbed by these horn events in the green city. To make developing cities safer, the research findings might be applied.

Keywords: Horn, Noise pollution, Rajshahi city, Traffic-induced noises

**EVALUATING THE TOLERANCE OF SOME RAPESEED (BRASSICA NAPUS L.)
GENOTYPES TO DROUGHT STRESS INDUCED BY PEG DURING
GERMINATION AND EARLY SEEDLING GROWTH PHASES**

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ABSTRACT

Rapeseed cultivation is valuable because of its high nutritional value and oil content. Rapeseed is an oilseed crop well adapted to the Mediterranean region but remains sensitive to water deficits during the seed germination phase. This comparative study analyzes 12 genotypes to understand their performance and evaluate the adaptation mechanisms of drought-tolerant and drought-sensitive genotypes during the germination phase and seedling growth stages. The drought conditions were simulated using PEG-6000 to induce three osmotic potentials, -0.7 MPa, -0.9 MPa, and -1.1 MPa, and a control group without water stress. The germination percentage (GP), germination rate (GR), mean germination time (MGT), root length (RL), shoot length (SL), root-to-shoot ratio (RSR), seedling vigor index (SVI), shoot elongation rate (SER), and root elongation rate (RER) were all used to measure how genotypes responded to water stress. The results revealed the significant impact of genotype, drought, and drought × genotype interaction on all parameters studied. In the case of severe drought (-1.1 MPa), all the parameters decreased except the GMT and the RSR, which showed an apparent increase. However, the genotypes studied react differently to these levels of water stress. Once again, the "INRA-CZNap10" and "Baraka" genotypes seem to have greater drought tolerance, making them potential genetic resources for colza selection programs developing rapeseed tolerant to drought.

Keywords: rapeseed, drought, osmotic potential, seedling growth stages, seed germination

**ROLE OF ICT SELF-EFFICACY AND SELF-DIRECTED LEARNING IN E-
LEARNING READINESS AND STUDENT ENGAGEMENT**

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ABSTRACT

The aim of this study was to investigate how ICT self-efficacy and self-directed learning influence e-learning readiness and student engagement among middle and late adolescents. Data was collected from a diverse group of students in Rawalpindi and Islamabad, including those from schools, colleges, and universities, using a convenient sampling technique. The total sample consisted of 300 students, including 144 boys and 156 girls, aged between 15 and 21. For this study, participants completed a consent form, provided demographic information, and responded to the following scales: ICT self-efficacy scale (ICTSES; Alahakoon & Somaratne, 2020), self-directed learning with technology scale (SDLTS; Teo et al., 2010), e-learning readiness scale (ELRS; Alem et al., 2016), and student engagement scale (SES; Lee, Song, & Hong, 2019). The findings of this study revealed that self-directed learning significantly mediated the relationship between ICT self-efficacy and e-learning readiness, as well as student engagement. However, ICT self-efficacy did not demonstrate a significant moderating effect on the relationship between e-learning readiness and student engagement.

Keywords: ICT, student engagement, e- learning readiness, self-efficacy, self-directed learning

ROLE OF THE MEDIA IN LEARNING OF PRESCHOOL CHILDREN

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ABSTRACT

Their role of media has changed, because the increasing exposure to the media has meant that they are no longer just mediators, transmitters of some content, but have their own social environment from which they transmit knowledge, influence the emotions and opinions of their consumers.

Over the past two decades, children's exposure to technology and electronic narratives has grown exponentially, according to research by Roberts and Foehr (Roberts & Foehr, 2008). An increasing number of preschool children have access to digital media. Children who, at ages 3–6, watches television and videos and listening to music, playes video games, uses computers, and read e-books (Vandewater at all, 2007) enter preschool with an understanding and experience of using various digital media.

This paper explores the positive side of digital media, how they help children to learn, make it more interesting and easier. Therefore, the aim of the research, which was carried out with a sample of 89 preschool children and 6 preschool tachers in Preschool institution „Jelica Stanivuković Šilja” in Šid and in Preschool institution „Pčelica” in Sremska Mitrovica - Republic of Serbia, was to examine whether the child primarily uses the media alone, or whether educators are involved and talk to the child during media use. A closed questionnaire was constructed for the purposes of the research with preschool tachers and method of observing children's play with the children. Descriptive statistical analysis was applied, and the results were presented graphically. The results showed that media, especially computer/tablet, internet, mobile phone are given special importance in the formal and informal learning processes of children and young people, especially in the possibility of opening new spaces, new forms and projects of research and learning in completely new dimensions. The signifikant

number of teachers expressed the need for professional training in this area. These findings can be useful to teachers and parents in developing the support in working with preschool children.

Keywords: Preschool Children, Media, Learning

INSTITUTIONS' ROLE IN UKRAINE'S POST-WAR RECONSTRUCTION

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ABSTRACT

Post-war reconstruction in Ukraine poses multiple challenges both in macro-level and micro-level aspects. Physical damage and capital destruction inflicted by Russian armed aggression in Ukraine are severe. Human capital damage and other intangible assets' destruction (i.e., logistic network, business partner network, supplier's reputation, etc.) for Ukraine are an indispensable component of post-war reconstruction aimed at long-term economic growth and social development. Due to the challenging nature of this issue standard procedures for mere infrastructure reconstruction are not sufficient. Thus, the issue of post-war reconstruction in Ukraine is complex by its nature and should involve leverage of civil society development, i.e., institutional involvement.

Issue of post-war reconstruction in Ukraine which is contextualized in a broader scope of regional and global trends requires a robust basis for conceptualizing, planning, developing, and implementing the course of reconstruction. Such a foundation for consistent process management could be provided only through civil society as the major long-lasting stakeholder and institutions as manifestation of civil society.

This paper analysis local agencies involvement in the effort of post-war reconstruction based on both Ukrainian cases, and other regions' recent armed conflict cases. Paper investigates economic, social, organizational, infrastructural facets of robust framework for post-war reconstruction. Such a framework allows for efficient attraction of private financing – thus lowering the toll on public funding sources both from Ukraine and international donors. This framework also supports establishment of Rule of Law which is essential for FDI and other forms of economy's reconstruction financing. Institution-based approach towards post-war reconstruction enables more consistent process and long-lasting results in the form of economic growth and social development – as civil society is significantly more involved under the proposed framework.

Keywords: Post-war Reconstruction, Institution, Civil Society, Rule of Law, Stakeholder

**UNVEILING THE LATEST DYNAMICS IN CORPORATE REPORTING:
INSIGHTS FROM LITERATURE**

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ABSTRACT

The evolution of corporate reporting has been driven by factors such as the changing needs of stakeholders, rapid globalization, climate change, and societal demands. This evolution has been facilitated by advancements in internet services, sustainable resource development, and shifts in human resources. Regulatory bodies, international organizations, major auditing firms, and environmental activists have played pivotal roles in pressuring companies, particularly larger ones with significant environmental and social impacts, to enhance their reporting practices.

Initially, corporate reporting focused on profit maximization for shareholders. However, the discourse shifted with growing awareness of climate change's global implications and increased emphasis on societal values like equality and sustainability. Industries using natural resources, such as the energy sector, exert substantial environmental and social influence, necessitating their inclusion in reporting. As a response, companies have incorporated comprehensive environmental and social reporting alongside financial information, thereby improving transparency and mitigating information asymmetry.

This paper delves into the evolving landscape of corporate reporting. It delves into how factors like stakeholder demands, regulatory pressure, and societal considerations have driven companies towards more comprehensive and transparent reporting practices. Drawing from a range of literature, this study offers a comprehensive overview of the changing paradigms in corporate reporting, highlighting the pivotal role it plays in enhancing transparency, accountability, and sustainability in today's business world..

Keywords: Corporate reporting, environmental reporting, financial information, social reporting.

**RED WINE WAS PROPOSED FOR BOOKS:
HISTORICAL BACKGROUND OF BOOK-TRADE BETWEEN BISHOP
ESZTERHÁZY (EGER, NORTH HUNGARY) AND THE POCHAYIV LAVRA IN
VOLHYNIA (UKRAINE)**

**KİTAPLAR İÇİN KIRMIZI ASMA ÖNERİLDİ: KİTAP TİCARETİNİN TARİHSEL
GEÇMİŞİ PİSKOPOS ESZTERHAZY (EGER, KUZEY MACARİSTAN) İLE
VOLHYNIA'DAKİ (UKRAYNA) POCHAYIV LAVRA ARASINDA**

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ÖZET

Eger Roma Katolik Piskoposu (Kuzey Macaristan) 1770'lerde Kiril ayin kitaplarını satın aldı, çünkü sarayında Bizans-Katolik rahiplerin öğretisini sağladı. Yanıt olarak kırmızı şarap teklif etti, Pochayiv Lavra kitaplarını nakit paraya satmış olsa da. Bu nedenle, bu makalede iki soru açıklanacaktır. Birincisi, kırmızı asmanın piskopos tarafından neden önerildiğidir. İkinci soru ise, bir kitap ticareti merkezi olan Pochayiv Lavra, kitaplarını neden o zamanın dönüştürülebilir Para Birimine sattı, ancak takas için satmadı.

Anahtar Kelimeler: Kitap_ticareti, şarap_ticareti, Macar_Krallığı, Ukrayna_tipografileri, Polonya_Lithuanian_Topluluğu, 18._yüzyıl.

ABSTRACT

The grape growing had been flourishing on territories of “The Crown” of the Polish-Lithuanian Commonwealth in the Middle Ages, then the viticulture disappeared from the break of 15/16 cc. This was caused by the “Little Ice Age”. This was not a true ice age but a relatively cool period that lasted from the 14th century until the 19th century. It occurred after the Medieval Warm Period and influenced agriculture as well. The Polish-Jewish-Ukrainian great city, of Lviv/Lwów, appeared as a Medieval center of viticulture, and in the Early Modern Age, it needed to import vine, as it was reflected in the trade of the Greek Catholic Archbishopric of Lviv/Lwów, for the vine was necessary to celebrate the Christian liturgy. Hungarian wines became a subject of import on the territories of “The Polish Crown” (thus Poland and the former south part of the Grand Duchy of Lithuania, which was attached to the Polish Kingdom after the Lublin Union in 1569) albeit earlier, in the Medieval Warm Period, the vines of these Polish and Ukrainian territories were subject of sale. A Hungarian Roman Catholic Bishop, Károly Eszterházy in Eger (Northern Hungary) sent a letter to the Greek Catholic archbishop of Lviv/Lwów (in then-time Latin sources: Leopoldis), with a request for Slavic liturgical books of Byzantine liturgy in Cyrillic letters and offered red vine from Eger for those. The request of the bishop was to help the Greek Catholic seminarists of Ruthenian origin, from the Mukachevo Uniate eparchy in Transcarpathia, who learned at the Roman Catholic seminary in Eger. The matter was assigned to the Pochayiv Lavra, which offered its books for money, according to the pricelists held in the Roman Catholic archive of Eger. Though we have yet not found evidence proving the barter-trade was realized with vine and books, as it was proposed by the Hungarian bishop, and we maintain that the Ruthenian partner was clinging to the money. Thus, this case study really proves the value of the red vine of Eger in such a foreign country, which was a wine-growing region before the Little Ice Age. Therefore, Hungarian vines became useful export items not only thanks to the volcanic soil but also due to climate change. However, in the 18th century, the barter in trade was already replaced by the trade for money, and in that

epoch, the Rhenes Florin became already a general currency for Europe. Therefore, the Ukrainian book-trade center already required international currency for its books.

Keywords: Book-trade, wine-trade, Hungarian_Kingdom, Ukrainian_typographies, Polish_Lithuanian_Commonwealth, 18th_century.

THE ROLE OF CM WIRE IN THE DAILY ENDODONTIC PRACTICE

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ABSTRACT

Root canal treatment (RCT) is one of the most common dentistry practices. Indeed, this kind of treatment allow not only to take away the pain from irreversible pulpitis but also to solve periapical inflammation such as granulomas and cysts. The RCT consist in different “surgical” phases: opening of the root chamber, scouting of the canals, Coronal flaring, Glide path establishment, Shaping of the canal, cleaning and filling. The introduction of Nickel-Titanium (NiTi) in the routine daily practice has completely changed the root canal treatment. Despite this world changing introduction, it is still controversial the use of NiTi in root canal shaping. Indeed, while the number of rotary instruments available on the market, with different mechanical characteristics thought to challenge every clinical situation. Despite the current literature highlighted the uncountable advantages of NiTi files over the traditional stainless steel (SS) files, a lot of Endodontist and General Practitioner still use them. Indeed, SS files are still mainly used at least in the first phases of the root canal treatment, such as scouting and coronal flaring. This procedure is often motivated by a higher safety of the SS files, which less frequently are broken inside the root canal. Despite this safety idea could be true especially in the past, the SS files could lead to several problems such as ledge, zipping and perforation. These problems often lead to the failure of the root canal treatment. Moreover, the introduction of thermal treatments of the NiTi drastically increased the safety of the rotary files, reducing

the separation percentage inside the root canal. For these reasons, the authors created a different approach to the shaping procedures of the root canal treatment. This new protocol, so called Only Rotary Endo (O.R.E.) Protocol, is based on the current literature, leading to an Evidence Based Dentistry. This allows to split the shaping procedures into different phases, based on the anatomy difficulties of the canal. This approach allows to use the most proper instrument for the different phases of the treatment, matching the inevitable anatomical difficulties with the properties of the instrument used to challenge it.

Keywords: Endodontics, Root Canal Treatment, NiTi Rotary Files

**SYNTHESIS AND CHARACTERIZATION AND BIOLOGICAL POTENTIAL
STUDY OF SCHIFF BASE TRANSITION METAL COMPLEXES DERIVED FROM
CEPHALOSPORIN'S DRUG**

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ABSTRACT

A series of transition metal(II) complexes of new Schiff base were synthesized by the condensation of sulphonamides and aromatic aldehyde. The Schiff base ligand and its transition metal complexes were characterized by using different instrumental techniques like microanalysis, thermogravimetric analysis and spectroscopy. The synthesized ligand and metal complexes were subjected to biological studies. The studies showed the enhance activity of metal complexes against one or more species as compared to the uncomplexed ligand. The data showed that transition metal complexes have significant improved antibacterial activity than parent drug. **Anti-inflammatory were found in copper complex.**

Keywords: Schiff base, metal complexes, drug, aldehyde,

**MICELLAR FLOCCULATION FOR THE EFFICIENT REMOVAL OF AQUEOUS
DYESTUFFS: A SUSTAINABLE APPROACH**

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ABSTRACT

Surfactant-based removal of reactive red 195 (RR-195) from synthetic waste water has been reported in this research work. Micellar enhanced flocculation technique was applied and optimized for the said purpose. The mixture of anionic surfactants, obtained from a bio-degradable source (base soap), has been found to have great potential to solubilize dye molecules. The polyvalent salts are able to flocculate the micelles and help in their subsequent removal. The removal of dye was analyzed using UV/Visible spectrophotometer. Different factors such as the effect of change in concentration, pH, temperature, contact time, and electrolyte were studied to evaluate the adsorption characteristics and removal efficiency of the process. The data obtained was further used to study the mechanism of adsorption with the help of various models e.g., Langmuir, Freundlich, Temkin, and Dubinin–Radushkevich (D-R). The kinetic parameters were also calculated by employing pseudo-1st and pseudo-2nd order kinetic models. Furthermore, thermodynamic calculations were performed to determine the change in Gibb's free energy (ΔG°), enthalpy (ΔH°), and entropy (ΔS°). The results make it evident that the micellar flocculation-based adsorptive removal is an excellent and sustainable approach for the treatment of wastewater.

Keywords: Surfactants, micellization, flocculation, adsorption, isotherm, Kinetics, thermodynamics

**PRESERVING AND EXPLOITING THE CULTURAL VALUES OF THE BAY NUI
BULL RACING FESTIVAL IN THE TOURISM DEVELOPMENT OF AN GIANG
PROVINCE, VIETNAM**

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ABSTRACT

The Bay Nui Bull Race (BNBR) festival is one of the unique traditional cultures of the Khmer ethnic community in An Giang province. With over 100 years of history, the bull racing festival is a prominent activity in the Southwest region and an essential sporting event. The development of the tourism economy through the BNBR festival is increasingly attractive. However, the reality of tourism here still faces many difficulties. Many participating teams and tourists exist because the BNBR is a vast event. The growing growth of the event poses safety and management challenges for the organization. Besides, attracting the attention of sponsors and advertising businesses is also risky. This risk makes it more difficult for the BNBR organization to grow and reach more people. Proper measures are being implemented to help preserve and exploit tourism from this activity. One of them is to pay attention and invest in the restoration and construction of a venue for the racing festival and, simultaneously, strengthen the implementation of image promotion activities such as exhibitions and traditional shows. Creating a friendly environment and preserving and developing bull racing in tourism has

become a tradition, contributing to the connection and cohesion of the community. From here, it allows visitors to explore the traditional culture and enjoy the beautiful scenery and culinary specialties of the area. At the same time, tourism exploitation at the BNBR organization in An Giang province also contributes to local economic development through tourism resources.

Keywords: Bay Nui bull racing festival, festival travel, An Giang

**SEDENTARY BEHAVIOR, LOGICAL MEMORY AND MOTOR COORDINATION
DURING MIDDLE CHILDHOOD**

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ABSTRACT

The present study aims to find out the relationship between motor coordination, logical memory and sedentary behaviors in young children. Data was collected from government school children (N = 250) from 6 to 8 years old, out of which 125 were boys and 125 were girls. Motor Coordination Scale (MSS) (Babar & Jabeen, 2022), Logical Memory Scale (Mahmood & Sheikh, 1989) and Sedentary Behavior Scale (SBS) (Munir & Jabeen, 2023) was used. It was hypothesized that (a). Motor coordination would be positively associated with logical memory in children of middle childhood. (b). Sedentary behavior would have negative relationship with logical memory in children. (c). Sedentary behavior would have no significant relationship with motor coordination in children of middle childhood. Pearson Product Moment correlation and Linear Regression were used to test hypotheses. The results showed that sedentary behavior has no relationship with motor coordination or logical memory in middle children. Furthermore, the findings of the study showed that logical memory was significantly positive correlated with motor coordination factor F4 (Fine motor). The examination of culturally appropriate explanations has brought clarity to rejected hypotheses and provided valuable data for future researchers. Furthermore, it is recommended that additional research be conducted on the variables investigated in this study to enhance the generalizability of the findings.

Keywords: Motor Coordination, Logical Memory, Sedentary Behaviors, Fine Motor and Middle Childhood.

**PERCEPTION AND IMPACT OF KOREAN WAVE AMONG STUDENTS IN A
LOCAL UNIVERSITY IN THE PHILIPPINES**

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ABSTRACT

Korean popular culture has spread like wildfire over the world in the last decade. This expanding popularity of Korean popular culture has been dubbed the "Korean wave." The Korean wave surged in the media, causing a rippling effect throughout the world. The main focus of this paper is to determine the level of perception and the impact of the Korean wave among students at a local university in the Philippines. This descriptive quantitative research involved 101 participants selected through a convenient sampling technique. This study shows that students have a fairly positive perception of K-pop and Korean dramas and movies. Also, there was an average extent of the impact of the Korean wave among them. The perception of the students regarding the Korean wave has led to an interest in and understanding Korean culture. Moreover, this study will help understand the perception of university students in the Philippines about the Korean Wave phenomenon.

Keywords: Korean Wave, Perception, Impact, Students

**THE EFFECT OF SCARCE RAINFALL ON RUNOFF FROM THE LOWER ZIZ
VALLEY IN SOUTHEASTERN MOROCCO**

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ABSTRACT

The oases of Lower Ziz are fragile areas marked by the scarcity of water resources and the expansion of desertified land. Climate provides an explanation for this spatial fragility. Indeed, low precipitation is characterized by spatial and temporal variability. In addition, temperatures recorded during the summer can reach record values and exceed 40°C. The resulting high evaporation affects the limited seasonal flow of Oued Ziz and its tributaries, whose flow fed by very rare rains and by the lachers of the Hassan Dakhil. All this requires a reorganization of water resources management behaviors through a policy of consumption economy at the agricultural, domestic and hotel levels, to ensure a vital minimum of this essential resource.

Keywords: Rainfall variability - Surface water - Bas Ziz - Sustainable management.

**THE EFFECTS OF INTUITIONISTIC FUZZY DOMBI-ARCHIMEDEAN
OPERATORS AND THEIR APPLICATIONS**

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ABSTRACT

The process of selecting and evaluating alternatives on the basis of several criteria or characteristics is known as multi-attribute decision-making (MADM) problems. The overview of the attribute values is a significant problem in MADM in a way that is accurate, consistent, and meaningful. Q-Rung ortho-pair fuzzy numbers (Ifs.) are a more flexible and powerful tool for representing uncertain or fuzzy information than other fuzzy number systems such as intuitionistic fuzzy numbers or Pythagorean fuzzy numbers. The paper introduces a new operator within the context of Ifs, framework or environment. This operator combines the characteristics of Dombi and Archimedean operations. These two operations likely have their own defined rules and properties within the Ips, environ- ment. The paper then proceeds to propose some weighted (Aos) (Aggregation Operators) based on the Dombi and Archimedean operations under IFss. These weighted (Aos) are likely used for combining or aggregating multiple attributes or criteria in decision-making processes. The paper explores the properties of these operators, which could include aspects like monotonicity, idempotence, or other desirable mathematical properties. Fur- thermore, the paper emphasizes the application of the proposed operators within the Iss enviroment to MADM. This suggests that operators may be used in decision-making sce- narios involving multiple attributes or criteria. The paper likely provides a procedure or methodology for applying the proposed operators in such decision-making processes. Lastly, the paper presents a practical example related to human resource selection. It demonstrates how the suggested strategy, with its decision steps and the use of the new operator, can be employed in real-world scenarios. The example aims to demonstrate the viability as well as efficacy of the suggested strategy in solving decision-making problems related to human resource selection.

PAIGUON ANG TION: TIME MANAGEMENTnINTERVENTIONS OF WORKING STUDENTS IN THE WORKPLACE

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ABSTRACT

Time management has been the problem of the students most especially for those who work at the same time, where they are loaded with responsibilities needed to be accomplished both in school and in their workplace. This descriptive-qualitative study aimed to explore the time management interventions of working students in their workplace. Using the inclusion criteria, the researchers have purposely chosen six (6) working students from a public state university. Google form was utilized to gather data, which the researchers sent to the informants through Facebook messenger and email, and researchers also utilized messenger for further clarifications and follow-up from the informants. Thematic analysis was used in analyzing the data gathered. The results revealed two themes such as (1) internal efforts and (2) external environment adaptations. Moreover, the researchers generated four (4) categories from the analyzed data. It implied that working students' time management interventions are (1) development of organized approaches and (2) reduction of potential barriers. In addition, they also adapt from their external environment, wherein they (3) promote workplace flexibility and lastly (4) practice effective designation. Thus, the demand in both school and workplace made way for the working students to have time management interventions in their workplace to successfully accomplish their tasks and to avoid procrastination.

Keywords: Time Management, Working Student, Intervention, Public State University

BİLİM VE YÜKSEKÖĞRETİMDE YAPAY ZEKÂ
ARTIFICIAL INTELLIGENCE IN SCIENCE AND HIGHER EDUCATION

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ÖZET

Yapay zeka, insan varlığının tüm alanlarına nüfuz ettiğinden beri insan yaşamında sürekli olarak var olmuştur. Bu nedenle, günümüzde yapay zeka ve onunla ilişkili unsurlar olmadan çok sayıda süreç ve bilgi düşünülemez. Yapay zekanın temel kavramı, yapay zekanın belirli tanımlanmış parametrelerle her durumda gezinmesine izin veren cansız bir sistemi temsil ettiğini açıklığa kavuşturur. Buna göre yapay zekayı bilim yönüyle gözlemleyebileceğimiz gibi, toplumdaki ve sosyal süreçlerdeki pratik uygulama yoluyla da gözlemleyebiliriz.

Yapay zekanın eğitim ve bilimde kullanımına yönelik stratejilerin geliştirilmesi farklı düzeylerde uygulanabilir: gençlerin yaratıcılığını teşvik ederek, yaratıcı becerilerin yansımaları teşvik ederek, kapsayıcı eğitimde, heterojen bilgi yaymada ve erişimi kolaylaştırarak bilimsel kaynaklar. Bu, temel olarak öğrencileri, bilim adamlarını ve araştırmacıları ilgi alanlarını keşfetme, yeni etkinliklere katılma, yeni deneyimler kazanma ve farklı disiplinlerden veya ilgili alanlardan araştırmacılarla işbirliği yapma fırsatları yaratmaya teşvik ederek elde edilir.

Bu araştırma, teori ve pratik anlayışına, yapay zekanın avantaj ve dezavantajlarına ve bunların diyalektik ilişkisine dayanmaktadır. Yapay zekaya bakış açımız, bilincin rasyonel doğasına ve teori ile pratiğin daha iyi sonuçlara yol açması gereken birbirine bağlı dinamik bir etkileşim olarak anlaşılması gerektiği görüşüne dayanmaktadır. Amaç, modern eğitim sisteminde metodolojik bir yaklaşım olarak yapay zekanın rolü ve önemi konusunda farkındalık yaratmaya vurgu yaparak, bilim ve eğitimde yapay zekanın analizini ve anlayışını ilerletmektir. Aynı zamanda, teorik tartışmaların ve ilgili bilimsel kaynakların analizi, yapay zekanın tercihlerini ve etik olmayan özelliklerini vurgulayarak araştırma sorularının tematik ve disiplinler arası genişlemesini teşvik etmeyi amaçlar.

Yapay zeka ve teknolojileri, sürekli geliştirilen ve inşa edilen nihai ürünler olarak birçok alanda fayda sağlamaktadır. Eğitim sürecinde, tıpkı bilimde olduğu gibi, yapay zeka her yerde bulunur ve bilgi ve biliş edinmenin çeşitli süreçlerini büyük ölçüde kolaylaştırır. Elbette doğru, etik ve yeterli bir uygulama için dezavantaj ve avantajı net bir şekilde ayırt etmek, yani mevcut teknoloji ve zekayı en iyi şekilde kullanmak, tüm akademik özgürlüklere ve sorumluluklara

saygı duymak için eğitim gereklidir. Böylece, yapay zeka aynı anda bir araştırma alanı haline gelir, aynı zamanda yeni bir eğitim biçiminin ve bilimin gelişiminin teorisinin kendisi olur.

Anahtar Kelimeler: Yapay zeka, bilim, eğitim, zorluklar, bakış açıları

ABSTRACT

Artificial intelligence has been continuously present in human life since it permeated all spheres of human existence. That is why numerous processes and knowledge are unthinkable today without artificial intelligence and its associated elements. The basic concept of artificial intelligence clarifies that artificial intelligence represents an inanimate system that, with certain defined parameters, allows it to navigate in all situations. Accordingly, we can observe artificial intelligence through the aspect of science, but also through practical application in society and social processes.

The development of strategies for the use of artificial intelligence in education and science can be applied at different levels: by encouraging the creativity of young people, by encouraging the reflection of creative skills, in inclusive education, heterogeneous information dissemination, and by facilitating access to scientific sources. This is mainly achieved by encouraging students, scientists, and researchers to open up opportunities to explore their interests, participate in new activities, gain new experiences, and collaborate with researchers from different disciplines or related fields.

This research is based on an understanding of theory and practice, the advantages and disadvantages of artificial intelligence, and their dialectical relationship. Our view of artificial intelligence is based on the rational nature of consciousness and the view that theory and practice should be understood as an interconnected dynamic interaction that should lead to better results. The aim is to advance the analysis and understanding of artificial intelligence in science and education, with an emphasis on raising awareness of its role and importance as a methodological approach in the modern education system. At the same time, the analysis of theoretical discussions and relevant scientific sources aims to promote the thematic and interdisciplinary expansion of research questions, highlighting the preferences and unethical properties of artificial intelligence.

Artificial intelligence and its technologies, as end products that are continuously improved and built, provide many benefits in many fields. In the educational process, just as in science, artificial intelligence is more ubiquitous and greatly facilitates various processes of acquiring knowledge and cognition. Certainly, for its correct, ethical, and adequate application, education is necessary to clearly distinguish between disadvantages and advantages, that is, to use the available technology and intelligence in the best way, respecting all academic freedoms and responsibilities. Thus, artificial intelligence simultaneously becomes a field of research, but also the theory itself of a new form of education and development of science.

Keywords: Artificial intelligence, scientific, education, challenges, perspectives

**SPATIO-TEMPORAL CHANGES OF ARTIFICIAL SURFACES REGARDING
PHYSIOGRAPHIC FEATURES ON A RIVER BASIN – AN EXAMPLE FROM
KOSOVA**

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ABSTRACT

In Morava e Binçës River basin (Kosova) are concentrated 199 settlements with total population of 200 thousand (census 2011). By rising the number of population between censuses, artificial surfaces are increased, and on the period between 2006-2018 the area of artificial surfaces have extended from 45.7 km² to 69.1 km². Spatial distribution of landscape structures are related with physiographic factors, especially altitude, slope, distance to the rivers etc. On a period between 1948 and 2011 the number of population as main driving force on land cover changes has nearly doubled.

The analysis is done with GIS/RS techniques with data from aerial images of different years, and the results from the year 2018 shows an increase of artificial surfaces mostly in flat plains, gentle slopes, and near main streams and its tributaries, which are prone area to floods. The extension of artificial surfaces in form of continuous and discontinuous urban fabric have effects not only in areas near rivers but show effects on climate, mostly changes on Land Surface Temperatures (LST) in form of urban heat island.

Keywords: Artificial surfaces, Slope, Distance to rivers, Land Cover Changes, Morava e Binçës, Kosova.

**EXPLORING THE INTEGRATION OF KEY COMPETENCES FOR LIFELONG
LEARNING IN THE FL CURRICULUM OF GREEK STATE SCHOOLS**

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ABSTRACT

The aim of the study is to explore the foreign language (FL) curriculum of Greek state schools to identify the integration of key lifelong competences in their textual bodies. Key competences are defined as a combination of knowledge, skills, and attitudes, which need to be possessed by all individuals for purposes of personal fulfilment and development, employability, social inclusion, a sustainable lifestyle, and active citizenship according to the European Reference Framework for Key Competences for Lifelong Learning, which is attached as an Annex to the Recommendation for Key Competences for Lifelong Learning (European Commission, 2018). This document sets the context for the development of the following eight key competences in a lifelong learning perspective, from early childhood throughout adult life: a. Literacy; b. Multilingualism; c. Mathematical and science, technology, engineering competence; d. Digital and technology-based competences; e. Personal, social, and learning to learn competence; f. Citizenship; g. Entrepreneurship; h. Cultural awareness and expression.

Qualitative research, and more specifically, document analysis of the Integrated Foreign Language Curriculum (IFLC) as well as the Teachers' Guide was employed for the purposes of this study. A checklist was designed presenting each one of the eight competences analysed into its constituent parts based on essential knowledge, skills, and attitudes related to each competence as indicated in the Annex to the Recommendation for Key Competences for Lifelong Learning (European Commission, 2018).

The research data revealed that while key lifelong competences, are not explicitly identified as a major aim in the FL curriculum and are not named per se in the Greek FL curriculum document, the vast majority of concepts reflected in them are presented in another document, the Teacher's Guide, which considers how FL teachers can facilitate learners in acquiring them. The detailed approach and length of the Guide are indicative of the support Greek educators could use in their effort to familiarize them with the implementation of concepts underlying key competences in the FL classroom. It should be noted that underrepresented competences such as entrepreneurship and citizenship competences need attention to obtain their place in the FL classroom. In this direction, a very positive initiative towards the effective implementation of key competences in the FL classroom are the so-called "Competence workshops", which can help to equip students with the key competences at issue.

European Commission. (2018). *Council Recommendation on Key Competences for Lifelong Learning*. [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF?uri=CELEX:32018H0604\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF?uri=CELEX:32018H0604(01))

Key words: key competences; foreign language curriculum; state schools; lifelong learning.

**THE AGRICULTURAL SECTOR HAS ALWAYS BEEN A STRUCTURAL
FEATURE OF GREEK SOCIETY**

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ABSTRACT

The agricultural sector has always been a structural feature of Greek society, as well as a constituent factor of the Greek economy and development, both nationally and regionally. In addition, the accession of Greece to the European Union (EU) in 1981, catalyzed the subsequent development of Greek agriculture. Today, agriculture is fully governed by the rules of the Common Agricultural Policy (CAP), which shape and control the entire framework of operation and activity of the agricultural sector. It is found that in Greece, the percentage participation of the primary sector in the creation of the A.E.P. of the country, during the last decades, shows a continuous downward trend. In 1995, the corresponding percentage was almost 10% of the total GDP. of the country, and in 2004 it decreased to 4.3%. However, it still holds an important position in the formation of GDP with 3.7% in 2018, compared to 1.4% in the EU28. In 2018, the total production value of the agricultural sector approached €11 billion, while the total income from agricultural business activity in Greece was €4.8 billion. However, despite the significant contribution of the agricultural sector to the Greek economy , the differences between Greece and E.U. of 28 according to EUROSTAT data, is evident. Another important aspect of the agricultural sector concerns employment within this sector. In 1981, the year Greece joined the then-called European Economic Community (E.O.C.), the percentage of employment in the agricultural sector was 24% of the total workforce. In 2017, it constituted 11.2% of total employment in Greece, compared to the corresponding percentage of 4.4% in the EU. of 28, and the percentage of Greece is almost double. In conclusion, it is pointed out that the economic development of the agricultural sector in Greece is a necessity, which stems from the realization of the goal, which is the production of agricultural products for the nutritional security of the country's population, and the preservation of the rural population in the countryside, through of job creation, and a wide range of economic activities in rural disadvantaged, mountainous and island areas.

**YOUTH EMPOWERMENT, GREEN SKILLS ACQUISITION, AND
ENVIRONMENTAL NEEDS & SUSTAINABILITY: ANALYSIS AND EMPHASIS
ON CORRELATIONAL AND INFLUENTIAL FACTORS**

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ABSTRACT

Youth empowerment, skills acquisition, and environment sustainability are important topics. There are many ways to empower youths and help them acquire skills that can help them become more productive and contribute positively to society. One way is through promoting green jobs for youth through national employment policies and programs. This can help create job opportunities for young people in the expanding green economy. Another way is through social entrepreneurship. Empowering youth to build skills and opportunities through social entrepreneurship leads to increased confidence and resilience and increased feelings of agency amongst young people - they view themselves as more skilled, more employable, and with more positive future opportunities. The global slogan of “Green Skills & Youth Empowerment” has been echoed more than ever before. Much attention has been channelled toward enhancing youth empowerment because they are the leaders of tomorrow. In looking at the interdisciplinary, transdisciplinary, and multidisciplinary of the term “Green Skills & Youth empowerment” there are prerequisite skills requirements for selection and also the environmental needs that will make the empowerment fruitful and relevant to youths. This study emphasizes the correlation between green skills acquisition, environmental needs, and youth empowerment. The study also sheds more light on the crucial and influencing factors that can make youth empowerment reasonably accepted and workable based on environmental needs and sustainability. To achieve these objectives, 200 youths were sampled, through Google form design and administration, the data were collected timely and analyzed after being subjected to statistical analysis. The instrument was validated before a reliability index of .88 was obtained.

Keywords: Youth Empowerment, Skills Acquisition, Environmental Needs, Sustainability, Correlation

**THE PHOSPHATE SERIES OF THE AGADIR BASIN, MOROCCO:
SEDIMENTOLOGY AND BIOSTRATIGRAPHY**

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ABSTRACT

The sedimentological and biostratigraphic study of the phosphate series in the Agadir Basin (Western High Atlas) has led to the identification of three Maastrichtian age units through the identification of echinoderms and ostracods encountered in the study area. Thus, we have identified Ammonites *Baculites cf. anceps*, ostracods (*Bythocypris gohrbandti* Wesker 1968, *Ovocytheridea cf. producta*, *Cytherella aff. gambiensis* Apostolescu 1963, and *Paracyris sp.*), and echinoderms (*Petalobrissus subsetifensis* Péron and Gauthier), which are considered characteristic of the Maastrichtian. These three units are subdivided into two subunits each.

Unit U1 (82m):

Subunit 1 (21m) begins with an 8m thick carbonate bar, showing layered structures and silicified lenticles at the top. The microfacies is a biomicrite wackestone. The subunit alternates between marls and lenticular carbonate layers. Subunit 2 (61m) starts with marly layers intercalated with carbonate sandstone beds and a silicified limestone layer. This transition marks shifts from deeper to shallower environments.

Unit U2 (48m):

Subunit 1 (10m) comprises lenticular dolomitic mudstones becoming fossil-rich. Subunit 2 (38m) contains alternating beds of dolomitic mudstone and carbonate sandstone, indicative of tidal environments.

Unit U3 (172m):

Subunit 1 has alternating marl and sandstone layers with planktonic foraminifera and ammonites. The subunit ends with fossiliferous marls and carbonate nodules. Subunit 2 consists of oxidized limestone beds and aseismic marls, suggesting a shallow and calm environment.

The Agadir phosphate series concludes with an Oligocene conglomerate unconformity.

Keywords: Phosphate, sedimentology, biostratigraphy, Agadir, Morocco.

**EXPERIMENTAL STUDY ON THE USE OF CERAMIC WASTE AS A PARTIAL
CEMENT SUBSTITUTE IN CONCRETE PRODUCTION**

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ABSTRACT

Ceramic waste exhibits promising potential as a new construction material in concrete. Its utilization contributes to the preservation of natural resources and environmental protection. In this experimental study, we examined the physical and mechanical characteristics of ceramic powder-based concrete.

Three types of concrete were produced: ordinary concrete, concrete with 10% of cement replaced by ceramic fillers, and concrete with 15% of cement replaced by ceramic fillers.

The mechanical properties of the concrete, such as compressive and tensile strength, as well as their durability, including capillarity, mass water absorption, and hydraulic shrinkage, were characterized. The experimental results demonstrated the beneficial effects of the filler percentage used in the concrete compared to ordinary concrete.

Keywords: Physical characteristics , Mechanical characteristics , Ceramic fillers

**SOCIAL MOBILITY AND BLACK WOMEN IMPOVERISHMENT DUE TO NON-
FLUENCY IN THE ENGLISH LANGUAGE: AN ANALYSIS OF EMPLOYMENT
VACANCIES**

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ABSTRACT

This paper aims to investigate the economical impacts of non-completion of English Language courses by Brazilian black women. The relation between structural racism and inequality (Gonçalves, 2018), as well as the studies on social mobility (IBGE, 2013) are concerns of recent academic debate that this paper tries to resume. Based on studies in inequalities (Almeida, 2019) and the social question in Brazil (Moura, 1988), considering that the formation of Brazilian society took place on the basis of slavery we argue that white and black women have different opportunities to participate in the wealth distribution. In order to develop our ideas, we will analyse the employment vacancies published by companies that have the proficiency in English as a requirement. Also, we shall analyse narratives to acquire the factors which cause black women to dropout the English courses. By these means, it is expected to conclude that among black women, when compared to other sectors of society, we find lower income and underemployment placement due to the lack of access in education, specially the non-completeness in the English language courses, maintaining the position of reserve of the reserve army.

MUSINGS ON THE CHROMATIC EPITHET IN EMINESCU'S POETRY

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ABSTRACT

With this study, we aim to pursue and analyse from a semantic and stylistic point of view the defining structures utilized in the Eminescu's poetry published during the author life and posthumous, in which the chromatic epithet are used. The corpus that we will utilize has been created through the excerpt of significant contexts from **The dictionary of poetic language of Eminescu**, supervised by Dumitru Irimia. We will notice that in some contexts the colours maintains itself in the denotative meaning, situated at a descriptive level. In other contexts it refers to the multiple dimensions of the connotative meaning to illustrate that they are used also with a metaphorical meaning. We will illustrate it through a few selected sequences and interpret them from a semantic and stylistic point of view. The poet uses a palette of colors, symbols, metaphors, comparisons and chromatic epithets, suggests, through the prism of the word. In order to give color to his poetry, Eminescu does not only mention the name of the colors, but he also tries to find a substitute, either a single word or a syntagm full of semnificance, through which he reproduces the color and his afferent meaning. The adjective, frequently used as an epithet, is always at the border between simple and complex structures. Color, which is apparently only a decorative element, in Eminescu's works, in most contexts is full of significance. Through the chromatic language, the transition is made from the denotative to the connotative meaning, but also vice versa.

Keywords: chromatic epithet, Eminescu, meaning, poetry, stylistics

**SYNTHESIS AND CHARACTERIZATION OF PARTHENIUM BIOSORBENTS FOR
REMOVAL OF CHLORIDES AND HARDNESS FROM THE AQUEOUS SOLUTIONS**

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ABSTRACT

One of the most significant problems facing the environment is caused by the presence of contaminants in aqueous solution, most notably dangerous heavy metals. In rural places, hardness and chlorides are two of the most dangerous toxins in groundwater or surface water. It is largely because excessive quantities might cause sickness that it is controlled in terms of the quality of drinking water. Because of its alkaline nature, water may be irritating to the eyes, respiratory system, and skin problems, and the higher its concentration of hardness and chlorides, the greater the risk of these irritations. The dosage and concentrations depending on the nature of biological effects of hardness and chlorides the following acute exposure in humans. Both the amount that is absorbed into the body and the length of time that it is exposed to the substance both has a role in these effects. Biosorption is a naturally occurring physiochemical mechanism that enables specific biomass to passively bind toxins to its cellular structure. This allows the biomass to remove the contaminants from its environment. It does not need any kind of energy, and the amount of pollutants that a sorbent is able to remove is governed by the kinetic equilibrium of the sorbent's cellular surface as well as the chemical composition of the sorbent's surface molecules. In this study, five distinct biosorbents, including rice husk, rapeseed straw, parthenium, sawdust, and egg cell, were manufactured in the laboratory. With regard to the removal of hardness and chlorides from water, the parthenium biosorbents demonstrate the highest level of effectiveness among the five biosorbents. After identifying the most effective biosorbents, we optimized their parameters and gathered water samples from a variety of sources. We then determined the percentage of chlorides and alkalinity removed from water by the various biosorbent applications. After eliminating the chlorides and hardness ions from the utilized biosorbents, the biosorption process may be made more cost-effective by regenerating and recycling the biosorbent.

Keywords: Hardness, Chlorides, Biosorptions, Kinetic equilibrium, Isotherm data and Regeneration.

**SOLID-STATE SYNTHESIS AND CHARACTERIZATION OF A ZnSb₂O₆ - CuSb₂O₆
COMPOSITE**

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ABSTRACT

The aim of this work is to synthesize and characterize a composite material with the chemical formula ZnSb₂O₆ - CuSb₂O₆. The zinc meta-antimonate ZnSb₂O₆ crystallizes in a tri-rutile type structure, belonging to the space group P4₂/mm. The structure consists of octahedra sharing the ZnO₆ and SbO₆ edges in the order ZnO₆-SbO₆-SbO₆ along the [001] axis, with octahedra sharing the vertices present in the (001) planes, and the copper antimony oxide CuSb₂O₆ is a compound with a tri-rutile type structure of space group P21/n ; In the tri-rutile type structure of CuSb₂O₆, copper (Cu⁺²), antimony (Sb⁺⁵), and oxygen (O⁻²) atoms are arranged in a specific pattern, resulting in a three-dimensional crystal lattice. The arrangement of these atoms and the bonding between them determine the properties and behavior of the material.

Composite structured ZnSb₂O₆ - CuSb₂O₆ is a compound with intriguing properties. These distinct characteristics have motivated investigations into its potential applications. Notable among these applications are its magnetic, dielectric, and optical traits. Moreover, it shows promise in the field of photocatalytic pollutant degradation.

In our study the sample was prepared by the ceramic method. ZnO, CuO and Sb₂O₃ were mixed stoichiometrically, and calcined for 24 hours at 950 °C in an electric furnace under air atmosphere. The characterization was carried out by various techniques, such as powder X-ray diffraction (PXRD), scanning electron microscopy (SEM) and infrared spectroscopic analysis (FTIR)

Keywords: Ceramic method, tri-rutile, CuSb₂O₆-ZnSb₂O₆, PXRD, FTIR.

DYSLEXIA AND MODERN REFORMS IN MOROCCO

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ABSTRACT

Reading competence is the foundation on which other skills are built at school, but some students may not be able to acquire the required skills, even if their intelligence level is between average and high; this has been proven by national assessments of learner achievement, with negative consequences on school results, which for some can reach the point of dropping out.

In light of the reforms adopted by the supervisory ministry, the issue of learning disabilities has been included in the fourth integrated project, and the effective launch of the program has been given since June 2019 in order to move from the school integration stage to the inclusion stage within the framework of so-called inclusive education. However, the lack of knowledge of the conditions, of planning and deployment, and the limits of the intervention of actors from academies, administrative and educational executives, partners from civil society and the Ministry of Health, have prevented pupils with reading difficulties from benefiting from the activities of the resource room for re-education and support.

Key words: Dyslexia - Resource room for rehabilitation and support - Learning disability - The Fourth Integrated Project.

**FROM HIVE TO TABLE: EXPLORING NUTRIENT – RICH SPREAD RECIPES
ENHANCED BY UNIQUE VARIETAL HONEYS**

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ABSTRACT

In the domain of gastronomic creativity and advancing health consciousness, the development of nutrient-rich spreads that captivate the taste receptors while providing wholesome benefits has gained significant popularity. Nutritional spreads enriched with different types of honey present a fusion of taste, nutrition, and sensory delight.

This laboratory study was conducted over the period from June to July 2023, with three repetitions carried out in the Laboratory of the Faculty of Natural Sciences at Pristina University.

The article explores the art of creating these spreads, employing various types of honey (meadow and forest) to skilfully combine flavours and well-being benefits. By introducing elements like nuts, black seed, peanut butter and dried fruits, these spreads were enriched with essential nutrients such as healthy fats, protein, and fibres.

Honey's natural sweetness reduces reliance on processed sugars, while the array of flavours offers a spectrum of taste experiences. Incorporating nutrient-rich components underscores the intention to offer spreads that cater to both pleasure and nourishment.

Experimenting with various combinations and proportions unveiled an exciting array of textures and flavours. This exploration ranges from the earthy richness of almonds to the exotic allure of coconut, offering a diverse palate of sensory encounters.

In conclusion, the creation of nutrient-rich spreads using different honey types encapsulated the essence of harmonizing taste and nutrition. While the article doesn't delve into intricate nutritional specifics, it effectively communicates the potential of these spreads for sensorial satisfaction while promoting a balanced diet. The fusion of various honey varieties and an assortment of ingredients elevated spreads to a realm of nutritive innovation, inviting individuals to embark on a journey where flavour and nourishment come together in each delightful spread.

Keywords: Nutrient-rich spreads, Honey, Gastronomic creativity, Sensory delight.

**FOOD, FEEDING HABIT AND BREEDING BIOLOGY OF *RHINOMUGIL*
CORSULA (HAMILTON) REARED IN FRESHWATER POND FOR BROOD
DEVELOPMENT**

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ABSTRACT

This study was conducted to obtain information on different feeding ecology and other biological aspects like qualitative and quantitative gut analysis, fecundity, gonadosomatic index, hepatosomatic index of *Rhinomugil corsula* (Hamilton) during December, 2022 to January, 2023. Juveniles were collected from coastal river and reared in freshwater earthen pond in Bangladesh Fisheries Research Institute, Floodplain Sub-station, Santahar, Bogura, Bangladesh. Gut content analysis showed the presence of a high percentage of decayed organic matter, mud, detritus, benthic organisms, algae and zooplankton alluded that the species is omnivorous and illiophagous in its feeding habits. Feeding intensity was determined by the percentage of empty guts which was maximal in winter and declined towards the monsoon. The taxonomical study showed that the final total length (cm), standard length (cm), head length (cm), length of upper jaw (cm), body depth (cm) and body weight (g) were 25, 22, 4.3, 1.11, 4.52 and 121. The taxonomic formula for the species appeared like D. IV; D2. 7-8; P1. 14-16; P2. I/5; A. III/9. Number of scales on, above and below the lateral line ranged from 43 - 48, 6 - 10 and 10 - 13. The biological investigation revealed that the a) fish weight (g), b) gonad weight (g), c) fecundity, d) GSI, e) liver weight (g), f) gut weight (g), g) alimentosomatic, h) hepatosomatic index and i) condition factor ranged from a) 103 - 207, b) 8.15 - 27.69, c) 8921 - 82648, d) 8.15 - 13.91, e) 0.93 - 2.02, f) 3.78 - 6.51, g) 2.74 - 5.02, h) 0.85 - 1.16 and i) 0.52 - 0.97. The mean values of hepatosomatic and alimentosomatic indices indicated greater liver activity and feeding intensity. This study thus can be treated as an attempt for contribution of basic information to brood development of this species. This study would also assist in the development of induced breeding techniques and provide valuable information for the sustainable management of this population in the inland open ecosystem

Key words: *Rhinomugil corsula*, taxonomic formula, gonadosomatic index (GSI), morpho-meristic, food and feeding ecology.

**AGGRESSIVENESS OF CHILDREN AS A RESULT OF UNCONTROLLED USE OF
TECHNOLOGY**

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ABSTRACT

In recent years, we have witnessed that we are dealing with an increase in the use of technology by children. The use of technology begins on average from the age of 1 year and carries it to other stages of development. Technology has a great development of use at early ages and this has influenced the change in their personality, behaviors and the marked increase in their aggressiveness towards peers or even family members. This fact of using technology affects the loss of children's originality due to the fact that they do not have anything real but are imitators of a person they follow or see on TV, phone or iPad screens. In addition to this effect, we also have health effects in the weakening of vision, then also lack of focus in the games that in other years are implemented by children. On the other hand, another negative effect is their lack of socialization. This paper summarizes all the findings in this context and the steps that must be followed to reduce or change this approach that is currently applied to children.

ENVIRONMENTAL IMPACT OF THE ENERGY SECTOR IN KOSOVO

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ABSTRACT

All over the world, the energy sector has alarmed scientists who carry out environmental analyses. Energy consumption as a linear function of the overall industrialization has influenced us to have the highest consumption recorded in these years. Energy generation methods until now have been very little important due to the fact that saving energy, its production and sale has been very important, especially for countries in transition. In the entire analysis, the total monthly and annual emission of greenhouse gases is shown, considering the specific emission of these gases per kWh of energy generated. The analysis is carried out taking into account the chemical composition of the coal that is used exactly in the power plants of Kosovo. The analysis brings out a significant comparison of the pollution caused by the thermal power plants and the possibility of their negative impact on the lands in the vicinity, which could potentially be used in the agricultural sector.

Key words: energy sector, harmful consequences, agriculture, Kosovo, CO₂ emissions.

**FABRICATION OF SILICON-BASED COMPOSITE COATING FOR ENERGY
STORAGE AND SEMICONDUCTOR APPLICATIONS**

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ABSTRACT

In the modern world, energy is essential because it powers everything from industry and transportation to communication and everyday activities. Batteries are frequently viewed as one of the most significant energy storage technologies. Another essential element of electronics is semiconductors. They are extensively utilized in electronic devices like smartphones, laptops, microprocessors, memory modules, and other devices. Silicon has drawn a lot of interest in semiconductor and energy storage applications due to its distinctive properties. However, the rapid volume expansion rate of silicon as an anode material in Li-ion batteries is its principal drawback. This restriction has made silicon-based composites a popular and promising material. In this study, silicon-based composites are fabricated by coating with copper and aluminum foil. During the fabrication of the composite, silicon metal, silicon carbide, graphene, borophene, and binder (PAA) are mixed and finally coated by a bar coating method. The physical properties of all types of composites are characterized by UV, FTIR, and SEM methods, and performance is examined by the charging-discharging test. FTIR spectra of all samples showed two peaks at 3853 cm^{-1} and 3586 cm^{-1} due to the O-H stretching vibration indicating the presence of hydroxyl (-OH) groups, which is expected for silicone materials. And the presence of a large peak at 2300 cm^{-1} indicates the introduction of graphene into the composite. UV test shows the band gap of the sample and clarifies whether it is conductive, semiconductive, or insulator. In the case of Si-SiC, a large absorption peak at 300 nm is found. We can see that the peak is decreasing gradually. For Si metal-Gr the peak is found at 296 nm, for Si-Gr-Br the peak is found at 297 nm, for Si-SiC-Gr the peak is found at 290 nm and for Si the peak is found at 292 nm. SEM images show the presence of different elements in the sample and grain boundaries are formed by several crystallographic areas. Random-shaped particles with sizes ranging from two hundred micrometers to twenty micrometers are observed. In the charging curve, the current slowly declines over time and eventually stabilizes. In contrast, the voltage drops over time in the discharge curve. The findings of this study are compared to those of other studies, and they can be applied to semiconductor applications and energy storage in the future.

Keywords: Lithium-ion batteries; anode material; energy; battery life cycle; environmentally acceptable energy sources;

**TRANSFERENCE OF CSH WAVES IN A CYLINDRICAL STRUCTURE
COMPOSED OF PIEZO-REINFORCED MATERIALS**

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ABSTRACT

The present study fundamentally focuses on analyzing the limitations and transference of horizontally polarized Shear waves in a four-layered compounded cylinder. It comprises of concentric cylinders of infinite length composed of self-reinforced, fibre-reinforced, piezo-magnetic, and piezo-electric materials. The entire structure is assumed to be pre-stressed along the azimuthal direction. In order to make the structure sensitive to the application pertaining to sensors and actuators, the PM and PE cylinders have been categorically placed in the outer part of the geometry. Whereas in order to provide stiffness and stability to the structure, the inner part consists of self-reinforced and fibre-reinforced media. The common boundary between each of the cylinders has been essentially considered as imperfectly bounded. At the interface of PE and PM media, mechanical, electrical, magnetic, and intercoupled types of imperfections have been exhibited. The closed-form of dispersion relation has been deduced for two contrast cases i.e. EOMS and ESMO circuit conditions. Dispersion curves have been plotted to illustrate the salient features of parameters like normalized imperfect interface parameters, initial stresses, and radii of the concentric cylinders. Graphs have been plotted to compare the effects of these parameters using two consecutive modes. This theoretical study may be implemented to improvise the performance of surface acoustic wave (SAW) sensors and actuators.

Keywords: CSH waves, Imperfect interface, Self-reinforced, Fibre-reinforced, Piezomagnetic, Piezo-electric, Initial stress, ESMO, EOMS.

**On n -homogeneous C^* -algebras generated by finite number of idempotent
generators**

MSC2010: Primary 46L05, Secondary 19K99

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ABSTRACT

Banach algebras generated by two idempotents appear in many places. P. Halmos and G. Pederson in 1968-1969 studied C^* -algebras generated by two self-adjoint projections p and r such that the spectrum of the element prp equals to the set $[0,1]$. N. Vasilevskii and I. Spitkovsky in 1981 described the C^* -algebras generated by two projections such that $\sigma(prp) = [0,1]$ as the subalgebra of the algebra of all matrix-valued functions on $[0,1]$. The Banach algebras generated by two idempotents were described by S. Roch and B. Silbermann in 1988. Such algebras can have irreducible representations of order 1 or 2. The theory of Banach algebras generated by three idempotents is not constructed. Such algebras can have irreducible representations of any order. It was shown in 1955 by Chandler Davis that the algebra $B(H)$ of all bounded linear operators on separable Hilbert space H can be generated by three idempotents in the weak topology. N. Krupnik, B. Silbermann, S. Roch showed in 1966 that for each finitely generated Banach algebra A there exists a number N such that for each $n > N$ the matrix algebras $M_n(A)$ can be generated by three idempotents. N. Krupnik showed in 1992 that any matrix algebra $M_n(F)$ ($n \geq 2$) over arbitrary field F can be generated by three idempotents. Moreover, non-trivial n -homogeneous C^* -algebras can be generated by three idempotents. In this work we prove that n -homogeneous ($n > 2$) C^* -algebra such that $\text{Prim}A \cong S^4$ can be generated by finite number of idempotents.

**THE CORRELATIONS BETWEEN RISK MANAGEMENT IN ENGINEERING
MAINTENANCE AND PROFESSIONAL CERTIFICATIONS**

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ABSTRACT

Engineering maintenance in the oil, gas, and energy (OGE) industry was crucial and needs special attention, particularly when related to risk management. Most accidents at the workplace or sites were caused by a lack of safety training among employees. Hence, proper training that could be gained through professional certifications was essential to manage issues related to accidents in the workplace. The study's main goal was to discover a link between professionally trained employee and their job performance. Furthermore, on the connection between strategy, competence, and innovation, on job performance. The methodology used in a quantitative approach was based on a single case study, the OGE, which used an exploratory research approach. A descriptive survey questionnaire was distributed to employees, and the response rate was 71% among the technical people in the maintenance area in the case study setting. The key findings from nonparametric data analysis discovered that professionally trained employees had a positive correlation with job performance, in terms of assurance of safety, less hazardous, zero breakdown, zero defect, and alike. Additionally, strategy, competence, and innovation had significant positive correlations with job performance. The theoretical implications of the research are intended to broaden understanding of the Transaction Cost Economics (TCE) theory, which explains risk management in engineering maintenance and professional certifications. It provided the OGE industry, policymakers, and practitioners with a solid perspective to enhance job performance by taking appropriate actions. The research was unique because it showed how professional certifications and job performance in certain OGE industry-main processes were related to each other.

Keywords: OGE, professional certification, transaction cost economics, risk management, engineering maintenance.

PLATINATED NUCLEOSIDE ANALOGUES AS EMERGING CANDIDATES FOR ANTITUMOR AND ANTIVIRAL APPLICATIONS

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ABSTRACT

Despite nearly one hundred antiviral compounds being approved for clinical use, the recent viral pandemics have highlighted the need for more effective antiviral drugs. [1] The antiviral properties discovered in certain metal complexes have expanded the range of potential treatments. Over the past five decades, some platinum compounds have been tested as potential antiviral drugs on viral diseases such as hepatitis, herpes, influenza, cytomegalovirus, HIV, and COVID viruses which pose significant global health challenges.

Some antitumor drugs share mechanisms of action that are also suitable for antiviral treatments, as they target free nucleobases, DNA, and RNA, thus affecting the activity of DNA and RNA polymerases. For instance, nucleoside analogues, including a variety of purine and pyrimidine derivatives, are widely used as anticancer and antiviral agents due to their ability to compete with physiological nucleosides, thereby acting as antimetabolites and interfering with the metabolism of nucleoside derivatives.

In this perspective, the metabolism of model platinum(II) complexes with *N7*-coordinated guanosine derivatives, such as the [Pt(dien)(*N7*-G)] (dien = diethylenetriamine; G = Guo, dGuo, GMP, dGMP, dGDP, GTP, dGTP), was studied. [2] These investigations confirmed a significant cellular uptake and metabolism for some model complexes at both cellular and mitochondrial levels, suggesting that metalated nucleoside analogues could potentially interfere with the life cycles of cancer cells and viruses, thereby exhibiting both antitumor and/or antiviral activity.

Keywords: Nucleoside Analogues; Platinum Compounds; Coordination Compounds; Antitumor Drugs; Antiviral Drugs; Antimetabolites.

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**PARENTAL DISHARMONY, IDENTITY AND DELINQUENT TENDENCIES IN
ADOLESCENT BOYS**

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ABSTRACT

This study aimed to explore the relationship between Parental Disharmony, Identity, and Delinquent Tendencies among adolescent boys. For this purpose, Perceived Parental Disharmony Scale (Amjad & Saleem, 2014), and Identity Scale for Adolescents (Iqbal & Saleem, 2015), and Self-Reported Delinquency Scale (Naqvi & Kamal, 2008) were used. A stratified random sampling technique was used to collect data of 300 participants from Government and Private Institutes of Lahore. To draw meaningful interpretations from this correlational study, descriptive and inferential statistics were used. The mean age of participants was 16 ± 2 . Pearson Product Moment correlation revealed a significant positive relationship between parental disharmony, negative identity, and delinquent tendencies, while positive identity was found to be negatively associated with parental disharmony and delinquency. Multiple Hierarchical Regression analysis showed that the joint family system, parental disharmony, and negative identity significantly positively predicted delinquent tendencies in adolescent boys. Independent sample *t*-tests showed that adolescents from the joint family system scored higher on delinquent tendencies. Moreover, participants in their late adolescents perceived more parental disharmony and had more delinquent tendencies, while middle adolescents scored higher on positive identity. This highlights the need to explore the role of parental disharmony and its effect on identity of adolescents for further implications in designing effective preventative measures for delinquency in the Pakistani society.

Keywords: perceived parental disharmony, identity, negative identity, positive identity, delinquent tendencies, adolescent boys, Pakistan.

OPPORTUNITIES AND RISKS OF ARTIFICIAL INTELLIGENCE IN FINANCE

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ABSTRACT

Artificial Intelligence (AI) has become a driving force of transformation in the financial sector, reshaping traditional practices and offering new possibilities. This abstract delves into the multifaceted role of AI in finance, exploring its applications, benefits, and inherent challenges.

AI's integration into finance spans various domains, from risk management and fraud detection to algorithmic trading and customer service. It enables efficient automation of routine tasks, enhances data analysis capabilities, and empowers decision-making processes. By processing vast volumes of financial data, AI assists in identifying patterns, predicting market trends, and optimizing investment strategies. Moreover, AI-driven algorithms bolster risk assessment, enabling real-time fraud detection and compliance monitoring.

However, alongside these opportunities, AI in finance presents notable risks and concerns. Issues of data privacy and security emerge due to the extensive data collection required for AI algorithms. Biases inherent in training data can perpetuate inequalities, particularly in lending and hiring practices. The opacity of complex AI models challenges transparency, impacting regulatory compliance and accountability. The potential displacement of jobs by automation raises socio-economic considerations, while algorithmic trading driven by AI can amplify market volatility. This abstract encapsulates the dual nature of AI in finance, illustrating its potential to revolutionize the industry while necessitating careful navigation of its ethical, regulatory, and practical implications. Balancing innovation with responsibility remains a pivotal task as the financial landscape continues to evolve through AI integration.

Keywords: Artificial Intelligence (AI), Finance, Financial Industry, Banking.

EVALUATING THE INNOVATION FRAMEWORK: A SPOTLIGHT ON EU COUNTRIES

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ABSTRACT

In the post-pandemic era, a novel trend in societal evolution has emerged, marked by growth driven by innovation. Due to the overall changes in society, a reconfiguration of the national framework was observed and, given this paradigm shift, evaluating the significant impact on the world economy is crucial. Therefore, the main purpose of this current research project is to evaluate the effectiveness or lack thereof of innovation among European member states.

It was discovered through the use of a Data Envelopment Analysis (DEA) methodological approach, which involves calculating relative efficiency ratings for inputs and outputs and constant returns to scale (CRS), that 9 out of the 27 European member states are effective at maximizing output for given inputs. In the proposed model, the inputs are represented by the five innovation inputs sub-index of the Global Innovation Index, and the outputs by the same indicator's outputs. Based on the findings, it can be stated that nine EU members comprise the sample of innovative nations: the Netherlands, Italy, Bulgaria, the Czech Republic, Malta, Romania, Germany, Sweden, and Slovakia. Among the nations demonstrating innovation efficiency, the Netherlands emerges as the most important peer, playing an essential role as a reference point for 12 out of the 18 EU member-states marked by inefficiency. Italy follows suit, serving as a benchmark for 11 countries, and Bulgaria also assumes a notable position, acting as a peer for 10 countries. Oppositely, the least effective EU nations are Lithuania (69.78%), Latvia (78.74%), and Greece (80.15%). The proposed method argues that the relatively inefficient countries should use the more innovative nations as peers or benchmarks to raise their levels of innovation.

Keywords: innovation, performance, Data Envelopment Analysis, EU.

**JUSTIFICATION OF CRYSTAL STABILITY AND INTRIGUING
OPTOELECTRONIC PROPERTIES OF GE- AND SN-BASED METAL HALIDE
PEROVSKITES**

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ABSTRACT

Towards the case of boosting the energy conversion efficiency of optoelectronic devices, metal halide perovskites have intrigued in the research community due to the fact that their characteristics as catalysts are both cost-effective and highly efficient. Understanding the potential in optoelectronic device applications of investigated materials requires first and foremost the calculation of electrical and optical properties precisely. On the other hand, in high-temperature applications, such as nuclear power plants (NPPs), thermal barrier coatings (TBCs) are required, and the materials used in these coatings must have minimum thermal conductivity calculations performed on them. Because of their (mainly metal halide perovskites) potential in a variety of real-world scenarios, we have a vested interest in discovering more about various physical properties of $TiBX_3$ ($B = Ge, Sn; X = Cl, Br, I$) perovskites through the application of first-principles calculations based on the density functional theory (DFT).

Keywords: Halide perovskite; DFT calculations; Electronic band structure; Optical functions; Mechanical properties

VIETNAM'S POLICY ON CO₂ EMISSIONS
IN THE CONTEXT OF ACCESSING INTERNATIONAL AGREEMENTS

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ABSTRACT

Participating in the international market through bilateral and multilateral FTAs contributes to Vietnam's outstanding achievements in economic development. However, high economic growth also causes Vietnam to emit a large amount of CO₂ into the atmosphere. Reducing CO₂ emissions in the context of trade opening is a matter of particular importance, having significant influence, interacting, and deciding the country's sustainable development; is the basis and premise for making guidelines and policies for socio-economic development, ensuring national defense, security, and social security. The article presents the situation of CO₂ emissions in Vietnam over the years. At the same time, the report studies Vietnam's policy related to CO₂ emissions. On that basis, the paper proposes some recommendations related to the implementation of policies on CO₂ emissions.

Keywords: CO₂ emission, CO₂ emission policy, carbon credit market

**SYNTHESIS AND CHARACTERIZATION, DFT ON STUDY AND
ANTIBACTERIAL ACTIVITY OF METAL (II) SCHIFF BASE COMPLEXES**

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ABSTRACT

Metal(II) chelation components of new tridentate ligand of Schiff base gotten from the reaction of Sulfamethoxazole and cephalexin antibiotics with Cu(II), Co(II), Ni(II), Zn(II) ions with general formula $[ML_{CS}(H_2O)_nCl].nH_2O$ where $L = (C_{26}H_{25}N_7O_5S_2)$ have been prepared. The compounds have been depicted by 1H - NMR, UV, mass and FT-IR spectroscopy and calculations of molar conductivity, magnetic sensitivity,. All the compounds have been disclosed both for microbiological efficiency in vitro versus two (-)ive gram and two (+)ive gram bacteria. The $[NiL_{CS}(H_2O)_nCl].nH_2O$ complex was appeared to be more efficient than the free[HLcs]. The values of molar conductance and analytical mentioned which the ligand conducts as a tridentate NNO coordinating in the mono complexes.

**SYNTHESIS, SPECTRAL, CHARACTERIZATION, MOLECULAR MODELING ,
ANTIMICROBIAL AND CYTOTOXICITY ACTIVITIES STUDIES OF A NEW
METAL(II) SCHIFF BASE COMPLEXES**

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ABSTRACT

A chain of some complexes of Schiff base based mononuclear Zn(II), Cu(II) and Ni(II) have been prepared and identified. Depended on data of elemental analysis, spectral IR, UV, and ¹HNMR tetrahedral structure were designated for all the complexes whilst for Ni(II) complexes was specified structure of square planar. Enjoyably, Cu(II) complex shows effective DNA cleavage in the non-attendance of any factors of exterior. The Cu(II) complexes IC₅₀ data explained a more cytotoxicity efficiency than the other complexes. All the complexes react with CT-DNA by groove system of linking with DNA. The cytotoxicity efficacy was tested with cell lines of cancer like (HCT-15), (HeLa) and (A549) where the Cu complex appears the most efficacy with (HCT-15) .

**THE EFFECT OF LIQUID ORGANIC FERTILIZER BASED ON GOAT URINE,
MORINGA LEAF, AND BANANA STEM ON THE GROWTH AND YIELD OF
MUSTARD GREENS (*Brassica rapa* L.) AND PAKCOY (*Brassica rapa* L.)**

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ABSTRACT

The use of fertilizer for mustard greens and pakcoy cultivation still uses fertilizer inorganic materials which if used continuously will reduce soil fertility. Fertilizer Organic is the solution to overcome these problems. This research intended to determine the effect of applying liquid organic fertilizer based on goat urine, moringa leaves, and banana stems on the growth and yield of mustard greens and pakcoy plants and to determine the effectiveness of liquid organic fertilizer based on goat urine, moringa leaves, and banana stems as a substitute for NPK fertilizer in mustard greens cultivation. This research was conducted at the Integrated Field Laboratory, Faculty Agriculture, University of Lampung from February to March 2023. Treatment arranged in a Randomized Complete Block Design (RCBD) with 4 treatments and 10 test. Each experimental unit was planted 2 plants/polybag so that the total population pakcoy is 80 plants. Homogeneity of variance was tested using the Bartlett test. If assumptions are met, analysis of variance (ANOVA) and separation of mean values is performed using the Least Significant Difference (LSD) test at the 5% level. This research is done using three kinds of treatment namely control, 100% NPK, POC made from basic goat urine, Moringa leaves, and banana stems 100%, and 50% NPK + POC made from goat urine, moringa leaves, and 50% banana stems. Administration of POC urine goats, moringa leaves and banana stems had a significant effect on almost all variables plant. POC urine treatment Goat, Moringa leaves and banana stems 100% showed the highest yields on fresh weight of leaves, stalk fresh weight, plant height, leaf width, leaf length, stem diameter, green level leaves, and dry weight of leaves on pakcoy. while for the mustard greens, POC urine treatment Goat, Moringa leaves and banana stems 100% showed the highest yields on fresh weight of leaves, plant height, leaf width, leaf length, stem diameter, green level leaves, and dry weight of root. Use of organic fertilizers liquid based on goat urine, moringa leaves, and banana stems can be used as a substitute for inorganic NPK fertilizer in mustard greens and pakcoy cultivation.

Keywords: liquid organic fertilizer, goat urine, moringa leaves, banana stems, NPK, mustard greens, pakcoy

A CYCLOSTATIONARY STUDY TO IDENTIFY DEFECTS IN A TURBOMACHINE

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ABSTRACT

The objective of this paper is to propose a cyclostationary study as a defect detection tool on rotary machines. Our contribution sets the stage first. The MID based on cyclostationary analysis of the frequency destruction intensity modulation of defects and the integration correspondent (IMID). Secondly, it aims to demonstrate by this article the great superiority of the MID and the IMID integration correspondent. This method is applied to signals measured at the 101 BJT turbofan. Several parameters are therefore taken into account, namely the speed of rotation and the load applied to the machine. The combination of this time-frequency technique is well suited to analyze transient or stationary signals produced by rotating and alternating machine defects.

Keywords: Empirical Mode Décomposition; Intrinsic Mode Fonction; Intensity Modulation Distribution ; Spectral Correlation Density ; Turboventilateur 101 BJT.

**INVESTIGATING THE IMPORTANCE OF TEACHING TRANSLATION IN
UNIVERSITY: CASE STUDY OF THE DEPARTMENT OF ENGLISH (CENTRE
UNIVERSITAIRE D'ADJARRA)**

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ABSTRACT

Teaching translation is essential in EFL classes. It allows learners to improve their skill in that field and better master the language. But unfortunately, for one reason or another, the aim of teaching/learning translation is not always achieved. The purpose of this study is firstly to investigate the importance of teaching translation to EFL students. It also aims at examining the strategies used by teachers to motivate EFL students for learning translation and finally aims at determining the main challenges faced by both lecturers and learners while teaching and learning translation. A mixed-method design is employed using both quantitative and qualitative approaches. Questionnaires to teachers and to students are used as quantitative and qualitative method instruments. The findings of this investigation show that the learners are motivated for the learning of translation but the methods used for teaching do not help them. Moreover, they have their own linguistic gaps to fill.

Key words: Translation, teaching, learning, EFL students

STUDY OF CORROSION PROTECTION PERFORMANCE OF ORGANIC COATINGS DEVELOPED FROM NATURAL RUBBER BASED MATERIALS

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ABSTRACT

In many sectors that employ metal, anti-corrosion coatings are widely used in maintenance, improved preservation, and conservation. They are intended to preserve a substrate by putting a barrier between the metal and the outside environment, especially in chloride-rich areas. In order to provide adequate corrosion protection, the coatings must be uniform, well adhered, pore free and self-healing for applications where physical damage to the coating may occur. Thus, various experimental and numerical studies were performed to understand the mechanisms and rules of corrosion types occurred in metal substrate determine the factors affecting these types. The current investigation is aimed to develop a protective coating system using Natural rubber with Acrylic Polyol Resin for mild steel for long term protection. 7 samples of multifunctional coatings with different compositions of rubber and acrylic resins were blended with calculated value of polyisocyanate as the curing agent. The properties of the developed coatings were characterized using analytical methods such as Fourier Transform Infrared Spectroscopy, Electrochemical Impedance Spectroscopy, Ultraviolet-Visible Spectroscopy and Cross-Hatch Adhesion Tester. From the experimental test of anticorrosive protection using EIS, it showed better corrosion resistance when the ratio of Natural Rubber was reduced. The results showed the coating revealed best performance when the ratio of Natural Rubber and Acrylic Resin 0:100, 20:80 and 30:70. Also, the coatings possessed very good adhesion onto the metal substrate.

Keywords: Epoxidized Natural Rubber, EIS, Corrosion, Protective Coating

EXPLORATION OF THE ANTIBACTERIAL POTENTIAL OF 2-ARYLOXY-1,4-NAPHTHOQUINONE DERIVATIVES AGAINST ESCHERICHIA COLI: INSIGHTS FROM IN SILICO INVESTIGATIONS UTILIZING 3D-QSAR, ADMET ANALYSIS AND MOLECULAR DOCKING

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ABSTRACT

In this investigation, we conducted an analysis of 30 variations of naphthoquinone utilizing in silico techniques such as 3D-QSAR, drug-likeness assessment, ADMET evaluation, molecular docking, and dynamics methodologies. The primary aim of this research was to develop robust 3D-QSAR models employing CoMFA in order to identify novel antibacterial agents targeting Escherichia coli. The QSAR models displayed a notable capacity for prediction, as evidenced by their evaluations ($Q^2 = 0.613$, $R^2 = 0.902$, $SEE = 0.063$). Utilizing the predictions derived from the QSAR models, we designed four new molecular structures. Subsequently, we scrutinized the drug-likeness and ADMET predictions for these four compounds, revealing that two compounds exhibited exceptional ADMET predictions and drug-likeness properties. Through molecular docking, we assessed the binding interactions of the newly designed molecule 1 and 2 with the target protein. Based on the obtained results, compound 2 displayed remarkable stability.

Keywords: Escherichia coli, QSAR, ADMET, drug-likeness, Molecular docking

**LATIN AMERICA TURNING TO THE LEFT OR DÉJÀ VU IN THE 21ST
CENTURY**

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ABSTRACT

In this paper we analyze the characteristics assumed by the political processes, the turn to the left of a large part of the Latin American governments during the 21st century. With the triumph of Lula Da Silva in Brazil, the region has seen how progressive candidacies prevailed in Colombia, Honduras and Mexico, among others. We intend to understand the idea of post-neoliberalism and the return of the figure of the State in those scenarios crossed by different social and economic problems. As first findings, we observe that Lula's arrival in government has a vital geopolitical repercussion for the continent, since it not only implies failure for the extreme right embodied by Jair Bolsonaro, but also the consolidation of a second wave of the left, also known as the pink tide, evoking that of the early 2000s. In conclusion, the two trends mentioned above coexist, despite the fact that one may be stronger than the other. The existence of discontent against the governments of the day, whose origin precedes COVID-19, the pandemic that spread throughout the world, of which progressives are taking advantage today, is evident.

Keywords: Latin America, left, state, progressivism.

**EXPLORING THE BARRIERS AND CHALLENGES WOMEN FACE IN
EDUCATION IN THE MODERN INCLUSIVE INDIAN SOCIETY**

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ABSTRACT

The current study explores the barriers and challenges women face in education in modern, inclusive Indian society. In our modern, inclusive Indian society, the issue of women's education is instantly brought to our attention. We live in a society where women were once considered to have lower status than men due to rigid traditionalism. By preventing women from studying the Vedas during the later Vedic period, the Aryans sealed the cultural and social fate of women and deprived half the population of one of the most basic human rights. Women's education is essential for the nation's social and economic advancement. As the two sides of a coin, society's two hubs are equally important. Being necessary for both individual and societal growth, equal educational opportunities. Everyone agrees that raising women's place in society mostly depends on education. It has been considered an initial move toward social and professional mobility. Since independence, women's opportunities for obtaining higher education have significantly increased. There is still a gender difference in educational success in the southern region, even though women's education has a solid track record. Social development is challenging if neither partner has the necessary opportunities and knowledge. Women's importance in fostering civic values, reviving the economy, and bringing about social change is becoming increasingly apparent. Education has recently drawn more attention due to the country's rapidly changing conditions. The teaching of a nation's women has a significant impact on its success. The initiatives to advance and broaden their education will not be disregarded due to a lack of resources. Since most childcare providers in India are women, there is still a sizable achievement disparity between boys and girls in education. She is vital to our way of life. At the very least, the current strategy must keep the initiatives for women and girls in place. Since women are the primary teachers of their children, who are the nation's future, women's education is vital to India's development. The Indian government is taking steps to ensure that every woman in the country has access to education. There is a growing trend among women to read more books than before. In the

inclusive Indian society, this has benefited women's advancement into leadership roles in the private and public sectors. Promoting women's education as reasonably as is attainable is essential to give them a sense of the bright future of inclusive Indian society.

Keywords: Exploring, Barriers, Challenges Women, Face, Education, Modern, Inclusive, Indian, and Society

**BREAST CANCER DIAGNOSIS: AUTOMATED SEGMENTATION OF
ULTRASOUND IMAGES USING U-NET MODEL**

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ABSTRACT

Breast cancer is a major worldwide health concern, demanding precise and effective diagnostic techniques. Because of its non-invasiveness, cost-effectiveness, and real-time imaging capabilities, ultrasound imaging has emerged as one of the most widely used modalities in medical health. However, because to the intricacy of breast tissue composition, differences in lesion appearance, and the requirement for specialized competence, the interpretation of ultrasound images creates obstacles.

The purpose study discusses the application of deep learning techniques, especially the U-Net model, for the segmentation of breast cancer lesions in ultrasound images. Because of its capacity to capture detailed characteristics and spatial correlations within pictures, the U-Net architecture has shown to be useful in a variety of medical image segmentation applications. This model may be used to accurately segment breast cancer lesions, assisting in early identification, correct diagnosis, and informed treatment decisions. The experimental findings of our study show that the U-Net model performs well in the segmentation of breast cancer lesions. Our technique demonstrates a high level of accuracy in capturing the precise boundaries of the lesions, with a Dice coefficient of 95.91%. Furthermore, reaching an accuracy rate of 97.34% highlights the efficacy of our technique in discriminating between cancerous and non-cancerous areas within ultrasound images.

In conclusion, ultrasound imaging is an important tool in the detection of breast cancer, and the use of advanced deep learning techniques such as the U-Net model shows significant potential in overcoming the problems of comprehending challenging ultrasound images.

Keywords: Breast Cancer, Ultrasound Imaging, U-Net Model, Segmentation, Medical Analysis

**A DEEP LEARNING APPROACH FOR MULTICLASS CLASSIFICATION OF
CARDIOVASCULAR DISEASES USING ELECTROCARDIOGRAM WAVEFORMS**

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ABSTRACT

The electrocardiogram (ECG) waveform, which represents the electrical activity of the heart, is critical in diagnosing and monitoring cardiac health. With the increasing prevalence of cardiovascular diseases leading to increased death rates, the demand for ECG examinations has grown, putting a strain on cardiologists. As a result, the need for a clinical decision support system has become essential. This study conducts a thorough analysis of current literature, identifies research gaps, and then reveals our investigative findings using a deep learning system. Our main objective is on explaining our novel technique, which employs a CNN based on residual network model. This contribution shows the capacity to classify a wide range of 23 cardiovascular disease classes. By combining datasets from many sources throughout the world, we assure data heterogeneity, which improves the model's resilience. During both the training and validation phases, our proposed model achieves outstanding accuracy, with 97.67% and 97.57%, respectively. Precision metrics of 88.73% and 87.37% further demonstrate the value of our technique. The achieved loss values of 0.0070 and 0.0165 support the model's capability. This paper not only provides a complete summary of current cardiovascular disease classification research, but it also introduces a novel approach for utilizing deep learning for accurate and efficient disease categorization.

In summary, our research presents a CNN architecture, leverages enhanced data diversity, and achieves remarkable multiclass classification accuracy. These contributions highlight the potential of deep learning to revolutionize cardiovascular disease diagnosis and management, paving the door for more effective and tailored healthcare solutions.

Keywords: Cardiovascular disease classification, deep learning, ECG waveform, multiclass classification.

**IoT AND EMBEDDED AI FOR REMOTE SENSING AND REMOTE
MONITORING OF ATRIAL FIBRILLATION IN ELDERLY PATIENTS**

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ABSTRACT

Atrial fibrillation (AF), also known as atrial fibrillation, is a common heart condition characterized by an irregular and often rapid heartbeat. This happens when the two small upper chambers of the heart (the atria) do not contract in a coordinated fashion with the ventricles (the main chambers of the heart). Instead, the earbuds vibrate or flutter rapidly and chaotically.

Symptoms of atrial fibrillation can vary depending on the severity of the condition and other underlying heart problems. Common symptoms include feeling a fast, irregular, or pounding heartbeat (palpitations), difficulty breathing, especially during exertion (shortness of breath), feeling weak and lack of energy (fatigue), dizziness or lightheadedness and mild chest pain.

Atrial fibrillation can increase the risk of serious complications such as stroke. An irregular heartbeat causes blood to pool in the atria and promotes blood clots. If a clot forms and travels to the brain, it can cause a stroke. Heart failure can also increase, with an irregular and rapid heartbeat that gradually weakens the heart and can eventually lead to heart failure. This fibrillation causes other heart problems that can exacerbate other pre-existing heart problems, such as high blood pressure and coronary heart disease.

Atrial fibrillation is usually diagnosed using an electrocardiogram (ECG) or other cardiac test. The goals of treatment are to control heart rate, prevent blood clots, and relieve symptoms. Treatment options may include drugs to slow the heart rate, blood thinners to prevent blood clots, cardioversion to restore normal heart rhythm, and sometimes ablation procedures to

control heart rhythm. It is important for people with atrial fibrillation to work closely with their doctor to develop an appropriate treatment plan based on their individual condition.

Screening for atrial fibrillation using connected objects is a real diagnostic breakthrough. The ability to increase the record over time increases the cost-effectiveness of diagnosis compared to traditional screening tools. One of the techniques used for the detection of atrial fibrillation is the Electrocardiogram (ECG). The conduction of electrical signals from the heart is monitored using electrodes attached to the skin. A recording is created that can be interpreted by a cardiologist. One of its variants is the long-term ECG, in which the conduction of the heart is recorded for hours or even days using a portable device. It can detect transient arrhythmias that cannot be easily confirmed by short-term examination.

In this work, the design of a system for remote monitoring and remote sensing of ECG signals is implemented. It is a dedicated sensor network system for home healthcare. The Arduino allows you to run a portable ECG with heart condition readings. The main part of this system is the AD8232 sensor, which can measure heart rate and process voltages on electrodes attached to the body. By combining the Arduino UNO microprocessor with HC 05 FC-114 such as Bluetooth or WiFi, ZigBee antenna, GSM/GPRS and even XBee, the ECG screen is displayed in real time on your smartphone. In a second step, our work highlighted an interesting performance of AI, making it possible to predict the occurrence of AF in a patient from the performance of a 24-hour ECG.

Keywords: ECG, Atrial fibrillation, IoT, IA, Embdded System

**w_s -IRRESOLUTE MAPPINGS
IN TOPOLOGICAL SPACES**

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ABSTRACT

Analysis is one of the greatest achievements in the history of mathematics. The achievement opens a new era of mathematical progress and plays an important role in the development of physics, astronomy, signal processing and other disciplines. At the end of the 19th century, mathematicians deduced many properties of continuous functions on closed intervals, which undoubtedly promoted the development of analytical theory. Bolzano's Function Theory gives the earliest proofs of the Boundedness theorem and the Extreme value theorem and Weierstrass proved the Extreme value theorem in Berlin lecture. The Intermediate value theorem was first proved in 1817 by Bolzano, and then Cauchy gave a proof in 1821. The definition of uniform continuity is proposed by Heine, and he published a proof of the Uniform continuity theorem. There are some important properties of continuous functions on closed intervals including Weierstrass second theorem: Boundedness theorem, Weierstrass first theorem: Extreme value theorem, Bolzano-Cauchy second theorem: Intermediate value theorem, Cantor theorem: Uniform continuity theorem. Continuous functions have four fundamental properties on closed intervals: Boundedness theorem, Extreme value theorem, Intermediate value theorem, Uniform continuity theorem. These theorems are the basis of mathematical analysis and the direct expression of real number theory in functions. In 2018, Samer Al Ghour and Kafa Mansur introduced and studied the notions of w_s -open sets as a new class of sets which lies strictly between open sets and semi-open sets. They introduced w_s -continuous functions as a new class of functions between continuous functions and semi-continuous functions and obtained some characterizations of w_s -continuous functions. We

introduce a new class of functions called w_s -irresolute functions and investigate several properties and characterizations of w_s -irresolute mappings in topological spaces.

Mathematics Subject Classification (2020): 54C05, 54C08, 54C10.

Keywords and Phrases: Topological space, w_s -open set, w_s -closed set, w_s -interior set, w_s -closure set, w_s -irresolute function.

w_s -COMPACT TOPOLOGICAL SPACES

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ABSTRACT

Most references on topological spaces seem to define a compact space in terms of open coverings of a space having finite sub coverings. Formally, we say that a collection of open sets $\{U_i : i \in I\}$, indexed by some set I , is an open covering of a topological space K if $K \subseteq \bigcup_{i \in I} U_i$. We define K to be compact if there exist finitely many open sets $U_{i_1}, U_{i_2}, \dots, U_{i_n}$ in the open covering such that $K \subseteq \bigcup_{j=1}^n U_{i_j}$. There exists a number of equivalent definitions of a compact space, which we briefly mention here. A topological space K is compact if and only if K has the finite intersection property: if $\{E_i : i \in I\}$ is a collection of a closed sets indexed by a set I such that, for any finite subset $I_0 \subseteq I$, $\bigcap_{i \in I_0} E_i \neq \emptyset$, then $\bigcap_{i \in I} E_i \neq \emptyset$. Another equivalent definition is in terms of nets. A topological space K is compact if and only if every net $(x_\alpha : \alpha \in \Lambda)$ in K has a convergent subnet. In 2018, Samer Al Ghour and Kafa Mansur introduced and studied the notions of w_s -open sets as a new class of sets which lies strictly between open sets and semi-open sets. They introduced w_s -continuous functions as a new class of functions between continuous functions and semi-continuous functions and obtained some characterizations of w_s -continuous functions. We will extend the concept of compactness via w_s -open sets by introducing w_s -compact space in topological space and will investigate its characterizations by making use of mappings including w_s -continuous functions and w_s -irresolute functions. The objective of this paper is to introduce the new concept called w_s -compact space and investigate fundamental properties and characterizations of this new notion of space in topological spaces.

2020 AMS Subject Classification. Primary: 54B05, 54D20, 54D30.

Key Words and Phrases: Topological space, w_s -open set, w_s -closed set, w_s -compact space.

NOVEL RECTIFIER USING CONCURRENT DUAL BAND IMPEDANCE MATCHING NETWORK

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ABSTRACT

The proposed system presents a connected and self-charging electromagnetic (EM) power meter which send in real time the measured values of the EM power in free or closed space. This system will be dedicated to wireless applications. It can be used in airports, factories and malls, where there is a lot of people. So our system sends out an alarm signal when the electromagnetic power exceeds the limits, thus monitoring people's health against the dangers and threats of EM waves.

This power meter is a rectenna. It is made up of an antenna and a rectifying circuit. In this paper, an dual band rectifier operating at 3.5 GHz and 2.45 GHz, using a simple and novel impedance matching network (IMN) technique is presented. The rectifying circuit is composed by a IMN, a Schottky diode, a DC filter and a load as shown in figure Fig.1.

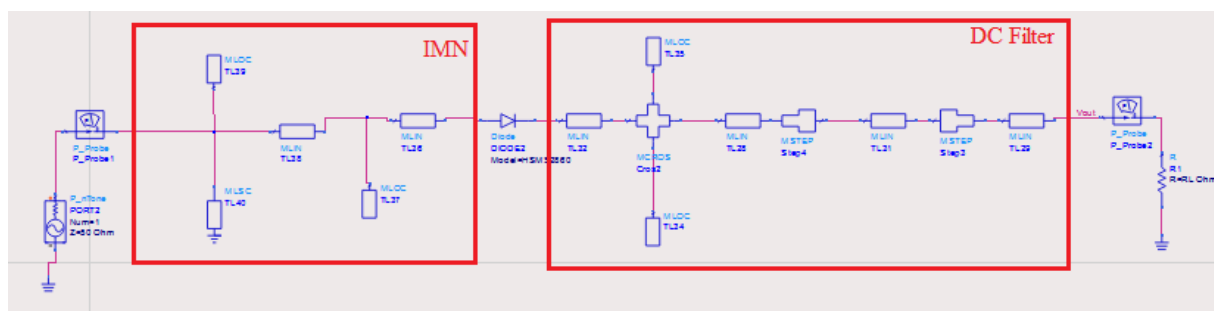


Figure.1. Rectifier Design

The rectifier complexity is reduced by including concurrent impedance matching network, which plays a important role in improving the power conversion efficiency (PCE).

The proposed design achieved a peak of 39.8% for an input power of 13 dBm.

Keywords: Rectifier, IMN, PCE, Wireless applications

**DISCOVERY OF POTENTIAL BIOLOGICAL AGENTS AGAINST INFLUENZA
VIRUS USING MOLECULAR MODELING**

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ABSTRACT

The in silico evaluation of 27 p-aminosalicylic acid derivatives, also referred to as neuraminidase inhibitors was the focus of the current study. To search and predict new potential neuraminidase inhibitors, this study was based on the ligand-based pharmacophore modeling, 3D QSAR, molecular docking, ADMET studies. The data was generated from recently reported inhibitors and divided into two groups, one of these group has 17 compounds for training and the second group has 10 compounds for testing purpose. The generated pharmacophore has known as ADDPR_4 was found statistically significant 3D-QSAR model owing the high trust scores ($R^2 = 0.974$, $Q^2 = 0.905$, $RMSE = 0.23$). Moreover external validation was also employed to evaluate the prediction capacity of the built pharmacophore model ($R^2_{pred} = 0.905$). In addition, in silico ADMET, analyses were employed to evaluate the obtained hits for drug likeness properties.

Keywords: p-Aminosalicylic acid, derivatives neuraminidase, inhibitorspharmacophore 3D-QSAR, molecular docking, ADMET.

**INFLUENCE OF DIGITALISATION ON CONSTRUCTION PROJECT DELIVERY:
A REVIEW**

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ABSTRACT

The construction industry at large is beginning to take advantage of digital technologies through big data, data analytics, internet of things (IoT), artificial intelligence, machine learning and deep learning to enhance the effectiveness of project delivery. The construction industry in developing countries has been said to be under-digitized with organisations failing to realize the full potential and adoption of digitalisation as a driver for growth and efficiency in the industry. Also, the delay in project delivery, cost inefficiencies, uninformed decision making, poor quality and poor performance in terms of productivity have been characterised as a result of absence of adequate digital expertise and technological adoption within the construction industry. Thus, this study reviewed selected literature on influence of digitalisation on construction project delivery and challenges faced in the Nigeria construction industry, intending to establish the current adoption level, highlights some significant challenges and suggests ways to mitigate the challenges. The review revealed that use of digitalisation in construction project delivery in Nigeria is still very low. With sets of challenges such as legal issues and regulations, cultural issues, lack of awareness, security, higher initial costs, project uniqueness, resistance, robotics, institutional and informational sharing. Thus, the study suggests rigorous awareness, especially among the concerned professionals and stakeholders, establishing digital knowledge, basic skills and training from grassroots, usually from the tertiary institutions and related professional bodies, and enacting government policy that will encourage and enforced the adoption and implementation of digital technology in the Nigeria construction industry.

Keywords: Construction Industry, Digitalisation, Project Delivery, Critical Success Factors, Nigeria

**VERTICAL MIGRATION OF THE BLACK BEAN APHID (APHIS FABAE SCOP.)
ON PLANTS**

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ABSTRACT

Temperature is one of the most important factors affecting the development of cold-blooded animals, especially insects. Plants can strongly influence the temperature of the environment. Thus, they can increase the temperature of the air during the day by absorbing the sun's rays, and at the same time, due to the characteristics of transpiration in the environment with low humidity and high temperature, they can lower the temperature in the nearby area by 10-15°C.

Temperature changes occur more sharply in deserts where there is no vegetation cover. Just as the top surface of the earth heats up quickly from the sun's rays during the day, it cools down at the same rate after sunset.

The temperature remains constant and varies slightly mainly in the deep layers of the soil. Therefore, insects settle mostly in those layers for wintering. It follows that insects can choose places with favorable temperature conditions that differ from meteorological indicators for growth and reproduction.

In addition to directly affecting insects, temperature also acts as a signaling factor. Firstly, the increase in temperature increases the rate of metabolism and movement reactions in insects, and secondly, the temperature change is received by the thermoreceptors of insects and stimulates them to search for a more favorable place. The temperature regulator for activity is different for different species.

Insects are always looking for areas with a favorable temperature environment for them. A clear example of this is the daily vertical migration of the Boll weevil (*Acyrtosiphon gossypii* Mordv.) on the cotton plant.

The authors found that aphids migrate along the stem and leaf of the plant during the day. During the hot times of the day, aphids gather in the lower part of the plant, and in the night and morning around the coloring points where the temperature is relatively high. For this reason, they live in conditions that are 10-15°C lower than the ambient temperature during the day, and 2-3°C higher in the evening.

Given that temperature is an important environmental factor in the life of

Aphis fabae, we conducted a series of experiments to investigate the effect of beet leaf moths on diurnal behavioral traits.

It is known that the temperature in various organs of plants and at the same time in their immediate surroundings is significantly different from the ambient temperature.

In order to monitor the vertical migration of the *Aphis fabae* on the plant during the day, observations were made under natural conditions by placing 50 beetles on the beets planted and cultivated in pots. Observations were made visually every 2 hours both at night and

during the day. Experiments were conducted in 3 repetitions on June 25-28. As a result of the conducted observations, it was found that there is indeed a vertical migration of the *Aphis fabae* on the plant. Thus, after 21.00 in the evening, aphids move upwards along the stem of the plant, gather around the plumule, and settle there until 6.30-7.00 in the morning. After 7:00 a.m., they gather from there on the upper leaves, and then on the lower surface of the lower leaves. They feed in the parts where they gather, and when the temperature drops in the evening, they begin to migrate again toward the upper shoot of the plant.

The results of the experiment show that there is indeed a daily vertical migration of the *Aphis fabae* on the plant it feeds on, and as a result of this migration, they can choose a suitable place for their living. Therefore, in contrast to laboratory conditions, in agrocenosis, they can live using these characteristics even in high environmental temperature conditions, sometimes above 40°C.

Key words: Beta vulgaris, fabae, migration, temperature, insecta

**AN ANALYSIS OF THE CONNECTION BETWEEN FISH MORTALITY AND
BIOCHEMICAL OXYGEN DEMAND (BOD) LEVELS IN WASTEWATER**

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ABSTRACT

Aquatic ecosystems are now significantly at risk from water contamination, especially in pond habitats where fish populations are particularly susceptible to pollution's negative impacts. This study examines the effects of water contamination on fish mortality in ponds and the importance of biochemical oxygen demand (BOD) levels in determining the health and survival of fish. To assess the association between water contamination, BOD levels, and fish mortality, the study uses a combination of techniques that incorporates field observations, quality of water the method of sampling, and laboratory analysis. To identify probable contaminants causing elevated BOD levels in ponds, a thorough study of water pollution sources, such as industrial discharges, agricultural runoff, and household waste, is done. The research also looks at fish's physiological reactions to high BOD levels, such as compromised respiration, decreased oxygen availability, and elevated stress. These elements deteriorate fish health and increase their susceptibility to illness and death. The purpose of the study is to identify the precise influence of BOD levels on fish physiology and the cumulative rate of death by examining fish tissue samples and performing necropsies. The ecological consequences of fish mortality in pond environments are investigated. The disruption of the food chain, alteration of nutrient dynamics, and loss of biodiversity are among the potential ramifications of fish mortality. Understanding these ecological implications is crucial for developing effective conservation and management strategies to restore and protect pond ecosystems. In conclusion, this research aims to shed light on the consequences of water contamination on fish mortality in pond environments, with a particular focus on the role of BOD levels. Through a comprehensive investigation of water quality, fish physiology, and ecological implications, the study seeks to provide valuable insights for the conservation and management of pond ecosystems and contribute to broader efforts in mitigating the impact of water pollution on aquatic organisms.

Keywords: Wastewater, Biochemical oxygen demand (BOD), Fish mortality.

BENEFITS OF HERBAL TEA ON HUMAN HEALTH

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ABSTRACT

Herbal teas also known as herbal mixtures or tisanes, are basically beverages made by suffusing dried herbs, flowers, fruits, and/or spices in hot water for intake. A few add-ons like milk, plant-based milk, sweeteners, and other ingredients may often be added. Herbal tea is different from regular tea. There are several traditional teas like green or black tea and milk tea are made from tea plant leaves called *Camellia sinensis*. Herbal teas do not contain traditional tea plant leaves. Most herbal teas are naturally caffeine-free. Though, some herbs like yerba mate and guayusa encompass caffeine, and few manufacturers may add these caffeine-containing herbs to herbal tea mixtures. Herbal teas may contain bioactive compounds that potentially provide health benefits, such as anti-inflammatory and antioxidant properties.

Common ingredients used in herbal teas are Astragalus, Chamomile, Echinacea, Elderflower, Ginger, Hibiscus, Lavender, Lemon Balm, Peppermint, Rosehips, Rooibos, Yerba mate. The benefits of consuming herbal tea include comforting the body, cooling the body temperature, easing the bad stomach, and reducing fluid retention in the body. Herbal tea reduces cough and cold by reducing decongestion in the nasal cavity. Ginger herbal tea has anti-microbial properties and hence it fights against microbial infection. It contains calcium, iron, silica, and several essential minerals, it boosts the minerals deficiency in the body. Chamomile tea can help to cure insomnia as it contains tryptophan, an amino acid that relaxes the body. It helps with cell rejuvenation. It promotes flawless skin by detoxifying the body and also maintains kidney health. Herbal tea is beneficial in relieving stress and can also act as an anti-depressant. Sage and bilberry herbal tea act as blood sugar regulators and helps lower the blood sugar regulators hence used in diabetic neuropathy. Ginger tea is known for relieving morning sickness and nausea. It is cooked by adding different plants in water, which can be served hot and cold, depending upon the user's preference.

Keywords: Astragalus, *Camellia sinensis*, Diabetic neuropathy, Herbal tea, Tryptophan, Yerba mate

**EXPERIMENTAL INVESTIGATION ON PARKING VOLUME STUDIES IN
NANDYAL TOWN**

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ABSTRACT

Cities are faced with many challenges, in particular in relation to the mobility of people and the structure of land-use. Parking management, which makes the link between the fields of urban planning and transportation, is one of the crucial ways to meet these challenges. Parking is the major problem which impact on the Transportation development by increasing the road traffic in urban areas like Malls, shops, Central Business areas which shows the great Economical Impact on Traffic. To gather the parking information on parking supply and it's used the parking inventories have been initiated and intended which includes in observation of the number of Parking spaces available and the time spent for the vehicles and the type of parking facility. Parking is an important consideration for all cities. Adequate parking supply is needed incites to encourage retail and commercial activities and to satisfy residential and visitor demands. Well designed and balanced parking controls can maximize the efficiency of road space, allowing clients to visit business, customers to visit retail establishments and residents to improve their mobility while undertaking economic and social activities. The main objective of this study is to evaluate the existing parking facilities in the study area and suggest the appropriate measures required.

Keywords: In-out Survey, Parking, Visit.

**EFFECT OF DOLOMITE POWDER ON MECHANICAL PROPERTIES OF M30
GRADE CONCRETE**

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ABSTRACT

Cement is one of the most significant constituents of Concrete. Most of the properties of Concrete depend upon the Cement. Nowadays, carbon emission is causing environmental pollution. It is assessed that 0.8 to 1.0 tons of Carbon dioxide is emitted during the production of a ton amount of cement. The production of cement in the world has greatly increased, and due to this production emission of CO₂ gas has increased, and ultimately Environmental Pollution increases. This effect on the environment has been reduced by cement and has been replaced by some supplementary materials like Dolomite powder. Dolomite can be utilized as a trade material for cement in concrete up to certain percentages. The Dolomite powder has a few comparative attributes of cement. Utilizing Dolomite powder in cement can diminish the expense of cement. The substitution rates attempted were 0 to 15 % at a regular interval of 2.5% by weight of cement, cubes, and cylinders were cast for varying percentages of dolomite powder in M30 grade Concrete. The Compressive and Split tensile strength of the Concrete of the above mixes will be compared and identified.

Keywords: Dolomite powder, Cement, Concrete, Compressive strength, and Split tensile strength

THE PRODUCTION OF ZEOLITES IN THE INDUSTRY

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ABSTRACT

In this study, Si et al. investigated the production of monophasic gismondine-Na zeolite (GIS-NaP) of type P from a natural bentonite fraction $>2 \mu\text{m}$ ($\text{Cf} > 2 \mu\text{m}$). The goal was to develop a cost-effective method for large-scale production of zeolites in the industry. The raw $\text{Cf} > 2 \mu\text{m}$ was initially activated through alkaline fusion at $750 \text{ }^\circ\text{C}$ in a 1:1.2 ratio of $\text{Cf} > 2 \mu\text{m}$: NaOH. Subsequently, the crystalline pure GIS-NaP zeolite was successfully synthesized in a one-step hydrothermal activation process using the supernatant obtained from the Na-Cf fusion-water treatment at a 1:4 ratio of Na-Cf $> 2 \mu\text{m}$:H₂O. The presence of $\text{Cf} > 2 \mu\text{m}$ was confirmed using X-ray diffraction (XRD), while the supernatant was analyzed using inductively coupled plasma optical emission spectrometry (ICP-OES). The synthetic products were characterized through XRD, scanning electron microscopy (SEM), energy-dispersive spectroscopy (EDS), and Fourier-transform infrared spectroscopy (FT-IR). The study found that a high-order crystallinity polymorph P1 was formed under Si/Al ratio of 1.47 within 18 hours of hydrothermal treatment. The content of Na-P1 zeolite significantly increased with the extension of the hydrothermal time from 18 to 36 hours, reaching its peak crystallization at 36 hours with a Si/Al ratio of 1.34. The N₂ adsorption data indicated a mesoporous nature of Na-P1 at its climax, exhibiting a BET surface area and pore size of 41.76 m².g⁻¹ and 8.2 nm, respectively. Additionally, a polymorph P2 with a Si/Al ratio of approximately 1.81 was spontaneously formed after 6 days of crystallization (interzeolite transformation) from the same supernatant. These findings provide an experimental basis for utilizing the clay fraction $>2 \mu\text{m}$ in the synthesis of P-type zeolites, which could prove valuable for future applications.

Keywords: Bentonite fraction $> 2 \mu\text{m}$; Hydrothermal; Gismondine; Zeolite Na-P1; PolymorphP2; Interzeolite transformation

**NON-CONVENTIONAL TUNED MASS DAMPER WITH NEGATIVE STIFFNESS:
MODELING, OPTIMIZATIONS, SIMULATION, AND CONTROL**
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ABSTRACT

This paper presents a novel approach for mitigating structural vibrations under harmonic excitation by developing a Non-Conventional Tuned Mass Damper with Negative Stiffness (NCNS-TMD). The absorber mass, damping device and stiffness element of the NCNS-TMD are directly connected to the rigid body to improve the TMD's performance. The mathematical model of the dynamical system is obtained using the compliance method. The H_{∞} optimal parameters are derived using the Fixed-Points theory to optimize the frequency response function, tuning frequency, damping ratio, and negative stiffness coefficient. The optimum negative stiffness parameter is chosen to ensure the stability of the structure in line with the principle of preload elastic device properties. The proposed optimal design TMD is then compared with the conventional one, and the results demonstrate that the non-conventional TMD with negative stiffness provides the best control performance across the entire frequency range by significantly attenuating resonance vibration amplitudes in primary structures.

Keywords: Non-Conventional Tuned Mass Damper, Negative stiffness, H_{∞} optimization, Vibration control performance, Mitigation of the resonant vibration amplitude

**ESTIMATION OF GLOBAL SOLAR RADIATION USING FIVE SUNSHINE BASED
MODELS FOR ILORIN, NORTH-CENTRAL NIGERIA**

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ABSTRACT

Estimation of global solar radiation using five sunshine hour models in Ilorin, north-central, Nigeria (8.54°N, 4.54°E) was developed using the Angstrom type regression equation. The solar radiation (W/m^2), hours of bright sunshine were collected from achieve of Nigeria Metrological Centre, Oshodi, Lagos, for a period from (1992-2022). The constants of the Angstrom-type regression equation (Models) were determined by plotting the clearness index (H/H_0) against the fraction of sunshine hours (n/N) to obtain the line of best fit. The result of the correlation were also tested for error using statistic test methods of the mean biased error, MBE, root mean square error, RMSE, and mean percentage error, MPE to assess the performance of the models. It was observed that out of all models used, modes III and IV gave the best prediction for global solar radiation using sunshine.

Key words: Solar Energy, Solar radiation, statistical indicator, Regression Analysis

**TECHNOLOGY AND ITS RISKS: VIOLATION OF FUNDAMENTAL RIGHTS TO
INTIMACY AND PRIVACY ARISING FROM CLANDESTINE INTERCEPTION OF
DATA FLOW AND PRIVATE COMMUNICATIONS**

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ABSTRACT

The evolution of technology has brought countless benefits to humanity, however, it has also created several harms, which are still unknown in terms of future and possible damages that will be caused to society. One of the problems resulting from technological advances is revealed by the repeated violation of data flow and interception of communications in the telematic system, even without a court order, for lawful purposes or not, by holders of knowledge of information technology. Thus, technology has enabled easy monitoring of people, through the use of instruments that, clandestinely, can easily access the data and communications of the intended target, so that physical surveillance, in its traditional concept, is no longer necessary. Thus, a new expression called surveillance appears, which can be briefly defined as the electronic monitoring of an individual, without the use of outdated investigation mechanisms and which demand the physical presence of the observer. It is possible today that someone, suspected or not of criminal activity, be monitored from a distance, using only the interception of the telematic system. As if that were not enough, the world wide web is a skillful instrument for disclosing personal information, publicized or not by the individual himself, so that access to the respective data becomes possible with a simple consultation of social networks and surveys, which are available to anyone. In this way, considering the ease of access to information, confidential or not, of a certain individual, a new problem is emerging, now in labor relations, since the data obtained can tarnish the employee's image and, reflexively, also violate the intimacy and privacy, fundamental rights that were historically conquered by society. There is no doubt, therefore, the existence of enormous risks to humanity arising from technological evolution, endangering the protection of fundamental rights, notably those that must affect employment relations and the work environment. In Brazil, Law n.º 12,965, of April 23, 2014, called the Brazilian Civil Rights Framework for the Internet, was recently enacted, aiming to regulate its use and, consequently, protect fundamental rights, in particular to guarantee privacy and intimacy in the face of possible violations of data flows and private communications. However, that rule was born outdated, which is why it remains imperative to create a new rule that is in line with the current technological reality and that can truly protect the fundamental rights to privacy and intimacy.

Keywords: Technological advances, Fundamental rights, Offense, Surveillance, Violation of data flow.

ROLE OF LONG NON CODING RNA IN CANCER

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ABSTRACT

Long non coding RNA are RNAs that do not code for any proteins and regulates different types of biological processes. Long non coding RNA play a major role in cancer as dysregulation of lnc rna leads to initiation of cancer and tumor. The long non coding RNA are generally 200 nucleotides or greater than 200 nucleotides. The process imprinting is very important key feature in cancer. Imprinting is done when the copy of gene inherited from parent is silenced epigenetically. In case of cancer this process of imprinting is not done which results in altered gene expression. Example of such gene is H19 which does the genomic imprinting. Some long non coding RNA acts as oncogenes which promotes the cancer development or there are some long non coding RNAs which suppresses the tumor formation. Dysregulation of long non coding RNA also leads to metastasis and resistance to therapies. The lncRNAs can also disrupt the balance between cell proliferation and cell death which results in the uncontrolled growth of cancer cells. Long non coding Rna also influence the formation of new blood cells which are very important for the metastasis and tumor. Long non coding RNA show resistance to radiotherapy, chemotherapy and other cancer therapies. Long non coding RNA can also be used as cancer biomarkers in the diagnosis of the disease. They have a very high accuracy rate as the cancer diagnosis biomarker. Since lnc rna is not discovered for very long therefore their functions are not fully discovered. Research is being done on long non coding rna continuously to know about other functions of long non coding RNA.

Keywords: long non coding RNA, nucleotides, chemotherapy

VIDEO GAMES WITH BODY INTERACTION: FOR AN ACTIVE AND HEALTHY LIFESTYLE

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ABSTRACT

Video games currently represent a significant portion of domestic technological devices on the world stage: they attract the attention not only of children and adolescents, but also of adults, who have been showing high levels of consumption of consoles and accessories, ranging from controls, memory for games, cases and other paraphernalia. This study aims present the new possible body interaction in the video game Wii Nintendo, specifically in the game Wii Fit, presenting an interactive component expansion of body movements and allows users to choose different exercises, information on nutrition, hydration and caloric expenditure. Within the analysis of the study, the research presents how the “interactive movement” is inverting the image of the video game and entering it as an artifact of the active life. A virtual ethnography is adopted in this study as methodology. As results, it was possible to observe that the video game Wii Fit, even though it was accompanied by various discourses on a healthy lifestyle (better nutrition, self-care, challenges to burn more calories, etc.), has become a mechanism for propagating a different lifestyle among adults by enabling close monitoring of improvements in quality of life. In addition, it was possible to analyze that many people share their achievements with the purpose of promoting and encouraging others to achieve goals, changing their lifestyles and acquiring healthier principles.

Keywords: Healthy Lifestyle, Video Games, Learning, Wii Nintendo, Body Interaction.

TYPE OF GYMNASTICS THAT SCHOOL-AGE CHILDREN MOST IDENTIFY

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ABSTRACT

Gymnastics is a very popular sport around the world and mostly taught at primary school in Physical Education classes. The popularity among children makes Gymnastics an important physical activity even in extraclass activities, either for recreation or competition purposes. The present study intends to present which Gymnastics modalities, children in a school environment most identify with, based on the observation method during classes at a primary school. It was evaluated which modality among Artistic Gymnastics, Acrobatic Gymnastics and Rhythmic Gymnastics, arouse more children's interest. According to Gallahue (2005) in the phase of fundamental movements, corresponding age range of those assessed, children have greater body control in their movements. As skills are mastered, new movement potentials are added as long as opportunities are offered. As results, it was possible to verify that the majority of children who participated in the research showed greater identification with activities related to Rhythmic Gymnastics. To sum up, Rhythmic Gymnastics offer a range of manipulative activities by the apparatuses that children are not familiar with in their daily lives nowadays, by instance ribbons, ropes, hoops and clubs, especially by the especially due to the high use of digital technologies, such as video games, cell phones, tablets and computers. Also, Rhythmic Gymnastics consists of physical exercises that are excellent sources of work for learning various motor skills and developing physical abilities in the school environment.

Keywords: Physical Education, Sports, Gymnastics, School, Learning.

ANALYSIS OF PREPOSITION "ZIR" BASED ON COGNITIVE PERSPECTIVE

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ABSTRACT

The preposition is one of the polysemous language elements, for this reason understanding of its various concepts has faced language learners with many challenges. One reason for this is that the semantics of prepositions are notoriously difficult to characterize and many researchers believe that the best way to learn these senses is to memorize them. Therefore, in the present research, we intend to study the various senses of the preposition "zir" based on the cognitive lexical semantics approach. In order to achieve this goal, in first step, based on the criteria provided by Evans and Tyler (2003), we define the prototypical sense of the preposition "zir" and draw its image schema. Then, we examine the marginal senses of this preposition and specify the subject of each one with the prototypical sense. At the end, we draw the semantic network of the preposition "zir". The results of this research show that the preposition "zir" has a coherent semantic network and its meanings are related to each other in a systematic way. The results of this study show that this preposition has 9 different meanings, among them, "down" is a prototypical sense and other senses include "less", "control", "lower part", "cover", "support", "exertion of force", "influence". and "surrounding" are considered marginal meanings.

Keywords: Persian language, cognitive semantics approach, preposition "zir", semantic network, prototypical sense,

**REMOVAL OF DYE FROM AQUEOUS SOLUTION BY USING COPPER OXIDES
NANOPARTICLES (CON) AS ADSORBENT: KINETIC APPROACH**

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ABSTRACT

Waste water treatment is necessary for living organism. Fresh water is polluted by various sources such as industries etc especially fabrication process i. e dyes. In order to reuse of polluted water is very important area of research. In this research work we carried out the wastewater treatment by using nanoparticles as adsorbent. The nanoparticles have been prepared by phase transfer method. The particles have been characterized by various analytical techniques Scanning Electron Microscopy (SEM), X-ray Diffraction (XRD), Energy Dispersive X-ray Spectroscopy (EDS) and Surface area analyzer. Besides, also carried out the kinetics model as well as adsorption models to explain better the mechanism of the adsorption between adsorbate and adsorbent. Moreover, to evaluate the interactional behaviour of adsorbate and adsorbent thermodynamics parameters (Gibb,s energy, entropy and enthalpy) are also studied to calculate the thermodynamic parameters. In conclusion we are succeeded to eliminate dye pollutant from aqueous solution successfully.

Keyword: Adsorption. Nanoparticle, parameters, kinetic models, pollution, thermodynamics parameters.

**A STUDY OF TWO PARAMETERS BASED FLEXIBLE
PROBABILITY MODEL WITH PROPERTIES AND APPLICATIONS**

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ABSTRACT

Statistical analysis of lifetime data is an important topic in reliability engineering, biomedical and social sciences and others. In this paper, a new one- parameter unit probability distribution called new unit rational sine distribution is proposed. It is more flexible than some existing well-known distribution due to its different shapes of the hazard function and probability density functions. We study some of its statistical properties. We obtain explicit expressions for moments, quantile function and order statistics. The method of maximum likelihood is used to estimate the model parameters. The parameters related to the proposed distribution are estimated using well known estimation methods. A numerical simulations study is conducted for reinforcement of the results. In the end, we considered three real data sets to illustrate the applicability of the proposed model.

Statistical distributions are of immense importance to describe and predict the phenomenon of real world. In several logical analysis, the selection of a suitable statistical model is required. Though, a number of distributions have been developed, but there is always room for developing distributions, either having more flexibility in terms of shapes or fitting to the real world situations. Probability distributions are developed for solving different real world problems in different areas, some of the distributions are defined on the positive real line and some are defined on the whole real line.

Key Words: SH distribution; Order statistics, Maximum likelihood method; Monte Carlo Simulation.

BLACK FUNGUS

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ABSTRACT

Information are introduced on the clinically pertinent dark yeasts and their family members, i.e., individuals from the Ascomycete request Chaetothyriales. To comprehend the pathology of these parasites realizing their normal natural niche is fundamental. From a somewhat low level of sub-atomic fluctuation of the dark yeast *Exophiala dermatitidis*, expected specialist of mind contaminations in patients from East Asia, it is presumed that this species is an arising microorganism, right now going through a course of dynamic speciation. It is viewed as an oligotrophic parasite in hot, wet conditions, for example, steambaths. *Cladophialophora*-, *Fonsecaea*-and *Ramichloridium*-like strains, referred to in people as specialists of chromoblastomycosis, are every now and again found on bad plant material, however the parasitic sub-atomic variety in the climate is a lot higher than that on the human patient, so following the etiological specialists of the sickness with precision is troublesome. This approach has been fruitful with *Cladophialophora carrionii*, of which cells looking like muriform cells, the tissue type of chromoblastomycosis, were found to happen in drying spines of prickly plants. Phagocytosis examines give a strategy to recognize microorganisms and non-microbes, as the killing paces of severe saprobes ended up being reliably higher than of those species much of the time known as specialists of infection. The remedial opportunities for patients with chromoblastomycosis are inspected.

Keywords: steambaths, *Cladophialophora carrionii*, muriform

**DEEP LEARNING WITH SENTIMENT ANALYSIS USING DIFFERENT
STRUCTURES**

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ABSTRACT

Deep learning is a potent machine learning technique that provides cutting-edge prediction outcomes by learning numerous layers of representations or features of the data. Deep learning has found success in numerous other application fields, and in recent years, sentiment analysis has become a major use of deep learning. Sentiment analysis is the process of using text mining and natural language processing techniques to separate subjective textual data. Researchers have shown a lot of interest in sentiment analysis and its applications because of the enormous availability of internet data and the expansion of social media. To determine how prior studies have approached this task, we review the state of the art in this work.

Additionally, we present an empirical investigation on the dataset using 4 structures, the IMDB dataset with 50K movie reviews for text analytics or natural language processing, in which we applied supervised and unsupervised learning models.

Keywords: Sentiment analysis; Deep learning; LSTM; CNN; Bi-LSTM

THE GUT-BRAIN-SKIN AXIS IN ACNE: IMPACT OF POLENODERM

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ABSTRACT

Background It is increasingly believed that the interaction between skin microbes and host immunity plays an important role in acne. Acne also has close connections with the gastrointestinal tract, and many argue that the gut microbiota could be involved in the pathogenic process of acne. The emotions of stress, have been hypothesized to aggravate acne by altering the gut microbiota. The presence of a gut-brain-skin axis that connects gut microbes, oral probiotics, and diet, currently an area of intense scrutiny, to acne severity. This study concentrates on the skin and gut microbes in acne, the role that the gut-brain-skin axis plays in the immunobiology of acne, and newly emerging microbiome-based therapies that can be applied to treat acne.

Objective The purpose of this study was to compare the diversity of the skin microbiota in acne patients before and after taking Polenoderm.

Materials and methods A longitudinal cohort study was performed on 20 participants with moderate to severe facial acne with no recent use of oral and topical antibiotics/retinoids.

Results Hence, it is crucial to understand Polenoderm impact on the acne skin microbiota which is thought to be perturbed, our study provides insight into the skin microbiota in acne and how it is modulated by Polenoderm and diet.

Conclusion Acne also has close connections with the gastrointestinal tract, and many argue that the gut microbiota could be involved in the pathogenic process of acne. As understanding of the microbiome in healthy skin and the pathophysiology of acne continues to develop, new therapeutic targets are arising.

Keywords: acne, gut-brain-skin axis microbiota, Polenoderm, diet

**RESURRECTING THE ANCIENT TONGUE: JUSTIFYING THE AUTHENTICITY
AND ENDURING INFLUENCE OF SANSKRIT IN BANGLADESH**

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ABSTRACT

This research explores Sanskrit's profound historical significance, its rich literary and philosophical legacy, and its continued relevance despite being deemed a dead language. Investigating grammar, scripts, and their impact in Bangladesh and beyond sheds light on Sanskrit's enduring importance in modern times. This study aims to investigate the true status of Sanskrit's "dead" classification, analyze the methods used for learning its grammar and scripts, and evaluate its contemporary impact in Bangladesh and beyond. This research adopts a multifaceted approach, utilizing surveys and direct observations to gauge Sanskrit's use and importance in daily life. It studies grammar learning methods and scripts in educational and cultural settings to comprehend Sanskrit's contemporary presence. This study's findings challenge the notion of Sanskrit as a dead language, as around 24,000 people actively use it daily. Additionally, 1.2 billion individuals incorporate Sanskrit into their prayers, highlighting its spiritual and cultural importance globally. Scholars still draw wisdom from ancient Sanskrit manuscripts, and NASA recognizes Sanskrit as an exceptional programming language, showcasing its modern versatility. Sanskrit is alive and integral to diverse cultures, making significant contributions to literature, philosophy, spirituality, and technology, emphasizing the importance of its preservation and appreciation. Overall, Sanskrit had only the language of books and aristocratic people, so its dead situation is unquestionable.

Keywords: Sanskrit, Dead Language, Authenticity, Bangladesh, Ancient Tongue.

CAPACITIES OF PLANT LEAF BIOSORBENTS FOR BIOSORPTIONS OF PHOSPHOROUS FROM CONTAMINATED WATER

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ABSTRACT

Phosphorus plays an important part in the growth of ecosystems, farming and manufacturing, but also becomes a contaminant in the water bodies. Human activities produce phosphorous materials into the water possessions building them polluted and aggressive to the human physical condition and ecology. So that it is essential to eliminate phosphorous from synthetic water. There are various methods available for elimination of phosphorous from synthetic water between these methods the bio-sorption is easy, efficient and environmental friendly methods for elimination of phosphorous from water. The plant leaf biosorbents have different biosorption capacities, which varied within each taxonomic group and depend on their pre-treatment as well as the operational conditions. In these research work, six locally available plant leaf biosorbents i.e. neem leaf, javapalm leaf, guava leaf, sapota leaf, custard apple leaf and mango leaf biosorbents are uses for phosphorous removal from water. The order of percentage removal of phosphorous from synthetic water was as follows: Mango leaf > Java Plum leaf \approx Sapota leaf \approx Custard Apple leaf > Neem leaf > Guava leaf. The mango leaf biosorbent shows that the best performance for phosphorous removal from synthetic water. The optimum sorption over mango leaf biosorbents was getting at normal pH is 4-8, amount is 1.2 g, contact point in time is 60min, temperature is 25°C and agitation speed is 100rpm. The processes can be prepared efficient by regeneration and reapplication of the plant leaf biosorbents subsequent to the eliminating the phosphorous.

Keywords: Phosphorous, Biosorbents, Plant leaf, Mango leaf and Optimization.

INSIGHTS INTO THE UNDERPINNINGS OF CONSUMER-BASED BRAND EQUITY

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ABSTRACT

Purpose- This article seeks to assess the research on consumer-based brand equity, investigate underpinnings and provide a cross-contextual framework of consumer-based brand equity based on theoretical approaches and reasoned logic.

Methodology: A comprehensive and in-depth assessment of the literature assisted in exploring underpinnings and developing the framework.

Findings- The authors observed that factors pertinent to consumer-based brand equity (brand awareness, image, and perceived quality) can be adapted to different brand types and varied economic sectors. However, these factors should be treated as antecedents of brand equity, not quite as brand equity components. The switchover of brand equity from composition to decomposition would be a natural transition in developing a brand equity construct. Another essential part of the suggested framework that required prominence was brand loyalty, as loyalty must be considered a possible outcome of brand equity instead of merely a component.

Originality/value- The study identified significant theoretical concerns of brand equity and attempted to fill the gaps in the conversation about developing cross-contextual brand equity and contributing to the unified branding theory.

Keywords- Brand equity, Cross-Contextual, Consumer-based Brand Equity, CBBE, Brand Loyalty

**THE INABILITY OF SMES TO OPTIMISE THEIR ORGANISATIONAL
PERFORMANCE AND ITS INFLUENCE ON THE EMERGING ECONOMY**

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ABSTRACT

Purpose

This research is aimed to investigate the firm-level inability to perform, which further influences the small business economic model besides innovation, open innovation, and the performance of small and medium enterprises (SMEs) in an emerging economy.

Design/Methodology/Approach

The study adopted a quantitative method by using questionnaires for data collection. The dataset was collected from 465 qualified questionnaires returned by top executives, managers, and experts from Vietnamese SMEs during 2020-2021. The hypotheses proposed were tested by applying covariance-based structural equation modeling (CB-SEM) using AMOS version 20.0.

Findings

The outcomes of this study revealed mixed findings. More specifically, direct relationships of organizational inertia with business model innovation and open innovation were found to be negative and significant. Organizational inertia was found to have an indirect significant but negative association with firm performance. Open innovation was found to have direct positive and significant relationships with business model innovation as well as firm performance. Likewise, business model innovation was found to positively and significantly affect firm performance.

Originality/Value

The current study has significantly contributed in the form of implications for addition to the existing literature on the subjects of organizational inertia, business model innovation, and open innovation. This study thoroughly examines how organizational inertia adversely affects business innovation – open innovation in particular – and business model innovation with a comprehensive approach. This study also provides a mechanism for sustaining and improving firm performance in new ways that are more innovative and effective. The study has practical implications for the respective community and insights for business practitioners and entrepreneurs.

Keywords: Organizational Inertia, Open Innovation, Business Model Innovation, SMEs, Firm Performance, Emerging Economy.

**REPRODUCTIVE TRAITS OF THE HOOGHLY CROAKER *PANNA HETEROLEPIS*
FROM THE BAY OF BENGAL: IN RELATION WITH ECO-CLIMATIC FACTORS**

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ABSTRACT

This study is emphasized the reproductive biology of Hooghly Croaker, *Panna heterolepis* which is one of the notable fish in the Bay of Bengal (southwestern Bangladesh). In this research, we explore the correlations between the GSI (gonadosomatic index) and eco-climatic factors (temperature, rainfall, dissolved oxygen, and pH) and this research offers comprehensive insights into different facets of reproduction such as sexual maturity, spawning season, and the peak spawning period. A total of 569 female individuals captured from Bay of Bengal through monthly sampling from January to December 2019. Measuring board and a digital balance were used in measurements, including total length (TL) and body weight (BW). Gonads were meticulously excised and weighed to an accuracy of 0.01 g. The GSI (gonadosomatic index in percentage), MGSI (modified gonadosomatic index in percentage), and DI (Dobriyal index) were taken into consideration to evaluate size at sexual maturity (L_m), spawning season, and peak spawning season. Based on these indices, the L_m was estimated 15.0 cm in TL. Additionally, a logistic simulation estimated L_{50} to be 15.0 cm TL. Highest values of GSI, MGSI, and DI indicated the spawning season, which lasted from January to July with a peak in February. Additionally, there was a substantial relationship between GSI and Fulton's condition factor (K_F). Furthermore, a significant correlation between GSI and temperature was observed. Other environmental parameters, such as rainfall, dissolved oxygen, and pH, did not exhibit any appreciable relationship with GSI. The findings of our research might also be used to the implementation of particular management strategies for *P. heterolepis* in the Bay of Bengal and its surrounding aquatic ecology.

Keywords: Bay of Bengal, Eco-climatic factors, Gonadosomatic index, Hooghly Croaker, Size at sexual maturity, Spawning season

**REPRODUCTIVE STRATEGIES AND CONSERVATION IMPLICATIONS FOR
ANABAS TESTUDINEUS IN THE GAJNER BEEL WETLAND, BANGLADESH,
AMIDST SHIFTING ECO-CLIMATIC CONDITIONS: TOWARDS OPTIMAL
AQUACULTURE PRACTICES**

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ABSTRACT

The *Anabas testudineus* (Bloch, 1792), freshwater climbing perch, is an economically important and nutritionally valuable food fish in South Asia. This research explores the various reproductive strategies of *A. testudineus*, specifically focusing on size at sexual maturity, reproductive period, and fecundity, in relation to eco-climatic variabilities present in the Gajner *beel* wetland. A total of 709 individuals of *A. testudineus* were randomly collected from January to December 2019, of which 371 mature females were sorted out. The female total length (TL) varied from 7.50 to 16.40 cm. Through analysis of maximum length (L_{max}), TL vs. gonadosomatic index (GSI), TL-standard length (SL) regression, and logistic model, it was determined that the size at sexual maturity (L_m) ranged from 10.00 to 11.50 cm. The spawning season prevailed from May to August, peaked in June-July. Fulton's condition (K_F) was suggested as best condition factor ($p < 0.0001$), while relative weight (W_R) showed no significant difference from 100 in females ($p = 0.143$). Fecundity ranged from 9,459 to 35,915 and was highly correlated with TL ($p < 0.0001$) and body weight (BW) ($p < 0.0001$). A significant relationship was observed between GSI and temperature ($p = 0.0016$), dissolved oxygen (DO) ($p < 0.0001$), pH ($p < 0.0001$), alkalinity ($p < 0.001$) and climatic parameters (air temperature, $p < 0.001$ and rainfall, $p < 0.001$). The suitable range of DO, pH, temperature and rainfall was 5.7–6.1 mg/l, 7.1–7.5, 28–31°C and 225.70–350.40 mm, respectively for the spawning of *A. testudineus*. The data series of 48 years (1971–2019) revealed that the rise of average air temperature by 0.029°C per year and the reduction of rainfall by 2.96 mm per year may shift the spawning season of *A. testudineus* after 15-20 years from now. Therefore, this research will be helpful for the sustainable management and conservation of the wild stocks of *A. testudineus* in the Gajner *beel* and surrounding environs.

Keywords: *Anabas testudineus*, Climate change, Fecundity, Size at sexual maturity, Spawning season,

**SELF-PERCEIVED LINGUISTIC COMPETENCE ON SCIENCE ACHIEVEMENT
IN EARLY GRADES: A SYSTEMATIC REVIEW OF LITERATURE**

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ABSTRACT

This systematic review examines the relationship between self-perceived linguistic competence and science achievement in early grades. Language plays a crucial role in science learning, and students' confidence in their language abilities can influence their engagement and performance in science subjects. The aim of this review is to synthesize the existing literature on the topic and provide insights into the potential impact of self-perceived linguistic competence on science achievement in the early grades. A comprehensive search was conducted, and relevant studies were selected based on predetermined inclusion criteria. The selected studies were critically analyzed, and findings were synthesized to identify common themes and patterns. The review highlights the importance of fostering students' self-perceived linguistic competence as it positively correlates with science achievement. Additionally, factors influencing the development of self-perceived linguistic competence and potential implications for educational practice are discussed. Further research is needed to explore the causal relationships between self-perceived linguistic competence and science achievement and to investigate effective instructional strategies that promote both language development and science learning in early grades.

Key Words: Self Perception, perceived Linguistic Competence, Science achievement

**ASSESSING THE IMPACT OF INTANGIBLES IN THE PERFORMANCE OF
PHARMACEUTICAL FIRMS**

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ABSTRACT

The intense competition in the pharmaceutical industry has demanded firms to undergo massive makeovers. Most businesses have implemented conventional and unconventional shifts to remain competitive. The most common shifts manifested by firms involved their assets. In particular, pharmaceutical firms have increased their focus on managing intangible assets. Leadership skills, marketing style, and business approaches have evolved to improve company performance. Intangible assets are continuously upgraded to meet the requirements in the ever-changing industry. The study will mainly discuss the effects of intangible assets in pharmaceutical firms. The discussion will revolve around the manner in which the use of intangible assets is used. The impact of intangible assets in making business decisions is important. The evolution of intangible assets in the pharmaceutical industry is an interesting point of discussion. Most drugmakers are operating in a worldwide scope. This coverage is also perceived as an aspect that affects the treatment made to intangible assets. Basic modifications are occurring in the nature of the private firms in response to the threats and opportunities of the global markets. Even companies dedicated to domestic business increase geographic reach since suppliers and customers are located in other parts of the world. As the intensity of global competition rises, many companies are forced to re-evaluate their niche in the world market. For some companies, this entails strengthening their domestic position against competing for foreign products. Other firms respond by aggressively expanding their operations into foreign markets. The research is principally designed to look into the complex processes in pharmaceutical firms and explore the potentials of the industry. The study focuses on the value of intangible assets and the manner in which these assets are exploited by drug makers. The research is an important step towards formulating quality business models and theories regarding intangible assets.

Keywords : Massive makeovers, Leadership skills, Global markets, Geographic reach.

**DIABETIC PERIPHERAL NEUROPATHY AND PHARMACOLOGICAL
TREATMENT**

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ABSTRACT

Diabetic Peripheral Neuropathy (DPN) is a common complication of both type 1 and type 2 diabetes. It affects over 90% of the diabetic patients. It is widely accepted that the toxic effects of hyperglycemia play an important role in the development of this complication, but several other hypotheses have been postulated. Diabetic Peripheral Neuropathy is found in about 10% of diabetic clients at diagnosis and in the majority of clients 25 years down the line. Clients with pre-diabetes may also develop neuropathies that are similar to diabetic neuropathies. Long time hyperglycemia can cause peripheral nerve damage, resulting in distal predominant nerve fiber degeneration. It is estimated that 371 million people aged from 20 to 79 years Worldwide, have diabetes mellitus and that at least half of them are unaware of the diagnosis. Its prevalence in central and south America was estimated in 26.4 million people, corresponding to approximately 6.5 % of the population. Among microvascular complications diabetic neuropathy is the most prevalent leading to the highest rates of hospitalization, atraumatic amputation and incapacity. Diabetic neuropathy may have different clinical presentation being distal symmetric polyneuropathy its most frequent presentation and major mechanism to the development of diabetic foot. The treatment of DSPN has three primary objectives: glycemic control, pathogenic mechanism and pain management. Painful DPN has been shown to be associated with significant reduction in overall quality of life, increased levels of anxiety and depression, sleep impairment. First line drugs for pain relief include anticonvulsants such as pregabalin and gabapentin and antidepressants, especially those that act to inhibit the reuptake of serotonin and noradrenaline. Other agents including for topical application such as capsaicin cream and lidocaine patches, have also been proposed to be useful as adjuvant in the control of diabetic neuropathic pain but the clinical evidence is insufficient to support their use.

Keywords: Diabetic Peripheral Neuropathy, Hyperglycemia, Anticonvulsants, Antidepressants, Pregabalin, Gabapentin.

**ROLE OF BRAND EXPERIENCE IN
BUILDING CONSUMER LOYALTY – A CONCEPTUAL STUDY**

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ABSTRACT

Product and service marketing has always centered on objective characteristics like price, availability, and quality. Consumers, however, do not merely acquire goods and services, as evidenced by several research. Indeed, marketing scholars have been arguing for a shift in emphasis toward relationship management and value generation for a while now. Researchers and practitioners in the field of marketing have come to realize in recent years that the quality of the customer's experience is the primary variable that needs to be managed in the present. This study looked into the influence that several aspects of a brand's experience have in determining a customer's loyalty. The study will contribute to the body of knowledge by shedding light on the expanding role of brand experience aspects. Academics and business leaders alike could learn from the results of this study conducted.

Keywords: Brand experience, consumer loyalty, consumer behaviour

**ANTHROPOMETRIC CHARACTERISTICS OF SPINTERS, MIDDLE DISTANCE
AND LONG-DISTANCE RUNNERS – A COMPARATIVE STUDY**

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ABSTRACT

The purpose of the study was carryout anthropometric variables of Sprinters, Middle Distance and Long-Distance Runner. The subjects for the study were taken 60 Sprinter, 60 Middle distance runner, 60 Long distance runner from different parts (stadiums) of Delhi region. Using appropriate testing procedures used for anthropometric variables in length and circumference measurement) of the subjects was tested. The data was analysed using descriptive as well as Analysis of Variance (F-test). Least Significant Difference (Post-hoc Test) was applied in case the F-ratio was significant. The analysis of data employing Analysis of Variance (F-test) clearly reveals that with respect to anthropometric variables Thigh Circumference and Calf Circumference the obtained F values are statistically significant at 0.05 levels and in respect of Leg Length and Body Mass Index the values of F are statistically not significant.

Keywords: Anthropometric, sprinters, middle distance and long-distance runner

**REMOVAL OF DYE FROM AQUEOUS SOLUTION BY USING COPPER OXIDES
NANOPARTICLES CON) AS ADSORBENT: KINETIC APPROACH**

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ABSTRACT

Waste water treatment is necessary for living organism. Fresh water is polluted by various sources such as industries etc especially fabrication process i. e dyes. In order to reuse of polluted water is very important area of research. In this research work we carried out the wastewater treatment by using nanoparticles as adsorbent. The nanoparticles have been prepared by phase transfer method. The particles have been characterized by various analytical techniques Scanning Electron Microscopy (SEM), X-ray Diffraction (XRD), Energy Dispersive X-ray Spectroscopy (EDS) and Surface area analyzer. Besides, also carried out the kinetics model as well as adsorption models to explain better the mechanism of the adsorption between adsorbate and adsorbent. Moreover, to evaluate the interactional behaviour of adsorbate and adsorbent thermodynamics parameters (Gibb,s energy, entropy and enthalpy) are also studied to calculate the thermodynamic parameters. In conclusion we are succeeded to eliminate dye pollutant from aqueous solution successfully.

Keyword: Adsorption. Nanoparticle, parameters, kinetic models, pollution, thermodynamics parameters.

HIERARCHY IN GRAPHIC DESIGN

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ABSTRACT

This topic is not only related to a single profession. It is connected to various disciplines and real-life situations. Our lives and daily routines consist of hierarchies and priorities in various forms, such as a weekly task plan created according to importance – hierarchy. This means that the driving forces behind our activities, motivations, or life necessities are in a hierarchical relationship.

Graphic designers utilize hierarchy to direct their visual creations effectively towards users, and understanding user psychology is an essential part of the design process. Implementing hierarchy contributes to a better comprehension of prioritization. In design, one common example of poor hierarchy is overloaded backgrounds with numerous elements, ultimately diminishing the composition's focal point to which people should actually pay attention. On the other hand, with the use of hierarchical elements, users can be easily guided to focus on the most crucial part and successfully obtain the information they seek. Visual hierarchy is a principle of arranging elements to indicate their order of importance. If you have difficulties obtaining clear and meaningful information by reading just one page of a book, it is highly likely that the visual hierarchy in its design is lacking. Building a strong visual hierarchy requires an understanding of its fundamental building blocks, such as size, color, contrast, alignment, repetition, proximity, spacing, texture, and style.

When encountering an unfamiliar user interface, people instinctively react with a swift scan through the information. Users' eyes follow predictable reading patterns influenced by the culture and lifestyle of a particular region. In today's digital age, people prefer to recognize and associate new information with previously acquired knowledge. The importance of visual hierarchy is emphasized in creating new work and everything else intended for human use. A stable structure and careful incorporation of elements should ultimately work together to ensure users enjoy a fulfilling experience and gain new knowledge.

Keywords: visual hierarchy, graphic design, user experience, information networks

**NOVEL TERNARY CeO₂/ZnO/AC-derived FROM WASTE WOOD
PHOTOCATALYSTS BY SONO-PHOTOCHEMICAL DEPOSITION: CATALYST
CHARACTERIZATION AND OPTIMIZATION OF ORGANIC DYE
DEGRADATION**

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ABSTRACT

In this study, activated carbon (AC) from waste wood using chemical activation was prepared. CeO₂/ZnO/AC with varied CeO₂/ZnO to AC mass ratios was synthesized as a stable and reusable photocatalyst using a sono-photochemical process in which CeO₂/ZnO nanoparticles were impregnated on the porous surface of AC derived from waste wood. The synthesized photocatalysts were characterized through XRD, FTIR, BET, FE-SEM, and TEM techniques. The effects of light and ultrasonic irradiation on the removal of Tetracycline (TC) as a contaminant component from aqueous solution were examined and the concentration of TC residue was measured using an UV-vis spectroscopy after the treatment operation. The photocatalytic degradation performance was evaluated and optimized with the aid of CCD-RSM using a variety of operating parameters including catalyst composition (0-0.70 wt.% CeO₂/ZnO), initial TC concentration (20-50 ppm), catalyst loading (0.20-1.50 gr.L⁻¹), aeration by air flow (0-3 L.min⁻¹), pH (2-8), and also ultrasonic irradiation (80 KHz & 60 W). The results show that using CeO₂/ZnO/AC with a CeO₂/ZnO to AC mass ratio of 0.50 instead of CeO₂/ZnO alone reduced the time of complete photocatalytic degradation by over 29%. Furthermore, with just an 8% drop in TC degradation efficiency, the CeO₂/ZnO/AC may be used for the degradation process for at least 5 cycles.

Keywords: Photocatalyst, Photocatalytic Degradation, Tetracycline, Organic Pollutant

**"EK LADKI KO DEKHA TOH AISA LAGA" (2019): UNVEILING IDENTITIES
AND FOSTERING INCLUSIVITY IN BOLLYWOOD**

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ABSTRACT

"Ek Ladki Ko Dekha Toh Aisa Laga" is a compelling Bollywood Hindi movie released in 2019 that delves into the complexities of the LGBT community, shedding light on societal acceptance and familial responses that profoundly impact individual lives. The movie follows the journey of Sweetie, a courageous young woman struggling to embrace her lesbian identity while navigating a world governed by societal norms and familial expectations. Sweetie's transformational narrative unfolds through a captivating play staged within the film, igniting powerful discussions on love, acceptance, and self-identity. This abstract provides a concise exploration of the movie's portrayal of LGBT representation, emphasizing the importance of inclusivity and understanding in fostering a compassionate world. The purpose of this movie is to challenge prevalent stereotypes and bring visibility to the struggles faced by the LGBT community in conservative societies. It aims to spark conversations about societal norms that stigmatize non-heteronormative identities, advocating for greater acceptance and empathy. The film addresses the societal problem of the lack of acceptance and understanding for individuals with non-heteronormative sexual orientations. Sweetie's journey represents the difficulties many LGBT individuals face in reconciling their identities with societal expectations, leading to self-censorship and concealment.

MECHANICAL BEHAVIOR OF SELF-COMPACTING CONCRETE MADE FROM INDUSTRIAL WASTE

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ABSTRACT

The main objective of this study is to evaluate the use of crystallized slag sand from blast furnaces as a partial substitute for natural sand in the production of self-compacting concrete. Slag sand is an industrial waste generated during the production of molten iron in blast furnaces, and its use in construction materials could help reduce the environmental impact associated with its disposal.

Three types of self-compacting concrete were prepared for this study. The first type was a conventional concrete, while the second type replaced 20% of natural sand with crystallized slag sand. The third type used 30% of crystallized sand in its composition. The physical and mechanical properties of these concretes were characterized in both fresh and hardened states.

The experimental results showed that the use of crystallized slag sand in the production of self-compacting concrete improves the mechanical properties of the material, particularly the compressive strength and flexural strength. Additionally, the use of crystallized slag sand reduced the permeability of the concrete, which could contribute to improving its durability.

The results of this study suggest that the use of crystallized slag sand as a partial substitute for natural sand in the production of self-compacting concrete can be beneficial both from an environmental and technical standpoint.

Keywords: Self-compacting concrete, Crystallized slag sand, Blast furnaces, Mechanical behavior.

**LEGAL CHALLENGES IN REGULATING AUTONOMOUS VEHICLES: PAVING
THE WAY FOR SAFER ROADS**

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ABSTRACT

The rapid development of autonomous vehicle (AV) technology holds immense potential to revolutionize transportation and improve road safety. However, the integration of self-driving cars onto public roads brings forth a multitude of legal challenges and liability issues that must be addressed to ensure a secure and efficient implementation. This article examines the key legal hurdles surrounding the deployment of AVs and the efforts to establish comprehensive regulatory frameworks. It delves into the challenges of formulating effective regulations that prioritize safety without hindering technological progress. Additionally, the article explores liability concerns arising from the absence of human drivers and the need to determine responsibility in the event of accidents. The issue of data privacy and security in the context of autonomous vehicles is also discussed, emphasizing the significance of safeguarding sensitive information. Ethical dilemmas related to AV decision-making in critical situations are analyzed, highlighting the importance of public input and collaboration. The article concludes by underscoring the necessity of cooperation among governments, industry stakeholders, and the public to pave the way for safer roads with autonomous vehicles, while fostering innovation and ensuring public safety.

Keywords:

Autonomous Vehicles, Self-Driving Cars, Legal Challenges, Liability Issues, Regulatory Frameworks, Safety, Liability Allocation, Data Privacy, Data Security, Ethical Dilemmas, Public Acceptance, Collaboration, Technology Innovation, Road Safety

DIGITAL IMAGE PROCESSING BASICS

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ABSTRACT

Digital Image Processing means processing digital image by means of a digital computer. We can also say that it is a use of computer algorithms, in order to get enhanced image either to extract some useful information.

Digital image processing is the use of algorithms and mathematical models to process and analyze digital images. The goal of digital image processing is to enhance the quality of images, extract meaningful information from images, and automate image-based tasks.

The basic steps involved in digital image processing are:

1. **Image acquisition:** This involves capturing an image using a digital camera or scanner, or importing an existing image into a computer.
2. **Image enhancement:** This involves improving the visual quality of an image, such as increasing contrast, reducing noise, and removing artifacts.
3. **Image restoration:** This involves removing degradation from an image, such as blurring, noise, and distortion.
4. **Image segmentation:** This involves dividing an image into regions or segments, each of which corresponds to a specific object or feature in the image.
5. **Image representation and description:** This involves representing an image in a way that can be analyzed and manipulated by a computer, and describing the features of an image in a compact and meaningful way.
6. **Image analysis:** This involves using algorithms and mathematical models to extract information from an image, such as recognizing objects, detecting patterns, and quantifying features.
7. **Image synthesis and compression:** This involves generating new images or compressing existing images to reduce storage and transmission requirements.

Digital image processing is widely used in a variety of applications, including medical imaging, remote sensing, computer vision, and multimedia.

Keyword: DIP, CV, MI, Image, Picture.

DIGITAL IMAGE REPRESENTATION IN MATLAB

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ABSTRACT

$$f = \begin{bmatrix} f(1, 1) & f(1, 2) & \dots & f(1, N) \\ f(2, 1) & f(2, 2) & \dots & f(2, N) \\ \vdots & \vdots & & \vdots \\ f(M, 1) & f(M, 2) & \dots & f(M, N) \end{bmatrix}$$

In MATLAB the start index is from 1 instead of 0. Therefore, $f(1,1) = f(0,0)$. henceforth the two representation of image are identical, except for the shift in origin. In MATLAB, matrices are stored in a variable i.e X,x,input_image , and so on. The variables must be a letter as same as other programming languages.

PHASES OF IMAGE PROCESSING:

1.**ACQUISITION**– It could be as simple as being given an image which is in digital form. The main work involves:

a)Scaling

b)Color conversion (RGB to Gray or vice-versa)

2.**IMAGE ENHANCEMENT**– It is amongst the simplest and most appealing in areas of Image Processing it is also used to extract some hidden details from an image and is subjective.

3.**IMAGE RESTORATION**– It also deals with appealing of an image but it is objective(Restoration is based on mathematical or probabilistic model or image degradation).

4.**COLOR IMAGE PROCESSING**– It deals with pseudocolor and full color image processing color models are applicable to digital image processing.

5.**WAVELETS AND MULTI-RESOLUTION PROCESSING**– It is foundation of representing images in various degrees.

6.**IMAGE COMPRESSION**-It involves in developing some functions to perform this operation. It mainly deals with image size or resolution.

7.**MORPHOLOGICAL PROCESSING**-It deals with tools for extracting image components that are useful in the representation & description of shape.

8.**SEGMENTATION PROCEDURE**-It includes partitioning an image into its constituent parts or objects. Autonomous segmentation is the most difficult task in Image Processing.

9.**REPRESENTATION & DESCRIPTION**-It follows output of segmentation stage, choosing a representation is only the part of solution for transforming raw data into processed data.

10.**OBJECT DETECTION AND RECOGNITION**-It is a process that assigns a label to an object based on its descriptor.

Keywords: DIP, Picture, Image, CV, Matlab.

STEPS IN IMAGE PROCESSING

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ABSTRACT

Image processing mainly include the following steps:

- 1.Importing the image via image acquisition tools;
- 2.Analysing and manipulating the image;
- 3.Output in which result can be altered image or a report which is based on analysing that image.

What is an image?

An image is defined as a two-dimensional function, $F(x,y)$, where x and y are spatial coordinates, and the amplitude of F at any pair of coordinates (x,y) is called the **intensity** of that image at that point. When x,y , and amplitude values of F are finite, we call it a **digital image**.

In other words, an image can be defined by a two-dimensional array specifically arranged in rows and columns.

Digital Image is composed of a finite number of elements, each of which elements have a particular value at a particular location. These elements are referred to as *picture elements, image elements, and pixels*. A *Pixel* is most widely used to denote the elements of a Digital Image.

Types of an image

1. **BINARY IMAGE**– The binary image as its name suggests, contain only two pixel elements i.e 0 & 1, where 0 refers to black and 1 refers to white. This image is also known as Monochrome.
2. **BLACK AND WHITE IMAGE**– The image which consist of only black and white color is called BLACK AND WHITE IMAGE.
3. **8 bit COLOR FORMAT**– It is the most famous image format. It has 256 different shades of colors in it and commonly known as Grayscale Image. In this format, 0 stands for Black, and 255 stands for white, and 127 stands for gray.
4. **16 bit COLOR FORMAT**– It is a color image format. It has 65,536 different colors in it. It is also known as High Color Format. In this format the distribution of color is not as same as Grayscale image.

A 16 bit format is actually divided into three further formats which are Red, Green and Blue. That famous RGB format.

Image as a Matrix

As we know, images are represented in rows and columns we have the following syntax in which images are represented:

OVERLAPPING FIELDS WITH IMAGE PROCESSING

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ABSTRACT



According to block 1, if input is an image and we get out image as a output, then it is termed as Digital Image Processing. **According to block 2**, if input is an image and we get some kind of information or description as a output, then it is termed as Computer Vision. **According to block 3**, if input is some description or code and we get image as an output, then it is termed as Computer Graphics. **According to block 4**, if input is description or some keywords or some code and we get description or some keywords as a output, then it is termed as Artificial Intelligence

Advantages of Digital Image Processing:

1. Improved image quality: Digital image processing algorithms can improve the visual quality of images, making them clearer, sharper, and more informative.
2. Automated image-based tasks: Digital image processing can automate many image-based tasks, such as object recognition, pattern detection, and measurement.
3. Increased efficiency: Digital image processing algorithms can process images much faster than humans, making it possible to analyze large amounts of data in a short amount of time.
4. Increased accuracy: Digital image processing algorithms can provide more accurate results than humans, especially for tasks that require precise measurements or quantitative analysis.

Disadvantages of Digital Image Processing:

1. High computational cost: Some digital image processing algorithms are computationally intensive and require significant computational resources.
2. Limited interpretability: Some digital image processing algorithms may produce results that are difficult for humans to interpret, especially for complex or sophisticated algorithms.
3. Dependence on quality of input: The quality of the output of digital image processing algorithms is highly dependent on the quality of the input images. Poor quality input images can result in poor quality output.

4. Limitations of algorithms: Digital image processing algorithms have limitations, such as the difficulty of recognizing objects in cluttered or poorly lit scenes, or the inability to recognize objects with significant deformations or occlusions.
5. Dependence on good training data: The performance of many digital image processing algorithms is dependent on the quality of the training data used to develop the algorithms. Poor quality training data can result in poor performance of the algorithm

Keyword: DIP, Advantage, Disadvantage, CV, Image.

DIGITAL IMAGE PROCESSING SYSTEM

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ABSTRACT

In computer science, digital image processing uses algorithms to perform image processing on digital images to extract some useful information. Digital image processing has many advantages as compared to analog image processing. Wide range of algorithms can be applied to input data which can avoid problems such as noise and signal distortion during processing. As we know, images are defined in two dimensions, so DIP can be modeled in multidimensional systems.

Purpose of Image processing

The main purpose of the DIP is divided into following 5 groups:

1. **Visualization:** The objects which are not visible, they are observed.
2. **Image sharpening and restoration:** It is used for better image resolution.
3. **Image retrieval:** An image of interest can be seen
4. **Measurement of pattern:** In an image, all the objects are measured.
5. **Image Recognition:** Each object in an image can be distinguished.

Following are Fundamental Steps of Digital Image Processing:



1. Image Acquisition

Image acquisition is the first step of the fundamental steps of DIP. In this stage, an image is given in the digital form. Generally, in this stage, pre-processing such as scaling is done.

2. Image Enhancement

Image enhancement is the simplest and most attractive area of DIP. In this stage details which are not known, or we can say that interesting features of an image is highlighted. Such as brightness, contrast, etc...

3. Image Restoration

Image restoration is the stage in which the appearance of an image is improved.

4. Color Image Processing

Color image processing is a famous area because it has increased the use of digital images on the internet. This includes color modeling, processing in a digital domain, etc....

5. Wavelets and Multi-Resolution Processing

In this stage, an image is represented in various degrees of resolution. Image is divided into smaller regions for data compression and for the pyramidal representation.

6. Compression

Compression is a technique which is used for reducing the requirement of storing an image. It is a very important stage because it is very necessary to compress data for internet use.

7. Morphological Processing

This stage deals with tools which are used for extracting the components of the image, which is useful in the representation and description of shape.

8. Segmentation

In this stage, an image is a partitioned into its objects. Segmentation is the most difficult tasks in DIP. It is a process which takes a lot of time for the successful solution of imaging problems which requires objects to identify individually.

9. Representation and Description

Representation and description follow the output of the segmentation stage. The output is a raw pixel data which has all points of the region itself. To transform the raw data, representation is the only solution. Whereas description is used for extracting information's to differentiate one class of objects from another.

10. Object recognition

In this stage, the label is assigned to the object, which is based on descriptors.

11. Knowledge Base

Knowledge is the last stage in DIP. In this stage, important information of the image is located, which limits the searching processes. The knowledge base is very complex when the image database has a high-resolution satellite.

Keyword: DIP, CV, Image, Picture, Knowledge.

INTER-RELATIONSHIPS BETWEEN SEED YIELD AND FOUR RELATED TRAITS OF SIXTEEN DURUM WHEAT GENOTYPES IN WATER-STRESSED AND STRESS-FREE ENVIRONMENTS

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ABSTRACT

The objective of the study is to evaluate the drought tolerance of 16 advanced lines of durum wheat (*Triticum durum Desf*) using several agronomic and physiological traits. The experiment was carried out in the greenhouse at the Regional Agricultural Research Center (CRRRA) of Meknes. The effect of different treatments on morpho-physiological and agronomic responses was studied using a RCBD (Randomized Complete Block Design) design with three replications. We studied the effect of different water regimes on the stomatal regulation responses of 16 advanced durum wheat lines through a comparative analysis with other physiological ones. A significant decrease in leaf area, relative water content, chlorophyll content and stomatal conductance was observed with increasing leaf temperature. The results revealed significant differences between lines and water regimes. The lines, V1 and V16 showed good osmotic adjustment, low stomatal sensitivity, and maintenance of turgor under low water potential. Statistical analysis revealed the presence of a highly significant correlation between leaf area and relative water content RWC ($r=0,763^{**}$), leaf area and chlorophyll content ($r=0,676^{**}$), stomatal conductance and yield ($r=0,594^{**}$). However, a highly significant negative correlation was found between leaf temperature and stomatal conductance ($r=-0.453^{**}$).

Keywords: Durum wheat, tolerance, stomatal conductance, chlorophyll, relative water content.

REPRODUCTIVE STRATEGIES AND CONSERVATION IMPLICATIONS FOR
ANABAS TESTUDINEUS IN THE GAJNER BEEL WETLAND, BANGLADESH,
AMIDST SHIFTING ECO-CLIMATIC CONDITIONS: TOWARDS OPTIMAL
AQUACULTURE PRACTICES

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ABSTRACT

The *Anabas testudineus* (Bloch, 1792), freshwater climbing perch, is an economically important and nutritionally valuable food fish in South Asia. This research explores the various reproductive strategies of *A. testudineus*, specifically focusing on size at sexual maturity, reproductive period, and fecundity, in relation to eco-climatic variabilities present in the Gajner *beel* wetland. A total of 709 individuals of *A. testudineus* were randomly collected from January to December 2019, of which 371 mature females were sorted out. The female total length (TL) varied from 7.50 to 16.40 cm. Through analysis of maximum length (L_{max}), TL vs. gonadosomatic index (GSI), TL-standard length (SL) regression, and logistic model, it was determined that the size at sexual maturity (L_m) ranged from 10.00 to 11.50 cm. The spawning season prevailed from May to August, peaked in June-July. Fulton's condition (K_F) was suggested as best condition factor ($p < 0.0001$), while relative weight (W_R) showed no significant difference from 100 in females ($p = 0.143$). Fecundity ranged from 9,459 to 35,915 and was highly correlated with TL ($p < 0.0001$) and body weight (BW) ($p < 0.0001$). A significant relationship was observed between GSI and temperature ($p = 0.0016$), dissolved oxygen (DO) ($p < 0.0001$), pH ($p < 0.0001$), alkalinity ($p < 0.001$) and climatic parameters (air temperature, $p < 0.001$ and rainfall, $p < 0.001$). The suitable range of DO, pH, temperature and rainfall was 5.7–6.1 mg/l, 7.1–7.5, 28–31°C and 225.70–350.40 mm, respectively for the spawning of *A. testudineus*. The data series of 48 years (1971–2019) revealed that the rise of average air temperature by 0.029°C per year and the reduction of rainfall by 2.96 mm per year may shift the spawning season of *A. testudineus* after 15-20 years from now. Therefore, this research will be helpful for the sustainable management and conservation of the wild stocks of *A. testudineus* in the Gajner *beel* and surrounding environs.

Keywords: *Anabas testudineus*, Climate change, Fecundity, Size at sexual maturity, Spawning season,

**THE INABILITY OF SMES TO OPTIMISE THEIR ORGANISATIONAL
PERFORMANCE AND ITS INFLUENCE ON THE EMERGING ECONOMY**

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ABSTRACT

Purpose

This research is aimed to investigate the firm-level inability to perform, which further influences the small business economic model besides innovation, open innovation, and the performance of small and medium enterprises (SMEs) in an emerging economy.

Design/Methodology/Approach

The study adopted a quantitative method by using questionnaires for data collection. The dataset was collected from 465 qualified questionnaires returned by top executives, managers, and experts from Vietnamese SMEs during 2020-2021. The hypotheses proposed were tested by applying covariance-based structural equation modeling (CB-SEM) using AMOS version 20.0.

Findings

The outcomes of this study revealed mixed findings. More specifically, direct relationships of organizational inertia with business model innovation and open innovation were found to be negative and significant. Organizational inertia was found to have an indirect significant but negative association with firm performance. Open innovation was found to have direct positive and significant relationships with business model innovation as well as firm performance. Likewise, business model innovation was found to positively and significantly affect firm performance.

Originality/Value

The current study has significantly contributed in the form of implications for addition to the existing literature on the subjects of organizational inertia, business model innovation, and open innovation. This study thoroughly examines how organizational inertia adversely affects business innovation – open innovation in particular – and business model innovation with a comprehensive approach. This study also provides a mechanism for sustaining and improving firm performance in new ways that are more innovative and effective. The study has practical implications for the respective community and insights for business practitioners and entrepreneurs.

Keywords: Organizational Inertia, Open Innovation, Business Model Innovation, SMEs, Firm Performance, Emerging Economy.

**AYRI AYRI VE/VEYA BIRLIKTE ALINAN GALLIK ASIT VE LAVANTA UÇUCU
YAGININ INME SONRASI ERKEK WISTAR SIÇANLARININ BİLİSSEL VE
DAVRANISSAL YETENEKLERİ ÜZERİNDEKİ ETKİSİ**

EFFECT OF GALLIC ACID AND LAVENDER ESSENTIAL OIL TAKEN SEPARATELY
AND/OR COMBINED ON COGNITIVE AND BEHAVIOURAL ABILITIES OF POST-
STROKE MALE WISTAR RATS

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ÖZET

İnme ölümcül olmaktan çok sakat bırakıcıdır ve inmeden kurtulanların tekrarlama riski yüksektir; bu nedenle, esasen motor ve bilişsel rehabilitasyon sağlayan multidisipliner yönetime dayanan terapötik yönlere bakmaya olan ilgi artmaktadır.

Günümüzde, doğal ürünlerin geliştirilmesi ve serebral iskeminin nüksetmesini önlemeye gösterilen ilgi, düşük riskli, maliyet etkin ve kolay bir tedavi yöntemi olan tamamlayıcı tıbbi yeni bir soluk getirmektedir; aromaterapi, demansın davranışsal ve psikolojik semptomlarını yönetmek, bilişsel işlevi iyileştirmek, yaşam kalitesini artırmak ve günlük yaşam aktivitelerinde bağımsızlığı geliştirmek için etkili bir tedaviyi temsil eden dallarından biridir.

Bitkisel ilaçlar inme öncesi ve sonrası önlemede rol oynar. Geleneksel tedaviye yardımcı olabilir, ancak bitkilerin ve özlerinin bu katkısı serebral sistemin kendisi üzerinde etkili olabilir.

Bu nedenle, çalışmamızın amacı, Wistar sıçanlarında orta serebral arterin tıkanmasıyla cerrahi olarak oluşturulan iskemik inme indüksiyonunda, gallik asit ve lavanta esansiyel yağının ayrı ayrı etkilerini ve ardından profilaktik tedavi olarak (gastrik gavaj yoluyla) sırasıyla 100 mg/kg ve 200 mg/kg dozlarında alınan ikisinin kombinasyonunu değerlendirmektir. Bu erdemler, anksiyete, keşif ve yaralı hastaların motor becerileri ölçülerek davranışsal düzeyde ve inme sonrası sıçanlarda hafıza ve keşif becerileri değerlendirilerek bilişsel düzeyde ölçülmüştür.

Bu çalışmanın amacı hem inme sonrası görünmez engelliliği tanımlamak hem de gallik asit ve HEL ile ön tedavinin bilişsel rehabilitasyon üzerindeki etkisini değerlendirmektir.

Anahtar kelimeler: İnme, Gallik asit, Gerçek lavanta esansiyel yağı, Wistar sıçan, bilişsel rehabilitasyon.

ABSTRACT

Stroke is more often incapacitating than fatal, and stroke survivors have a high risk of recurrence; hence the interest in looking at the therapeutic aspects, which are essentially based on multidisciplinary management enabling motor and cognitive rehabilitation.

At present, the development of natural products and the interest shown in preventing recurrences of cerebral ischaemia are giving a new lease of life to complementary medicine, which is a low-risk, cost-effective and easy therapeutic method with trivial side-effects, aromatherapy being one of its branches, representing an effective treatment for managing the behavioural and psychological symptoms of dementia, improving cognitive function, enhancing quality of life and improving independence in the activities of daily living.

Herbal medicine plays a role in pre-stroke and post-stroke prevention. It can be an adjunct to conventional treatment, but this contribution of plants and their extracts can act on the cerebral system itself.

For this reason, the aim of our study is to evaluate the separate effects of gallic acid and lavender essential oil, and then the combination of the two taken as prophylactic treatment (by gastric gavage) at doses of 100 mg/kg and 200 mg/kg respectively, in the induction of ischaemic stroke, surgically produced by occlusion of the middle cerebral artery in Wistar rats. These virtues were quantified at the behavioural level by measuring anxiety, exploration and the motor skills of injured patients, and at the cognitive level by assessing memory and exploration skills in post-stroke rats.

The aim of this study was both to identify the invisible disability after stroke and to assess the impact of pretreatment with gallic acid and HEL on cognitive rehabilitation.

Key words: Stroke, Gallic acid, True lavender essential oil, Wistar rat, cognitive rehabilitation

INDUSTRIAL RISK ANALYSIS AND CONTROL

CASE STUDY «TERMINAL ARRIVE EL KALA GK03 SONATRACH ALGERIA »

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ABSTRACT

With the worldwide increase in major accidents linked to complex production systems, industrialists are forced to design so-called safe installations. This awareness has led to more pronounced regulation and standardization. This is the case, for example, of the methodology for analysing the risks of machines and their evaluation with a view to their reduction, recommended by ISO 14121 and ISO 12100. Indeed, these standards introduce a methodology that analyzes process-risk on an ongoing and iterative basis until initial objectives are achieved. It is in this context that our work of focusing, as part of this risk analysis methodology, is integrated processes, on hazardous phenomena during the execution of tasks that require the integration of the prioritization of performance indicators. For this, we have completed this process with TPF decomposition in order to capitalize on these dangerous phenomena in order to optimize the security requirements and obtain the level of safety

Keywords: Process tasks Function, dangerous names, acceptability criteria, LOPA, SIL, HAZOP, SIS.

**THE RELATIONSHIP BETWEEN MARITAL SATISFACTION AND
PSYCHOLOGICAL WELL-BEING IN COUPLES: THE ROLE OF GRATITUDE AS
A MODERATOR
ABSTRACT**

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Objective

To investigate how gratitude moderates the relationship between marital satisfaction and the psychological well-being of couples. By exploring this moderating role, the study aimed to enhance our understanding of the complex dynamics between these variables.

Method

Sample of 400 married couples (200 wives and 200 husbands) from Wah Cantt were approached. Purposive sampling techniques were used for data collection. From June 2022 to August 2022, on the selected participants a reliable set of measures, including scales for marital satisfaction, psychological well-being, and gratitude were administered.

Results

The study employed correlational and hierarchical regression analyses to analyze the data. The results demonstrated a substantial positive correlation between marital satisfaction and psychological well-being ($r = .68^{**}$). Additionally, the findings provided evidence for the moderating influence of gratitude in the association between marital satisfaction and psychological well-being ($\Delta R^2 = 0.29$, $F = 21.47^{***}$).

Conclusion

This study highlights the significant role of gratitude as a moderator in the connection between marital satisfaction and the psychological well-being of couples. The findings provide valuable insights into the intricate dynamics of marital relationships and emphasize the importance of cultivating gratitude within the context of marriage. These results contribute to the existing body of knowledge and have implications for interventions and strategies aimed at promoting marital satisfaction and enhancing well-being.

INSIGHTS INTO THE UNDERPINNINGS OF CONSUMER-BASED BRAND EQUITY

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ABSTRACT

Purpose- This article seeks to assess the research on consumer-based brand equity, investigate underpinnings and provide a cross-contextual framework of consumer-based brand equity based on theoretical approaches and reasoned logic.

Methodology: A comprehensive and in-depth assessment of the literature assisted in exploring underpinnings and developing the framework.

Findings- The authors observed that factors pertinent to consumer-based brand equity (brand awareness, image, and perceived quality) can be adapted to different brand types and varied economic sectors. However, these factors should be treated as antecedents of brand equity, not quite as brand equity components. The switchover of brand equity from composition to decomposition would be a natural transition in developing a brand equity construct. Another essential part of the suggested framework that required prominence was brand loyalty, as loyalty must be considered a possible outcome of brand equity instead of merely a component.

Originality/value- The study identified significant theoretical concerns of brand equity and attempted to fill the gaps in the conversation about developing cross-contextual brand equity and contributing to the unified branding theory.

Keywords- Brand equity, Cross-Contextual, Consumer-based Brand Equity, CBBE, Brand Loyalty

UTILIZING FOOD WASTE DIGESTATE FOR EFFICIENT METHYLENE BLUE ADSORPTION

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ABSTRACT

This study focuses on the dual benefits of ecologic and economic gains achieved through food waste treatment. To address these issues, a combination of anaerobic digestion and adsorption was employed, leading to synergistic effects that enhanced productivity. Firstly, anaerobic digestion of food waste at mesophilic conditions (38°C) resulted in a substantial production of methane, serving as an energy source, and generated a biologically activated digestate. Secondly, the residual digestate was utilized as a raw material to create a cost-effective adsorbent for dye removal, known as porous carbon (PC-HNO₃). The main objective of this research was to assess the adsorption capacity of the designed porous carbon in removing methylene blue (MB) from aqueous solutions, a targeted pollutant. The results demonstrated that PC-HNO₃ exhibited an impressive maximum dye adsorption capacity of 310.10 mg/g. Furthermore, the adsorption process was best described by Langmuir and pseudo-second order kinetic models.

Keywords: anaerobic digestion, food waste, digestate, adsorption, dye removal.

**THE FLEXURAL DEFLECTIONS OF CONCRETE BEAM REINFORCED WITH FRP
PATCH**

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Résumé / Abstract :

Fiber Reinforced Polymer (FRP), as an externally bonded reinforcement, is a very beneficial technique for repairing and reinforcing reinforced concrete members. This technique is used in a number of applications to increase the shear capacity of structural beams. This characteristic is achieved by applying a carbon fiber reinforced polymer (CFRP) which is bonded to the concrete element with an adhesive (resin). This test program is set up to test the bending behavior of concrete beams and the breaking capacity of specimens. The experimental study gives the results of the experimental research of 24 micro concrete beams cracked and repaired in bending, which are imposed up to forces concentrated in the middle of the spans' at failure, 6 reinforced non-crack beam was adopted as control beam and 18 cracked specimen 9 beams were reinforced with different longitudinal CFRPs.

. The main objective of these research studies is to estimate the ability of continuous beams with carbon fiber FRP (CFRP) to redistribute internal forces, as some form of ductility and desirable behavior of structures. The main parameters vary depending on the type of CFRP reinforcement and the cracking ratio in the middle, i.e. the redistribution of the design moment. The results of the research have shown that the redistribution of moments in continuous reinforcing beams in CFRP is possible, without decreasing the load capacity, compared to elastic analysis.

Mots clefs : CFRP, Flexural behavior, Deflection; crack; fibre-reinforced concrete.

STUDY OF CORROSION PROTECTION PERFORMANCE OF ORGANIC COATINGS DEVELOPED FROM NATURAL RUBBER BASED MATERIALS

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ABSTRACT

In many sectors that employ metal, anti-corrosion coatings are widely used in maintenance, improved preservation, and conservation. They are intended to preserve a substrate by putting a barrier between the metal and the outside environment, especially in chloride-rich areas. In order to provide adequate corrosion protection, the coatings must be uniform, well adhered, pore free and self-healing for applications where physical damage to the coating may occur. Thus, various experimental and numerical studies were performed to understand the mechanisms and rules of corrosion types occurred in metal substrate determine the factors affecting these types. The current investigation is aimed to develop a protective coating system using Natural rubber with Acrylic Polyol Resin for mild steel for long term protection. 7 samples of multifunctional coatings with different compositions of rubber and acrylic resins were blended with calculated value of polyisocyanate as the curing agent. The properties of the developed coatings were characterized using analytical methods such as Fourier Transform Infrared Spectroscopy, Electrochemical Impedance Spectroscopy, Ultraviolet-Visible Spectroscopy and Cross-Hatch Adhesion Tester. From the experimental test of anticorrosive protection using EIS, it showed better corrosion resistance when the ratio of Natural Rubber was reduced. The results showed the coating revealed best performance when the ratio of Natural Rubber and Acrylic Resin 0:100, 20:80 and 30:70. Also, the coatings possessed very good adhesion onto the metal substrate.

**AWARENESS AND CONSUMPTION PATTERN OF SOURSOP JUICE AMONG THE
TOURISTS IN OLUMO TOURIST COMPLEX**

Apata, O.C.

ABSTRACT

Sour sop is an unexploited fruit with numerous health benefits. Studies have been carried out on sour sop fruit juice physicochemical properties, microbiological and sensory qualities but there is dearth of knowledge of awareness and the consumption pattern of soursop fruit among consumers, especially tourists. Therefore, this study determined the awareness and consumption pattern of soursop juice among tourists, nutritional components and extent it can be preserved.

Olumo tourist destination was purposively selected for the determination of tourists acceptability on soursop juice. Three hundred and twenty four (324) respondents were selected based on their willingness to participate through affective sensory evaluation analysis. and to determine their level of awareness of the fruit juice and the most preferred sample.

It was evident that the visitors in the research site (Olumo Tourist Complex) were aware of different kinds of fruit juice, while there was limited awareness for soursop juice. The result indicated that more than half of the respondents were not aware and have not eaten soursop fruit before. This was because soursop fruit is not popularly on streets as vended fruits in Nigeria.

Ginger as an additive brings about an increase in the protein and carbohydrate content of the soursop fruit samples, thereby having no effect on the fat, fibre and ash. It also improve the mineral content of soursop precisely Sodium, Potassium, Calcium, Magnesium, Phosphorus, iron and Manganese. Ginger is a natural biological agent and can serve as a preservative/additive in foods and fruits. It is cheaper and lack negative health or environmental consequences with their constant usage. It improves the appearance and retards microbial growth in foods and drinks. It inclusion can perform effective biopreservatives in fruit juice, thereby improving the acceptability rate of soursop juice.

Keywords: Acceptability, Ginger, Sensory Evaluation, Soursop Juice, Tourist.

**VEGETATIVE AND REPRODUCTIVE GROWTH OF 4 STRAWBERRY
VARIETIES TO POTASSIUM IN THE LOWLANDS**

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ABSTRACT

In the tropics of Indonesia, strawberries are commonly cultivated under highland agroecology with cold atmosphere. The limited area in the highlands increase the interest to cultivate strawberries under suboptimal-hot-lowlands-conditions which limit growth of strawberry plants. Potassium is a major element for improving plant growth, especially for productivity and quality of fruit plants. A pot experiment was conducted to evaluate the growth and yield of four strawberry varieties, namely Sagahonoka, Mencir, Kelly Bright and Sweet Charlie, under potassium (in KCl form) fertilization regimes (0, 3 and 6 g per plant). The results of the study demonstrated that increasing KCl dose decreased the number of stolons in Sagahonoka, Mencir, and Sweet Charlie, but conversely promoted the number of stolons in Kelly Bright. Under lowland tropics, without KCl fertilization all strawberry cultivars did not produce flowers and fruit, but addition of KCl fertilizer both at 3 or 6 g enabled them to undergo generative development. Increasing the KCl dose increased the number of flowers per plant on Mencir, decreased on Kelly Bright, but had no effect on Saga Honoka and Sweet Cherly. Increasing the dose of KCl from 3 to 6 g per plant increased fruit weight per plant in Mencir and Sweet Charlie, had no effect on Saga Honoka, but decreased fruit weight per plant on Kelly Bright.

Key words: strawberry, cultivars, lowland tropics, fruit yield

**ACCELERATING LENTIL BREEDING PROGRAMS: HARNESSING SPEED
BREEDING AND EXTENDED PHOTOPERIOD FOR GLOBAL FOOD SECURITY**

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ABSTRACT

Lentil breeding programs play a critical role in developing new genotypes with desired traits to meet the growing global demand for food. However, the traditional breeding process can be time-consuming, taking more than a decade due to the complexity of genetic traits and long selection cycles. Additionally, the agricultural landscape is facing unprecedented challenges from climate change, leading to higher temperatures, increased drought, and unpredictable growing conditions. These environmental changes are amplifying the urgency to develop improved plant varieties that can adapt and thrive in these dynamic ecosystems. To address these challenges and enhance food security, researchers have been actively exploring innovative methods to accelerate the breeding process. One of the most promising approaches is speed breeding, which involves extending the photoperiod during the plant growth cycle. By manipulating the duration of light exposure, researchers can influence the physiological processes and developmental stages of plants, ultimately shortening the selection cycle and expediting the creation of elite varieties. Our research project aims to establish an optimal experimental system that leverages the power of speed breeding and extended photoperiod techniques in lentil breeding. Through systematic studies on the effects of varying light durations and intensities on plant growth and development, we seek to unlock opportunities for rapid and efficient genetic improvements. By understanding the intricate interactions between light conditions and plant responses, we aim to accelerate the process of selecting superior genotypes with enhanced characteristics. The ultimate goal of our research is to develop resilient lentil varieties that not only meet market demands but also exhibit adaptability to challenging environmental conditions. By creating plant varieties with enhanced climate resilience, we strive to contribute to sustainable food production in a rapidly changing world. Our research findings hold the potential to revolutionize lentil breeding programs, enabling breeders to respond effectively to the pressing challenges of climate change while meeting the food requirements of a growing global population.

Keywords: Lentil breeding programs, climate change, speed breeding, extended photoperiod.

**WOMEN FARMERS ATTITUDE TOWARDS ANCHOR BORROWERS'
PROGRAMME IN OYO STATE, NIGERIA**

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ABSTRACT

The Anchor Borrowers' Programme (ABP) is an agricultural intervention aimed at providing financial and technical support to smallholder farmers. While the program offers significant opportunities for women's empowerment and economic advancement, their participation and attitude towards the program remain crucial for its success. Hence, the study was carried out to determine women attitude towards anchor borrowers' programme in Oyo State, Nigeria.

A multistage sampling procedure was used to select 142 respondents for the study and data collected through questionnaire were analyzed using both descriptive and inferential statistics.

Result shows that majority had mean age of 43 ± 15 years, majority (67.6%) of the respondents were married, majority (54.9%) of the respondents were practicing Islamic religion, majority (83.8%) had formal education, had mean farming experience of 4 ± 2 years, majority (62.7%) of the respondents do not belong to cooperative society, had mean household size of 6 ± 2 persons and had mean monthly income of $\text{N}55,000 \pm 35,000$. Based on mean, most of the respondents indicated that the anchor borrowers boost their agricultural production with highest mean of 1.75 and ranked 1st, received professional strategies on how to grow business better (1.47) and ranked 2nd and reducing food importation (1.45) and ranked 3rd. Difficulty in assessing loans due to favoritism (who-you-know) system of the authorities with highest mean of 1.72 and ranked 1st, difficult loan application processes (1.47) and ranked 2nd and late arrival of loans (1.45) and ranked 3rd were the major constraints faced by the respondents in anchor borrowers' programme. Majority (58.5%) of the respondents had unfavourable attitude towards anchor borrowers programme. A significant relationship existed between marital status ($\chi^2=9.168$, $p=0.049$), religion ($\chi^2=8.705$, $p=0.013$), level of education ($\chi^2=8.239$, $p=0.041$), age ($r=0.063$, $p=0.004$), benefits derived ($r=-0.047$, $p=0.001$), constraints faced ($r=-0.092$, $p=0.027$) and their attitude towards Anchor Borrowers' Programme in the study area.

The study concluded that majority (58.5%) of the respondents had unfavourable attitude towards anchor borrowers programme. It is therefore recommended that the government and relevant stakeholders should conduct targeted awareness and sensitization campaigns to educate women in Oyo State about the Anchor Borrowers' Programme. This will help dispel any misconceptions and encourage more women to participate after improving on their attitude to the programme.

Keywords: Women, attitude, Anchor borrowers' programme

**ECONOMICS OF CLIMATE CHANGE AND THE POLICY INTERVENTIONS OF
THE GOVERNMENT**

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ABSTRACT

From a traditional society to the age of high mass consumption, agricultural sector stood as the pre condition for takeoff. Even though the sector exhibits a stagnant or even a negative growth, the economy cannot persist long without giving prioritized development of the sector. From the very first five year plan the government allocates large sum of money for the development of the agricultural sector. But the performance of the sector is not only depends on the policy and programmes undertaken by the government but also on the natural factors too. That is why Indian agriculture is also known as gambling in the monsoon

India holds second position in the production of food in the world after China and it enjoys comparative advantage in the production of some agricultural output. The sector absorbs the countries labourers at large and is the largest employment provider in the country. But the production and productivity of the sector is sometimes not matched by the targeted one. One of the major reasons behind this is the vagaries in the nature and the climate like frequent Drought, Flood, Coastal Inundation etc.

As the country strives for achieving food security, the negative shocks to agricultural productivity seek attention for the increased government intervention in the sector. The state governments too have to increase their involvement in developing the sector. In the modern economy, the sector is striving to sustain its position to meet the requirement for food in the economy. For the same the Kerala government too has introduced and implemented several programmes. Area development programmes, crop insurance, agriculture marketing, rural infrastructure development, post harvest management etc are some of them. The ministry of agriculture and the line agencies are all on their way forward to achieve the target.

The Green Revolution of 1960's was an impetus to the development of the agricultural sector. But it failed to exhibit a consistent performance in all the succeeding years. Over the years the government has to spend huge amount not only for the development of the sector but also for

meeting the loss due to the climatic changes. The climatic changes stop the farmers to do their farming activities in the fear of loss of output and economic loss. This results in the decrease in agricultural production and causes the prices to increase. This also creates a large gap in the share of agricultural sector in the state and national exchequer. The aggregate expenditure including both the state and central government is the only lifeline of the sector. This study purports to analyze the different government programmes in line with the climate change and for the development of the primary sector of the economy.

Climate change poses a significant threat to poverty reduction and has the potential to reverse decades of development progress. While the impacts of climate change are global, they disproportionately affect individuals and countries already facing poverty. The most vulnerable populations are often those who rely heavily on natural resources and lack the resources and capabilities to cope with climate-related challenges. By prioritizing the restoration and preservation of critical ecosystems, communities can enhance their resilience and adaptability while also supporting livelihoods that depend on these ecosystems' services. Shifting towards low-carbon societies not only helps mitigate greenhouse gas emissions but also brings about numerous benefits, including improved human health, enhanced well-being, and the creation of green employment opportunities (Olufemi Adedeji, Reuben, & Olatoye, 2014).

India, a vast developing nation, is home to nearly 700 million people living in rural areas who rely heavily on climate-sensitive sectors and natural resources for their sustenance and way of life. These resources include water, biodiversity, mangroves, coastal zones, and grasslands. However, the ability of dry land farmers, forest-dwellers, and nomadic shepherds to adapt to changing conditions is notably limited (Balasubramanian, 2018).

India has been actively taking proactive measures to combat climate change, fulfilling its responsibilities based on the principles of common but differentiated obligations, respective capabilities, and equity. To this end, the country has submitted its Nationally Determined Contribution (NDC), which takes into account its developmental needs and is implemented to the best of its ability. The NDC sets forth India's ambitious goals, including a targeted reduction of 33 to 35 percent in the emissions intensity of its GDP below 2005 levels by 2030. Furthermore, India aims to derive 40 percent of its cumulative electric power from non-fossil fuel sources by 2030 and significantly enhance forest and tree cover, creating a substantial carbon sink that can absorb 2.5 to 3 billion tons of carbon dioxide by 2030. Alongside these targets, India is committed to promoting sustainable lifestyles rooted in conservation and

moderation, adapting to the impacts of climate change, driving clean economic development, and embracing environmentally friendly technologies, among other key objectives (Economic Survey, 2020-21).

The impact of climate change on cities is becoming increasingly apparent in various aspects such as basic services, infrastructure, housing, livelihoods, and public health. According to projections, by 2050, around 68% of the global population will reside in urban areas, leading the United Nations to caution about the amplified health and economic risks stemming from climate-related events. This urgent situation calls for decisive action concerning construction and transportation. India, home to the world's second-largest urban system, accommodates nearly 11% of the global urban population. The urban areas in India bear witness to the effects of climate change, including rising temperatures, sea-level rise, air pollution, extreme events such as floods, droughts, and heatwaves, rapid urbanization, increased infrastructure demands, and ecological imbalances (Ghosh, 2023).

Keywords: Mass Consumption, gambling in the monsoon, comparative advantage, food security, Green Revolution, exchequer.

INTEGRATED PEST MANAGEMENT STRATEGIES AS ALTERNATIVES TO
FUNGICIDES TO CONTROL APPLE SCAB CAUSED BY VENTURIA
INAEQUALIS: A LITERATURE REVIEW

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ABSTRACT

Apple scab, caused by the fungus *Venturia inaequalis*, is a serious disease that affects apple orchards around the world. Its intensity is strongly influenced by environmental factors. Damage to fruits, leaves and flowers leads to significant economic losses. To control this disease, apple growers rely heavily on fungicides, which can lead to resistance problems and an impact on the environment and human and animal health. This literature review focuses on the study of the scab reproduction mode and the identification of climatic factors favoring its spread in apple orchards. The objective of this study is to highlight the importance of good cultural and agricultural practices to reduce excessive dependence on fungicides. Indeed, several alternatives to fungicides are considered. On one hand, the use of resistant varieties combined with adapted cultural methods proves to be an effective strategy. On the other hand, prophylactic measures, such as the destruction of infected leaves and fruits, make it possible to reduce the primary inoculum and the risks of infection. Apple varieties carrying specific scab resistance genes have also shown promise in limiting the disease in orchards. In addition, tetraploid varieties show greater resistance to scab. Furthermore, the use of biocontrol agents such as the endophyte fungus, mycoparasitic "*Microsphaeropsis ochracea*", algae oligosaccharides, fructans and lipopeptides produced by *Bacillus subtilis* offer potential antifungal alternatives to traditional chemical fungicides. An innovative approach is to break the life cycle of *Venturia inaequalis* by hybridization between two special forms of the fungus, which could significantly reduce the population of *V. inaequalis* in orchards and reduce the use of chemicals. By integrating these different alternatives into an integrated pest management strategy, it is possible to control effectively apple scab while minimizing the impact on the environment and reducing production costs. Continued research in this area is essential to developing sustainable management approaches for this major apple orchard disease.

Keywords: Apple scab, *Venturia inaequalis*, fungicide resistance, fungicide alternatives, cultural practices, integrated pest management, biocontrol.

**VALORIZATION OF A MINING WASTE BETWEEN THE LITERATURE AND
THE EXPERIMENTAL TESTS**

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ABSTRACT

This work investigated the effect of combining a granulated slag of El- hadjar (Algeria) and silica fume on the characteristics of the elaborate high performance concretes up to 12 months. We formulated high performance concrete with and without cementitious addition. The mode of conservation is the gypsum water (corrosive condition).

The results show that the concrete containing (5wt. % silica fume and 10wt. % slag granulated), give a higher physico-mechanical properties than that of the concrete without cementitious addition.

Keywords: High performance concrete, mechanical strength, granulated slag, silica fume, durability

ENHANCING SOIL REINFORCEMENT WITH FIBERS AND GEOGRIDS

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ABSTRACT

This work focuses on the application of soil reinforcement techniques using fibers and geogrids, analyzed through numerical modeling. The study aims to assess the effectiveness of this combined approach in enhancing the stability and safety of engineering structures.

Soil reinforcement has emerged as a pivotal technique to enhance the stability and safety of engineering structures, and recent advancements have explored the synergistic combination of fibers and geogrids to achieve improved results. In this work, we present a comprehensive study focused on the numerical modeling of soil reinforcement using fibers and geogrids, evaluating their collective impact on the behavior of different structures.

The study begins by outlining the fundamental concepts of soil reinforcement and its significance in various construction projects. It emphasizes the importance of mitigating potential hazards arising from soil instability, especially in geotechnical engineering applications. The combination of fibers and geogrids has garnered substantial interest due to the potential mutual benefits they offer in reinforcing soil.

The research findings demonstrate a notable reduction in horizontal displacements, an increase in the safety coefficient, and improved overall stability of the structures. The combination of fibers and geogrids proves to be a highly promising and satisfactory solution for soil reinforcement, offering great potential for various engineering projects.

Keywords: Soil reinforcement, Fibers, Geogrids, Numerical modeling, Structural stability.

6 ŞUBAT 2023 KAHRAMANMARAŞ DEPREMİ SONRASINDA SUNULAN SAĞLIK HİZMETLERİ VE SAĞLIK SİSTEMİNDE GÖRÜLEN SORUNLAR VE ÖNERİLER
HEALTH SERVICES PROVIDED AFTER THE KAHRAMANMARAŞ EARTHQUAKE ON FEBRUARY 6, 2023 AND THE PROBLEMS AND SUGGESTIONS IN THE HEALTH SYSTEM

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ÖZET

6 Şubat 2023'te Türkiye şiddetli 2 depremle sarsıldı. 7.8 büyüklüğündeki ilk deprem saat 04.17'de Pazarcık/Kahramanmaraş'ta meydana geldi. Ardından, beklenmedik bir şekilde ilk depremden yaklaşık 9 saat sonra, Elbistan/Kahramanmaraş'ta ikinci bir bağımsız bir deprem meydana geldi. 2 deprem Türkiye'de 10 ilde yaygın hasara yol açarak binlerce vatandaşın vefat etmesine ve yaralanmasına neden oldu. Ana depremler ve ardından gelen günlerce süren artçı sarsıntılar yıkıcı sosyal, psikolojik, tıbbi ve halk sağlığı sonuçları doğurmaktadır.

Depremden sonra, acil servisler, depremzedeler için kritik bir önem kazandı. Acil servislerde, en ağır yaralı hastalar tedavi edildi ve diğer hastalara da gerekli sağlık hizmetleri sağlandı. Depremden sonra, hastaneler ve klinikler, çok sayıda yaralı hastayı tedavi etmek için yoğun bir çaba gösterdiler. Ancak, depremin yıkıcı etkileri nedeniyle, sağlık hizmetleri bazı sorunlarla karşılaştı.

Depremden sonra karşılaşılan sağlık hizmetleri sorunlarından bazıları şunlardır: Hastanelerin ve kliniklerin hasar görmesi, Ekipman ve ilaçların eksikliği, Personel yetersizliği, İletişim ve ulaşım sorunları vd.

Bu sorunlar, depremzedelere zamanında ve kaliteli sağlık hizmeti verilmesini engelledi. Depremden sonra sağlık hizmetlerinin iyileştirilmesi için bazı çözüm önerileri şunlardır: Depremden etkilenen hastaneler ve kliniklerin onarılması ve güçlendirilmesi, Ekipman ve ilaçların temin edilmesi, Personel sayısının artırılması, İletişim ve ulaşım altyapısının iyileştirilmesi. Bu çözüm önerilerinin uygulanması, depremzedelere zamanında ve kaliteli sağlık hizmeti verilmesini sağlayacaktır.

Savaş, deprem, sel, pandemi gibi afetler bireylerin psikolojik durumlarını kaçınılmaz olarak etkilemektedir. Toplum; aile üyelerini, arkadaşlarını, evlerini ve mallarını kaybetmekle karşı karşıyadır. Bu bağlamda, deprem sonrası fiziksel rehabilitasyonun yanı sıra kapsamlı bir psikolojik desteğe büyük ihtiyaç duyulmaktadır ve sadece yetkin bir profesyonelin yanında olması onlara umut ve cesaret vermektedir.

Türkiye için yeni bir süreç başladı. Afet öncesi rutine dönüş uzun bir süreç olabilir. Ancak acil öncelik afetzedelere, yaralılara yardım etmektir. Fiziksel ve psikolojik olarak zarar görmüş binlerce insanın uzun vadede tedavi edilmesi gerekmektedir. Sağlık sistemi

yöneticileri bu senaryoyu bir an önce dikkate almalı ve rehabilitasyon gerekliliğini göz önünde bulundurarak gerekli düzenlemeleri yapmalıdır. Rehabilitasyon bölümlerinin yeniden düzenlenmesine ağırlık verilmelidir.

Sonuç olarak, 6 Şubat 2023 Kahramanmaraş depremi sonrası yaşanan sağlık hizmeti sunumundaki sorunlara ciddi bir dikkat gerektirmektedir. Son olarak, afetlerin etkilerini minimize etmek ve sağlık hizmetlerini sürdürülebilir kılmak için sürekli hazırlıklı olmak, halk sağlığı ve güvenliği için önemli bir görevdir.

Anahtar Kelimeler: Kahramanmaraş, Deprem, Afet, Sağlık Hizmetleri

ABSTRACT

On February 6, 2023, Türkiye was shaken by 2 severe earthquakes. The first earthquake with a magnitude of 7.8 occurred at 04:17 in Pazarcık/Kahramanmaraş. Then, unexpectedly, about 9 hours after the first earthquake, a second independent earthquake occurred in Elbistan/Kahramanmaraş. Two earthquakes caused widespread damage in 10 provinces in Turkey, resulting in the death and injury of thousands of citizens. The main earthquakes and subsequent aftershocks that last for days have devastating social, psychological, medical and public health consequences.

After the earthquake, emergency services became critical for earthquake victims. In the emergency departments, the most seriously injured patients were treated and other patients were provided with the necessary medical services. After the earthquake, hospitals and clinics made a concerted effort to treat a large number of injured patients. However, due to the devastating effects of the earthquake, health services faced some problems.

Some of the health care problems encountered after the earthquake are: Damage to hospitals and clinics, Lack of equipment and medicines, Lack of staff, Communication and transportation problems etc.

These problems prevented the delivery of timely and quality health care services to earthquake victims. Some solution suggestions for the improvement of health services after the earthquake are as follows: Repairing and strengthening the hospitals and clinics affected by the earthquake, Procuring equipment and medicines, Increasing the number of personnel, Improving the communication and transportation infrastructure. Implementation of these solution proposals will ensure timely and quality health services are provided to earthquake victims.

Disasters such as war, earthquake, flood, and pandemic inevitably affect the psychological state of individuals. Society; faces the loss of family members, friends, homes and property. In this context, there is a great need for comprehensive psychological support as well as physical rehabilitation after the earthquake and only the presence of a competent professional gives them hope and encouragement.

A new process has begun for Türkiye. Returning to a pre-disaster routine can be a long process. But the immediate priority is to help the survivors and the injured. Thousands of physically and psychologically damaged people need to be treated in the long term. Health system administrators should take this scenario into account as soon as possible and make the necessary arrangements considering the necessity of rehabilitation. Rehabilitation departments should be reorganized.

As a result, the problems in health service delivery after the 6 February 2023 Kahramanmaraş earthquake require serious attention. Finally, continuous preparedness to minimize the effects of disasters and to make health services sustainable is an important task for public health and safety.

Keywords: Kahramanmaraş, Earthquake, Disaster, Health Services

**MADDE KULLANIM BOZUKLUĞUNA SAHİP BİREYLERDE KAS İSKELET
SİSTEMİ PROBLEMLERİ: MİNİ DERLEME**
**MUSCULOSKELETAL PROBLEMS IN INDIVIDUALS WITH SUBSTANCE USE
DISORDER: MINI REVIEW**

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ÖZET

Madde kullanım bozukluğu (MKB), bireylerde akut ve kronik dönemde baş edilmesi gereken problemlere yol açan bir halk sağlığı sorunudur. Ülkemizde 2021 yılında tedaviye başvuran hastaların %50,8'i 20-29 yaş aralığındadır. Aynı yıl yatış yapan hastaların %54,5'i yeniden tedavi alan bireylerdir. Bu çalışma madde kullanım bozukluğuna sahip bireylerde kas iskelet sistemi bozukluklarını incelemek amacıyla yapılmıştır. MKB'li bireylerde psikiyatrik problemler (depresyon, antisosyal davranış, anksiyete, psikoz ve bilişsel işlev bozuklukları vs.) dışında en sık bildirilen durumlar kardiyovasküler problemler, kalp yetmezliği, düşük bağışıklık, hipertansiyon, inme ve kanserdir. Bunlar dışında en sık hastaneye yatış sebepleri tibia ve femur kırıkları ile çoklu travmalar olarak bildirilmiştir. Bu yaralanmalar sonrası en çok raporlanan cerrahiler ise total kalça, diz, omuz protezleri ile spinal füzyondur. MKB'li bireylerde rabdomiyoliz, osteoporoz ve osteopeni görülmektedir. Kemikte zayıflama ve kas kuvvetindeki bu azalma ile hastalık sürecindeki diğer durumlar kas iskelet sisteminde problemlere yol açar. Bu bireylerde; baş-boyun bölgesinde baş önde postürü, temporomandibular eklem problemleri; torakal bölgede kifoz ve solunum kas kuvvetinde azalma; lumbal bölgede lordoz ve özellikle yoksunluk döneminde artan bel ağrısı; üst ekstremitede el kavrama kuvveti ve fonksiyonunda azalma; alt ekstremitede duyu problemleri; dengede bozulma ve yürüyüş problemleri görülmektedir. MKB'li bireylerde motor problemler ve genel fonksiyonel kapasitede azalma da bildirilmiştir. Bu problemlerin bireylerin tedavi ve sonrası süreci etkileyebileceği düşünülmektedir. Rehabilitasyon süreçlerinde bu problemlerin de belirlenmesi ve akabinde tedavilerinin yapılması durumunda kişilerde günlük yaşam aktivitelerinin kalitesinde iyileşme ve katılımında artma, yetersizlik halinde azalma, aşermeye azalma ve iyilik halinde artma görülebilir. Tüm bunlar bireylerin tedavi kalitesini artırır, bireyi topluma kazandırmayı kolaylaştırır ve sağlık giderlerinin azalmasına yardımcı olur.

Anahtar Kelimeler: Madde Kullanım Bozukluğu, Ortopedik Problemler, Kas İskelet Sistemi

ABSTRACT

Substance use disorder (SUD) is a significant public health issue that causes acute and chronic problems in individuals. In Turkey, 50.8% of patients who applied for treatment in 2021 were between the ages of 20-29. In the same year, 54.5% of the hospitalized patients were individuals who received re-treatment. This study aimed to investigate the musculoskeletal disorders in people with SUD. Apart from psychiatric problems (depression, antisocial behavior, anxiety, psychosis, and cognitive dysfunctions, etc.), the most frequently reported conditions in individuals with SUDs are cardiovascular problems, heart failure, low immunity, hypertension, stroke, and cancer. Apart from these, the most common reasons for hospitalization were reported as tibia and femur fractures and multiple traumas. The most commonly reported surgeries after these injuries are total hip, knee, and shoulder prosthesis and spinal fusion. Rhabdomyolysis, osteoporosis, and osteopenia are observed in individuals with SUDs. Bone weakening and decreased muscle strength, along with other disease processes, can cause problems in the musculoskeletal system. In individuals with these symptoms, various issues are observed such as forward head posture and temporomandibular joint problems in the head-neck area, kyphosis and decreased respiratory muscle strength in the thoracic spine, lordosis in the lumbar spine and increased low back pain especially during the deprivation period, decreased hand grip strength and function in the upper extremities, sensory problems in the lower extremities, and impaired balance and gait. Individuals with SUDs may experience motor problems and a decrease in functional capacity. It is thought that these problems may affect the treatment and post-treatment process of individuals. If these problems are detected and subsequently treated during the rehabilitation process, individuals may experience improvement in the quality of daily living activities, an increase in participation, a decrease in disability, a decrease in craving, and an increase in well-being. These improvements can increase the quality of treatment, facilitate reintegration into society, and reduce health costs.

Keywords: Substance Use Disorder, Orthopaedic Problems, Musculoskeletal System

**ALKOL KULLANIM BOZUKLUĐU OLAN VE OLMAYAN BİREYLER ARASINDA
STATİK VE DİNAMİK DENGENİN KARŞILAŞTIRILMASI: PİLOT ÇALIŞMA**
COMPARISON OF STATIC AND DYNAMIC BALANCE BETWEEN
INDIVIDUALS WITH AND WITHOUT ALCOHOL USE DISORDER, PILOT STUDY

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ÖZET

Alkol, bağımlılık yapıcı özelliklere sahip toksik ve psikoaktif bir maddedir. Alkol kullanımının beyin yapısında gerçekleştirdiği değişiklikler, bireylerin yürüme ve denge gibi günlük hayattaki temel motor fonksiyonlarını olumsuz etkiler. Alkolün merkezi sinir sistemi üzerine etkileri sebebiyle denge ve yürüme fonksiyonları üzerinde oluşturduğu anormal değişimler, bireyin alkol etkisi altında olmadığı dönemde de kalıcı fonksiyonel bozukluklara sebep olmaktadır.

Çalışmamız alkol kullanım bozukluğu olan ve olmayan bireyler arasında denge performansının karşılaştırılması amacıyla planlandı. Çalışma için Ankara Yıldırım Beyazıt Üniversitesi Sağlık Bilimleri Etik Kurulu'ndan gerekli izinler alındı. Çalışmamız kapsamında Ankara Eğitim Araştırma Hastanesi AMATEM Kliniği'nde DSM 5 kriterlerine göre alkol kullanım bozukluğu tanısı almış ve yatılı tedavi görmek üzere başvuran en az bir yıldır alkol kullanım bozukluğu olan bireyler ile alkol kullanım bozukluğu olmayan sağlıklı bireyler değerlendirildi. Çalışmamıza katılmak için gönüllü olan, 40-65 yaş arasında, okur-yazar, Mini Mental Durum Testi'nde 24 ve üzeri puan almış; nörogelişimsel ya da nörobilişsel bozukluğu ile ortopedik, nörolojik ve sistemik herhangi bir rahatsızlığı olmayan, görme ve işitme

problemi olmayan bireyler dahil edildi. Çalışmaya katılan bireylere çalışma ile ilgili bilgi verildi ve katılmayı kabul edenlerden yazılı onam alındı. Araştırma verileri Ankara Eğitim Araştırma Hastanesi AMATEM Kliniği ve Ankara Yıldırım Beyazıt Üniversitesi Fizyoterapi ve Rehabilitasyon Bölümü laboratuvarlarında toplandı. Çalışmamızda sosyodemografik bilgilerin alınmasının ardından Mini Mental Durum Testi uygulandı ve yeterli puanı alan gönüllülere Dört Adım Kare Testi ve Denge Hata Puanlama Sistemi değerlendirilmeleri yapıldı.

Çalışmamız kapsamında alkol kullanım bozukluğuna sahip yaş ortanca değeri 44,5 yıl olan 10 erkek birey ile alkol kullanım bozukluğu olmayan yaş ortanca değeri 43 yıl olan 10 sağlıklı erkek değerlendirildi. Bireylerin yaş, vücut kütle indeksi ve Mini Mental Durum Test sonuçlarının benzer olduğu belirlendi ($p>0.05$). Alkol kullanım bozukluğu olan ve alkol kullanım bozukluğu olmayan sağlıklı bireyler arasında statik ve dinamik denge değerlerini karşılaştırdığımızda gruplar arasında anlamlı düzeyde bir fark olduğu; alkol kullanım bozukluğu olan bireylerde, alkol kullanım bozukluğu olmayan sağlıklı gruba göre Denge Hata Puanlama Sistemi hata puanlarının anlamlı düzeyde daha yüksek, Dört Adım Kare Testi tamamlama süresinin daha uzun olduğu tespit edildi ($p<0.01$). Sonuç olarak, bu değerlendirmeler ışığında alkol kullanım bozukluğu olan bireylerde statik ve dinamik denge bozulmaktadır. Alkol kullanım bozukluğu için tedavi gören bireylerin rehabilitasyon süreçlerinde denge performansına yönelik değerlendirilmelerin yapılarak bu konudaki eksikliklerinin belirlenmesi ve bunlara yönelik de bütüncül bir bakış açısı ile tedavilerinin planlanmasının rehabilitasyon sürecine katkı sağlayacağını düşünmekteyiz.

Anahtar Kelimeler: Alkol, Bağımlılık, Denge

Teşekkür

Bu çalışma; 2209-A Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı kapsamında desteklenmektedir.

ABSTRACT

Alcohol is a toxic and psychoactive substance with addictive properties. The changes that alcohol use makes in the brain structure adversely affect the basic motor functions of individuals in daily life, such as gait and balance. The abnormal changes caused by alcohol on balance and walking functions due to its effects on the central nervous system cause permanent functional disorders even when the individual is not under the influence of alcohol. Our study was planned to compare balance performance between individuals with and without alcohol use disorder. The necessary permissions were obtained from Ankara Yıldırım Beyazıt University Health Sciences Ethics Committee for the study. Within the scope of our study, individuals with alcohol use disorder who were diagnosed with alcohol use disorder according to DSM 5 criteria and consulted for inpatient treatment at Ankara Training and Research Hospital AMATEM Clinic and healthy individuals without alcohol use disorder were evaluated. Those who volunteered to participate in our study, between the ages of 40 and

65, literate, scored 24 and above on the Mini Mental Status Test; individuals without neurodevelopmental or neurocognitive impairment and any orthopedic, neurological, and systemic impairment, visual and hearing problems were included. Individuals who participated in the study were informed about the study and written consent was obtained from those who agreed to participate. The research data were collected in Ankara Training and Research Hospital AMATEM Clinic and in the laboratories of Ankara Yıldırım Beyazıt University Physiotherapy and Rehabilitation Department. In our study, after receiving sociodemographic information, Four Step Square Test and Balance Error Scoring System evaluations were performed on the volunteers who received sufficient scores from the Mini Mental Status Test.

Within the scope of our study, 10 men with a median age of 44.5 years with alcohol use disorder and 10 healthy men with a median age of 43 years without alcohol use disorder were evaluated. Individuals' age, body mass index and Mini Mental Status Test results were found to be similar ($p>0.05$). When we compared the static and dynamic balance values between individuals with alcohol use disorder and healthy individuals without alcohol use disorder, there was a significant difference between the groups; in individuals with alcohol use disorder, it was found that the Balance Error Scoring System error scores were significantly higher and the time to complete the Four Step Square Test was longer than the healthy group without alcohol use disorder ($p<0.01$). As a result, in the light of these evaluations, static and dynamic balance is disturbed in individuals with alcohol use disorder. We think that the evaluation of the balance performance in the rehabilitation processes of individuals who are treated for alcohol use disorder and the determination of their deficiencies in this regard and the planning of their treatment with a holistic perspective will contribute to the rehabilitation process.

Keywords: Alcohol, Addiction, Balance

SAĞLIKLI KADINLARDA UYGULANAN YÜZ YÜZE VE ÇEVİRİMİÇİ KLİNİK
PİLATES EGZERSİZLERİNİN CORE KAS ENDURANSI ÜZERİNE ETKİLERİNİN
KARŞILAŞTIRILMASI

COMPARISON OF THE EFFECTS OF FACE-TO-FACE AND ONLINE CLINICAL
PILATES EXERCISES ON CORE MUSCLE ENDURANCE IN HEALTHY WOMEN

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ÖZET

Amaç: Gövde stabilizasyonu, omurga segmentlerinin ve pelvisin statik ve dinamik hareketlerde nötral yapısını koruması durumudur. Klinik pilatesin ana prensiplerinden birisi de vücudun derin kaslarının kuvvet ve dayanıklılığının artırılması yoluyla *core* stabilizasyonun geliştirilmesidir. Literatür incelendiğinde, yapılan çalışmalarda yüz yüze uygulanan klinik pilates egzersizlerinin *core* kasları enduransı üzerinde olumlu etkiye sahip olduğu gösterilmiştir. Çalışmamızın amacı ise yüz yüze ve çevrimiçi olarak uygulanan klinik pilates egzersizlerinin *core* kas enduransı üzerine etkilerinin karşılaştırılmasıdır.

Materyal ve Metot: Çalışmamıza 52 sağlıklı kadın birey dahil edildi. Bireyler yüz yüze klinik mat pilates grubu (n=26) ve çevrimiçi klinik mat pilates grubu (n=26) olmak üzere rastgele iki gruba ayrıldı. Her iki gruba da *core* kas enduransını arttırmaya yönelik klinik pilates egzersiz programı 12 hafta boyunca haftada 2 kez aynı fizyoterapist tarafından yaptırıldı. Egzersizler, egzersizden alınacak verimi arttırmak adına 2-5 kişilik küçük gruplara ayrılarak uygulandı. Egzersiz seansları arasında en az 1 gün dinlenme süresi bırakıldı. Bireylerin *core* kas enduransları *anterior* köprü, *lateral* köprü ve *biering- sorensen* endurans testleri ile değerlendirildi. Değerlendirme sonuçları egzersiz eğitimi öncesi (ilk test) ve sonrası (son test) olarak saniye cinsinden kaydedildi.

Bulgular: 12 haftalık pilates egzersiz eğitimi sonrası her iki klinik pilates egzersiz grubunda da *anterior* köprü, sağ ve sol *lateral* köprü ve *biering sorensen* testlerinin ilk ve son test

ölçümlerinde anlamlı bir artış elde edilmiştir ($p < 0,001$). Ancak gruplar arası kıyaslama yapıldığında ilk ve son test ölçüm sonuçlarının benzer olduğu bulunmuştur ($p > 0,05$).

Sonuç: Çalışmamızın sonucuna göre her iki pilates egzersiz yönteminin de *core* kas dayanıklılığı üzerinde anlamlı düzeyde iyileşme yarattığını belirledik. Buna göre her iki klinik pilates egzersiz yöntemi de gövde stabilizasyonun geliştirmek amacıyla fizyoterapi programlarında kullanılabilir.

Anahtar Kelimeler: *core* stabilizasyon, pilates, çevrimiçi egzersiz, yüz yüze egzersiz

ABSTRACT

Aim: Trunk stabilization is the state of maintaining the neutral structure of the spine segments and pelvis in static and dynamic movements. One of the main principles of clinical pilates is the development of core stabilization by increasing the strength and endurance of the deep muscles of the body. When the literature is examined, it has been shown that clinical pilates applied face-to-face has a positive effect on core muscle endurance. The aim of our study is to compare the effects of face-to-face and online clinical pilates exercises on core muscle endurance.

Materials and Methods: 52 healthy female individuals were included in our study. Individuals were randomly divided into two groups as face-to-face clinical mat pilates group ($n=26$) and online clinical mat pilates group ($n=26$). Clinical pilates exercise program aimed at increasing core muscle endurance in both groups 2 times a week for 12 weeks. It was done by the same physiotherapist. The exercises were divided into small groups of 2-5 people in order to increase the efficiency of the exercise. A rest period of at least 1 day was allowed between exercise sessions. Core muscle endurance of individuals was evaluated with anterior bridge, lateral bridge and Biering- sorenson endurance tests. Evaluation results were recorded in seconds as before (first test) and after (posttest) exercise training.

Results: After 12 weeks of pilates exercise training, there was a significant increase in anterior bridge, right and left lateral bridge, and Biering sorenson first and last test measurements in both clinical pilates exercise groups ($p < 0.001$). However, when the comparison between the groups was made, it was found that the results of the first and last test measurements were similar ($p > 0.05$).

Conclusion: According to the results of our study, we determined that both pilates exercise methods created a significant improvement on core muscle endurance. Accordingly, both clinical pilates exercise methods can be used in physiotherapy programs to improve trunk stabilization.

Keywords: core stabilization, pilates, online exercise, face to face exercise

YAŞLI YETİŞKİNLERDE GERİ YÜRÜME EĞİTİMİNİN FONKSİYONEL KAPASİTE VE FİZİKSEL AKTİVİTE DÜZEYİNE ETKİSİNİN İNCELENMESİ
INVESTIGATION OF THE EFFECT OF BACKWARD WALKING TRAINING ON FUNCTIONAL CAPACITY AND PHYSICAL ACTIVITY LEVEL IN OLDER ADULTS

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ÖZET

Dinamik ve ilerleyici bir süreç olan yaşlanma sürecinde fonksiyonel kapasitede düşüş görülür. Rehabilitasyon ve egzersiz yaklaşımları fonksiyonel kapasiteyi artırmada önemli rol oynar. Ayrıca yaşlanma sürecinde meydana gelen fizyolojik, psikolojik, sosyal ve ekonomik değişiklikler fiziksel aktivite düzeyinde azalmaya neden olabilir. Birçok kronik hastalığa karşı koruyucu olan fiziksel aktivitenin sağlıklı yaşlanma için gerekli olduğu bilinmektedir. Bu bağlamda aktif ve sağlıklı yaşlanma için fiziksel aktivite düzeyini artırmayı hedefleyen yaklaşımlar önemlidir. Bu çalışmanın amacı yaşlı yetişkinlerde geri yürüme eğitiminin fonksiyonel kapasite ve fiziksel aktivite düzeyine etkisinin incelenmesidir. Çalışmaya 65 yaş ve üzeri 8 sağlıklı yaşlı yetişkin (3 erkek, 5 kadın) katıldı. Katılımcıların yaş, boy uzunluğu, vücut ağırlığı ve eğitim düzeyi sorgulandı. Haftada 2 kez uygulanan, 6 hafta süren geri yürüme eğitimi öncesi ve sonrası fonksiyonel kapasite iki dakika yürüme testi kullanılarak, fiziksel aktivite düzeyi Yaşlılar İçin Fiziksel Aktivite Skalası kullanılarak değerlendirildi. Yüz yüze uygulanan eğitimde bir seans yaklaşık 45-60 dakika sürdü. Isınma ve alt ekstremite kaslarını kuvvetlendirmeye yönelik egzersizlerden sonra beşer dakikalık geri yürüme setleri uygulandı. Geri yürüme setleri ilk seanslarda bireyin tolere edebildiği sayıda, yaklaşık 2-3 set olarak uygulanırken seanslar ilerledikçe set sayısı artırıldı ve 6 sete kadar devam edildi. Katılımcıların yaş ortalaması $76,37 \pm 4,34$ yıldır. Eğitim öncesi iki dakika yürüme testi sonucu $113,18 \pm 44,35$ m iken, eğitim sonrası $133,63 \pm 51,24$ m idi. Eğitim sonrası fonksiyonel kapasitedeki artış istatistiksel olarak anlamlıydı ($p=0,025$). Eğitim öncesi Yaşlılar İçin Fiziksel Aktivite Skalası puan ortalaması $35,26 \pm 42,95$ iken eğitim sonrası $81,73 \pm 42,03$ olarak bulundu. Eğitim sonrası fiziksel aktivite düzeyindeki artış istatistiksel olarak anlamlıydı ($p=0,036$). Bu çalışmanın sonuçları yaşlı yetişkinlerde geri yürüme eğitiminin fonksiyonel kapasite ve fiziksel aktivite düzeyinde artışa neden olduğunu gösterdi. Geri yürüme eğitiminin sağlıklı yaşlı yetişkinlerde fonksiyonel kapasite ve fiziksel aktivite düzeyini artırmak hedeflendiğinde rehabilitasyon programına dahil edilmesi faydalı olabilir.

Anahtar Kelimeler: Fiziksel aktivite, Fonksiyonel kapasite, Yaşlı yetişkinler, Geri yürüme

ABSTRACT

In the aging process, which is a dynamic and progressive process, functional capacity declines. Rehabilitation and exercise approaches play an important role in increasing functional capacity. In addition, physiological, psychological, social and economic changes that occur in the aging process may cause a decrease in the level of physical activity. It is known that physical activity, which is protective against many chronic diseases, is necessary for healthy aging. In this context, approaches aiming to increase the level of physical activity are important for active and healthy aging. The aim of this study is to examine the effect of walking back training on functional capacity and physical activity level in older adults. Eight healthy older adults (3 men, 5 women) aged 65 and over participated in the study. Age, height, body weight and education level of the participants were questioned. Functional capacity was evaluated using the two-minute walking test before and after backward walking training, which was applied twice a week and lasted for 6 weeks, and physical activity level was evaluated using the Physical Activity Scale for the Elderly. In the face-to-face training, one session lasted approximately 45-60 minutes. After warming up and exercises aimed at strengthening the lower extremity muscles, five-minute backward walking sets were applied. Backward walking sets were applied as 2-3 sets in the number that the individual could tolerate in the first sessions, while the number of sets was increased as the sessions progressed and continued up to 6 sets. The mean age of the participants was 76.37 ± 4.34 years. While the two-minute walk test result before the training was 113.18 ± 44.35 m, it was 133.63 ± 51.24 m after the training. The increase in functional capacity after training was statistically significant ($p=0.025$). While the mean score of the Physical Activity Scale for the Elderly was 35.26 ± 42.95 point before the training, it was found to be 81.73 ± 42.03 point after the training. The increase in the level of physical activity after the training was statistically significant ($p=0.036$). The results of this study showed that backward walking training caused an increase in functional capacity and physical activity level in older adults. It may be beneficial to include backward walking training in the rehabilitation program when it is aimed to increase the functional capacity and physical activity level of healthy older adults.

Keywords: Physical activity, Functional capacity, Older adults, Backward walking

**KÜÇÜK VE ORTA BÜYÜKLÜKTE ROTATOR MANŞET YIRTIĞI SONRASI
YÜKSEK DÜZEY KINEZYOFOBİNİN BELİRLEYİCİLERİ**

DETERMINANTS OF HIGH-LEVEL OF KINESIOPHOBIA FOLLOWING SMALL AND
MEDIUM SIZED ROTATOR CUFF TEARS

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ÖZET

Küçük ve orta büyüklükte rotator manşet (RM) yırtıklarında (<3 cm), post-op ilk 6 hafta kısıtlanmalı pasif normal eklem hareketi (NEH) egzersizleri NEH' in erken restorasyonu için önerilmektedir. İlk 6 hafta içinde yapılan kısıtlanmalı egzersizler, anatomik iyileşmeyi ve uzun dönem fonksiyonel sonuçları olumlu etkilemektedir. Ancak yüksek düzey kinezyofobi, rehabilitatif süreçte önemli bir bariyer olarak ortaya çıkar. Kinezyofobinin, biyopsikososyal faktörleri kapsayan geniş bir perspektiften incelenmesi gerektiği ile ilgili fikir birliği vardır. Bu bağlamda çalışmamızın amacı RM yırtığını takiben yüksek düzey kinezyofobiye yol açan faktörleri incelemektir. Bu kesitsel çalışmaya <3 cm altında rotator manşet yırtığı sonrası artroskopik RM onarımı uygulanan, 18-65 yaş arası 42 katılımcı dahil edildi. Kinezyofobinin değerlendirilmesinde Tampa Kinezyofobi Ölçeği kullanıldı. Kol, Omuz ve El Sorunları Anketi, istirahat-aktivite-gece ağrısının değerlendirilmesinde Görsel Analog Skala, Ağrı Felaketleştirme Ölçeği, Hastane Anksiyete ve Depresyon Ölçeği, , komorbid faktör varlığı ve sosyodemografik karakteristikler sonuç ölçütleri olarak belirlendi. Çoklu Doğrusal Regresyon Analizi kullanıldı. İstatistiksel anlamlılık değeri $p<0,05$ olarak kabul edildi. Katılımcıların yaşları ortalaması $47,04\pm 11,69$ ve yüksek düzey kinezyofobi varlığı oranı %38,10' dur. Kinezyofobi ile disabilite ($r=0,532$; $p<0,001$), ağrı felaketleştirme durumu ($r=0,747$; $p<0,001$), anksiyete ($r=0,506$; $p=0,001$), depresyon ($r=0,747$; $p<0,001$) arasında istatistiksel olarak anlamlı düzeyde ilişki saptandı. Bu değişkenler içerisinde ağrı felaketleştirme durumunun ve depresyon varlığının %58.9 varyans ile yüksek düzey kinezyofobinin önemli belirleyicileri olduğu saptandı. Çalışmamızın bulguları, RM olan bireylerde ağrı felaketleştirme durumu ve depresyon varlığının kinezyofobi açısından önemli faktörler olduğunu ortaya koydu Ağrı felaketleştirme durumu ve depresyon arttıkça kinezyofobide de belirgin artma saptanmıştır.

Anahtar Kelimeler: Rotator Manşet, Omuz, Ağrılı Omuz, Kinezyofobi

ABSTRACT

Limited passive range of motion (ROM) exercises are recommended for early restoration of ROM for the first 6 weeks of post-op in small and medium-sized rotator cuff (RC) tears (<3 cm). Restricted exercises have a positive effect on anatomical recovery and long-term functional results. However, high-level of kinesiophobia emerges as an important barrier in the rehabilitative process. There is consensus that kinesiophobia should be investigated from a broad perspective that includes biopsychosocial factors. The aim of this study was to examine the factors that lead to high-level of kinesiophobia following RC tears. This cross-sectional study included 42 participants aged 18-65 years who underwent arthroscopic RC repair after a tear <3 cm. Tampa Scale of Kinesiophobia was used to evaluate kinesiophobia. The Disabilities of the Arm, Shoulder and Hand Questionnaire, Visual Analogue Scale for the evaluation of rest-activity-night pain, Pain Catastrophizing Scale, Hospital Anxiety and Depression Scale, presence of comorbid factors and sociodemographic characteristics were determined as outcome criterias. Stepwise multiple linear regression analysis was used. Statistical significance value was accepted as $p < 0.05$. The mean age of the participants was 47.04 ± 11.69 , and the rate of high-level kinesiophobia was 38.10%. There was a significant correlation between kinesiophobia and disability ($r=0.532$; $p < 0.001$), pain catastrophizing ($r=0.747$; $p < 0.001$), anxiety ($r=0.506$; $p=0.001$), and depression ($r=0.747$; $p < 0.001$). Among these variables, pain catastrophizing and presence of depression were found to be significant determinants of high-level kinesiophobia with 58.9% variance. The findings of our study revealed that pain catastrophizing and the presence of depression were important factors in terms of kinesiophobia in individuals with RC tear. As pain catastrophizing and depression increased, a significant increase was found in kinesiophobia.

Keywords: Rotator Cuff, Shoulder, Painful Shoulder, Kinesiophobia

KARDİYAK REHABİLİTASYON VE HEMŞİRELİK BAKIMI

CARDIAC REHABILITATION AND NURSING CARE

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ÖZET

Kardiyovasküler hastalıklar küresel çapta önde gelen ölüm nedenlerinden biridir. Bu hastalıklardan korunmak için risk faktörlerini kontrol altına alınmalıdır. Bu amaçla önleme ve kontrol programlarının kullanılması önemlidir. Kardiyak rehabilitasyondan koroner arter hastalığı, akut koroner sendrom, kalp yetersizliği, miyokart enfarktüsü, stabil angina pectoris, kalp damar cerrahi operasyonu geçiren hastalar faydalanabilir. Ayrıca obezite, diyabet, hipertansiyonu gibi kardiyovasküler hastalıklar açısından risk faktörü bulunan bireyler de kardiyak rehabilitasyondan yararlanabilir. Kardiyak rehabilitasyon da bu programlardan biridir. Kardiyak rehabilitasyon, kardiyovasküler hastalığı olan bireyleri fiziksel, psikolojik ve sosyal yönden destekleyerek yaşam kalitesini arttırmayı amaçlayan multidisipliner bir programdır. Kardiyak rehabilitasyon, bireyleri yeniden topluma kazandırır, morbidite ve mortaliteyi azaltır, yaşam kalitesini artırır, bireylerin kendi bakımlarına katılmasını sağlar. Bu yararlarına rağmen ülkemizde ve dünyada kullanımı yaygın değildir. Bunun sebeplerinden bazıları sağlık personelleri tarafından yeterince bilgi ve farkındalığın bulunmaması, kardiyak rehabilitasyona sevk az olması, personel eksikliği, hastaların bilgi eksikliğinde dolayı uyum sağlayamaması, motivasyon yetersizliği, ulaşım ve finansal kaynak zorluğu, yetersiz sağlık politikalarıdır. Multidisipliner ekibin tedavinin başarısında çok önemli bir yeri vardır. Bu ekipte kardiyolog, kalp damar cerrahı, fizyoterapist, hemşire, diyetisyen, psikolog, psikiyatrist, sosyal hizmet uzman bulunmaktadır. Hemşireler bu ekibin vazgeçilmez bir parçasını oluşturmaktadır. KR hemşiresinin eğitici, bakım verici, danışmanlık, koordinatörlük, hasta hakları savunuculuğu ve araştırmacı rollerini yerine getirmesiyle kardiyovasküler hastalığı olan bireylerin yaşam kaliteleri artacak, semptom yönetimi sağlanacak, tekrarlı hastane yatışları azalacaktır. Hemşire liderliğinde yapılan kardiyak rehabilitasyon programı çalışmalarında fiziksel durumu iyileştirdiği, sağlıklı yaşam tarzı değişikliklerini belirlemeye yardımcı olduğu, öz yeterliliği güçlendirdiği, hastalığa ve tedaviye uyumu arttırdığı, mortaliteyi azalttığı, iyileşme sürecini hızlandırdığı sonucuna ulaşılmıştır. Bu araştırma kardiyak rehabilitasyon ve kardiyak rehabilitasyona hemşirelik bakımının önemi konusunda farkındalık kazandırmak amaçlı hazırlanmıştır.

Anahtar kelimeler: Kardiyak rehabilitasyon, hemşirelik, kardiyovasküler hastalıklar.

ABSTRACT

Cardiovascular diseases are one of the leading causes of death globally. To prevent these diseases, risk factors should be controlled. For this purpose, it is important to use prevention

and control programs. Patients with coronary artery disease, acute coronary syndrome, heart failure, myocardial infarction, stable angina pectoris, and cardiovascular surgery can benefit from cardiac rehabilitation. In addition, individuals with risk factors for cardiovascular diseases such as obesity, diabetes and hypertension can also benefit from cardiac rehabilitation. Cardiac rehabilitation is one of these programs. Cardiac rehabilitation is a multidisciplinary program that aims to increase the quality of life by supporting individuals with cardiovascular disease physically, psychologically and socially. Cardiac rehabilitation reintegrates individuals into society, reduces morbidity and mortality, increases quality of life, and enables individuals to participate in their own care. Despite these benefits, its use is not common in our country and in the world. Some of the reasons for this are the lack of sufficient knowledge and awareness by the health personnel, the lack of referral to cardiac rehabilitation, the lack of personnel, the inability of the patients to adapt due to the lack of information, the lack of motivation, the difficulty of transportation and financial resources, and inadequate health policies. The multidisciplinary team has a very important place in the success of the treatment. This team includes a cardiologist, cardiovascular surgeon, physiotherapist, nurse, dietitian, psychologist, psychiatrist, and social worker. Nurses are an indispensable part of this team. The quality of life of individuals with cardiovascular disease will be increased, symptom management will be provided, and repeated hospitalizations will be reduced by fulfilling the roles of CR nurse as an educator, caregiver, consultant, coordinator, patient rights advocate and researcher. Nurse-led cardiac rehabilitation program studies have shown that it improves physical condition, helps identify healthy lifestyle changes, strengthens self-efficacy, increases adherence to disease and treatment, reduces mortality, and accelerates the recovery process. This research was prepared to raise awareness about the importance of nursing care in cardiac rehabilitation and cardiac rehabilitation.

Keywords: Cardiac rehabilitation, nursing, cardiovascular diseases.

**CERRAHİ SONRASI AĞRI VE HEMŞİRELİK YAKLAŞIMI: GELENEKSEL
DERLEME**

POST-SURGERY PAIN AND NURSING APPROACH: TRADITIONAL REVIEW

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ÖZET

Cerrahi sonrası ağrı, yapılan cerrahi girişim sonucunda yara yerinde lokal, humoral ve nöral olarak salınan kimyasal mediyatörlerin aktif hale gelmesi ile başlayan doku iyileşmesi ile sona eren, genellikle kısa süreli ve iyi lokalize olmuş bir akut ağrı türüdür. Cerrahi girişim sonrası kontrol altına alınamayan ağrı pek çok sistem üzerinde olumsuz etkiler yaratarak çeşitli komplikasyonlara neden olmakta ve hastanın iyileşmesini olumsuz yönde etkilemektedir. Bu nedenle ameliyat sonrası dönemde optimal ağrı kontrolünün sağlanması oldukça önemlidir. Cerrahi sonrası ağrısının kontrolü multidisipliner bir ekip anlayışı gerektirmektedir. Bu ekibin önemli bir üyesi olan hemşire, cerrahi girişim sonrası kaçınılmaz bir deneyim olan ağrının karmaşık doğası hakkında bilgiye sahip olmalıdır. Bu kapsamda derlemede cerrahi sonrası ağrı ve hemşirelik yaklaşımları ele alınmıştır.

Anahtar Kelimeler: Ağrı kontrolü, Cerrahi sonrası ağrı, Hemşire, Hemşirelik yaklaşımı

ABSTRACT

Post-surgical pain is a type of acute pain, usually short-term and well-localized, that begins with the activation of the local, humoral and neural release of chemical mediators at the

wound site as a result of surgical intervention and ends with tissue healing. Pain that cannot be controlled after surgical intervention creates negative effects on many systems, causing various complications and adversely affecting the recovery of the patient. For this reason, it is very important to provide optimal pain control in the postoperative period. Control of post-surgical pain requires a multidisciplinary team understanding. The nurse, who is an important member of this team, should have knowledge about the complex nature of post-surgical pain, which is an inevitable surgical experience. In this context, pain and nursing approaches are discussed in this review.

Keywords: Pain control, Post-surgical pain, Nurse, Nursing approach

**TÜRKİYE'DE AĞRININ YÖNETİMİNDE MÜZİK KULLANIMI İLE İLGİLİ
HEMŞİRELİK TEZLERİNİN İNCELENMESİ: SİSTEMATİK DERLEME
INVESTIGATION OF NURSING THESES ON THE USE OF MUSIC IN PAIN
MANAGEMENT IN TURKEY: A SYSTEMATIC REVIEW**

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ÖZET

Amaç: Bu çalışmanın amacı, Türkiye’de ağrının yönetiminde müzik kullanımını inceleyen hemşirelik alanında yapılmış lisansüstü tezleri incelemektir.

Gereç ve Yöntemler: Yükseköğretim Kurulu Ulusal Tez Merkezi Veri Tabanı “Music” OR “musicotherapy” OR “sing” OR “rhythm” OR “tempo” OR “Music therapy” OR music intervention” OR “listening to music” AND “Pain” anahtar kelimeleri ile taranmıştır. Çalışmaya 31 tez dâhil edilmiştir. Veri toplamada “Tez Değerlendirme Formu” kullanılmıştır.

Bulgular: Tezlerin %90,3’ünün son beş yılda, %70,9’unun yüksek lisans düzeyinde ve %77,4’ünün deneysel desende yapıldığı belirlenmiştir. Tezlerin cerrahi sonrası ağrıda (n=10), tanı ve tedavi yöntemlerine bağlı ağrıda (n=7), doğum ağrısında (n=1), mekanik ventilasyon desteği alan (n=8), yoğun bakım (n=2), palyatif bakım (n=1), hemodiyaliz (n=1) ve kanser (n=1) hastalarında müziğin etkisini değerlendirmek amacıyla yapıldığı belirlenmiştir.

Sonuç: Tezlerin tamamında müziğin ağrı üzerine olumlu etkileri olduğu belirlenmiştir. Türkiye’de ağrı kontrolünde müzik uygulamasını konu alan tezlerin son yıllarda artış gösterdiği ve müziğin ağrı yönetiminde etkili bir nonfarmakolojik yöntem olduğu belirlenmiştir.

Anahtar Kelimeler: Ağrı, hemşirelik, müzik terapi, tezler

ABSTRACT

Aim: This study aims to examine the postgraduate theses examining the use of music in the management of pain in the field of nursing in Turkey.

Material and Methods: The National Thesis Center Database of the Council of Higher Education was searched with the keywords “Music” OR “musicotherapy” OR “sing” OR “rhythm” OR “tempo” OR “Music therapy” OR music intervention” OR “listening to music” AND “Pain”. 31 theses were included in the study. “Thesis Evaluation Form” was used in data collection.

Results: It was determined that 70.9% of theses were at the master's level and 77.4% of them were in experimental design. It was determined that theses were made to evaluate the effect of music on postoperative pain (n=10), pain due to diagnosis and treatment methods (n=7), labor pain (n=1), patients with mechanical respiratory support (n=8), intensive care (n=2), palliative care (n=1), hemodialysis (n=1) and cancer (n=1) patients.

Conclusion: Music has been found to have positive effects on patients' pain in all theses. It has been determined that the theses on the application of music in pain control in Turkey have increased in recent years and that music is an effective non-pharmacological method in pain management.

Keywords: Music therapy, nursing, pain, theses

**SOLUNUM SİSTEMİ HASTALIKLARINDA PULMONER REHABİLİTASYON VE
HEMŞİRENİN ROLÜ**

PULMONARY REHABILITATION IN RESPIRATORY SYSTEM DISEASES AND THE
ROLE OF THE NURSE

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ÖZET

Solunum sistemi hastalıkları ortaya çıkardığı semptomlar nedeniyle tanı alan bireylerin yaşamlarındaki normal rutini büyük ölçüde kısıtlamakta ve değiştirmektedir. Bu semptomlardan özellikle dispne gibi bireylerin günlük yaşantısını aksatan ve hareketliliklerini azaltan şikayetler, fizyolojik etkilerinin yanında psikolojik ve sosyal boyutlarıyla da majör sorunlar ortaya çıkarmaktadır. Dolayısıyla ortaya çıkan bu sorunlar hasta bireylerin yanında aileyi ve sosyal çevreyi de içine almaktadır. Bu nedenle solunum sistemi hastalıklarıyla ilgili tanı almış bireylerin hastalığa uyumu, semptom kontrolü, bakım bağımlılıklarının en asgari seviyede tutularak öz-yeterliliklerinin güçlendirilmesi büyük önem taşımaktadır.

Solunum sistemi hastalıklarının semptomlarının günlük yaşama olan kritik etkilerinden ve kronik seyirli olmasından kaynaklı olarak standart tıbbi tedavinin yanında pulmoner rehabilitasyon etkili ve kanıta dayalı bir tedavi olarak kabul görmektedir. Bireyleri holistik bir yaklaşımla değerlendiren pulmoner rehabilitasyon; fiziksel ve psikolojik yönden iyiliklerini destekleyen ve sağlığı geliştirici davranışlar oluşturan bir modeldir. Bu yararları göz önüne alındığında pulmoner rehabilitasyonun solunum sistemi hastalıklarında hastalık sürecine uyumu, semptom yönetimini sağlamaya olan katkısı elzemdir. Pulmoner rehabilitasyonun bu olumlu çıktıları ise, hasta bireylerin yaşam kalitesinin artmasını sağlamakta ve öz yeterliliklerini desteklemektedir.

Pulmoner rehabilitasyon, multidisipliner bir ekibin yürüttüğü profesyonel bir tedavi yaklaşımıdır. Bu ekibin önemli bir parçasını ise hasta ile birebir ilişki için olan ve hastayı yakından takip eden hemşireler oluşturmaktadır. Hemşireler hastanın solunum problemlerini yönetmede, semptom kontrolü noktasında hastayı desteklemede ve anksiyetelerini azaltmada önemli görevler almaktadır. Pulmoner rehabilitasyonun en temel bileşeni olan egzersizlerin bireye özgü şekilde düzenlenmesi, içeriğinin her hastanın yaşam şekline göre bireyselleştirilmesi tedavi başarısının en önemli koşuludur. Bu aşamada hasta bireyi

değerlendirmede, çevresiyle birlikte ele alarak programı temellendirmede hemşirenin yaklaşımı oldukça elzemdir.

Bu çalışma solunum sistemi hastalıklarıyla ilgili tanı alan bireyler için pulmoner rehabilitasyon önemini ve hemşirenin buradaki rolünü ele almak amacıyla yapılmıştır. Pulmoner rehabilitasyon uzun süreli olarak devam ettirilmesi gereken bir tedavi yaklaşımı olması nedeniyle hospitalizasyon süreçleri sonrasında da devamı konusunda hemşirelerin takibi tedavinin etkililiğine büyük katkı sağlamaktadır.

Anahtar Kelimeler: pulmoner rehabilitasyon, hemşirelik, solunum sistemi

ABSTRACT

Respiratory system diseases greatly restrict and change the normal routine in the lives of individuals diagnosed due to the symptoms they cause. Among these symptoms, especially complaints such as dyspnea, which disrupts the daily life of individuals and reduces their mobility, cause major problems with their physiological and social dimensions as well as their physiological effects. Therefore, these emerging problems include the family and social environment as well as the sick individuals. For this reason, it is of great importance to boost the self-efficacy of patients diagnosed with respiratory system diseases by minimizing disease adaption, symptom control, and care dependency.

Due to the critical effects of the symptoms of respiratory system diseases on daily life and their chronic course, pulmonary rehabilitation is accepted as an effective and evidence-based treatment in addition to standard medical treatment. Pulmonary rehabilitation evaluates individuals with a holistic approach; It is a model that supports physical and psychological well-being and creates health-promoting behaviors. Considering these benefits, the contribution of pulmonary rehabilitation to compliance with the disease process and symptom management in respiratory system diseases is essential. These positive outcomes of pulmonary rehabilitation increase the quality of life of patients and support their self-efficacy. Pulmonary rehabilitation is a professional treatment approach conducted by a multidisciplinary team. An important part of this team is the nurses who have a one-to-one relationship with the patient and follow the patient closely. Nurses play an important role in managing the patient's respiratory problems, supporting the patient at the point of symptom control and reducing their anxiety. The most important condition for the success of the treatment is the arrangement of the exercises, which are the most basic components of pulmonary rehabilitation, individually and the individualization of the content according to

the lifestyle of each patient. At this stage, the nurse's approach is essential in evaluating the patient and basing the program by considering it together with its environment.

This study was conducted to address the importance of pulmonary rehabilitation for individuals diagnosed with respiratory system diseases and the role of the nurse here. Since pulmonary rehabilitation is a treatment approach that should be continued for a long time, the follow-up of nurses for its continuation after the hospitalization process greatly contributes to the effectiveness of the treatment.

Keywords: pulmonary rehabilitation, nursing, respiratory system

GEBELERİN FOLİK ASİT KULLANIMI HAKKINDAKİ BİLGİ DÜZEYLERİNİN DEĞERLENDİRİLMESİ

EVALUATION OF THE KNOWLEDGE LEVELS OF PREGNANT WOMEN ON FOLIC ACID USE

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ÖZET

Bu araştırmanın amacı, gebelerin folik asit kullanımı hakkındaki bilgi düzeylerini değerlendirmektir. Araştırma tanımlayıcı olarak Nasiriyah'da bulunan Bint Al-Huda Eğitim Hastanesi'de 1 Mayıs 2022-1 Eylül 2022 tarihleri arasında 150 gebe ile yürütülmüştür. Araştırmanın verileri, sosyo-demografik veriler, gebelerin üreme özellikleri ve folik asit kullanımı hakkında bilgi düzeylerini içeren 3 bölümden oluşan anket formu kullanılarak toplanmıştır. Anket, gebe kadınlarla yüz yüze görüşme tekniğiyle araştırmacı tarafından gerçekleştirilmiştir. Araştırmada gebelerin %36'sının ilköğretim mezunu, %80,7'sinin ev hanımı, %54,7'sinin gelir düzeyi orta seviyede, %73,3'ünün kentsel bölgede ikamet ettiği, %52'sinin primipar, %27,3'ünün gebelik döneminde 4 ve üzerinde hastane ziyareti olduğu belirlenmiştir. Kadınların %86'sı gebelik dönemi takiplerini sağlık ocağında yaptırmışlardır. Gebelerin %80,7'si önceki gebeliklerinde folik asit kullandığını ifade etmiştir. Gebelerin folik asit kullanımı hakkında bilgi kaynakları incelendiğinde %80'inin doktordan bilgi aldığı bulunurken %62,7'sinin folik asit içeren besin kaynakları hakkında bilgisi olmadığı görülmüştür. Ayrıca gebelerin folik asit kullanımı hakkındaki bilgi düzeyinin eğitim düzeyi, eş eğitim düzeyi, çocuk sayısı, meslek, eşin mesleği, gelir durumu, ikamet yeri, hastane ziyaret sayısı, obstetrik zorluklarla karşılaşma durumu, gravida, parite, kürtaj sayısı, evlilik yaşı, gebelik sayısına göre farklı olup olmadığı incelenmiştir. Kendisi ve eşleri memur ve yüksek öğretim mezunu olan, aylık geliri yeterli ve evlilik yaşı 20 üstü olan gebelerin folik asit kullanımı hakkında bilgi düzeylerinin diğerlerine göre yüksek olduğu bulunmuştur. Bununla birlikte, gebelerin folik asit kullanımı hakkındaki bilgi düzeyinin yaş, çocuk sayısı, obstetrik zorluklar, gravida, parite, kürtaj sayısı ve mevcut gebelik değişkenlerine göre anlamlı bir farklılık göstermediği tespit edilmiştir. Sonuç olarak araştırma bulgularına göre gebelerin folik asit kullanımı hakkında bilgiye sahip oldukları ve gerekli bilgiye daha çok doktorlardan ulaştıkları bulunmuştur. Bu sonuçlara göre, hemşirelerin prenatal dönemde gebelerin folik asit kullanımına ilişkin bilgi düzeylerini geliştirmeye yönelik kapsamlı eğitim ve danışmanlık programları geliştirmesi önerilmektedir.

Anahtar Kelimeler: Gebelik, Kadın, Folik Asit, Folik Asit Kullanımı

SUMMARY

This study aims to evaluate the level of knowledge of pregnant women about folic acid use. This research is of a descriptive type. The research was descriptively conducted with 150 pregnant women between 1 May 2022-1 September 2022 at the Bint Al-Huda Training Hospital in Nasiriyah. The study data were collected using a questionnaire consisting of 3 parts, including socio-demographic data, reproductive characteristics of pregnant women and their knowledge about folic acid use. The survey was conducted face-to-face with pregnant women by the researcher. In the study, 36% of the pregnant women are primary school graduates, 80.7% are housewives, 54.7% have a medium income level, 73.3% reside in the urban area, and 52% are primiparous. It was determined that 27.3 of them had 4 or more hospital visits during pregnancy. 86% of the women had their pregnancy follow-up done in the health centre. 80.7% of the pregnant women said they used folic acid in their previous pregnancies. When the sources of information about the use of folic acid by pregnant women were examined, it was seen that 80% of them got information from the doctor. In comparison, 62.7% had no information about the food sources containing folic acid. In addition, the level of knowledge of pregnant women about folic acid use, education level, spouse education level, number of children, occupation, spouse's occupation, income status, place of residence, number of hospital visits, encountering obstetric difficulties, gravida, parity, number of abortions, age of marriage. It was examined whether it differed according to the number of pregnancies. It has been found that the level of knowledge about folic acid use of pregnant women whose spouses and civil servants are graduates of higher education, who have sufficient monthly income, and whose marriage age is over 20 is higher than the others. However, it was determined that the knowledge level of pregnant women about folic acid use did not differ significantly according to age, number of children, obstetric difficulties, gravida, parity, number of abortions and current pregnancy variables. As a result, the research findings found that pregnant women had information about the use of folic acid, and they obtained the necessary information mostly from doctors. According to these results, it is recommended that nurses develop comprehensive training and counselling programs to improve the knowledge level of pregnant women about folic acid use in the prenatal period.

Key Words: Pregnancy, Women, Folic Acid, Folic Acid Awareness

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ÖZET

Dünyada kadın sağlığı sadece bireysel sağlık olarak değil; toplumu, çocuğu, aileyi de etkileyen geniş çaplı bir durum olarak nitelendirilmektedir. Yapılan çalışmalar kadınların erkeklere oranla daha uzun yaşam sürelerinin olduğu göstermektedir. Fakat bu uzun yaşam süresi her zaman sağlıklı ve mükemmel bir yaşam sürmeyi ifade etmemektedir. Kadınların uzun yaşam süresine bağlı olarak erkeklere kıyasla daha fazla hastalık riski ile karşı karşıya kaldığı bilinmektedir. Kadınların bu durum doğrultusunda, sağlığa ulaşım, sağlık bilgisine erişim ve sağlık hizmetlerinden yararlanması gibi durumlar bazı sebeplerden dolayı ihmal edilmekte ve önemsenmemektedir. Bunların başında diğer alanlarda da karşımıza çıkabilecek olan toplumsal cinsiyet eşitsizliği gelmektedir. Toplumsal cinsiyet eşitliğinin olmaması, ekonomik sıkıntılar ve kötü olan sağlık etmenleri bu durumun birinci sebeplerinden biridir. Kadınların bu yönden erkeklere göre sağlık hizmetlerinde geride kaldığı görülmektedir. Aynı zamanda alanyazın incelendiğinde obezite, göç ve kadına yönelik şiddet gibi durumların kadınların hem ruhsal hem de fiziksel açıdan sağlık koşullarını etkileyen faktörler arasında olduğu belirtilmektedir. Bu çalışmada; sağlığın tanımı, cinsiyetlere göre beklenen yaşam süresi, kadınlarda sık rastlanılan hastalıklar, obezite, göç, yoksulluğun, kadına şiddetin sağlık üzerindeki etkileri ve iyileştirici yolları ele alınmak istenmiştir. Araştırmada kadın ve sağlık konusu nitel araştırma yöntemlerinden olan literatür taraması şeklinde ele alınmıştır. Araştırmanın sonucunda, kadınların sağlık alanında erkeklerden daha geride kaldığı, toplumu etkileyen obezite ve göç faktörünün kadınların sağlığını da olumsuz anlamda etkilediği, yoksulluk faktörünün kadınları maddi anlamda kısıtlamasından dolayı sağlık hizmetlerine erişimini zorlaştırdığı ve kadına yönelik uygulanan fiziksel, cinsel, duygusal ve ekonomik şiddetin kadınların hem fiziksel hem de ruhsal sağlığına olumsuz şekilde yansıdığına ulaşılmıştır. Araştırma kadınların birçok alanda maruz kaldığı toplumsal cinsiyet eşitsizliğine, bundan dolayı yaşanan sosyal ve sağlık anlamında yaşanan problemlere dikkat çekmek ve kadın sağlığına yönelik yapılacak çalışmalara öneri sunması açısından önem taşımaktadır.

Anahtar Kelimeler: Kadın Sağlığı, Eğitim, Kadın Hastalıkları, Toplumsal Cinsiyet Eşitsizliği, Obezite.

ABSTRACT

Women's health is considered a comprehensive phenomenon that not only encompasses individual well-being but also profoundly impacts society, children, and families. Studies indicate that women tend to have longer life expectancies compared to men. However, this extended lifespan does not always imply a healthy and perfect life. It is known that women, due to their longer life expectancy, face a higher risk of diseases compared to men. In line with this situation, factors such as access to healthcare, health literacy, and utilization of health services for women are neglected and undervalued due to various reasons. One of the primary factors contributing to this issue, which can also be encountered in other domains, is gender inequality. The absence of gender equality, economic difficulties, and adverse health determinants are among the primary causes of this situation. It is observed that women fall behind men in terms of healthcare services in this regard. Furthermore, literature review reveals that factors such as obesity, migration, and violence against women are among the factors that affect women's health conditions both mentally and physically. This study aims to address the definition of health, life expectancies based on gender, common diseases prevalent in women, obesity, migration, the impact of poverty, and violence against women on health, as well as potential avenues for improvement. The research adopts a qualitative research method known as literature review to explore the topic of women and health. The research findings indicate that women fall behind men in the field of health, the societal factors of obesity and migration negatively impact women's health, the factor of poverty hinders women's access to healthcare services due to financial limitations, and the application of physical, sexual, emotional, and economic violence against women has adverse effects on both their physical and mental well-being. The research highlights the gender inequality that women face in multiple domains and draws attention to the social and health-related problems arising from this, emphasizing the significance of proposing recommendations for studies focused on women's health.

Keywords: Women's Health, Education, Women's Diseases, Gender Inequality, Obesity.

SU ÜRÜNLERİNİN FERMENTE ÜRÜNLERLE ENTEGRASYONUNUN
ARAŞTIRILMASI ERZURUM İLİ PALANDÖKEN ÖRNEĞİ
INVESTIGATION OF THE INTEGRATION OF SEAFOOD PRODUCTS WITH
FERMENTED PRODUCTS ERZURUM PROVINCE PALANDÖKEN EXAMPLE
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ÖZET

Günümüzdeki teknolojik gelişmeler ve sosyal sorumlulukları geniş ölçekte üretim yapılmasına olanak sağlayarak kültürel boyutta büyük değişimleri beraberinde getirmiştir. Modernizm ile birlikte günümüz kadın profilinin yeni ve pratik ürünlere olan ilgisi artmış ve reklamlar vasıtasıyla hazır gıda endüstrisinin gelişimi hız kazanmıştır. Zamanın etkin kullanılması prensibi ile mutfak kültürlerimizde ciddi değişimler yaşanarak, farklı kültürler arası etkileşimlerin de getirisi olarak ihtiyaca kısa sürede cevap veren alternatif ürünler Türk mutfağında yerini almaya başlamıştır. Türklerin zengin tarihi ve kültürü 10. ve 11. y.y'a dayanan ve dünyanın sayılı üç mutfağından birine sahip olduğu bilinmektedir.

Bu çalışmada geleneksel gıdalarımızdan biri olan tarhana hamuruna protein ve yağ asitleri bakımından zengin olan su ürünleri(balık filetosu) kurutulmuş entegre edilmiştir. Yapımı son derece pratik olan ve tüketiciler açısından özellikle de çocukların beslenmesinde oldukça yararlı, katkı maddesi içermeyen zengin içeriğiyle geleneksel bir çorba hazırlanmıştır. Bu amaçla Erzurum Palandöken ilçesi İlçe Tarım ve Orman Müdürlüğü personeli ile duyuşsal analiz çalışması yapılmıştır.

Elde edilen çorba tüketicilere tattırılarak duyuşsal analiz çalışması yapılacak ve satın alma istekleri incelenmiştir. Katılımcıların %77'si yeni bir ürün olan balıklı tarhanayı satın almak istedikleri, %33'ünün ise satın almak istemedikleri tespit edilmiştir. Genel olarak satın alma isteğinin fazla olduğu görülmüştür. Özellikle balık sevmeyenler için alternatif bir ürün olarak düşünülebilir.

Anahtar Kelimeler: Su Ürünleri, Balıklı Tarhana, Beslenme, Türk Mutfağı

ABSTRACT

Today's technological developments and social responsibilities have enabled production on a large scale and brought about major changes in the cultural dimension. With modernism, the interest of today's woman profile in new and practical products has increased and the development of the ready-to-eat food industry has accelerated through advertisements. With the principle of efficient use of time, serious changes have been experienced in our culinary cultures and alternative products that meet the needs in a short time have started to take their place in Turkish cuisine as a result of interactions between different cultures. It is known that Turks have a rich history and culture dating back to the 10th and 11th century and have one of the top three cuisines in the world.

In this study, seafood (fish fillet), which is rich in protein and fatty acids, was dried and integrated into tarhana dough, one of our traditional foods. A traditional soup, which is very practical to make and very useful for consumers, especially in the nutrition of children, has been prepared with its rich content without additives. For this purpose, a sensory analysis study was conducted with the personnel of Erzurum Palandöken District Directorate of Agriculture and Forestry.

The obtained soup was tasted by the consumers, sensory analysis was carried out and their willingness to purchase was examined. It was determined that 77% of the participants wanted to buy tarhana with fish, which is a new product, while 33% did not want to buy it. In general, it was observed that the willingness to purchase was high. It can be considered as an alternative product especially for those who do not like fish.

Keywords: Seafood, Tarhana with Fish, Nutrition, Turkish Cuisine

**BALIKLANDIRMA ÇALIŞMALARINDA ANAÇ BALIK STOKLARINDA
KARŞILAŞILAN HASTALIK PROBLEMLERİ VE ÇÖZÜMLERİ**

DISEASE PROBLEMS AND SOLUTIONS ENCOUNTERED IN BROODSTOCK FISH
STOCKS IN FISHERIES

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ÖZET

Dünyada ve ülkemizde su ve su kaynaklarının önemi oldukça önemlidir. Su kaynaklarının korunması ve temiz kalması ve su kaynaklarındaki canlı hayatın devamı için çalışmalar yapılmaktadır. Bu çalışmaların başında balıklandırma ve balık popülasyonunu dengede tutma amaçlanmaktadır. Balıklandırma çalışmaları, doğal su kaynaklarının ekosistemini desteklemek veya yenilemek amacıyla sucul ortamlara (nehirler, göller, akarsular, baraj göletleri, vs.) balık türlerini yeniden salma veya takviye ederek destekleme çalışmalarıdır. Balıklandırma genel olarak sucul ekosistemlerin korunması, devamının sağlanması ve sürdürülebilir kullanımı için önemli bir çalışma olarak kabul edilir. Balıklandırma ve popülasyonu korumak amacıyla yapılan çalışmalarda karşılaşılan en önemli sorun olarak balıklandırma çalışmalarında kullanılan anaç balık stoklarının hastalıklardan korunması ve sağlıklı bireylerin kullanılmasıdır. Anaç stoklarında karşılaşılabilecek en ufak hastalık belirtisi anaçlardan alınacak yumurta kalitesini ve yumurtalardan çıkacak larva miktarını ve sağlığını tehlikeye düşürecektir. Balıklandırma çalışmalarında kullanılan anaç balıkların stok kontrolleri düzenli bir şekilde yapılmalı ve kontrol edilmelidir. Stok yoğunluğuna bağlı ilk yaşanabilecek sıkıntı stres faktörü olacaktır ve buda anaç balıklarda bağışıklık sistemini zayıflatacak ve hastalıklara duyarlılığı artıracak bir faktör olacaktır. Anaç balıkların stok yoğunluğu nedeniyle stres faktörünün oluşması balıklarda yem alımının azalması ve bağışıklık sisteminin zayıflamasına sebep olmakla birlikte toplu ölümlere yol açabilir. Balıklandırma çalışmalarının devamı için anaç stokunun önemi oldukça fazladır. Anaç balıklarda stok yoğunluğuna bağlı olarak karşılaşılan bir başka sorun ise iç ve dış parazitlerdir. Anaç balıklarda iç ve dış parazitlerin görülmesi oldukça yaygındır. Parazitler, balıkların derisine, solungaçlarına veya iç organlarına yerleşerek sağlıklarını bozar. Sağlığı bozulan anaç balıklardan alınacak verimin düşeceği gibi ölümlere de yol açan bir sorun

olacaktır. Anaç balıklarının stok yoğunluğuna bağlı hastalıkların önlenmesi balıklandırma çalışmalarının birincil ilkesi olmalıdır.

Anahtar Kelimeler: Balıklandırma, Popülasyon, Anaç stok, Hastalık problemleri

ABSTRACT

The importance of water and water resources in the world and in our country is very important. Studies are carried out for the protection and cleanliness of water resources and the continuation of living life in water resources. At the beginning of these studies, it is aimed to keep the fish population in balance. Fishery studies are the studies of re-releasing or reinforcing fish species in aquatic environments (rivers, lakes, streams, dam ponds, etc.) in order to support or renew the ecosystem of natural water resources. Fishing is generally accepted as an important work for the protection, maintenance and sustainable use of aquatic ecosystems. The most important problem encountered in fisheries and population conservation studies is the protection of broodstock fish stocks used in fisheries from diseases and the use of healthy individuals. The slightest sign of disease in the broodstock will jeopardise the quality of eggs to be taken from the broodstock and the quantity and health of the larvae to be hatched from the eggs. Stock controls of the broodstock fish used in fishery studies should be carried out and controlled regularly. The first problem that may be experienced due to stock density will be the stress factor and this will be a factor that will weaken the immune system in broodstock fish and increase susceptibility to diseases. The occurrence of the stress factor due to the stock density of the broodstock fish may lead to mass mortality as well as decreased feed intake and weakening of the immune system in the fish. The importance of broodstock stock is quite high for the continuation of fishery activities. Another problem encountered in broodstock fish due to stock density is internal and external parasites. It is quite common to see internal and external parasites in broodstock fish. Parasites settle on the skin, gills or internal organs of the fish and spoil their health. The yield to be obtained from broodstock fish with deteriorated health will decrease and it will be a problem that leads to deaths. Prevention of diseases related to the stock density of broodstock fish should be the primary principle of fishery studies.

Keywords: Fishery, Population, Broodstock, Disease problems

**TÜRKİYE TATLI SULARDA BALIKLANDIRMA ÇALIŞMALARINDA
KARIŞILAŞILAN PROBLEMLER VE ÇÖZÜM YOLLARI**

PROBLEMS AND SOLUTIONS ENCOUNTERED IN FRESHWATER FISHERIES IN
TURKEY

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ÖZET

Türkiye'de tatlı sularında balıklandırma çalışmaları ve amaçları, su kaynaklarının sürdürülebilirliği ve balık popülasyonlarının artırılması amacı üzerine gerçekleştirilmektedir. Fakat bazı sorunlar, sıkıntılar ve problemler çalışmalar sırasında ortaya çıkabilir. Türkiye tatlı sularında yapılan balıklandırma ve balık popülasyonunu dengede tutma ve çoğaltma çalışmalarında karşılaşılan yaygın problemler ve olası çözüm yollarını özetlemek gerekirse su kirliliği ve yabancı tür istilası bunların başında yer alır. Tatlı su kaynaklarındaki kirlilik, canlıların tatlı sularda yaşaması ve üremelerini olumsuz etkileyeceği gibi tatlı suların balıklandırma projelerinin başarılı bir şekilde yapılmasını da olumsuz etkileyebilir. Su kirliliği, tatlı sularda yaşayan balıkların sağlığını tehdit ettiği gibi popülasyonlarının azalmasına hatta bitmesine de neden olabilir. Su kaynaklarının kirliliğinin önüne geçmek amacıyla ön görülen çözüm yolları arasında su kaynaklarının kirlilik aşamalarına karşı önlemler alınarak korunması, bunun yanında atık su arıtma tesislerinin kurulması ve su kalitesinin düzenli olarak izlenerek gerekli ölçümlerin yapılmasıyla çözüme ulaşılabilir. Ülkemizde balıklandırma çalışması yapan yedi istasyon bulunmaktadır. Bu istasyonda üretilen farklı türdeki balıklar çoğaltılarak göllere ve akarsulara bırakılır. Yapılan üretim sonrası larvalar belli bir boya gelene kadar toprak havuzlar ya da beton havuzlarda beslenme yapılır bu beslenme döneminde en çok rastlanılan sorunlardan birisi ise balıkçıl kuşlardır. Balıkla beslenen bu kuşlar sürüler halinde havuzlarda beslenmelerini devam ettirirler. Bunun önlemine almak içinde kuş koruma ağlarıyla havuzların üzeri kapatılarak önlenir. Bazı durumlarda ise balıklandırma çalışmaları sırasında yanlış türlerin su kaynaklarına salınması sonucunda yabancı türlerin istilası meydana gelebilir. Yabancı türler ve istilacı türler yerel ekosistemde bulunan canlılara zarar verebilir, yerli balık türlerinin popülasyonlarını azaltabilir ve doğal dengeyi bozabilir. Çözüm olarak, balıklandırma projelerinde yerli türlerin tercih edilmesi ve yabancı türlerin kontrol altında tutulması için sıkı denetimlerin uygulanması önemlidir.

Anahtar Kelimeler: tatlı su, popülasyon, balıklandırma

ABSTRACT

Fishery studies and objectives in fresh waters in Turkey are carried out with the aim of sustainability of water resources and increasing fish populations. However, some problems, difficulties and problems may arise during the studies. If it is necessary to summarise the common problems and possible solutions encountered in fisheries and fish population stabilisation and reproduction studies in fresh waters of Turkey, water pollution and alien species invasion are among the most important ones. Pollution in freshwater resources may adversely affect the survival and reproduction of living organisms in freshwater and may also adversely affect the successful implementation of freshwater fishery projects. Water pollution threatens the health of fish living in fresh waters and may cause a decrease or even extinction of their populations. In order to prevent the pollution of water resources, solutions can be found by taking precautions against the pollution stages of water resources, as well as the establishment of wastewater treatment plants and regular monitoring of water quality and making the necessary measurements. In our country, there are seven stations carrying out fish farming activities. Fish of different species produced at these stations are reproduced and released into lakes and rivers. After the production, the larvae are fed in earthen ponds or concrete ponds until they reach a certain size, and one of the most common problems encountered during this feeding period is heron birds. These fish-feeding birds continue to feed in flocks in the pools. This is prevented by covering the ponds with bird protection nets. In some cases, invasion of alien species may occur as a result of the release of wrong species into water resources during fisheries. Alien species and invasive species can harm living organisms in the local ecosystem, reduce the populations of native fish species and disrupt the natural balance. As a solution, it is important to favour native species in fishery projects and to implement strict controls to keep alien species under control.

Keywords: freshwater, population, fishery

ANTİK ÇAĞLARDA SU ÜRÜNLERİ GASTRONOMİSİ
SEAFOOD GASTRONOMY IN THE ANCIENT WORLD

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Özet:

Antik çağlarda su ürünleri, medeniyetlerin temel beslenme kaynaklarından biri olmuştur. Balıkçılık ve avcılık yöntemleriyle denizler, nehirler ve göllerde zengin su ürünleri avlanmıştır. Bu özel alan çalışması, antik çağlarda su ürünleri gastronomisinin önemli yönlerini ve etkilerini incelemektedir. Roma İmparatorluğu ve Antik Yunan'da deniz ürünleri, özellikle balıklar, midyeler, yengeçler ve istiridyeler sıkça tüketilmiştir. Ayrıca, Mısır'da Nil Nehri'nin sunduğu balık, nil kuşu ve nil kaplumbağası gibi su ürünleri de önemli bir besin kaynağı olarak öne çıkmıştır. Su ürünleri tüketiminin sağlık ve ekonomi üzerinde önemli etkileri olmuştur. Besleyici değeri yüksek olan balıklar, insanların beslenme ihtiyaçlarını karşılamının yanı sıra, ticaretle de kritik bir rol oynamıştır. Balıkçılık, denizcilik ve su ürünleri ticareti, bazı bölgelerde önemli bir endüstri oluşturmuş ve sosyal hayatın önemli bir parçasını oluşturmuştur. Antik çağ toplumları için su ürünleri, mitolojik ve kültürel inançlarla da ilişkilendirilmiştir. Sanat, ritüeller ve dini etkinliklerde bu ürünlere sıkça yer verilmiştir. Su ürünleri pişirme yöntemleri ve tarifleri de antik dönemlerde zengin bir çeşitlilik göstermiştir. Bu derleme, antik çağlarda su ürünleri gastronomisinin, beslenme alışkanlıkları, ekonomi ve kültürel miras üzerindeki etkilerini vurgulamaktadır. Günümüzde bile bazı geleneksel su ürünleri lezzetleri ve pişirme yöntemleri, hala bazı kültürlerde yaşatılmaktadır. Antik çağlardan gelen bu değerli miras, modern gastronomiye olan etkileri ve günümüzde hala önemini koruyan lezzetleriyle dikkate değerdir.

Anahtar kelimeler: Antik çağ, balıkçılık, deniz ürünleri, Roma İmparatorluğu, Antik Yunan, Mısır, gastronomi, tarihî beslenme, kültürel miras.

ABSTRACT

In the ancient world, aquatic products played a significant role as a fundamental food source for civilizations. Fishing and hunting methods were employed to harvest rich aquatic resources from seas, rivers, and lakes. This focused study explores the essential aspects and

impacts of aquatic gastronomy in the ancient world. During the Roman Empire and Ancient Greece, seafood, especially fish, mussels, crabs, and oysters, was commonly consumed. Moreover, in Egypt, fish, Nile birds, and Nile turtles provided essential nutrition as well. The consumption of aquatic products had profound effects on health and the economy. Fish, with their high nutritional value, not only satisfied dietary needs but also played a critical role in trade. Fishing, maritime activities, and aquatic product trade became significant industries in certain regions, shaping social life. Aquatic products were also connected to mythological and cultural beliefs in ancient societies, influencing art, rituals, and religious events. Cooking methods and recipes for aquatic products showcased great diversity during ancient times. This review highlights the impact of aquatic gastronomy in ancient times on dietary habits, the economy, and cultural heritage. Even today, some traditional aquatic delicacies and cooking techniques are preserved in certain cultures. The valuable heritage from ancient times continues to leave its mark on modern gastronomy, with enduring flavors still appreciated to this day.

Keywords: Ancient world, fishing, seafood, Roman Empire, Ancient Greece, Egypt, gastronomy, historical nutrition, cultural heritage.

ANTİKÇAĞLARDAN GÜNÜMÜZE SU ÜRÜNLERİ YETİŞTİRİCİLİK TARİHİ

HISTORY OF AQUACULTURE FROM ANTIC AGES TO THE PRESENT

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ÖZET

Su ürünleri yetiştiriciliğinin tarihi, eski uygarlıkların beslenmek için su kaynaklarında bulunan doğal balıklara ve suda yaşayan organizmalara güvendiği binlerce yıl öncesine dayanmaktadır. Bununla birlikte, aşırı avlanma ve geleneksel balıkçılık uygulamalarının sürdürülebilirliği ile ilgili artan endişeler, alternatif bir çözüm olarak su ürünleri yetiştiriciliğinin ortaya çıkmasına neden olmuştur. Tarihsel olarak, su ürünleri yetiştiriciliğinin kökenleri, balıkların inşa edilmiş havuzlarda yetiştirildiği ve su ürünleri yetiştiriciliği uygulamasının şekillenmeye başladığı MÖ 2500 yıllarında Çin'e kadar uzanabilir. Benzer şekilde Mısır ve Roma gibi uygarlıklar da su ürünleri yetiştiriciliği faaliyetlerinde bulunmuştur. Orta Çağ boyunca, Avrupa'daki manastırlar balık havuzları kurarak su ürünleri yetiştiriciliğinin yaygınlaşmasına katkıda bulunmuştur. Bununla birlikte, su ürünleri yetiştiriciliği yöntem ve teknikleri, uzun bir süre boyunca kademeli olarak gelişme göstermiştir. 19. yüzyılda modern su ürünleri yetiştiriciliği, bilimsel araştırmaları balık stoklarını yönetme ve üretimi artırma hedefiyle birleştirerek gelişti. Japonya ve Norveç, 20. yüzyılın başlarında su ürünleri yetiştiriciliğinde öncü ülkeler olarak ortaya çıktı. Bugün, su ürünleri yetiştiriciliği önemli bir küresel endüstri haline geldi. Balık, karides, midye ve diğer suda yaşayan organizmaların yetiştirilmesi, küresel gıda güvenliği ve ekonomik kalkınmada çok önemli bir rol oynamaktadır. Teknolojideki gelişmeler, devam eden araştırmalar ve sürdürülebilirlik çabaları, su ürünleri sektörünün büyümesini ve gelişmesini sağlamaya devam ediyor. Bu inceleme, su ürünleri yetiştiriciliğinin tarihsel gelişimine genel bir bakış sunarak, eski uygulamalardan sürdürülebilir bir gıda üretim yöntemi olarak günümüzün önemine kadar olan evrimini vurgulamaktadır.

Anahtar Kelimeler: Akuakültür, Antik çağlar, Üretim, Mısır, Çin

ABSTRACT

The history of aquaculture dates back thousands of years, with ancient civilizations relying on natural fish and aquatic organisms found in water sources for sustenance. However, growing concerns about overfishing and the sustainability of traditional fishing practices prompted the emergence of aquaculture as an alternative solution. Historically, the origins of aquaculture can be traced back to China around 2500 BCE, where fish were raised in constructed ponds and the practice of aquaculture began to take shape. Similarly, civilizations like Egypt and Rome also engaged in aquaculture activities. During the Middle Ages, monasteries in Europe established fish ponds, contributing to the widespread practice of aquaculture. However, aquaculture methods and techniques underwent gradual development over an extended period. In the 19th century, modern aquaculture evolved by combining scientific research with the goal of managing fish stocks and increasing production. Japan and Norway emerged as pioneering countries in aquaculture during the early 20th century. Today, aquaculture has become a significant global industry. The cultivation of fish, shrimp, mussels, and other aquatic organisms plays a crucial role in global food security and economic development. Advancements in technology, ongoing research, and sustainability efforts continue to drive the growth and improvement of the aquaculture sector. This review provides an overview of the historical progression of aquaculture, highlighting its evolution from ancient practices to its modern-day importance as a sustainable food production method.

Keywords: Aquaculture, Antiquity, Production, Egypt, China

SÜRDÜRÜLEBİLİR TARIM İÇİN İYİ TARIM UYGULAMALARI
GOOD AGRICULTURAL PRACTICES FOR SUSTAINABLE AGRICULTURE

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ÖZET

Dünya nüfusu rahatsız edici bir hızla artarken, çığ gibi büyüyen bu insan nüfusuna yetecek gıda ürünlerini temin etmek, dünyanın dört bir yanındaki tarım bilimcilerini ve devlet yetkililerini telaşlandıracak kadar rahatsız ediyor. Bugünün nüfusu, gelecek nesli besleyecek gıda ve temiz bir ekolojiye sahip olma hakkını tehlikeye atabilecek şekilde doğal kaynakları kirletiyor. Bu yanlış üretim yöntemlerinin kullanılma nedenleri sıralanabilir ve listelenebilir, ancak bunun asıl sebepleri sürdürülebilirlik için yeni yaklaşımların ve uygulamaların eksikliği olarak seçilebilir. Bu bağlamda, sürdürülebilir tarım yöntemlerindeki yeni ve güncel uygulamalar, uzun süre gıda güvenliği sorununu çözmek ve bunu yaparken ekolojik dengeyi korumak için tarımsal üretimin her aşamasında benimsenmeli ve uygulanmalıdır.

Sürdürülebilir tarım, doğal çevreyi çiftçilerin, çalışanlarının ve yerel toplulukların sosyal ve ekonomik koşullarını koruyan ve iyileştiren ayrıca toplum sağlığını ve refahını koruyacak şekilde güvenli ve yüksek kaliteli tarımsal ürünün verimli üretimi olarak ifade edilir. Bu nokta günümüzde sürdürülebilirlik anlayışı içinde organik tarım uygulamaları ve iyi tarım uygulamalarına yönelme ihtiyacı doğdu. Organik tarım tamamen doğal yöntemlerle, sanayi bölgelerinden uzak, kimyasal ilaç, suni gübre ve hormon kullanılmadan yapılan bir tarım yöntemidir. Ülkemizde yıllardır uygulanan bu tarım yöntemi, zamanla nüfusun hızla artması, sanayileşme ve şehirleşme ile üretimden tüketime geçme, ayrıca organik tarımın katı kurallarının yeterliliğini ve geçerliliğini yitirmesi nedeniyle iyi tarım uygulamasını gündeme getirdi. Bu durum çiftçileri sürdürülebilir tarımın bir diğer ayağı olan iyi tarım uygulamalarına yöneltmiştir. Bu uygulamada ise tıpkı konvansiyonel tarım gibi suni gübreleme ve kimyasal ilaç kullanımlarına izin verilir, ancak tüm bu işlemlerin, insan sağlığına ve çevreye zararı dokunmayacak şekilde yapılmasına müsaade edilir.

Bu bağlamda tarımsal üretimde verimliliğin korunması, bunu yaparken de doğal çevreyi olumsuz etkileyecek zararları minimize ederek, ülke ekonomisine uzun süre katkı sağlaması ve üretimin temelini oluşturan çiftçilerin hayat standartlarını yükseltmesi nedeni ile iyi tarım uygulamaları dünyada büyük ilgi görmektedir.

Anahtar Kelimeler: Sürdürülebilir Tarım, İyi Tarım, Organik Tarım

ABSTRACT

As the world's population grows at an alarming rate, providing enough food products to feed this avalanche of human population is worrying agronomists and government officials around the world. Today's population is polluting natural resources in ways that can jeopardize the right to food and a clean ecology for future generations. The reasons for using these wrong production methods can be listed and listed, but the main reasons for this can be chosen as the lack of new approaches and practices for sustainability. In this context, new and current applications in sustainable farming methods should be adopted and applied at every stage of agricultural production in order to solve the problem of food security for a long time and to protect the ecological balance while doing this.

Sustainable agriculture is defined as the efficient production of safe and high quality agricultural produce in a way that preserves and improves the natural environment, the social and economic conditions of farmers, their workers and local communities, as well as protecting the health and well-being of the community. At this point, the need to turn to organic farming practices and good agricultural practices has arisen within the understanding of sustainability. Organic farming is an agricultural method that is made with completely natural methods, far from industrial areas, without the use of chemical pesticides, artificial fertilizers and hormones. This farming method, which has been used in our country for years, has brought good agricultural practice to the agenda due to the rapid increase in population over time, the transition from production to consumption with industrialization and urbanization, as well as the loss of the adequacy and validity of the strict rules of organic agriculture. This situation has led farmers to good agricultural practices, which is another pillar of sustainable agriculture. In this application, just like conventional agriculture, the use of artificial fertilization and chemical pesticides is allowed, but all these processes are allowed to be carried out in a way that does not harm human health and the environment.

In this context, good agricultural practices attract great attention in the world because of the protection of productivity in agricultural production, while minimizing the damages that will negatively affect the natural environment, contributing to the country's economy for a long time and raising the living standards of the farmers, which form the basis of production.

Keywords: Sustainable Agriculture, Good Agricultural Practices, Organic Agriculture

**TUZLU VE TUZLU-SODİK TOPRAKLARDA BİTKİSEL ISLAH ÜZERİNE BİR
ARAŞTIRMA**

A STUDY ON HERBAL RECLAMATION IN SALT AND SALT-SODIC SOILS

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ÖZET

Dünya nüfusunun artmasıyla toprakların yanlış kullanımı sonucu verimsizleşmesi, yapısının bozulması ve üreticinin kar oranının azalması gibi problemler toprağın fiziksel, kimyasal ve biyolojik yapısının korunmasına önem verilmesi gerektiğini bizlere göstermektedir. Kuraklığın tehdit ettiği dünyamızda önemli bir sorun olan tuzluluk problemine çözüm için pahalı kimyasal ıslah materyallerine alternatif olarak tuz toleransı yüksek bitkiler tercih edilebilir. Bu çalışmada, bitkisel ıslah materyallerinden biri olan deniz börülcesi kullanılarak tuzluluk problemi olan toprakların ıslah edilebilme olanakları ve bitki gelişimi incelenmiştir. Harran Ovası'ndan alınmış olan tuzlu ve tuzlu-sodik değerlere sahip olan iki farklı problemlili toprak kullanılmıştır. Deniz börülcesi (*Salicornia europaea*) tohumları 4 tekerrürlü olarak iki farklı toprağa ekilmiştir. Her topraktan da ayrıca bitki ekilmemiş 3'er kontrol grubu oluşturulmuştur. Deniz börülcesinin gelişim süresince her iki toprakta da potansiyel toprak ıslah etkileri ve bitki gelişimi 3 aylık süre sonunda incelenmiştir. Sonuçlara göre, deniz börülcesinin, tuzlu-sodik toprağın EC_e değerini 8.07 dS m^{-1} den 1.87 dS m^{-1} 'ye, tuzlu toprakta ise 4.31 dS m^{-1} 'den 1.59 dS m^{-1} 'ye düşürdüğü gözlemlendi. Bitkinin topraktan kaldırdığı tuz miktarına bakıldığında, tuzlu-sodik topraktan 71.57 kg/da^{-1} tuz kaldırırken, tuzlu topraktan ise 56.52 kg/da^{-1} tuz kaldırmıştır. Ayrıca deniz börülcesi, sodikliğin ifadesi olan SAR değerini de 31.03 'ten 20.82 'ye düşürdüğü gözlemlenmiştir. Bitkinin üst aksam gelişimine dair elde edilen sonuçlar göstermiştir ki, tuzlu toprakta bitki boyu ortalama 12.33 cm iken kireçli tuzlu-sodik toprakta 9.0 cm dir ve bu değerler istatistiki olarak anlamlıdır ($p < 0.05$). Bitki kuru ağırlık değerlerine bakıldığında tuzlu toprakta $5.83 \text{ g saksı}^{-1}$ olurken tuzlu-sodik toprakta $4.88 \text{ g saksı}^{-1}$ olarak belirlenmiş ve değerler istatistiksel olarak anlamlı bulunmamıştır.

Anahtar Kelimeler: Tuzluluk, Halofit bitkiler, Fitoremediasyon, Toprak ıslahı

ABSTRACT

Problems such as the increase in the world population, the infertility of the soil as a result of misuse, the deterioration of its structure and the decrease in the profit rate of the producer show us that the protection of the physical, chemical and biological structure of the soil should be given importance. In order to solve the salinity problem, which is an important problem in our world threatened by drought, plants with high salt tolerance can be preferred as an alternative to expensive chemical breeding materials. In this study, improvement possibilities of soils with salinity problems and plant growth were investigated by using sea cowpea, which is one of the plant breeding materials. Two different problematic soils with saline and saline-sodic values taken from the Harran Plain were used. Sea cowpea (*Salicornia euro-paea*) seeds were sown in two different soils with 4 replications. Also, 3 control groups were formed from each soil without planting. Potential soil improvement effects and plant growth in both soils during the development period of sea cowpea were investigated after 3 months. According to the results, it was observed that sea cowpea reduced the EC_e value from 8.07 dS m⁻¹ to 1.87 dS m⁻¹ in salty-sodic soil, and from 4.31 dS m⁻¹ to 1.59 dS m⁻¹ in salty soil. Considering the amount of salt removed by the plant from the soil, it has removed 71.57 kg/da⁻¹ salt from saline-sodic soil and 56.52 kg/da⁻¹ salt from saline soil. In addition, it was observed that sea cowpea decreased the SAR value, which is the expression of sodicity, from 31.03 to 20.82. The results of the upper part development of the plant showed that while the average plant height was 12.33 cm in salty soil, it was 9.0 cm in calcareous salty-sodic soil, and these values were statistically significant (p< 0.05). Considering the dry weight values of the plant, it was determined as 5.83 g pot⁻¹ in saline soil and 4.88 g pot⁻¹ in salty-sodic soil and the values were not found statistically significant.

Keywords: Salinity, Halophyte plants, Phytoremediation, Soil reclamation

INVESTIGATION OF FORMONONETIN EFFECTS ON HUMAN CARBONIC ANHYDRASE ISOENZYMES (hCA I AND II) *

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ABSTRACT

At the beginning of the study, hCA I and II isoenzymes were purified from human erythrocytes by Sepharose-4B-L-Tyrosine affinity column chromatography. SDS-PAGE was performed to see a single band for each isoenzyme. This process was done to determine the purity of the enzyme. Then, the in vitro effects of Formononetin containing coumarine derivatives on human erythrocyte carbonic anhydrase isoenzymes I and II (hCA I and II) were investigated. Then, the inhibition effects of the coumarine derivative Formononetin on hCA I and II isoenzymes were determined and IC_{50} and K_i values were calculated. In our study, the IC_{50} values for hCA I and hCA II isoenzymes were found to be 405.97 μ M and 351.78 μ M, respectively. However, the K_i values for hCA I and hCA II isoenzymes were 157.15 μ M and 36.20 μ M, respectively. Acetazolamide was used as a standard for both CA isoenzymes.

Keywords: Formononetin, Enzyme Purification, Enzyme Inhibition, Carbonic Anhydrase

*This study was produced from the first author's PhD thesis under the supervision of the second author.

**KAN PIHTILAŞMA SÜRESİNİN BELİRLENMESİ İÇİN QCM TABANLI BİYOSENSÖR
CİHAZ TASARIMI**

QCM-BASED BIOSENSOR DEVICE DESIGN FOR DETERMINATION OF BLOOD
COAGULATION TIME

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ÖZET

Kuvars kristal mikro terazi (QCM) biyosensörleri, son yirmi yılda biyomoleküllerin gerçek zamanlı ve hızlı tespiti için umut verici araçlardır. Biyosensörlere dayalı hızlı, kullanımı kolay ve ucuz bir biyobelirteç algılama teknolojisi geliştirilmiştir. Bu inceleme, hastalık izleme ve teşhis sonuçları için biyobelirteçlerin nicelleştirilmesi için moleküler baskıya dayalı kuvars kristal mikro terazi biyosensörlerindeki güncel uygulamaları sunar. QCM, erken ve doğru klinik tanıya iyileştirme sağlayan ve hastalık tedavi sürecini kolaylaştırabilen, kısa tespit süresine sahip, güvenilir, düşük maliyetli ve hassas bir biyoalgılama aracıdır. Bu nedenle kanda, idrarda, tükürükte vb. hastalıkla ilgili biyobelirteçlerin saptanması ve nicelenmesi çok önemli bir rol oynar. Daha önce gerçekleştirilen çalışmalarla fibrin oluşumu yerinde ve elektrot yüzeyinde gerçek zamanlı olarak tespit edilmiş ve QCM biyosensörünün yüzey kaynaklı kan pıhtılaşmasının belirlenmesi için çok faydalı bir alternatif olduğu ortaya çıkmıştır. QCM frekans kaymaları, başlangıç zamanı ve fibrin birikim hızı gibi genel pıhtılaşma kinetiği hakkında bilgi verir. Klasik QCM tekniği daha önce fibrinojen konsantrasyonunu, kan pıhtılaşma faktörlerinin aktivitesini ve pıhtılaşma süresini belirlemek için kullanılmıştır. Bu tez çalışmasında kan pıhtılaşmasında rol alan fibrinojenin yüksek hassasiyette tespiti için bir QCM biyosensörü tasarımı amaçlanmıştır. Klinik plazma örneklerinde fibrinojen ve pıhtılaşma FVIII konsantrasyonlarını saptamak için laboratuvarda tasarlanan ve üretilen QCM biyosensörünü kullanmak temel hedeftir. Kan pıhtılaşmasında görev alan fibrinojenin kütle artımıyla birlikte QCM biyosensörünün frekans aralığındaki değişimini saptamak ve belirli bir metot geliştirerek bunu mikroakışkan bir sistem haline getirmek amaçlanmıştır. Bu amaç doğrultusunda tez kapsamında kan pıhtılaşmasında rol alan fibrinojenin yüksek hassasiyette tespiti için bir QCM biyosensörü tasarımı klinik plazma örneklerinde fibrinojen ve pıhtılaşma FVIII konsantrasyonlarını saptamak için laboratuvarda tasarlanmıştır. Yansıra tasarlanan sistem için uygun kan hacimleri 1 uL olarak belirlenmiş ve standartlar ortaya konulmuştur. İlk aşama olarak kullanımı olumlu gözükse bile gerekli laboratuvar testlerinin gerçekleştirilmesi zorunlu olmalıdır.

Anahtar Sözcükler: Biyosensör, Kütle Hassas Sensör, Kuvars Mikro Terazi (QCM), Fibrinojen

ABSTRACT

Quartz crystal microbalance (QCM) biosensors have been promising tools for real-time and rapid detection of biomolecules over the past two decades. A fast, easy to use and inexpensive biomarker detection technology based on biosensors has been developed. This review presents current applications in molecular print-based quartz crystal microbalance biosensors for quantification of biomarkers for disease monitoring and diagnostic outcomes. QCM is a reliable, low-cost and sensitive biodetection tool with short detection time, which can improve early and accurate clinical diagnosis and facilitate the disease treatment process. Therefore, detection and quantification of disease-related biomarkers in blood, urine, saliva, etc. play a very important role. Previous studies have detected fibrin formation in situ and on the electrode surface in real time, and the QCM biosensor has proven to be a very useful alternative for the detection of surface-induced blood coagulation. QCM provides information on general coagulation kinetics, such as frequency shifts, onset time, and fibrin deposition rate. The classical QCM technique has previously been used to determine fibrinogen concentration, activity of blood coagulation factors, and coagulation time. In this thesis, it is aimed to design a QCM biosensor for high sensitivity detection of fibrinogen, which is involved in blood coagulation. The primary goal is to use the lab-designed and manufactured QCM biosensor to detect fibrinogen and coagulation FVIII concentrations in clinical plasma samples. It is aimed to determine the change in the frequency range of the QCM biosensor with the increase in mass of fibrinogen, which is involved in blood coagulation, and to make it a microfluidic system by developing a specific method. For this purpose, within the scope of the thesis, a QCM biosensor design for high sensitivity detection of fibrinogen involved in blood coagulation was designed in the laboratory to detect fibrinogen and coagulation FVIII concentrations in clinical plasma samples. In addition, suitable blood volumes for the designed system were determined as 1 μ L and standards were set. Although the QCM biosensor has not yet been deployed in clinical use, it can be seen as a step forward. Considering the results of the thesis experiments, it should be mandatory to perform the necessary laboratory tests, even if its use as a first step seems positive.

Keywords: Biosensor, Mass Sensitive Sensor, Quartz Micro Balance (QCM), Fibrinogen

**BAKTERİYEL PNÖMONİ TANISI ALAN PEDIATRİK HASTADA NANDA
TANILARI VE NIC GİRİŞİMLERİ İLE HEMŞİRELİK BAKIMI: OLGU SUNUMU**
NANDA DIAGNOSIS AND NIC INTERVENTIONS AND NURSING CARE IN A
PEDIATRIC PATIENT DIAGNOSED WITH BACTERIAL PNEUMONIA: A CASE
REPORT

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ÖZET

Tüm dünyada çocukluk çağı ölümlerinin en önemli nedeni pnömonidir. Dünya’da 2019 yılında pnömoni nedeniyle 740,180 çocuk hayatını kaybederken ve beş yaş altı çocuklarda tüm ölümlerin %14’ünden pnömoni sorumludur. Çocukluk çağında, ayaktan tedavi edilen hastaların %23’ü, hastaneye yatırılan hastaların ilk yaşta %33-50’si, tüm yaş gruplarında %29-38’i pnömoni tanısı almaktadır. Dünya Sağlık Örgütü (DSÖ) pnömoniyi, akciğer dışı bir nedene bağlanmamış ateşli hastalık durumu ve takipne şeklinde tanımlamaktadır. Çocukluk çağında pnömoni düşündürülen diğer klinik bulgular arasında ise, öksürük, ateş, solunum seslerinin azalması, krepitan raller, bronşial solunum sesi, burun kanadı solunumu interkostal, subkostal, suprasternal retraksiyonlar yer almaktadır. DSÖ’ye göre burun kanadı solunumu ve retraksiyonlar varsa şiddetli pnömoni, bu bulgulara ek olarak siyanoz ya da beslenme güçlüğü varsa çok şiddetli pnömoni varlığı söz konusudur. Pnömoniye, sıklıkla viral ve bakteriyel patojenler neden olmaktadır. Yenidoğan dönemi sonrasında her yaş grubunda en sık (%19-50) neden olan bakteriyel pnömoni etkeni Streptococcus pneumoniae'dır.

Pediyatrik hastada bakteriyel pnömoni tanısında hemşirelik bakımının amaçları; belirtileri azaltmak, istemi yapılan farmakolojik tedaviyi uygun şekilde uygulamak ve etkilerini değerlendirmek, yeterli oral ya da intravenöz sıvı alımını sağlamak, yeterli ve dengeli besin alımını sağlamak, komplikasyonları önlemek, anksiyeteyi azaltmak ve çocuk/aile eğitimi vermektir. Hemşirelerin hastanın gereksinimlerini belirlemek için verileri toplaması, bunlara dayalı hemşirelik tanımlarını belirlemesi, hemşirelik girişimlerini planlaması ve uygulaması, sonuçları doğru değerlendirmesi gerekmektedir. Bu süreçte standartlaştırılmış ve bakımın güvenilirliğini sağlayan sistemlerden biri olan Hemşirelik Girişimleri Sınıflama Sisteminin kullanılması doğru karar vermeyi artırmakta ve uygulamadaki hataları azaltmaktadır.

Bu olgu çalışmasında, bir hastanenin pediatri kliniğinde bakteriyel pnömoni tanısı ile tedavi gören çocuk hastanın NANDA tanımları ve NIC girişimleri ile oluşturulan hemşirelik bakımının bir olguya dayalı olarak sunulması amaçlanmıştır.

Pediyatri kliniğinde yatışı olan altı yaşındaki hastanın tıbbi tanısı bakteriyel pnömonidir. Hastaneye başvurmasına sebep olan ana şikayetleri; hastaneye yatış tarihinden bir hafta önce başlayan öksürük, sekresyon, hafif ateş ve dispne şikayetleri artan hastanın yatışı yapılarak

tedavi ve bakımına başlanmıştır. Hasta için Gordon'un Fonksiyonel Sağlık Örüntüleri Hemşirelik Bakım Modeli doğrultusunda planlanan hemşirelik bakımında "Gaz Değişiminde Bozulma, Etkisiz solunum örüntüsü, Aspirasyon riski, Akut Ağrı, Aktivite İntoleransı, Anksiyete, Uyku Örüntüsünde Bozulma, Ebeveynde Hastalığa İlişkin Bilgi Eksikliği, Vücut Sıcaklığında Dengesizlik Riski ve Düşme Riski hemşirelik tanıları belirlenmiş ve bu tanılara yönelik hemşirelik girişimleri planlanarak NOC çıktıları tespit edilmiştir.

Anahtar Kelimeler: Bakteriyel Pnömoni, Pediatri, NANDA, NIC, Hemşirelik Bakımı

ABSTRACT

Pneumonia is the most important cause of childhood deaths all over the world. While 740,180 children died due to pneumonia in the world in 2019, pneumonia is responsible for 14% of all deaths in children under the age of five. In childhood, 23% of outpatients, 33-50% of hospitalized patients in the first year, 29-38% of all age groups are diagnosed with pneumonia. The World Health Organization (WHO) defines pneumonia as a state of febrile illness and tachypnea not associated with a non-pulmonary cause. Other clinical findings suggestive of pneumonia in childhood include cough, fever, decreased breath sounds, crepitant rales, bronchial breath sounds, nasal wing breathing, intercostal, subcostal, and suprasternal retractions. According to WHO, if there is nasal wing breathing and retraction, severe pneumonia is present, and if there is cyanosis or feeding difficulties in addition to these findings, there is very severe pneumonia. Pneumonia is often caused by viral and bacterial pathogens. Streptococcus pneumoniae is the most common cause of bacterial pneumonia (19-50%) in all age groups after the neonatal period.

Objectives of nursing care in the diagnosis of bacterial pneumonia in pediatric patients; To reduce symptoms, to apply the requested pharmacological treatment appropriately and to evaluate its effects, to ensure adequate oral or intravenous fluid intake, to provide adequate and balanced food intake, to prevent complications, to reduce anxiety, and to provide child/family education. Nurses need to collect data to determine the needs of the patient, determine nursing diagnoses based on these, plan and implement nursing interventions, and evaluate the results correctly. In this process, the use of the Nursing Interventions Classification System, which is one of the systems that is standardized and ensures the reliability of care, increases the right decision making and reduces the errors in the application.

In this case study, it was aimed to present the nursing care created by NANDA diagnoses and NIC interventions in a pediatric patient who was treated with the diagnosis of bacterial pneumonia in the pediatric clinic of a hospital based on a case study.

The medical diagnosis of the six-year-old patient who was hospitalized in the pediatrics clinic was bacterial pneumonia. The main complaints that caused him to apply to the hospital; The patient, whose cough, secretion, mild fever and dyspnea complaints that started one week

before the hospitalization date increased, was hospitalized and his treatment and care was started. In the nursing care planned in line with Gordon's Functional Health Patterns Nursing Care Model for the patient, "Impaired Gas Exchange, Ineffective respiratory pattern, Aspiration risk, Acute Pain, Activity Intolerance, Anxiety, Sleep Pattern Distortion, Lack of Information about the Disease in the Parent, Risk of Imbalance in Body Temperature and Fall Risk nursing diagnoses were determined and nursing interventions for these diagnoses were planned and NOC outputs were determined.

Keywords: Bacterial Pneumonia, Pediatrics, NANDA, NIC, Nursing Care.

**ANKSİYETENİN AMELİYAT SONRASI ÇOCUKLARDA GÖRÜLEN AKUT AĞRI
VE BULANTI-KUSMAYA ETKİSİ ÜZERİNE BİR İNCELEME**

A STUDY ON THE EFFECT OF ANXIETY ON ACUTE PAIN AND NAUSEA-
VOMITING IN POST-SURGERY CHILDREN

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ÖZET

Hasta olmak ya da hastaneye yatmak çocuk ve ailesinin yaşamını birçok yönden etkileyen, kaygı ve endişelerini arttıran bir durumdur. Hastalığın iyileştirilmesi için cerrahi girişim gereken bir durum söz konusu olduğunda, çocuk ve ailesinde psikolojik sorunlar ortaya çıkabilmektedir (Conk et al., 2013).

Çocuklar ameliyat öncesi dönemde oldukça stres yaşamaktadır. Ameliyat olma, çocuklar için olumsuz bir deneyim, fizyolojik ve psikolojik tepkilerin oluşmasını tetikleyen önemli bir tehdit kaynağıdır. Hastanın ameliyatı öğrendiği andan başlayarak herhangi bir zamanda gelişebilen ve en çok karşılaşılan psikolojik sonuçlardan biri olan anksiyete özellikle hastaneye yatış döneminde zirveye ulaşır. Ameliyat öncesi dönemde çocukların %40-60'ının önemli düzeyde anksiyete yaşadıkları bildirilmiştir (Liu et al., 2018). Vücutta oluşan değişimler, doku bütünlüğünün bozulması ve buna bağlı ağrı gelişmesi, ameliyata bağlı huzursuzluk hissi, yalnız kalma, ailesinin olmadığı bir çevre, tanınmadık yüzler, hastane yemekleri ve giysileri, tıbbi terimlerle konuşma çocuklarda kolaylıkla ve aşırı derecede anksiyete gelişimine neden olabilmektedir (Panella, 2016). Bu durum çocukların ameliyatı kabul etmesini, ameliyat sonrası iyileşme ve rehabilitasyon sürecini geciktirebilmektedir (Liu et al., 2018) Ayrıca hastalarda stres hormonlarının artmasına yol açabilen ameliyat öncesi anksiyete, gastrik motilite ve gastrik sıvı miktarındaki artışa ve gastrik boşalmanın gecikmesine yol açarak Ameliyat Sonrası Bulantı Kusma (ASBK) oranını artırabilir (Gan et al., 2014; Rüsç et al., 2010).

ASBK çocuk popülasyonunda sık görülen bir komplikasyondur ve önemli bir morbidite kaynağıdır. Çocuklarda ASBK insidansı endişe verici derecede yüksektir, çünkü hasta risk faktörlerine bağlı olarak %33,2 ila %82 arasında olduğu tahmin edilmektedir (Eberhart et al., 2004). ASBK tipik olarak Post-Anesthesia Care Unit/ anestezi sonrası bakım ünitesinde (PACU) başlayan ve ameliyattan sonraki 24 saat boyunca devam eden bulantı, kusma veya geri tepmeyi tanımlar. Taburcu sonrası bulantı ve kusma, anesteziden sonra 7 güne kadar devam eden semptomları içerir. ASBK, çocuklarda yetişkinlere göre iki kat daha sık görülür ve daha uzun PACU kalışlarına, hastane taburculuğunda gecikmelere ve daha sonra planlanmamış geri kabullere ve bu da sonuçta hastalar üzerinde önemli mali yüke yol açabilir (Edler et al., 2007). Bulantı, kusma ve dehidratasyon sendromu, pediyatrik geri kabullerin önde gelen nedenlerinden biridir ve bu vakaların %51.2'sini oluşturmaktadır. Ayrıca, taburcu

olduktan sonraki bir hafta içinde pedyatrik geri kabulün, yıllık sağlık giderlerine 1 milyar dolar katkıda bulunduğu tahmin edilmektedir (Brown et al., 2017)

Bulantı ve kusma birbirlerinden ayrı olarak tek başlarına ortaya çıkabileceği gibi bir arada da görülebilir. Hastalar genellikle postoperatif bulantı ve kusmayı postoperatif ağrıdan daha kötü olarak değerlendirir (Macario et al., 1999). Bu nedenle, postoperatif bulantı ve kusmanın önlenmesinin, bunları yaşaması olası hastalarda memnuniyeti artırması beklenen bir sonuçtur (Darkow et al., 2001). Kusma aspirasyon riskini artırır ve sütür ayrılması, özofagus rüptürü subkutan amfizem ve bilateral pnömotoraks ile ilişkilendirilmiştir, (Schumann & Polaner, 1999). Postoperatif bulantı ve kusma sıklıkla anestezi sonrası bakımdan taburcu olmayı geciktirir (Gold et al., 1989).

Ameliyat öncesinde kaygı düzeyi yüksek olan hastalarda ameliyat sonrasında daha fazla tıbbi komplikasyon geliştiği ve yatış süresinin uzadığı bildirilmiştir. Anksiyeteyi yatıştırmak için kullanılan ilaçlar cerrahi işlem sırasında kullanılan anestetik maddelerle etkileşime girebilmekte, ilaçların kesilmesi de anksiyete belirtilerinde alevlenmeye neden olabilmektedir. Postoperatif ağrı, hastalarda sıkıntı, endişe, korku ve depresyon yaratmaktadır. Postoperatif ağrının geçirilmesinin cerrahinin hem mortalite hem de morbiditesini azalttığı ve cerrahiden sonra daha erken iyileşmeyi sağladığı açıkça gösterilmiştir. Dolayısıyla kaygı ve ağrı distressi yaşatan ameliyat öncesi ve sonrası dönem bireyin yaşamında yer alan kriz dönemidir. Ağrı, subjektif ve bireysel yaşantı olup, şiddeti ve yoğunluğunda en önemli psikolojik belirleyicinin kaygı ve ağrı distressi olduğu bildirilmektedir (Vaaajoki et al., 2012) Aynı zamanda ağrı ameliyat sonrası bulantı kusmanın en önemli nedenlerinden biri olarak karşımıza çıkmaktadır (Apfel et al., 2004; Gan et al., 2014) Kaygı ve ağrı distressi yüksek olan bireylerin daha yüksek ağrı deneyimlediği bilinmektedir. Ameliyat öncesi ve sonrası dönemde ağrı şiddetinin azaltılması için hastanın kaygı ve ağrı distressinin giderilmesinin önemli olduğu düşünülmektedir (Deyirmenjian et al., 2006).

Ameliyat öncesi süreçte anksiyeteyi giderme, ameliyatta daha az anestetik kullanılmasına, ameliyat sonrası daha az analjezik kullanılmasına, strese tepki olarak salınacak olan kortikosteroid hormonların daha az salınmasına yardımcı olmaktadır. Ayrıca, ameliyat sonrasında yaşam bulgularının kısa sürede düzene girmesine, ameliyat sonrasında hızlı iyileşmeye ve erken taburcu olmaya yardımcı olmaktadır (Fortier et al., 2010; Perry et al., 2012). Bu nedene bu amaçla daha fazla çalışma yapılarak çocukların gelişim dönemlerine uygun olarak psikolojik hazırlığın sağlanması ve bu amaçla kullanabilecek yöntemlerin belirlenerek preoperatif dönemde hayata geçirilmesi önerilmektedir.

Anahtar Kelimeler: Ağrı, Anksiyete, Bulantı, Çocuk, Kusma

ABSTRACT

Being ill or hospitalized has a profound impact on the lives of children and their families, leading to heightened anxiety and concerns. When the treatment involves surgical intervention to overcome the illness, it can give rise to psychological challenges for both the child and their family (Conk, Boşbakkal, Bal Yılmaz, & Bolışık, 2013). Children undergo significant stress during the preoperative phase, as surgery represents a negative and threatening experience that elicits physiological and psychological responses. Anxiety, a prevalent psychological consequence, can emerge from the moment a child learns about the surgery and intensifies during hospitalization. Research indicates that 40-60% of children experience notable anxiety in the preoperative period (Liu et al., 2018). Children may

experience various factors that contribute to the development of anxiety during the surgical process. These include bodily changes, tissue disruption resulting in pain, restlessness arising from the surgery itself, feelings of loneliness in an unfamiliar environment without family, encountering unfamiliar faces, hospital food and attire, and the use of medical terminology (Panella, 2016). Such anxiety can potentially hinder children's acceptance of surgery, as well as impede their postoperative recovery and rehabilitation process (Liu et al., 2018). Furthermore, preoperative anxiety can elevate stress hormone levels in patients, potentially contributing to an increased incidence of Postoperative Nausea and Vomiting (PONV). This can occur due to heightened gastric motility, increased gastric fluid volume, and delayed gastric emptying caused by anxiety (Gan et al., 2014; Rüsçh, Eberhart, Wallenborn, & Kranke, 2010). PONV is a common complication in the pediatric population and a significant source of morbidity. The incidence of PONV among children is alarmingly high, estimated to be between 33.2% and 82%, depending on patient risk factors (Eberhart et al., 2004). PONV, refers to the occurrence of nausea, vomiting, or retching that initiates in the Post-Anesthesia Care Unit (PACU) and persists for a period of 24 hours following surgery. Additionally, there may be post-discharge nausea and vomiting, characterized by symptoms that endure for up to 7 days after anesthesia administration. It is worth noting that PONV is twice as prevalent in children compared to adults, resulting in prolonged PACU stays, delays in hospital discharge, and unplanned readmissions, which can ultimately impose a substantial financial burden on patients (Edler, Mariano, Golianu, Kuan, & Pentcheva, 2007). Nausea, vomiting and dehydration syndrome is one of the leading causes of pediatric readmissions, accounting for 51.2% of these cases. It is also estimated that pediatric readmission within one week of discharge adds \$1 billion to annual healthcare costs (Brown, Anderson, Burgess, Bold, & Farmer, 2017). Postoperative nausea and vomiting (PONV) can manifest either independently or in conjunction with other conditions. Interestingly, patients generally rate the experience of PONV as more distressing than postoperative pain (Macario, Weinger, Carney, & Kim, 1999). Consequently, the prevention of PONV is essential in enhancing patient satisfaction, particularly for those susceptible to these symptoms (Darkow, Gora-Harper, Goulson, & Record, 2001). Vomiting carries the risk of aspiration and has been linked to complications such as suture separation, esophageal rupture, subcutaneous emphysema, and bilateral pneumothorax (Schumann & Polaner, 1999). Moreover, PONV often leads to delayed discharge from the post-anesthesia care unit, further impacting patient recovery and hospital stay (Gold, Kitz, Lecky, & Neuhaus, 1989). Patients with high levels of preoperative anxiety have been found to experience increased medical complications and prolonged hospitalization following surgery. Medications administered to alleviate anxiety can potentially interact with the anesthetics used during the surgical procedure, and discontinuation of these medications may exacerbate anxiety symptoms. Postoperative pain induces distress, anxiety, fear, and depression in patients. Extensive evidence supports the notion that effective management of postoperative pain reduces both surgical mortality and morbidity, facilitating earlier recovery. Therefore, the preoperative and postoperative periods, marked by anxiety and pain distress, represent critical phases in an individual's life. Pain is a subjective and individualized experience, with anxiety and pain distress being identified as major psychological factors influencing its intensity and severity (Vaajoki, Pietilä, Kankkunen, & Vehviläinen-Julkunen, 2012). Moreover, pain is recognized as a significant contributing factor to postoperative nausea and vomiting (Apfel et al., 2004; Gan et al., 2014). Consequently, addressing the patient's anxiety and pain distress is crucial for reducing pain intensity during both the preoperative and postoperative periods (Deyirmenjian, Karam, & Salameh, 2006).

Alleviating preoperative anxiety yields several benefits, including reduced anesthetic and analgesic requirements during surgery, decreased release of stress-related corticosteroid hormones, and improved regulation of vital signs shortly after the procedure. Moreover, it

facilitates rapid postoperative recovery and early discharge from the hospital (Fortier, Del Rosario, Martin, & Cain, 2010; Perry, Hooper, & Masiongale, 2012). Consequently, it is recommended that further research be conducted to establish psychological preparation protocols tailored to the developmental stages of children. The identification and implementation of appropriate methods for this purpose in the preoperative period are crucial endeavors.

Keywords: Anxiety, Child, Nausea, Pain, Vomiting

**ÇUKUROVA BÖLGESİNDE VİRAL MERKEZİ
SİNİR SİSTEMİ ENFEKSİYONLARININ İNSİDANSI**

INCIDENCE OF VIRAL CENTRAL NERVOUS SYSTEM INFECTIONS IN THE
ÇUKUROVA REGION

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ÖZET

Viral menenjit ve ensefalit, önemli morbidite ve mortalite ile ilişkili olup hastaların en etkili ve uygun şekilde yönetilmesi için hızlı tanı gerekmektedir. Bu çalışmanın amacı Çukurova Üniversitesi Tıp Fakültesi Hastanesi'ne başvuran menenjit, meningoensefalit ve ensefalit gibi merkezi sinir sistemi (MSS) hastalığı tanısı almış hastalarda Herpes simplex virus (HSV-1 ve HSV-2), Cytomegalovirus (CMV), Epstein-Barr virus (EBV) ve Enterovirus (EV) enfeksiyonların insidansını tespit etmektir. Çalışmaya Mart 2017 ve Haziran 2023 döneminde yaşları 1-35 yaş arasında değişen 73 hasta dahil edilmiştir. Hastalardan alınan beyin omurilik sıvısı (BOS) örneklerinden Bosphore Viral DNA/RNA Extraction Spin Kit (Anatolia Geneworks, Türkiye) ile viral nükleik asit izole edilmiştir. Tanı için örnekler HSV tip1, HSV tip 2, CMV, EBV ve EV için real-time PCR testi (Anatolia Geneworks, Türkiye) ile analiz edilmiştir. Toplam 73 hastanın %10.9'unda (8/73) viral enfeksiyon tespit edilmiştir. Viral MSS enfeksiyonu olan 8 hastanın 1'i (%12.5) kız ve 7'si (%87.5) erkek olup %50'si (4/8)19-

25 yaş grubunda idi. Hastaların sırasıyla %50'si EBV, %25'i CMV, %12.5'i HSV-1 ve %12.5'i enterovirus için pozitif bulunmuştur. Sonuç olarak, viral MSS enfeksiyonlarının real-time PCR testiyle erken tanısı hastalığın ilerlemesini önleyen antiviral tedavi seçimi için önemlidir.

Anahtar Kelimeler: Herpes simplex virus, Cytomegalovirus, Epstein-Barr virus, Enterovirus

ABSTRACT

Viral meningitis and encephalitis are associated with significant morbidity and mortality and rapid diagnosis is required for the most effective and appropriate management of patients. The aim of this study was to determine the incidence of Herpes simplex virus (HSV-1 and HSV-2), Cytomegalovirus (CMV), Epstein-Barr virus (EBV) and Enterovirus (EV) infections in patients with central nervous system (CNS) diseases such as meningitis, meningoencephalitis and encephalitis admitted to Çukurova University Faculty of Medicine Hospital. The study included 73 patients aged between 1-35 years between March 2017 and June 2023. Viral nucleic acid was isolated from cerebrospinal fluid (CSF) samples obtained from the patients using Bosphore Viral DNA/RNA Extraction Spin Kit (Anatolia Geneworks, Turkey). For diagnosis, the samples were analysed by real-time PCR test (Anatolia Geneworks, Turkey) for HSV type 1, HSV type 2, CMV, EBV and EV. Viral infection was detected in 10.9% (8/73) of 73 patients. Of the 8 patients with viral CNS infection, 1 (12.5%) was female and 7 (87.5%) were male and 50% (4/8) were in the 19-25 age group. Fifty per cent, 25 per cent, 12.5 per cent, 12.5 per cent and 12.5 per cent of the patients were positive for EBV, CMV, HSV-1 and enterovirus, respectively. In conclusion, early diagnosis of viral CNS infections by real-time PCR test is important for the selection of antiviral therapy that prevents disease progression.

Keywords: Herpes simplex virus, Cytomegalovirus, Epstein-Barr virus, Enterovirus

**KAROTİD İNTİMA-MEDİA KALINLIĞI CUSHİNG SENDROMUNDA ERKEN
KARDİYOVASKÜLER RİSKİ BELİRLEMEK İÇİN İYİ BİR BELİRTEÇ OLABİLİR**
CAROTID INTIMA-MEDIA THICKNESS MAY BE A GOOD MARKER FOR
DETERMINING EARLY CARDIOVASCULAR RISK IN CUSHING SYNDROME

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ÖZET

Bu çalışmanın amacı, ardışık bir Cushing Sendromu (CS) hasta serisinde aterosklerozun vekil bir belirteci olan karotis İntima-Media Kalınlığını (cİMT) analiz etmek ve bunları hafif otonom kortizol hipersekresyonu (MACS) olan hastalar ve sağlıklı kontroller (SK) ile karşılaştırmaktır.

Çalışma için Endokrinoloji ve Metabolizma Kliniği'nde adrenal insidentaloma tanısı ile izlenen hastalar kesitsel olarak incelendi. Bu insidentalomalardan CS tanısı konan hastalar ve MACS tanısı konulan hastalar ardışık olarak seçildi. Hormon hipersekresyonu olmayan, yaşla eşleştirilmiş adrenal insidentalomalı hastalar SK grubu olarak dahil edildi. Tüm katılımcıların sosyodemografik, biyokimyasal ve sonografik olarak ölçülen cİMT değerleri kaydedildi ve gruplar arasında karşılaştırıldı.

Çalışmaya yaş ortalaması $49,3 \pm 6,9$ olan toplam 20 CS hastası, yaş ortalaması $48,1 \pm 11,1$ olan 19 MACS hastası ve yaş ortalaması $41,7 \pm 13,3$ olan 19 SK katılımcısı dahil edildi. Her üç grubun yaşları ve vücut kitle endeksleri benzerdi (sırasıyla $p=0,15$ ve $0,23$). Glukoz, total kolesterol, LDL kolesterol, HDL kolesterol, trigliseritler, CRP, fibrinojen ve insülin parametrelerinden elde edilen biyokimyasal sonuçlar hastalar arasında anlamlı farklılık göstermedi. Sağlıklı kontrollerde LDL kolesterol düzeyleri daha yüksek olmasına rağmen gruplar arasında anlamlı fark yoktu ($p=0,5$). Kardiyovasküler hastalık için bir risk faktörü olarak kabul edilen fibrinojen, sağlıklı kontrollere göre CS (ortalama $425,8 \pm 123,3$ mg/dl) ve MACS'de (ortalama $409,2 \pm 144,3$ mg/dl) anlamlı olarak yüksekti ($p=0,02$). Vasküler sonografik değerlendirmede hem sağ hem de sol cİMT değerlerinin CS hastalarında ve MACS hastalarında sağlıklı kontrollere göre anlamlı olarak yüksek olduğu görüldü (sağ cİMT $p<0,01$ ve sol cİMT $p<0,01$). Ortalama sağ cİMT değerleri CS için $0,07 \pm 0,008$, MACS için $0,05 \pm 0,01$ ve sağlıklı kontroller için $0,04 \pm 0,008$ idi. Ortalama sol cİMT değerleri CS için $0,1 \pm 0,14$, MACS için $0,05 \pm 0,009$ ve sağlıklı kontroller için $0,04 \pm 0,01$ idi. cİMT seviyeleri ile analiz edilen diğer parametreler arasında herhangi bir korelasyon bulunmadı.

Bu çalışma, Cushing Sendromlu hastalarda önemli vasküler hasarı ve kardiyovasküler riski doğrulamaktadır. Üstelik bu vasküler hasar MACS'de erken başlar. Yaş, cinsiyet, vücut kitle endeksi, kan basıncı, lipid profili, plazma glikozu ve insülin seviyeleri açısından eşleştirilmiş bir kontrol popülasyonu ile karşılaştırıldığında, CS ve MACS hastalarının cİMT'si önemli ölçüde daha yüksekti. Karotis intima media kalınlığı, ciddi vasküler hasar potansiyelini

gösteren, CS'de erken kardiyovasküler risk değerlendirmesi için iyi bir biyobelirteç görevi görebilir.

Anahtar Kelimeler: Karotis intima-media kalınlığı, Cushing sendromu, Kardiyovasküler risk, Hafif otonom kortizol hipersekresyonu

ABSTRACT

The purpose of this study is to analyze carotid Intima-Media Thickness (cIMT), a surrogate marker of atherosclerosis, in a consecutive series of Cushing's Syndrome (CS) patients and compare them with patients with mild autonomous cortisol hypersecretion (MACS) and healthy controls (HC).

Patients followed with the diagnosis of adrenal incidentaloma in the Endocrinology and Metabolism Clinic were cross-sectionally examined for this study. From these incidentalomas, patients diagnosed with CS and patients diagnosed with MACS were consecutively selected. Patients with adrenal incidentaloma without hormone hypersecretion, matched for age, were included as the HC group. Sociodemographic, biochemical, and sonographically measured cIMT values of all participants were recorded and compared between groups.

A total of 20 patients with CS, with a mean age of 49.3 ± 6.9 years, 19 patients with MACS, with a mean age of 48.1 ± 11.1 years, and 19 HC participants with a mean age of 41.7 ± 13.3 years were included in the study. The ages and body mass index of patients and HCs were similar ($p=0.15$ and 0.23 , respectively). Biochemical results obtained from glucose, total cholesterol, LDL cholesterol, HDL cholesterol, triglycerides, CRP, fibrinogen, and insulin parameters did not show significant differences among the patients. Although LDL cholesterol levels were higher in healthy controls, there was no significant difference between groups ($p=0.5$). Fibrinogen considered a risk factor for cardiovascular disease, was significantly higher in CS (mean 425.8 ± 123.3 mg/dl) and MACS (mean 409.2 ± 144.3 mg/dl) compared to healthy controls ($p=0.02$). Vascular sonographic evaluation revealed that both right and left carotid intima-media thickness (CIMT) values were significantly higher in CS patients and MACS patients compared to healthy controls (right CIMT $p<0.01$ and left CIMT $p<0.01$). The mean right CIMT values were 0.07 ± 0.008 for CS, 0.05 ± 0.01 for MACS, and 0.04 ± 0.008 for healthy controls. The mean left CIMT values were 0.1 ± 0.14 for CS, 0.05 ± 0.009 for MACS, and 0.04 ± 0.01 for healthy controls. No correlations were found between cIMT levels and other analyzed parameters.

This study confirms significant vascular damage and cardiovascular risk in patients with Cushing's Syndrome (CS). Furthermore, this vascular damage begins early in MACS. When compared to a matched control population in terms of age, gender, body mass index, blood pressure, lipid profile, plasma glucose, and insulin levels, CS and MACS patients had significantly higher cIMT. Carotid intima-media thickness could serve as a good biomarker

for early cardiovascular risk assessment in CS, indicating the potential for serious vascular damage.

Keywords: Carotid intima-media thickness, Cushing's syndrome, cardiovascular risk, mild autonomic cortisol hypersecretion

**FRAGMENTE QRS' İN HEMODİYALİZ HASTALARINDA ATRIAL
FİBRİLASYON GELİŞİMİNDEKİ ROLÜ**
**THE ROLE OF FRAGMENTED QRS IN THE DEVELOPMENT OF ATRIAL
FIBRILLATION IN HEMODIALYSIS PATIENTS**

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ÖZET

Amaç: Diyaliz hastalarında atrial fibrilasyon en sık görülen ritim bozukluğudur. Fragmente QRS, bir EKG parametresidir. Çeşitli çalışmalarda, fQRS atrial fibrilasyonun öngörücüsü olarak gösterilmiştir. Biz de bu çalışmada, 24 saatlik Holter EKG'de atrial fibrilasyon tanısı konulan diyaliz hastalarında fQRS' nin yerini araştırdık.

Metot: Çalışmaya Ocak 2022 ve Mart 2022 tarihleri arasında toplam 56 hemodiyaliz hastası dahil edildi. Tüm hastaların demografik verileri ve biyokimyasal parametreleri kayıt altına alındı. Tüm hastalara 24 -saatlik Holter monitörizasyon ve ekokardiyografi uygulandı. Holter monitörizasyonda 30 saniyeden fazla süreli düzensiz atrial atım atrial fibrilasyon varlığı olarak değerlendirildi. Atrial fibrilasyon olan ve olmayan olarak hastalar iki gruba kategorize edildi. Değişkenler gruplar arasında karşılaştırıldı. Fragmente QRS, EKG'de fQRS varlığı, tipik dal bloğu yokluğunda ve QRS süresinin normal olduğu, bir koroner arter kanlanma alanına uyan ve en az ardışık iki derivasyonda RSR paterni ve/veya R ve S dalgalarında çentiklenme varlığı olarak tanımlandı.

Bulgular: Toplam 56 hemodiyaliz hastasında, 19'unda atrial fibrilasyon gelişti. Yaş ($p=0.656$), cinsiyet ($p= 0.397$), vücut kitle indeksi ($p=0.501$) açısından gruplar arasında fark saptanmadı. Kronik obstrüktif akciğer hastalığı ($p=0.047$) ve koroner arter hastalığı ($p=0.041$) olanlarda AF gelişimi daha fazlaydı. Ekokardiyografik parametrelerden, sol ventrikül posterior duvar kalınlığı AF 'da yüksek bulundu ($p=0.034$). Diğer parametreler Tablo 1.'de gösterilmiştir. Gruplar arasında laboratuvar parametreler incelendiğinde, CRP ($p=0.007$) ve CAR ($p=0.005$) AF grubunda yüksek bulundu (Tablo 2). Son olarak, fQRS gelişimi, gruplar arasında benzer bulundu ($p=0.488$).

Sonuç: Fragmente QRS' in diyaliz hastalarında, atrial fibrilasyonun bir öngörücü olarak kullanılabileceği gösterilmiştir. Ancak bizim çalışmamızda, diyaliz hastalarında atrial fibrilasyonla ilişkisi saptanmamıştır.

Anahtar kelimeler: Fragmente QRS, atrial fibrilasyon, hemodiyaliz, böbrek hastalığı, elektrokardiyogram

ABSTRACT

Objective: Atrial fibrillation (AF) is the most common rhythm disorder in dialysis patients. Fragmented QRS (fQRS) is an electrocardiogram (ECG) parameter. In various studies, fQRS has been shown to be a predictor of AF. In this study, we investigated the role of fQRS in dialysis patients diagnosed with AF on 24-hour Holter monitoring (24HM).

Methods: A total of 56 hemodialysis patients were included in the study between January 2022 and March 2022. Demographic data and biochemical parameters of all patients were recorded. All patients underwent 24HM and echocardiography. On 24HM, irregular atrial beats lasting more than 30 seconds were considered the presence of AF. Patients were categorized into two groups with and without AF. Variables were compared between the groups. Fragmented QRS was defined as the presence of fQRS on the ECG, in the absence of typical bundle branch block and normal QRS duration, and the presence of RSR pattern and notching of R and S waves in at least two consecutive leads that correspond to a coronary artery blood supply area.

Results: The AF developed in 19 of 56 hemodialysis patients. Age ($p=0.656$), gender ($p=0.397$), and body mass index ($p=0.501$) did not differ between the groups. AF development was more common in patients with chronic obstructive pulmonary disease ($p=0.047$) and coronary artery disease ($p=0.041$). Among echocardiographic parameters, left ventricular posterior wall thickness was higher in AF ($p=0.034$). Other parameters are shown in Table 1. When laboratory parameters were analyzed between the groups, CRP ($p=0.007$) and CAR ($p=0.005$) were higher in the AF group (Table 2). Finally, the presence of fQRS was similar between the groups ($p=0.488$).

Conclusion: The fQRS is a predictor of AF in dialysis patients. However, our study found no association with AF in dialysis patients.

Keywords: Fragmented QRS, atrial fibrillation, hemodialysis, renal disease, electrocardiogram

Table 1. Demographic features, QRS fragmentation and echocardiographic findings of the groups

	Presence of AF n= 19	Normal SR n= 37	P value
Age, year	44.63 ± 12.10	43.21 ± 10.70	0.656
Male, n %	13 (68.4)	21 (56.8)	0.397
BMI	28.47 ± 5.38	27.56 ± 4.42	0.501
DM, n %	7 (36.8)	15 (40.5)	0.788
HT, n %	13 (68.4)	22 (59.5)	0.512
CAD, n%	11 (57.9)	11 (29.7)	0.041
COPD, n %	9 (47.4)	8 (21.6)	0.047
QRS fragmentation, n %	4 (21.1)	11 (29.7)	0.488
LVEF, %	50.68 ± 13.64	48.67 ± 11.28	0.560
IVST, mm	13.57 ± 1.64	14.18 ± 1.71	0.203
PWT, mm	13.05 ± 1.02	12.40 ± 1.06	0.034
Mitral e, m/s	0.06 ± 0.01	0.06 ± 0.01	0.816
Mitral a, m/s	0.06 ± 0.02	0.06 ± 0.02	0.585
LVDD, mm	49.94 ± 5.11	51.97 ± 4.49	0.134
LVSD, mm	35.73 ± 7.30	37.13 ± 7.06	0.491
	<p>Abbreviations: BMI, body mass index; CAD, coronary artery disease; DM, diabetes mellitus; HT, hypertension; IVST, interventricular septal thickness; LVEF, left ventricular ejection fraction; LVDD, left ventricular diastolic dysfunction; LVSD, left ventricular systolic diameter; PWT, posterior wall thickness</p> <p>p <0.05 are shown in bold.</p>		

Table 2. Laboratory findings of the groups

	Presence of AF n=	Normal SR n=	P value
Hemoglobin, g/dL	10.88 ± 1.73	10.97 ± 2.27	0.893
Neutrophil, 10 ³ /μL	6.74 ± 2.39	7.93 ± 2.84	0.125
Lymphocyte, 10 ³ /μL	2.33 ± 1.19	2.15 ± 0.76	0.570
Platelet, 10 ³ /μL	269.57 ± 69.11	268.64 ± 61.56	0.959
Creatinine, mg/dL	5.36 ± 1.33	5.25 ± 1.24	0.764
Albumin, g/dl	3.87 ± 0.52	4.08 ± 0.72	0.254
CRP, mg/L	14.80 (5.00–23.00)	4.50 (3.22 –9.92)	0.007
CAR	1.28 (1.35 – 6.63)	3.48 (0.79–2.29)	0.005
Sodium, mEq/L	135 ± 3.55	136.10 ± 3.93	0.308
Potassium, mEq/L	5.48 ± 0.80	5.48 ± 0.64	0.977
Calcium, mEq/L	9.04 ± 1.15	8.93 ± 0.80	0.680

NLR	4.50 ± 5.92	4.88 ± 5.25	0.890
Abbreviations: CAR, C-reactive protein /albumin ratio; NLR, neutrophil/lymphocyte ratio p <0.05 are shown in bold.			

**SAĞLIK ÇALIŞANLARINDA COVID-19 AŞILARI SONRASINDA GÖRÜLEN YAN
ETKİLER**

SIDE EFFECTS SEEN AFTER COVID-19 VACCINES IN HEALTHCARE WORKERS

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ÖZET

Amaç: Pfizer BioNTech COVID-19 aşısı, FDA'dan acil kullanım izni ve onayı alan ilk aşıdır. Bu nedenle, aşı bir çok ülke tarafından tercih edilmiştir. Ancak, birçok kişi aşının yan etkilerinden endişe duymuştur. SinoVac aşısı, acil kullanım için WHO tarafından onaylanmıştır. Bu çalışmada, Çukurova Üniversitesi Balcalı Hastanesi sağlık çalışanlarında, Pfizer/BioN-Tech ve SinoVac COVID-19 aşısı uygulamasının ardından ortaya çıkan, aşı sonrası yan etkilerini değerlendirmek için yapılmıştır.

Yöntem: Ankete dayalı, yüz yüze görüşmelerle, geriye dönük bir çalışma yapılmıştır.

Bulgular: Tüm aşılar, 2021 ve 2022 yıllarında uygulanmıştır. Çalışmaya, 241 kadın (%76,26) ve 75 erkek (%23,73) olmak üzere 316 kişi dahil edilmiştir. Yaş aralığı 18 - 66 (yıl) 'dır. Aşı sonrası bildirilen yan etkilerin tamamı 48 saat içerisinde ortaya çıkmıştır. 542 Biontech aşı dozu sonrasında, görülen yan etkiler, aşı kolunda ağrı %45.20, aşı yerinde ağrı % 10.70 , aşı yeri kızarıklık %3.50, aşı yerinde şişlik %3.50, aşı yerinde kaşıntı % 0.73 , aşı yerinde sertlik %0.73 , aşı kolunda uyuşma % 0.36 ; bulantı %2.58 , kusma %1.10, ishal %0.18; uyku hali %1.66, baş dönmesi %1.10, sersemlik %0.55; halsizlik % 15.12 , yorgunluk % 8.67; ateş/titreme % 11.07, baş ağrısı % 8.67, lenf bezlerinde şişlik %1.29, boğaz ağrısı %0.55, burun akıntısı %0.18; eklem ağrısı %7.74, kas ağrısı % 4.24, sırt ağrısı % 1.66; öksürük %1.47 , nefes darlığı %0.55, çarpıntı %0.36; iştahsızlık %0.36 , tat kaybı % 0.18; huzursuzluk % 0.36, ciltte döküntü %0.18, bacakda uyuşma % 0.18 , ayak bileğinde şişme % 0.18, avuç içi yanma % 0.18 'dır. 493 Sinovac aşı dozu sonrasında, görülen yan etkiler, aşı kolunda ağrı % 12.98, aşı yerinde ağrı % 3.04, aşı yerinde kızarıklık % 0.60, aşı yerinde şişlik %0.60, aşı kolunda uyuşma % 0.20 ; halsizlik % 5.47, yorgunluk % 2.63 ; bulantı %1.41; uyku hali %0.81, baş dönmesi %0.40; baş ağrısı % 4.05 ,ateş/titreme % 1.62; sırt ağrısı %2.02, eklem ağrısı ,% 1.82, kas ağrısı %1.01; çarpıntı %0.81 ,göğüs ağrısı % 0.20, öksürük %0.20, nefes darlığı %0.20; iştahsızlık %0.40; dilde uyuşma %0.20 , yüzde uyuşma %0.20; tansiyon yükselmesi %0.60, kafada basınç hissi %0.40 görülmüştür.

Sonuçlar: Sinovac aşısı sonrası % 21.90 (108 doz) , Biontech aşısı sonrası %58.67 (318 doz) oranında yan etki görülmüştür. Bulgularımız, Pfizer-BioNTech aşısından sonra yan etkilerin daha yaygın olduğunu, ancak genellikle hafif ve kendi kendini sınırladığını ortaya koymaktadır. Aşı kolunda ağrı en yaygın bulgu olarak tespit edilmiştir. Her iki aşıda da anafilaktik şok veya şiddetli reaksiyonlar görülmemiştir.

Anahtar Kelimeler: Covid-19 aşısı, Yan etki, Sağlık çalışanları

ABSTRACT

Aim: The Pfizer BioNTech COVID-19 vaccine is the first vaccine to receive emergency use authorization and approval from the FDA. Therefore, the vaccine has been preferred by many countries. However, many people have been concerned about the side effects of the vaccine. SinoVac vaccine is approved by WHO for emergency use. This study was conducted to evaluate the post-vaccine side effects that occur after Pfizer/BioN-Tech and SinoVac COVID-19 vaccine administration in the health workers of Çukurova University Balcalı Hospital.

Method: A retrospective study was conducted with face-to-face interviews based on a questionnaire.

Results: All vaccinations have been administered in 2021 and 2022. A total of 316 people, 241 women (76.26%) and 75 men (23.73%), were included in the study. The age range is 18 - 66 (years). All of the side effects reported after vaccination occurred within 48 hours. Side effects after 542 Biontech vaccine doses, pain in the vaccination arm 45.20%, pain at the

injection site 10.70%, redness at the injection site 3.5%, swelling at the injection site 3.5%, itching at the vaccination site 0.73%, stiffness at the injection site 0.73%, numbness in the vaccine arm 0.36 ; nausea 2.58%, vomiting 1.10%, diarrhea 0.18%; somnolence 1.66%, dizziness 1.10%, drowsiness 0.55%; weakness 15.12%, fatigue 8.67%; fever/chills 11.07%, headache 8.67%, lymph nodes swelling 1.29%, sore throat 0.55%, runny nose 0.18%; joint pain 7.74%, muscle pain 4.24%, back pain 1.66%; cough 1.47%, shortness of breath 0.55%, palpitations 0.36%; loss of appetite 0.36%, loss of taste 0.18%; anxiety 0.36%, skin rash 0.18%, leg numbness 0.18%, ankle swelling 0.18%, burning sensation in palm 0.18% . Side effects seen after 493 doses of Sinovac vaccine, pain in the vaccine arm 12.98%, pain at the injection site 3.04%, redness at the injection site 0.60%, swelling at the injection site 0.60%, numbness in the vaccine arm 0.20%; weakness 5.47%, fatigue 2.63%; nausea 1.41%; somnolence 0.81%, dizziness, 0.40%; headache 4.05%, fever/chills 1.62%; back pain 2.02%, joint pain 1.82%, muscle pain 1.01%; palpitations 0.81%, chest pain 0.20%, cough 0.20%, shortness of breath 0.20%; anorexia 0.40%; tongue numbness 0.20%, facial numbness 0.20%; blood pressure elevation 0.60%, pressure sensation in the head 0.40%

Conclusion: After Sinovac vaccine, at a rate of 21.90% (108 doses), and after Biontech vaccine, 58.67% (318 doses) side effects have been observed. Our findings suggest that side effects are more common after the Pfizer-BioNTech vaccine. However, these side effects are usually mild and self-limiting. Pain in the vaccine arm was the most common finding. No anaphylactic shock or severe reactions were seen with either vaccine.

Keywords: Covid-19 vaccine, Side effect, Healthcare workers

**2D:4D ORANI İSKELETSEL MALOKLÜZYONLARDA CİNSEL DİMORFİZM
GÖSTERİR Mİ? BİR RETROSPEKTİF ÇALIŞMA**
**DOES THE 2D:4D RATIO EXHIBIT SEXUAL DIMORPHISM IN SKELETAL
MALOCCLUSIONS? A RETROSPECTIVE STUDY**

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ÖZET

Yaşam boyu sabit kalma özelliğine sahip olan ve ikinci parmak uzunluğunun (2D) dördüncü parmak uzunluğuna (4D) oranı olarak da adlandırılan 2D:4D oranının, erken tanıda bir biyobelirteç olarak çeşitli hormonlar ve kraniyofasiyal iskelet gelişim ile ilişkili olması dikkat çekicidir. Bu çalışmanın amacı, 2D:4D oranının farklı sagittal iskelet maloklüzyonlarda cinsel dimorfizm gösterip göstermediğini araştırmaktır. Vertikal açıları normal olan toplam 117 hasta (57 kadın, ort. yaş 13.44±1.98; 60 erkek, ort. yaş 13.56±2.14) çalışmaya dahil edildi ve gruplar ANB açısına göre iskeletsel sınıf I, II ve III olarak ayrıldı. İskeletsel sınıf I grubu, hem SNA hem de SNB açıları için ideal değerlere sahip hastalardan oluşuyordu. İskeletsel gruplar ayrıca cinsiyete göre kadın ve erkek olarak alt gruplara ayrıldı. Tedavi öncesi lateral sefalometrik grafilerde SNA, SNB, SN/GoGn ve ANB açıları ile ANS-PNS ve Go-Pog uzunlukları ölçüldü. Parmak uzunluk ölçümleri 0,01 mm'ye kadar ölçüm yapabilen hassas dijital kumpas ile gerçekleştirildi. 2D:4D oranı, 2D uzunluğunun 4D uzunluğa bölünmesiyle her grup için hesaplandı. İstatistiksel analizler normal dağılan verilerde bağımsız örneklem t-testi ve tek yönlü ANOVA, normal dağılmayan verilerde Kruskal-Wallis ve Man-Whitney U testleri ile yapıldı. İstatistiksel anlamlılık düzeyi $p < 0.05$ olarak kabul edildi. İskeletsel sınıflarda aynı elin parmak uzunlukları arasında ve sağ-sol 2D:4D oranları arasında istatistiksel olarak anlamlı farklılık bulunmadı. İskelet sınıfı I'lerde parmak uzunlukları ve 2D:4D oranlarında istatistiksel olarak anlamlı cinsel dimorfizm gözlenirken, maloklüzyonun şiddeti arttıkça bu anlamlılığın azaldığı gözlemlendi. İskeletsel sınıf III'lerde hiçbir parametrede cinsel dimorfizm açısından anlamlı farklılık bulunmadı. 2D:4D oranı ve iskeletsel kaide uzunlukları açısından iskeletsel maloklüzyonlar arasında anlamlı farklılık bulunmadı. Tüm parametrelerde özellikle iskeletsel sınıf I hastalarda cinsel dimorfizm görülmüş ve erkeklerin 2D ve 4D uzunluklarının kadınlara göre daha uzun olduğu ve 2D:4D oranının daha düşük olduğu saptanmıştır. Ayrıca maloklüzyon şiddeti arttıkça cinsel dimorfizm ile gözlenen parametrelerin istatistiksel anlamlılığının azaldığı sonucuna varılmıştır. Cinsel dimorfizmin iskeletsel sınıf I'de tüm ölçümlerde görülmesi, ancak iskeletsel sınıf III'lerde görülmemesi nedeniyle, cinsiyete göre 2D:4D oranının özellikle iskelet III maloklüzyonlarının erken tanısında tanısal bir biyobelirteç olarak kullanılmasının yolunu açmıştır.

Anahtar Kelimeler: 2D:4D oranı, cinsel dimorfizm, tanı, iskeletsel maloklüzyon, biyobelirteç, ortodonti

Etik: Bu çalışma, Zonguldak Bülent Ecevit Üniversitesi Girişimsel Olmayan Klinik Araştırmalar Etik Kurulu tarafından onaylanmıştır (protokol numarası: 2023/11-1 ve tarih: 31 Mayıs 2023).

ABSTRACT

It is noteworthy that the 2D:4D ratio, also called as the ratio of the length of the second digit (2D) to the length of the fourth digit (4D), which has the ability to remain stable lifetime, is associated with various hormones and craniofacial skeletal development as a biomarker in early diagnosis. The aim of this study was to investigate whether the 2D:4D ratio shows sexual dimorphism in different sagittal skeletal malocclusions. A total of 117 patients (57 females, mean age 13.44 ± 1.98 ; 60 males, mean age 13.56 ± 2.14) with normal vertical angles were included, and the groups were divided into skeletal classes I, II and III according to the ANB angle. The skeletal class I group consisted of patients with ideal values for both SNA and SNB angles. The skeletal groups were further divided into female and male subgroups by gender. SNA, SNB, SN/GoGn and ANB angles and ANS-PNS and Go-Pog lengths were measured on pretreatment lateral cephalometric radiographs. Digit length measurements were performed with a digital caliper capable of measuring up to 0.01 mm. The 2D:4D ratio was calculated for each group by dividing the 2D length by the 4D length. Statistical analyzes were performed with independent sample t-test and one-way ANOVA in normally distributed data, and Kruskal-Wallis and Man-Whitney U tests in non-normally distributed data. Statistical significance level was accepted as $p < 0.05$. There was no statistically significant difference between digit lengths of the same hand and right-left 2D:4D ratios in skeletal malocclusions. While statistically significant sexual dimorphism was observed in digit lengths and 2D:4D ratios in skeletal class Is, it was observed that the significance decreased as the severity of malocclusion increased. No significant difference was found in terms of sexual dimorphism in any parameter in skeletal class IIIs. There was no significantly difference between the skeletal groups in terms of 2D:4D ratio and skeletal base measurements. Sexual dimorphism was seen in all parameters, especially in skeletal class I patients, and it was found that males had more 2D and 4D lengths and a lower 2D:4D ratio than females. It was also concluded that as the severity of malocclusion increased, the statistical significance of the parameters observed with sexual dimorphism decreased. The fact that sexual dimorphism is fully seen in skeletal class I but not in skeletal class III has paved the way for the use of the 2D:4D ratio by gender as a diagnostic biomarker, especially in the early diagnosis of skeletal III malocclusions.

Keywords: 2D:4D ratio, sexual dimorphism, diagnostic, skeletal malocclusion, biomarker, orthodontics

Ethics: This study was approved by the Non-Interventional Clinical Research Ethics Committee of Zonguldak Bülent Ecevit University (protocol code 2023/11-1 and date 31 May 2023).

**GELİŞEN TEKNOLOJİ KARŞISINDA DİRENEN KAHRAMANMARAŞ AHŞAP
OYMACILIĞININ SANATSAL AÇIDAN İNCELENMESİ**

ARTISTIC EXAMINATION OF KAHRAMANMARAŞ WOOD CARVING WHICH
RESISTS AGAINST DEVELOPING TECHNOLOGY

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ÖZET

Hızlı değişen yaşam şartları ve çevresel etmenlerin etkisinde kalarak sürekli gelişim gösteren ahşap işleme makineleri teknolojik olarak oldukça gelişmiştir. Ahşap işleme makinelerinin hızla gelişmesi sonucunda sanat değeri taşıyan Kahramanmaraş ahşap oymacılığı bu gelişimden etkilenmeye başlamıştır. Kahramanmaraş ahşap oymacılığı Cumhuriyet öncesi dönemlerde tamamen el aletleri ile işlenerek ahşap malzemeyi şekillendirmiştir. Cumhuriyet döneminde ise ahşap oyma motifleri el freze makinasında ana hatları ile işlenip geri kalan kısmı el aletleri ile işlenmiştir. Makinalaşmanın geliştiği 1970 li yıllarda dikey freze makinası ile ahşap oyma motifleri kopyalama tekniği ile daha seri halde işlenmiş ve geri kalan kısımları oyma kalemleri ile işlenmiştir. Freze makinelerinde işlenen motiflerin ana hatları simetrik ve uyumlu kavis çizgilerin tam çıkmaması sonucunda bir eksiklik olarak kalmıştır. 2000 li yıllarda ise cnc destekli makinelerin ahşap endüstrisinde büyük oranda yer almasının ardından Kahramanmaraş ahşap oymacılığı da büyük işletmeler tarafından cnc makinelerinde işlenmeye başlanmıştır. Cnc makineleri birçok işleme tekniği sunduğundan Kahramanmaraş ahşap oymacılığı istenilen her oranda makinede işlenmiş olup kullanıcılara sunulmuştur. Cnc makinasında tamamı işlenen oyma motifleri sanatsal açıdan incelendiğinde yapay bir görsel etki oluşturmaktadır. Böylece el işçiliği ürün üzerinde kaybolmuştur. Oysaki cnc makinelerinde ahşap oyma motiflerinin sadece ana hatları işlendiğinde kavislerin uyumu, motiflerin simetrik ve hatasız işlenişi, ölçülerin milimetre cinsinden daha hassas olması oyma sanatçılarına görsel konfor sağlamakta, geriye kalan oyma kısımlarının oyma kalemleri ile el işçiliği ile yapılmasında doğal bir görünüm ile sanat değeri daha yüksek olmaktadır. Günümüzde ahşap oyma işçiliğinin değerini koruması, rekabetçi ortamda ekonomik maliyetli olması istenildiğinde oyma motiflerinin ana hatları cnc makinelerinde işlenip geri kalan kısımlarının oyma kalemleri ile el işçiliği ile yapılması önerilmekte ve gelecek nesillere bu kadim sanatın el işçiliği olarak aktarılması öngörülmektedir.

Anahtar Kelimeler: Kahramanmaraş Ahşap Oyma, Cnc Makinası, Görsel Konfor, El İşçiliği

ABSTRACT

Woodworking machines, which are constantly developing under the influence of rapidly changing living conditions and environmental factors, have developed technologically. As a result of the rapid development of woodworking machines, Kahramanmaraş wood carving, which has artistic value, has started to be affected by this development. In the pre-Republican period, Kahramanmaraş wood carving shaped the wooden material by being processed entirely with hand tools. In the Republican period, wood carving motifs were processed with the main lines on the hand milling machine and the rest were processed with hand tools. In the 1970s, when mechanisation developed, wood carving motifs were processed more serially with the copying technique with a vertical milling machine and the remaining parts were processed with carving pens. The outlines of the motifs processed in the milling machines remained as a deficiency as a result of the symmetrical and harmonious curve lines not coming out completely. In the 2000s, after the cnc supported machines took place in the wood industry to a great extent, Kahramanmaraş wood carving started to be processed in cnc machines by large enterprises. Since cnc machines offer many processing techniques, Kahramanmaraş wood carving has been processed in the machine at every desired rate and presented to the users. The carving motifs, which are completely processed on the CNC machine, create an artificial visual effect when examined from an artistic point of view. Thus, hand workmanship is lost on the product. However, when only the outlines of the wood carving motifs are processed in CNC machines, the harmony of the curves, the symmetrical and error-free processing of the motifs, the more precise measurements in millimetres provide visual comfort to the carving artists, and the remaining carving parts are made by hand with carving pens, and the art value is higher with a natural appearance. Today, when it is desired to preserve the value of wood carving workmanship and to be economical in a competitive environment, it is recommended that the main lines of the carving motifs are processed in CNC machines and the remaining parts are made by hand workmanship with carving pens and it is envisaged to transfer this ancient art to future generations as hand workmanship.

Keywords: Kahramanmaraş Wood Carving, Cnc Machine, Visual Comfort, Hand Workmanship

**EFFECT OF ACID CONCENTRATION ON SURFACE AREA OF SOL-GEL
DERIVED Y₂O₃**

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ABSTRACT

Yttrium oxide (Y₂O₃) ceramics have been investigated in detail for many technological purposes and used as important material in the ceramic industry, ceramic superconductors, MOS transistors and light-emitting materials. Phosphor materials are important tools for the efficient utilization of current energy. These materials can be used in various fields such as display panels, fluorescent paints, and bio-imaging. In this study, Y₂O₃ phosphor particles with different surface areas were produced using the sol-gel method. The aim of the study is to investigate the effect of citric acid concentration used in the solution preparation stage on the surface area of the final product. Luminescent materials can be more effectively used with increasing surface area. For this purpose, starting solutions with three different acid concentrations were prepared. The solutions were prepared to have citric acid concentrations with respect to the total metal ions (MRCM) at 0.5, 1, and 2 molar concentrations. The organic contents of the dried solutions were compared using Fourier transform infrared (FTIR) spectroscopy, and the phase structures of the obtained samples after heat treatment were analyzed using X-ray diffraction (XRD). The surface areas of the final Y₂O₃ particles were measured and characterized using Brunauer-Emmett-Teller (BET) analysis. It is observed that the acid concentration significantly changed the surface area of Y₂O₃. The surface areas of the Y₂O₃ particles increased with increasing acid concentration. The surface areas of the samples with MRCM values of 0.5, 1, and 2 were measured as 19.16 m²/g, 32.76 m²/g, and 53.48 m²/g, respectively. The study showed that the surface area, which affects the luminescent properties of phosphor materials, can be easily modified using the sol-gel method.

Keywords: Y₂O₃, Phosphorus, Acid Concentration, Surface Area

ACM, FKM ve NBR ELASTOMERLERİN FARKLI YAĞLARDA ISIL
YAŞLANDIRMA DAVRANIŞLARININ İNCELENMESİ VE GELİŞTİRİLMESİ

EXAMINATION AND DEVELOPMENT OF HEAT AGING PROPERTIES OF ACM,
FKM AND NBR ELASTOMERS IN DIFFERENT OILS

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ÖZET

Sızdırmazlık elemanlarında kullanılan kauçuk hamurların, sızdırmazlık işlevinin tam olarak sağlanması adına işletme şartlarında muhtelif agresif yağlara karşı dirençli olması beklenmektedir. Bu beklenti beraberinde daha uzun ömürlü sızdırmazlık elemanlarının; yani, kauçuk hamurlarının geliştirilmesi yönündeki çalışmalara ivme kazandırmaktadır. Döner mil keçeleri de bir sızdırmazlık elemanı olup bunlarda kauçuk hamuru olarak çoğunlukla ACM (Poliakrilar kauçuk), FKM (Florokarbon kauçuk) ve NBR (Nitrik kauçuk) bazlı elastomerler kullanılmaktadır. Bu çalışmada, bu üç farklı baz kauçuk ile muhtelif formüller tasarlanarak farklı vulkanizasyon türlerinin etkisi incelenmiştir. Bu incelemede, bu baz kauçukların muhtelif yağlara karşı direnç etkileşimi de göz önünde bulundurulmuştur. Döner mil keçelerinin maruz kaldığı/kalacağı yağlar göz önüne alınarak hem ilgili standardın (ASTM D2000) gerektirdiği yağlara hem de endüstriyel yağlara daha dirençli formüllerin geliştirilmesi amaçlanmıştır. Bu sebeple çalışmamızda ACM, FKM ve NBR kauçukları kullanılarak on iki farklı formül tasarlanmıştır. ACM bazlı kauçuklarda amin ve ürea pişirici grubu; FKM bazlı formüllerde bisfenol ve peroksit pişirici grubu; NBR bazlı formüllerde ise peroksit ve kükürt pişirici grubu ile vulkanizasyon sağlanarak formüller geliştirilmiştir. Geliştirilen formüllerde araştırılan diğer bir konu siyah ve beyaz dolgu farkının etkisi olmuştur. *On iki farklı her formülasyon için vulkanize olmamış kauçukta mooney scorch, mooney viskozite ve reometre testleri; vulkanize olmuş kauçukta ise sertlik, yoğunluk, çekme-kopma ve yırtılma direnci testleri yapılmıştır. Vulkanize olmuş ürüne 7 farklı yağda yaşlandırma sonrası, sertlik değişimi (ShA point), çekme mukavemeti değişimi (%), kopma uzaması değişimi (%) ve hacimsel değişim (%) testleri yapılmıştır. Çalışmadaki tüm testler için tekrar sayısı (n) 3 olup ortalama değer kayda alınmıştır. Sertlik ve hacimsel değişimleri minimum olan; yani, yağlardan daha az etkilenen formüller seçilerek bu formüllere göre hazırlanan kauçuk hamurlarıyla üretilen döner mil keçelerine tam ölçekli bir test ekipmanında sızdırmazlık testleri yapılmıştır. Üç farklı baz kauçuk ile tasarlanan tüm formüllerdeki değişimlerde en agresif yağın literatürü destekler yönde IRM 903 olduğu test sonuçlarından görülmüştür. ACM için hem yağ direnci hem de sızdırmazlık performansı açısından en iyi performansı gösteren elastomer AC02 reçete kod no.lu malzeme olmuştur. Bu malzemenin pişirici türü amindir. FKM için en iyi yağ direnci gösteren hamur FK03 reçete kod no.lu malzeme olmuştur. Bu malzemenin pişirici türü peroksittir. FK01 ve FK03 hamurlarının sızdırmazlık performansları eş elde edilmiştir (min.*

160 h hedefine uygundurlar). FK01 ve F03 hamurları yağ direnci açısından mukayese edildiklerinde ise FK03 hamurunun özellikle çekme mukavemeti ve kopma uzamasındaki değişim değerlerinin FK01 hamuruna göre daha uygun olduğu tespit edilmiştir. NBR için hem yağ direnci hem de sızdırmazlık performansı açısından en iyi performansı gösteren elastomer NB03 reçete kod no.lu malzeme olmuştur. Bu malzemenin pişirici türü kükürttür.

Anahtar Kelimeler: Döner mil keçesi, IRM 903, sızdırmazlık testi, *Peroksit, kükürt, Amin, Ürea, Bisfenol, Vulkanizasyon, ACM, FKM, NBR*

ABSTRACT

The rubber compounds used in the dynamic sealing elements are expected to be resistant to various aggressive oils under operating conditions in order to fully ensure the sealing function. With this expectation, longer-lasting sealing elements; that is, it accelerates the studies on the development of rubber pastes. Rotary shaft seals are also a sealing element and mostly ACM (Polyacrylar rubber), FKM (Fluorocarbon rubber) and NBR (Nitric rubber) based elastomers are used as rubber paste. In this study, the effects of different types of vulcanization were investigated by designing formulas with three different base rubbers. Rotary shaft seals are sealing elements and their materials are mostly ACM, FKM and NBR based elastomer rubbers. Considering the oils that the rotating shaft seals will be exposed to, it is aimed to develop formulas that are more resistant to both the oils required by the standard (ASTM D2000) and industrial oils. For this reason, in our study, twelve different formulas were designed by using ACM, FKM and NBR rubbers. Formulas have been developed by providing vulcanization with amine and urea vulcanization group in ACM-based rubbers, bisphenol and peroxide vulcanization group in FKM-based formulas, and peroxide and sulfur vulcanization group in NBR-based formulas. Another issue investigated in the developed formulas was the effect of the black and mineral filling difference. Another issue investigated in the developed formulas was the effect of the black and mineral filling difference. Mooney scorch, mooney viscosity and rheometer tests in unvulcanized rubber for twelve different formulations; hardness, density, tensile strength, elongation break and tear resistance tests were carried out in vulcanized rubber. After aging in 7 different oils, hardness change point, tensile strength change (%), break elongation change (%), and volumetric change tests were performed on the vulcanized product. For all tests in the study, three repetitive measurements were made and the average value was recorded. A full-scale leak test was performed by choosing formulas with minimum hardness and volumetric changes. In the changes in all formulas designed with three different base rubbers, it was seen from the test results that the most aggressive oil was IRM 903, which supports the literature. For ACM, the elastomer that showed the best performance in terms of both oil resistance and sealing performance was the material with recipe code no.AC02. The Rubber vulcanizer type of this material is amine. The dough with the best oil resistance for FKM was the material with recipe code no. FK03. The vulcanizer type of this material is peroxide. The sealing performances of FK01 and FK03 pastes were equal (conforming to the min. 160 h target). When FK01 and F03 pastes are compared in terms of oil resistance, the

change values of FK03 paste especially in tensile strength and breaking elongation are more suitable than FK01 paste. In the project, the elastomer NB03 was the material with prescription code number, which showed the best performance for NBR in terms of both oil resistance and sealing performance. The vulcanizer type of this material is sulfur.

Keywords: Rotary shaft seals , IRM 903, Sealing test, Peroxide, Sulfur, Amine, Urea, Bisphenol, Vulcanization, ACM, FKM, NBR

**THERMOLUMINESCENCE INVESTIGATION OF
Nd/Dy/Na TRIPLE-DOPED BORATE COMPOUND**

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ABSTRACT

Since the Thermoluminescence (TL) of borates can detect both neutron and gamma radiations, they show significance in the field of radiation dosimetry. Generally, undoped borates exhibit a low TL efficiency. Therefore, they are needed to be doped with suitable dopants to enhance their TL output. In our case, in addition to Na doping, rare-earth materials such as Nd and Dy were used to incorporate into the host structure of the borate. Moreover, the sample preparation technique greatly affects the sensitivity and thermal stability of the pure and doped borates to be prepared. In the present study, a novel $Ba_2Cd(BO_3)_2:Nd\%1, Dy\%2, Na\%1$ powder sample was produced by the conventional solid-state reaction method for the first time. This method is easy to perform and presents other advantages such as controllable particle size, and uniform particle size distribution. The borate sample was synthesized with this method in the air and at a high-temperature condition. The crystal structure was confirmed by X-ray diffraction (XRD) and the vibrational characteristic was determined with the Fourier transform infrared spectrophotometer (FTIR). The dosimetric characteristics of the borate sample were investigated after the sample was irradiated with β source. TL glow curves of the sample were studied. The sample was irradiated for 15, 30, 60, and 120 minutes. A simple glow curve was obtained for different irradiation duration and the dosimetric peak was located around 100°C. The trap parameters namely order of kinetics (b), activation energy (E), and frequency factor (s) were calculated by the Computer Glow Curve Deconvolution (CGCD) method and Peak Shape (PS) Analysis.

Keywords: Thermoluminescence, Borate, co-doped, Rare-Earth, Dosimetry, Solid-State Reaction

PTFE DUDAKLI DÖNER MİL KEÇELERİNDE SİNERLEME
PARAMETRELERİNİN SIZDIRMAZLIK PERFORMANSI ÜZERİNE
ETKİLERİNİN İNCELENMESİ

EXAMINATION OF THE EFFECTS OF SINTERING PARAMETERS ON SEALING
PERFORMANCE IN ROTARY SHAFT SEALS WITH PTFE LIP”

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ÖZET

Polimer malzemeler önemli gelişmeler göstererek günlük yaşantımızda ve endüstrinin hemen hemen birçok dalında kullanılan malzemeler haline gelmişlerdir. Polimerler, yapıları gereği çelik ve diğer malzemelerden farklıdır. Onların avantajlı yanları ön plana çıkartılarak kullanım alanları giderek genişlemektedir. En önemli avantajlarından biri hafif malzeme sınıfında yer almalarıdır. Birçok üstün özelliğinin yanı sıra mekanik özellikler açısından değerlendirildiğinde sertlik, mukavemet gibi özelliklerinin düşük olması plastik malzemelerin güçlendirilmesi ve geliştirilmesi için çeşitli çalışmalar yapılmasına neden olmuştur.

Teflon (PTFE - Politetrafloroetilen), kristalli polimerler grubundadır ve polimerler içinde en geniş çalışma sıcaklık aralığına sahiptir. Ayrıca, asit, baz, sıcaklık ve kimyasal çözücülere karşı dayanımı ile diğer mühendislik plastiklerinden ayrılmaktadır. Kimyasal etkilere karşı yüksek mukavemet sergileyen PTFE'nin sürtünme katsayısı da oldukça düşüktür. PTFE kendi kendini yağlama özelliğinden dolayı sızdırmazlık uygulamalarında kuru şartlarda dahi çalışma imkanı sağlar. Bunlarla birlikte, saf PTFE'nin aşınma direnci endüstriyel uygulamalar için yetersiz kalmaktadır. Bundan dolayı, saf PTFE'nin yük altında aşınma dayanımını iyileştirmek ve önemli mekanik özelliklerini geliştirmek amacıyla dolgu malzemeleri ilave edilmektedir. Bu sebeple saf PTFE malzemeye cam elyaf, karbon ve aramid gibi mukavemet artırıcı katkıları; kalsiyum karbonat, kaolin gibi mineral dolgular ve grafit, karbon, MoS₂ gibi aşınma ve sürtünme direncine karşı etkili katkıları ilave edilerek yüksek performanslı kompozit malzemeler üretilmektedir.

Bu çalışmada, karbon katkısı kullanılarak PTFE malzemeler üretilmiştir. Karbon katkılı PTFE ve 4 farklı farklı sinterleme programı kullanılarak prototip olarak üretilen PTFE'lerin mekanik ve sızdırmazlık özelliklerinin incelenmesi ve sinterleme programının optimizasyonu üzerine çalışılmıştır. Çalışılan parametreler üzerinde optimum sinterleme koşulları sıcaklık max. 370 C ve süre max. 1,5 saat olarak bulunmuştur. Bu program ile sinterlenen karbon katkılı PTFE malzemesi hedeflenen değere göre 50,6% oranında bir iyileşme göstermiştir. Sızdırmazlık performansı açısından en iyi performansı gösteren PTFE, yine aynı sinterleme programını kullanılıp prototip olarak üretilen PTFE'dir.

Anahtar Kelimeler: PTFE, döner mil keçesi, sızdırmazlık performansı, sinterleme, aşınma dayanımı, karbon

ABSTRACT

Polymer materials have become the materials used in our daily life and in almost many branches of industry by showing significant developments. Polymers differ from steel and other materials due to their structure. Their advantageous aspects are highlighted and their usage areas are gradually expanding. One of the most important advantages is that they are in the light material class. In addition to many superior properties, when evaluated in terms of mechanical properties, the low properties such as hardness and strength have led to various studies for the strengthening and development of plastic materials.

Teflon (PTFE - Polytetrafluoroethylene) is in the group of crystalline polymers and has the widest operating temperature range among polymers. In addition, it differs from other engineering plastics with its resistance to acid, base, temperature and chemical solvents. The friction coefficient of PTFE, which exhibits high resistance to chemical effects, is also very low. PTFE provides the opportunity to work even in dry conditions in sealing applications due to its self-lubricating feature. However, the wear resistance of pure PTFE is insufficient for industrial applications. Therefore, fillers are added to improve the wear resistance of pure PTFE under load and to improve its important mechanical properties. For this reason, strength-enhancing additives such as glass fiber, carbon and aramid to the pure PTFE material; High performance composite materials are produced by adding mineral fillers such as calcium carbonate, kaolin and additives effective against abrasion and friction resistance such as graphite, carbon, MoS₂.

In this study, PTFE materials were produced using carbon additives. The mechanical and impermeability properties of PTFEs produced as prototypes by using carbon-added PTFE and 4 different sintering programs were studied and the optimization of the sintering program was studied. Optimum sintering conditions on the studied parameters temperature max. 370 C and time max. It was found to be 1.5 hours. The carbon added PTFE material sintered with this program showed an improvement of 50.6% compared to the target value. PTFE, which shows the best performance in terms of sealing performance, is the PTFE produced as a prototype by using the same sintering program.

Keywords: PTFE, rotary shaft seal, sealing performance, sintering, wear rate, carbon

**VERİMLİLİK ÇALIŞMALARI DOĞRULTUSUNDA BİR TEKSTİL
FABRİKASINDA ENERJİNİN ETKİN KULLANIMI VE REKABETÇİLİĞİN
ARTIRILMASI**

EFFICIENT USE OF ENERGY AND ENHANCING COMPETITIVENESS IN A TEXTILE
FACTORY THROUGH PRODUCTIVITY INITIATIVES

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ÖZET

Dünyada tekstil endüstrisi, büyük ölçüde gelişmiş ve gelişmekte olan ülkelerde önemli bir enerji tüketicisidir. Büyüyen nüfus ve artan gelir seviyeleri, tekstil talebini artırmakta ve buna bağlı olarak enerji tüketimini artırmaktadır. Bu da enerji kaynaklarının verimli kullanımının önemini ortaya çıkarmaktadır.

Tekstil üretimi ve işlemleri prosesi gereği su ve enerji tüketimine ve atık üretimine neden olmaktadır. Enerji kullanımındaki bu artışa karşı kaynaklardaki azalmalar özellikle tekstil endüstrisinde faaliyet gösterdiği sanayi sektörünü tedbirler almayı zorunlu hale getirmiştir. Çünkü enerjinin verimli kullanımı sınırlı olan fosil kaynakların kullanım süresini uzatarak olumlu yönde etkilemesinin yanı sıra karbon emisyonları ve buna bağlı ortaya çıkan zararlı çevresel etkileri azaltmak için önemli bir avantaj sağlamaktadır.

Tekstil sektörünün temellerini oluşturan iplik üretimi enerjinin en yoğun kullanıldığı sanayi alanı olarak bu çalışmanın konusunu oluşturmuş ve bu doğrultuda Çukurova bölgesinde yer alan bir tekstil fabrikası ele alınmıştır. Bobin boyama, çile boyama ve degrade boyama olmak üzere farklı iplik boyama proseslerinin gerçekleştiği fabrikada; su, doğalgaz, elektrik ve buhar olmak üzere çeşitli enerji kaynakları kullanılmaktadır. Çalışma kapsamında bobin boyama kazanlarındaki enerji kullanımına ve yüzey alanlarda oluşan termal kayıplara dikkat çekilmiş ve iyileştirme önerilerinde bulunulmuştur. Kaynak kullanımında yapılacak her iyileştirme enerjinin verimli kullanılmasını sağlarken ürünün maliyetini azalacağı ve kilogram başına karbon emisyon değerini de düşüreceği görülmüştür. Bu da "Yeşil Mutabakat" kapsamında Avrupa birliği ülkelerine ihracat gerçekleştirecek üreticileri avantajlı konuma getirecektir.

Bu çalışma ile tekstil sektöründeki enerji kullanımının etkin bir şekilde yönetilmesine ve enerji verimliliğine odaklanılmış, enerji kullanımının hem ekonomik hem de çevresel boyutuna değinilerek yaşanabilir bir dünya için adım atmamızı sağlayacak faaliyetler için kaynak oluşturması hedeflenmiştir.

Anahtar Kelimeler: Tekstil, Enerji verimliliği, Karbon emisyonu, Rekabet gücü

ABSTRACT

Textile industry is a significant energy consumer in both developed and developing countries worldwide. The growing population and increasing income levels are driving the demand for textiles, consequently leading to higher energy consumption. This highlights the importance of efficient energy usage.

Textile production and processing processes require substantial water and energy consumption and result in waste generation. The rising energy demand in this sector has compelled industrial players, especially in the textile industry, to take measures due to the dwindling energy resources. Efficient energy use not only extends the limited lifespan of fossil fuels but also provides a crucial advantage in reducing carbon emissions and mitigating harmful environmental effects.

The focus of this study is on yarn production, which constitutes the foundation of the textile sector, and particularly examines a textile factory in the Çukurova region. The factory employs various energy sources such as water, natural gas, electricity, and steam for different yarn dyeing processes, including package dyeing, hank dyeing, and gradient dyeing. The study draws attention to the energy consumption in the package dyeing machines and the thermal losses occurring in surface areas, providing improvement suggestions. It is observed that any enhancement in resource utilization would lead to efficient energy consumption, cost reduction of the products, and a decrease in carbon emission per kilogram. Consequently, this would place manufacturers engaging in export to European Union countries in an advantageous position, in line with the "Green Deal" initiative.

This study aims to contribute as a resource for activities that focus on effectively managing energy use and promoting energy efficiency in the textile sector. It addresses both the economic and environmental dimensions of energy consumption, facilitating steps towards a sustainable world.

Keywords: Textile, Energy efficiency, Carbon emission, Competitive advantage

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ARTIRILMASI

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Keywords: Textile, Energy efficiency, Carbon emission, Competitive advantage

**DETERMINATION OF MECHANICAL PROPERTIES OF CONNECTING ROD
MATERIAL AND SIMULATION WITH FINITE ELEMENTS**

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ABSTRACT

Connecting rods are the critically important parts of an internal combustion engine, converting the linear motion of the piston to the rotational motion of the crankshaft as a result of the explosion caused by the ignition of the fuel injected into compressed air. It must have high mechanical strength against tensile and compressive forces. Connecting rod material selection is of high importance to determine the alloy groups in order to incorporate all these features. Alloy elements are very important in steel structure. Alloying elements have an effect on the improvement of mechanical properties such as yield limit, tensile strength, fatigue strength and machinability by providing a different internal structure of steel. Since the effects of alloying elements are not summable, the changes in properties expected when all alloying elements are present together can only be discussed in a general framework. The effects of alloying elements on the microstructure and mechanical properties of C70S6 steel used in connecting rods, whose production method is the fracture type, are examined. Within the scope of this study, a four-stroke, four-valve, water-cooled, direct injection BAŞAK 409 type diesel engine was used. Engine experiments were carried out at 1500 rpm engine speed at full load. The direct injection diesel engine was tested with an electric active dynamometer and the combustion pressure of the engine was determined experimentally. The combustion pressure was made with a fiber optic pressure sensor placed on the cylinder and an encoder connected to the crankshaft. For combustion pressure, 200 cycles were collected at the test point. For finite element analysis, engine block, piston, piston pin, crankshaft, main journal bearing, bolt, cap, flywheel were modeled as rigid body and connecting rod as flexible body. The crank angle dependent combustion pressure obtained as a result of the experiments was entered as a pressure value into the second cylinder of the engine and finite element analysis was run. As a result of the structural analysis, the stress value in the connecting rod was found to be 285 MPa. The stress value found is below the yield strength and tensile strength. Theoretically, when a stress half of the tensile strength of steels occurs, it is accepted as infinite life. In line with this assumption, the connecting rod examined in this study is expected to operate with infinite life.

Keywords: Diesel Engine, Fracture-type Connecting Rod, C70S6 Steel, Multi Body Dynamics, Finite Element Method, Structural Analysis

**NON-RENORMALIZABLE GRAND UNIFICATION UTILIZING THE
LEPTOQUARK MECHANISM OF NEUTRINO MASS**
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ABSTRACT

We analyze a non-supersymmetric, non-renormalizable grand unified theory based on the SU(5) gauge group whose particle content is that of the Georgi-Glashow model augmented only by scalars from the complex **10** and **40** representations. A prediction of this model is a color sextet, weak isodoublet whose mass lies at 1 TeV (10 TeV) and that does not couple to Standard Model fermions at tree level.

The leptoquark mechanism through which Majorana neutrinos acquire their masses radiatively relates the neutrino mass matrix to that of the down-type quarks. A consequence of this relation and perturbativity of coupling constants is the upper bound of 2.5×10^{15} GeV on the masses of the scalar leptoquarks S_1^* and \tilde{R}_2 . The mass of \tilde{R}_2 , even though it has no diquark couplings, is also constrained to be greater than 2.4×10^9 GeV due to an instability induced by electroweak symmetry breaking.

The mass matrices of charged fermions are reproduced correctly à la Ellis and Gaillard. In particular, the mass matrices of down-type quarks and charged leptons require non-renormalizable terms to modify the unwanted equality of the masses of down-type quarks and charged leptons in each of the two lighter generations at the grand unification scale.

In order to accomplish unification of gauge couplings, in addition to S_1^* , \tilde{R}_2 , and the aforementioned color sextet, weak isodoublet particle, we make use of a weak isovector particle with hypercharge $2/3$ which is in the fundamental representation of the color gauge group. We solve for the mass of this fundamental color, weak isovector particle and the grand unification scale using the coupled differential equations involving the 2-loop beta function. We find the grand unification scale to exceed 1.4×10^{16} GeV in all scenarios considered.

Keywords: Grand Unified Theories, Beyond Standard Model, Neutrino Mixings, Leptoquarks

MSC ADAMS VIEW YAZILIMI İLE ÇOK AMAÇLI 8/9 TON YÜRÜR ŞASE
ARAÇLARININ ÖN SÜSPANSİYON SİSTEMİNİN DİNAMİK ANALİZİ

DYNAMIC ANALYSIS OF THE FRONT SUSPENSION SYSTEM OF MULTI-PURPOSE
8/9 TON ROLLING CHASSIS VEHICLES USING MSC ADAMS VIEW SOFTWARE

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ÖZET

Bu çalışmada, 8/9 ton kapasiteli çok amaçlı yürür şase arazi aracının bağımlı ön süspansiyon sisteminin dinamik davranışlarının analizi mekanik sistemler simülasyon yazılımı olan Msc Adams View yazılımı kullanılarak gerçekleştirilmiştir. Zorlu arazi koşullarında personel taşıyıcı olarak kullanılmak istenen yürür şase araçları yüksek tonajlı zırhlı kabin ile donatılacaktır. Zırhlı kabinler personelin can güvenliğini sağlamak amacıyla tasarlandığı için yüksek tonajlara ulaşabilmektedir. Bu sebeple yüksek tonajlar altında çalışacak olan bağımlı ön süspansiyon sistemi, arazi koşullarında yol yüzeyinden kaynaklanan sarsıntı, salınım ve ani şokları absorbe ederek aracın sürüş konforu ve güvenliğini sağlaması gerekmektedir. Sürüş konforu ve güvenliği için tasarlanan bağımlı ön süspansiyon sisteminde aks, yaprak yaylar yerine, alta ve üstte ikişer adet kontrol kolları ile şaseye bağlantısı gerçekleştirilmiştir. Tasarım aşamasında aks ile shaft arasındaki pinyon açısını mümkün olduğu kadar sabit tutarak aksın dönmesini engelleyecek bir süspansiyon sistemi tercih edilmiştir. Araç hareket halindeyken ön süspansiyonun çukurda veya tümsekte pinyon açısını sabit tutacak ve aksın dönmesini engelleyecek sistemi oluşturmak için kontrol kollarının yan görüntüsü paralel ve eşit uzunlukta olması gerekmektedir. Bu sebeple, ön süspansiyon sistemi alt ve üst kontrol kollarının yandan görüntüsü birbiri ile paralel ve eşit uzunlukta olacak şekilde tasarlanmıştır. Bağımlı dört kollu ön süspansiyon sisteminde yer alan parçalar 3 boyutlu olarak tasarlanmış ve sanal ortamda araç üzerinde montajı yapılmıştır. Tasarım çalışmasında süspansiyon üzerindeki linkage, süspansiyon yayı ve amortisörü gözardı edilmiştir. Tasarımı yapılan süspansiyon sisteminin bağlantı noktalarının (hardpoints) koordinatları belirlenmiştir. Belirlenen koordinatlar ile süspansiyon sistemi Msc Adams View programında modeli oluşturulmuştur. Aks ile şase arasındaki bağlantıyı sağlayan kontrol kollarının aks ve şase üzerindeki bağlantı noktalarının konumları belirlendikten sonra mekanik sistemler simülasyon yazılımı olan Msc Adams View programı ile kinetik analizi gerçekleştirilmiştir. Msc Adams View ortamında aks 150 mm yukarı (bound) ve 100 mm aşağı (rebound) yönlü hareket edecek şekilde 20 saniyede gerçekleştirilecek bir simülasyon oluşturulmuştur. Simülasyon yazılımından elde edilen veriye göre tasarımın uygunluğu doğrulanmış ve böylece aks ayna mahrutu giriş flanşının paralellik sapması sıfır (0°) dereceye indirgenmiştir. Simülasyon sonucuna göre belirlenen bağlantı noktaları için braket tasarımı aşamasına geçiş yapılmıştır.

Anahtar Kelimeler: Dinamik Analiz, Bağımlı Ön Süspansiyon, Msc Adams View, Tasarım

ABSTRACT

In this study, the analysis of the dynamic behavior of the dependent front suspension system of a multi-purpose rolling chassis off-road vehicle with a capacity of 8/9 tons was conducted using the mechanical system simulation software Msc Adams View. The rolling chassis vehicles intended for use as personnel carriers in challenging terrain conditions will be equipped with a high-tonnage armored cabin. Due to the armored cabins being designed to ensure personnel safety, they can achieve high tonnages. Therefore, the dependent front suspension system, which will operate under high tonnages, needs to absorb vibrations, oscillations, and sudden shocks caused by the road surface in off-road conditions, ensuring the vehicle's driving comfort and safety. In the designed dependent front suspension system for driving comfort and safety, the axle is connected to the chassis using two upper and two lower control arms instead of leaf springs. During the design process, a suspension system that keeps the pinion angle between the axle and the shaft as constant as possible, preventing the axle from rotating, was preferred. While the vehicle is in motion, the front suspension system must maintain a constant pinion angle in potholes or bumps and create a system that prevents axle rotation. For this, the side view of the control arms must be parallel and of equal length to create a suspension system that maintains a constant pinion angle in potholes or bumps and prevents axle rotation. Therefore, the front suspension system was designed with the side views of the upper and lower control arms parallel to each other and of equal length. The parts in the dependent four-arm front suspension system were designed in 3D and mounted on the vehicle in a virtual environment. Linkages, suspension springs, and shock absorbers on the suspension were disregarded in the design work. The coordinates of the connection points (hardpoints) of the front suspension system were determined in the Creo Parametric program. With the determined coordinates, the suspension system model was created in the Msc Adams View program. After determining the positions of the connection points of the control arms that provide the connection between the axle and the chassis, kinetic analysis was performed using the mechanical system simulation software Msc Adams View. In the Msc Adams View environment, a simulation was created to allow the axle to move 150 mm upwards (bound) and 100 mm downwards (rebound) in 20 seconds. The suitability of the design was verified based on the data obtained from the simulation software, and thus, the parallelism deviation of the axle mirror's input flange was reduced to zero (0°) degrees. For the connection points determined according to the simulation result, the bracket design phase was started.

Keywords: Dynamic Analysis, Dependent Front Suspension, Msc Adams View, Design

**YÜKSEK MALİYETLİ OPTİMİZASYONDA MANTA VATOZ ALGORİTMASININ
PERFORMANS ANALİZİ**
PERFORMANCE ANALYSIS OF MANTA RAY ALGORITHM IN EXPENSIVE
OPTIMIZATION

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ÖZET

Vatoz balıkları, sualtı mikrofaunasının bir türü olan planktonları beslenme kaynağı olarak kullanan organizmalardır. Beslenirken ağızlarının açısını kullanarak suyu ve avlarını emerler ve avlarını sudan süzerek filtrelerler. Bu balıklar, en iyi besini bulmak için düzenli bir şekilde çalışan canlılardır. Manta Vatoz Algoritması (Manta Ray Foraging Optimization, MRFO) da bu vatoz balıklarının özelliklerine dayanarak oluşturulmuştur. Bu algoritma, Zhao ve arkadaşları tarafından 2020 yılında önerilmiştir ve bu canlıların üç farklı arama stratejisini taklit etmektedir: zincir, siklon ve takla yeme. Vatoz balıklarının organize ve etkili beslenme stratejilerini taklit ederek, verimli ve hızlı bir şekilde çözüm elde etmeyi hedeflemektedir.

Bu çalışmada, yüksek maliyetli optimizasyon problemlerinin çözümünde etkili bir yöntem olarak MRFO'nun performansı analiz edilmiştir. Deneyler için IEEE Evolutionary Computation 2015 kongresinde bir yarışma kapsamında sunulan on beş adet tek hedefli, sınırlı koşullu ve yüksek hesaplama maliyetine sahip test fonksiyonları kullanılmıştır. Bu fonksiyonlar, gerçek hayattaki pek çok karmaşık problemin modellenmesinde kullanılan zorlu test problemleridir. MRFO kullanılarak test fonksiyonları 10 ve 30 boyut için çözülmüştür. Algoritmanın sonuçları, JAYA, karga arama algoritması, tavuk sürü optimizasyon ve balina optimizasyon algoritmaları ile karşılaştırmıştır. MRFO oldukça rekabetçi sonuçlar elde etmiştir.

Anahtar Kelimeler: Optimizasyon, Sürü Zekası, CEC 2015, Manta Vatoz Algoritması

ABSTRACT

Manta rays are organisms that utilize plankton, a type of underwater microfauna, as a food source. While feeding, they use the angle of their mouths to draw in water and prey, subsequently filtering their prey out of the water. These fish are organisms that work systematically to find the best food source. The Manta Ray Foraging Optimization (MRFO) algorithm is inspired by the characteristics of these manta rays. Proposed by Zhao and colleagues in 2020, this algorithm mimics three distinct foraging strategies of these creatures: chain feeding, cyclone feeding, and somersault feeding. By emulating the organized and effective feeding strategies of manta rays, the algorithm aims to achieve efficient and rapid solutions.

In this study, the performance of the MRFO method is analyzed as an effective approach to solving high-cost optimization problems. Fifteen single-objective, constrained, and computationally expensive test functions presented within a competition at the IEEE Evolutionary Computation 2015 Congress were utilized for experiments. These functions represent challenging test problems commonly used to model various complex real-world issues. The MRFO was applied to solve the test functions in dimensions 10 and 30. The results of the algorithm were compared with JAYA, Crow Search Algorithm, Chicken Swarm Optimization, and Whale Optimization algorithms. MRFO demonstrated highly competitive outcomes.

Keywords: Optimization, Swarm Intelligence, CEC 2015, Manta Ray Algorithm

**A SIMULATION BASED OPTIMIZATION MODEL FOR MINIMIZING THE
TOTAL ROUTE LENGTH FOR FIRST-MILE LOGISTICS IN E-COMMERCE
SECTOR**

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ABSTRACT

In the e-commerce sector, increasing customer demand leads to higher demand for first-mile logistics, which can lead to potential complexities in transporting goods from the seller to the company's depots. One of the complex problems in first-mile logistics is determining transportation routes. In this paper, the problem of picking up and delivering of goods from/to vendors within specific time windows has been addressed. This task requires the management of multiple depots and heterogeneous vehicles, each with different starting points and different shift schedules. Pickup operations involve picking up items from vendors and transporting them to their respective depots. Conversely, the vehicles must process canceled orders by picking up items from the depots and returning them to the vendors. The aim of this study is to maximize the total coverage of seller locations for a given list of sellers and minimize the total route length. To solve this problem, an Adaptive Large Neighborhood Search (ALNS) algorithm has been used with multiple destruction and repair heuristics augmented by a Simulated Annealing component for the solution selection process. Currently, this algorithm is used daily with nearly 100 vendor locations and 10 trucks. As a result, truck utilization increased from 79% to 85%, resulting in seller locations covered per truck from 4.3 to 5 (covered seller locations per truck).

Keywords: Optimization, First - Mile Logistics, Simulation, E-commerce

**MACHINE LEARNING BASED SENTIMENT CLASSIFICATION MODELS FOR
CUSTOMER REVIEWS ON E-COMMERCE MARKETPLACES**

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ABSTRACT

Recently, with the increasing use of social media, blogs, educational platforms, and shopping sites, the number of user comments has also increased. It is of great importance that the information and comments that circulate on the Internet are processed and put into a form that provides feedback to the companies that launch products or develop services. This study aims to develop a machine learning-based application to support marketing using the comments on similar products sold in different e-commerce marketplaces. To analyze the sentiments in the comments, data from Amazon, Hepsiburada, n11, and Trendyol have been extracted using data scraping. Comments in the dataset have been labeled in as positive, negative or mixed. Sentiment classification models have been developed using Logistic Regression (LR), K-Nearest Neighbors (KNN), Adaptive Boosting (AdaBoost), Naive Bayes (NB), Stochastic Gradient Descent Classifier (SGDC), Decision Tree (DT), Random Forest (RF), Gradient Boosting (GB) and Support Vector Machine (SVM). The performance of the developed models has been evaluated using Accuracy. The results show that the GB-based model yields superior performance for sentiment classification.

Keywords: Sentiment Analysis, E-Commerce, Machine Learning, Customer Reviews

DEVELOPMENT OF A SOFTWARE BASED WEB APPLICATION FIREWALL

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ABSTRACT

Nowadays, attackers are constantly making attacks to gain financial gain or cause financial and prestige losses to companies. E-commerce sites with high traffic and millions of members are the target of attackers. During the campaign periods, there is much more traffic than the normal time, and this traffic increases exponentially every year. Due to this increase, it is difficult to ensure the accessibility and security of services open to the outside world under high traffic due to the fact that traditional Web Application Firewall (WAF) devices are not scalable against growth requirements and can not provide flexibility for the rules that can be written for web application security. The aim of this study is to develop a system that can scale quickly under high traffic, is ready for automation by integrating with other systems and can prevent malicious requests to web applications over software-based Hypertext Transfer Protocol / Hypertext Transfer Protocol Secure protocols. For this purpose, the Modsecurity module has been added to all load balancers as a static module. Then, a Border Gateway Protocol contiguity has been established in order to expand horizontally with routers as many times as desired. As a result of the study, the operational cost has been reduced as the load balancer configurations were created dynamically.

Keywords: Web Application Firewall, Border Gateway Protocol, Security

**APPLYING MACHINE LEARNING TECHNIQUES FOR FOOTWEAR DEMAND
FORECASTING IN E-COMMERCE MARKETPLACES**

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ABSTRACT

E-commerce sales represent a critical dimension for retail companies, impacting their success and quality of service. Timely and accurate response to changing customer demand is essential for retailers to compete effectively and differentiate themselves from other companies. This study aims to develop demand forecasting models for footwear products. Linear Regression (LR), Decision Tree (DT), and Random Forest (RF) have been utilized to develop demand forecasting models. A comprehensive dataset consisting of 5887 rows and 7 attributes has been obtained from historical sales data of FLO online sales located in Amazon marketplace, one of the largest footwear manufacturers and retailers in Turkey. The performance of the developed models has been evaluated using Mean Absolute Error (MAE), Mean Squared Error (MSE) and R². The results show that DT-based models are able to accurately predict demand forecasting. Retailers can use these models to optimize their inventory management and respond effectively to changing customer needs.

Keywords: Product Sale Volume, Demand Forecasting, Machine Learning, Marketplace given.

TECHNOLOGICAL DEVELOPMENTS OF SMES SYSTEMS IN DISTRIBUTION NETWORKS

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ABSTRACT

Today electric power has become one of the most significant requirements for vital activities. New energy sources have been found along with the depletion of the current energy sources and the development of the technology. Electric power has been generated from various energy sources and tried to be distributed to the consumers. At this stage, in the transmission of electric power to consumers from the generation center, distribution to consumers with the least loss and in a high-quality manner matters. In this case, the use of an energy storage system (ESS) is deemed an extensively applicable solution. Energy storage systems may store the electric power based on demand and if required, may provide the energy again. Due to the great potential of energy storage and the increasing development of the market, researches are performed on the types, implementations and evaluation systems of energy storage systems and the most suitable solution is presented. In order to provide high-quality electric power, one of the most reliable and cost-effective options for optimizing the efficiency and stability of transmission and distribution network systems is superconducting magnetic energy storage (SMES). SMES is a new technology used for regulating power fluctuations and preserving the stability of the network when great changes occur in load. This article refers to ESS and the types of storage systems preferred as per the system requirements, and additionally, it presents a comparison of its advantages and disadvantages. The SMES technology and its usage areas in the distribution networks were included and it was considered that a significant contribution would be made to the literature.

Keywords: Electric Power, Distribution Network, ESS, SMES.

**PREEKLAMPSİ OLGULARINDA PLASENTADA BETA AMİLOİD PROTEİN
EKSPRESYONUNUN ARAŞTIRILMASI**
(INVESTIGATION OF BETA AMYLOİD PROTEİN EXPRESSION IN THE PLACENTA
OF PREECLAMPSIA CASES)

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ÖZET

Preeklampsisi (PE), yaygın bir plasenta ilişkili gebelik komplikasyonudur. İntrauterin gelişme geriliği, plasenta dekolmanı ve fetal kayıp gibi komplikasyonlara yol açar. PE için henüz güvenilir bir erken tanı belirteci ve etkin tedavi mevcut değildir. Protein agresyon hastalıkları, proteinlerin yanlış katlanması ve hücrede protein agregatlarının oluşumu ile karakterizedir. Protein yanlış katlanması ve protein agregatlarının oluşumu nörodejeneratif hastalıkların yanı sıra PE'nin patogenezi ile de ilişkilidir. Amiloid beta (A β), β - ve γ -sekretaz enzim aktiviteleri tarafından amiloid öncü proteininden türetilmektedir. Beyinde A β peptidinin sitotoksik birikimi Alzheimer'ın gelişiminin temel faktörlerinden biridir.

Çalışmamızda preeklampitik gebelerin plasenta dokularında beta amiloid immün ekspresyonunu inceledik

Çalışmada preeklampsisi tanısı alan (n:20) ve normotansif (n:20) gebenin plasenta doku örnekleri kullanıldı. Dokular, %10'luk formalinde 24 saat fikse edildi. Dokulardan elde edilen kesitler, hematoxilen-eozin ve A β primer antikoru kullanılarak immünohistokimya boyama yöntemleriyle boyandı.

Normotansif grupta yer alan plasenta doku kesitleri normal görünümdeydi. PE, grubundaki plasenta kesitlerinde vasküler dilatasyon ve trombus, intervillöz aralıkta kanama villöz yapı dejenerasyonu villöz konjesyon izlendi. β -amiloid ekspresyonu, normotansif gruptadaki plasenta kesitlerinde negatifti. PE grubunda yer alan kesitlerde ise kök villus ve yüzen villus bağ dokusunda, sinsiyal düğümlerde ve sinsiyotrofoblastlarda pozitif beta-amiloid ekspresyonu gözlemlendi.

Preeklampitik gebelerin plasenta dokularında saptanan A β , preeklampsisi patogeneziinde merkezi bir role sahip olabilir.

Anahtar Kelimeler: Amiloid beta, Preeklampsisi, Protein yanlış katlanması

ABSTRACT

Preeclampsia (PE) is a common placenta-related pregnancy complication. It causes complications such as intrauterine growth retardation, placental abruption and fetal loss. There is no reliable early diagnosis marker and effective treatment for PE yet. Protein aggregation diseases are characterized by the misfolding of proteins and the formation of protein aggregates in the cell. Protein misfolding and formation of protein aggregates are associated with the pathogenesis of PE as well as neurodegenerative diseases. Amyloid beta (A β) is derived from amyloid precursor protein by β - and γ -secretase enzyme activities. Cytotoxic accumulation of the A β peptide in the brain is one of the main factors in the development of Alzheimer's.

In our study, we examined beta amyloid immune expression in the placental tissues of preeclamptic pregnant women.

In the study, placental tissue samples of pregnant women diagnosed with preeclampsia (n:20) and normotensive (n:20) were used. Tissues were fixed in 10% formalin for 24 hours. Sections obtained from tissues were stained by immunohistochemistry staining methods using hematoxylin-eosin and A β primary antibody.

Placental tissue sections in the normotensive group had a normal appearance. In the PE group, vascular dilatation and thrombus were observed in the placental sections, and bleeding in the intervillous space, villous structure degeneration, villous congestion. β -amyloid expression was negative in placental sections in the normotensive group. In the sections in the PE group, positive beta-amyloid expression was observed in root villus and floating villus connective tissue, syncytial nodes and syncytiotrophoblasts.

A β detected in the placental tissues of preeclamptic pregnant women may have a central role in the pathogenesis of preeclampsia.

Keywords: Amyloid beta, Preeclampsia, Protein misfolding

**A RARE CAUSE OF FOCAL SEGMENTAL GLOMERULOSCLEROSIS:
HETEROZYGOUS MUTATION IN NPHS1 GENE AND HOMOZYGOUS
MUTATION IN CD2AP GENE**

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ABSTRACT

In children with idiopathic nephrotic syndrome, approximately 85% of cases show complete remission of proteinuria with standard doses of glucocorticoid therapy. Mutations in podocyte-related genes can be detected in 10–30% of patients with steroid-resistant nephrotic syndrome. Numerous studies in children have reported complete remission rates of 3–4% and partial remission rates of 10–16% with immunosuppression in patients with genetic steroid-resistant nephrotic syndrome. Therefore, the decision for immunosuppression in genetic focal segmental glomerulosclerosis should consider the risk of treatment-related side effects and low response rates. Herein, we report a patient with steroid-resistant nephrotic syndrome with a heterozygous mutation in the NPHS1 gene and a homozygous mutation in the CD2AP gene who relapsed after 6 years of cyclosporine treatment. A renal biopsy revealed focal segmental glomerulosclerosis, and complete remission was achieved with cyclosporine treatment.

Keywords: Steroid-resistant nephrotic syndrome, focal segmental glomerulosclerosis, cyclosporine, NPHS1 gene, CD2AP gene

ÖZET

İdiyopatik nefrotik sendromlu çocuklarda vakaların yaklaşık %85'i standart dozlarda glukokortikoid tedavisi ile proteinüride tam remisyon gösterir. Steroide dirençli nefrotik sendromlu hastaların %10-30'unda, podosit ile ilişkili genlerdeki mutasyonlar saptanabilir. Çocuklarda yapılan çok sayıda çalışmada, genetik nedenli steroid dirençli nefrotik sendromlu hastalarda immunsupresyon ile tam remisyon oranlarını %3-4 ve kısmi remisyon oranlarını %10-16 olarak bildirilmiştir. Bu nedenle, genetik nedenli fokal segmental glomerulosklerozis'te immunsupresyon kararı, tedaviye bağlı yan etki riskini ve düşük yanıt oranlarını dikkate almalıdır. Biz burada steroid dirençli nefrotik sendrom nedeniyle genetik testlerde NPHS1 geninde heterozigot ve CD2AP geninde homozigot mutasyon saptanan hastanın yaklaşık 6 yıl siklosporin kullandıktan sonra relaps olması nedeniyle yapılan böbrek biyopsisi ile fokal segmental glomeruloskleroz saptandıktan sonra tekrar başlanan siklosporin tedavisi ile tam remisyona elde edildiğini bildirdik.

Anahtar Kelimeler: steroid dirençli nefrotik sendrom, fokal segmental glomeruloskleroz, siklosporin, NPHS1 geni, CD2AP geni

RECURRENT PNEUMOTHORAX DUE TO FABRY DISEASE

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ABSTRACT

Fabry disease is an X-linked lysosomal storage disorder caused by a deficiency of alpha-galactosidase A, leading to the deposition of sphingolipids in all cells and consequent organ dysfunction. Glycosphingolipids and their derivatives accumulate in various tissues, leading to progressive cardiac, renal, and other organ dysfunctions as well as neuropathic pain, cerebrovascular disease and gastrointestinal disorders. Pulmonary involvement is rare, and pneumothorax has been reported in a few case reports. The effect of enzyme replacement therapy on respiratory involvement in Fabry disease is unclear. Here, we report a case of spontaneous pneumothorax recurring three time in a patient who was diagnosed with Fabry disease during pre-kidney transplant recipient evaluation and started enzyme replacement therapy after kidney transplantation.

Keywords: Fabry disease, pneumothorax, kidney transplantation

ÖZET

Fabry hastalığı, neredeyse tüm hücrelerde sfingolipidlerin depolanmasına ve sonuç olarak organ işlev bozukluğuna yol açan alfa-galaktosidaz A eksikliğinin neden olduğu X'e bağlı bir lizozomal depo bozukluğudur. Glikosfingolipidler ve türevleri çeşitli dokularda birikerek ilerleyici kardiyak, renal ve diğer organ fonksiyon bozukluklarının yanı sıra nöropatik ağrı, serebrovasküler hastalık ve gastrointestinal rahatsızlıklara yol açar. Pulmoner tutulum nadir olup pnömotoraks az sayıda vaka raporları şeklinde bildirilmiştir. Enzim replasman tedavisinin Fabry hastalığında solunum tutulumu üzerindeki etkisi net olarak açıklanmamıştır. Burada böbrek nakli öncesi alıcı değerlendirilmesi sırasında Fabry hastalığı tespit edilen, böbrek nakli sonrası enzim replasman tedavisi başlanan hastada, spontan 3 kez tekrarlayan pnömotoraks vakamızı sunuyoruz.

Anahtar Kelimeler: Fabry hastalığı, pnömotoraks, böbrek nakli

**ENDER BİR VAKA: STEVENS-JOHNSON SENDROMU TANISI ALAN HASTANIN
YOĞUN BAKIM SÜRECİ**
**A RARE CASE: THE INTENSIVE CARE PROCESS OF THE PATIENT DIAGNOSED
WITH STEVENS-JOHNSON SYNDROME**

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ÖZET

Stevens-Johnson sendromu (SJS) akut başlangıçlı, yüksek ateş, pürülan konjunktivit, eroziv stomatit ve vezikülobüllöz deri lezyonlarıyla karakterize bir hastalıktır. Etyolojisinde çoğunlukla ilaçlar sorumlu olmakla birlikte infeksiyonlar, kimyasallar, malign hastalıklar ve kollojen doku hastalıkları önemli rol oynamaktadır. Acil müdahale ile kendini sınırlayabilirken, sepsis veya ölümlerle de sonuçlanabilir. Sebep olan ajanın kesilmesi tedavide ilk basamaktır. Kortikosteroidler, intravenöz immünglobulinler, immunsupresif ilaçlar, hemodiyaliz, plazmaferez, hiperbarik oksijen diğer tedavi seçenekleridir. Bu olgu sunumunda Yoğun Bakım Ünitesi'nde son dönem metastatik meme kanseri olan ve hastane kökenli pnömoni nedeniyle tedavi gören bir hastada gelişen SJS'nu sunmayı amaçladık.

52 yaşında bayan hasta, son dönem meme kanseri nedeniyle başka bir merkezde genel destek tedavisi amaçlı takipdeyken, hastane kökenli pnömoni nedeniyle Piperasilin-tazobaktam başlanmış ve tedavisi 14.günde stoplanmış. Bilinen bu ilaç kullanımı dışında nöks metastatik meme kanseri risk faktörleri olan hastada, akut gelişen burun mukozası, oral mukoza ve genital bölgede başlayıp tüm vücuda yayılan makulopapüler döküntüler, konjunktivada eritem olması ve oral alımda bozulma ile birlikte bilinç kaybı olması üzerine devir alındı. Cildiye kliniğine konsülte edilen hastanın lezyonları stevens-johnson sendromu ile uyumlu bulundu. İlaç kullanımında kısıtlama önerilen hastanın antibiyotikleri kesildi. Hastanın saatler içerisinde lezyonlarında artış olması ve vücut yüzeyinin %75 'ine ulaşması ile yoğun bakımda tek kişilik izole odaya nakli gerçekleştirildi. Tedavi için 2 g/kg IVIG planlandı, bu doz 5 güne bölünerek verildi. Prednol 60 mg , proton pompa inhibitörü 40 mg, DMAH (düşük molekül ağırlıklı heparin) 0.4 İÜ olacak şekilde tedavisi planlandı. İdrar çıkışı 1 mL/kg/saat olacak şekilde sıvı resüsitasyonu planlandı. Ağız mukozasındaki lezyonlar için klorheksidinli gargara ve sodyum bikarbonatlı ağız pansumanı, göz tutulumu için moksifloksasin damla, hyaluronik asitli damla, refresh ve basitrasin-neomisin göz pomadı uygulandı. Ağız mukozasında oluşan yaygın lezyonlar nedeniyle oral alımı durduruldu. Total parenteral nutrisyon (TPN), günlük 25 kcal/kg olacak şekilde planlandı. Tedavinin 3. Gününde cilt bulguları gerileyen ancak mukozal tutulum yanıtı

alınamayan hasta solunum yolunu koruyamaması nedeniyle elektif entübe edildi. Akciğer kompliyansı düşük olan ve masif bronşial kanaması olan hasta entübasyon sonrası 24. Saatinde exitus oldu.

Günümüzde 200'ün üzerinde ilacın (SJS'na yola açtığı bildirilmektedir. En önemli yaklaşım mevcut ilaç tedavisinin kesilmesi ve destekleyici tedavidir. Hastamızda çok hızlı ilerleyen bir klinikle beraber üst-alt hava yolları mukozalarının agresif tutulumu ve eşlik eden metastatik meme kanserinin getirdiği komorbidite, hastanın exitus olmasıyla sonuçlanmıştır. Hastaların çoklu ilaç kullanımı SJS'na yol açabilmektedir. Bu durum etken ilacın tespitini zorlaştırmakta ve hastalık mortal seyredebilmektedir. Hastane yatışlarında özellikle akut gelişen ve hızla ilerleyen döküntüler görüldüğünde mutlaka SJS da ayırıcı tanıda akla gelmeli ve tedavi geciktirilmemelidir.

Anahtar Kelimeler: Stevens-Johnson sendromu, Yoğun Bakım

ABSTRACT

Stevens-Johnson syndrome (SJS) is a disease of acute onset, characterized by high fever, purulent conjunctivitis, erosive stomatitis and vesiculobullous skin lesions. Although drugs are mostly responsible for its etiology, infections, chemicals, malignant diseases and collagen tissue diseases play an important role. While it can be self-limiting with emergency intervention, it can also result in sepsis or death. Discontinuation of the causative agent is the first step in treatment. Other treatment options are corticosteroids, intravenous immunoglobulins, immunosuppressive drugs, hemodialysis, plasmapheresis, and hyperbaric oxygen. In this case report, we aimed to present SJS that developed in a patient with end-stage metastatic breast cancer who was treated for hospital-acquired pneumonia in the Intensive Care Unit.

While a 52-year-old female patient was being followed up in another center for general supportive treatment due to end-stage breast cancer, Piperacillin-tazobactam was started due to hospital-acquired pneumonia and her treatment was stopped on the 14th day. In the patient with risk factors for recurrent metastatic breast cancer apart from the use of this known drug, the patient was taken over after acutely developing maculopapular rashes that started in the nasal mucosa, oral mucosa and genital area and spread to the whole body, erythema in the conjunctiva, and loss of consciousness with impaired oral intake. The lesions of the patient who

was consulted to the dermatology clinic were found to be compatible with Stevens-Johnson syndrome. Antibiotics of the patient, who were advised to restrict drug use, were discontinued. After the patient's lesions increased within hours and reached 75% of the body surface, he was transferred to a single-person isolated room in the intensive care unit. For treatment, 2 g/kg IVIG was planned, this dose was given in 5 divided doses. Prednol 60 mg, proton pump inhibitor 40 mg, LMWH (low molecular weight heparin) 0.4 IU was planned. Fluid resuscitation was planned with a urine output of 1 mL/kg/hour. Oral intake of chlorhexidine mouthwash and sodium bicarbonate mouth dressing was stopped for the lesions on the oral mucosa, moxifloxacin drops, hyaluronic acid drops, refresh and bacitracin-neomycin eye ointment were applied for eye involvement. Total parenteral nutrition (TPN) was planned to be 25 kcal/kg daily. On the 3rd day of the treatment, the patient, whose skin findings regressed but no mucosal involvement response could be obtained, was intubated due to inability to protect the respiratory tract. The patient with low lung compliance and massive bronchial hemorrhage died at the 24th hour after intubation.

Over than 200 drugs are reported to cause SJS. The most important approach is discontinuation of the current drug therapy and supportive treatment. In our patient, the aggressive involvement of the upper-lower airway mucosa and the comorbidity brought by the accompanying metastatic breast cancer, together with a rapidly progressing clinic, The use of multiple drugs by the patients may lead to SJS. This makes it difficult to detect the causative drug and the disease may be mortal. When acute and rapidly progressive rashes are observed during hospitalizations, SJS should definitely be considered in the differential diagnosis and treatment should not be delayed.

Keywords: Stevens-Johnson syndrome, Intensive Care

ACİL SERVİSTE NADİR BİR VAKA: DALAK APSESİ

A RARE CASE IN THE EMERGENCY DEPARTMENT: SPLENIC ABSCESS

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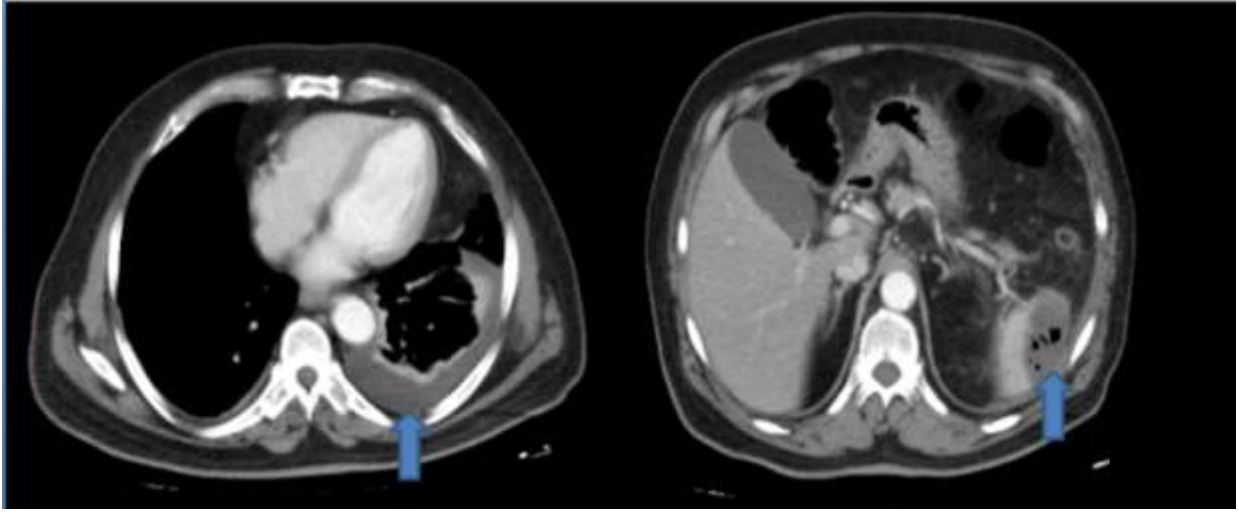
ÖZET:

1. GİRİŞ

Dalağın izole apsesi nadir görülen bir durumdur ve insidansının %1'in altında olduğu bildirilmektedir. Hastaların prezentasyonu genelde nonspesifiktir; ateş, bulantı, kusma ve sol üst karın ağrısı sık görülen şikayetlerdendir. Dalak apselerinin tanısını koymak zordur, şüphelenilen hastalarda görüntüleme yöntemleri yardımcı olur. Dalak apsesi tanısında ultrasonografi kullanılabilir ancak en duyarlı tanı yöntemi bilgisayarlı tomografidir. Tedavi yönetimi, uygun antibiyoterapi ile perkütan drenajı içerir. Perkütan drenajın başarısız olduğu durumlarda ise erken splenektomi önerilmektedir. Dalak apsesi geç teşhis edildiğinde yüksek mortalite oranına sahiptir. Bu sunumda acil servise nefes darlığı ve karın ağrısı şikayeti ile başvuran ve dalak apsesi tanısı konulan bir erkek hastadan bahsedeceğiz.

2. OLGU

70 yaşında erkek hasta, acil servise 3 gündür mevcut olan nefes darlığı ve sol üst karın ağrısı şikayeti ile başvurdu. Ek şikayeti olmayan hastanın, koroner arter hastalığı ve konjestif kalp yetmezliği öyküsü mevcuttu. Hastanın geliş vitallerinde oda havasındaki saturasyon düşüklüğü (%92) dışında anlamlı bulgusu yoktu. Hastanın fizik muayenesinde sol bazalde azalmış akciğer sesleri, batın sol üst kadranda defansı ve sol kostovertebral açısı hassasiyeti mevcuttu. Laboratuvar tetkiklerinde yüksek lökosit (12.000 / μ L) ve CRP (325 mg/L, N<5 mg/L) değerleri dışında anlamlı patoloji saptanmadı. Kan gazı olağandı. Toraks ve abdomen bilgisayarlı tomografi görüntülemesinde, solda en geniş yerinde 3 cm plevral effüzyon, dalak inferiorunda ise 62*32 mm boyutunda ve içerisinde hava dansiteleri barındıran alan (apse?) saptandı (Şekil 1). Acil serviste iv antibiyoterapi ve analjezik uygulanan hasta genel cerrahi doktoru ile konsülte edilerek, perkütan apse drenajı için cerrahi servisine yatırıldı. Katater drenaj sonrasında 5 gün boyunca antibiyoterapi alan hasta, CRP değerlerinin düşmesi ve şikayetlerinin de gerilemesinin ardından katateri çekilerek taburcu edildi. Apse kültüründe üremesi olmadı ve oral antibiyoterapi altında 2 hafta sonra poliklinikte tekrar görüldü. Komplikasyon gelişmediği ve CRP değerleri normale döndüğü için rutin poliklinik kontrolüne çağrıldı.



Şekil 1: Soldaki ok hastadaki plevral effüzyonu, sağdaki ok ise dalak içerisinde hava dansiteleri barındıran apseyi göstermektedir.

3. TARTIŞMA

Dalak apsesi nadir görülen bir durumdur; ancak gelişen radyolojik görüntülemeler sayesinde saptanma sıklığı artmıştır. Bakteriye endokardit kaynaklı septik emboli, dalak apsesi oluşumunda en sık etkindir. Az sayıda dalak apsesi de malignitelerle birlikte görülebilir. Patojen mikroorganizmalar komorbid hastalığa ve coğrafik lokalizasyonlara göre büyük çeşitlilik göstermekle birlikte; *Staphylococcus spp.*, *Salmonella spp.*, *Escherichia coli* ve *Klebsiella pneumonia* sık izole edilen mikroorganizmalardır. İmmünsüpresif hastalarda ise fungal patojenler yaygın görülebilir. Hastalar çoğunlukla sol üst kadranda ağrısı, ateş, üşüme ve titreme gibi nonspesifik şikayetlerle hastaneye başvurmaktadır. Bu yüzden dalak apsesi tanısını koymak her zaman kolay olmayabilir. Ultrasonografi ve bilgisayarlı tomografi en yararlı görüntüleme teknikleridir. Dalak apseli hastalarda en sık gözlenen laboratuvar bulgusu lökositozdur. Çoğu apsenin yönetiminde olduğu gibi dalak apsesinde de cerrahi ve medikal tedavi kombinasyonunun daha uygun bir tedavi yöntemi olduğu düşünülmektedir. Medikal tedavide geniş spektrumlu antibiyotikler seçilmelidir. Splenektomi cerrahi açıdan en çok tercih edilen tedavi yöntemi olsa da, günümüzde özellikle soliter ve kalın duvarlı apse vakalarında perkütan drenaj gibi konservatif yöntemler de uygulanmaktadır. Perkütan drenaj sonrası dalakta enfekte doku kalabilir ve dolayısıyla nüks görülebilir. Literatürdeki olgu sunumlarının çoğunda, bizim vakamıza benzer şekilde patojen mikroorganizmaların izole edilemediği görülmüştür.

4. SONUÇ

Sonuç olarak, dalak apsesi spesifik olmayan başvuru semptomları nedeniyle tanısı zor bir klinik tablodur ve genellikle postmortem teşhis edilir. Gelişen görüntüleme teknikleri ile erken tanı mümkün hale gelmiş ve mortalite oranları azalmıştır. İmmünsüpresif, diyabeti veya

malignitesi olan hastaların inatçı ateş ve sol üst kadran ağrısı ile başvurularında dalak apsesi olabileceği unutulmamalıdır. Erken tanı ve tedavi hayat kurtarıcı olabilir.

Anahtar Kelimeler: acil servis, dalak apsesi, karın ağrısı

ABSTRACT

1. INTRODUCTION

Isolated abscess of the spleen is a rare condition with a reported incidence of less than 1%. The presentation is usually nonspecific; fever, nausea, vomiting and left upper abdominal pain are common complaints. Diagnosis of splenic abscesses is difficult; imaging modalities are helpful in suspected patients. Ultrasonography can be used for the diagnosis of splenic abscess, but the most sensitive diagnostic method is computed tomography. Treatment management includes percutaneous drainage with appropriate antibiotherapy. If percutaneous drainage fails, early splenectomy is recommended. Splenic abscess has a high mortality rate when diagnosed late. In this presentation, we will present a male patient admitted to the emergency department with complaints of dyspnea and abdominal pain and diagnosed as splenic abscess.

2. CASE

A 70-year-old man was admitted to the emergency department with complaints of dyspnea and left upper abdominal pain for 3 days. He had no additional complaints and had a history of coronary artery disease and congestive heart failure. Arrival vital signs were unremarkable except for oxygen saturation on room air (92%). Physical examination revealed decreased left basal lung sounds, left upper quadrant abdominal and left costovertebral angle tenderness. Laboratory tests revealed no significant pathology except for elevated leukocyte (12.000 / μ L) and CRP (325 mg/L, N<5 mg/L) values. Blood gas was normal. Thorax and abdomen computed tomography imaging revealed a 3 cm pleural effusion at the widest part on the left and a 62*32 mm area (abscess?) containing air densities inferior to the spleen (Figure 1). The patient who was administered iv antibiotherapy and analgesics in the emergency department was consulted with the general surgeon and hospitalized in the surgical ward for percutaneous abscess drainage. After catheter drainage, the patient received antibiotherapy for 5 days and was discharged after the catheter was withdrawn as CRP values decreased and complaints regressed. The patient, who had no growth in abscess culture and received oral antibiotics, was seen again in the outpatient clinic 2 weeks later. Since no complications developed and CRP values returned to normal, the patient was called for routine outpatient follow-up.

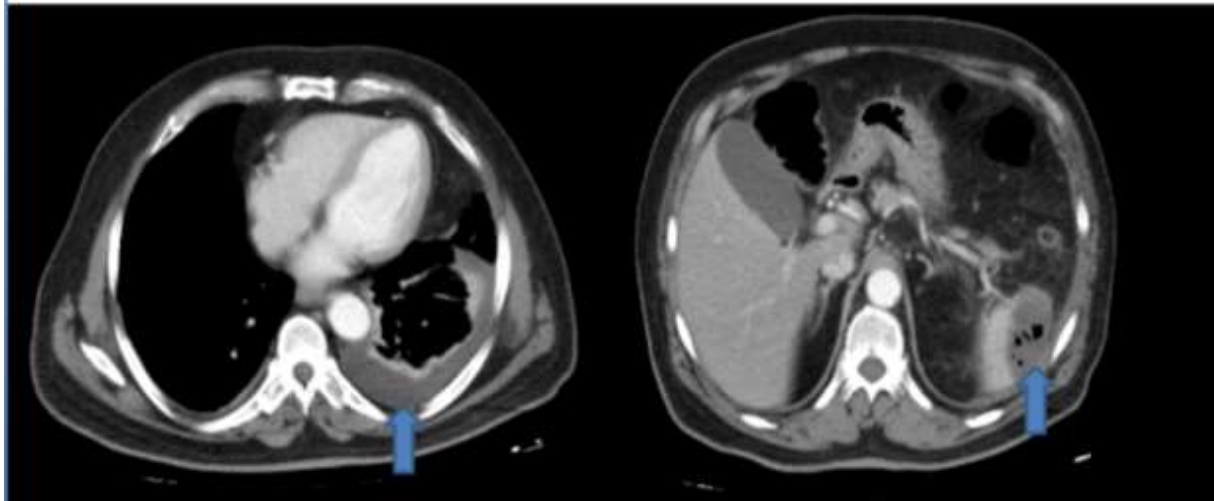


Figure 1: The arrow on the left shows the pleural effusion and the arrow on the right shows the abscess with air densities in the spleen.

3. DISCUSSION

Splenic abscess is a rare condition; however, the frequency of detection has increased due to improved radiologic imaging. Septic embolism from bacterial endocarditis is the most common cause of splenic abscess formation. A small number of splenic abscesses may also be associated with malignancies. Pathogenic microorganisms vary widely according to the comorbid disease and geographical localization; *Staphylococcus* spp., *Salmonella* spp., *Escherichia coli* and *Klebsiella pneumoniae* are the most frequently isolated microorganisms. Fungal pathogens may be common in immunosuppressed patients. Patients usually present to the hospital with nonspecific complaints such as left upper quadrant pain, fever and chills. Therefore, the diagnosis of splenic abscess may not always be easy. Ultrasonography and computed tomography are the most useful imaging techniques. The most common laboratory finding in patients with splenic abscess is leukocytosis. As in the management of most abscesses, a combination of surgical and medical treatment is considered to be a more appropriate treatment method in splenic abscess. Broad-spectrum antibiotics should be selected for medical treatment. Although splenectomy is the most preferred surgical treatment, conservative methods such as percutaneous drainage are also used today, especially in cases of solitary and thick-walled abscesses. After percutaneous drainage, infected tissue may remain in the spleen and thus recurrence may occur. In most of the case reports in the literature, similar to our case, pathogenic microorganisms could not be isolated.

4. RESULTS

In conclusion, splenic abscess is a difficult clinical entity to diagnose due to non-specific presenting symptoms and is usually diagnosed postmortem. Thanks to improved imaging techniques, early diagnosis has become possible and mortality rates have decreased. It should

be kept in mind that patients with immunosuppression, diabetes or malignancy presenting with persistent fever and left upper quadrant pain may have splenic abscess. Early diagnosis and treatment may be life-saving.

Keywords: abdominal pain, emergency department, splenic abscess

**YÜKSEK RİSKLİ HASTADA ÜST EKSTREMİTE CERRAHİSİ VE İNGUİNAL
HERNİ ONARIMININ İKİ FARKLI BLOK İLE BAŞARILI ANESTEZİ YÖNETİMİ:
OLGU SUNUMU**

SUCCESSFUL ANESTHESIA MANAGEMENT OF UPPER EXTREMITY SURGERY
AND INGUINAL HERNI REPAIR WITH TWO DIFFERENT BLOCKS IN A HIGH RISK
PATIENT: A CASE REPORT

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ÖZET

Rejyonel anesteziye ultrason (US) kullanımının yaygınlaşması ile periferik sinir bloklarında başarı oranı artarken komplikasyon görülme sıklığında azalmıştır. Periferik sinir ve fasial planların US ile eşzamanlı görüntülenebilmesi başarılı blok için gereken lokal anestezi miktarını da azaltmıştır. Böylece daha düşük dozlarda lokal anestezi kullanarak aynı hastada birden fazla periferik blok sistemik toksisite oluşturmada güvenle yapılabilir olmuştur. Çalışmamızın amacı infraklavikular blok (İKB) ile üst ekstremitte cerrahisi ve aynı seansta transversus abdominis plane (TAP) blok ile inguinal herni onarımı yapılan hastamızı sunmaktır.

OLGU SUNUMU:

İnguinal herni onarımı için 1 hafta sonrasında cerrahi planlanan 65 yaşında ASA-3 erkek hasta, yolda yürürken düşmesi üzerine hastanemizin acil servisine başvuruyor. Yapılan ortopedik değerlendirmede sol radius ve ulna kırığı tespit edilen hastaya acil cerrahi planlandı. Öyküsünde koroner arter hastalığı ve kalp pili mevcut olan hastanın ekokardiyografide ejeksiyon fraksiyonu %20 olarak ölçüldü. Kardiyoloji tarafından anestezi için yüksek riskli olarak değerlendirilen hasta genel anesteziyi reddetti. Riskleri anlatılıp onamı alındıktan sonra hastaya aynı seansta US eşliğinde sol üst ekstremitte cerrahisi için infraklavikular blok, sağ inguinal herni onarımı için de US eşliğinde TAP blok yapmayı planladık. Açlık süresi ve laboratuvar değerleri uygun olan hasta ameliyathaneye alındı. Standart monitörizasyonu takiben hastaya premedikasyon için 1 mg midazolam ve 50 mcg fentanil IV olarak uygulandı. Steriliteyi sağlamak için cilt ve US probu (ML6-15 Hz, LOGIQ S8 GE Healthcare, United States) antiseptik solüsyon ile temizlendi. İlk olarak lateral sagittal yaklaşımla 50 mm iğne (Braun, 360 ,

Germany) kullanılarak İKB uygulandı. Posterior, lateral ve medial kord aksiller arterin çevresinde US ile identifiye edildikten sonra 30 ml % 0.25 lik bupivakain enjekte edildi. İkinci olarak antiseptik solüsyon ile cilt ve prob (ML9 Hz, LOGIQ S8 GE Healthcare, United States) temizliğini takiben 80 mm iğne (360 Braun , Germany) sağ TAP blok uygulandı. Ultrason ile eksternal obliq, internal oblik ve transversus abdominis kasları identifiye edildi. İnternal obliq ile transversus abdominis kası arasına 20 ml % 0,25 bupivakain facial açılma izlenerek enjekte edildi. İnfraklavikular bloktan 30 dk sonra üst ekstremitte kırık cerrahisi başlatıldı. Hasta 0,2 mcg/kg/saat precedex infüzyonu ile sedatize edildi. Ortopedi cerrahisi 1 saatin ardından sorunsuz şekilde tamamlandı. Sonrasında genel cerrahi ekibi sağ inguinal herni ameliyatına başladı. Bu sırada hastaya ihtiyaç oldukça 10 cc %1 lik lidokain lokal olarak enjekte edildi. İnguinal herni tamiri de 45 dakikanın ardından sorunsuz şekilde bitirildi. Hastanın cerrahileri hemodinamik olarak sorunsuz geçti. Postoperatif 2. gününde taburcu edildi.

TARTIŞMA:

Genel anestezinin yüksek riskli olduğu KOAH , kalp yetersizliği ve morbid obezite gibi ASA-III hasta grubunda periferik sinir bloğu ile yapılan cerrahiler göreceli olarak daha az riskli olabilmekte. Özellikle genel anestezi istemeyen hastalarda alternatif anestezi yöntemi olarak periferik sinir bloğu düşünülebilir. Ultrason eşliğinde yapılan bloklarda başarılı blok için gereken lokal anestezi miktarı da giderek azalmıştır. Brenner ve ark. US eşliğinde yaptıkları aksiller blokta her bir periferik sinir (Radial, ulnar, median ve muskulokutanöz) 1'er ml toplamda 4 ml lokal anestezi ile başarı bir cerrahi anestezi sağladıklarını rapor etmişlerdir . Bu şekilde düşük volümlü lokal anestezi kullanımı ile başarılı blokların yapılması farklı iki bloğun lokal anestezi toksisitesi oluşturmadan tek hastada yapılabilmesini sağlamıştır. Gürkan ve ark. eş zamanlı olarak sağ elinden sindaktili ve sağ ayağından polidaktili için ameliyat olan hastaya US rehberliğinde çoklu blok yapmışlardır. Lokal anestezi toksisitesi olmadan başarılı şekilde infraklavikular ve siyatik blok uygulaması yapmışlardır. Kılıcaslan ve ark da acil servise trafik kazası sonrası başvuran morbid hastaya çoklu blok yapmışlardır. Tibia fraktürü ve ayak bileği dislokasyonu olan morbid obez hastaya US eşliğinde eş zamanlı olarak femoral ve siyatik sinir bloğunu başarılı şekilde uygulamışlardır. Biz de koroner arter hastası olan, kardiyoloji değerlendirmesinde yüksek risk verilen ve genel anesteziyi reddeden hastaya el bileği kırığı ve inguinal herni onarımını çoklu blok ile başarılı şekilde yaptık. Ultrason eşliğinde eş zamanlı olarak yaptığımız İKB ve TAP blok sonrasında hastanın ameliyatları komplikasyonsuz şekilde gerçekleştirildi.

Anahtar Kelimeler: Rejyonel anestezi, İnfraklavikular blok, Transversus abdominis plan bloğu

ABSTRACT

More successful blocks and fewer complications were seen with ultrasound in regional anesthesia. At the same time, progress was made with less local anesthetics. This gave regional anesthesiologists the opportunity to safely perform blocks without causing systemic toxicity. In our study, we wanted to present our patient who underwent upper extremity surgery with infraclavicular block (ICB) and inguinal hernia repair with transversus abdominis plane (TAP) block in the same session.

CASE REPORT:

A 65-year-old ASA-3 male patient, who was scheduled for surgery for inguinal hernia repair one week later, was admitted to the emergency department of our hospital after he fell while walking on the road. Emergency surgery was planned for the patient who was found to have left radius and ulna fractures in the orthopedic evaluation. Ejection fraction was measured as 20% in the echocardiography of the patient, who had a history of coronary artery disease and a pacemaker. The patient, who was considered as high risk for anesthesia by cardiology, refused general anesthesia. After explaining the risks and obtaining consent, we planned to perform an infraclavicular block for left upper extremity surgery and TAP block for right inguinal hernia repair under US guidance in the same session. Following standard monitoring, the patient was administered 1 mg midazolam and 50 mcg fentanyl IV for premedication. To ensure sterility, the skin and the US probe (ML6-15 Hz, LOGIQ S8 GE Healthcare, United States) were cleaned with antiseptic solution. Initially, ICP was performed with a lateral sagittal approach using a 50 mm needle (Braun, 360, Germany). After the posterior, lateral and medial cords were identified by US around the axillary artery, 30 ml of 0.25% bupivacaine was injected. Secondly, after cleaning the skin and probe (ML9 Hz, LOGIQ S8 GE Healthcare, United States) with antiseptic solution, 80 mm needle (360 Braun, Germany) right TAP block was applied. External obliq, internal oblique and transversus abdominis muscles were identified by ultrasound. 20 ml of 0.25% bupivacaine was injected between the internal obliq and the transversus abdominis muscle, following the facial opening. Upper extremity fracture surgery was started 30 minutes after the infraclavicular block. The patient was sedated with 0.2 mcg/kg/hour precedex infusion.

Orthopedic surgery was completed uneventfully after 1 hour. Afterwards, the general surgery team started right inguinal hernia surgery. Meanwhile, 10 cc 1% lidocaine was injected locally as needed. Inguinal hernia repair was also completed after 45 minutes without any problems. The patient's surgeries were uneventful hemodynamically. He was discharged on the 2nd postoperative day.

DISCUSSION:

In the ASA-III patient group, where general anesthesia is high-risk, such as COPD, heart failure and morbid obesity, surgeries performed with peripheral nerve block may be relatively less risky. Peripheral nerve block can be considered as an alternative anesthesia method, especially in patients who do not want general anesthesia. In ultrasound-guided blocks, the amount of local anesthetic required for successful blocks has gradually decreased. Brenner et al. They reported that they provided successful surgical anesthesia with 1 ml of a total of 4 ml of local anesthetic for each peripheral nerve (radial, ulnar, median, and musculocutaneous) in the axillary block they performed under US guidance. In this way, successful blocks with the use of low volume local anesthetics enabled two different blocks to be performed in a single patient without causing local anesthesia toxicity. Gurkan et al. performed US-guided multiple blocks on a patient who had simultaneous surgery for syndactyly in the right hand and polydactyly in the right foot. They successfully applied infraclavicular and sciatic block without local anesthetic toxicity. Kilicaslan et al. also performed multiple blocks on a morbid patient who applied to the emergency department after a traffic accident. They successfully applied simultaneous femoral and sciatic nerve block under US guidance to a morbidly obese patient with tibial fracture and ankle dislocation. We also successfully repaired wrist fracture and inguinal hernia with multi-block in a patient with coronary artery disease who was given high risk in cardiology evaluation and refused general anesthesia. After the simultaneous ultrasound-guided ICP and TAP block, the patient's surgeries were performed without complications.

Keywords: Regional anesthesia, Infraclavicular block, Transversus abdominis plane block

**GERİATRİK POPULASYONDA OPERE NONFONKSİYONE HİPOFİZ
ADENOMLARI**
**OPERATED NONFUNCTIONAL PITUITARY ADENOMAS IN THE GERIATRIC
POPULATION**

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ÖZET

Amaç

Geriatric popülasyonda nonfonksiyone hipofiz adenomu olan hastaların klinik bulgularını, fonksiyonel durumu, kognisyonunu, yaşam kalitesini, kırılabilirliği ve tedavi ve takip sırasında anksiyete ve depresyon insidansını değerlendirmek.

Materyal-Metod

2010-2022 yılları arasında kliniğimizde takip edilen 65 yaş ve üzeri opere nonfonksiyone hipofiz adenomu (NHA) olgularını değerlendirdik. Geriatri polikliniğine başvuran hipertansiyon ve diabetes mellitus tanılı hastalar kontrol grubu olarak çalışmaya alındı. Dosyalarından klinik, endokrinolojik, patolojik ve radyolojik bulgular ile tedavi yöntemlerine ilişkin veriler alındı. Hastalarda kas kuvveti, yürüme hızı ve kas-yağ oranını değerlendirmek için biyoimpedans kullanıldı. Ayrıca yaşam kalitesi, anksiyete, depresyon, kognitif fonksiyon ve kırılabilirlikleri değerlendirildi.

Sonuçlar

Çalışmaya NFA'lı 43 hasta ile hipertansiyon (HT) ve tip 2 diabetes mellitus (DM) tanılı 60 hasta dahil edildi. NFA'lı hastalar ile HT ve tip 2 DM tanılı kontrol grubunun ortalama yaş, cinsiyet oranları ve vücut kitle indeksi (VKİ) benzerdi (sırasıyla, yaş: 70,9±0,66; 73,1±0,8 (p=0,6), K/E: 24/19, 35/25 (p=0,1) ve VKİ:28,3±3,9/28,5±4,8 (p=0,9). Kognitif durum (MMT: 28;29, p=0,002), kırılabilirlik skorları (2(2-3); 1(1-2), O(ÇAA), p<0,001)), sarkopeni oranları (%62; %30) , p=0,007) NFA'lı hastalarda daha kötüydü.

Sonuç

Çalışmada opere NFA tanısı alan hastalar, benzer yaş ve komorbiditeye sahip yaşlı kişilerle karşılaştırıldı; kırılabilirlik skoru ve sarkopeni oranı daha yüksekti ve kognisyonları daha kötüydü.

NFA'lı hastaların ameliyat ve sonrasındaki tedavilerine bağlı olarak gelişen komplikasyonlar, geriatric hastaları daha kırılabilir hale getirmektedir. Bu yaş grubundaki NFA'lı hastaların daha dikkatli değerlendirilmesi gerekir.

Anahtar kelimeler: Nonfonksiyone hipofiz adenomu; Yaşlı popülasyon; Kognisyon; Kırılabilirlik; Sarkopeni

ABSTRACT

Aim

To evaluate the clinical findings of nonfunctional pituitary adenomas in the geriatric population, functional status, cognitive function, quality of life, frailty, and incidence of anxiety and depression during treatment and follow-up.

Material-Method

We evaluated operated nonfunctional pituitary adenoma (NFA) cases aged 65 years and older followed up in our clinic between 2010 and 2022. Patients seen in the geriatric outpatient clinic with a diagnosis of hypertension and diabetes mellitus were included in the study as a control group. Data on clinical, endocrinological, pathological, and radiological findings, as well as on treatment methods, were taken from the files. Bioimpedance was used to assess muscle strength, walking speed, and muscle to fat ratio in patients. In addition, quality of life, anxiety, depression, cognitive function, and vulnerability were assessed.

Results

The study included 43 patients with NFA and 60 patients with hypertension (HT) and type 2 diabetes mellitus (DM) diagnoses. The mean age, sex ratios and body mass index (BMI) of the patients with NFA and the control group diagnosed with HT and type 2 DM were similar (age: 70.9 ± 0.66 ; 73.1 ± 0.8 ($p=0,6$), FM /M: 24/19, 35/25 ($p=0.1$) and BMI: 28.3 ± 3.9 / 28.5 ± 4.8 ($p=0.9$), respectively). Cognition status (MMT: 28;29, $p=0.002$), frailty scores (2(2-3); 1(1-2), M(IQR), $p<0.001$), sarcopenia rates (62%; 30%, $p=0.007$) was worse in patients with NFA.

Conclusion

In the study, patients diagnosed with operated NFA were compared with older people of similar age and comorbidity; frailty score and sarcopenia rate were higher, and their cognition was worse.

Complications that develop due to the operation and subsequent treatment of patients with NFA make geriatric patients more fragile. We would like to emphasize that patients with NFA in this age group should be evaluated more carefully.

Keywords: Nonfunction pituitary adenoma; Elderly population; Cognition; Fragility; Sarcopenia

İLERİ EVRE PANKREAS KANSERİ TANILI HASTALARIMIZIN RETROSPEKTİF OLARAK DEĞERLENDİRİLMESİ

RETROSPECTIVE EVALUATION OF OUR PATIENTS DIAGNOSED WITH
ADVANCED PANCREATIC CANCER

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ÖZET

Amaç: Pankreas kanseri, gastrointestinal kanserler arasında giderek artan sıklığı ile dikkati çekmektedir. Tüm kanser türleri arasında prognozu en kötü kanserlerdendir. Bu çalışmada ileri evre pankreas kanserli hastalarımızın klinik özelliklerini ve tedavi sonuçlarını retrospektif olarak değerlendirmeyi amaçladık.

Materyal ve Metod: Bu çalışmada Kasım 2002 ile Ocak 2014 tarihleri arasında Ankara Numune Eğitim Araştırma Hastanesi Tıbbi Onkoloji Polikliniği'ne başvuran, ileri evre pankreas kanseri tanısı almış 131 hasta retrospektif olarak incelendi. Hastaların demografik özellikleri, sigara kullanımı, aile öyküleri, bazal CEA ve bazal CA 19-9 düzeyleri, uygulanana tedavi şekilleri, metastaz yerleri, progresyonsuz sağkalım ve genel sağkalım sürelerine bakıldı.

Bulgular: Çalışma popülasyonu 94 erkek, 37 kadın olmak üzere 131 hastadan oluştu. Hastaların 20'si lokal ileri evre, 111'i metastatik evredeydi. Hastaların ortanca yaşı 60 idi. Hastaların %53,4'ü sigara içicisiydi ve ortanca sigara kullanım miktarı 30 paket/yıldı. Adenokanser en sık saptanan histopatolojik alt tipti. Tanı anında ortanca bazal CEA ve Ca 19-9 düzeyleri yüksekti. Lokal ileri evre hastaların tamamına neoadjuvan kemoterapi verilmişti. En sık kullanılan kemoterapi rejimleri tek ajan gemsitabin ve gemsitabin-sisplatin kombinasyon tedavileriydi. Lokal ileri evre hastaların 10'u neoadjuvan kemoterapi sonrası lokal tedavi (kemoterapi veya cerrahi) alırken, geriye kalan 10 hasta lokal tedavi alamamıştı. Lokal ileri evre hastalığı olup neoadjuvan kemoterapi sonrası lokal tedavi yapılan hastaların ortanca genel ve progresyonsuz sağkalım süreleri anlamlı olarak daha uzun saptandı [(18 ay vs 6,5 ay; p=0.008), (11.3 ay vs 6.4 ay; p=0.05)]. Metastatik pankreas kanserli hastalarımızın en sık metastaz yeri karaciğer idi

(%80). Metastatik olguların %63,4'ünde KT rejimi olarak sisplatin- gemitabin tercih edilmişti. Metastatik evredeki hastaların ortanca genel sağkalım süresi 8,1 ay, ortanca progresyonsuz sağkalım süresi 5,7 ay olarak saptandı. Çalışmaya dahil ettiğimiz tüm hastaların ortanca progresyonsuz sağkalım süresi 6.2 ay iken ortanca genel sağkalım süresi 8.8 ay idi.

Sonuç: Lokal ileri evre pankreas kanserli hastaların ortanca genel sağkalım süreleri metastatik hastalarla karşılaştırıldığında anlamlı olarak uzun bulundu (18 ay vs 8,1 ay; p=0.028). Lokal ileri evre hastalığı olup neoadjuvan KT sonrası lokal tedavi alan ve alamayan hastaların progresyonsuz sağkalım ve genel sağkalım süreleri lokal tedavi uygulanan hastalarda anlamlı olarak daha uzun saptandı. (11,3 ay vs 6,4 ay; p=0,05) (18 ay vs 6,5 ay; p=0.008). Metastatik pankreas kanserli hastaların yanıt oranları; gemitabin-sisplatin kombinasyon kolunda %49, tek ajan gemitabin kolunda ise %30 idi.

Anahtar kelimeler: ileri evre pankreas kanseri, gemitabin, sisplatin, sağkalım

ABSTRACT

Aim: Pancreatic cancer attracts attention with its increasing frequency among gastrointestinal cancers. It has the worst prognosis of all cancer types. In this study, we aimed to retrospectively evaluate the clinical features and treatment results of our patients with advanced pancreatic cancer.

Materials and Methods: In this study, 131 patients diagnosed with advanced pancreatic cancer and admitted to the Ankara Numune Training and Research Hospital Medical Oncology Polyclinic between November 2002 and January 2014 were retrospectively analyzed.

Demographic characteristics of the patients, smoking, family history, basal CEA and basal CA

19-9 levels, treatment modalities, metastasis sites, progression-free survival, and overall survival times were evaluated.

Results: The study population consisted of 131 patients, including 94 males and 37 females.

Twenty of the patients were in the locally advanced stage, and 111 were in the metastatic stage. The median age of the patients was 60 years. 53.4% of the patients were smokers, and the median amount of smoking was 30 packs/year. Adenocancer was the most common histopathological subtype. The median basal CEA and Ca 19-9 levels were high at the time of diagnosis. Neoadjuvant chemotherapy was given to all locally advanced patients. The most

commonly used chemotherapy regimens were single-agent gemcitabine and gemcitabine-cisplatin combination therapies. While 10 of the locally advanced patients received local treatment (chemotherapy or surgery) after neoadjuvant chemotherapy, the remaining 10 patients could not receive local treatment. The median overall and progression-free survival times were found to be significantly longer in patients with locally advanced disease who received local treatment after neoadjuvant chemotherapy [(18 months vs. 6.5 months; $p=0.008$), (11.3 months vs. 6.4 months; $p=0.05$)]. The most common site of metastasis in our patients with metastatic pancreatic cancer was the liver (80%). Cisplatin-gemcitabine was preferred as a KT regimen in 63.4% of metastatic cases. The median overall survival time of the patients in the metastatic stage was 8.1 months, and the median progression-free survival time was 5.7 months. The median progression-free survival of all patients included in the study was 6.2 months, while the median overall survival was 8.8 months.

Conclusion: The median overall survival of patients with locally advanced pancreatic cancer was significantly longer compared to metastatic patients (18 months vs. 8.1 months; $p=0.028$). Progression-free survival and overall survival of patients with locally advanced disease who received or did not receive local treatment after neoadjuvant chemotherapy were found to be significantly longer in patients who received local treatment. (11.3 months vs. 6.4 months; $p=0.05$) (18 months vs. 6.5 months; $p=0.008$). Response rates of patients with metastatic pancreatic cancer; It was 49% in the gemcitabine-cisplatin combination arm and 30% in the single-agent gemcitabine arm.

Keywords: advanced pancreatic cancer, gemcitabine, cisplatin, survival

**INVESTIGATION OF THE RELATIONSHIP BETWEEN CHLAMYDIA
PNEUMONIAE AND ATHEROSCLEROSIS BY 16S RRNA SEQUENCING METHOD**

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ABSTRACT

Cardiovascular and cerebrovascular diseases are a major public health problem globally, with high morbidity and mortality rates. Atherosclerosis has been blamed for half of the adult deaths in the Western world, especially in the United States. After Saikku showed *C. pneumoniae* inclusions in the post-mortem atheroma plaque samples of patients who died of cardiovascular diseases with electron microscopy studies. After Saiku published the results of his study, numerous studies were conducted questioning the relationship between *C. pneumoniae* atherosclerosis. atherosclerosis has been blamed for half of the adult deaths in the Western world, especially in the United States. In these studies, different methods such as electron microscopy and direct fluorescent antibody or enzyme immunoassay method were used from endarterectomy samples during post-mortem or cardiovascular surgery. With this study, we aimed to show the possible relationship between atherosclerosis and especially *C. pneumoniae* and *H. pylori* by using PCR-sequencing and IFAT methods. Most of the routine operations could not be performed as a result of the outbreak of the covid-19 pandemic during the sample collection process of the project. For this reason, we could not reach the number of patient samples we planned, but we thought that the results of the 11 samples we evaluated in our study could be a guide for further studies with larger case groups. At the end of the study, 8 (72.7 %) of our patient group with a mean age of 58 years had anti-*C. pneumuniae* antibody response > 1/16 with IFAT, while 7 (63.6 %) of these patients had *C. pneumoniae* in the atheroma plaques.

Target sequences of *H. pylori* ureC gene were found in 1 (9.1 %) sample in atheroma plaques. As in previous studies, the incidence of *C. pneumoniae* in atheroma plaques was accepted as a possible association.

Keywords: Cardiovascular, cerebrovascular, *C. pneumoniae*, IFAT, PCR.

**ÇUKUROVA BÖLGESİNDE VİRAL MERKEZİ
SİNİR SİSTEMİ ENFEKSİYONLARININ İNSİDANSI**

INCIDENCE OF VIRAL CENTRAL NERVOUS SYSTEM INFECTIONS IN THE
ÇUKUROVA REGION

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ÖZET

Viral menenjit ve ensefalit, önemli morbidite ve mortalite ile ilişkili olup hastaların en etkili ve uygun şekilde yönetilmesi için hızlı tanı gerekmektedir. Bu çalışmanın amacı Çukurova Üniversitesi Tıp Fakültesi Hastanesi'ne başvuran menenjit, meningoensefalit ve ensefalit gibi merkezi sinir sistemi (MSS) hastalığı tanısı almış hastalarda Herpes simplex virus (HSV-1 ve HSV-2), Cytomegalovirus (CMV), Epstein-Barr virus (EBV) ve Enterovirus (EV) enfeksiyonların insidansını tespit etmektir. Çalışmaya Mart 2017 ve Haziran 2023 döneminde yaşları 1-35 yaş arasında değişen 73 hasta dahil edilmiştir. Hastalardan alınan beyin omurilik sıvısı (BOS) örneklerinden Bosphore Viral DNA/RNA Extraction Spin Kit (Anatolia Geneworks, Türkiye) ile viral nükleik asit izole edilmiştir. Tanı için örnekler HSV tip1, HSV tip 2, CMV, EBV ve EV için real-time PCR testi (Anatolia Geneworks, Türkiye) ile analiz edilmiştir. Toplam 73 hastanın %10.9'unda (8/73) viral enfeksiyon tespit edilmiştir. Viral MSS enfeksiyonu olan 8 hastanın 1'i (%12.5) kız ve 7'si (%87.5) erkek olup %50'si (4/8)19-25 yaş

grubunda idi. Hastaların sırasıyla %50'si EBV, %25'i CMV, %12.5'i HSV-1 ve %12.5'i enterovirus için pozitif bulunmuştur. Sonuç olarak, viral MSS enfeksiyonlarının real-time PCR testiyle erken tanısı hastalığın ilerlemesini önleyen antiviral tedavi seçimi için önemlidir.

Anahtar Kelimeler: Herpes simplex virus, Cytomegalovirus, Epstein-Barr virus, Enterovirus

ABSTRACT

Viral meningitis and encephalitis are associated with significant morbidity and mortality and rapid diagnosis is required for the most effective and appropriate management of patients. The aim of this study was to determine the incidence of Herpes simplex virus (HSV-1 and HSV-2), Cytomegalovirus (CMV), Epstein-Barr virus (EBV) and Enterovirus (EV) infections in patients with central nervous system (CNS) diseases such as meningitis, meningoencephalitis and encephalitis admitted to Çukurova University Faculty of Medicine Hospital. The study included 73 patients aged between 1-35 years between March 2017 and June 2023. Viral nucleic acid was isolated from cerebrospinal fluid (CSF) samples obtained from the patients using Bosphore Viral DNA/RNA Extraction Spin Kit (Anatolia Genetworks, Turkey). For diagnosis, the samples were analysed by real-time PCR test (Anatolia Genetworks, Turkey) for HSV type 1, HSV type 2, CMV, EBV and EV. Viral infection was detected in 10.9% (8/73) of 73 patients. Of the 8 patients with viral CNS infection, 1 (12.5%) was female and 7 (87.5%) were male and 50% (4/8) were in the 19-25 age group. Fifty per cent, 25 per cent, 12.5 per cent, 12.5 per cent and 12.5 per cent of the patients were positive for EBV, CMV, HSV-1 and enterovirus, respectively. In conclusion, early diagnosis of viral CNS infections by real-time PCR test is important for the selection of antiviral therapy that prevents disease progression.

Keywords: Herpes simplex virus, Cytomegalovirus, Epstein-Barr virus, Enterovirus

**VENÜS PLAJI 1 (DAVUTLAR/AYDIN)'NİN MİKROPLASTİK KİRLİLİĞİNİN
DEĞERLENDİRİLMESİ**
EVALUATION OF MICROPLASTIC POLLUTION OF VENUS BEACH 1
(DAVUTLAR/AYDIN)

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ÖZET

Mikroplastikler, plastiklerin fiziksel, kimyasal ve biyolojik etmenlerle daha küçük parçalara ayrılmasıyla meydana gelen, boyutları 5 mm'den küçük plastik parçacıklar olarak tanımlanmaktadır. Mikroplastikler, varlıkları çevre için risk oluşturabileceğinden yeni ortaya çıkan kirleticiler olarak kabul edilmektedirler. Plastik ürünlerin üretimi ve plastik atık miktarındaki artış, mikroplastik kirliliğın özellikle kıyı şeritlerinde daha fazla dağılmasına neden olmuştur. Kıyı bölgelerindeki mikroplastikler, çevreye giren plastik atık miktarları nedeniyle dünya çapında bir endişe haline gelmiştir.

Bu çalışma, Venüs Plajı 1'deki mevsimsel olarak mikroplastik kirliliğı açısından değerlendirilmesi ve mikroplastik çeşitliliğinin saptanması amacıyla ele alınmıştır. Kum örnekleri iki kumsal zonu (alt bölge: denize yakın, üst bölge: vejetasyona yakın) arasındaki (Middleshore zone) bölgeden alınmıştır. Mikroplastikler, eleme ve yoğunluk ayırma yöntemleri kullanılarak kum numunelerinden ayrılmıştır. Stereomikroskop ile analiz edilen mikroplastikler, mevsimsel olarak sayı, boyut, renk ve şekil olarak gruplandırılmıştır. Ayrıca mikroplastik yüzeyinden, çevre sahil kum ve kıyı deniz suyu örneklerinden bakteri izolasyonu gerçekleştirilmiştir.

Çalışma sonucunda, Venüs Plajı 1'ndeki ortalama mikroplastik bolluğı ilkbahar mevsiminde 138,19 adet/kg, yaz mevsiminde 92,5 adet/kg, sonbahar mevsiminde 179,8 adet/kg, kış

mevsiminde 94,8 adet/kg mikroplastik tespit edilmiştir. En sık elde edilen boyutun 5 mm (%30,32), en az ise 1 mm (%6,45) olduğu belirlenmiştir. MP şekilleri ağırlıklı olarak fragment (%68,25) olarak saptanırken bunu köpük (%12,56) ve film (%9,16) takip etmiştir. En az rastlanan şekil ise pelet (%0,32) olmuştur. Tespit edilen 9 renk arasından mavi (%34,95) en fazla görülen renk olurken, bunu şeffaf (%18,79) ve beyaz (%12,97) izlemiş, en az ise mor (%0,32) olarak gözlenmiştir. Mikroplastik yüzeyinden *Cronobacter sakazakii*, *Bacillus safensis* ve *Bacillus cereus* suşları, kum örneklerinden *Pseudomonas asuensis*, *Pseudomonas sp.*, *Pseudomonas seleniipraecipitans* suşları, kıyı deniz suyundan ise *Kluyvera intermedia*, *Pseudomonas oryzihabitans*, *Alkalihalobacillus lehensis*, *Proteus mirabilis* suşları izole edilmiştir. Bu araştırma, Aydın İl sınırları içinde, Venüs Plajı 1 kıyı şeridindeki mikroplastik kirliliğine ilişkin ilk rapordur.

Bu çalışma 121Y227 numaralı TÜBİTAK 1001 Projesi ile desteklenmiştir.

Anahtar Kelimeler: Mikroplastik Kirliliği, Plaj, Dağılım, Bakteri, Çeşitlilik

ABSTRACT

Microplastics are defined as plastic particles smaller than 5 mm in size, which are formed by the breakdown of plastics into smaller pieces by physical, chemical and biological factors. Microplastics are recognized as emerging pollutants as their presence may pose a risk to the environment. The production of plastic products and the increase in the amount of plastic waste have caused a greater distribution of microplastic pollution, especially on coastlines. Microplastics in coastal areas have become a worldwide concern due to the amount of plastic waste entering the environment.

This study has been carried out to determine the seasonal microplastic pollution in Venus Beach 1 and to determine the microplastic diversity. Sand samples were taken from the region (Middleshore zone) between two beach zones (lower zone: near the sea, upper zone: close to vegetation). Microplastics were separated from sand samples using sieving and density separation methods. Microplastics analyzed with a stereomicroscope were grouped seasonally by number, size, color and shape. In addition, bacterial isolation was carried out from microplastic surface, environmental beach sand and coastal sea water samples.

According to result of study, the average microplastic abundance in Venus Beach 1 was 138,19 units/kg in spring, 92,5 units/kg in summer, 179,8 units/kg in autumn, and 94,8 units/kg in winter. It was determined that the most common size was 5 mm (30,32%) and the least 1 mm (6,45%). MP shapes were determined predominantly as fragments (68,25%), followed by foam (12,56%) and film (9,16%). The least common shape was pellet (0,32%). Among the detected 9 colors, blue (34,95%) was the most common color, followed by transparent (18,79%) and white (12,97%), and purple (0,32%) the least. *Cronobacter sakazakii*, *Bacillus safensis* and *Bacillus cereus* strains were isolated from the microplastic surface, *Pseudomonas asuensis*,

Pseudomonas sp., *Pseudomonas selenipraecipitans* strains were isolated from the sand samples, and *Kluyvera intermedia*, *Pseudomonas oryzihabitans*, *Alkalihalobacillus lehensis*, *Proteus mirabilis* were isolated from coastal sea water. This research is the first report on microplastic pollution on the Venus Beach 1 coastline in Aydın Province.

This work was supported by the TUBITAK 1001 Project numbered 121Y227.

Keywords: Microplastic Pollution, Beach, Distribution, Bacteria, Diversity

**KUŞADASI/MERKEZ HALK PLAJININ MİKROPLASTİK KİRLİLİĞİ AÇISINDAN
DEĞERLENDİRİLMESİ**
EVALUATION OF KUŞADASI/CENTRAL PUBLIC BEACH IN TERMS OF
MICROPLASTIC POLLUTION

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ÖZET

Plastikler, çeşitli fiziksel ve biyolojik faktörler ile 5 mm'den küçük olan mikroplastikleri (MP) meydana getirmektedir ve mikroplastikler, çevrede çeşitli boyut, renk ve şekillerde görülmektedirler. MP'lerin yüzeylerindeki aşınma ve çukurlaşmalar sonucunda mikroplastik şekilleri meydana gelmektedir ve MP'lerin yüzeylerinde, farklı mikroorganizma toplulukları olduğu belirlenmiştir. Bakteriler, MP yüzeylerinde kendilerine yeni ekolojik habitat alanı oluşturmaktadırlar. Çevrede mikroplastik birikimi, küresel endişe ve halk sağlığı açısından ciddi tehdit unsuru olarak görülmektedir.

Ege kıyı bölgesinin önemli bir sahili olan Aydın il sınırı içinde yer alan Kuşadası Merkez Halk Plajı'nın, mevsimsel olarak mikroplastik kirliliğinin değerlendirilmesi ve kıyı deniz suyu, sahil kumu ve mikroplastik yüzeyindeki bakterilerin tespit edilmesi amaçlanmıştır. Bölgeden aseptik şartlara uygun olarak alınan kompozit sahil kum örneklerinden mikroplastiklerin şekil, boyut ve renk sınıflandırılması, eleme ve yoğunluk ayırma yöntemiyle tespit edilmiştir. İstasyondan toplanan mikroplastikler, stereomikroskop kullanılarak fragment, filament, film, pelet, köpük ve granül olan şekillerine göre sınıflandırılmıştır. Alınan kıyı deniz suyu, sahil kumu ve elde edilen mikroplastiklerin yüzeyindeki bakteriler tespit edilmiştir.

Yapılan çalışma sonucunda, Kuşadası Merkez Halk Plajı'nda sonbahar mevsiminde 64,66 adet/kg, kış mevsiminde 80,66 adet/kg, ilkbahar mevsiminde 26 adet/kg, yaz mevsiminde 56 adet/kg mikroplastik tespit edilmiştir. Mikroplastik çeşitliliği şekil olarak değerlendirildiğinde en fazla fragment görülürken, sırasıyla film ve köpük takip etmiştir. Elde edilen mikroplastiklerin renk olarak değerlendirilmesi yapıldığında sırasıyla mavi, beyaz, yeşil renklerin baskın olduğu ve boyut olarak mikroplastiklerin en fazla 4-5 mm boyutlarında olduğu saptanmıştır. Kuşadası-Merkez Halk Plajı'ndan alınan kıyı deniz suyunda, *Bacillus safensis*, *Aeromonas caviae*, *Acinetobacter calcoaceticus*, *Priestia megaterium* sahil kumunda, *Priestia*

megaterium, *Stutzerimonas stutzeri*, mikroplastik yüzeyinde, *Priestia endophytica*, *Bacillus subtilis*, *Staphylococcus aureus* tespit edilmiştir. Elde edilen tüm veriler, Türkiye kıyı mikroplastik kirliliği ve mikroplastik yüzeyindeki bakterilerin tespit edilmesi ilk kez rapor edilen bilgilerdir.

Bu çalışma, 121Y227 numaralı TÜBİTAK 1001 Projesi'nden desteklenmiştir.

Anahtar Kelimeler: Mikroplastik, Plaj, Kirlilik, Bakteri

ABSTRACT

Plastics form microplastics (MP) smaller than 5 mm due to various physical and biological factors, and microplastics are seen in various sizes, colors and shapes in the environment. Microplastic shapes are formed as a result of abrasion and pitting on the surfaces of MPs, and it has been determined that there are different microorganism communities on the surfaces of MPs. Bacteria create new ecological habitat area on MP surfaces. The accumulation of microplastics in the environment poses a global concern and a serious threat to public health.

This study has been carried out in order to evaluate the seasonal microplastic pollution of Kuşadası Central Public Beach, which is located within the provincial border of Aydın, which is an important coast of the Aegean coastal region, and to detect bacteria on the coastal sea water, beach sand and microplastic surface. Shape, size and color classification of microplastics from composite beach sand samples taken from the region in accordance with aseptic conditions were determined by sieving and density separation methods. Microplastics collected from the station were classified according to their shapes as fragments, filaments, films, pellets, foams and granules using a stereomicroscope. Bacteria were detected on the surface of taken coastal sea water, beach sand and microplastics obtained.

As a result of the study, 64.66 pieces/kg of microplastics in the autumn season, 80.66 pieces/kg in the winter season, 26 pieces/kg in the spring season and 56 pieces/kg in the summer season were detected in Kuşadası Central Public Beach. When the microplastic diversity was evaluated in terms of shape, the most fragments were seen, followed by film and foam, respectively. When the microplastics obtained were evaluated in terms of color, it was determined that blue, white and green colors were dominant, respectively, and the microplastics were 4-5 mm in size at most. In coastal sea water taken detected from Kusadasi-Central Public Beach *Bacillus safensis*, *Aeromonas caviae*, *Acinetobacter calcoaceticus*, *Priestia megaterium* the beach sand *Priestia megaterium*, *Stutzerimonas stutzeri*, microplastic surface, *Priestia endophytica*, *Bacillus subtilis*, *Staphylococcus aureus*. All the data obtained, Turkey's coastal microplastic pollution and the detection of bacteria on the microplastic surface are the first reported information.

This work was supported by the TUBITAK 1001 Project numbered 121Y227.

Keywords: Microplastic, Beach, Pollution, Bacteria

**ALKALİ *BACILLUS SP.* SUŞLARINDAN ELDE EDİLEN PEKTİN LİYAZ
ENZİMİNİN SAFLAŞTIRILMASI VE PORTAKAL SUYU ÜZERİNE ETKİSİ**
PURIFICATION OF PECTIN LYASE ENZYME FROM ALKALINE *BACILLUS SP.*
STRAINS AND ITS EFFECT ON ORANGE JUICE

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ÖZET

Bu çalışmada Mersin Erdemli Alata Bahçe Kültürleri Araştırma Enstitüsü'nden alkali toprak örneklerinden izole edilen, *Bacillus sp.* suşlarından *Bacillus licheniformis* olarak adlandırılan suş seçilmiştir. Seçilen bu suşun pektin liyaz enzimi üretme yeteneği ve saflaştırılacak enzimin özellikleri araştırılarak portakal suyu elde ediminde kullanılması amaçlanmıştır. Çalışmamızda *Bacillus licheniformis* suşunun tanımlaması The Biolog Gen III Microplate metoduyla yapılmıştır.

Pektin liyaz enzimi DEAE Sephacel İyon Değişim Kolon Kromatografisi ile saflaştırılmıştır. Saflaştırılan enzim SDS-PAGE ve Zimogram ile kontrol edilmiştir. Moleküler ağırlığı 36.5 kDa olan tek bant görülmüştür.

Saflaştırılan Pektin liyaz enziminin optimum Şartları (pH ve sıcaklık) arattırılmıştır. Pektin liyaz enziminin optimum pH aralığına bakıldığında (pH 7-10 aralığında) maximum relatif aktivite pH 9'da, enzimin optimum sıcaklık aralığına bakıldığında (sıcaklık 40 - 80 °C aralığında) ise 60 °C'de maksimum aktivite göstermiştir.

Son süreçte saflaştırılan pektin liyaz enzimi portakal suyu üretiminde kullanılmıştır. Saflaştırılmış pektin liyaz ve ham özütten elde edilen portakal suyu miktarları enzimsiz portakal suyuyla karşılaştırılmış ve çalışılan enzimin meyve suyu verimini % 25, ham özütün % 15 oranında arttırdığı bulunmuştur.

Anahtar Kelimeler: *Bacillus licheniformis*, Pektin liyaz, saflaştırma

ABSTRACT

In this study, *Bacillus sp.*, isolated from alkali soil in Mersin Erdemli Alata Horticultural Research Institute, strains named *Bacillus licheniformis* selected. This selected strain is

intended to be used in the production of orange juice by investigating the pectin lyase enzyme producing ability and the properties of the enzyme to be purified. Identification of *Bacillus licheniformis* strains was by The Biolog Gene III. Microplate method.

The pectin lyase enzyme was purified by DEAE Sephacel Ion Exchange Column Chromatography. The purified enzyme was checked by SDS-PAGE and zymogram. The single band observed was found to have a weight of 36.5 kDa.

The optimum conditions (pH and temperature) of the purified pectin lyase enzyme were investigated. When the pectin lyase enzyme was examined at its optimum pH range (pH 7-10 range), maximum relative activity showed maximum activity at pH 9, while the enzyme had maximum activity at 60 °C when observed at the optimum temperature range (temperature range 40-80 °C).

The pectin lyase enzyme purified in the last period was used in the production of orange juice. The amounts of orange juice obtained from the purified pectin lyase and crude extract were compared with the orange juice without enzyme and and it was found that the enzyme studied increased the fruit juice yield by 25% and crude extract by 15%.

Keywords: *Bacillus licheniformis*, Pectin lyase, Purification

Fritillaria baskilensis BEHÇET ENDEMİK TÜRÜNÜN FARKLI BİTKİ BÜYÜME
DÜZENLEYİCİLERİ İLE *IN VITRO* ORTAMDA ÜRETİMİ
PRODUCTION OF *Fritillaria baskilensis* BEHÇET ENDEMIC SPECIES *IN VITRO* WITH
DIFFERENT PLANT GROWTH REGULATORS

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ÖZET

İlk defa 1998 yılında Elazığ - Baskil ilçesinde toplanan ve bilim dünyasına yeni tür olarak kazandırılan Baskil ters lalesi (*Fritillaria baskilensis* Behçet) Türkiye'nin endemik ters lale türlerinden birisidir. Gıda, Tarım ve Hayvancılık Bakanlığı'nın 06.12.2012 tarih, 2012/77 tebliğ no ve 28489 sayılı Resmi gazetede yayımlanan tebliğinde doğada toplanmak suretiyle ihraç edilmesi yasak olan çiçek soğanları arasındadır. *Fritillaria* cinsine ait türler tarımsal ve ekonomik açıdan yüksek öneme sahiptirler. Bitki biyoçeşitliliği açısından zengin bir ülke olan Türkiye'de yer alan endemik türler her geçen gün yok olma tehlikesi ile karşı karşıya kalmaktadır. Sayıları oldukça azalan bu türlerin, nesillerini devam ettirebilmeleri için *in vitro* ortamda bitki doku kültürü teknikleriyle üretilmeleri ve tekrar doğaya kazandırılmaları gerekmektedir. Bu çalışmada endemik bir tür olan *Fritillaria baskilensis* Behçet'in bitki doku kültürü yöntemleriyle üretilip doğaya kazandırılması amaçlanmıştır. Türe ait bitki tohumları steril edilerek MS (Murashige ve Skoog) besiyerinde kültüre alınmıştır. +4 °C' de 90 gün süreyle dormansisi kırılan tohumlar soğan oluşturana kadar iklim odalarında inkübasyona bırakılmıştır. Oluşan soğanlar farklı konsantrasyonlarda 6-Benzilaminopürin (BAP), naftalin asetik asit (NAA), İndol-3-Bütirik Asit (IBA) içeren besiyerlerinde alt kültüre alınmıştır. 8 hafta iklim odalarında inkübasyona bırakılan *Fritillaria baskilensis* Behçet bitkilerinin magenta başına düşen kallus sayısı, kallus uzunluğu, sürgün sayısı ve sürgün uzunluğu ile magenta başına düşen kök sayısı, kök uzunluğu, kallus çapı uzunluğu ve soğan sayıları istatistiksel analiz yapmak için kayda alınmıştır. Magenta başına düşen kallus sayısındaki artış 1 mg/L BAP + 0,5 mg/L IBA içeren besin ortamında istatistik açıdan önemli bulunmuştur. Magenta başına düşen kallus ağırlığında 0,5 mg/L BAP+ 5 mg/L NAA içeren besin ortamında artış görülse de istatistik anlamda önemli bulunmamıştır. Magenta başına düşen sürgün sayısı ve uzunluğundaki artış

IBA içeren besin ortamlarında istatistiki açıdan önemli bulunmuştur. Magenta başına düşen kök sayısı ve kök uzuluğundaki en yüksek değerler 1 mg/L BAP + 0,5 mg/L NAA içeren besiyerinde kayda alınarak istatistiksel olarak önemli bulunmamıştır. Magenta başına düşen kallus çapı uzunluğu ve soğan sayısının IBA içeren besin ortamlarında artış göstermiş ve istatistiksel anlamda kısmen önemli olduğu tespit edilmiştir. Sonuç olarak bitki büyüme düzenleyicilerinin *Fritillaria baskilensis* Behçet soğanlarında bitki rejenerasyonunu desteklemesi bu türün *in vitro* koşullarda çoğaltılıp doğaya yeniden kazandırılması için ön çalışma özelliği taşımaktadır. Aklimatizasyon süreçlerinin de ekleneceği sonraki çalışmalarla endemik tür olan *Fritillaria baskilensis* Behçet bitkisi kısa sürede çok sayıda yetiştirilerek doğaya kazandırılabilir.

Anahtar Kelimeler: *Fritillaria baskilensis* Behçet, endemik tür, BAP, NAA, IBA

ABSTRACT

The Baskil inverted tulip (*Fritillaria baskilensis* Behçet), which was first collected in Elazığ - Baskil district in 1998 and introduced to the scientific world as a new species, is one of Turkey's endemic inverted tulip species. In the communiqué of the Ministry of Food, Agriculture and Livestock published in the Official Gazette dated 06.12.2012, with the communiqué number 2012/77 and numbered 28489, it is among the flower bulbs that are forbidden to be exported by collecting in the wild. Species belonging to the genus *Fritillaria* are of high agricultural and economic importance. Endemic species in Turkey, a country rich in plant biodiversity, are facing the danger of extinction day by day. These species, whose numbers have decreased considerably, need to be produced *in vitro* with plant tissue culture techniques and brought back to nature in order to continue their generation. In this study, it was aimed to produce *Fritillaria baskilensis* Behçet, an endemic species, by plant tissue culture methods and bring it to nature. Plant seeds belonging to the species were sterilized and cultured in MS (Murashige and Skoog) medium. Seeds whose dormancy was broken at +4 °C for 90 days were incubated in climate chambers until they formed onions. Formed onions were subcultured on media containing 6-Benzylaminopurine (BAP), naphthalene acetic acid (NAA), Indole-3-Butyric Acid (IBA) at different concentrations. The number of callus per magenta, callus length, shoot number and shoot length, root number per magenta, root length, callus diameter length and onion numbers of *Fritillaria baskilensis* Behçet plants, which were left to incubation in climate chambers for 8 weeks, were recorded for statistical analysis. The increase in the number of callus per magenta was found to be statistically significant in the nutrient medium containing 1 mg/L BAP + 0.5 mg/L IBA. Although an increase was observed in the callus weight per magenta in the nutrient medium containing 0.5 mg/L BAP + 5 mg/L NAA, it was not found to be statistically significant. The increase in the number and length of shoots per magenta was found to be statistically significant in nutrient media containing IBA. The highest values in the number of roots per magenta and root length were recorded in the medium containing 1 mg/L BAP + 0.5 mg/L NAA and were not found to be statistically significant. Callus diameter length and onion

number per magenta increased in IBA-containing nutrient media and were found to be statistically significant. As a result, plant growth regulators' support for plant regeneration in *Fritillaria baskilensis* Behçet bulbs is a preliminary study for the reproduction of this species *in vitro* and its reintroduction to nature. With subsequent studies in which acclimatization processes will be added, the endemic species *Fritillaria baskilensis* Behçet will be able to be grown in large numbers in a short time and brought to nature.

Keywords: *Fritillaria baskilensis* Behçet, endemic species, BAP, NAA, IBA

PHYTOCHEMICAL ANALYSIS OF ACTIVE PHENOLIC COMPOUNDS IN SOME
PLANTS USED AS TRADITIONAL FOLK DRUGS FOR CANCER AND META-
ANALYSIS OF THEIR ANTI-CANCER EFFECTS

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ÖZET

Bu çalışma ile Türkiye'deki etnobotanik çalışmalarda, kanser için geleneksel halk ilacı olarak kullanıldığı kayıt altına alınmış olan *Malva neglecta*, *Nerium oleander*, *Quercus brantii* ve *Vitis vinifera* türlerinin fenolik bileşik kompozisyonu, fitokimyasal açıdan araştırılmıştır. Fenolik bileşiklerin, bitkilerin kimyasal kompozisyonu içerisinde çok önemli ($p<0.01$) derecede yer tuttuğu görülmüş ve etki büyüklükleri (η^2) belirlenmiştir. Böylece bitkilerin içeriğinde olası etkinliği ispatlanan fenolik bileşiklerin, meta analiz yoluyla tespit edilen kemoterapötik aktiviteleri doğrultusunda bitkilerin, antikanser etki potansiyelleri saptanmıştır. Tespit edilen 12 kanser türü üzerinde en yüksek düzeyde anti karsinojenik aktivite potansiyeli gösteren bitkiler şu şekildedir: Mesane kanseri; *Q. brantii*, Göğüs kanseri; *M. neglecta*, *N. oleander*, *Q. brantii* ve *V. vinifera*, Rahim ağzı kanseri; *Q. brantii*, ve *V. vinifera*, Kolorektal kanser; *Q. brantii* ve *V. vinifera*, Kronik miyeloid lösemi; *N. oleander*, Glioblastoma multiforme; *Q. brantii*, Karaciğer kanseri; *M. neglecta* ve *V. vinifera*, Akciğer kanseri; *M. neglecta*, *Q. brantii*, ve *V. vinifera*, Mezotelioma; *Q. brantii*, Yumurtalık kanseri; *V. vinifera*, Prostat kanseri; *M. neglecta*, ve *Q. brantii*, Cilt kanseri; *M. neglecta*. Ayrıca kanser türleri üzerinde kemoterapötik ajan özelliğe 5 farklı fenolik bileşik içeriği ile *Q. brantii* ve *V. vinifera*'nın fitokimyasal açıdan en zengin bitkiler olduğu tespit edilmiştir. *Q. brantii*'nin, 10 farklı kanser türü üzerinde aktif fenolik bileşiklere sahip olup, bunlardan 8'i üzerinde yüksek antikanser potansiyeline sahip olduğu belirlenmiştir.

Anahtar Kelimeler: Antikanser, Kemoterapötik ajan, Fenolikler, Fitokimya, Etnobotanik.

ABSTRACT

In this study, the composition of the phenolic compounds for *Malva neglecta*, *Nerium oleander*, *Quercus brantii* and *Vitis vinifera*, that are registered as traditional folk remedy used for cancer during the ethnobotanical surveys conducted in Türkiye, were analyzed in phytochemical terms. Such analysis revealed very significant ($p<0,01$) content of the phenolic compounds in the chemical composition of the plants, and then the effect sizes (η^2) thereof determined. Thus, the anticancer effect potentials of the plants were established in line with the chemotherapeutic activities of the phenolic compounds, the probable efficacy of which has been demonstrated in the content of the plants, as confirmed by the meta-analysis. The plants, presented highest anti-

carcinogenic activity potential on 12 established types of cancer, are: Bladder cancer; *Q. brantii*, Breast cancer; *M. neglecta*, *N. oleander*, *Q. brantii* and *V. vinifera*, Cervical cancer; *Q. brantii*, and *V. vinifera*, Colorectal cancer; *Q. brantii* and *V. vinifera*, Chronic myeloid leukemia; *N. oleander*, Glioblastoma multiforme; *Q. brantii*, Liver cancer; *M. neglecta* and *V. vinifera*, Lung cancer; *M. neglecta*, *Q. brantii*, and *V. vinifera*, Mesothelioma; *Q. brantii*, Ovarian cancer; *V. vinifera*, Prostate cancer; *M. neglecta*, and *Q. brantii*, Skin cancer; *M. neglecta*. Furthermore, *Q. brantii* and *V. vinifera* were identified as the plants with most abundant content in phytochemical terms, as said species contain 5 distinct phenolic compounds characterized as chemotherapeutic agents on identified types of cancer. *Q. brantii* contains phenolic compounds active on 10 different types of cancer, and identified to have high anticancer potential on 8 types of cancer.

Keywords: Anticancer, Chemotherapeutic agent, Phenolics, Phytochemistry, Ethnobotany.

**ARGİNAZ VE NİTRİK OKSİTİN KARDİYOVASKÜLER HASTALIKLARDAKİ
ROLÜ**

THE ROLE OF ARGINASE AND NITRIC OXIDE IN CARDIOVASCULAR DISEASES
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ÖZET

Arginin birçok fizyolojik olayda rol alan yarı esansiyel, katyonik bir amino asittir. Aynı zamanda protein, üre, kreatin, L-prolin, L-ornitin, poliamin, agmatin ve NO sentezinde görev almakla birlikte prolaktin, büyüme hormonu, insülin benzeri büyüme faktörü uyarımı yapabilmektedir.

Arginaz; L-argininin üre ve ornitine hidrolizini sağlayarak birçok ara metabolizmada rol alan bir enzimdir. Tip I ve tip II olmak üzere iki adet arginaz izoenzimi bulunmaktadır. Tip I arginaz, total arginaz aktivitesinin büyük bir bölümünü oluşturan sitozolik bir enzim olup karaciğerde üre siklusunun bir parçası olarak yüksek düzeyde bulunmaktadır. Tip II arginaz ise mitokondriyal bir enzimdir. Karaciğer dışında, böbrek, beyin, testis, deri, ince bağırsak, prostat, akciğer ve lökositler gibi birçok dokuda bulunmaktadır.

Nitrik oksit (NO), Nitrik oksit sentaz (NOS) tarafından argininin guanido azotu ve moleküler oksijeninden sentezlenen, göreceli olarak kararlı ve birçok biyolojik olayda önemli rolü olan çok kısa ömürlü bir serbest radikaldir. Arginaz enzimi ile ilgili son yıllarda yapılan çalışmalar, bu enzimin damar hastalıkları, immün hücre fonksiyonu ve enfeksiyöz hastalıklardaki rolü üzerinde durmaktadır. Arginaz enziminin diğer bir önemli özelliği ise NOS enzimi ile ortak substrat olan arginini kullanmasıdır. Arginaz ve NOS enziminin arginini tüketmek için birbiriyle yarıştığı bilinmektedir. Yarışma halindeki bu enzimlerden arginaz aktivitesinin artması, NOS enzimini baskılayarak NO üretiminin azalmasına neden olmaktadır.

Son zamanlarda yapılan çalışmalar, arginaz enzim aktivitesindeki artışın aterosklerozu da içeren kardiyovasküler hastalıkların risk faktörleriyle ilişkili olduğunu göstermektedir. Okside LDL'nin (oxLDL) arginaz II aktivitesini artırarak NO üretimini azalttığı ve endotel NO sinyalinde bozulmaya neden olduğu çalışmalarda gösterilmiştir. Bu nedenle oxLDL bağlı endotel disfonksiyonunda arginaz, terapötik hedef olarak gösterilmektedir.

Tüm bu sonuçlar arginazın, KVVH'larda önemli bir belirteç olduğunu göstermektedir. Ayrıca risk altındaki kişilerde aralıklı olarak arginaz ölçümünün, erken tanı ile birlikte DM, HT ve ateroskleroz gibi önemli KVVH'lerin önlenmesi mümkün olabilecektir.

Anahtar Kelimeler: Arginaz, Nitrik Oksit, Kardiyovasküler Hastalık

ABSTRACT

Arginine is a semi-essential, cationic amino acid that plays a role in many physiological events. It also takes part in the synthesis of protein, urea, creatine, L-proline, L-ornithine, polyamine, agmatine and NO and can stimulate prolactin, growth hormone, insulin-like growth factor.

Arginase; It is an enzyme that plays a role in many intermediate metabolisms by providing the hydrolysis of L-arginine to urea and ornithine. There are two arginase isoenzymes, type I and type II. Type I arginase is a cytosolic enzyme that accounts for the majority of total arginase activity and is present at high levels in the liver as part of the urea cycle. Type II arginase is a mitochondrial enzyme. Apart from the liver, it is found in many tissues such as kidney, brain, testis, skin, small intestine, prostate, lung and leukocytes.

Nitric oxide (NO) is a relatively stable and very short-lived free radical synthesized from the guanido nitrogen and molecular oxygen of arginine by nitric oxide synthase (NOS).

Recent studies on the arginase enzyme focus on the role of this enzyme in vascular diseases, immune cell function and infectious diseases. Another important feature of the arginase enzyme is that it uses arginine, which is a common substrate with the NOS enzyme. It is known that arginase and NOS enzymes compete with each other to consume arginine. The increase in arginase activity, one of these competing enzymes, suppresses the NOS enzyme and causes a decrease in NO production.

The studies show that increased arginase enzyme activity is associated with risk factors for cardiovascular diseases, including atherosclerosis. Studies have shown that oxidized LDL (oxLDL) decreases NO production by increasing arginase II activity and causes deterioration in endothelial NO signaling. Therefore, arginase is shown as a therapeutic target in oxLDL-induced endothelial dysfunction.

All these results show that arginase is an important marker in CVDs. In addition, intermittent arginase measurement in people at risk will be able to prevent important CVDs such as DM, HT and atherosclerosis, together with early diagnosis.

Key Words: Arginase, Nitric Oxide, Kardiyovasküler Diseases

SAĞLIK BİLİMLERİ FAKÜLTESİ ÖĞRENCİLERİNDE PİŞİRME VE BESİN
HAZIRLAMA BECERİLERİ
İLE SÜRDÜRÜLEBİLİR VE SAĞLIKLI BESLENME DAVRANIŞLARI
ARASINDAKİ İLİŞKİNİN DEĞERLENDİRİLMESİ
EVALUATION OF THE RELATIONSHIP BETWEEN COOKING AND FOOD
PREPARATION SKILLS AND SUSTAINABLE AND HEALTHY NUTRITIONAL
BEHAVIORS IN FACULTY OF HEALTH SCIENCES STUDENTS

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ÖZET

Sürdürülebilir Kalkınma Raporlarına göre Türkiye 165 ülke arasında 70. sırada yer almakta, sürdürülebilirlik açısından önemli gelişme gerektiren bir ülke olarak gösterilmektedir. Bu çalışmada da, pişirme becerilerinin, sürdürülebilir ve sağlıklı beslenme davranışları üzerine etkisini değerlendirilmesi amaçlanmıştır. Çalışma kapsamında bireylerin vücut ağırlığı ve boy uzunluğu standartlara uygun yöntemlerle alınarak, araştırmacılar tarafından anket formuna kaydedilmiş, genel özellikleri, beslenme alışkanlıkları ve pişirme becerileri anket formu yardımıyla yüzyüze görüşme tekniği kullanılarak belirlenmiştir. Pişirme becerilerine verilen “evet” yanıtı “1”, “hayır” yanıtı “0” olarak puanlanmıştır. Yüksek puanlar yüksek pişirme becerileri olarak yorumlanmıştır. Sürdürülebilir ve sağlıklı beslenme davranışları belirlemek için, Türkçe geçerlik ve güvenilirliği Köksal ve ark. (2022) tarafından yapılan sürdürülebilir ve sağlıklı beslenme davranışlar ölçeği kullanılmıştır. Ölçekte; “hiç” yanıtı 1 puan, “çok nadir” yanıtı 2 puan, “nadiren” yanıtı 3 puan, “bazen” yanıtı 4 puan, “sıklıkla” yanıtı 5 puan, “çok sık” yanıtı 6 puan, “her zaman” 7 puan olarak puanlanmıştır. Toplam puan arttıkça kişilerin, sürdürülebilir ve sağlıklı beslenme davranışlarına sahip oldukları kabul edilmiştir. Çalışma %96’sı kadın, %4’ü erkek toplam 123 birey üzerinde yürütülmüştür. Yaş ortalamaları 21.5 ± 1.68 yıl, Beden Kütle İndeksi ortalama değerleri ise 21.8 ± 2.84 kg/m^2 ’dir. Bireylerin %49.6’sı yurttan kalmaktadır. Ayda 2-3 kez %49.6’sı dışarda yemek yemekte, %32.5’i her gün evde yemek pişirmektedir. %70.7’si yemek pişirmeyi annesinden öğrendiğini belirtmiştir. Bireylerin pişirme becerileri ortalama puanı 8.1 ± 0.96 , sürdürülebilir ve sağlıklı beslenme davranışları ölçek puanı ortalama 137.2 ± 29.11 ’dir. Ailesinden ayrı yaşayanların (evde veya yurttan) pişirme becerileri puanlarının (sırası ile 141.8 ± 37.57 , 139.2 ± 20.08) ailesi ile yaşayanlardan (134.1 ± 29.22) daha yüksektir ($p < 0.05$). Pişirme becerileri puanı ile sürdürülebilir ve sağlıklı beslenme davranışları ölçek puanı arasında pozitif, Beden Kütle İndeksi değeri arasında ise negatif anlamlı ilişki belirlenmiştir ($p < 0.05$). Çalışmanın sonucunda pişirme becerileri arttıkça sürdürülebilir ve sağlıklı beslenme davranışlarının arttığı ve Beden Kütle İndeksi değerinin azaldığı gösterilmiştir. Bireylerin pişirme becerilerini geliştirmeye yönelik müdahalelerin halk sağlığında önemli iyileştirmeler sağlayacağı öngörülmektedir.

Anahtar Kelimeler: Sürdürülebilir Beslenme, Pişirme Becerileri, Besin Hazırlama

ABSTRACT

According to the Sustainable Development Reports, Turkey ranks 70th among 165 countries and is shown as a country that requires significant improvement in terms of sustainability. In this study, it is aimed to evaluate the effect of cooking skills on sustainable and healthy eating behaviors. Within the scope of the study, the body weight and height of the individuals were taken with the methods in accordance with the standards, recorded in the questionnaire form by the researchers, and their general characteristics, eating habits and cooking skills were determined using the face-to-face interview technique with the help of the questionnaire. “Yes” answer to cooking skills was scored as “1” and “no” answer as “0”. High scores were interpreted as high cooking skills. To determine sustainable and healthy eating behaviors, the Turkish validity and reliability of Köksal et al. (2022) sustainable and healthy eating behaviors scale was used. In scale; “never” answer 1 point, “very rarely” answer 2 points, “rarely” answer 3 points, “sometimes” answer 4 points, “often” answer 5 points, “very often” answer 6 points, “always” 7 points rated as. As the total score increased, it was accepted that the individuals had sustainable and healthy eating behaviors. The study was conducted on a total of 123 individuals, 96% female and 4% male. The mean age is 21.5 ± 1.68 years, and the mean Body Mass Index values are 21.8 ± 2.84 kg/m². 49.6% of individuals live in dormitories. 49.6% of them eat out 2-3 times a month, 32.5% of them cook at home every day. 70.7% of them stated that they learned to cook from their mother. The mean score of individuals' cooking skills is 8.1 ± 0.96 , and the mean score of sustainable and healthy eating behaviors is 137.2 ± 29.11 . The cooking skills scores of those living apart from their families (at home or dormitory) (141.8 ± 37.57 , 139.2 ± 20.08 , respectively) were higher than those living with their families (134.1 ± 29.22) ($p < 0.05$). There was a positive correlation between the cooking skills score and the sustainable and healthy eating behaviors scale score, and a negative significant relationship between the Body Mass Index value ($p < 0.05$). As a result of the study, it has been shown that as cooking skills increase, sustainable and healthy eating behaviors increase and Body Mass Index value decreases. It is predicted that interventions aimed at improving individuals' cooking skills will provide significant improvements in public health.

Keywords: Sustainable Nutrition, Cooking Skills, Food Preparation

**THE RELATIONSHIP between OBESITY PREJUDICE and
ORTHOREXIA NERVOSA in WOMEN**

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ABSTRACT

This observational online study aimed to investigate the relationship between obesity prejudice and orthorexia nervosa (ON) in women in 185 female subjects aged between 19 and 64 years. Additionally, the research also explored the relationship between perceptions of obesity and body mass index (BMI) in women. Participants were required to complete a comprehensive questionnaire that covered various aspects, including general information, anthropometric measurements, the Teruel Orthorexia Scale (TOS), the ORTO-R scale, the Obesity Prejudice Scale (GAMS27), and the Stunkard Body Perception Scale. The findings of the study unveiled a notable difference in the median age of the obesity prejudice group, which was significantly lower than that of the prone to prejudice group ($p < 0.035$). However, no statistically significant variations were observed in education level, employment status, marital preference, dieting habits, or the prevalence of illness among the different groups ($p > 0.05$). In terms of anthropometric measurements, the obesity prejudice group displayed a considerably lower median body weight compared to the other groups ($p = 0.007$). Furthermore, the median BMI of the obesity prejudice group was significantly lower than that of the prone to prejudice group ($p = 0.030$). The assessment of orthorexia using the ORTO-R and TOS scales showed a higher prevalence of pathologic ON subjects in the obesity prejudice group, although this difference did not statistically difference. Nonetheless, a positive correlation emerged between TOS and ORTO-R. Furthermore, the study revealed a significant positive correlation between BMI and age ($r = 0.249$; $p = 0.01$), implying that as age increased, BMI tended to increase as well. Conversely, a significant negative correlation was observed between BMI and GAMS27 ($r = -0.124$; $p = 0.05$), suggesting that individuals with higher BMIs tended to exhibit lower levels of obesity prejudice. The majority of women seeking to lose or gain weight did not harbor prejudice, while those satisfied with their body weight were more prone to prejudice. However, overall, the differences between groups were not statistically significant ($p = 0.270$). In conclusion, this study sheds light on the noteworthy issue of obesity prejudice and its potential adverse effects on individuals with obesity. It underscores the significance of raising awareness, challenging stereotypes, and promoting inclusivity and respect for all body types.

KEYWORDS: Obesity Prejudice, Orthorexia Nervosa, Body Perception

SOĞUK PLAZMA TEKNOLOJİSİNİN KURU İNCİRLERDE AFLATOKSİN
DETOKSİFİKASYONUNA ETKİSİNİN ARAŞTIRILMASI
INVESTIGATION OF THE EFFECT OF COLD PLASMA TECHNOLOGY ON
AFLATOXIN DETOXIFICATION IN DRIED FIGS

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ÖZET

Dünya genelinde üretilen gıdaların %25'inin mikotoksinlerle kontamine olduğu bilinmektedir. Gıda endüstrisinde ciddi kayıplara sebep olan mikotoksin sorununun en büyük bölümünü aflatoksinler oluşturmaktadır. Aflatoksinler, *Aspergillus parasiticus* ve *Aspergillus flavus* türlerinin ürettiği sekonder metabolitler olarak tanımlanmaktadır. Bilinen bütün mikotoksinler içerisinde en toksik olan mikotoksin çeşidi aflatoksinlerdir. Aflatoksinlerin karsinojenik, mutajenik ve nefrotoksik etkileri nedeniyle gıdalarda bulunabileceği maksimum limitler, çeşitli otoriteler tarafından sınırlandırılmıştır. Ülkemiz ihracatında önemli bir yere sahip olan kuru incirde aflatoksin oluşumu gerçekleşen en önemli sorunlardan biridir. Kuru incirde aflatoksin oluşumuna, uygun olmayan koşullarda gerçekleştirilen kurutma ve depolama işlemleri neden olmaktadır. Belirlenen limitler üzerinde aflatoksin içeren kuru incirler ihracat konusunda sorunlara neden olmaktadır. Çeşitli teknolojiler ile aflatoksin detoksifikasyonu gerçekleştirilmektedir ancak bu teknolojiler yeterli detoksifikasyon oranını sağlayamamakta ve kalite kayıplarına neden olmaktadır. Bu nedenle alternatif yöntemlerin uygulanabilirliği araştırılmaktadır. Soğuk plazma teknolojisi, hava, oksijen, nitrojen veya helyum gibi taşıyıcı gazlar üzerine elektrotlar yardımıyla uygulanan elektrik enerjisinin kullanıldığı güncel teknolojilerden biridir. Gıda maddesinde ısı işlem kaynaklı hasara neden oluşturmadan kalite özelliklerinin korunmasını sağlayan yenilikçi yöntem olarak ön plana çıkmaktadır. Bu çalışmada, kuru incirlerde aflatoksin detoksifikasyonunda soğuk plazmanın uygulanabilirliği incelenmiştir. 1250 ve 2000 Hz iki farklı frekans değerinde kuru incirin iki yüzeyine 1+1 ve 2+2 dk olmak üzere iki farklı işlem süresinde uygulanan soğuk plazmanın aflatoksin detoksifikasyonu üzerindeki etkisi araştırılmıştır. Kuru incirde aflatoksin B₁'in en az %60.44, en fazla %75.78, toplam aflatoksinin ise en az %72.33, en fazla %85.49 oranında detoksifikiye edildiği tespit edilmiştir. Soğuk plazma işleminde aflatoksin detoksifikasyonu üzerine uygulanan frekans değerinin istatistiksel olarak anlamlı olduğu saptanmıştır (p<0.05). Artan frekans değerine bağlı olarak aflatoksin detoksifikasyon oranının da arttığı belirlenmiştir (p<0.05). Aynı zamanda çalışılan parametrelerde kuru incirin renk özelliklerinin korunduğu tespit edilmiştir (p>0.05). Çalışma sonucunda, kuru incirde aflatoksin detoksifikasyonunda soğuk plazma teknolojisinin uygulanabilirliğinin mümkün olduğu belirlenmiştir.

Anahtar Kelimeler: Soğuk plazma, kuru incir, aflatoksin, detoksifikasyon

ABSTRACT

The rate of contamination of food products with mycotoxins is 25% in worldwide. Aflatoxins constitute the biggest part of the mycotoxin problem, which causes serious losses in the food industry. Aflatoxins are defined as secondary metabolites produced by *Aspergillus parasiticus* and *Aspergillus flavus* species. Aflatoxins are the most toxic of all known mycotoxins. Due to the carcinogenic, mutagenic and nephrotoxic effects of aflatoxins, the maximum limits that can be found in foods are limited by various authorities. Aflatoxin formation is one of the most important problems in dried figs, which have an important place in the export of our country. The formation of aflatoxin in dried figs is caused by the drying and storage processes carried out under unsuitable conditions. Dried figs containing aflatoxin above the determined limits cause problems in export. Aflatoxin detoxification is carried out with various technologies, but these technologies cannot provide a sufficient detoxification rate and cause quality losses. Therefore, the applicability of alternative methods is being investigated. Cold plasma technology is one of the novel technologies in which electrical energy is applied with the help of electrodes on carrier gases such as air, oxygen, nitrogen or helium. It stands out as an innovative method that ensures the preservation of quality properties without causing heat-treatment induced damage to the foodstuff. In this study, the applicability of cold plasma in aflatoxin detoxification in dried figs was investigated. The effect of cold plasma applied to the two surfaces of dried figs in two different treatment times, 1+1 and 2+2 minutes, at two different frequency values of 1250 and 2000 Hz on aflatoxin detoxification was investigated. In dried figs, aflatoxin B₁ was detoxified minimum 60.44%, maximum 75.78%, and total aflatoxin minimum 72.33% and maximum 85.49%. The frequency value applied on aflatoxin detoxification in cold plasma treatment is statistically significant ($p < 0.05$). Depending on the increasing frequency value, the rate of aflatoxin detoxification also increased ($p < 0.05$). In addition, the color characteristics of dried figs were preserved in the studied parameters ($p > 0.05$). As a result of the study, it was determined that the applicability of cold plasma technology in aflatoxin detoxification in dried figs is possible.

Keywords: Cold plasma, dried fig, aflatoxin, detoxification

TÜRKİYE'DE KEKİK
THYME IN TURKEY

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ÖZET

Bitkiler, yüzyıllar boyunca günlük yaşamın ayrılmaz bir parçası olmuştur. Günümüzde gıda, sağlık, kozmetik ve parfümeri gibi sektörlerde geniş kullanım alanı bulunan bitkiler, son yıllarda dünya pazarlarında yüksek ticari hacme sahip oluşları ile dikkat çekmektedir. Bu bitkiler arasında kekik, Türkiye'de ihracatı giderek artan bir üründür. Dünyanın en büyük kekik üreticisi olan Türkiye'nin, çeşitli bölgelerinde bir bitkiye farklı isimler verilirken, çok fazla sayıda cins ve türe değişik yörelerde kekik denilmektedir. Bu bitkiler; *Thymus*, *Origanum*, *Satureja*, *Tymbra* ve *Coridothymus* cinslerine dahildir. İlgili cinslerin tümünün *Lamiaceae* familyasından olduğu bilinmektedir. Bununla beraber, belirtilen cinslerin genellikle uçucu yağlarının temel bileşenlerinin karvakrol veya timol olduğu ifade edilmektedir. Bazı durumlarda her ikisinin de olduğu belirtilmektedir. Kekik gıda olarak birçok farklı şekilde kullanılmaktadır. Taze kekik; salatalarda, çeşitli sebze ve et yemeklerinde tüketilmektedir. Kekiğin taze hali ya da kurutulmuş haliyle bitki çayı yapılmaktadır. Türkiye'de kekik genel olarak kurutulup toz haline getirilip baharat olarak kullanılır. Baharat olarak kullanılan kekik; çeşitli sebze ve et yemeklerinde, balık yemeklerinde, çorbalarda, salata soslarında, peynir yapımında, kahvaltıda salçanın ya da zeytinin üstünde kullanılır hatta bazen tatlılarda bile kullanılabilir. Kekiğin su buharı distilasyonu ile elde edilen uçucu yağı kekik yağı, arta kalan suyu ise kekik suyu olarak tüketilmektedir. Ayrıca bitkinin kekik balı, kekik sirkesi, kekik turşusu gibi birçok farklı kullanımları da mevcuttur. Halk arasında bilinçli ya da bilinçsiz yaygın olarak kullanılan bitkilerden biri olan kekik, genellikle hastalıklardan koruyucu, ağrı kesici, iltihapları önleyici, kolesterol, şeker, tansiyon, sindirim sistemi düzenleyici gibi birçok amaçla kullanılmaktadır. Bu çalışmada Türkiye'deki kekik türlerinin; genel özellikleri, üretimi, ticari önemi ve kullanım alanlarıyla ilgili bilgiler verilmiştir.

Anahtar Kelimeler: Kekik, Foksiyonel Gıda, Kekik Üretimi ve Ticareti

ABSTRACT

Plants have been an integral part of everyday life for centuries. Plants, which have a wide area of use in sectors such as food, health, cosmetics and perfumery, have attracted attention with their high commercial volume in the world markets in recent years. Among these plants, thyme is a product whose export is increasing in Turkey. While different names are given to a plant in various regions of Turkey, which is the world's largest producer of thyme, many genera and species are called thyme in different regions. These plants; It is included in the genera *Thymus*, *Origanum*, *Satureja*, *Tymbra* and *Coridothymus*. It is known that all of the related genera are from the *Lamiaceae* family. However, it is stated that the essential components of the essential oils of the mentioned genera are generally carvacrol or thymol. In some cases, it is stated that both are present. Thyme is used as food in many different ways. Fresh thyme; It is consumed in salads, various vegetable and meat dishes. Herbal tea is made in fresh or dried form of thyme. In Turkey, thyme is generally dried and powdered and used as a spice. Thyme used as a spice; It is used in various vegetable and meat dishes, fish dishes, soups, salad dressings, cheese making, on tomato paste or olives for breakfast, and sometimes even in desserts. The essential oil obtained by steam distillation of thyme is consumed as thyme oil and the remaining water is consumed as thyme juice. In addition, the plant has many different uses such as thyme honey, thyme vinegar, thyme pickles. Thyme, which is one of the plants that is used consciously or unconsciously among the people, is generally used for many purposes such as preventing diseases, pain relief, anti-inflammatory, cholesterol, sugar, blood pressure, digestive system regulator. In this study, thyme species in Turkey; information about its general characteristics, production, commercial importance and usage areas are given.

Keywords: Thyme, Functional Food, Thyme Production and Trade

**KEKİK YAĞI İLE ZENGİNLEŞTİRİLMİŞ KİTOSAN FİLM UYGULAMALARININ
SOFRALIK SİYAH ZEYTİNİN MİKROBİYOLOJİK KALİTESİ ÜZERİNE
ETKİSİNİN BELİRLENMESİ**

THE EFFECT OF CHITOSAN FILMS CONTAINING THYME OIL ON THE
MICROBIOLOGICAL QUALITY OF TABLE OLIVES

Pınar ÇORUHLU

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ÖZET

Son yıllarda tüketicilerin taze veya doğala yakın, daha uzun raf ömürlü gıdalara olan talebindeki artış nedeni ile klasik yöntemlerle mikrobiyal inaktivasyon işlemine alternatif olabilecek yeni gıda koruma yöntemleri gündeme gelmekte ve gıda güvenliğinin sağlanmasında yeni yöntemler kullanılmaktadır. Bu yöntemlerden biri de yenilebilir film üretimi ve ürün bazında kullanılmasıdır. Yenilebilir filmlerin ürünler de nem kaybını önlemek, solunumu yavaşlatmak, ürünün mekaniksel özelliklerini geliştirmek, şeklini muhafaza etmek, antimikrobiyal, antioksidan, renk ve aroma maddelerini taşımak amacıyla gıdalara uygulanabileceği literatürde belirtilmektedir. Kitosan; sahip olduğu özellikler ve antimikrobiyal etkisi nedeniyle yenilebilir film teknolojisinde kullanılan bir polisakkarittir. Bu uygulamalardan bir diğeri de antimikrobiyal özellikleri bulunan doğal kaynaklı esansiyel yağların gıdaların korunmasında kullanılmasıdır. Bunlardan biri olan kekik yağı da güçlü bir antimikrobiyaldir.

Sofralık zeytin, Türkiye için hem tarım hem de sanayi açısından büyük önem taşımaktadır. Sofralık zeytinlerin vakum ambalajda salamurasız paketlenmesinde ülkemizde genellikle Türk Gıda Kodeksi tarafından kullanım miktarları belirlenmiş kimyasal koruyucular (potasyum sorbat ve sodyum benzoat) kullanılarak yapılmaktadır. Sofralık zeytinler son tüketiciye ulaşmaya kadar yanlış üretim veya uygunsuz depolama koşulları nedeniyle üründe küf-maya ve bakteri gelişimi olabilmektedir. Bu çalışmanın amacı farklı konsantrasyonlarda kekik yağı içeren kitosan filmlerin salamurasız olarak paketlenen siyah zeytinler üzerinde antimikrobiyal etkisinin belirlenmesidir.

Farklı konsantrasyonlarda kekik yağı içeren kitosan çözeltilerle kaplanan siyah zeytin örnekleri, polietilen kaselerde vakum ambalajlanarak +4 ve 25 °C' de 3 ay boyunca depolanmıştır. Örnek grupları üzerinde her ay toplam canlı sayısı ve küf-maya sayısı istatistiksel olarak değerlendirilmiştir. Toplam canlı sayısı (TCS) ve küf-maya sayısı KONTROL (kaplanmamış) ve %0.1' lik potasyum sorbat+sodyum benzoat çözeltisi ile muamele edilmiş olan G grubuna göre K (%2 kitosan), KK1 (%2 kitosan+%0.2 kekik yağı), KK2 (%2 kitosan+%0.5 kekik yağı) ve KK3 (%2 kitosan+%1 kekik yağı) grubu örneklerin antimikrobiyal etkisinin daha fazla olduğu tespit edilmiştir. Siyah zeytinlerde depolama sonunda en yüksek küf-maya değerindeki

azalma +4°C' de depolanan KK1 örneğinde 4.89 log kob/g, TCS değerinde ise KK3 grubunda 5.21 log kob/g bulunmuştur. 25°C' de TCS değerinde KK3 grubunda ise 4.35 log kob/g azalma görülmüştür. Kekik yağı içeren kitosan filmlerin mikrobiyal aktivite üzerinde inhibitör etkisi olduğu görülmüştür. Bu durum kekik yağı ve kitosanın yüksek antimikrobiyal yapısından kaynaklandığı ve mikrobiyal gelişimi baskılayıcı etki gösterdiği sonucuna varılmıştır.

Sonuçlar depolama boyunca zeytinlerin raf ömrünün uzatılmasında ve kalitesinin geliştirilmesinde bu kaplama formülasyonlarının kullanım potansiyelinin olabileceğini göstermiştir. Sofralık zeytin muhafazasında kullanılan yenilebilir film uygulamasının tespit edilen sonuçları göz önünde bulundurarak potasyum sorbat-sodyum benzoat kullanımına alternatif bir uygulama olabileceği düşünülmektedir.

Anahtar Sözcükler: Zeytin, kekik yağı, kitosan, yenilebilir film, antimikrobiyal

ABSTRACT

In recent years, due to the increase in consumers' demand for fresh or near-natural foods with a longer shelf life, new food preservation methods, which can be an alternative to microbial inactivation with traditional methods, have come to the fore and new methods are used to ensure food safety. One of these methods is the production of edible films and their use on a product basis. It is stated in the literature that edible films can be applied to foods in order to prevent moisture loss in products, slow down respiration, improve the mechanical properties of the product, preserve its shape, and protect antimicrobial, antioxidant, color and flavor substances. chitosan; It is a polysaccharide used in edible film technology due to its superior properties and antimicrobial effect. Another of these applications is the use of natural origin essential oils with antimicrobial properties in the preservation of foods. Thyme oil, one of them, is also a powerful antimicrobial.

Table olives are of great importance for Turkey both in terms of agriculture and industry. In our country, the packaging of table olives in vacuum packaging is generally done by using chemical preservatives (potassium sorbate and sodium benzoate) whose usage amounts are determined by the Turkish Food Codex. Until the table olives reach the final consumer, mold-yeast and bacterial growth may occur in the product due to improper production or improper storage conditions. The aim of this study is to determine the antimicrobial effect of chitosan films containing thyme oil at different concentrations on black olives.

Black olive samples, which were covered with chitosan solutions containing different concentrations of thyme oil, were vacuum packed in polyethylene bowls and stored at +4 and 25 °C for 3 months. The total aerobic count and yeast-mold count were analyzed in 3 replications and 2 parallels on the sample groups each month, and the results were statistically evaluated. Total aerobic count and yeast-mold values were found to be more antimicrobial in

K (2% chitosan), KK1 (2% chitosan+0.2% thyme oil), KK2 (2% chitosan+0.5% thyme oil), and KK3 (2% chitosan+1.0% thyme oil) group samples compared to CONTROL (uncoated) and G (with chemical preservatives) groups. The highest decrease in yeast-mold value at the end of storage in black olives was 4.89 log cfu/g in KK1 sample stored at 4°C and TCS value was found 5.21 log cfu/g in KK1 sample. The highest decrease in TCS value at the end of storage in black olives was 4.35 log cfu/g in KK3 sample stored at 25°C. It has been determined that chitosan films containing thyme oil have an inhibitory effect on the microbial activity. It was concluded that this situation was caused by the high antimicrobial structure of thyme oil and chitosan and that it had a suppressive effect on microbial growth.

The results demonstrated the potential for use of these coating formulations in extending the shelf life and improving the quality of olives during storage. Considering the results of the edible film application used in table olive storage, it was concluded that it could be an alternative application to the use of potassium sorbate-sodium benzoate.

Keywords: Olives, thyme oil, chitosan, edible film, antimicrobial

SİRKEDE *PENICILLIUM EXPANSUM* KÜFÜNÜN İNAKTİVASYONUNDA
MİKROORGANİZMALARIN KULLANILMASI
USING MICROORGANISMS IN THE INACTIVATION OF *PENICILLIUM EXPANSUM*
MOLD IN VINEGAR

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ÖZET

Sirke, gıda sektöründe yemeklerde tatlandırıcı veya salamura şeklinde koruyucu olarak oldukça sık kullanım alanına sahip içeriği zengin fermente bir üründür. Son yıllarda ev yapımı sirkeye olan tüketici talebinin arttığı görülmektedir. Ancak sirke üretimi sırasındaki hatalı uygulamalar sonucunda sirkede mikotoksinlerin oluşumu söz konusu olmaktadır. Mikotoksinler mantarlar, küfler tarafından üretilen sağlık için zararlı maddelerdir. Patulin, *Penicillium expansum* başta elma olmak üzere *Penicillium*, *Aspergillus*, ve *Byssoschlamys* cinsine ait 60 'tan fazla tür tarafından üretilen bir mikotoksindir. Patulin, meyve sebze gibi bitkisel gıdalarda hayvansal gıdalara göre oldukça fazla bulunur. Patulin oluşumu çeşitli meyvelerde ortam koşullarına bağlı olarak meydana gelebilmektedir. Küflü, çürük meyvelerden üretilen meyve suları, konsantreler ve sirke gibi ürünler de patulin varlığı açısından risk taşımaktadır. Üretimde kullanılacak olan hammaddelerin kalitesi önemlidir. Patulin sağlık üzerine çeşitli zararlı etkilerinin yanında esas olara bağırsak mukozasının epitel hücrelerine ve immün hücrelerine zarar vermektedir. Patulin ısıya oldukça dayanıklı bir mikotoksin olduğundan dolayı pastörizasyon, sterilizasyon gibi ısısız işlemlerle yok edilmesi mümkün değildir. Bu yüzden gıda ve meyve sularında toksik özellikteki PAT oluşmasını kontrol etmek için çeşitli fiziksel, kimyasal ve biyolojik yaklaşımlar mevcuttur. Mikroorganizmaların uygulanmasına örnek olarak biyolojik enzimlerin, antagonistik mayaların, laktik asit bakterilerinin kullanılması gibi yöntemler bulunmaktadır. UV ışınlama ve ozon uygulamaları da patulin degradasyonunda kullanılmaktadır. Bu yöntemler içinde birçok mikroorganizma PAT'ı parçalama veya biyo-dönüşüm ile daha az toksik bileşiklere dönüştürebilmektedir. Bu bildiri kapsamında *Lactobacillus plantarum*, *Leuconostoc mesenteroides* gibi laktik asit bakterilerinin, *Rhodotorula mucilaginosa*, *Saccharomyces cerevisiae*, *Pichia caribbica* gibi mayaların ve çeşitli mikroorganizmaların sirke içerisinde gelişen küf ve buna bağlı gelişen patulin detoksifikasyonu ve degradasyonu üzerindeki etkilerinin incelenmesi amaçlanmıştır.

Anahtar Kelimeler: Patulin, sirke, mikotoksin, detoksifikasyon, *Penicillium expansum*

ABSTRACT

Vinegar is a fermented product with a wide range of uses in the food industry as a sweetener or preservative in the form of brine. Consumer demand for homemade vinegar has increased in recent years. However, as a result of faulty practices during vinegar production, mycotoxins are formed in vinegar. Mycotoxins are substances harmful to health produced by fungi, molds. Patulin is a mycotoxin produced by more than 60 species belonging to *Penicillium expansum*, mainly apple, *Penicillium*, *Aspergillus*, and *Byssoschlamys* genera. Patulin is found in plant foods such as fruits and vegetables more than animal foods. Patulin formation can occur in various fruits depending on environmental conditions. Products such as fruit juices, concentrates and vinegar produced from moldy and rotten fruits are also at risk for the presence of patulin. The quality of the raw materials to be used in production is important. Besides its various harmful effects on health, patulin mainly damages the epithelial cells and immune cells of the intestinal mucosa. Since patulin is a mycotoxin that is highly resistant to heat, it cannot be destroyed by thermal processes such as pasteurization and sterilization. Therefore, there are various physical, chemical and biological approaches to control the formation of toxic PAT in food and fruit juices. Examples of the application of microorganisms are methods such as the use of biological enzymes, antagonistic yeasts, lactic acid bacteria. UV irradiation and ozone applications are also used in patulin degradation. Within these methods, many microorganisms can convert PAT into less toxic compounds by degradation or bioconversion. In this paper, it is aimed to examine the effects of lactic acid bacteria such as *Lactobacillus plantarum*, *Leuconostoc mesenteroides*, yeasts such as *Rhodotorula mucilaginosa*, *Saccharomyces cerevisiae*, *Pichia caribbica*, and various microorganisms on the detoxification and degradation of mold growing in vinegar and the resulting patulin.

Keywords: Patulin, vinegar, mycotoxin, detoxification, *Penicillium expansum*

**ALTERNATİF BİTKİ KAYNAKLI UNLARIN BUĞDAY UNU KEKLERİNİN
ÖZELLİKLERİNE ETKİSİ**

THE EFFECT OF ALTERNATIVE PLANT-SOURCED FLOURS ON THE PROPERTIES
OF WHEAT FLOUR CAKES

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ÖZET

Günümüzde iklim koşulları, artan nüfus, verimli toprakların kıtlığı özellikle buğdayın besinsel özelliklerindeki düşüş ve son yıllarda tüketicilerin besin tercihlerini ve beslenme alışkanlıklarını değiştirme yoluna gitmesi sonucunda çimlendirilmiş tohum ve filiz ürünlerinin tüketimi artmıştır. Baklagil ürünlerinin çimlenmesi besin değerlerini arttırmanın etkili bir yolu olarak gıda teknolojisinde aktif olarak kullanılmaktadır. Baklagiller önemli protein kaynakları, nişasta ve lif gibi karbonhidratlar, vitamin ve mineralleri arasındadır. Baklagil unları sahip oldukları amino asit dengeleri ve kanıtlanmış besinsel yararları nedeniyle, unlu mamüllerin besin özelliklerini geliştirmek için ideal bileşenlerdir. Bu özelliklerinden ötürü keklerin beslenme kalitesini iyileştirmek için yüksek potansiyele sahiptirler. Mercimek unu kanıtlanmış besinsel faydaları nedeniyle, keklerin besin özelliklerini geliştirmek için ideal bileşenlerdir. Bu amaçla Sagittario [*Triticum aestivum*.] cinsi rafine buğday ununa %20, %40 ve %100 oranlarında farklı sürelerde çimlendirilmiş mercimek unları ile ikame edilerek keklerin besinsel ve bazı kimyasal özelliklerine etkisi araştırılmıştır. Belirlenen oranlarda buğday ve çimlendirilmiş baklagil unu karıştırılıp bu karışım ile üretilen kek örnekleri ve kontrol olan rafine edilmiş una bazı kimyasal [nem, kül, protein, antioksidan aktivite ve toplam fenolik madde] analizler yapılmıştır. Elde edilen sonuçlara göre; Rafine buğday unu ham protein değerinin % 12,12 olduğu, yeşil mercimek unu ham protein değerlerinin ise % 29,04-29,92 aralığında değişmektedir. Buğday unundan üretilen ve kontrol örnek olan kek örneğinin ham protein miktarı % 7,90- 8,13 aralığında, çimlenmiş yeşil mercimek ile buğday unundan elde edilen kek örneklerinin ham protein miktarları % 9,41- 14,76 aralığında sonuç elde edilmiştir. Çimlendirmenin etkisiyle ham protein miktarında % 6 oranında kontrol örneğe kıyasla artış olduğu saptanmıştır. Çimlenmiş yeşil mercimek ununda en yüksek kül miktarı % 3,39 iken buğday ununda % 0,87- 1,01 aralığındadır, kek kontrol buğday örneklerinde kül oranı % 1,0 iken çimlenmiş yeşil mercimek ile buğday unundan elde edilen kek örneklerinin kül oranları % 1,29- 2,3 aralığında sonuç elde edilmiştir. En yüksek nem miktarı % 25,49 artan çimlendirmenin etkisiyle % 100 yeşil mercimekten elde edilen kek örneklerinden tespit

edilmiştir. Çimlendirmenin etkisiyle buğdaya kıyasla ham protein, nem tayini değerlerinin arttığı sonucuna ulaşılmaktadır. Örneklerin antioksidan aktivite değerleri 5,1693-38,5026 [$\mu\text{mol TE}/100 \text{ g}$] aralıklarında sonuçlar elde edilmiştir.

Anahtar kelimeler: Çimlendirilmiş baklagil, un, kek, rafine buğday

ABSTRACT

Today, the consumption of germinated seeds and sprout products has increased as a result of climatic conditions, increasing population, scarcity of fertile soils, especially the decrease in the nutritional properties of wheat, and in recent years, consumers have changed their food preferences and eating habits. Germination of legumes is actively used in food technology as an effective way to increase their nutritional value. Legumes are important sources of protein, carbohydrates such as starch and fiber, vitamins and minerals. Because of their amino acid balance and proven nutritional benefits, legume flours are ideal ingredients for improving the nutritional properties of bakery products. Because of these properties, they have a high potential to improve the nutritional quality of cakes.

In this study, it was aimed to determine the changes in the nutritional content of the refined wheat type sagittario [*Triticum aestivum.*] grain flour and the green lentil legume flour germinated with the effect of germination and to determine the usability of alternative plant-derived legume flour and its effects on some properties of the cakes. . To this end; Wheat [sagittario] flour and green lentil flour germinated at different rates [100%, 40% and 20%] and at different times [1 and 7 days] were used. Some chemical [moisture, ash, protein, antioxidant activity and total phenolic content] analyzes were performed on the cake samples produced with this mixture and on the refined flour, which is the control flour. According to the results obtained; The crude protein value of refined wheat flour is 12,12%, and the crude protein value of green lentil flour varies between 29,04 and 29,92%. Crude protein content of the cake sample produced from wheat flour and the control sample was between 7.90-8.13%, and the crude protein amount of the cake samples obtained from germinated green lentil and wheat flour was 9.41-14.76%. With the effect of germination, it was determined that the amount of crude protein increased by 6% compared to the control sample. While the highest amount of ash in germinated green lentil flour is 3.39%, it is between 0.87-1.01% in wheat flour, 1.0% in cake control wheat samples, and 1.29% in cake samples obtained from germinated green lentil and wheat flour. - 2.3 results were obtained. The highest moisture content was determined from the cake samples obtained from 100% green lentils with the effect of increased germination by 25.49%. With the effect of germination, it is concluded that crude protein and moisture determination values increase compared to wheat. The antioxidant activity values of the samples varied between 5.1693-38.5026 [$\mu\text{mol TE}/100 \text{ g}$], and the total phenolic contents varied between 0.031 and 0.661 [$\text{mg GAE}/100\text{g}$].

Keywords: Germinated legumes, flour, cake, refined wheat

GENEL HATLARIYLA MATÜRİDİ GELENEĞİ VE GÖRÜŞLERİ
GENERALLY MATURIDI TRADITION AND OPINIONS

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ÖZET

Matüridi'nin doğmuş olduğu Maverünnehir coğrafyası çeşitli inanç, kültür ve medeniyetlere ev sahipliği yapmıştır. Yaşamış olduğu dönemde pek çok değişim ve gelişmenin yaşandığı, İslam inanç esaslarına dahili ve harici meydan okumaların meydana geldiği, felsefi, siyasi ve itikadi akımların peş peşe türediği dönemde yaşamıştır. Bu gruplara karşı Matüridi İslam inancını en güzel şekilde korumaya, karşıt iddia ve görüşlere rasyonel cevaplar vermeye çalışmıştır. İslam inancının, fikriyatının toplumsal ve bireysel boyutta sağlamlaştırıp, sistemleştirilmesini sağlamıştır. Makalemizde genel olarak hayatı, eserleri, temel dini görüşleri ve Matüridi düşünce geleneğini kendisinden sonra devam ettiren mütekellimler hakkında bilgi vereceğiz.

Anahtar Kelimeler: Matürîdî, Kalam, Kitâbü't-Tevhîd, Te'vîlatü'l-Kur'an

ABSTRACT

The geography of Transoxiana, where Maturidi was born, has hosted various beliefs, cultures and civilizations. Maturidi lived during a time of immense change, facing challenges to the core principles of Islamic faith from within and without. A whirlwind of philosophical, political, and theological movements swirled around him. Undeterred, Maturidi devoted himself to protecting and defending Islamic beliefs, offering rational explanations to counter opposing claims. He fortified and organized Islamic thought, leaving an indelible impact on both society and individuals. In our article, we embark on a captivating journey, exploring Maturidi's life, influential works, fundamental religious perspectives, and the torchbearers who carried forward the cherished Maturidi tradition.

Keywords: Maturidi, Kalam, Kitâbü't-Tevhîd, Te'vîlatü'l-Qur'an

**FATİH HARBİYE, SİNEKLİ BAKKAL VE HUZUR ROMANLARINDA
BATILILAŞMA BAĞLAMINDA MÜZİK İZLEĞİ**

MUSIC IN THE CONTEXT OF WESTERNISATION IN FATİH HARBİYE, SİNEKLİ
BAKKAL AND HUZUR NOVELS

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ÖZET

Bu çalışmada *Fatih Harbiye*, *Sinekli Bakkal* ve *Huzur* romanlarında Batılılaşma bağlamında müzik izleğinin araştırılması konusu incelenmiştir. Bu üç romanın ortak noktaları Batılılaşma sorunsalı üzerinden konuyu ele almaları ve bunu müziği kullanarak belirlemeye çalışmalarıdır. Batılılaşmanın getirmiş olduğu en önemli sorun “ikilik” ve yanlış yorumlanmasından kaynaklanan trajik durumdur. Bu, edebiyatın da önemli bir konusu olmuş ve edebi eserlerde işlenmiştir. Tanzimat edebiyatı döneminden itibaren buna Cumhuriyet dönemi de dâhil olmak üzere yanlış Batılılaşma ya da Doğu-Batı sorunsalı edebi eserler de işlenmeye devam etmiştir. Bu araştırmada incelediğimiz her üç roman da Doğu-Batı sorunsalını “müzik” izleği üzerinden ele alır. *Fatih Harbiye* romanında yanlış Batılılaşma ve Batılı yaşam tarzına duyulan hayranlık müzik temi etrafında verilir. Kendi kültürünü beğenmeme ve Batılı gibi yaşama isteği, kendi müziğimize karşı aldığımız tavır aracılığıyla değerlendirilir. *Sinekli Bakkal* romanı da Doğu-Batı problemini işler ama diğer iki yazardan farklı olarak bu romanda senteze gidilir. Burada yazarın amacı Doğu ve Batı sentezini gerçekleştirmektir. Doğu ve Batıyı birleştirme fikri yine müzik sayesinde olur. *Huzur* romanında da Batılılaşma sorunu yine müzik üzerinden ama karamsar ve ümitsiz bir şekilde ele alınır. Kaybolma tehlikesiyle karşı karşıya olan muazzam bir kültür mirasımız vardır. Müzik, Türk toplumunun kendini en rahat ve güzel bir şekilde ifade ettiği bir alandır ama maalesef bu kültüre çoğu insan yabancı kalmıştır ve sahip çıkılamamaktadır. Batılılaşma sorunu içimizde bir ikilik duygusu meydana getirmiş bu da hiç geçmeyecek bir iç huzursuzluğa neden olmuştur. İnsanımız kendini ne tam Doğulu ne de Batılı

olarak görmektedir. Bir tür arada kalmışlık ve parçalanmışlık vardır. Huzur romanında müzik ve kültüre dair önemli tespitler ortaya konulur.

Anahtar Kelimeler: Fatih Harbiye, Huzur, Sinekli Bakkal, Batılılaşma, Doğu-Batı Sorunsalı, Müzik

ABSTRACT

In this study, the issue of investigating the music in the context of Westernisation in the novels Fatih Harbiye, Sinekli Bakkal and Huzur is examined. The common points of these three novels are that they deal with the problematic of Westernisation and try to determine it by using music. The most important problem brought by Westernisation is "duality" and the tragic situation arising from its misinterpretation. This has also been an important subject of literature and has been dealt with in literary works. Since the Tanzimat literature period, including the Republican period, the problematic of wrong Westernisation or the East-West problematic has continued to be dealt with in literary works. All three novels analysed in this study deal with the East-West problematic through the theme of "music". In the novel Fatih Harbiye, the wrong Westernisation and the admiration for the Western lifestyle are given around the theme of music. The dislike of one's own culture and the desire to live like the West are evaluated through the attitude we take towards our own music. The novel Sinekli Bakkal also deals with the East-West problem, but unlike the other two novels, in this novel a synthesis is made. Here the author's aim is to realise the synthesis of East and West. The idea of uniting East and West is again achieved through music. In the novel Huzur, the problem of Westernisation is again dealt with through music, but in a pessimistic and hopeless way. We have an enormous cultural heritage that is in danger of being lost. Music is a field in which Turkish society expresses itself in the most comfortable and beautiful way, but unfortunately, this culture has remained alien to most people and cannot be embraced. The problem of westernisation has created a sense of duality within us, which has caused an internal unrest that will never go away. Our people see themselves as neither fully Eastern nor Western. There is a kind of in-betweenness and fragmentation. In the novel Huzur, important determinations are made about music and culture.

Keywords: Fatih Harbiye, Huzur, Sinekli Bakkal, Westernisation, East-West problematic, music

SELÇUK BARAN'IN ÖYKÜLERİNDE YAŞLILIK TEMSİLLERİ
REPRESENTATIONS OF AGE IN SELÇUK BARAN'S STORIES

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ÖZET

Sözlük karşılığı “yaşlı olma hali” olarak tanımlanan yaşlılık, ruhsal ve fiziksel bir süreci kapsamaktadır. Bu süreç beraberinde çevreyi etkilediği için kültürel bir olgu olarak kabul görmektedir. Yaşlı nüfusun dünya genelinde artması ve modernitenin getirdikleri çerçevesinde çeşitli bilim dallarında bu alana ve çalışmalara ilginin arttığı görülmektedir.

Tıp alanında Geriatri çalışmaları, sosyoloji alanında artan çalışmalar ve Gerontoloji biliminin ortaya çıkışı bu ilginin göstergeleridir. “Geras (yaşlılık)” ve “ology (çalışma)” kelimelerinden türeyen gerontoloji, bireydeki psikososyal değişiklikleri ve bunların toplum üzerindeki etkilerini inceleyen bilim dalıdır.

Antik Çağ'dan günümüze yaşlılık kavramı, yaşlılığın nasıl geçirilmesi gerektiği çok çeşitli bilim dallarının konusunu oluştursa da edebiyatta müstakil olarak ele alınmamış, metinlerde tema olarak incelenmemiştir. Bununla birlikte edebî eserlerde yer verilen yaşlı kahramanların araştırma konusu oluşturması da yalnızca birkaç çalışmada tip, karakter unsuru olarak kalmıştır. Tıp ve sosyoloji alanında artan ilgiyle beraber yaşlılık konusu artık edebiyat içinde yeni bir araştırma alanı oluşturmaktadır.

Buradan hareketle bu bildiride, edebiyatımızda önemli bir yeri bulunan Selçuk Baran'ın 1970'li yıllardan itibaren kaleme aldığı basılı öykü kitaplarında yer alan yaşlı kahramanlar ele alınacak. Bu kahramanların yaşlılığı algılayışları, fiziksel ve ruhsal durumları, çevresiyle olan ilişkileri üzerinde durulacak. Edebiyatımızda yaşlılık çalışmaları noktasında Selçuk Baran öykülerinde yaşlı temsillerinin yeri tartışmaya açılacak.

Anahtar Kelimeler: Yaşlılık, Selçuk Baran, öykü, yaşlı kahramanlar

ABSTRACT

Aging, which is defined as the “state of being old” in the dictionary, covers a mental and physical process. This process is accepted as a cultural phenomenon as it affects the environment. It is seen that the interest in this field and studies in various branches of science has increased within the framework of the increase in the elderly population throughout the world and the benefits of modernity.

Geriatric studies in medicine, increasing studies in sociology and the emergence of Gerontology are the indicators of this interest. Derived from the words “geras (aging)” and “ology (study)”, gerontology is the science that studies the psychosocial changes in the individual and their effects on society.

Although the concept of old age from the Ancient Age to the present and how old age should be spent constitutes the subject of a wide variety of sciences, it has not been dealt with separately in literature and has not been examined as a theme in the texts. However, the fact that the old heroes included in the works are the subject of research has remained as an element of type and character in only a few studies. With the increasing interest in medicine and sociology, the subject of old age is now a new research area in literature.

From this point of view, in this paper old heroes in the printed story books written by Selçuk Baran, who has an important place in our literature, since the 1970s, will be discussed. These heroes’ perceptions of old age, their physical and mental states, and their relationships with their environment will be discussed. The place of elderly representations in Selçuk Baran’s stories will be discussed in terms of aging studies in our literature.

Keywords: Old age, Selçuk Baran, story, old character

**DUYGU DÜZENLEME PSİKO-EĞİTİM PROGRAMININ DEPREMZEDE
ERGENLERİN DUYGU DÜZENLEME BECERİLERİ ÜZERİNDEKİ ETKİSİNİN
İNCELENMESİ**

INVESTIGATION OF THE EFFECT OF THE EMOTION REGULATION PSYCHO-
EDUCATION PROGRAM ON THE EMOTION REGULATION SKILLS OF
ADOLESCENTS IN EARTHQUAKE

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ÖZET

Doğal afetler, birçok insan tarafından deneyimlenmektedirler. Bu gruplar içerisinde en hassas ve savunmasız olanların çocuklar ve ergenler olduğu bilinmektedir. Olağan yaşam akışını sekteye uğratan depremler, çocuk ve ergenlerin iyi oluşlarını tehdit edici ciddi stres faktörlerinden biridir. Bu sebeple depremi deneyimlemiş çocuk ve ergenleri; gelecekte yaşanabilecek anksiyete, travma sonrası stres bozukluğu, depresyon gibi ruhsal problemlere karşı korumada etkili baş etme becerilerinin kullanılması kritik bir öneme sahiptir. Deprem gibi doğal afetlerin sonuçlarıyla etkili bir şekilde baş etmede, duyguyu ifade edebilme ve olumsuz duyguları düzenleyebilme becerilerinin artırılmasına ihtiyaç olduğu açıktır. Çünkü depremi deneyimleyen bireylerde duygusal tepkisizlik, duyguları hissedememe, olumsuz duygu deneyimlerini takiben duygu kontrolü sağlayamama gibi problemler gelişebilmektedir. Özellikle depremi deneyimleyen çocuk ve ergenlerin duygularını tanıma, ifade etme ve düzenleme noktasında desteklenmesinin gerekli olduğu düşünülmektedir. Bu araştırmanın amacı, Duygu Düzenleme Psiko-eğitim Programının depremi deneyimleyen ergenlerin duyguları ifade etme ve düzenleme becerileri üzerindeki etkisini incelemektir. Bu araştırma tek gruplu ön test-son test desenli yarı deneysel bir çalışmadır. Araştırmanın deney grubu, Malatya ilinde yaşayan ve yaşları 12-13 arasında değişen 5 kız 3 erkek ergenden oluşmaktadır. Araştırmada veri toplamak amacıyla “Çocuk ve Ergenlerde Duygu Düzenleme Ölçeği” kullanılmıştır. Oluşturulan gruba 2023 yılının Mayıs ayında ön test uygulandıktan sonra araştırmacılar tarafından geliştirilen Bilişsel-Davranışçı Terapi yaklaşımına dayalı 8 oturumluk Duygu Düzenleme Psiko-eğitim Programı uygulanmıştır. Oturumların tamamlanmasının ardından son test ölçümleri de alınarak verilerin analizi aşamasına geçilmiştir. Elde edilen veriler Wilcoxon İşaretli Sıralar testi ile analiz edilmiştir. Analizler sonucunda uygulanan psiko-eğitim programının, deney grubunun Çocuk ve Ergenlerde Duygu Düzenleme Ölçeğinin *yeniden değerlendirme* ve *bastırma* alt boyutlarından aldıkları ortalama puanlar üzerinde anlamlı etkisi olmadığı görülmüştür. Bu bulgular, psiko-eğitim programının depremi deneyimleyen ergenlerin duygularını düzenleme becerilerini artırmada etkili olmadığını ortaya koymaktadır. Elde edilen bulgular alan yazın ışığında tartışılmıştır.

Anahtar Kelimeler: Duygu düzenleme, Depremzede ergen, Psiko-eğitim

ABSTRACT

Natural disasters are experienced by many people. It is known that the most vulnerable and vulnerable among these groups are children and adolescents. Earthquakes, which disrupt the normal flow of life, are one of the serious stress factors that threaten the well-being of children and adolescents. For this reason, children and adolescents who have experienced the earthquake; It is critical to use effective coping skills to protect against future mental problems such as anxiety, post-traumatic stress disorder and depression. It is clear that there is a need to increase the skills of expressing emotions and regulating negative emotions in order to effectively cope with the consequences of natural disasters such as earthquakes. Because individuals who experience an earthquake may develop problems such as emotional unresponsiveness, inability to feel emotions, and inability to control emotions following negative emotion experiences. It is thought that it is necessary to support children and adolescents who have experienced the earthquake in terms of recognizing, expressing and regulating their emotions. The aim of this study is to examine the effect of the Emotion Regulation Psycho-educational Program on the ability of adolescents who experienced earthquakes to express and regulate emotions. This research is a quasi-experimental study with a single group pretest-posttest pattern. The experimental group of the research consists of 5 girls and 3 boys, aged between 12-13, living in Malatya province. "Emotion Regulation Scale for Children and Adolescents" was used to collect data in the study. After the pre-test was applied to the created group in May 2023, an 8-session Emotion Regulation Psycho-education Program based on the Cognitive-Behavioral Therapy approach developed by the researchers was applied. After the sessions were completed, the post-test measurements were taken and the data analysis phase was started. Obtained data were analyzed with Wilcoxon Signed Ranks test. As a result of the analyzes, it was seen that the psycho-education program applied did not have a significant effect on the average scores of the experimental group in the sub-dimensions of reevaluation and suppression of the Child and Adolescent Emotion Regulation Scale. These findings reveal that the psychoeducational program is not effective in increasing the emotional regulation skills of the adolescents who experienced the earthquake. The findings were discussed in the light of the literature.

Keywords: Emotion regulation, Earthquake victim adolescent, Psycho-education

BİLİŞİM DEVRİMİ ve YAPAY ZEKA'NIN FENOMENOLOJİYE ETKİLERİ
THE EFFECTS OF INFORMATION REVOLUTION AND ARTIFICIAL INTELLIGENCE
ON PHENOMENOLOGY

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ÖZET

19. yüzyılın son zamanlarından itibaren Siberetik bilim, bilişim bilimi ve teknoloji alanında yaşanan gelişmeler bilişim devrimini hazırlayan unsurlardır. Bu güçlü üç gelişmenin meydana getirdiği etki internet devrimiyle birlikte 21 yüzyılı yeniden şekillendirmiştir. Bilişim devrimi farklı boyutları ile toplumsal, ekonomik ve kültürel değişim ve dönüşümlere yol açmıştır. Bilişim devrimi, dijital iletişim araçlarıyla intercardinal sınırların ötesinde yeni tür etkileşimleri sağlarken; Eğitimde çevrimiçi eğitim, uzaktan eğitim ve farklı uygulamalarla dijital öğrenme platformlarına olanak sağlamıştır. Bu devrim, iş dünyasında E-ticaret, çevrimiçi pazarlama, kullanıcı profiline oluşturulmasında ve veri analizi gibi alanlarda yeni iş biçimlerini oluşturmuştur. Dijital sağlık uygulamaları, bilimsel keşif ve araştırmalarda büyük veri tabanlarının kullanımı ile geliştirilen çalışmalar, İnternetin yaygın kullanımı ile oluşan yeni küresel bilişim ve kültür ağı, oyun ve eğlence sektöründe çevrimiçi platformlar, video oyunları gibi saymakta zorlanacağımız pek çok alan bu devrimin etkisiyle yaşantımıza girmiştir.

Tüm bu yeni ve farklı etkinlik alanları insan yaşamına sağladığı çeşitliliğin ve fırsatların yanı sıra birtakım zorlukları da beraberinde getirmiştir. Genellikle bu zorluklar, etik zorluklar olarak düşünülse de eşyaya ve eşyanın hakikatine dair bir takım eski bilindik düşüncelerimizi ya derinleştirmiş ya da büsbütün değişmesine neden olmuştur. Bilişim devrimin etkilediği alanlardan biri de felsefe sahasıdır. Her geçen gün daha ileri dijital teknolojilerle donanan bilişim dünyası, bireysel deneyimleri, nesnelere ve olayları anlama etkinliği olan fenomenolojide birçok tartışmalı konuyu gündeme getirmiştir. Bu tartışmalara modern yaşamın birer parçası haline gelen bilgisayarlar, akıllı telefonlar, akıllı sistemler, yapay zekâ gibi algoritma tasarımı ve hesaplama yeteneği ile yaşantımızı bizden daha fazla üstlendiği eleştirisini örnek olarak gösterebileceğimiz gibi bilişim teknolojileri ile hayatımızı daha fazla deneyimlediğimiz bir fırsat olduğunu söyleyenler de olmuştur. Bu çalışma, bilişim devrimini ve bu devrimden etkilenen fenomenoloji tartışmalarını gündeme almaktadır. Bu amaçla çalışmada öncelikle; bilişim devrimi ve fenomenolojinin tanımına yer verilmekte, ikinci aşamada; söz konusu alanlar olan bilişim devrimi ve yapay zekanın fenomenolojiye etki ve tartışmaları soruşturulmaktadır.

Anahtar Kelimeler: Bilişim devrimi, Yapay Zeka, Bilişim felsefesi, Fenomenoloji, Etik, Bilinç, Algı ve Deneyim

ABSTRACT

The developments in cybernetic science, information science and technology since the last times of the 19th century are the factors that prepare the information revolution. The impact of these three powerful developments has reshaped the 21st century with the internet revolution. The information revolution has led to social, economic and cultural changes and transformations with its different dimensions. While the information revolution provides new types of interactions beyond intercardinal borders with digital communication tools; In education, it has enabled digital learning platforms with online education, distance education and different applications. This revolution has created new business forms in the business world in areas such as E-commerce, online marketing, user profiling and data analysis. Digital health applications, studies developed with the use of large databases in scientific discovery and research, the new global information and culture network formed by the widespread use of the internet, online platforms in the game and entertainment sector, video games have entered our lives with the effect of this revolution.

All these new and different fields of activity have brought some difficulties as well as the diversity and opportunities they provide to human life. Although these difficulties are generally thought of as ethical difficulties, they have either deepened or completely changed some of our old familiar thoughts about things and the truth of things. One of the fields affected by the information revolution is the field of philosophy. The world of information technology, which is equipped with more advanced digital technologies day by day, has brought up many controversial issues in phenomenology, which is the activity of understanding individual experiences, objects and events. As an example, we can cite the criticism that computers, smart phones, smart systems, artificial intelligence, which have become a part of modern life, as an example, take on our lives more than we do with algorithm design and computational ability, and there are also those who say that it is an opportunity for us to experience our lives more with information technologies. This study puts the information revolution and the phenomenological debates affected by this revolution on the agenda. For this purpose, firstly, the definition of information revolution and phenomenology is given in the study, and in the second stage, the effects and discussions of the information revolution and artificial intelligence on phenomenology are investigated.

Keywords: Information Revolution, Artificial Intelligence, the philosophy of Information, Phenomenology, Ethics, Consciousness, Perception and Experience

SEMERKAND İLİM HAVZASINA İÇERDEN BİR BAKIŞ: İBN YAHYA EL-BEŞÂGARÎ'NİN PERSPEKTİFİNDEN MÂTURÎDÎ VE İLİM ÇEVRESİ

AN INSİDE LOOK AT THE SCİENCE BASİN OF SAMARKAND: AL-MÂTURÎDÎ AND
THE SCİENTİFİC ENVİRONMENT FROM THE PERSPECTİVE OF İBN YAHYA AL-
BESHÂĖARĪ

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ÖZET

İbn Yahya el-Beşâgarî, IV./X. Asırda Semerkand ilim havzasında yetişen ve eserinde yer verdiği bazı bilgilerden anlaşıldığı kadarıyla bu çağın sonlarında yine Semerkand'da vefat eden Hanefi-Mâturîdî ulemadandır. Hayatı hakkında bize ulaşan bilgiler eserinde verdiği malumat ile sınırlı olmakla birlikte, babası kanalıyla Mâturîdî'nin yetiştiği ve hocalık yaptığı Dârü'l-Cüzcâniyye'nin onun için önemli bir ilim merkezi olduğu anlaşılmaktadır. Zira o bu ilim çevresinden övgüyle bahsetme ve bu ilim merkezinin bir mensubu olmaktan duyduğu memnuniyeti çeşitli vesilelerde dile getirmektedir. Bu vasfıyla o Ebû Seleme es-Semerkandî'nin *Cümel-ü Usûlu'd-Din* isimli eserinin şerhi mahiyetinde yazdığı eseri *Şerhü Cümel-ü Usûlu'd-Din*'de Mâturîdî'nin ve onun ilim çevresinin anlaşılması noktasında önemli bilgiler vermektedir. Öyle ki verdikleri bilgilerin benzerliğinden anlaşıldığı kadarıyla, söz konusu ilim çevresi ile ilgili bilgilere İbn Yahya el-Beşâgarî'ye atıfta bulunulmaksızın, Ebu'l-Muîn en-Nesefî gibi sonraki ulema tarafından da Hanefi-Mâturîdî ulemayı tanıtmaya gayesiyle başvurulmuştur.

İbn Yahya el-Beşâgarî'nin eseri vasıtasıyla Semerkand ilim çevresi hakkında içerden ve eş zamanlı bilgilere ulaşılması yanında eserde, başta Mâturîdî olmak üzere bölgedeki Semerkand Hanefîlerinin görüşlerine sık sık yer verildiği görülmektedir. Özellikle Mâturîdî'den doğrudan ders aldığına dair bir bilgi bulunmamakla birlikte eserinde yaptığı alıntılardan anlaşıldığı kadarıyla Mâturîdî'nin eserlerini bizzat görmüştür. İbn Yahya el-Beşâgarî'nin eserinde sık sık Mâturîdî'nin görüşlerine muhalif görüşleri çürütmek üzere başvurması, onun nezdinde Mâturîdî'nin nüfuzunu göstermesi açısından dikkate değerdir. Bu ve bunun gibi özellikleri vasıtasıyla İbn Yahya el-Beşâgarî ve eseri *Şerhü Cümel-ü Usûlu'd-Din* Mâturîdî'nin yaşadığı çağdan bir tanık olması vasfıyla çalışmamızda Semerkand ilim havzasının anlaşılması açısından örneklem olarak seçilmiştir.

Bu çerçevede bu çalışmanın temel amacı İbn Yahyâ el-Beşâgarî'nin *Şerhü Cümel-ü Usûlu'd-Din* isimli eseri üzerinden IV. /X. asırda Semerkand ilim havzasının mahiyetini ve bu ilim çevresinde Mâturîdî'nin konumunu tespit etmektir. Bu noktada bu bildiriye İbn Yahya el-Beşâgarî'nin hayatı ve Semerkand uleması nezdindeki konumu hakkındaki bulgularımıza yer verilecek, ardından IV./X. asır Hanefi-Mâturîdî ulemaya dair literatürdeki mevcut verileri de dikkate almak suretiyle sonraki Hanefi-Mâturîdî ulema tarafından ihmal edilen *Şerhü Cümel-ü*

Usûlu 'd-Din üzerinden, hem şahıslar hem de Mâturîdî görüşler bağlamındaki tespitlerimize yer verilecektir.

Anahtar Kelimeler: Semerkand, Hanefî-Mâturîdî, Mâturîdî, İbn Yahyâ el-Beşâğârî, Şerhü Cümel-ü Usûlu 'd-Din.

ABSTRACT

Ibn Yahya Al-Beshâğârî was a Hanefite-Maturidite ulama who grew up in the science basin of Samarkand in the 4th century and died in Samarkand at the end of this era, as it is understood from some of the information he included in his work. Although the information about his life is limited to the information he gave in his work, it is understood that Dar al-Juzjaniyya, where Mâturîdî was educated and taught through his father, was an important center of knowledge for him. Because he expresses his pleasure in mentioning this scientific circle with praise and being a member of this science center on various occasions. With this qualification, he gives important information about understanding Mâturîdî and his scholarly circle in his work, Şerhu Jumal Usûl Al-Dîn, which he wrote as a commentary on Abû Salama al-Samarqandî's work named Jumal Usûl Al-Dîn. So much so that, as it is understood from the similarity of the information they gave, the information given by Ibn Yahya Al-Beshâğârî about this scientific circle was used by later scholars like Abu al-Mu'în al-Nasafî with the aim of introducing the Hanefite-Maturidite ulama without making reference to Ibn Yahya Al-Beshâğârî.

In addition to obtaining inside and simultaneous information about the scientific circle of Samarkand through the work of Ibn Yahya Al-Beshâğârî, it is seen that the views of Samarkand Hanafis in the region, especially Mâturîdî, are frequently included in the work. Although there is no information that he took direct lessons from Mâturîdî, as it can be understood from the quotations he made in his work, he personally saw Mâturîdî's works. The fact that Ibn Yahya Al-Beshâğârî often refers to Mâturîdî's views in his work to refute the opposing views is remarkable in terms of showing Mâturîdî's influence in his eyes. With these and similar features, Ibn Yahya Al-Beshâğârî and his work Şerhu Jumal Usûl Al-Dîn have been chosen as a sample in our study in terms of understanding the science basin of Samarkand, as it is a witness from the age in which Mâturîdî lived.

In this context, the main purpose of this study is to determine the nature of the science basin of Samarkand in the 4th century and the position of Mâturîdî in this science environment through the work of Ibn Yahya Al-Beshâğârî's Şerhu Jumal Usûl Al-Dîn. At this point, in this paper, our findings about the life of Ibn Yahya Al-Beshâğârî and his position in the eyes of the Samarkand scholars will be included. Then, taking into account the existing data in the literature on Hanefite-Maturidite ulama living in the 4th century, our determinations in the context of both individuals and Mâturîdî views will be given through Şerhu Jumal Usûl Al-Dîn, which was neglected by the later Hanefite-Maturidite scholars.

Keywords: Samarkand, Hanefite-Maturidite, Mâturîdî, İbn Yahya Al-Beshâğârî, Şerhu Jumal Usûl Al-Dîn.

MEMLÛK MEZÂLİMLERİNDE KADIN GÜNDEMLERİ

WOMEN'S AGENDAS IN MAMLÛK MAZÂLIMS

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ÖZET

Memlûk Devleti (648-923/1250-1517) üç asra yakın hakimiyeti ile Orta Çağ'ın en büyük Müslüman-Türk devletlerinden biri olmuştur. Askeri ve ilmî sahadaki başarılarıyla ön plana çıkan Memlûkler, çeşitli açılardan akademik çalışmalara konu edilmiştir. Bu çalışmada ise sultan ve üst düzey devlet görevlilerinin katılımıyla gerçekleştirilen ve yüksek mahkemeler olarak niteleyebileceğimiz mezâlim oturumlarında kadınlarla ilgili görüşülen meseleler ele alınmıştır. Zira bu oturumlarda kadınların, kıyafetlerinden seyahatlerine, tutum ve davranışlarından hukukî muamelelerine kadar pek çok konuda sosyal, dinî ve fikhî tartışmaların yapıldığı tespit edilmektedir. Bu meselelerin gündeme gelme gerekçeleri ise bazen başka bir devletin baskısı, bazen kadınların haklarını korumaya yönelik uygulamalar, bazen ilim adamlarının tutumu ve çoğu zaman da doğal afetlerden sonra alınacak tedbirler bağlamında olmuştur. Esasen dönemin önde gelen tarihçileri tarafından devletin ilk sultanının dahi bir kadın olduğu kabulüne rağmen ilerleyen süreçlerde değişen şartlardan bu bakış açısının da etkilendiği anlaşılmaktadır. Öyle ki; mezâlim oturumlarında alınan kararlar çerçevesinde dönem dönem kadınlara belirli kıyafet şartı getirilmiş, çarşı pazara çıkmaları yasaklanmış ve kurallara uymayanlar da çeşitli yaptırımlara maruz bırakılmıştır. Öte yandan Memlûkler dönemi boyunca -Türk kültür ve geleneklerinin de etkisiyle olsa gerek- kadınların ilmî sahada oldukça aktif oldukları görülmektedir. Nitekim bu dönemde isteyen tüm kadınlar çeşitli ilim merkezlerinde ders görmüş, hocalık yaparak öğrenci dahi yetiştirmiştir. Dönemin önde gelen Şâfiî başkadılarından İbn Hacer'in (ö. 852/1449) çok sayıda kadın hocasının olması da bu durumu destekler mahiyettedir. Bu çalışma kadınların ilmî ve sosyal sahadaki etkinlikleri başka akademik çalışmaların konusu olmak üzere dışarıda bırakılarak, mezâlim oturumlarında kadınların konu edildiği meselelerle sınırlandırılmıştır. Amacımız tespit ettiğimiz oturumlar üzerinden bu dönem üst düzey devlet görevlilerinin kadınlara bakış açısına dair örnekler ortaya koymaktır.

Anahtar Kelimeler: İslâm Tarihi, Memlûkler, Kadın, Mezâlim.

ABSTRACT

The Mamlūk State (648-923/1250-1517) became one of the largest Muslim-Turkish states of the Middle Ages with its dominance for almost three centuries. The Mamlūks, which stands out with its achievements in the military and scientific fields, has been the subject of academic studies from various respects. In this study, the “mazālim” sessions, which were held with the participation of the sultan and high-ranking government officials and which we can describe as the supreme courts, focused on the issues discussed related to women. Because it has been determined that social, religious and fiqh discussions were held in these sessions on many issues ranging from women’s clothes to their travels, from attitudes and behaviors to their legal treatment. The reasons for discussing these issues were sometimes in the context of pressure from another state, sometimes practices aimed at protecting women’s rights, sometimes the attitude of scientists, and often measures to be taken after natural disasters. In fact, although it is accepted by the leading historians of the period that the first sultan of the state was a woman, it is understood that this point of view was also influenced by changing conditions in the following processes. So much so that, within the framework of the decisions taken at the “mazālim” sessions, certain dress requirements were imposed on women from time to time, they were forbidden to go out to the bazaar, and those who did not follow the rules were subjected to various sanctions. On the other hand, during the Mamluk period -probably with the influence of Turkish culture and traditions - it is observed that women were very active in the scientific field. As a matter of fact, during this period, all the women who wanted were educated in various science centers, and even trained students. This is supported by the record that Ibn Ḥadjjar al-‘Asqalānī (d. 852/1449), one of the *Shāfi’* *kādī*’l-kuḍāt of the period, had many female teachers. This study was limited to the issues that women were discussed in the the “mazālim” sessions, by excluding women’s scientific and social activities from being the subject of other academic studies. Our aim is to present examples of the perspective of high-ranking government officials on women during this period of time through “mazālim” sessions, we have identified.

Keywords: History of Islām, Mamlūks, Women, Mazālim.

TÜREV FİNANSAL ARAÇLAR
DERIVATIVE FINANCIAL INSTRUMENTS

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ÖZET

Türev finansal araçlar, temel varlık olarak adlandırılan başka bir finansal varlığa dayanan finansal araçlardır. Türev araçlar, temel varlığın fiyatından türetilmiş bir değere sahiptir. Türev araçlar, temel varlığın fiyatında meydana gelen değişimlerden kar elde etmek veya riski hedge etmek için kullanılabilir. Küreselleşen dünya pazarlarında finans sektöründeki risk faktörünü anlaşılır, baş edilebilir düzeyde etkin kılmak için türev ürünler geliştirilmiştir. Giderek artan türev finansal ürünlerin kullanımı ülkemizde de son yıllarda hızla artmıştır. Bu ürünler değerlerini kapsadıkları varlık, fiyat, kur, oran ya da endeksten alırlar. Gelişen pazarlarda kullanılacak araçların yatırımcıların yaptıkları yatırımlarını dalgalanan döviz kurları, fiyat artış azalışlarını, riskten korunmaları için başvuracak sözleşmeler olarak adlandırabiliriz.

Bu bildiri çalışmasında, türev finansal sözleşmelerin türleri ve özelliklerinin açıklanması amaçlanmıştır.

Anahtar Kelimeler: Türev Finansal Araçlar, Vadeli İşlemler, Opsiyonlar, Swap.

ABSTRACT

Derivative financial instruments are financial instruments based on another financial asset called the underlying asset. Derivatives have a value derived from the price of the underlying asset. Derivative instruments can be used to profit from changes in the price of the underlying asset or to hedge risk. Derivative products have been developed in order to make the risk factor in the financial sector understandable and manageable in globalizing world markets. The use of derivative financial products has increased rapidly in our country in recent years. These products get their value from the asset, price, exchange rate, rate or index they cover. We can name the investments made by the investors in the instruments to be used in the emerging markets, the fluctuating exchange rates, the price increases and decreases, the contracts that will apply for hedging.

In this paper, it is aimed to explain the types and characteristics of derivative financial contracts.

Keywords: Derivative Financial Instruments, Futures, Options, Swap.

**‘MÜZİK ÖĞRETMENLİĞİ PEDAGOJİK FORMASYON PROGRAMI’ TEMALI
ARAŞTIRMALARIN DEĞERLENDİRİLMESİ**

EVALUATION OF RESEARCH THEMED ‘MUSIC TEACHER PEDAGOGIC
FORMATION PROGRAM’

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ÖZET

Türk eğitim tarihinde öğretmen yetiştirme amacıyla birçok farklı model sınanmıştır. Uygulanan modeller, her dönemin koşulları ve eğilimleri doğrultusunda değişime uğramıştır. Bu modellerden biri de pedagojik formasyon programlarıdır. Dönem dönem farklı başlıklar altında uygulanan pedagojik formasyon eğitimleri yoluyla eğitim fakülteleri dışındaki programlardan mezun olan veya devam eden öğrencilere öğretmenlik hakkı tanınmıştır. Bu uygulamalara paralel olarak günümüze kadar programlara yönelik yoğun eleştiriler yöneltilmiştir ve birçok tartışma süregelmiştir. Genel alanyazın, formasyon programlarına yönelik oldukça zengin bir bilgi birikimi sunmaktadır. Buna karşın, müzik öğretmenliği alanında pedagojik formasyon temalı araştırmaların sayıca henüz olgunlaşmadığı görülmektedir. Mevcut çalışmaların bütüncül bir bakış açısıyla ele alınmasının alana katkı sağlayacağı düşünülmektedir. Bu çalışmada, Türkiye’de müzik öğretmenliği alanında pedagojik formasyon sertifika programlarına odaklanan çalışmalar incelenmiştir. Betimsel analiz yaklaşımının benimsendiği araştırmada, mevcut çalışmaların konu eğilimleri saptanmış ve alana katkısı tartışılmıştır.

Anahtar Kelimeler: Müzik Öğretmenliği, Pedagojik Formasyon Programı, Türkiye’deki Araştırmalar

ABSTRACT

In the history of Turkish education, many different models have been tested for teacher training. The models have changed in line with the conditions and trends of each period. One of these models is pedagogical formation programs. Through pedagogical formation training, which is carried out under different titles from time to time, students who have graduated or continue from programs other than education faculties have been granted the right to teach. Parallel to these practices, intense criticisms have been directed towards the programs until today and many discussions have continued. The general literature offers a rich knowledge about formation programs. On the other hand, it is seen that the pedagogical formation themed researches in the field of music teaching are not yet mature in number. It is thought that considering the existing studies with a holistic perspective will contribute to the field. In this

study, studies focusing on pedagogical formation certificate programs in the field of music teaching in Türkiye were examined. In the research, in which the descriptive analysis approach was adopted, the subject trends of the studies were determined and their contribution to the field was discussed.

Keywords: Music Teaching, Pedagogical Formation Program, Studies in Türkiye

**MÜZİK EĞİTİMİNDE İŞBİRLİKLİ ÖĞRENME TEZLERİ: KARŞILAŞTIRMALI
İÇERİK ANALİZ**
THESES OF COOPERATIVE LEARNING IN MUSIC EDUCATION: COMPARATIVE
CONTENT ANALYSIS

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ÖZET

İşbirlikli öğrenme, tarihsel, kuramsal ve pedagojik kökleri eskiye dayanan bir yöntemdir. Özellikle 1970'lerden itibaren konuyla ilgili birçok çalışma yürütülmüştür. Buna karşın işbirlikli öğrenmenin, eğitim uygulamalarında ve araştırmalarında henüz yeni olduğu söylenebilir. Özellikle, Dünyada 1990'larda, Türkiye'de ise 2000'li yıllarda eğitim alanında yaşanan felsefi dönüşüm, işbirlikli öğrenmenin popülerliğini arttırmıştır. Ulusal eğitim araştırmaları alanyazınında alternatif öğretim yöntemleri, aktif öğrenme, yapılandırmacı öğrenme, çağdaş öğrenme yaklaşımları vb. öğrenci merkezli yöntemleri merkeze alan 100'ün üzerinde meta-analiz çalışma yürütülmüştür. Bu çalışmalarda işbirlikli öğrenmenin ağırlıklı bir yeri olduğu ve yöntemin Türkiye'de bilimsel camiada kabul gördüğü anlaşılmaktadır. Buna karşın, müzik eğitimi alanında işbirlikli öğrenmenin sınıflara aktarılamadığı ve bilimsel çalışmaların sayıca sınırlı kaldığı yönünde bazı eleştiriler mevcuttur. Bu araştırma, mevcut eleştirilerin doğruluğunu destekleyecek olan bazı kanıtlara odaklanmaktadır. Bu amaçla çalışmada, Türkiye'de ve yurtdışında müzik eğitimi alanında işbirlikli öğrenme konusunda yürütülen tezler içerik analizi yaklaşımıyla karşılaştırmalı olarak incelenmiştir. Ulaşılan sonuçların, konuyla ilgili araştırma yapacak olan müzik eğitimi araştırmacılarına katkı sağlaması beklenmektedir.

Anahtar Kelimeler: İşbirlikli Öğrenme, Müzik Eğitimi, Tezler, İçerik Analizi

ABSTRACT

Cooperative learning is a method with historical, theoretical and pedagogical roots. Especially since the 1970s, many studies have been carried out on the subject. On the other hand, it can be said that cooperative learning is still new in educational practices and research. In particular, the philosophical transformation experienced in the field of education in the 1990s in the world and in the 2000s in Türkiye increased the popularity of cooperative learning. More than 100 meta-analysis studies have been conducted in the national education research literature, focusing on student-centered methods such as alternative teaching methods, active learning,

constructivist learning, and contemporary learning approaches. In these studies, it is understood that cooperative learning has a predominant place and the method is accepted in the scientific community in Türkiye. On the other hand, there are some criticisms that cooperative learning cannot be transferred to the classrooms and scientific studies are limited in number in the field of music education. This research focuses on some of the evidence to support the validity of existing criticisms. For this purpose, in the study, the theses conducted on cooperative learning in the field of music education in Türkiye and abroad were examined comparatively with the content analysis approach. It is expected that the obtained results will contribute to music education researchers who will conduct research on the subject.

Keywords: Cooperative Learning, Music Education, Theses, Content Analysis

HAREKETLİ GÖRÜNTÜNÜN MUCİDİ EADWEARD MUYBRIDGE'İN SİNEMAYA KATKILARI

CONTRIBUTIONS OF EADWEARD MUYBRIDGE, THE INVENTOR OF THE MOVING IMAGE, TO CINEMA

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ÖZET

1839 yılında icat edilen fotoğraf makinesi kısa sürede birçok alanda kendini göstermiştir. Bunlardan biri de bilimsel alandır. Özellikle insan ve hayvan davranışlarını inceleyen bilim insanlarının sayısı 19. yüzyılın ortalarında oldukça fazladır. Kimyasal sürecin gelişimiyle enstantane hızının artması fotoğrafla insan ve hayvan hareketlerini incelemeyi kolaylaştırmıştır. Bu alandaki en ünlü isimler Etienne-Jules Marey ve Eadweard Muybridge'tir. Her ikisi de art arda gelen insan ve hayvan hareketlerini fotoğraflamıştır. Ancak Muybridge, 1870'lerin sonuna doğru zoopraksiskop adı verilen projeksiyon cihazı benzeri bir düzenek icat etmiştir. Bu sayede hareketli görüntüyü elde etmeyi başarmıştır. Böylece Edison'a esin kaynağı olan bu çalışmalarla sinemaya giden ilk adım atılmıştır. Bu çalışmada sinemanın ortaya çıkışında fotoğrafın etkisinin gösterilmesi amaçlanmaktadır. Bildiride araştırma kapsamında Eadweard Muybridge'in sinemanın ortaya çıkışındaki katkıları incelenmektedir.

Anahtar Kelimeler: Eadweard Muybridge, Zoopraksiskop, Fotoğraf, Sinema

ABSTRACT

Invented in 1839, the camera has shown itself in many fields in a short time. One of these is the scientific field. Especially the number of scientists studying human and animal behavior was quite high in the middle of the 19th century. The increase in shutter speed with the development of the chemical process made it easier to study human and animal movements with photography. The most famous names in this field are Etienne-Jules Marey and Eadweard Muybridge. Both of them photographed successive human and animal movements. However, Muybridge invented a projector-like device called a zoopraxiscope in the late 1870s. In this way, he managed to obtain a moving image. Thus, the first step towards cinema was taken with these works that inspired Edison. In this study, it is aimed to show the effect of photography on the emergence of cinema. In the paper, Eadweard Muybridge's contributions to the emergence of cinema are examined within the scope of the research.

Keywords: Eadweard Muybridge, Zoopraxiscope, Photograph, Cinema

**YENİ BİR FİLM ÇÖZÜMLEME TEKNİĞİ: NOSTALJİ FİMLERİ
ÇÖZÜMLEMESİ**
A NEW FILM ANALYSIS TECHNIQUE: ANALYSIS OF NOSTALGIA MOVIES

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ÖZET

Bu çalışmada, nostalji sineması bağlamında Türk sinemasının popüler filmlerinde ortak olarak yer alan çeşitli kavramlar üzerine bir çözümleme yapılmıştır. "Nostaljik Film Çözümlemesi" adını verdiğimiz bu teknik, çocuk karakter-çocuksuluk, toplumsal olaylara değinme, taşra, aidiyet, baba figürü, aşk, mahalle kültürü ve aile gibi önemli öğeleri içeren bir analiz tablosu kullanılarak gerçekleştirilmiştir. Bu kavramlar, Türk sinemasında nostaljik bir bağlamda sıklıkla işlenen ve izleyici tarafından yoğun ilgi gören temalardır.

Çocuk Karakter-Çocuksuluk	Toplumsal Olaylara Değinme	Taşra	Aidiyet	Baba figürü	Aşk	Mahalle Kültürü	Aile

Tablo:1 Film çözümleme tablosu

Nostaljik Film Çözümlemesi için öncelikle, Türk sinemasının 2000 sonrası popüler filmleri arasından seçilmiş bir örneklem grubu oluşturulmuştur. Çalışmaya dâhil edilen filmler şunlardır: Dar Alanda Kısa Paslaşmalar (2000), Güle Güle (2000), Vizontele (2001), Aşk Tesadüfleri Sever (2011), Dedemin İnsanları (2011), İftarlık Gazoz (2016) filmleridir. Çözümleme için seçilen kavramlar; çocuk karakter-çocuksuluk, toplumsal olaylara değinme, taşra, aidiyet, baba figürü, aşk, mahalle kültürü ve aile, filmlerin içeriği ve teması ile uyumlu olacak şekilde belirlenmiştir.

Her bir film, "Nostalji Film Analizi Tablosu" adını verdiğimiz çözümleme aracına göre incelenmiştir. Bu tablo, filmlerin nostalji sineması bağlamında değerlendirilmesine olanak sağlayan bir yapıya sahiptir. Tabloda, belirtilen kavramların filmlerde ne derece yoğun olarak yer aldığı belirlenmiştir.

Nostaljik Film Çözümlemesi sonucunda, seçilen örneklem grubundaki Türk filmlerinin nostaljik temalarla sıkı bir ilişkisi olduğu gözlemlenmiştir. İlgili kavramların filmlerdeki dağılımı aşağıda açıklanmıştır:

Çocuk Karakter-Çocuksuluk: Özellikle çocukluk dönemine odaklanan filmlerde bu kavramın sıkça kullanıldığı görülmüştür. Baş karakterler genellikle çocukluk anılarını canlandıran kişiler

olarak tasvir edilmiş ve izleyiciye nostaljik duygular yaşatmıştır. Bazı filmlerde ise doğrudan çocuk oyuncu üzerinden bir anlatım vardır.

Toplumsal Olaylara Değınme: 2000 sonrası Yeni Türk Sinemasında genellikle toplumsal olaylara değınmeme veya çok yüzeysel bir anlatım mevcuttur.

Taşra: Türk sinemasında taşra hayatının çeşitli yönleri sıkça işlenmiştir. Kırsal kesimin yaşam tarzı ve günlük hayatı, izleyiciye nostaljik bir bakış açısıyla sunulmuştur. Genellikle taşra bir mutluluk ve huzur mekanı olarak tasvir edilir.

Aidiyet: Filmlerde karakterlerin aidiyet arayışları ve aidiyet hissinin yoğunluğu filmlerde işlenmektedir.

Baba Figürü: Filmlerde baba figürü hep sorunludur. Baba ya yoktur veya baba ile çocuk arasında sorun vardır. Bazı filmlerde baba figürü yerine ikame baba figürü mevcuttur.

Aşk: Aşk teması, sinema dünyasında her zaman önemli bir yer tutmuştur. Nostaljik filmlerde de aşk, saf ve duygusal bir şekilde işlenerek izleyiciye unutulmaz anlar yaşatmıştır.

Mahalle Kültürü: Şehir yaşamının önemli bir parçası olan mahalle kültürü, Türk sinemasında sıklıkla ele alınmıştır. Mahallelerdeki dayanışma ve komşuluk ilişkileri, nostaljik bir şekilde yansıtılmıştır.

Aile: Aile bağları ve ilişkileri, Türk sinemasının önemli bir temasıdır. Aile içindeki sevgi, çatışma ve uzlaşma, izleyicilere nostaljik bir bağ kurma fırsatı sunmuştur.

Bu çalışma, Türk sinemasının popüler filmlerinde nostalji sinemasının temalarının önemli bir rol oynadığını göstermektedir. Çocuk karakter-çocuksuluk, toplumsal olaylara değınme, taşra, aidiyet, baba figürü, aşk, mahalle kültürü ve aile gibi kavramlar, filmlerin izleyiciler üzerinde nostaljik duygular uyandırmasına katkı sağlamaktadır. "Nostaljik Film Çözümlemesi" adlı analiz tekniğı, Türk sinemasının gelecekteki çalışma projelerine yönelik yeni bir bakış açısı sunmaktadır. Bu yöntem, film yapımcılarına ve araştırmacılara, izleyicilerin duygusal bağ kurabileceğı ve anılarını canlandırabileceğı nostaljik öğeleri belirlemek ve kullanmak için bir çerçeve sağlamaktadır.

Nostaljik Film Çözümlemesi, gelecekte daha kapsamlı çalışmalar için çeşitli yönlendirmeler sunmaktadır. Örneğın, belirtilen kavramların filmlerdeki kullanım yoğunluğu ve etkileşimleri üzerine daha detaylı bir analiz yapılabilir. Ayrıca, farklı türlerdeki filmlerin nostaljik öğelerini karşılaştırmak ve belirli dönemlerdeki trendleri incelemek de önemli bir araştırma alanı olabilir.

Nostaljik Film Çözümlemesi, sinema endüstrisindeki senaristler, yönetmenler ve yapımcılar için de değerli bir araç olabilir. Bu çözümleme, yeni projeler tasarlarırken nostaljik unsurları daha bilinçli bir şekilde kullanmalarına yardımcı olabilir ve izleyicilerin duygusal bağ kuracağı güçlü hikayeler oluşturmalarına katkı sağlayabilir.

Sonuç olarak, bu çalışma, Türk sinemasının nostaljik film öğelerinin belirlenmesine ve analiz edilmesine yönelik yeni bir teknik olan "Nostaljik Film Çözümlemesi"ni tanıtmaktadır. Çözümleme sayesinde çocuk karakter-çocuksuluk, toplumsal olaylara değınme, taşra, aidiyet,

baba figürü, aşk, mahalle kültürü ve aile gibi temaların sinema yapımlarında nasıl kullanıldığı anlaşılmıştır. Bu yeni bakış açısı, Türk sinemasının nostaljik temalarını daha iyi anlamamıza ve gelecekteki çalışmalarda bu temalara daha etkili bir şekilde odaklanmamıza yardımcı olacaktır.

Anahtar Kelimeler: Nostalji, Yeni Türk Sineması, Nostalji Film Çözümleme Tekniği

ABSTRACT

In this study, an analysis was conducted on various concepts commonly found in popular Turkish cinema films within the context of nostalgia cinema. This analysis, named "Nostalgic Film Analysis," was performed using an analytical table that includes significant elements such as child character-childhood, addressing social events, rural life, belonging, father figure, love, neighborhood culture, and family. These concepts are frequently explored in Turkish cinema within a nostalgic context and receive substantial attention from the audience.

Child Character-Childhood	Addressing Social Events	Provincial	Father figure
Belonging	Love	Neighborhood Culture	Family

For the Nostalgic Film Analysis, a sample group of popular Turkish films released after the year 2000 was selected. The films included in the study are: "Dar Alanda Kısa Paslaşmalar" (2000), "Güle Güle" (2000), "Vizontele" (2001), "Aşk Tesadüfleri Sever" (2011), "Dedemin İnsanları" (2011), and "İftarlık Gazoz" (2016). The chosen concepts for analysis were determined in accordance with the content and themes of the films, including child character-childhood, addressing social events, rural life, belonging, father figure, love, neighborhood culture, and family.

Each film was examined according to the "Nostalgic Film Analysis Table," a structure that enables the evaluation of films within the context of nostalgia cinema. The table determined the extent to which the specified concepts were prevalent in the films.

As a result of the Nostalgic Film Analysis, it was observed that the Turkish films in the selected sample group have a strong connection with nostalgic themes. The distribution of relevant concepts in the films is explained below:

Child Character-Childhood: This concept is frequently utilized, especially in films that focus on the childhood period. The main characters are often depicted as individuals who relive their

childhood memories, evoking nostalgic feelings in the audience. Some films directly employ child actors to narrate the story.

Addressing Social Events: In the post-2000 New Turkish Cinema, addressing social events is generally avoided or presented in a superficial manner.

Rural Life (Taşra): Various aspects of rural life are commonly depicted in Turkish cinema. The lifestyle and daily activities of the rural areas are presented to the audience through a nostalgic lens. The countryside is often portrayed as a place of happiness and tranquility.

Belonging (Aidiyet): The search for belonging and the intensity of the sense of belonging are explored in the films.

Father Figure: Father figures in the films are usually problematic. Either the father is absent, or there are issues between the father and the child. In some films, an alternative father figure is present.

Love: Love has always been an essential theme in the world of cinema. In nostalgic films, love is portrayed in a pure and emotional manner, creating unforgettable moments for the audience.

Neighborhood Culture: The neighborhood culture, an integral part of urban life, is frequently depicted in Turkish cinema. The solidarity and neighborly relations in the neighborhoods are nostalgically portrayed.

Family: Family bonds and relationships are significant themes in Turkish cinema. The love, conflicts, and reconciliations within families offer the audience an opportunity to establish nostalgic connections.

This study demonstrates that the themes of nostalgia cinema play a crucial role in popular Turkish films. Concepts such as child character-childhood, addressing social events, rural life, belonging, father figure, love, neighborhood culture, and family contribute to evoking nostalgic emotions in the audience. The "Nostalgic Film Analysis" technique provides a new perspective for future projects in Turkish cinema. This method offers filmmakers and researchers a framework to identify and utilize nostalgic elements that will allow viewers to establish emotional connections and relive their memories.

The Nostalgic Film Analysis provides various directions for more comprehensive studies in the future. For instance, a more detailed analysis can be conducted on the prevalence and interactions of the specified concepts in films. Additionally, comparing the nostalgic elements in films of different genres and examining trends in specific periods could be an important research area.

The Nostalgic Film Analysis can also be a valuable tool for screenwriters, directors, and producers in the film industry. This analysis can assist them in using nostalgic elements more consciously while designing new projects, thereby creating powerful stories that will establish emotional connections with the audience.

In conclusion, this study introduces the "Nostalgic Film Analysis," a new technique for identifying and analyzing nostalgic film elements in Turkish cinema. Through this analysis, we have understood how themes such as child character-childhood, addressing social events, rural life, belonging, father figure, love, neighborhood culture, and family are utilized in cinema productions. This new perspective will contribute to a better understanding of the nostalgic themes in Turkish cinema and enable a more effective focus on these themes in future works.

Keywords: Nostalgia, New Turkish Cinema, Nostalgia Film Analysis Technique

**THE SIGNIFICANCE OF BACKBENCHERS IN PARLIAMENTARY SETTINGS:
A CRITICAL ANALYSIS**

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ABSTRACT

Backbenchers, comprising legislators seated at the rear of the parliament, are an essential aspect of parliamentary systems worldwide. Whether representing government or opposition parties, they encompass a diverse group of individuals, including newly elected members full of hope and senior politicians who may have lost some popularity or influence. The term "backbenchers" is often associated with the Westminster Model, where they lack official positions such as ministers or cabinet members. Nevertheless, they actively seek meaningful engagement by participating in select committees, which allows them to impact the policy-making process. However, this pursuit of influence may occasionally lead to challenges in maintaining party cohesion. This paper aims to critically assess the role of backbenchers in parliaments, taking into account how they navigate the rule-making process across various governmental systems in different countries. I will explore their unique contributions to policymaking and the potential consequences of their aspirations for greater power on party unity. Furthermore, I will delve into their strategies for engaging with the parliament, such as addressing issues specifically concerning their constituencies, which can garner local media attention but may limit discussions on matters of broader public interest.

Keywords: Backbenchers, Party politics, Parliament, Legislative behavior, Policy-making process.

**TÜRK SİYASAL HAYATINDA 1950 SEÇİMLERİ VE YEREL DİNAMİKLER:
MARAŞ ÖRNEĞİ**
1950 ELECTIONS AND LOCAL DYNAMICS IN TURKISH POLITICS: THE CASE OF
MARAS

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ÖZET

Türkiye’de demokratik devlet düzenin tesisi çok partili siyasal yaşama geçişle birlikte başlamıştır. 21 Temmuz 1946’da gerçekleşen Milletvekili Genel Seçimleri ile Türkiye’de ilk defa birden fazla siyasi parti seçimlere girmiş ve bu seçimler millet iradesinin sandığa yansımaları sağlamıştır. 1950 yılına gelindiğinde 27 yıllık tek parti iktidarının yıpranmışlığından da yararlanan Demokrat Parti, geleneksel çevrelere daha yakın hareket etmek suretiyle hedefine ulaşmak istemiştir. CHP’nin içinden kopan bir siyasal örgütlenme olan DP, kısa sürede yaptığı çalışmalarla halka inerek, söz konusu çevrelerin güvenini kazanmıştır. Başta sosyal meseleler olmak üzere çeşitli siyasal ve iktisadi sebeplerin de etkisiyle 14 Mayıs 1950’de yapılan seçimlerden DP büyük bir zaferle çıkmıştır. 1950 Milletvekili Genel Seçimi ile tek parti iktidarı yerine daha önce kısmen 1946 yılında atılan adımla gerçekleşen çok partili yaşama geçiş, demokratik bir seçimle perçinlenmiş oldu. 1950 Milletvekili Genel Seçiminde, yerelde âtil kalmış bir şehir olarak Maraş’ta, köy nüfusu şehir nüfusundan fazla olup toprak ağalarının etkisi hâkimdi.

Bu araştırmada, siyasal davranışların sosyo-ekonomik temellere göre biçimlendiği varsayımına yerel ve tarihsel bir dayanak sağlamak amaçlanmıştır. Buradan hareketle, Cumhuriyet’in önemli şehirlerinden Maraş’ta 1950 Seçimleri sürecinde yerel dinamikler irdelenmiştir. Bölgenin sosyo-ekonomik ve kültürel durumu göz önüne alınarak, bölge halkının siyasi hayata bakış açısı, partilere yaklaşımı, partilerin siyaseti ne şekilde toplumsallaştırdığı, parti teşkilatlanmalarının önemi ve partilerin seçim propaganda yöntemlerinin konumu gibi konular araştırmanın problemini oluşturmuştur. Çizilen bu problematik yöntem kapsamında, Cumhurbaşkanlığı Devlet Arşivi belgeleri, Maraş yerel gazeteleri, ulusal gazeteler, TBMM Arşivi ve tetkik eserler çalışmaya önemli ölçüde fayda sağlamıştır. Bunların yanı sıra 1945 ve 1950 Nüfus sayımı ve Türkiye İstatistik Kurumunun verileri çalışmaya karakteristik nitelik kazandırmıştır.

Anahtar Kelimeler: 1950 Seçimleri, DP, CHP, Maraş, Yerel Dinamikler.

ABSTRACT

The establishment of democratic state order in Turkey began with the transition to a multi-party political life. For the first time on July 21, 1946, with the General Elections of Members of Parliament, multiple political parties participated in elections in Turkey, allowing the will of the people to be reflected at the ballot box. By the year 1950, the Democratic Party, benefiting from the worn-out state of the 27-year-long single-party rule, sought to achieve its goals by aligning itself closer to traditional circles. Emerging from within the CHP, the DP, as a political organization, swiftly engaged with the public and gained the trust of these circles through its efforts. Due to various political and economic reasons, primarily social issues, the DP emerged victorious with a landslide in the May 14, 1950 elections. The 1950 General Elections of Members of Parliament not only marked the end of single-party rule but also firmly established the transition to multi-party life, which had been partially initiated in 1946, through a democratic election. During the 1950 General Elections, in the previously neglected city of Maraş, the influence of landowners prevailed, as the rural population exceeded the urban population.

This research aims to provide a local and historical basis for the assumption that political behaviors are shaped by socioeconomic foundations. In this context, the local dynamics during the 1950 Elections in Maraş, an important city of the Republic of Turkey, have been examined. Considering the socio-economic and cultural situation of the region, the research problem encompasses the region's population's perspectives on political life, their approach to political parties, how parties socialize politics, the significance of party organizations, and the position of parties' election propaganda methods. To address this problem, the study has utilized various sources, including documents from the Presidential State Archives, local newspapers from Maraş, national newspapers, records from the Grand National Assembly of Turkey, and relevant research works. Additionally, data from the 1945 and 1950 population censuses and the Turkish Statistical Institute have been employed to give the research a distinctive characteristic.

Keywords: 1950 Elections, DP, CHP, Maras, Local Dynamics.

**MİSYONER YAPILARININ KENT İÇİ MEKÂN ORGANİZASYONU ÜZERİNE BİR
İNCELEME -GAZİANTEP ÖRNEĞİ**

A REVIEW ON THE ORGANIZATION OF MISSIONARY BUILDINGS IN THE URBAN
SPACE - THE CASE OF GAZİANTEP

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ÖZET

İnsanlığın varoluşuna paralel olarak barınak yapma ihtiyacıyla başlayan inşa süreci toplumların kültürüne, inançlarına, değer yargılarına, yaşam biçimlerine göre şekillenerek devam etmiştir. Bina-şehir-insan etkileşimi içinde kent kimliğinin önemli bileşenlerinden olan misyonerlik faaliyetleri sonucu inşa edilen yapı türlerinin kent içi yerleşiminde belirli ilkelere göre hareket edildiği bilinmektedir. Tasarlanan her yapının konumuyla, işleviyle, tarihiyle, kütlesiyle bir bütün olduğu ve kentin özgün karakterinin belirlenmesinde büyük bir rol oynadığı, çevresine bir mesaj verdiğinin en büyük kanıtı misyoner yapılarıdır. Bu yapıların konumları, tipolojileri, mimari üslupları, birbirleriyle ve kentin diğer öğeleriyle olan ilişkileri, işlevleri, inşa teknikleri ve malzemeleri, yerleşim organizasyonları ile kent morfolojisindeki etkisi araştırılması gereken önemli konulardandır.

Bu çalışmada Osmanlı Devleti'nde Tanzimat ve Islahat Fermanlarının etkisiyle faaliyetleri artan misyonerlerin 19.yy. içinde ve 20.yy. başında Gaziantep'te misyonerlik faaliyetlerine hizmet etmek üzere inşa ettikleri yapıların işlevleri, kent içi dağılımları, kent morfolojisinin değişimindeki etkisine odaklanılarak, misyoner yapılarının Osmanlı kentlerindeki konumlanma ilkeleri tartışılmıştır. Çalışma literatür ve arşiv taramasına ek olarak morfolojik analiz yöntemini benimsemiştir. Yapılan literatür taramasında eğitim, sağlık, ibadet ve ticaret işlevine sahip misyoner yapılarının inşasıyla kent morfolojisinde gerçekleşen değişim ve dönüşüm dönem haritaları üzerinden karşılaştırılarak tespit edilmiştir. Misyoner yapılarının birbirleriyle ve kentteki kale, cami vb. odak noktalarıyla olan ilişkileri mesafe, konum, sokak dokusu, parselasyon açısından incelenmiştir. İdeolojik amaçların parçası olan misyoner yapılarının çevresel veriler, mekânsal gereklilikler, ideolojik ilkeler, siyasi ve politik kurallara göre şekillendiği şehirlerin büyüme yönlerinde ve hızlarında belirgin etkisi olduğu, şehrin silüetinin özgün karakteristik yapısında mimari özellikleriyle anıtsal nitelikte önemli işaret öğeleri ve

odak noktaları oldukları anlaşılmıştır. İnşa edildikleri dönemin yaşam biçimi, inşa malzemesi ve tekniğine ilişkin önemli birer belge niteliğindeki korunması gerekli kültür varlığı olan bu yapılar kentsel kültürel çeşitliliği zenginleştirmekte, Anadolu'nun ev sahipliği yaptığı kültürleri, milletleri ve dinleri örneklemektedir. Günümüzde büyük oranda işlev değişikliğine uğramış olan misyoner yapılarının korunarak gelecek kuşaklara taşınması kent belleği açısından önem taşımaktadır.

Anahtar Kelimeler: Gaziantep, misyoner yapıları, kent morfolojisi, kültür varlığı.

ABSTRACT

The construction process, which started with the need for shelter in parallel with the existence of humanity, continued by being shaped according to the cultures, beliefs, value judgments and lifestyles of societies. It is known that the types of buildings built as a result of missionary activities, which are important components of the urban identity within the building-city-human interaction, act according to certain principles in the urban settlement. Missionary buildings are the biggest proof that each designed building is a whole with its location, function, history and mass, plays a major role in determining the unique character of the city and gives a message to its surroundings. The locations of these buildings's typologies, architectural styles, their relations with each other and with other elements of the city, their functions, construction techniques and materials, settlement organizations and their effects on urban morphology are important issues to be investigated.

In this study, the missionaries, whose activities increased with the effect of the Tanzimat and Islahat Edicts in the Ottoman Empire, were examined in the 19th century and at the beginning 20th century. The functions of the buildings which were built to serve the missionary activities in Gaziantep, their distribution in the city, and their effect on the change of the urban morphology were discussed, and the positioning principles of the missionary buildings in the Ottoman cities were discussed. The literature has inculed morphological analysis in addition to my study and archival uses. In the literature review, the change and transformation in the morphology of the city with the construction of missionary structures with education, health, worship and trade functions were determined by comparing them through period maps.

Missionary buildings with each other and the castle, mosque, etc. in the city. relations with the focal points were examined in terms of distance, location, street texture, and parcellation. It has been understood that missionary buildings, which are part of ideological purposes, have a significant effect on the growth directions and speeds of cities, where they are shaped according to environmental data, spatial requirements, ideological principles, political and political rules, and they are important landmarks and focal points of monumental nature with their architectural features in the unique characteristic structure of the city's silhouette. These structures, which

are cultural assets that need to be preserved, which are important documents regarding the lifestyle, construction materials and techniques of the period in which they were built, enrich the urban cultural diversity and exemplify the cultures, nations and religions hosted by Anatolia. It is important in terms of urban memory that the missionary structures, which have undergone a major change in function, are preserved and transferred to the next generations.

Keywords: Gaziantep, missionary buildings, urban morphology, cultural assets.

İŞİTSEL PEYZAJ (SOUNDSCAPE) KAVRAMI ÜZERİNE BİR ARAŞTIRMA
A RESEARCH ON THE CONCEPT OF AUDIO LANDSCAPE (SOUNDSCAPE)

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ÖZET

İlk kez 1960'lı yıllarda kullanılmaya başlayan işitsel peyzaj - soundscape kavramı, bireyler veya toplumlar tarafından algılandığı ve anlaşıldığı şekliyle, belirli bir alanda oluşan seslerin tümünü ifade etmektedir. Seslerin fiziksel olarak gelişigüzel yapılı ve birbiri ile uyumlu tonal bileşenleri olmaması ve genelde yüksek düzeyli karmaşık olması ise gürültü kavramıyla ifade edilmektedir. Günümüzde gürültü, özellikle kentsel alanlarda; sanayileşme, kentleşme ve diğer iletişim ve ulaşım sistemlerindeki hızlı artış nedeniyle, insanların yaşam kalitesini etkileyen bir çevre kirliliği unsuru haline gelmiştir.

Çeşitli çevresel gürültülerin insan ve toplum sağlığı üzerinde pek çok olumsuz etkisi bulunmaktadır. Bu etkilerin risk oluşturduğunun ortaya konulması ve gürültüden etkilenen kişi sayısında meydana gelen artış, gürültü konusuna verilen önemi arttırmış ve gürültü ile mücadele etme yollarını aramayı gündeme getirmiştir. Fakat ses seviyesinin düşürülmesi, akustik konforu her zaman arttırmamaktadır. Ses seviyesinin düşürülmesi yerine, hangi seslerin olumsuz etki oluşturduğunun saptanması gerekmektedir. İşitsel peyzaj yaklaşımı, konuyu bu çerçevede ele almakta ve böylece ses seviyesi ve ses tercihleri değerlendirmede nicel ölçümlerle, nitel ölçümlerin de ilişkilendirilmesi sağlanabilmektedir. Bu nedenle işitsel peyzaj yaklaşımı, gürültü kirliliğinin önlenmesinde önemli bir yaklaşım olarak öne çıkmaktadır.

Anahtar Kelimeler: Ses, Gürültü Kirliliği, Soundscape, İşitsel Peyzaj.

ABSTRACT

The concept of auditory landscape - soundscape, which started to be used for the first time in the 1960s, refers to all the sounds that occur in a certain area, as perceived and understood by individuals or societies. The fact that sounds are physically random and do not have tonal components that are compatible with each other, and that they are generally highly complex, is expressed by the concept of noise. Today, noise, especially in urban areas; Due to the rapid increase in industrialization, urbanization and other communication and transportation systems, it has become an environmental pollution factor that affects people's quality of life.

Various environmental noises have many negative effects on human and public health. Revealing that these effects pose risks and the increase in the number of people affected by noise has increased the importance given to the issue of noise and has brought up the search for ways to combat noise. However, lowering the sound level does not always increase acoustic comfort. Instead of lowering the sound level, it is necessary to determine which sounds have a negative effect. The audio landscape approach deals with the issue within this framework, so that in the evaluation of sound level and sound preferences, quantitative measurements and qualitative measurements can be associated. For this reason, the audio landscape approach stands out as an important approach in the prevention of noise pollution.

Keywords: Sound, Noise pollution, Soundscape, Auditory landscape.

ASBEST STUDIES IN TERMS OF OCCUPATIONAL HEALTH AND SAFETY

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ABSTRACT

Protection policies against external physical risk factors such as falling, hitting, cutting, harmful rays of the sun and soil are aimed in order to proactively protect the employees in the construction works carried out in the construction works. In this study, it has been tried to investigate the occupational accidents that resulted in death or disability of more than 10% in the province of Çorum. With the examination, in which sectors the accidents occurred and for what reasons, the faults of the people who caused the accident, the loss of earning power in the profession and statistical information were collected, detailed information about the accidents were graphed, and the results were tried to be interpreted. As a result of the study, it has been observed that the most fatal and injury occupational accidents occur in the construction and subsequently the transportation sector. When these sectors are examined in detail, it has been determined that the OHS culture is not fully established and there are deficiencies in the implementation of legislative obligations. Measures taken to protect employees are primarily taken for collective protection. In case the collective protection methods are insufficient, it is supported by individual protection methods. However, there is another risk that is ignored during the demolition of existing structures and the construction of new ones. Old buildings built before 2010 contain asbestos. Therefore, those who do the work and people in the environment during urban transformation are exposed to asbestos. Asbestos is used in the construction of buildings as it is resistant to fire, pressure, insulator and cheap. Asbestos is a common trade name given to naturally occurring fibrous crystalline minerals that can be processed industrially. In addition, asbestos is found in many products in the aircraft, insulation, electrical, ship, automotive and textile industries. It was stated that asbestos was added to the asphalt product composition in order to increase the durability of some roads built in the USA in the 1970s, especially against winter weather conditions. Asbestos, which is used even in cigarette filters, comes into contact with people in many areas of life. According to the Occupational Health and Safety Law No. 6331, the employer is obliged to take protective measures against the damages of asbestos for its employees working with asbestos.

In this study, asbestos inventory reports, which were created as a result of the examination of the samples taken from the buildings during the urban transformation, were examined by a private laboratory using the document compilation method. According to the result obtained, it was determined that asbestos was present in 5.17% of the measured samples. It was observed

that the most Critosyl asbestos was used. It has been determined that asbestos is widely used in roof insulation, gaskets and roof coverings

Keywords: Occupational Health, Occupational Safety, Asbestos, Exposure

AMERİKAN DIŐ POLİTİKASININ HOLLYWOOD FİLMLERİNE YANSIMALARI
REFLECTIONS OF AMERICAN FOREIGN POLICY ON HOLLYWOOD FILMS

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ÖZET

Uluslararası ilişkilerin hegemonik gücü konumunda bulunan Amerika Birleşik Devletleri'nin sahip olduğu dış politik enstrümanlardan biri de hiç kuşkusuz Hollywood filmleridir. Nitekim bu büyük güç, Hollywood filmleri vasıtasıyla, bir yandan uluslararası alanda yürütmekte olduğu tek yanlı ve ulusal çıkar odaklı dış politik tutum ve davranışlarına meşruiyet kazandırırken, diğer yandan gelecekte tatbik etmeyi planladığı dış politik stratejilerin gerçekleştirilebileceği uygun uluslararası ortamı tesis etmeye çalışmaktadır.

Bu çalışma Amerikan dış politikasının Hollywood filmlerine olan etkilerini incelemeyi amaçlamaktadır. Çalışmada Amerikan dış politikasının uluslararası sinema sektörünün çok büyük bir kısmını elinde bulunduran Hollywood yapımı filmlere yansımalarının olup olmadığı sorusuna cevap aranmaktadır. Çalışmanın hipotezi ise: "Uluslararası ilişkilerin en güçlü ve en etkili ülkesi olan Amerika Birleşik Devletleri'nin dış politikasının Hollywood yapımı filmlere geniş kapsamlı yansımaları bulunmaktadır." şeklinde formüle edilmiştir.

Yukarıda dile getirilen soruya cevap verebilmek amacıyla çalışma üç ana bölümden oluşturulmuştur. İlk bölümde Amerikan dış politikasının tarihsel süreç içerisindeki genel seyri üzerinde kısaca durulacaktır. İkinci bölümde, Hollywood yapımı filmlerin uluslararası sinema sektörü içerisindeki yeri ve önemi ana hatlarıyla değerlendirilecektir. Üçüncü bölümde ise, Amerikan dış politikasının Hollywood yapımı filmlere olan yansımaları, örnek filmler çerçevesinde ayrıntılı bir biçimde analiz edilecektir. Son olarak elde edilen bütün bulgular sistematik bir bütünlük içerecek şekilde gözler önüne serilecektir.

Anahtar Kelimeler: Amerika Birleşik Devletleri, Hollywood, Dış Politika, Sinema, Uluslararası İlişkiler.

ABSTRACT

Hollywood movies are undoubtedly one of the foreign policy instruments of the United States of America, which is the hegemonic power in international relations. Through Hollywood movies, the United States, on the one hand, legitimizes its unilateral and national interest-oriented foreign policy attitudes and behaviors in the international arena, and on the other hand, tries to establish a suitable international environment in which its future foreign policy strategies can be implemented.

This study aims to analyze the effects of American foreign policy on Hollywood films. The study seeks to answer the question of whether American foreign policy is reflected in Hollywood films, which hold a large part of the international movie industry. The hypothesis of the study is: "The foreign policy of the United States of America, the most powerful and influential country in international relations, has far-reaching reflections on Hollywood movies."

In order to answer the above-mentioned question, the study is divided into three main sections. In the first part, the American foreign policy in the historical process will be briefly emphasized. In the second part, the place and importance of Hollywood films in the international cinema sector will be outlined. In the third part, the reflections of American foreign policy on Hollywood films will be analyzed in detail within the framework of sample films. Finally, all the findings will be presented in a systematic manner.

Key Words: United States of America, Hollywood, Foreign Policy, Cinema, International Relations.

**AMERİKA BİRLEŞİK DEVLETLERİ ÖRNEĞİNDE MEDYANIN ULUSAL GÜÇE
KATKISI**

CONTRIBUTION OF THE MEDIA TO NATIONAL POWER IN THE CASE OF THE
UNITED STATES

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ÖZET

Günümüz dünyasında medya araçları konusunda en fazla bağlantıya sahip olan ülke hiç kuşkusuz Amerika Birleşik Devletleri'dir. Bu ülkenin teknolojik ürünler geliştirme ve üretme konusundaki ilerici tutumu, sözü edilen araçlar hususunda çok yüksek bir kapasiteye ulaşmasına yol açmıştır. Amerika Birleşik Devletleri bu kapasitesini, farklı alanlardaki amaçlarını gerçekleştirmede olduğu gibi doğrudan doğruya ulusal gücünü geliştirme sürecinde de etkili bir şekilde kullanmaktadır.

Bu çalışma, Amerika Birleşik Devletleri örneğinde medyanın ulusal güç üzerindeki olumlu etkilerini incelemeyi amaçlamaktadır. Çalışmada Amerikan medyasının Amerika Birleşik Devletleri'nin ulusal gücünün gelişimine herhangi bir katkısının olup olmadığı sorusuna cevap aranmaktadır. Çalışmanın hipotezi ise; "Amerika Birleşik Devletleri üzerinde etki oluşturup yönlendirebildiği medya organlarını, ulusal kapasitesinin geliştirilmesi sürecinde fiilen kullanmakta ve pozitif sonuçlar almaktadır. Bu durum göz önünde bulundurulduğunda, medyanın ulusal gücün arttırılmasına katkısının olduğu söylenebilir" şeklinde formüle edilmiştir.

Yukarıda ortaya atılan soruya tutarlı bir yanıt verebilmek için çalışma üç ana bölüme ayrılmıştır. Birinci bölümde ulusal güç kavramı ve bu kavramın uluslararası ilişkiler literatürü içerisindeki yeri ve önemi üzerinde kısaca durulacaktır. Ardından medyanın devletler tarafından nasıl ve hangi amaçla kullanıldığına dair tartışmalar genel hatlarıyla değerlendirilecektir. Daha sonra Amerika Birleşik Devletleri özelinde, medyanın ulusal gücün geliştirilmesine olan olumlu etkileri ayrıntılı bir biçimde analiz edilecektir. Son olarak tespit edilen tüm bulgular derlenerek sistematik bir bütünlük arz edecek şekilde gözler önüne serilecektir.

Anahtar Kelimeler: Medya, Ulusal Güç, Amerika Birleşik Devletleri, Uluslararası Politika.

ABSTRACT

In today's world, the most advanced country in terms of media tools is undoubtedly the United States of America. The progressive attitude of this country in developing and producing technological products has led to a very high capacity in terms of the aforementioned tools. The United States of America uses this capacity effectively in the process of developing its national power as well as in the realization of its objectives in different fields.

This study aims to examine the positive effects of media on national power in the case of the United States of America. The study seeks to answer the question whether the American media has any contribution to the development of the national power of the United States. The hypothesis of the study is that "the United States actually uses the media outlets that it can direct in the process of developing its national capacity and achieves positive results. Considering this situation, it can be said that the media contributes to the enhancement of national power".

In order to provide a coherent answer to the question posed above, the study is divided into three main sections. In the first part, the concept of national power and its place and importance in the international relations literature will be briefly discussed. Then, the debates on how and for what purpose the media is used by states will be evaluated in general terms. Then, in the case of the United States, the positive effects of the media on the development of national power will be analyzed in detail. Finally, all the findings will be compiled and presented in a systematic manner.

Key Words: Media, National Power, United States of Amerika, International Policy.

ULAŞIM SEKTÖRÜ ALTYAPI YATIRIMLARININ ÇEVRESEL KİRLİLİK İLE İLİŞKİSİ: OECD ÜLKELERİ ÜZERİNE BİR ARAŞTIRMA

THE RELATIONSHIP BETWEEN TRANSPORTATION SECTOR INFRASTRUCTURE INVESTMENTS AND ENVIRONMENTAL POLLUTION: A RESEARCH ON OECD COUNTRIES

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ÖZET

Ulaşım bir yerden başka bir yere hem kişisel bir hareketliliği hem de mal, hizmet ve bilgi akışına karşılık gelmektedir. Ulaştırma ise malların ve insanların güvenli ve verimli bir şekilde hareket etmesini sağlamak için araçların temin edilmesi, bakımlarının yapılması, düzenlenmesi ve üretilmesi süreçlerini de kapsamaktadır. Ulaşım sektörünün gelişimi denildiğinde her şeyden önce sektöre yönelik altyapı yatırımlarına bağlı bir yapı anlaşılmaktadır. Gelişmiş bir ulaştırma altyapısı ekonominin modern bir işleyişe sahip olması, rekabet edilebilirliği artırması ve verimlilik sağlar. Ayrıca, mal ve hizmetlerin etkin bir şekilde taşınması, ticaretin yaygınlaştırılması ve ticaret hacminin artması, tedarik zincirinde arz-talep dengesinin sağlanmasını kolaylaştırır. Bunların yanı sıra ulaşım sektöründeki altyapı gelişmelerinin çevresel kaliteye de hizmet etmesi önemlidir. Öte yandan ulaşım altyapısı ve çevresel kalite ilişkisinin literatürde oldukça sınırlı bir araştırma alanına sahip olduğu bir gerçektir. Bu çalışma ulaşım sektörüne yönelik altyapı yatırımlarının karbondioksit emisyonları üzerindeki etkisini OECD ülkeleri için test etmeyi amaçlamaktadır. Bu amaçla OECD ülkelerine ait 2000-2020 dönemini kapsayan bir veri seti ile panel VAR yaklaşım ile söz konusu ilişki test edilmiştir. Elde edilen sonuçlar uzun dönemde ulaşım sektörü altyapı yatırımlarının çevresel kaliteye katkı sağladığını göstermiştir. Başka bir ifadeyle, uzun dönemde OECD ülkelerinde ulaşım sektörü altyapı yatırımlarındaki bir artış kişi başına karbon emisyonunu yaklaşık yüzde 0.03 azaltmaktadır. Sonuçta, OECD ülkelerinde altyapı yatırımlarına yönelik her bir gelişme çevresel kaliteyi uzun vadede olumlu etkilemektedir.

Anahtar Kelimeler: Ulaşım sektörü, Çevre, Panel veri, OECD

ABSTRACT

Transportation corresponds to both a personal mobility and the flow of goods, services and information from one place to another. Transport also encompasses the processes of procuring, maintaining, arranging and producing vehicles to ensure the safe and efficient movement of goods and people. When the developments of the transportation sector are mentioned, first of all, a structure that depends on the infrastructure investments for the sector is understood. A developed transport infrastructure ensures a modern functioning of the economy, increases competitiveness and provides efficiency. In addition, the efficient transportation of goods and services, the expansion of trade and the increase in trade volume facilitate the supply-demand balance in the supply chain. In addition to these, it is important that infrastructure developments

in the transportation sector also serve environmental quality. On the other hand, it is a fact that the relationship between transportation infrastructure and environmental quality has a very limited Research area in the literature. This study aims to test the impact of infrastructure investments in the transportation sector on carbon dioxide emissions for OECD countries. For this purpose, a data set covering the period of 2000-2020 belonging to OECD countries is tested with the panel VAR approach. The results obtained showed that in the long run, transportation sector infrastructure investments contribute to environmental quality. In other words, an increase in transport sector infrastructure investments in OECD countries reduces carbon emissions per capita by about 0.03 percent in the long run. As a result, each development towards infrastructure investments in OECD countries positively affects environmental quality in the long run.

Keywords: Transportation sector, Environment, Panel data, OECD.

**TÜRKİYE’DE EĞİTİMDE SANAL MÜZE İLE İLGİLİ YAPILAN BAZI
ÇALIŞMALARIN TEMATİK İNCELENMESİ**
THEMATIC ANALYSIS OF SOME STUDY ON VIRTUAL MUSEUM IN EDUCATION
IN TURKIYE

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ÖZET

Teknolojinin hızla ilerlediği günümüzde teknolojik gelişmelerden etkilenen alanlarda birisi de eğitimidir. Teknolojinin ilerlemesi ile beraber müzeler ve çeşitleri de gelişmektedir. Müzelerin teknolojinin entegre edilmesi ile ortaya çıkan kavramlardan birisi de sanal müzelerdir. Bu çalışmanın amacı, eğitimde sanal müze kullanımı ile ilgili yapılan araştırmaları inceleyerek bu konuda yapılan çalışmalar ile ilgili genel çerçeveyi belirlemektir. Sanal müzeler, farklı medya içerikleri kullanılarak hazırlanmış, fiziksel mekâna ihtiyaç duyulmadan ziyaretlerin erişiminin mümkün olduğu müzeler olarak ifade edilmektedir. Bu amaçla, 2012-2022 yılları arasında yapılan çalışmalardan eğitimde sanal müzeyi konu alan 30 çalışma tematik analizden geçirilmiştir. Sanal müze alanında yapılan çalışmalara bakılması ve bu çalışmaların eğitimde nasıl kullanıldığının görülmesi literatür için etkili bir araştırma olacaktır. Bu çalışmada yapılan analizler sayesinde özellikle fen eğitimi için çok az sayıda bulunan sanal müze uygulaması çalışmaları, bu konu hakkında çalışmak isteyen ve kendi bölümlerine entegre etmek isteyen araştırmacılara yol gösterici olması açısından oldukça önemlidir. Çalışmada doküman incelemesi yöntemi kullanılmıştır. Yapılan çalışmada yurt içi kaynaklar taranmıştır. Google scholar’dan ‘sanal müze, sanal müze ve eğitim, eğitimde sanal müze’ anahtar kelimeleri taranmıştır ve çıkan sonuçlardan seçilen araştırmalar incelenmiştir. Bu araştırma sonucunda 2012-2022 yılları arasında yapılmış olan çalışmalar seçilmiştir. Bu nedenle bu çalışma, incelenen çalışmalar ve gerçekleştirilen analizler ile sınırlıdır. Verilerin analizinde betimsel analizden yararlanılmıştır. İncelenen çalışmalar; yayın türü, çalışma yılı, örneklem, bulgular, sonuç ve öneriler olarak incelenmiştir. Elde edilen bulgular sonucunda; çalışmaların genellikle makalelerden oluştuğu, en çok 2021 yılında çalışma yapıldığı, genellikle sanal müzeyi deneyimlemiş öğrenci görüşlerine başvurulduğu görülmüştür. Çalışmaların bulgularında genellikle eğitimde sanal müze kullanımının verimli olduğu, sonuçlarında sanal müzeyi deneyimleyen öğrencilerin bu uygulamayı kullanmaya devam etmek istedikleri sonucuna

ulaşılmıştır. En önemli önerilerinde de sanal müze kullanımını çeşitli alanlara entegre ederek artırılması gerektiği vurgulanmıştır.

Anahtar Kelimeler: Sanal Müze, Tematik inceleme, Doküman İncelemesi.

ABSTRACT

One of the areas affected by technological developments in today's rapidly advancing technology is education. With the advancement of technology, museums and their varieties are also developing. One of the concepts that emerged with the integration of technology in museums is virtual museums. The aim of this study is to examine the researches on the use of virtual museums in education and to determine the general framework for the studies on this subject. Virtual museums are expressed as museums prepared by using different media contents, where visits are possible without the need for physical space. For this purpose, 30 studies on virtual museum in education from the studies conducted between 2012-2022 were analyzed thematically. It will be an effective research for the literature to look at the studies carried out in the field of virtual museums and to see how these studies are used in education. Thanks to the analyzes made in this study, the virtual museum application studies, which are very few especially for science education, are very important in terms of guiding researchers who want to work on this subject and want to integrate it into their own departments. Document analysis method was used in the study. In the study, domestic sources were scanned. The keywords 'virtual museum, virtual museum and education, virtual museum in education' were scanned from Google scholar and the researches selected from the results were examined. As a result of this research, studies conducted between 2012-2022 were selected. Therefore, this study is limited to the studies reviewed and the analyzes performed. Descriptive analysis was used in the analysis of the data. Examined studies; publication type, study year, sample, findings, conclusions and recommendations. As a result of the obtained findings; It has been observed that the studies are generally composed of articles, the most studies were carried out in 2021, and the opinions of students who had experienced the virtual museum were generally consulted. In the findings of the studies, it was concluded that the use of virtual museums in education was generally efficient, and the students who experienced the virtual museum in the results wanted to continue using this application. In their most important suggestions, it was emphasized that the use of virtual museums should be increased by integrating them into various fields.

Keywords: Virtual Museum, Thematic analysis, Document Analysis.

**RANCIERE, LACLAU VE BADIU'DA ÖZGÜRLEŞTİRİCİ BİR EDİM OLARAK
SİYASET**
POLITICS AS A EMANCIPATIVE ACT IN RANCIERE, LACLAU AND BADIU

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ÖZET

Politikanın hegemonik anlamı, bir dizi düşünürün aksi çabasına rağmen, bir süredir oldukça muhafazakâr bir içeriğe bürünmüş durumda. Böyle olduğu ölçüde de toplumsal formasyonun tüm boyutlarıyla yeniden üretilmesine hizmet etmektedir. İçinde bulunulan “durum”un olduğu gibi sürmesini amaç edinen bu anlayışta siyaset, iktidar ilişkilerinde herhangi bir dönüşümü hedeflemeden idareye ya da teknik meselelere indirgenmektedir. Dolayısıyla sosyal hareketlerle ve liberal demokrasiye olan yabancılaşmayla da görünür olan yaygın toplumsal huzursuzluklara rağmen siyaset, egemen sınıflara hizmet eden bir darlığa hapsedilmektedir. Üstelik post hakikat çağında bu anlamın kendisi, dünyanın dört bir yanında iktidarların çözüm üretme kapasitelerini yitirmeleriyle bağlantılı şekilde “gerici popülizm”in yükselişine de hizmet etmektedir.

Çeşitli düşünürler aracılığıyla siyaseti tahakküm ilişkilerini aşmayı mümkün kılacak ya da bu doğrultuda işlevsel olabilecek bir çerçevede düşünmek mümkündür. Nitekim bu sunumun temel motivasyonu da politik olanın dönüştürücü şekilde yeniden anlamlandırılabilmesi ve hatta anlamlandırılması gerektiğinden kaynaklanmaktadır. Birçok farklılığı barındırmakla birlikte ele alınacak düşünürlerin tüm çabalarının ortak noktası; siyasetin kurucu, dönüştürücü ve antagonistik doğası üzerinedir. Bu düşünsel kesişim üzerine kafa yormanın kendisi bizzat tarihin/ideolojilerin sonunu ilan eden uzlaşma anlayışına da radikal bir meydan okuma anlamına gelecektir.

Sunum boyunca Ranciere, Badiou ve Laclau'nun düşünceleri ışığında siyaset, bir başkaldırı, ortak olana dair eşitlikçi kurucu bir güç ve bir antagonizma olarak tartışılmaya çalışılacaktır. Bu soruşturma günün sonunda siyasetin, kıyıda/çeperde duranların, sesi duyulmayanların merkeze alınmasıyla dönüştürücü bir anlama kavuşabileceğini gösterecektir. Dolayısıyla önce düşünürlerin toplumu anlamlandırma biçimleri ortaya konacak, sonrasında ise bir itiraz, antagonizma ve “öteki”yi var etme çabası olarak içeriklendirilen siyaset önsel olarak eşitliği varsayan özgürleştirici bir edim olarak çerçevelenecektir. Böylece bizzat siyasetinin anlamı üzerindeki hegemonik mücadelelerin fay hatları da gözler önüne serilecektir.

Anahtar Kelimeler: Badiou, Laclau, Ranciere, Özgürlük, Siyaset, Toplum.

ABSTRACT

Despite the contrary efforts of a number of thinkers, the hegemonic meaning of politics has taken on a rather conservative content for a while. As such, it serves to reproduce the social formation in all its dimensions. In this understanding, which aims to maintain the current "situation" as it is, politics is reduced to administration or technical issues without aiming at any transformation in power relations. Therefore, despite widespread social unrest, which is also visible with social movements and alienation from liberal democracy, politics is confined to a narrowness that serves the ruling classes. Moreover, in the era of post-truth, this meaning itself also serves the rise of "reactionary populism" in connection with the loss of the capacity of governments to produce solutions around the world.

It is possible to think of politics in a framework that will make it possible to overcome the relations of domination or be functional in this direction through various thinkers. As a matter of fact, the main motivation of this presentation stems from the thought that politics can be re-interpreted in a transformative way and even that it is necessary to interpret it in this way. Although there are many differences, the common point of all the efforts of the thinkers referenced in the presentation is on the constituent, transformative and antagonistic nature of politics. Contemplating this intellectual intersection will itself mean a radical challenge to the understanding of consensus that announces the end of history/ideologies.

Throughout the presentation, in the light of the thoughts of Ranciere, Badiou and Laclau, politics will be discussed as a rebellion, an egalitarian constituent power and antagonism about the common. This investigation will show that at the end of the day, politics can have a transformative meaning by putting the people standing on the shore, whose voices are not heard, at the center. herefore, first, the ways in which thinkers make sense of society will be put forward, and then politics, which they interpret as an objection, antagonism and an effort to bring the other into existence, will be framed as a liberating act that presupposes equality. Thus, the fault lines of hegemonic struggles over the meaning of politics itself will be revealed.

Keywords: Badiou, Laclau, Ranciere, Freedom, Politics, Society.

21.YÜZ YIL BECERİLERİ VE ERKEN ÇOCUKLUK EĞİTİMİ

21st CENTURY SKILLS AND EARLY CHILDHOOD EDUCATION

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ÖZET

Toplumların varlıklarını devam ettirebilmeleri için yaşanan hızlı değişimlere ve gelişimlere ayak uydurmaları gerekmektedir. Tüm bu gelişmeler, sosyal hayat ve toplumsal sistemlerde de var olmak için yeni beceriler geliştirme ihtiyacını doğurmaktadır. Günümüzde iş ve eğitim hayatında yaratıcı, yenilikçi, eleştirel düşünebilen, problemlere çözüm üretebilen, etkili iletişim kurabilen, işbirliği yapabilen, bilgi, medya, bilgi ve iletişim teknolojileri okuryazarı, esnek ve uyumlu, sosyal ve kültürel becerilere sahip, kendi kendine öğrenen, kendini yöneten, üretken, hesap verebilen, sorumluluk ve liderlik becerilerine sahip insanlara ihtiyaç vardır. Uzmanlar bu özelliklere sahip insanlara “21.yüz yıl insanı” demektedirler. Bu insanların sahip oldukları beceriler ise, “21. Yüz Yıl Becerileri” olarak adlandırılmaktadır. Bilgi ve teknoloji çağında 21.yüz yıl becerileri, insanların etkin ve nitelikli olabilmeleri için taşınmaları ve sürekli geliştirmeleri gereken becerileri ifade etmektedir. Literatür incelendiğinde bu konuda çeşitli kurum, kuruluş ve araştırmacıların 21. yüz yıl becerilerinin neler olduğunu açıklamaya çalışan rapor ve araştırmalarına rastlanmaktadır. Bu çalışmalar arasında Amerika Birleşik Devletleri’nde birçok şirket ve derneğin bir araya gelerek oluşturdukları bir ortaklık olan Partnership for Century Skills (P21) tarafından açıklanan becerilerin genel kabul gördüğü anlaşılmaktadır. P21 tarafından açıklanan 21. yüz yıl becerileri “öğrenme ve yenilikçilik becerileri”, “bilgi, medya, bilgi ve iletişim teknolojileri becerileri”, “yaşam ve kariyer becerileri” olarak üç ana başlık ve bu başlıklar altında yer alan on bir beceriden oluşmaktadır. Değişen ve sürekli gelişen bir sisteme geçişin söz konusu olduğu yüz yılımızda ekonomi, siyaset, kültür ve sanatta olduğu gibi eğitim alanında da yeni eğitim politikaları üretmek gerekmektedir. Tarihin her döneminde sosyal, ekonomik ve teknolojik gelişmeler doğrultusunda bireylerin günlük yaşamlarının kolaylaştırılması, çeşitli mesleklere hazırlanması eğitim politikalarının temel konusu olsa da günümüzde ihtiyaç duyulan insan kaynaklarının yetiştirilmesinde mevcut öğretim programlarının yeniden gözden geçirilmesi gerektiği anlaşılmaktadır. Yani eğitim sistemleri 21.yüz yılın gerektirdiği becerileri kazandıracak, öğrenci merkezli, akranlarıyla çok yönlü etkileşime ve işbirliğine olanak tanıyan, problemlere çözüm üretilen, dijital teknolojilerin kullanıldığı öğrenme yaklaşımları temelinde yeniden düzenlenmelidir. Çünkü öğrencilerin bilişsel becerileri kadar bilişsel olmayan becerileri de önemlidir. Bu beceriler okul ortamında ve hayat boyu geliştirilebilir. Bu becerilerin okul yıllarında ve özellikle erken çocukluk yıllarını kapsayan 0-6 yaşlar arasında kazandırılmaya başlanması, öğrencilerin daha sonraki hayatlarında ve ülkelerin gelecekteki rekabet

piyasasındaki konumları için belirleyicidir. Ayrıca gelişmekte olan ülkelerin bu duruma daha çok özen göstermesi gerektiği düşünülmektedir. Bu beceriler ne kadar erken kazandırılmaya başlanırsa o kadar çok fayda sağlayacaktır. İlk yıllarda çocuklar meraklı ve heyecanlı öğrencilerdir. Çocukların bu doğal merak ve heyecanlarından yararlanılarak öğrenme deneyimleri için zengin uyarıcı ortamlar hazırlanması önemlidir. Bu konuda ebeveynlere, eğitimcilere, yöneticilere, politika yapanlara iş düşmektedir. Literatürde erken çocukluk eğitimi ile ilgili tanımlar incelendiğinde “0-6 yaş çocuklarının bireysel özellikleri göz önüne alınarak hem evde hem kurumda bütüncül gelişmelerinin desteklenmesi için profesyonel kişiler tarafından yapılan planlı, programlı öğrenme sürecidir.” tanımı, ortak tanım olarak karşımıza çıkmaktadır. Çocuklukta bu dönem kritik bir dönemdir. Çünkü çevredeki uyarıcıların gelişim ve öğrenme üzerinde en etkili dönem olması nedeniyle 21. Yüzyıl becerilerinin bu dönemde kazandırılmaya başlaması, çağdaş normlara uygun olarak yetiştirilmiş bireylerin ülkemize kazandırılması ülkemiz ve milletimiz için önemlidir.

Anahtar kelimeler: 21.yüzyıl becerileri, erken çocukluk eğitimi, 21.yüzyıl becerileri ve erken çocukluk eğitimi.

ABSTRACT

Societies need to keep up with the rapid changes and developments in order to continue their existence. All these developments create the need to develop new skills in order to exist in social life and social systems. Today, in business and education life, creative, innovative, able to think critically, produce solutions to problems, communicate effectively, cooperate, literate in information, media, information and communication technologies, flexible and adaptable, have social and cultural skills, self-learning, self-managing, productive, accountable, responsible and leadership skills are needed. Experts call people with these characteristics "21st century people". The skills these people have are called as "21st Century Skills". In the age of information and technology, 21st century skills refer to the skills that people need to carry and constantly develop in order to be effective and qualified. When the literature is examined, there are reports and researches of various institutions, organizations and researchers trying to explain what the 21st century skills are. Among these studies, it is understood that the skills described by the Partnership for Century Skills (P21), a partnership formed by many companies and associations in the United States, are generally accepted. 21st century skills described by P21 consist of three main titles as "learning and innovation skills", "information, media, information and communication technology skills", "life and career skills" and eleven skills under these titles. . In our century, when there is a transition to a changing and constantly developing system, it is necessary to produce new education policies in the field of education as well as in economy, politics, culture and art. Although facilitating the daily lives of individuals in line with social, economic and technological developments in every period of history and preparing them for various professions are the main issues of education policies, it is understood that the current curriculum should be reviewed in order to train the human resources needed today. In

other words, education systems should be reorganized on the basis of learning approaches that will provide the skills required by the 21st century, are student-centered, allow multi-faceted interaction and cooperation with their peers, produce solutions to problems, and use digital technologies. Because students' non-cognitive skills are as important as their cognitive skills. These skills can be developed in the school setting and throughout life. The fact that these skills are introduced in school years and especially between the ages of 0-6, which includes early childhood years, is decisive for students' later life and their position in the future competitive market of countries. It is also thought that developing countries should pay more attention to this situation. The sooner these skills are introduced, the more benefits will be gained. In the early years, children are curious and excited learners. It is important to prepare rich stimulating environments for learning experiences by taking advantage of children's natural curiosity and excitement. Parents, educators, administrators and policy makers have a responsibility in this regard. When the definitions related to early childhood education are examined in the literature, the definition of "it is a planned and programmed learning process made by professionals to support the holistic development of 0-6 year old children both at home and in the institution" appears as a common definition. This is a critical period in childhood. Because the stimulants in the environment are the most effective period on development and learning, it is important for our country and our nation that the skills of the 21st century begin to be gained in this period and that individuals who have been raised in accordance with contemporary norms are brought to our country.

Key words: 21st century skills, early childhood education, 21st century skills and early childhood education.

AN EVALUATION OF LEAN PRACTICES IN HEALTHCARE ORGANIZATIONS

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ABSTRACT

In recent years, the concept of lean practices, originally developed in the manufacturing sector, has gained significant attraction in healthcare organizations. Lean healthcare has been developed rapidly since the early 2000s. Lean, often referred to as "Lean Thinking" or "Lean Management," is a widely used philosophy and methodology to achieve superior performance. The core principles of lean, focus on minimizing waste, optimizing processes, and enhancing quality, have proven to be transformative when applied to the complicated and dynamic healthcare environment. The main idea of lean is to maximize value while minimizing waste, thus improving efficiency, quality, and customer satisfaction.

The integration of lean principles into healthcare organizations has yielded various advantages, positively impacting both operational efficiency and patient care outcomes. One of the most significant advantages is the reduction in wait times for patients, which leads to quicker access to necessary care and improved patient satisfaction. For instance, applying lean principles in emergency departments has resulted in decreased patient wait times, reduced overcrowding, and improved patient safety.

Furthermore, lean applications have contributed to a reduction in medical errors and at the same time developed patient safety. Standardizing processes and having clear communication among healthcare teams ensure that the right information reaches the right individuals at the right time by minimizing the potential for misunderstandings or oversights. This has a vital impact on patient satisfaction and overall quality of care.

This study aims to demonstrate how lean tools were implemented to some problems of healthcare organizations in Turkey. The examples provide insight into how lean management tools can be applied to reach similar outcomes.

Keywords: Lean, Lean Thinking, Healthcare,

**FİNANSAL ÖZGÜRLÜK, DOĞRUDAN YABANCI YATIRIMLAR VE TİCARİ DİŞA AÇIKLIĞIN EKONOMİK BÜYÜME ÜZERİNDEKİ ETKİSİNİN İNCELENMESİ:
BRICS ÜLKELERİ ÖRNEĞİ**

EXAMINING THE IMPACT OF FINANCIAL FREEDOM, FOREIGN DIRECT INVESTMENT AND TRADE OPENNESS ON ECONOMIC GROWTH: THE CASE OF BRICS COUNTRIES

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ÖZET

Finansal özgürlük, ticari dışa açıklık ve doğrudan yabancı yatırımlar ülkelerin ekonomik büyümelerinde belirleyici rol oynamaktadır. Bu çalışmada bağımlı değişken ekonomik büyüme, bağımsız değişkenler ise finansal özgürlük, ticari dışa açıklık ve doğrudan yabancı yatırımlar (DYY) olarak belirlenmiştir. BRICS ülkeleri kapsamında, 1996-2022 yıllarına ait yıllık veriler kullanılarak değişkenler arasındaki uzun dönemli eşbütünleşme ilişkisinin varlığı incelenmiştir. Öncelikle birim kök analizleri yapılmış ve değişkenlerin tamamının I(1) düzeyinde durağan olduğu belirlenmiş ve daha sonra ise hem Pedroni hem de Kao eşbütünleşme testleri sonucunda değişkenlerin uzun dönemde eşbütünleşik hareket ettikleri sonucuna ulaşılmıştır. Değişkenlere ait katsayı tahmini ise FMOLS ve DOLS testleri yapılmıştır. Katsayı analiz sonuçlarına göre DYY ve ticari dışa açıklık değişkenlerinin ekonomik büyüme üzerindeki etkisi pozitif ve istatistiki olarak anlamlı iken, finansal özgürlük değişkeninin ekonomik büyüme üzerindeki etkisi negatif olarak tespit edilmiştir.

Anahtar Kelimeler: DYY, Ekonomik büyüme, Finansal özgürlük, Ticari dışa açıklık

ABSTRACT

Financial freedom, trade openness and foreign direct investments play a decisive role in the economic growth of countries. In this study, the dependent variable is economic growth, while the independent variables are financial freedom, trade openness and foreign direct investment (FDI). The existence of a long-run cointegration relationship between the variables is examined by using annual data for the years 1996-2022 within the scope of BRICS countries. First of all, unit root analyses were performed and all variables were found to be stationary at the I(1) level, and then both Pedroni and Kao cointegration tests revealed that the variables are cointegrated in the long run. FMOLS and DOLS tests were used to estimate the coefficients of the variables. According to the coefficient analysis results, while the effect of FDI and trade openness variables on economic growth is positive and statistically significant, the effect of the financial freedom variable on economic growth is negative.

Keywords: FDI, Economic growth, Financial freedom, Trade openness

**IMMIGRANT CHILDREN IN TURKEY: INVESTIGATING ARABIC AND SLAVIC
CHILDREN'S PLAY PREFERENCES AND BEHAVIORS IN EARLY CHILDHOOD
EDUCATION**

**TÜRKİYE'DEKİ GÖÇMEN ÇOCUKLAR: ARAP VE SLAV ÇOCUKLARIN ERKEN
ÇOCUKLUK EĞİTİMİNDE OYUN TERCİHLERİ VE DAVRANIŞLARININ
İNCELENMESİ**

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ÖZET

Erken çocukluk döneminde evrensel dil olarak bilinen oyunlar, çocukları tanıma ve gelişimsel süreçlerini takip etme gibi unsurların açıklanmasında önemli bir araçtır. Çocuklar yaşadıkları durumları oyunlarına yansıtabilir. Özellikle göçmen çocuklarda oyun, göç durumunun etkilerini göstermede anahtar konumdadır. Çocuklar göç sürecinde yaşadıkları değişimleri, olayları veya durumları oyunlarına yansıtabilirler. Bu doğrultuda göçmen çocukların tercih ettikleri oyun türü, materyal seçimi, sıklıkla zaman geçirdiği öğrenme merkezi ve oyundaki davranışları göç durumunun yarattığı etkileri görebilmeye ve bu etkilerin nedenlerine odaklanmaya fırsat tanır. Bu nedenle, bu araştırmanın okulöncesi dönem göçmen çocukların oyun tercihlerini ve oyun davranışlarını betimleyerek öğretmenlerin göçmen çocuklara yönelik eğitim-öğretim faaliyetlerini düzenleyebilmesinde, onların bireysel ihtiyaçlarını tanımlayabilmesinde yardımcı olacağı düşünülmektedir. Araştırma, iki farklı etnik kökene sahip göçmen çocukların oyun tercihleri (*öğrenme merkezi tercihi, oyun türü tercihi, oyun yapısı tercihi, materyal tercihi*) ve oyun davranışlarını karşılaştırarak betimlemeyi amaçlamaktadır.

Bu araştırma nitel araştırma yöntemlerinden çoklu durum çalışması desenindedir. Çalışma, Slav ve Arap ırkından gelen iki farklı okulöncesi dönem göçmen çocuğun oyun tercihleri ve oyun davranışlarını derinlemesine betimlemeyi ve incelemeyi amaçlamaktadır. Araştırmanın örneklem grubunu 2022-2023 eğitim-öğretim yılında okulöncesi eğitim kurumlarında öğrenim gören, Antalya iline son 1 yıl içinde göçmen olarak yerleşmiş, Slav (Ukrayna) ve Arap (Birleşik Arap Emirlikleri) ırkına sahip beş yaş grubundaki 2 çocuğun okulöncesi öğretmenleri oluşturmaktadır. Veriler, yarı yapılandırılmış görüşme formu ile toplanmıştır. Bu çalışmada verilerin yarı yapılandırılmış görüşme yöntemiyle elde edilmesinin yanı sıra bulguların inanırlığını sağlamak için ek olarak gözlem yöntemine başvurulmuştur. Hedef çocuklar, serbest oyun zamanında ortalama 30-45 dk. boyunca araştırmacı tarafından gözlemlenmiştir. Verilerin çözümlenmesinde ise betimsel analiz kullanılmıştır.

Çalışmadan elde edilen bulgular doğrultusunda, Arap ve Slav ırka sahip göçmen çocukların serbest oyun zamanında dramatik oyun merkezi ve kitap merkezini tercih etmediği yönünde öğretmen görüşleri alınmıştır. Her iki çocuğun ise sıklıkla blok merkezinde zaman geçirdiği anlaşılmıştır. Materyal tercihlerinde her iki göçmen çocuğun tercih etmediği tek materyal türü kitaptır. Slav kökenli çocuğun mutfak materyallerini, Arap kökenli çocuğun ise kukla materyalini tercih etmediği yönünde öğretmen görüşleri mevcuttur. Tercih edilen oyun türleri göz önüne alındığında her iki çocuğun yapı-inşa oyunlarıyla ilgilendiği, tercih edilmeyen tek oyun türünün ise dramatik oyun olduğu belirtilmiştir. Oyun sürecinde akranın varlığına göre değişen oyun yapısı tercihlerinde Slav asıllı öğrencinin seyirci davranış, birlikte oyun ve tek başına oyun yapılarını; Arap asıllı öğrencinin ise paralel oyun yapısını sıklıkla sergilediği yönünde görüşler alınmıştır. Oyun davranışlarına yönelik öğretmen görüşleri incelendiğinde her iki öğrencinin özgecilik davranışını sergilediği, Slav kökenli çocuğun saldırganlığın kontrolünü sağlayan davranışlarda bulunduğu, Arap asıllı çocuğun ise sorumlulukta ısrarcı olmayı içeren oyun davranışları gösterdiği ifade edilmiştir. Ancak araştırmacının serbest oyun zamanında gözlemediği bazı unsurlar öğretmen görüşleriyle çelişmektedir.

Anahtar Kelimeler: Çokkültürlü Eğitim, Göçmen Çocuk, Oyun Tercihleri, Oyun Davranışları

ABSTRACT

Games, known as universal language in early childhood, are an important tool in explaining elements such as recognizing children and following their developmental processes. Children can reflect their experiences in their games. Especially for immigrant children, play is key in showing the effects of the immigration situation. Children can reflect the changes, events or situations they experienced during the migration process to their games. In this respect, the type of play that immigrant children prefer, material selection, the learning center where they often spend time, and their behaviors in the game provide an opportunity to see the effects of the immigration situation and to focus on the causes of these effects. For this reason, it is thought that this research will help teachers to organize educational activities for immigrant children and to identify their individual needs by describing the play preferences and play behaviors of preschool immigrant children. The research aims to describe the play preferences (learning center preference, play type preference, play structure preference, material preference) and play behaviors of immigrant children from two different ethnic origins by comparing them.

This research is in the multiple case study pattern of qualitative research methods. The study aims to describe and analyze the play preferences and play behaviors of two different preschool immigrant children from Slavic and Arab races. The sample group of the research consists of the preschool teachers of 2 children in the five-year-old age group, who were educated in pre-school education institutions in the 2022-2023 academic year, settled in Antalya as immigrants in the last 1 year, and were of Slavic (Ukrainian) and Arab (United Arab Emirates) race. Data were collected with a semi-structured interview form. In this study, besides obtaining the data

by semi-structured interview method, additional observation method was used to ensure the credibility of the findings. The target children spend an average of 30-45 minutes during free play time. observed by the researcher. Descriptive analysis was used to analyze the data.

In line with the findings obtained from the study, teachers' opinions were taken that immigrant children of Arab and Slavic race did not prefer dramatic play center and book center during free play time. It was understood that both children often spent time in the center of the block. In material preferences, the only type of material that both immigrant children do not prefer is the book. There are teachers' opinions that the Slavic origin child does not prefer kitchen materials, while the Arab origin child does not prefer puppet material. Considering the preferred types of play, it was stated that both children were interested in building-construction games, and the only type of play that was not preferred was dramatic play. In the game structure preferences that change according to the presence of peers in the game process, the Slavic origin student's spectator behavior, playing together and playing alone; Opinions were received that the Arab-born student frequently exhibits the parallel game structure. When the teacher's views on play behaviors were examined, it was stated that both students exhibited altruistic behavior, the Slavic child displayed behaviors that control aggression, and the Arab origin child displayed game behaviors that included insisting on responsibility. However, some elements observed by the researcher during free play time contradict the views of the teachers.

Keywords: Multicultural Education, Immigrant Child, Play Preferences, Play Behaviors

**OKUL ÖNCESİ ÖĞRETMENLERİNİN KÖY OKULLARINDA ÇALIŞIRKEN
KARŞILAŞTIĞI SORUNLARIN İNCELENMESİ: ISPARTA İLİ ÖRNEĞİ**
EXAMINING PROBLEMS FACED BY PRE-SCHOOL TEACHERS WHEN TEACHING
IN RURAL AREA: THE EXAMPLE OF ISPARTA

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ÖZET

Türkiye'deki eğitimin en önemli amaçlarından biri eğitimde fırsat eşitliğini sağlamak olmuştur. Bu nedenle merkezi sistem ile ülkenin her yerinde aynı müfredat kullanılır ve aynı imkanların sağlanması için çaba gösterilir. Eğitimin en önemli anahtar rolünü taşıyan öğretmenler de merkezi atama sistemi ile okullarda görevlerine başlar. Her ne kadar bütün imkanlar sağlanmaya çalışılsa da hala günümüzde kırsal kesimlerde öğretmenlik yapanların bazı zorluklarla karşılaştığı bilinmektedir. Bu nedenle bu araştırmanın amacı köy okulunda görev yapan okul öncesi öğretmenlerinin yaşadıkları problemlerini incelemektir. Bu araştırma nitel desende düzenlenmiştir. Çalışmada katılımcılar amaçlı örneklem türlerinden olan uygun örneklem türü ile belirlenmiştir. Çalışmaya 2022-2023 eğitim-öğretim yılında Isparta ili Yalvaç ilçesine bağlı köy okullarında okul öncesi öğretmeni olarak görev yapan 20 okul öncesi öğretmeni katılmıştır. Araştırmanın verileri yarı yapılandırılmış görüşme ile toplanmıştır. Sonrasında betimsel analiz yöntemi ile analiz edilmiştir. Bulgular göre çalışan öğretmenlerin velilerinden okul öncesi eğitime yönelik yeterli ilgiyi görmedikleri, okul yollarının ulaşımında zorluk olduğu, köylerde okul lojmanı olmadığı, sınıf materyallerinde eksiklikler olduğu, karma yaş grubuyla çalışmanın zorlukları olduğu ve sınıfların fiziksel uygunsuzluğu gibi konularda sıkıntılar yaşadıkları ortaya konmuştur.

Anahtar Kelimeler: Okul Öncesi Öğretmenliği, Köyde Öğretmenlik, Öğretmen Görüşleri

ABSTRACT

One of the most important aims of education in Turkey has been to provide equality of opportunity in education. For this reason, the same curriculum is used throughout the country with the central system and efforts are made to provide the same opportunities. Teachers, who have the most important key role in education, start their duties in schools with the central assignment system. Although all the opportunities are tried to be provided, it is known that those who teach in rural areas still face some difficulties. Therefore, the aim of this research is to examine the problems experienced by pre-school teachers working in rural area. This research was designed as qualitative design. In the study, the participants were determined with the appropriate sample type, which is one of the purposeful sampling types. In the 2022-2023

academic year, 20 pre-school teachers working as pre-school teachers in village schools in Yalvaç district of Isparta province participated in the study. The data of the research were collected by semi-structured interview. Afterwards, it was analyzed by descriptive analysis method. According to the findings, it was revealed that working teachers did not see enough interest in preschool education from their parents, there was difficulty in accessing school roads, there was no school housing in villages, there were deficiencies in class materials, there were difficulties in working with mixed age groups, and they had difficulties in issues such as physical inconvenience of classes.

Keywords: Pre-School Teaching, Teaching in Rural Area, Teachers' Opinions

**EMERGENCY REMOTE TEACHING THROUGH THE LENS OF ACADEMICIANS
IN HIGHER EDUCATION**

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ABSTRACT

The current study has been carried out to display academicians' attitudes towards emergency remote teaching (ERT) and their perceptions of ERT in the context of Turkish Higher Education. The study also aims to measure whether there are any differences between academicians' perceptions of ERT and some variables. The participants were consisted of academicians working at a state university in the eastern region of Turkey and teaching through distance education during the post-earthquake. The data were collected at the end of the spring term of the 2022-2023 academic year. Quantitative and qualitative data collection instruments were used to meet the proposed objectives of the study. The quantitative data were analyzed descriptively through SPSS. The qualitative data were analyzed by content analysis method. The results of the study indicated that academicians held positive attitudes towards transition to emergency and mandatory distance education implemented after the earthquake disaster as they desired to learn, they cared about learning and they did not avoid learning.

Keywords: Turkish higher education, Distance education, academicians, distance teaching

**OKUL ÖNCESİ DÖNEMDE ONLINE ORFF-SCHULWERK YAKLAŞIMI
UYGULAMALARI ÜZERİNE EĞİTMEN GÖRÜŞLERİ**

TRAINER'S OPINIONS ON ONLINE ORFF-SCHULWERK APPROACH
APPLICATIONS IN PRE-SCHOOL PERIOD

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ÖZET

Covid-19 pandemisi sürecinde tüm örgün öğretim kurumlarının online eğitime geçmesiyle birlikte, okul öncesi dönemde uygulanan Orff-Schulwerk yaklaşımı ile müzik ve hareket eğitimlerine de bir süre ara verilmiştir. Pandemi öncesinde çevrimiçi derslere uygun bulunmaması ve örnek uygulamalarının olmaması sebebiyle Orff eğitimleri bir kriz dönemine girmiştir. Tüm dünyadan Orff eğitimcilerinin ortak çevrimiçi bir platformda bir araya gelerek fikir ve deneyimlerini paylaşmaları ile bu krize çözüm yolları aranmış, sonrasında ise eğitimcilerin bir kısmı, Orff eğitimlerini online uygulama kararı almışlardır. Temel prensipleri gereği grup çalışmaları, doğaçlamalar, birlikte ve birbirinden öğrenme gibi etkileşimli öğrenme süreçlerini barındıran Orff-Schulwerk yaklaşımının çevrimiçi uygulanabilirliği merak konusudur. Bu bağlamda çalışmanın amacı, pandemi sürecinde online eğitim gerçekleştirmiş eğitimcilerin süreç sonrası görüşlerinin belirlenmesidir. Bu çalışmada Türkiye'nin çeşitli illerinde okul öncesi dönemde Orff-Schulwerk yaklaşımı ile müzik eğitimi veren 9 uzman eğitimci ile yapılan görüşmeler yarı yapılandırılmış görüşme tekniğiyle elde edilmiştir. Eğitimcilerin görüş ve yorumlarından elde edilen veriler MAXQDA 2022 programı ile ortak kod ve temalar oluşturularak analiz edilmiştir. Online Orff-Schulwerk uygulamaları üzerine katılımcıların görüşlerine yönelik dağılım incelendiğinde; görüşlerin olumlu ve olumsuz yaklaşım olarak iki ana tema altında toplandığı, katılımcıların olumlu görüşlerinin 140 kodlanmış bölümden oluştuğu, olumsuz görüşlerinin ise 85 kodlanmış bölümden oluştuğu ve toplamda 225 kodlanmış bölüm bulunduğu görülmüştür. Kodların temalara göre frekans dağılımlarından elde edilen sonuçlara göre ise %62,22 olumlu yaklaşım, %38,78 olumsuz yaklaşım ile Orff-Schulwerk eğitimi veren katılımcıların bu uygulamaya yönelik büyük oranda olumlu yaklaşıma sahip oldukları sonucuna varılmıştır. Katılımcıların yorumlarından elde edilen kod ve alt kodlar ile hazırlanan kod haritasına göre, online Orff-Schulwerk eğitimi yaklaşımının en önemli noktasının *Öğretim Stratejisi Geliştirmek* olduğu görülmüştür. Katılımcıların bu eğitimin uygulanabilir olabildiğini, doğru bir strateji geliştirmek ve uygulamakla bağlantılı bulduğunu görülmüştür. Ayrıca olumsuz temasında bulunan *Önyargılı yaklaşım*, *Görsel, Dikkat eksikliği* kodlarının betimlediği durumların da pozitif alanda bağlantılı olan *Öğretim Stratejisi Geliştirme*, *Uygulanabilirlik*, *Teknolojiyi Öğrenme*, *İsteklilik* ve *Yaratıcılık* kodları ile betimlenen yaklaşımlarla çözümlenebildiği sonucuna ulaşılmıştır. Buna göre; online Orff-Schulwerk eğitimine yönelik önyargılı yaklaşımın, öğretim stratejisi geliştirme ve yaratıcılık sayesinde uygulanabilir bir yaklaşım olduğunun görülmesiyle ortadan kalktığı; görsel sorunların teknolojiyi öğrenme ve çözümler üretebilme sayesinde en aza indirildiği; öğrencilerdeki dikkat eksikliğinin ise geliştirilen öğretim stratejileri sayesinde derse katılım isteklerinin artırılmasıyla çözüldüğü anlaşılmıştır.

Anahtar Kelimeler: Okul Öncesi, Orff-Schulwerk, Online Eğitim.

ABSTRACT

With the transition of all formal education institutions to online education during the Covid-19 pandemic process, music and movement education was suspended for a while, with the Orff-Schulwerk approach applied in the pre-school period. Orff training has entered a crisis since it was unsuitable for online courses and had no sample applications before the pandemic. Solutions to this crisis were sought after Orff trainers worldwide came together to share their ideas and experiences on a common online platform. Then some of the educators decided to apply for Orff training online. The online applicability of the Orff-Schulwerk approach, which includes interactive learning processes such as group work, improvisation, and learning together and from each other, is a matter of curiosity. In this context, the study aims to determine the post-process opinions of the trainers conducting online training during the pandemic. In this study, interviews with nine expert educators who gave music education with the Orff-Schulwerk approach in the pre-school period in various cities of Turkey were obtained by semi-structured interview technique. The data obtained from the views and comments of the trainers were analyzed by creating standard codes and themes with the MAXQDA 2022 program. When the distribution of the participants' views on online Orff-Schulwerk applications is examined, It was seen that the opinions were gathered under two main themes as positive and negative approaches; favorable ideas of the participants consisted of 140 coded sections, and negative views consisted of 85 coded sections and there were a total of 225 coded units. According to the results obtained from the frequency distribution of the codes according to the themes, it was concluded that the participants who gave Orff-Schulwerk training had a primarily positive approach towards this application, with a positive method of 62.22% and a hostile system of 38.78%. According to the code map prepared with the codes and sub-codes obtained from the participants' comments, it was seen that the most critical point of the online Orff-Schulwerk education approach is *to Develop a Teaching Strategy*. It was observed that the participants found this training applicable, related to developing and implementing a correct method. In addition, it has been concluded that the situations described by the *Biased approach*, *Visual*, and *Attention deficit* codes in the negative theme can also be resolved with the approaches described by the principles of *Instructional Strategy Development*, *Applicability*, *Learning Technology*, *Willingness*, and *Creativity*, which are related to the positive area. According to this; The prejudiced approach to online Orff-Schulwerk education disappeared when it has been seen that it is a viable approach thanks to teaching strategy development and creativity; visual problems are minimized by learning technology and producing solutions; It was understood that the attention deficit in students was solved by increasing their willingness to participate in the lesson thanks to the developed teaching strategies.

Keywords: Preschool, Orff-Schulwerk, Online Education.

**EXAMINING THE DETERMINANTS OF INDIVIDUALS' PERCEPTIONS ON THE
TRADE-OFF BETWEEN ECONOMIC GROWTH -ENVIRONMENTAL CONCERNS
IN TURKEY**

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ABSTRACT

This study investigates the determinants of individual perceptions on the trade-off between economic growth and environmental concerns in Turkey, with a particular focus on the context of the global sustainable development agenda and the urgency of addressing the climate emergency. Utilizing logistic models and leveraging data from the World Values Survey Wave 7, this research explores the influence of various socio-economic variables, including age, sex, material well-being, education, employment status, settlement type, religiosity, and political ideology. By incorporating these socio-economic variables, our aim is to gain insights into how individuals' characteristics and living conditions may impact their perceptions regarding the balance between economic growth and environmental concerns. Moreover, the study accounts for the potential influence of religiosity and political ideology as factors that shape individuals' values and priorities in relation to economic and environmental issues. Additionally, this research controls for political trust and political participation as variables that can potentially influence individuals' perceptions of the growth-environment trade-off. By including these control variables, we aim to account for the potential impact of individuals' trust in political institutions and their level of engagement in political activities on their perceptions.

The analysis employs logistic models to examine the determinants of individuals' perceptions, considering the interplay of the aforementioned variables. Leveraging the rich dataset provided by the World Values Survey Turkish module, which offers a comprehensive view of individuals' attitudes and beliefs across various dimensions, this study contributes to the literature on environmental attitudes in Turkey. Given Turkey's strategic geographic position and its pursuit of economic development while addressing environmental challenges, this research provides insights into a context that holds increasing importance. The findings of this study have the potential to inform policymakers, activists and researchers working in the field of sustainable development. By shedding light on the factors that shape individuals' perceptions regarding the trade-off between economic growth and environmental concerns in Turkey, the results can contribute to designing targeted interventions, awareness campaigns, and policy strategies that take into account the diverse characteristics and perspectives of individuals within Turkey.

Keywords: Economic growth, Environmental concerns, Turkey, Logistic models, World Values Survey.

KÜRESEL BORÇ SORUNU VE ÇÖZÜM ARAYIŞLARI
THE GLOBAL DEBT PROBLEM AND THE SEARCH FOR A SOLUTION

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ÖZET

Ülkeler, firmalar ve bireyler harcama kalıplarını değiştirmek konusunda isteksizdirler. Ekonomik birimler gelirlerinin üzerinde harcama yapmaları gerektiği durumda borçlanmaktadır. 21. yüzyılda küresel ekonomide birbiri ardına yaşanan krizler, küresel borç yükünü ciddi boyutlara ulaştırmıştır. 2008 küresel finans krizinden bu yana makroekonomik konjonktür, artan kamu harcamaları, düşük faiz oranları ve likiditeye kolay erişim yatırımcıların ve ülkelerin her türlü borçlanma aracına daha fazla yönelmesine neden olmuştur. Öyle ki son yüzyılda borçlanma eğiliminin arttığı ve artan borcun küresel bir borç sorununa dönüştüğü gözlemlenmektedir. Küresel borcun endişe verici düzeye ulaşması borcun sürdürülebilirliği konusunu odak noktası haline getirmiştir. Bu durum sadece borçlu veya alacaklı ekonomiler için değil, aynı zamanda bir bütün olarak küresel finansal piyasalar için de bir tehdit oluşturmaktadır. Artan borç düzeyi, borcun geri ödeme gücüne yol açması durumunda çok yönlü riskler yaratmaktadır. Aynı şekilde, borç miktarındaki büyük değişimler itfayı zorlaştıracaktır. Meydana gelecek bir borç yönetimi sorunu ise, belirli ekonomik hedeflere ulaşılmasını güçleştirecek ve makroekonomik göstergeler üzerinde bozucu bir etki yaratacaktır. Böylesi bir durum ülkelerin bir borç krizine girmesini tetikleyebilir. Bu çalışmada ilk olarak küresel borç seviyesinin niceliksel durumu ve yapısal özellikleri farklı perspektiflerle incelenmiştir. Sonrasında ise küresel borç sorunu ve çözüm arayışları noktasında değerlendirilmelerde bulunulmuştur.

Anahtar Kelimeler: Küresel Borç, Dış Borç Sürdürülebilirliği, Kamu Borcu, Ekonomik Kriz

ABSTRACT

Countries, firms and individuals are reluctant to change their spending patterns. Economic agents borrow when they need to spend more than their revenues. In the 21st century, successive crises in the global economy have brought the global debt burden to serious levels. Since the 2008 global financial crisis, the macroeconomic conjuncture, rising public expenditures, low interest rates and easy access to liquidity have led investors and countries to turn more all types of borrowing instruments. In fact, it is observed that the tendency to borrow has increased in the last century and the increasing debt has turned into a global debt problem. The issue of debt sustainability has been brought into focus by the alarming level of global debt. This poses a threat not only to debtor and creditor economies, but also to global financial markets as a whole. Debt levels that increase can be a source of multiple risks if they lead to debt repayment difficulties. Likewise, large changes in the amount of debt will make it harder to redeem. A debt management problem would make it difficult to achieve certain economic objectives and would have a distorting effect on macroeconomic indicators. Such a situation could trigger a debt crisis for countries. The quantitative and structural characteristics of the global debt level were first analyzed by this study from different perspectives. Afterwards, assessments were conducted on the global debt problem and the search for solutions.

Keywords: Global Debt, External Debt Sustainability, Public Debt, Economic Crisis

**MARKET ENTRY MOTIVATIONS IN LOW AND MEDIUM TECHNOLOGY
SECTORS: THE TOP 500 INDUSTRIAL ENTERPRISES**

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ABSTRACT

The industrial sector is widely accepted as the engine of growth, and industrialization is considered a prerequisite for development, making them of utmost importance for countries. In Turkey, the industrial sector is primarily dominated by numerous small and medium-scaled enterprises. On the other hand, the enterprises that make a high contribution to Turkey's value added are the large-scale enterprises which are few in number. Among these, the top 500 industrial enterprises hold particular significance in the country, as they are determined based on the value of sales from production. Every firm aspires to make it to this list to secure a leading position in the country. Governments also closely monitor enterprises that can make the highest contributions to the country's production and value added, along with the sectors they operate in, and implement incentive policies where necessary. Thus, it is crucial to examine the factors influencing the entry of enterprises into the top 500 industrial enterprises list.

This study employs the market entry model to analyze the main motivations that influence enterprises entering the top 500 industrial enterprises list. The analysis focuses on three out of the twelve sectors, which comprise the top 500 industrial enterprises, using the logistic regression method for the period 1993-2021. Each sector is at a different technology level. This allows the motivations for entry into the list of the top 500 industrial enterprises for the three sectors to be analyzed, taking into account the differences in technology.

The findings reveal that the motivations for entry into the list vary among the three sectors. However, for all three sectors, R&D investment, foreign direct investment, and economic freedom index are the key variables drawing significant attention. Furthermore, the varying levels of technology in each sector may give rise to different motivations for inclusion in the top 500 industrial enterprises list.

Keywords: Industrial Organization, Market Entry, Top 500 Industrial Enterprises, Low-Middle Technology, Logistic Regression.

OĞUZ ATAY'IN BEYAZ MANTOLU ADAM HİKÂYESİNİN TAHLİLİ VE BEYAZ MANTO İMGESİ ÜZERİNDEN DEĞERLENDİRMESİ

ANALYSIS OF OĞUZ ATAY'S STORY "THE MAN IN THE WHITE COAT" AND ITS EVALUATION ON THE IMAGE OF THE WHITE COAT

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ÖZET

Oğuz Atay, Türk romanına kazandırdığı yeni teknik ve konularla modern edebiyatımızın en önemli temsilcilerinden biri olmuştur. Post-modern anlatıyı başarıyla uygulayan yazar, bu tarzıyla romandan sonra hikâye türünde de farklı eserler vücuda getirmiştir. Eserlerinde alışılmışın dışında kahramanlara yer veren Atay, idealize edilen “başarılı ve iyi” profilinden uzak, ötekileşmiş, başarısız ve yabancılaşmış tipleri okurlarına sunar. Oğuz Atay’ın hikâyeciliği de kahramanları gibi farklıdır. Tek öykü kitabı *Korkuyu Beklerken*’de ilk öyküsü olan “Beyaz Mantolu Adam”, bilindik kahraman tiplerinden uzak bir karakterle karşımıza çıkmaktadır. Bir caminin avlusunda, sırtı duvara yaslanmış ve her haliyle acınası duran adamın kaderini beyaz bir manto değiştirmiştir. Hayattaki varlığından haberi dahi olunmayan, dikkatli bakıldığında bile görülmeyen bu adam, bir nesne yolu ile görünür olmuştur. Öyküde kahraman, benliği ile değil nesne ile var olmuştur. Yani nesne kahramanın önüne geçmiş, roller değişmiş ve manto kahramanlaşmıştır. Öyküye dair yapılan araştırmalardan elde edilen bilgilerden biri de eserin ilk olarak “Mantolu Adam” başlığı ile yayınlanmış olmasıdır. Daha sonra isim “Beyaz Mantolu Adam” olarak değiştirilmiş ve bu başlık ile yayınlanmıştır. Öykünün tahlili açısından önem arz eden bu değişiklik beyaz renk ve manto imgesi üzerinde tekrar düşünmeyi gerektirmiştir. Bununla birlikte mantonun bir kadın eşyası olması ve erkek olan kahramanın mantoyu tercih etmesi dikkate değerdir. Bu çalışma iki bölümden oluşmaktadır. Birinci bölümde “Beyaz Mantolu Adam” hikâyesi, zihniyet, yapı ve tema yönünden tahlil edilmiş; ikinci bölümde ise manto imgesi ve beyaz renk üzerinde durulmuş, eserin hikâye türü açısından farklılığı ve önemi irdelenmiştir. Çalışma, adı geçen hikâye ile ilgili yapılan incelemelerdeki eksiklikleri gidermeyi ve modern hikâye türünde yazılan eserler üzerinde çalışmak isteyenlere kaynaklık etmeyi amaçlar.

Anahtar Kelimeler: Beyaz Mantolu Adam, Hikâye, İmge, Post-modern, Oğuz Atay, Yabancılaşma.

ABSTRACT

Oğuz Atay has been one of the most important representatives of our modern literature with the new techniques and subjects he brought to the Turkish novel. The author, who successfully applied the post-modern narrative, created different works in the story genre after the novel with this style. Atay, who includes unorthodox heroes in his works, presents his readers with alienated, unsuccessful and alienated characters who are far from the idealised "successful and good" profile. Oğuz Atay's storytelling is as different as his heroes. "The Man with the White Coat", the first story in his only story book *Korkuyu Beklerken*, presents us with a character who is far from the familiar hero typing. In the courtyard of a mosque, a white coat has changed the fate of a man whose back is leaning against the wall and who looks pathetic in every way. This man, whose existence in life was not even known, who could not be seen even when looked at carefully, became visible through an object. In the story, the hero exists not with his ego but with the object. In other words, the object has overtaken the hero, the roles have changed and the mantle has become the hero. One of the information obtained from the researches on the story is that the work was first published under the title "The Man with the Mantle". Later, the title was changed to "The Man in the White Coat" and published with this title. This change, which is important for the analysis of the story, necessitated a rethinking on the colour white and the image of the mantle. However, it is noteworthy that the mantle is a woman's item and the male protagonist prefers the mantle. This study consists of two parts. In the first part, the story "The Man in the White Coat" is analysed in terms of mentality, structure and theme; in the second part, the image of the coat and the colour white are discussed, and the difference and importance of the work in terms of the story genre are examined. The study aims to fill the gaps in the analyses of the aforementioned story and to serve as a source for those who want to study the works written in the modern story genre.

Keywords: The Man in the White Coat, Story, Image, Post-modern, Oğuz Atay, Alienation.

**FARKLI ÜLKELERDEKİ OKUL ÖNCESİ ÇOCUKLARININ OKULA
UYUMLARININ AİLE TUTUMLARI VE ÖĞRETMEN ÖZYETERLİLİKLERİ
AÇISINDAN İNCELENMESİ**

EXAMINING THE SCHOOL ADAPTATION OF PRESCHOOL CHILDREN IN
DIFFERENT COUNTRIES IN TERMS OF FAMILY ATTITUDES AND TEACHER SELF-
EFFICIENCY

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ÖZET

Bu araştırma, farklı ülkelerdeki okul öncesi çocuklarının okula uyum sürecini aile tutumları ve öğretmen yeterlilikleri açısından incelenmesini amaçlamıştır. Bu amaç doğrultusunda; araştırma nicel araştırma yöntemlerinden ilişkili tarama yoluyla gerçekleştirilmiştir. Araştırmanın çalışma grubunu “Erken Çocukluk Döneminde Sosyal ve Duygusal Becerilerin Geliştirilmesi” (SESDECE) adlı Erasmus+ projesi kapsamında Türkiye, İtalya, Litvanya, Macaristan ve Kuzey İrlanda’dan katılan 344 okul öncesi öğretmeni ve 290 aile oluşturmuştur. Araştırma verilerini toplamak için öğretmenlere Ladd vd. (1996) tarafından geliştirilen ve Önder (2010) tarafından Türkçe’ye uyarlanan “5-6 Yaş Çocukları İçin Okul Uyumu Öğretmen Değerlendirme Ölçeği” ile Tepe ve Demir (2012) tarafından geliştirilen “Okulöncesi Öğretmenlerinin Öz Yeterlik İnançları Ölçeği” uygulanmıştır. Okul öncesi çocuklarının ailelerine ise Özyürek (2017) tarafından geliştirilen “Anne Baba Çocuk Yetiştirme Tutumları Ölçeği” uygulanmıştır. Elde edilen verilere göre, okula uyum sürecinde çocukların okulu sevme durumu en yüksek Kuzey İrlanda’daki çocuklarda görülürken; okuldan kaçınma durumu en yüksek Türkiye’deki çocuklarda görülmüştür. Çocukların sınıfta işbirlikli katılımı en yüksek ülke İtalya olurken; kendi kendini yönetme açısından Türk çocukları en yüksek puanı almıştır. Bununla beraber, Türkiye, Macaristan ve İtalya’daki öğretmenler okula uyum sürecinde aile katılımı konusunda; Litvanya ve Kuzey İrlanda’daki öğretmenler ise sınıf yönetimi konusunda kendilerini yetersiz hissettikleri ortaya çıkmıştır. Yine bulgulara göre, ülkeler arasında en demokratik tutumlu aileler Macaristan’da iken; Türkiye’deki ailelerde hem otoriter hem de aşırı hoşgörülü aile tutumunun diğer ülkelere göre daha fazla görüldüğü saptanmıştır. Aile tutumu ve okula uyum arasındaki korelasyon incelendiğinde, ($p: 0.005$; $r:0.164$) aşırı hoşgörülü tutumlu ailelerin çocuklarının okuldan kaçınma davranışını daha fazla gösterdiği belirlenmiştir.

Anahtar Kelimeler: Erken Çocukluk, Okula Uyum, Aile Tutumu, Öğretmen Özyeterlilikleri

ABSTRACT

This research aimed to examine the school adjustment process of preschool children in different countries in terms of family attitudes and teacher competencies. For this purpose, the research was carried out using related screening methods. The study group of the research consisted of 344 preschool teachers and 290 families from Turkey, Italy, Lithuania, Hungary, and Northern Ireland within the scope of the Erasmus+ project "Development Social and Emotional Skills in Early Childhood" (SESDECE). The "Teacher Rating Scale of School Adjustment" developed by Ladd et al. (1996), also the "Preschool Teachers' Self-Efficacy Beliefs Scale" developed by Tepe and Demir (2012) were applied to the teachers. The "Parent Attitude Scale" developed by Özyürek (2017) was applied to the families of preschool children. According to the data obtained, while the children in Northern Ireland have the highest level of liking for school during the school adjustment process, the highest rate of avoidance from school was seen in children in Turkey. While the country with the highest level of cooperative participation of children in the classroom is Italy, Turkish children scored the highest in self-management. On the other hand, teachers in Turkey, Hungary, and Italy on family participation in the school adjustment process; teachers in Lithuania and Northern Ireland felt inadequate in classroom management. According to the findings, while the families with the most democratic attitudes among the countries are in Hungary, it has been determined that authoritarian and overly tolerant family attitudes are more common in families in Turkey than in other countries. When the correlation between family attitude and school adjustment was examined ($p: 0.005$; $r: 0.164$), it was determined that children of families with overly tolerant attitudes showed more avoidance of school.

Keywords: Early Childhood, School Adjustment, Family Attitude, Teacher Self-efficacy

TERMAL TURİZM DESTİNASYON İMAJİ VE MEMNUNİYETİNİN YENİDEN
ZİYARET NİYETİ ÜZERİNE ETKİSİ: AFYON'DAKİ TERMAL TESİSLERİ
ZİYARET EDEN TURİSTLER ÜZERİNDE BİR UYGULAMA

THE EFFECT OF THERMAL TOURISM DESTINATION IMAGE AND SATISFACTION
ON REVISIT INTENTION: AN APPLICATION ON TOURISTS VISITING THERMAL
FACILITIES IN AFYON

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ÖZET

Bu çalışmanın amacı, termal sağlık turistlerinin destinasyon imajı ve destinasyon memnuniyeti algılarının, destinasyonu yeniden ziyaret niyetlerine etkisini incelemektir. Araştırmanın evrenini Afyon ilinde faaliyet gösteren Sağlık Bakanlığı kaplıca işletme ruhsatlı termal tesisleri ziyaret eden turistler oluşturmuştur. Değerlendirmeye alınan ve verilerin analizinde kullanılan toplam anket sayısı 400'dür. Verilerin analizinde SPSS 23.0 ve AMOS paket programları kullanılmıştır. Veriler yüz yüze anket tekniği ile toplanmıştır. Verilere betimleyici analizler, farklılık analizleri ve yapısal eşitlik modellemesi (yol analizi) teknikleri uygulanmıştır. Genel güvenilirlik katsayısı Alfa= 0,911 olarak bulunmuştur. Bu değer $0,80 \leq \alpha < 1,00$ arasında olduğundan, ölçek yüksek derecede güvenilirdir. Geçerlilik ve güvenilirliğin sağlanması; termal turizm destinasyon imajı, destinasyon memnuniyeti ve yeniden ziyaret niyeti faktörleri arasındaki yapısal ilişkinin varlığını göstermektedir. Yapısal eşitlik modellemesi kullanılarak yapılan yol analizi sonuçlarına göre termal turizm destinasyon imajı ile destinasyon memnuniyeti arasında aynı yönlü bir ilişki olduğu ve termal turizm destinasyon imajının, destinasyon memnuniyetini istatistiksel olarak anlamlı düzeyde ve pozitif yönde etkilediği tespit edilmiştir. Benzer şekilde; termal turizm destinasyon imajı ile destinasyonu yeniden ziyaret niyeti arasında aynı yönlü bir ilişki olduğu ve termal turizm destinasyon imajının, destinasyonu yeniden ziyaret niyetini istatistiksel olarak anlamlı düzeyde ve pozitif yönde etkilediği tespit edilmiştir. Bundan dolayı olumlu termal turizm destinasyon imajı arttıkça, turistlerin de destinasyon memnuniyet düzeylerinin ve destinasyonu tekrar ziyaret niyetlerinin aynı yönde artacağı sonucuna varılmıştır.

Anahtar Kelimeler: Termal Turizm Destinasyon İmajı, Memnuniyet, Yeniden Ziyaret Niyeti

Abstract

The aim of this study is to examine the effects of thermal health tourists' perceptions of destination image and destination satisfaction on their intention to revisit the destination. The universe of the research consisted of tourists visiting the thermal facilities licensed by the Ministry of Health operating in Afyon province. The total number of questionnaires that were evaluated and used in the analysis of the data is 400. SPSS 23.0 and AMOS package programs were used in the analysis of the data. Data were collected by face-to-face survey technique. Descriptive analysis, difference analysis and structural equation modeling (path analysis) techniques were applied to the data. The overall reliability coefficient was found to be Alpha= 0.911. Since this value is between $0.80 \leq \alpha < 1.00$, the scale is highly reliable. Ensuring validity

and reliability; thermal tourism destination image shows the existence of a structural relationship between the factors of destination satisfaction and revisit intention. According to the results of the road analysis using structural equation modeling, it has been determined that there is a direct relationship between the thermal tourism destination image and destination satisfaction, and that the thermal tourism destination image affects destination satisfaction in a statistically significant and positive way. Similarly; It has been determined that there is a same-way relationship between the thermal tourism destination image and the destination revisit intention, and the thermal tourism destination image has a statistically significant and positive effect on the destination revisit intention. Therefore, it has been concluded that as the positive thermal tourism destination image increases, the destination satisfaction levels of the tourists and their intention to revisit the destination will increase in the same direction.

Keywords: Thermal Tourism Destination Image, Satisfaction, Revisit Intent

**DESTİNASYON İMAJININ TEKRAR ZİYARETİ KARARINA ETKİSİNDE
DESTİNASYONA GÜVENİN ARACILIK ETKİSİ: TERMAL TURİZM
SEKTÖRÜNDE BİR UYGULAMA**

MEDIATING EFFECT OF DESTINATION TRUST IN THE EFFECT OF DESTINATION
IMAGE ON REVISIT DECISION: AN APPLICATION IN THE THERMAL TOURISM
SECTOR

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ÖZET

Bu çalışmanın temel amacı, termal turistlerin destinasyon imajı algılarını, destinasyonu tekrar ziyaret karına yönelik algılarını ve destinasyona güven durumlarını değerlendirmek ve destinasyon imajının tekrar ziyareti kararına etkisinde destinasyona güvenin aracılık rolünü tespit etmektir. Araştırmanın evrenini Yalova ilinde faaliyet gösteren Sağlık Bakanlığı kaplıca işletme ruhsatlı termal tesisleri ziyaret eden turistler oluşturmuştur. Değerlendirmeye alınan ve verilerin analizinde kullanılan toplam anket sayısı 400'dür. Verilerin analizinde SPSS 23.0 ve AMOS paket programları kullanılmıştır. Veriler yüz yüze anket tekniği ile toplanmıştır. Verilere betimleyici analizler, farklılık analizleri ve yapısal eşitlik modellemesi (yol analizi) teknikleri uygulanmıştır. Genel güvenilirlik katsayısı Alfa= 0,923 olarak bulunmuştur. Bu değer $0,80 \leq \alpha < 1,00$ arasında olduğundan, ölçek yüksek derecede güvenilirdir. Geçerlilik ve güvenilirliğin sağlanması; termal turistlerin destinasyon imajı algıları, destinasyonu tekrar ziyaret karına yönelik algıları ve destinasyona güven durumları arasındaki yapısal ilişkinin varlığını göstermektedir. Araştırmanın bulguları, termal turistlerin büyük çoğunluğunun destinasyon imajı algılarının, destinasyonu tekrar ziyaret karına yönelik algılarının ve destinasyona güven durumlarının olumlu ve yüksek olduğunu ortaya koymuştur. Bunun yanı sıra destinasyona güvenin, destinasyon imajı ile tekrar ziyareti kararı arasındaki ilişkide önemli derecede dolaylı bir etkiye sahip olduğu ve tam bir arabuluculuk ettiği tespit edilmiştir. Bu araştırma, olumlu termal destinasyon imajı ve yüksek destinasyona güven yoluyla destinasyonu tekrar ziyaret kararını olumlu yönde artırdığını ortaya koymuştur.

Anahtar Kelimeler: Termal Turizm, Destinasyon İmajı, Tekrar Ziyareti Kararı, Destinasyona Güven

ABSTRACT

The main purpose of this study is to evaluate the destination image perceptions of thermal tourists, their perceptions of the destination revisit profit and their confidence in the destination, and to determine the mediating role of trust in the destination in the effect of the destination image on the decision to revisit. The universe of the research consisted of tourists visiting the thermal facilities licensed by the Ministry of Health operating in the province of Yalova. The total number of questionnaires that were evaluated and used in the analysis of the data is 400. SPSS 23.0 and AMOS package programs were used in the analysis of the data. Data were collected by face-to-face survey technique. Descriptive analysis, difference analysis and structural equation modeling (path analysis) techniques were applied to the data. The overall reliability coefficient was found to be Alpha= 0.923. Since this value is between $0.80 \leq \alpha <$

1.00, the scale is highly reliable. Ensuring validity and reliability; It shows the existence of a structural relationship between thermal tourists' perceptions of destination image, perceptions of destination revisit profit and their trust in the destination. The findings of the study revealed that the majority of thermal tourists have positive and high perceptions of destination image, perceptions of destination revisit profit, and their trust in the destination. In addition, it has been determined that trust in the destination has a significant indirect effect on the relationship between the destination image and the decision to revisit and it fully mediates. This research revealed that positive thermal destination image and high destination trust positively increase the decision to revisit the destination.

Keywords: Thermal Tourism, Destination Image, Revisit Decision, Destination Trust

İHRACAT, EKONOMİK ÖZGÜRLÜK VE KENTLEŞMENİN EKONOMİK BÜYÜME ÜZERİNDEKİ ETKİSİ: TÜRKİYE ARDL SINIR TESTİ ANALİZİ

THE IMPACT OF EXPORTS, ECONOMIC FREEDOM AND URBANIZATION ON ECONOMIC GROWTH: TURKEY ARDL BOUNDS TEST ANALYSIS

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ÖZET

Ülkelerin ekonomik büyümelerini etkileyen birçok unsur vardır. Bu çalışmada da 1995-2022 yıllarına ait yıllık veriler ile Türkiye'deki ihracat, ekonomik özgürlük ve kentleşme değişkenlerinin ekonomik büyüme üzerindeki etkisi ARDL eşbütünleşme analizi yardımıyla incelenmiştir. Çalışmada bağımsız değişken ekonomik büyüme, bağımsız değişkenler ise ihracat, ekonomik özgürlük endeksi ve kentleşme olarak belirlenmiştir. Öncelikle değişkenlerin durağanlık seviyeleri çok kullanılan birim kök testlerinden olan ADF ve PP testleri kullanılmış ve değişkenlerin tümü birinci farkta I(1) durağan hale geldiği görülmüştür. Daha sonra ise değişkenler arasındaki eşbütünleşme ilişkisinin varlığı ARDL sınır testi ile sınanmış ve değişkenler arasında uzun dönemde eşbütünleşme ilişkisinin varlığı tespit edilmiştir. Uzun dönem katsayı tahminlerinde ise, ihracat ve ekonomik özgürlük endeksi katsayısının anlamlı ve pozitif olduğu sonucuna ulaşılmıştır. Diğer taraftan kentleşme değişkeninin ise katsayısının negatif ve anlamsız olduğu sonucuna ulaşılmıştır. Çalışmanın bulgularına göre Türkiye'de sürdürülebilir ekonomik büyüme için ihracata ve ekonomik özgürlüklere daha çok önem verilmesi gerektiği görülmüştür. Ayrıca kentleşmenin, son yıllarda ülke ekonomisinde büyümenin dinamiği olmaktan çıktığı sonucuna varılmıştır.

Anahtar Kelimeler: İhracat, Ekonomik Özgürlük, Kentleşme, Ekonomik Büyüme

ABSTRACT

There are many factors affecting the economic growth of countries. In this study, the impact of exports, economic freedom and urbanization variables on economic growth in Turkey is examined with the help of ARDL cointegration analysis with annual data for the years 1995-2022. In the study, the independent variable is economic growth and the independent variables are exports, economic freedom index and urbanization. First of all, ADF and PP tests, which are widely used unit root tests, were used to determine the stationarity levels of the variables and it was observed that all variables became I(1) stationary at first difference. Then, the existence of cointegration relationship between the variables was tested with the ARDL bounds test and the existence of a long-run cointegration relationship between the variables was determined. In the long-run coefficient estimates, the coefficients of exports and the economic

freedom index are significant and positive. On the other hand, the coefficient of urbanization variable is negative and insignificant. Based on the study's results, Turkey's sustainable economic growth should prioritize exports and economic freedoms. Furthermore, it has been determined that urbanization is no longer the driving force behind the country's economic growth in recent times.

Keywords: Exports, Economic Freedom, Urbanization, Economic Growth

COMPARISON OF TRUNCATED AND NON-TRUNCATED MAX-PRODUCT TYPE OPERATORS

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ABSTRACT

In this study, we give a short comparison of truncated max-product type operators and non-truncated max-product type operators. This comparison will be useful for the properties of the max-product operators, which are nonlinear.

Keywords: Truncated Operators, Non- Truncated Operators, Comparison, Approximation.

**ŞİDDET SUÇLARINA GÖRE TÜRKİYE'DEKİ İLLERİN KIRPILMIŞ K-
ORTALAMALAR YÖNTEMİ İLE KÜMELENMESİ**

CLUSTERING OF PROVINCES IN TURKEY BY TRIMMED K-MEANS METHOD
ACCORDING TO VIOLENT CRİMES

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ÖZET

Herhangi bir toplumun değer sistemine karşı saldırı olarak tanımlanan suç; etkileri nüfusun çeşitli kesimleri arasında farklılık gösteren ve hemen hemen herkesi değişen derecelerde etkileyen bir olgudur. Çeşitli veri madenciliği tekniklerini kullanarak suç türlerine göre illerin mekansal dağılımının belirlenmesi ve bu bölgelerin coğrafi ve demografik özelliklerini araştırılması suçların önlenmesi ve suçlarla mücadele edilebilmesi için önemlidir. Suç konusu sürdürülebilir kalkınmanın sağlanması için de önem arz etmektedir. Birleşmiş Milletler (BM) ortakları Sürdürülebilir Kalkınma Amaçlarına ulaşılması için çalışmaktadırlar. Bu birbiri ile ilişkili 17 Amaçtan biri de Barış, Adalet ve Güçlü Kurumlardır. Bu amaç; sürdürülebilir kalkınma için barışçıl ve kapsayıcı toplumlar tesis etmek, herkes için adalete erişimi sağlamak ve her düzeyde etkili, hesap verebilir ve kapsayıcı kurumlar oluşturmak ile ilgilidir. Etnik kökenleri, inançları veya cinsel yönelimleri ne olursa olsun insanlar her yerde şiddetin her türünden korkmamalı ve hayatlarını sürdürürken kendilerini güvende hissetmelidir. Bu amaca yönelik olarak belirlenen hedeflerden biri de şiddetin tüm biçimlerinin ve şiddete bağlı ölüm oranlarının her yerde büyük ölçüde azaltılmasıdır. BM Türkiye de bu Amaçlara 2030 yılına kadar erişilmesi için desteğini sürdürmektedir.

Mevcut çalışmada, Türkiye'de, şiddet suçlarına göre benzer illerin belirlenmesi amaçlanmıştır. Bu bağlamda, Türkiye İstatistik Kurumu'nun (TÜİK) yayınlamış olduğu veriler kullanılmıştır. İlgili veride öldürme, yaralama, cinsel suçlar, kişiyi hürriyetinden yoksun kılma ve yağma (gasp) olmak üzere toplamda 5 suç türü mevcuttur. Ayrıca veride, TÜİK'in belirlediği Türkiye İstatistik Bölge Birimleri Sınıflandırması Düzey 3 (iller) yer almaktadır. Benzer illerin belirlenmesi için kümeleme yöntemlerinden aykırı gözlemlere karşı dayanıklı olan k kırpılmış ortalamalar kullanılmıştır. Bu yöntem, RStudio'da uygulanmıştır. K-kırpılmış ortalamalar analiz sonucuna göre küme sayısı 3 olarak belirlenmiş ve sırasıyla kümelerde 34, 28 ve 18 il yer almıştır. Şırnak aykırı gözlem olarak belirlenmiştir.

Anahtar Kelimeler: Şiddet Suçları, Kümeleme analizi, K kırpılmış ortalamalar

ABSTRACT

Crime defined as an attack against the value system of any society; It is a phenomenon whose effects differ between various segments of the population and affect almost everyone to varying degrees. Using various data mining techniques, it is important to determine the spatial distribution of provinces according to crime types and to investigate the geographical and demographic characteristics of these regions in order to prevent crimes and to combat against crimes. The issue of crime is also important for ensuring sustainable development. United Nations (UN) partners work to achieve the Sustainable Development Goals. One of these 17 interrelated Goals is Peace, Justice and Strong Institutions. This purpose; It is about promoting peaceful and inclusive societies, providing access to justice for all and building effective, accountable and inclusive institutions at all levels for sustainable development. People everywhere should not fear all forms of violence and should feel safe in their lives whatever their ethnicity, faith or sexual orientation. One of the goals set for this purpose is to significantly reduce all forms of violence and related death rates everywhere. UN Turkey continues its support to achieve these Goals by 2030.

In the present study, it was aimed to identify similar provinces in Turkey according to the violent crimes. In this context, the data published by the Turkish Statistical Institute (TUIK) were used. In the relevant data, there are 5 types of crimes in total, including homicide, assault, sexual crimes, kidnapping and robbery. In addition, the data includes the Turkish Statistical Regional Units Classification Level 3 (provinces) determined by TURKSTAT. In order to identify similar provinces, trimmed k -means which is robust to outlier observations, was used from clustering methods. This method has been implemented in RStudio. The number of clusters was determined as 3 according to the result of the trimmed k -means analysis and 34, 28 and 18 provinces were included in the clusters, respectively. Şırnak was determined as outlier observation.

Keywords: Violent Crimes, Cluster Analysis, Trimmed k-means

**VERGİ GELİRLERİ, KAMU HARCAMALARI VE EKONOMİK BÜYÜME
ARASINDAKİ İLİŞKİ: TÜRKİYE ÖRNEĞİ**

THE RELATIONSHIP BETWEEN TAX REVENUES, PUBLIC EXPENDITURES AND
ECONOMIC GROWTH: THE CASE OF TURKEY

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ÖZET

Kamu harcamaları ile vergi gelirleri arasındaki ilişki etkin maliye politikalarının uygulanması noktasında önem taşımaktadır. Özellikle değişkenler arasındaki ilişki bütçe açıklarının giderilmesi için önem taşımakta ve politika yapıcılar açısından yol gösterici olmaktadır. Kamu harcamaları ile vergi gelirleri ilişkisinin ampirik birçok çalışmada incelendiği ve ilişkinin yönünün farklı hipotezler ile açıklandığı görülmektedir. Bu hipotezler ışığında bu çalışmada 2006:Q1 ve 2022:Q2 dönemleri arası Türkiye ekonomisi için vergi gelirleri, kamu harcamaları ve ekonomik büyüme arasındaki ilişki incelenmektedir. Bu amaçla TUIK veri tabanından dolaylı vergiler, dolaysız vergiler ve kamu harcamaları verileri elde edilmiştir. Bunun yanı sıra kontrol değişken olması amacı ile çalışmaya GSYH verisi de eklenmiştir. Ayrıca çalışmada kullanılan verilerin reel dönüşümünü gerçekleştirmek için IMF veri tabanından elde edilen GSYH deflatörü kullanılmıştır. Çalışmada kullanılan verilerden tutarlı sonuçlar elde etmek amacı ile birim kök sınaması yapılmıştır. Verilerin tümünün birinci farkında durağan oldukları belirlenmiştir. Bu nedenle çalışmada veriler arasında eşbütünleşik ilişkiyi araştırmak için Johansen eşbütünleşme testi ve hata düzeltme modelinden faydalanılmıştır. Ayrıca veriler arasındaki nedenselliği belirlemek üzere Granger nedensellik testi kullanılmıştır. Çalışmadan elde edilen bulgulara göre kamu harcamaları ve GSYH'dan dolaylı vergilere doğru bir ilişki tespit edilmiştir. Granger nedensellik testi sonucuna bakıldığında kamu harcamalarından ve GSYH'dan hem dolaylı hem de dolaysız vergilere doğru bir nedensellik ilişkisi belirlenmiştir.

Anahtar Kelimeler: Kamu Harcamaları, Vergi Gelirleri, Ekonomik Büyüme, Eşbütünleşme Testi, Granger Nedensellik Testi

ABSTRACT

The relationship between public expenditures and tax revenues is important for the implementation of effective fiscal policies. In particular, the relationship between the variables is important for eliminating budget deficits and provides guidance for policy makers. The relationship between public expenditures and tax revenues has been analyzed in many empirical studies and the direction of the relationship has been explained by different hypotheses. In light of these hypotheses, this study examines the relationship between tax revenues, public expenditures and economic growth for the Turkish economy between 2006:Q1 and 2022:Q2. For this purpose, data on indirect taxes, direct taxes and public expenditures are obtained from TUIK database. In addition, GDP data is also included in the study as a control variable. In addition, the GDP deflator obtained from the IMF database was used to realize the real conversion of the data used in the study. In order to obtain consistent results from the data used in the study, a unit root test was conducted. All of the data were found to be stationary in the first difference. Therefore, Johansen cointegration test and error correction model were used to investigate the cointegrated relationship between the data. In addition, Granger causality test was used to determine the causality between the data. According to the findings of the study, there is a relationship from public expenditures and GDP to indirect taxes. When the Granger causality test result is analyzed, a causality relationship was determined from public expenditures and GDP to both direct and indirect taxes.

Keywords: Public Expenditures, Tax Revenues, Economic Growth, Cointegration Test, Granger Causality Test