

# **11<sup>th</sup> International EUROPEAN CONFERENCE on Interdisciplinary Scientific Research**

January 20-22, 2025 / Lisbon, Portugal  
Online & in Person



## **ABSTRACT BOOK**

**Editor**  
**Assoc. Prof. Dr. Mehmet Emin KALGI**

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# **XI-INTERNATIONAL EUROPEAN CONFERENCE ON INTERDISCIPLINARY SCIENTIFIC RESEARCH**

January 20-22, 2025/Lisbon, Portugal

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**Assoc. Prof. Dr. Mehmet Emin KALGI**

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adopted by Mariam Rasulan

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# CONFERENCE ID

## CONFERENCE TITLE

11<sup>th</sup> INTERNATIONAL EUROPEAN CONFERENCE ON INTERDISCIPLINARY SCIENTIFIC RESEARCH

## DATE and PLACE

January 20-22, 2025 / Lisbon, Portugal

## ORGANIZATION

IKSAD- INSTITUTE OF ECONOMIC DEVELOPMENT AND SOCIAL RESEARCHES

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# 11<sup>th</sup> International European Conference on Interdisciplinary Scientific Research

January 20-22, 2025 / Lisbon, Portugal

## CONFERENCE PROGRAM

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Zoom Passcode: 112233

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# ONLINE PRESENTATIONS

## 20.01.2025 / HALL-1, SESSION-1



LISBON LOCAL TIME

08 00 : 10 00



ANKARA LOCAL TIME

11 00 : 13 00

**HEAD OF SESSION: Prof. Dr. Korkmaz BELLİTÜRK**

AUTHORS	AFFILIATION	TOPIC TITLE
Dr. Raziye BOZKURT	RB Geotechnical Soil Project Office (TÜRKİYE)	EXAMINING THE LIQUEFACTION POTENTIAL OF A REGION WITH KNOWN SOIL PARAMETERS; AKSARAY, EREĞLİKAPI EXAMPLE
Dr. Raziye BOZKURT	RB Geotechnical Soil Project Office (TÜRKİYE)	INVESTIGATION OF SEISMICITY WITH EQUIVALENT LINEAR ANALYSIS METHOD FOR A REGION IN AKSARAY CITY OF TURKEY
Dr. Yusuf SOLMAZ Prof. Dr. Korkmaz BELLİTÜRK	Tekirdağ Namık Kemal University (TÜRKİYE)	EFFECT OF VERMICOMPOST APPLICATION ON SOIL HEALTH IN SUSTAINABLE AGRICULTURE
Chakan CHALİL Dr. Yusuf SOLMAZ Prof. Dr. Korkmaz BELLİTÜRK	Tekirdağ Namık Kemal University (TÜRKİYE)	DETERMINATION OF NUTRITION STATUS OF OLIVE (Olea europaea L.) ORCHARDS IN GÜMÜLCİNE (GREECE) BY MEANS OF LEAF ANALYSIS
Şeyma ÖZDEMİR ÜNAL Prof. Dr. Seda ERSUS	Ege University (TÜRKİYE)	EFFECTS OF DRYING ON PESTICIDE RESIDUES IN STRAWBERRIES

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# ONLINE PRESENTATIONS

## 20.01.2025 / HALL-2, SESSION-1



LISBON LOCAL TIME

08 00 : 10 00



ANKARA LOCAL TIME

11 00 : 13 00

**HEAD OF SESSION: Prof. Dr. Osman BAYRAKTUTAN**

AUTHORS	AFFILIATION	TOPIC TITLE
Ali ALMUSAWI Shvan Tahir NASRALDEEN Hussein H NORRI	Çankaya University (TÜRKİYE) Çankaya University (TÜRKİYE) MSc in Civil Engineer (IRAQ)	A STUDY ON TEMPERATURE-DEPENDENT RHEOLOGICAL BEHAVIOR OF MODIFIED BITUMEN
Esra ÇİÇEK (KÖKÜM)	Bursa Technical University (TÜRKİYE)	THE SOCIOPOLITICAL EFFECT SOF THE SYRIAN MIGRATION IN TURKEY: CHALLENGES, POLICIES, AND FUTURE PERSPECTIVES
Rümeysa Betül Gündüz Bauyrzhan Zhumadilla	Sakarya University (TÜRKİYE)	TÜRKİYE'S IMPACT ON THE CAREER LIFE OF INTERNATIONAL GRADUATES EDUCATED IN TÜRKİYE
Prof. Dr. Osman BAYRAKTUTAN Assoc. Prof. Dr. Mehmet Emin KALGI	Atatürk University (TÜRKİYE) Ardahan University (TÜRKİYE)	ALI DURMUŞ, "AN AKHISAR SCHOLAR IN THE OTTOMAN EMPIRE: AHMED-I RÛMÎ AND THE TREATISE OF CREED", IKSAD PUBLISHING, ANKARA: 2022, PP. 128.
Prof. Dr. Osman BAYRAKTUTAN Assoc. Prof. Dr. Mehmet Emin KALGI	Atatürk University (TÜRKİYE) Ardahan University (TÜRKİYE)	MEHMET ÖZMENLİ, STATE AND CIVIL ORGANIZATIONS AMONG THE TURKS, IKSAD PUBLISHING HOUSE, ANKARA: 2023, PP. 184
Dr. Erman IŞIK	ENGLAND	VISUAL PROPAGANDA AND THE BRITISH ARMY: FORM AND CONTENT ANALYSIS OF "YOU BELONG HERE" CAMPAIGN VIDEOS AND POSTERS
İrem Seymen	Bursa Technical University (TÜRKİYE)	SOCIAL AND POLITICAL EFFECTS OF SOCIAL MEDIA
Assist. Prof. Dr. Reşat Ahmet AĞAOĞLU	Ardahan University (TÜRKİYE)	ETHNIC NEUTRALITY WITHIN THE SCOPE OF PROPHET MUHAMMAD'S EMPLOYMENT PRINCIPLES
Assist. Prof. Dr. Adnan Akalın	Gaziantep İslam Science And Technology University (TÜRKİYE)	THE INFLUENCE OF THE SPECIFIC MANIFESTATIONS OF THE CRIME OF REBELLION ON PUNISHMENT IN ISLAMIC LAW

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# ONLINE PRESENTATIONS

## 20.01.2025 / HALL-3, SESSION-1



LISBON LOCAL TIME

08 00 : 10 00



ANKARA LOCAL TIME

11 00 : 13 00

**HEAD OF SESSION: Assoc. Prof. Dr. Şahika ŞİMŞEK ÇETİNKAYA**

AUTHORS	AFFILIATION	TOPIC TITLE
Assoc. Prof. Dr. Şahika ŞİMŞEK ÇETİNKAYA	Kastamonu University (TÜRKİYE)	VAGINAL BIRTH AFTER CESAREAN SECTION: REVIEW OF TRENDS, RISKS, AND OUTCOMES
Dr. Ayşe ARICIOĞLU SÜLÜN Ömercan SARAÇOĞLU Rabia KARA	Siirt University (TÜRKİYE)	THE EFFECT OF FOCUSING ON POSITIVE OR NEGATIVE ON SMART PHONE ADDICTION AND SOCIAL MEDIA USAGE IN HIGH SCHOOL STUDENTS
Dr. Ayşe ARICIOĞLU SÜLÜN Yusuf KOLDAŞ	Siirt University (TÜRKİYE)	DETERMINATION OF PARENTAL PERCEPTIONS AND RELATED FACTORS ABOUT CHILDREN'S EXPOSURE TO CIGARETTE SMOKE: THE CASE OF SOUTHEASTERN ANATOLIA REGION
Eda YILDIZHAN Dr. Mazlum GÜNDÜZ Prof. Dr. Burak Veli ÜLGER Dr. Şehriban DURSUN DAĞ	Dicle University (TÜRKİYE)	ADENOMATOUS POLYPS IN THE LARGE INTESTINE: CASE REPORT
Eda YILDIZHAN Dr. Mazlum GÜNDÜZ Prof. Dr. Burak Veli ÜLGER Dr. Şehriban DURSUN DAĞ	Dicle University (TÜRKİYE)	THE IMPORTANCE OF BIOPSY IN GASTRIC POLYPS WITH ENDOSCOPIC IMAGING
Dr. Mehtiyeva Shahla Namig Qasimova Gulnara Nisan Dr. Heybatova Milana Faig Dr. Karimova Rena Jabbar	Azerbaijan Medical University (AZARBAIJAN)	CLINIC, DIAGNOSIS AND TREATMEN OF MYASTHENIC SYNDROME
Guliyeva Tamara Sayad	Azerbaijan Medical University (AZARBAIJAN)	CLINICAL AND PATHOLOGICAL FEATURES OF SOFT TISSUE SARCOMAS

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# ONLINE PRESENTATIONS

## 20.01.2025 / HALL-4, SESSION-1



LISBON LOCAL TIME

08<sup>00</sup> : 10<sup>00</sup>



ANKARA LOCAL TIME

11<sup>00</sup> : 13<sup>00</sup>

**HEAD OF SESSION: Assoc. Prof. Dr. Zeynep BIYIK**

AUTHORS	AFFILIATION	TOPIC TITLE
Uğur KAPLANKAYA Erhan ÖNALAN	Firat University (TÜRKİYE)	THE ROLE OF SERUM TRIMETHYLAMINE N-OXIDE AND LIPOPOLYSACCHARIDE LEVELS IN THE PATHOGENESIS OF THE DISEASE IN PATIENTS WITH CHRONIC GASTRITIS INFECTED WITH H. PYLORI PROSPECTIVE STUDY ANALYSIS
Assist. Prof. Dr. Nevzat Birand Assist. Prof. Dr. Ahmet Sami Boşnak	Cyprus International University (TURKISH REPUBLIC OF NORTHERN CYPRUS)	EVALUATION OF PHARMACY STUDENTS' KNOWLEDGE ABOUT PROSTATE CANCER AND OVARIAN CANCER IN NORTHERN CYPRUS
Assoc. Prof. Dr. Zeynep BIYIK	Selcuk University (TÜRKİYE)	PROGNOSTIC NUTRITIONAL INDEX AND RELATED FACTORS IN PATIENTS WITH SEPSIS
Necibe Şeyda TUNALI Assist. Prof. Dr. Hamide AYGÖR	Necmettin Erbakan University (TÜRKİYE)	EVAULATION OF THE PREGNANT WOMAN WITH GESTATIONAL DIABETES ACCORDING TO THE ROY ADAPTATION MODEL; CASE REPORT
Dyt. Sena GÜNEŞ Dr. Serap DEMİR FİLİZ	Izmir Tinaztepe University (TÜRKİYE)	POTENTIAL EFFECTS OF QUERCETIN ON GUT MICROBIOTA: A REVIEW
Salehova Günay Bakshaliyev Şiraslan Alkhasova Arzu Memmedzade Samire	Scientific Research Institute of Pediatrics named after K. Farajova (AZARBAIJAN) Liv Bona Dea Hospital (AZARBAIJAN)	A RARE CAUSE OF RESPIRATORY DISTRESS IN CHILDREN-PULMONARY ARTERY SLING

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# ONLINE PRESENTATIONS

## 20.01.2025 / HALL-5, SESSION-1



LISBON LOCAL TIME

08<sup>00</sup> : 10<sup>00</sup>



ANKARA LOCAL TIME

11<sup>00</sup> : 13<sup>00</sup>

### HEAD OF SESSION: Jamal Zrinej

AUTHORS	AFFILIATION	TOPIC TITLE
Sunatrah Abdullahyi Ts. Leong Kok Seng Dr. Azmi Ahmad	Politeknik Tun Syed Nasir Syed Ismail (MALAYSIA)	EXPLOITING BIOLOGICAL AGENTS AND SYSTEMIC DELIVERY MECHANISMS FOR ENHANCED AND SUSTAINABLE PEST MANAGEMENT IN AGRICULTURE
Leong Kok Seng Sunatrah Binti Abdullahyi Azmi Bin Ahmad	Politeknik Tun Syed Nasir Syed Ismail (MALAYSIA)	A NOVEL PBI-BASED COMPOSITE MEMBRANE WITH SILICON DIOXIDE NANOPARTICLES FOR HIGH-TEMPERATURE PEMFC
Mohammed Zizi Dr. Anas Chafi Dr. Mohammed El Hammoui	Sidi Mohamed Ben Abdellah University (MOROCCO)	ROUTE OPTIMIZATION TECHNOLOGY: A REVIEW OF METHODS, APPLICATIONS, AND FUTURE DIRECTIONS
Ilham AIT BRAIM Dr. Abdellah ZEROUAL Dr. Ahmed CHEKROUN Dr. Ahmed BENHARREF	Cadi Ayyad University (MOROCCO)	SYNTHESIS, MOLECULAR DOCKING, ADME INVESTIGATION AND THEORETICAL STUDY OF STEREOSELECTIVITY OF [1+2] CYCLOADDITION REACTIONS OF THE EPOXIDE OF B-HIMACHALENE WITH DICHLOROCARBENE AND DIBROMOCARBENE
Dr. Hakima LAGRINI Fouad BENTISS Jama CHARAFEDDINE Abdelaziz SAHIBED-DINE	Chouaib Doukkali University (MOROCCO) University of Lille (FRANCE)	SYNTHESIS OF MESOPOROUS TITANIUM DIOXIDE BY THE CLASSICAL SOL-GEL METHOD (TIO <sub>2</sub> -C) AND BIOPOLYMER ROUTE (TIO <sub>2</sub> -BP) DOPED WITH SILVER (AG) VIA THE WET IMPREGNATION METHOD
Khadija El idrissi Abdellah Zeroual Hocine Garmes	University Chouaib Doukkali (MOROCCO)	THE ROLE OF BF <sub>3</sub> CATALYST IN CYCLOPENTA-1,3-DIENE CYCLOADDITION WITH FLUORESCENT ENONES: A THEORETICAL APPROACH
Ilirjana Osmani Aurel Nuro Arben Haziri	University of Pristina "Hasan Prishtina" (ALBANIA) University of Tirana (ALBANIA)	EVALUATION OF WATER QUALITY OF BATLLAVA LAKE, KOSOVO
Jamal Zrinej Mohamed Ouabane Dr. Mohammed Bouachrine	University Moulay Ismail (MOROCCO)	POTENTIAL TUBULIN POLYMERIZATION INHIBITORS IN MCF-7 CELLS AGAINST BREAST CANCER: A COMPUTATIONAL APPROACH

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## 20.01.2025 / HALL-1, SESSION-2



LISBON LOCAL TIME

10<sup>30</sup> : 12<sup>30</sup>



ANKARA LOCAL TIME

13<sup>30</sup> : 15<sup>30</sup>

### HEAD OF SESSION: Dr. Gülçin Baysal

AUTHORS	AFFILIATION	TOPIC TITLE
Dr. Gülçin Baysal	Eskisehir Technical University (TÜRKİYE)	CONDUCTIVE COMPOSITE HYDROGELS FOR WERABLE TEXTILE APPLICATIONS
Assoc. Prof. Dr. Busra OZDENIZCI KOSE Ferhat ÜNLÜKAL Prof. Dr. Vedat COSKUN	Gebze Technical University (TÜRKİYE) Token Financial Technologies (TÜRKİYE) Istanbul Atlas University (TÜRKİYE)	AN INTEGRATED MOBILE SOLUTION FOR OPTIMIZING SME FINANCIAL MANAGEMENT AND TAX COMPLIANCE
Assoc. Prof. Dr. Busra OZDENIZCI KOSE Selçuk YOLCU Prof. Dr. Vedat COSKUN	Gebze Technical University (TÜRKİYE) Token Financial Technologies (TÜRKİYE) Istanbul Atlas University (TÜRKİYE)	DESIGN OF A SELF-SERVICE FUEL DISPENSING SYSTEM FOR ENHANCING OPERATIONAL EFFICIENCY AND CUSTOMER EXPERIENCE
Dr. Ceyda KÖK	Iskenderun Technical University (TÜRKİYE)	INVESTIGATION OF THE EFFECT OF DIFFERENT DRIVETRAIN TYPES ON VEHICLE PERFORMANCE IN FUEL CELL VEHICLES
Assist. Prof. Dr. Habip SAHIN	Firat University (TÜRKİYE)	ANALYSIS OF ADVANCED ELECTRIC MACHINES FOR ELECTRIC VEHICLES
Engin Arif YILMAZTÜRK Tolga BÜYÜKTANIR	AGRA Fintech Software Solution (TÜRKİYE) Yıldız Technial University (TÜRKİYE)	DYNAMIC, MODULAR, ADVANCED SOFTWARE DEVELOPMENT PLATFORM - WILABS
Dr. Rabia BOVKIR	Hacettepe University (TÜRKİYE)	URBAN DYNAMICS AND CLIMATE NEUTRALITY: GIS INSIGHTS FOR SUSTAINABLE URBAN MANAGEMENT IN ISTANBUL
Assoc. Prof. Dr. Adem YILMAZ	Kastamonu University (TÜRKİYE)	THE IMPACT OF CREATIVE ARTIFICIAL INTELLIGENCE APPLICATIONS ON PRE-SERVICE TEACHERS' PROJECT WRITING SKILLS
Assoc. Prof. Dr. Adem YILMAZ	Kastamonu University (TÜRKİYE)	THE ROLE OF LEARNING ENGINEERING IN SCIENCE EDUCATION AND CONSTRUCTING NEXT-GENERATION LEARNING

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# ONLINE PRESENTATIONS

## 20.01.2025 / HALL-2, SESSION-2



LISBON LOCAL TIME

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13<sup>30</sup> : 15<sup>30</sup>

**HEAD OF SESSION: Prof. Dr. Muhittin ELİAÇIK**

AUTHORS	AFFILIATION	TOPIC TITLE
Assist. Prof. Dr. Taha YILMAZ Assoc. Prof. Dr. Mehmet Emin KALGI	Ardahan University (TÜRKİYE) Ardahan University (TÜRKİYE)	RELIGIOUS TEXTS BASED ON DAMAL ALEVIS IN THEIR RELIGIOUS RITUALS
Assist. Prof. Dr. Taha YILMAZ Assoc. Prof. Dr. Mehmet Emin KALGI	Ardahan University (TÜRKİYE) Ardahan University (TÜRKİYE)	ADAP-ERKAN APPLIED IN RELIGIOUS RITUALS IN DAMAL ALEVIS
Prof. Dr. Muhittin ELİAÇIK	Kirikkale University (TÜRKİYE)	POEMS ABOUT COFFEE IN DIVAN POETRY
Prof. Dr. Muhittin ELİAÇIK	Kirikkale University (TÜRKİYE)	A BETTING ABOUT THE POETRY SUBJECT TO THE FATWA
Assoc. Prof. Dr. Asmetkhanım MAMMADOVA	Baku State University (AZARBAIJAN)	HOMOPHONS FORMED ACCORDING TO THE GRAPHICS IN THE PERSIAN DIVAN OF MUHAMMAD FUZULİ
Fidan NASİROVA	Azerbaijan National Academy of Sciences (AZARBAIJAN)	CHILDREN'S LITERATURE AS AN IMPORTANT MEANS OF EDUCATION
Assoc. Prof. Dr. Ramida Mirzafarova Natiq	Slavic University (AZARBAIJAN)	WOMEN'S ISSUES IN 20-TH CENTURY WORLD LITERATURE

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# ONLINE PRESENTATIONS

## 20.01.2025 / HALL-3, SESSION-2



LISBON LOCAL TIME

10<sup>30</sup> : 12<sup>30</sup>



ANKARA LOCAL TIME

13<sup>30</sup> : 15<sup>30</sup>

**HEAD OF SESSION: Dr. Murat AYDIN**

AUTHORS	AFFILIATION	TOPIC TITLE
Hilal AKÇİL Assoc. Prof. Dr. Gökhan Rıfat KOÇYİĞİT	Mimar Sinan Fine Arts University (TÜRKİYE)	ANALYSIS OF IMPLEMENTATION RATES OF ARCHITECTURAL PROJECT COMPETITIONS IN TURKEY BETWEEN 1930 AND 2024
Fatma BEBEKLİ Assist. Prof. Dr. Fatma Seda ÇARDAK	Alparslan Türkeş Science and Technology University (TÜRKİYE)	AN EXAMINATION OF THE CULTURAL AND URBAN TRANSFORMATION PROCESS OF INDUSTRIAL AREAS IN HISTORICAL ENVIRONMENTS: THE ZECHE ZOLLVEREIN INDUSTRIAL COMPLEX
Res. Assist. Fatma Zeynep KIZILTAŞ Assoc. Prof. Dr. Rıfat Gökhan KOÇYİĞİT	İstanbul Esenyurt University (TÜRKİYE) Mimar Sinan Fine Arts University (TÜRKİYE)	THE PROBLEM OF POLYSEMY IN THE CONCEPT OF IN-BETWEEN SPACE
Sena ARSAKAY Assist. Prof. Dr. Fatma Seda ÇARDAK	Adana Alparslan Türkeş Science and Technology University (TÜRKİYE)	THE BRANDING OF RE-PURPOSED SPACES AND ITS IMPACT ON THE SPACE-USER RELATIONSHIP: THE CASE OF THE ADANA CINEMA MUSEUM
Can KALINSAZLIOĞLU Assoc. Prof. Dr. Gökhan Rıfat KOÇYİĞİT	Mimar Sinan Fine Arts University (TÜRKİYE)	ANALYZING THE CONDITIONS OF SPATIAL PRODUCTION IN TURKEY THROUGH PIERRE BOURDIEU'S FIELD THEORY
Dr. Murat AYDIN	Ankara University (TÜRKİYE)	AN OVERVIEW OF THE ISO 50001 (ENERGY MANAGEMENT) AND ITS INTEGRATION INTO ARCHITECTURE, ENGINEERING, AND CONSTRUCTION PROJECTS
Dr. Murat AYDIN	Ankara University (TÜRKİYE)	AN OVERVIEW OF THE ISO 31000 (RISK MANAGEMENT) AND ITS INTEGRATION INTO ARCHITECTURE, ENGINEERING, AND CONSTRUCTION PROJECTS

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# ONLINE PRESENTATIONS

## 20.01.2025 / HALL-4, SESSION-2



LISBON LOCAL TIME

10<sup>30</sup> : 12<sup>30</sup>



ANKARA LOCAL TIME

13<sup>30</sup> : 15<sup>30</sup>

**HEAD OF SESSION: Dr. Denada Lacej**

AUTHORS	AFFILIATION	TOPIC TITLE
Eno Gaçe Elona Kongo Manola Kelmendi	Albanian University (ALBANIA) Medical State University (ALBANIA)	ORAL HYGIENE AND PERIODONTAL STATUS AT CHILDREN WITH DISABILITY LIVING IN ALBANIA
Dr. Denada Lacej Dr. Andi Koraqi	Tirana University (ALBANIA)	ZOONOTIC RESISTANT BACTERIA
Dr. Herion Dredha Dr. Rezart Xhani	Tirana University (ALBANIA)	PALLIATIVE CARE IN BLADDER CANCER
Dr. Bashkim Nezaj Dr. Gjeorgjina Kuli-Lito	Tirana University (ALBANIA)	GRAM-POSITIVE COCCI INVASIVE INFECTIONS IN CHILDREN
Dr. Blerim Arapi Dr. Krenar Lila	Tirana University (ALBANIA)	STRATEGIES FOR MANAGING HYPOXEMIC RESPIRATORY FAILURE AND ARDS
Dr. Marsela Sopiqoti Dr. Henri Kolani	Tirana University (ALBANIA)	TIMELY INTERVENTION IN RUPTURED ABDOMINAL AORTIC ANEURYSM
Erion SUKAJ	Western Balkans University (ALBANIA)	ZINC OXIDE NANOPARTICLES - ERYTHROCYTE INTERACTION: CONCENTRATION-DEPENDENT ZNONPS TOXICITY IN HUMAN ERYTHROCYTES
Kaouthar ELBIRGUI Oussama RAFIK Samir IBENMOUSSA	Laboratory of Chemistry and Biochemistry Hassan II University (MOROCCO)	EXPLORING THE PHARMACOLOGICAL POTENTIAL OF EBENUS PINNATA AITON : PHYTOCHEMICAL ANALYSIS AND BIOLOGICAL ACTIVITIES

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# ONLINE PRESENTATIONS

## 20.01.2025 / HALL-5, SESSION-2



LISBON LOCAL TIME



10<sup>30</sup> : 12<sup>30</sup>



ANKARA LOCAL TIME



13<sup>30</sup> : 15<sup>30</sup>

**HEAD OF SESSION: Assist. Prof. Dr. Ping Yu**

AUTHORS	AFFILIATION	TOPIC TITLE
Zahra Jabeen Khushboo Mishra Prof. Dr. Binay Kumar Mishra	Veer Kunwar Singh University (INDIA)	RESEARCH, TECHNIQUES, AND FUTURE PROSPECTS OF UTILISING AI TO ASCERTAIN MALWARE
Midun THANGAVEL Dr. Gandhimathi AMIRTHALINGAM Samreen SHAHWAR	Dr. Mahalingam College of Engineering and Technology (INDIA) King Khalid University (SAUDI ARABIA) Bharatiya Engineering Science & Technology Innovation University (INDIA)	AI-POWERED SUPPLY CHAIN OPTIMIZATION: A CASE STUDY APPROACH
Sanaa ABOURUB Hakim KBAB Anis TCHERAK	Université de Blida1 (ALGERIA)	ANALYTICAL CHARACTERIZATION OF PARAMETERS GOVERNING THRUST VECTURING IN SUPERSONIC NOZZLE CONFIGURATIONS
Vincentius SANTOSA	Singapore University of Technology and Design (SINGAPORE)	A PARAMETRIC ANALYSIS OF FRACTAL GEOMETRY IN THE FORM-FINDING OF TENSILE STRUCTURES
Hadjer Benfatma Dr. Houari Khoudmi Dr. Bessedik Boubaker	University Of Hassiba Ben Bouali Chlef (ALGERIA)	ADVANCED POWER MANAGEMENT IN DC MICROGRID PHOTOVOLTAIC SYSTEMS USING HYBRID ENERGY STORAGE AND OPTIMIZED PID CONTROL
Assist. Prof. Dr. Ping Yu	Chinese Culture University (TAIWAN)	THE WEAKNESSES OF SALEM AL.'S AUTHENTICATION AND KEY AGREEMENT SCHEME FOR SECURING MULTI-SERVER
Albina BASHOLLI Prof. Assc. Teuta BUDLLA (MYFTIU)	Polytechnic University of Tirana (ALBANIA)	GEOGEBRA'S ABILITY TO INTEGRATE ALGEBRA WITH GEOMETRY
Lect. Anamika Raj Shahid Hussain	King Khalid University (SAUDI ARABIA)	APPLICATIONS OF MACHINE LEARNING IN BIOINFORMATICS: PREDICTIVE MODELS FOR GENOMIC DATA ANALYSIS AND PERSONALIZED HEALTHCARE

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# ONLINE PRESENTATIONS

## 20.01.2025 / HALL-1, SESSION-3



LISBON LOCAL TIME



13 00 : 15 00



ANKARA LOCAL TIME



16 00 : 18 00

**HEAD OF SESSION: Assoc. Prof. Dr. Shamo TAPDIQOV**

AUTHORS	AFFILIATION	TOPIC TITLE
Nigar Ahmedova Gulnar Atakishiyeva Sevinç Muhtarova Assoc. Prof. Dr. Shukufa Eyvazova Assoc. Prof. Dr. Naila Veysova Prof. Dr. Namiq Shikhaliyev	Baku State University (AZARBAIJAN) Azerbaijan Technical University (AZARBAIJAN)	REACTION OF BIS-(3-BROMOPHENYL) HYDRAZONE WITH POLYHALOGENMETHANES
Nigar Ahmedova Gulnar Atakishiyeva Sevinç Muhtarova Assoc. Prof. Dr. Sima Musayeva Assoc. Prof. Dr. Ilhama Hamdullayeva Nurana Gurbanova	Baku State University (AZARBAIJAN) Azerbaijan Technical University (AZARBAIJAN)	HIRSHFIELD SURFACE ANALYSIS OF BIS{4-[(E)-(2,2-DICHLORO-1-(4-NITROPHENYL)VINYL)DIAZENYL]PHENYL}METHANE
Assoc. Prof. Dr. Shamo TAPDIQOV Academician Prof. Dr. Dilgam TAGHIYEV	SOCAR Oilgasresearchproject Institute (AZARBAIJAN) Azerbaijan Republic Ministry Science and Education (AZARBAIJAN)	IMMOBILIZATION OF DOXORUBICIN ONTO POLY-ε-CAPROLACTONE BASED CARRIER AND APPLY KINETIC MODEL FOR RELEASE
Dr. Kadriye Filiz BALBAL	Dokuz Eylül University (TÜRKİYE)	CUSTOMER SATISFACTION CLASSIFICATION USING ENSEMBLE LEARNING ALGORITHMS BASED ON RECURSIVE FEATURE ELIMINATION
Cansu ALTIN-GÖLEN Rukiye MAVUŞ	Gemak Food Industry Machinery and Trade Inc. (TÜRKİYE)	ETHANOL PRODUCTION FROM WHEY WITH PERVAPORATION MEMBRANE TECHNOLOGIES
Cansu ALTIN-GÖLEN Ceren İlayda ÖZAN Cemre ÇELİKTEN Rukiye MAVUŞ	Gemak Food Industry Machinery and Trade Inc. (TÜRKİYE)	DESIGN AND PROTOTYPE MANUFACTURING OF LACTOSE-FREE MILK PRODUCTION LINE USING HYBRID MEMBRANE TECHNIQUES

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# ONLINE PRESENTATIONS

## 20.01.2025 / HALL-2, SESSION-3



LISBON LOCAL TIME

13 00 : 15 00



ANKARA LOCAL TIME

16 00 : 18 00

### HEAD OF SESSION: Dr. Neslihan DERELİ

AUTHORS	AFFILIATION	TOPIC TITLE
Şeyma BOZOĞULLARI	Uludağ University (TÜRKİYE)	A STUDY ON THE ATTITUDES OF INDIVIDUALS WITH INTEREST SENSITIVITY TOWARDS THEIR PURCHASING BEHAVIOR
Ayşenur SERT	Balıkesir University (TÜRKİYE)	CONSUMER BEHAVIOR FROM A BEHAVIORAL ECONOMICS PERSPECTIVE
Ulvu Novruzov	Ministry of Science and Education (AZARBAIJAN)	STRATEGIC MANAGEMENT IN HIGHER EDUCATION INSTITUTIONS: ADAPTATION TO GLOBAL RANKING SYSTEMS
İbrahim Alperen BİLEN Assist. Prof. Dr. Özge ERDURAN TEKİN	National Defence University (TÜRKİYE)	THE MEDIATING ROLE OF POSITIVE PSYCHOLOGICAL CAPITAL IN THE RELATIONSHIP BETWEEN TEACHERS JOB SATISFACTION AND OCCUPATIONAL BURNOUT
Dr. Buket SEZER Assoc. Prof. Dr. B. Dilek ÖZBEZEK Mohamad ALSAYED	Kahramanmaraş Sutcu Imam University (TÜRKİYE) Gaziantep University (TÜRKİYE) Aleppo University (SYRIA)	PERCEPTUAL DIFFERENCES IN THE CONTEXT OF TOXIC LEADERSHIP AND DEMOGRAPHIC CHARACTERISTICS: A CASE STUDY OF NGO EMPLOYEES IN GAZIANTEP
Dr. Neslihan DERELİ	Union of Chambers of Certified Public Accountants of TÜRKİYE (TÜRKİYE)	MONEY LAUNDERING, FINANCING OF TERRORISM AND TAX DIMENSION OF FINANCIAL CRIMES AND THE ROLE OF INTERNATIONAL ORGANIZATIONS IN FIGHTING AGAINST FINANCING OF TERRORISM
Lect. Sonia LOTFI Assist. Prof. Dr. Sara ÇEBİ Elnaz TAGHIZDEH ALAMDARI	Istanbul Medipol University (TÜRKİYE) Trabzon University (TÜRKİYE) Yetitepe University (TÜRKİYE)	DON NORMAN'S PRINCIPLES OF LIMITATION IN USER EXPERIENCE DESIGN: HOW IT RELATES TO SOCIAL PSYCHOLOGY

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# ONLINE PRESENTATIONS

## 20.01.2025 / HALL-3, SESSION-3



LISBON LOCAL TIME



13 00 : 15 00



ANKARA LOCAL TIME



16 00 : 18 00

**HEAD OF SESSION: Assoc. Prof. Dr. Murat HEVEDANLI**

AUTHORS	AFFILIATION	TOPIC TITLE
Zeynep SARIKAYA ÇALIŞKAN Assoc. Prof. Dr. Kamil Arif KIRKIÇ Hümeýra KALAFAT	Istanbul Sabahattin Zaim University (TÜRKİYE)	EXPLORING QUALITY IN HIGHER EDUCATION: AREAS FOR IMPROVEMENT IN UNIVERSITIES WITH CONDITIONAL ACCREDITATION
Hümeýra KALAFAT Assoc. Prof. Dr. Kamil Arif KIRKIÇ Zeynep SARIKAYA ÇALIŞKAN	Istanbul Sabahattin Zaim University (TÜRKİYE)	A STUDY ON CONDITIONAL ACCREDITATION IN THE ACCREDITATION PROCESS OF HIGHER EDUCATION INSTITUTIONS: 2022 FOUNDATION UNIVERSITIES EXAMPLE
Dr. Bilge Özel	Ministry of Education (TÜRKİYE)	EXAMINING THE SECONDARY SCHOOL MUSIC COURSE CURRICULUM IN TERMS OF LIFELONG LEARNING BASIC COMPETENCIES
Ali Sercan KARAKAŞ Nuri Murat YAĞMURLU	Inonu University (TÜRKİYE)	APPLICATION OF LEAST SQUARES FINITE ELEMENT METHOD BASED ON SEPTIC HERMITE BASIS TO A PROTOTYPE PROBLEM
Zekiye Tuğçe BULUT SARIKAYA Assoc. Prof. Dr. Mehmet Emin USTA	Sakarya University (TÜRKİYE)	EXAMINATION OF PRESCHOOL TEACHERS' SELF-EFFICACY PERCEPTIONS TOWARDS THE INCLUSIVE INTEGRATION OF CHILDREN WITH SPECIAL NEEDS ACCORDING TO VARIOUS VARIABLES
Assoc. Prof. Dr. Murat HEVEDANLI	Dicle University (TÜRKİYE)	INVESTIGATION OF COOPERATIVE LEARNING METHOD IN TERMS OF SOFT SKILLS
Assoc. Prof. Dr. Murat HEVEDANLI	Dicle University (TÜRKİYE)	INVESTIGATION OF TURKEY CENTURY EDUCATION MODEL SECONDARY EDUCATION BIOLOGY CURRICULUM IN TERMS OF INFORMATION LITERACY

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# ONLINE PRESENTATIONS

## 20.01.2025 / HALL-4, SESSION-3



LISBON LOCAL TIME

13<sup>00</sup> : 15<sup>00</sup>



ANKARA LOCAL TIME

16<sup>00</sup> : 18<sup>00</sup>

**HEAD OF SESSION: Dr. Tran Quoc NHAN**

AUTHORS	AFFILIATION	TOPIC TITLE
Sabina Bollano Klea Biqiku Altea Bollano	European University of Tirana (ALBANIA) European University of Tirana (ALBANIA) Epoka University (ALBANIA)	GENTRIFICATION AND SOCIAL COHESION IN URBAN COMMUNITIES: NAVIGATING THE COMPLEXITIES OF URBAN TRANSFORMATION
Dr. Tran Quoc NHAN Msc. Nguyen Van NAY	Can Tho University (VIETNAM)	RELATIONSHIP BETWEEN INTERNET USE AND FARM PROFITABILITY: EVIDENCE FROM RICE FARMERS IN VIETNAM
Marcela Mele	Aleksandër Moisiu University of Durrës (ALBANIA)	FUNCTIONAL URBAN AREAS IN ALBANIA: NEW TERRITORIAL REALITIES AND CHALLENGES
Anabela P Massano Joao Matias Pedro G Martinho Geoffrey R Mitchell	Centre for Rapid and Sustainable Product Development (PORTUGAL)	DIGITALISATION OF LEGACY POLYMER PROCESSING TECHNOLOGY AS PART OF THE DIGITAL TRANSFORMATION
Dr. Samriti Sahil Jindal	Baba Dharam Singh Govt High School (INDIA) S. Govt. College of Science Education and Research (INDIA)	PERSISTENCE AND REDUCTION OF READYMIX IN OKRA (ABELMOSCHUS ESCULENTUS) FRUITS
Falah Fatima Zahra El. Ghailassi Touria Yousfi Samia Moussaif Ahmed Hamdane Hasna Bouamrani Mouna Latifa	Hassan II University of Casablanca (MOROCCO)	APPLICATION OF RESPONSE SURFACE METHODOLOGY IN OPTIMIZING CHITOSAN BEADS FOR RADIOACTIVE WASTEWATER TREATMENT

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# ONLINE PRESENTATIONS

## 20.01.2025 / HALL-5, SESSION-3



LISBON LOCAL TIME

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ANKARA LOCAL TIME

16<sup>00</sup> : 18<sup>00</sup>

**HEAD OF SESSION: Prof. Ass. Dr. Edison IKONOMI**

AUTHORS	AFFILIATION	TOPIC TITLE
Prof. Ass. Dr. Edison IKONOMI Redon ZOTAJ Entela IKONOMI	Sports University of Tirana (ALBANIA)	EDUCATIONAL IMPACT ON HEALTH OF PUPILS
Prof. Ass. Dr. Edison IKONOMI Redon ZOTAJ Lorenc KAPXHIU	Sports University of Tirana (ALBANIA)	MOTOR SKILLS HELP CHILDREN IN PERFORMANCE MOVEMENT
Dr.Sc. Burbuqe Kurtaj-Bajrami	Alma Mater Europea Campus College "Rezonanca" (KOSOVO)	THE POSITIVE EFFECTS OF DIET AND PHYSICAL ACTIVITY ON TYPE 2 DIABETES MELLITUS
Dr. Arbana Zhapaj Dr. Adriana Qafa	"Ismail Qemali", University (ALBANIA) "Barleti", University (ALBANIA)	DEVELOPMENTAL THERAPIST STRATEGIES FOR EFFECTIVE SUPPORT AND PARENTING OF CHILDREN WITH SPECIAL NEEDS
Dr. Adriana Qafa Dr. Arbana Zhapaj	"Ismail Qemali", University (ALBANIA) "Barleti", University (ALBANIA)	STRENGTHENING EDUCATIONAL LEADERSHIP IN ALBANIA: CHALLENGES, STRATEGIES, AND FUTURE DIRECTIONS
Rogério Schilahta de MAGALHÃES Prof. Dr. Vania Malagutti FIALHO	State University of Maringá (BRAZIL)	BETWEEN STAGES AND CLASSROOMS: THE CONSTRUCTION OF PROFESSIONAL IDENTITY AMONG MUSIC TEACHERS
Gordana GRUJIC	Academy of Arts of University in Banja Luka (BOSNIA AND HERZEGOVINA)	EXPLORING TONAL AND POST-TONAL CHARACTERISTICS IN SCHOENBERG'S DODECAPHONIC CLOSURES
Esmeralda KAJA	ALBANIA	SOCIAL CORPORATE RESPONSIBILITY GOVERNANCE AND THE DYNAMICS OF LEGAL CONCERNS IN ALBANIA: A SCOPING REVIEW
Dr. Josiane El Khoury	University of Balamand (LEBANON)	THE DYNAMICS OF ADVERTISING WARFARE ON AUDIENCE ENGAGEMENT – A CASE STUDY OF ALMAZA BEER AND BEIRUT BEER (2018–2024)

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# ONLINE PRESENTATIONS

## 21.01.2025 / HALL-1, SESSION-1



LISBON LOCAL TIME

08 00 : 10 00



ANKARA LOCAL TIME

11 00 : 13 00

**HEAD OF SESSION: Assoc. Prof. Dr. Mustafa Önder ŞEKEROĞLU**

AUTHORS	AFFILIATION	TOPIC TITLE
Res. Asst. Hilal ERTÜRK YAŞAR Prof. Dr. Emrah ATAY	Afyon Kocatepe University (TÜRKİYE) Burdur Mehmet Akif University (TÜRKİYE)	EMOTIONAL NUTRITION AND SOCIAL PHYSICAL ANXIETY IN PROSPECTIVE TEACHERS
Res. Asst. Hilal ERTÜRK YAŞAR Assoc. Prof. Dr. Didem Gülçin KAYA	Afyon Kocatepe University (TÜRKİYE) Gazi University (TÜRKİYE)	PRE-SERVICE TEACHERS' ATTITUDES TOWARDS TECHNOLOGY AND THEIR ACADEMIC SELF-EFFICACY
Hazal GENÇ	Bahçeşehir University (TÜRKİYE)	COMPARISON OF BALANCE, PHYSICAL ACTIVITY AND ANXIETY LEVELS IN DIFFERENT PHASES OF MENSTRUAL CYCLE
Assist. Prof. Dr. Gözde ÖNAL Gülce Yağmur AKYÜZ Fatma Zehra BOSTAN	Ankara Medipol University (TÜRKİYE)	THE RELATIONSHIP BETWEEN BIGOREXIA TENDENCY, DIGITAL ADDICTION AND INTERNET ADDICTION: A CROSS-SECTIONAL STUDY ON MALE UNIVERSITY STUDENTS
Assoc. Prof. Dr. Mustafa Önder ŞEKEROĞLU	Muş Alparslan University (TÜRKİYE)	SUPERSTITIONS AND RITUALS IN SPORT
Asya KÜÇÜKYILMAZ Dr. Serap DEMİR FİLİZ	Izmir Tinaztepe University Graduate Education Institute (TÜRKİYE)	THE ROLE OF CAROTENOIDS IN SPORTS PERFORMANCE
Asya KÜÇÜKYILMAZ Dr. Serap DEMİR FİLİZ	Izmir Tinaztepe University Graduate Education Institute (TÜRKİYE)	DO OMEGA-3 FATTY ACID INTAKE LEVELS IN DIFFERENT POPULATIONS ALIGN WITH DIETARY RECOMMENDATIONS FOR PREVENTING CORONARY HEART DISEASES? A CONTINENTAL SAMPLE

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# ONLINE PRESENTATIONS

## 21.01.2025 / HALL-2, SESSION-1



LISBON LOCAL TIME

08 00 : 10 00



ANKARA LOCAL TIME

11 00 : 13 00

**HEAD OF SESSION: Assist. Prof. Dr. Özgür AGDOĞAN**

AUTHORS	AFFILIATION	TOPIC TITLE
Assist. Prof. Dr. Özgür AGDOĞAN Assist. Prof. Dr. Gülsel AYAZ	Tekirdag Namik Kemal University (TÜRKİYE)	RELATIONSHIP BETWEEN BREAST REDUCTION-MASTOPEXY AND PLATELET MPV VALUES IN STAGE 3 GYNECOMASTIA
Assist. Prof. Dr. Arzu ÖZGEN Assist. Prof. Dr. Semiha YALÇIN	Istanbul Gelisim University (TÜRKİYE) Mugla Sıtkı Kocman University (TÜRKİYE)	BIOINFORMATICS ANALYSIS OF THE VIRULENCE FACTOR "SUBTILISIN" IN SOME DERMATOPHYTE AGENTS CAUSING CUTANEOUS MYCOSIS IN HUMANS AND ANIMALS
Assist. Prof. Dr. Behire SANÇAR Assist. Prof. Dr. Yağmur SÜRMEİ	Toros University (TÜRKİYE)	DETERMINATION OF THE EFFECT OF SHOTBLOCKER IN REDUCING INTRAMUSCULAR INJECTION PAIN IN ADULT PATIENTS: RANDOMIZED CONTROLLED TRIAL
Atiga Abdullayeva Nigar Aliyeva Farida Ali	Azerbaijan Medical University (AZARBAIJAN)	THE ROLE OF PROTEINS IN THE NUTRITION OF ATHLETES

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# ONLINE PRESENTATIONS

## 21.01.2025 / HALL-3, SESSION-1



LISBON LOCAL TIME

08 00 : 10 00



ANKARA LOCAL TIME

11 00 : 13 00

**HEAD OF SESSION: Assist. Prof. Dr. Sinan ÖZYURT**

AUTHORS	AFFILIATION	TOPIC TITLE
Assist. Prof. Dr. Sinan ÖZYURT Assoc. Prof. Dr. Mehmet Emin KALGI	Gaziantep Islam Science and Technology University (TÜRKİYE) Ardahan University (TÜRKİYE)	THE ROLE OF ENGLISH AS A LINGUA FRANCA IN SHAPING SOCIAL PSYCHOLOGY WITHIN THE GLOBAL ECONOMY
Tuğçe ARAPOĞLU Dr. Nevzat Bakır	Ondokuz Mayıs University (TÜRKİYE)	CLASS ACTIVITIES WITH GAME EXAMPLES SUITABLE FOR THE ACQUISITIONS IN THE NETZWERK NEU A1 BOOK USED IN GERMAN TEACHING
Prof. Dr. Aykut EKİYOR Ayhan ERENER	Ankara Hacı Bayram Veli University (TÜRKİYE)	DIFFERENCE BETWEEN CONSUMER BEHAVIOR AND DEMOGRAPHIC CHARACTERISTICS IN HEALTH INSURANCE PURCHASE
Prof. Dr. Aykut EKİYOR Ayhan ERENER	Ankara Hacı Bayram Veli University (TÜRKİYE)	THE EFFECT OF SOCIAL MEDIA MARKETING ON HEALTH INSURANCE CONSUMERS' PURCHASE DECISIONS
Nixer Mohibe Sanawbar Mohibe	Jahan English Language Academic Center (AFGHANISTAN)	IMPACT OF ARTIFICIAL INTELLIGENCE ON INTERNATIONAL RELATIONS
Msc. Andia Dani Msc. Elira Dani	Transmission System Operator (OST sh. a.) of Albania (ALBANIA)	INTANGIBLE HERITAGE AS A CULTURAL BRIDGE BETWEEN ALBANIA AND SPAIN: IMPORTANCE AND LEGAL FRAMEWORK IN ALBANIA
Dr. Driss OUBAHA Drissia OUNNICH	Moulay Ismail University (MOROCCO)	CRITICAL THINKING KEY COMPETENCY FOR CLIMATE CHANGE RESILIENCE

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# ONLINE PRESENTATIONS

## 21.01.2025 / HALL-4, SESSION-1



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08<sup>00</sup> : 10<sup>00</sup>



ANKARA LOCAL TIME

11<sup>00</sup> : 13<sup>00</sup>

**HEAD OF SESSION: Dr. Sc. Igballe Krasniqi-Cakaj**

AUTHORS	AFFILIATION	TOPIC TITLE
Samia BABA HAMED Amel BERREBBAH ALIOUA	École Supérieure en Sciences Biologiques d'Oran (ESSBO) (ALGERIA) Université des Sciences et de la Technologie d'Oran Mohamed Boudiaf (USTO-MB) (ALGERIA)	STUDY OF THE STRUCTURAL PROPERTIES OF ALGINATES EXTRACTED FROM SARGASSUM
Dounia Seksaoui Hajar El Hendaoui Habiba Liba Abdellah El Habazi Rekia Belahsen	Chouaib Doukkali University (MOROCCO)	EVALUATION OF THE INFLAMMATORY POTENTIAL OF DIET IN MOROCCAN POPULATION OF SAFI CITY
Drt. Hamid NAJEH Pr. Bouchra RHERISSI Dr. Youssef Dwassy Pr. Ahmed Belmouden Pr. Smail Chadli	Ibn Zohr University (MOROCCO) Provincial Hospital Hassan 1er (MOROCCO)	PERFORMANCE OF NEW ANTHROPOMETRIC INDICES IN THE EARLY IDENTIFICATION OF METABOLIC SYNDROME AMONG ADULTS IN MOROCCO
A. Surmava N. Gigauri L. Intskirveli	Georgian Technical University (GEORGIA) Javakhishvili Tbilisi State University (GEORGIA)	THE INFLUENCE OF THE BACKGROUND WIND DIRECTION ON THE DISTRIBUTION OF PM10 CONCENTRATION IN THE SURFACE LAYER OF THE ATMOSPHERE C. KUTAI DURING CALM
Imane El BELGHITI Noureddine SLIMANI Zohra LEMKHENTE Fatima BOUBRIK Ahmed BELMOUDEN	Ibn Zohr University (MOROCCO)	ISOLATION, CHARACTERIZATION AND THERAPEUTIC APPLICATIONS OF BACTERIOPHAGES AGAINST PATHOGENIC BACTERIA OF THE ESKEPE GROUP
Fatima Zohra TALEB Dr. Maroua AIT TASTIFT Prof. Dr. Chemseddoha GADHI	Cadi Ayyad University (MOROCCO)	VALORIZATION OF THE WASTE OF THE ESSENTIAL OIL EXTRACTION OF ROSA DAMASCENA FLOWERS: PHYTOCHEMICAL PROFILING, ANTIOXIDANT ACTIVITY, AND ENZYME INHIBITORY ACTIVITY ASSESSMENT
Dr. Sc. Igballe Krasniqi-Cakaj	Alma Mater Europaea Campus College - Rezonanca (KOSOVO)	ASPECTS OF THE DEVELOPMENTAL APPROACH IN NATURAL SCIENCE TEACHING: CHALLENGES AND OPPORTUNITIES IN CURRICULUM IMPLEMENTATION

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# ONLINE PRESENTATIONS

## 21.01.2025 / HALL-5, SESSION-1



LISBON LOCAL TIME

08<sup>00</sup> : 10<sup>00</sup>



ANKARA LOCAL TIME

11<sup>00</sup> : 13<sup>00</sup>

### HEAD OF SESSION: Dr. Ana GORENCA

AUTHORS	AFFILIATION	TOPIC TITLE
Dr. Edvin STEFANI	Barleti University (ALBANIA)	THE IMPACT OF SUSTAINABLE FINANCE MARKETS ON THE CORPORATE CONDUCT. A STATE-OF-THE-ART RESEARCH
Dr. Irisi BELERAJ	University of Tirana (ALBANIA)	BUSINESS INNOVATION AND ORGANIZATIONAL SUSTAINABILITY: A CROSS-SECTIONAL STUDY OF ENTREPRENEURIAL BUSINESS IN ALBANIA
Aida Makas Assoc. Prof. Dr. Minela Kerla Prof. Dr. Sanela Pasic	Sarajevo School of Science and Technology (BOSNIA AND HERZEGOVINA)	TRANSFORMING BOSNIA AND HERZEGOVINA BOARDROOMS: ADOPTING EU GENDER DIVERSITY STANDARDS IN THE TRANSITING ECONOMIES. GAPS AND OPPORTUNITIES IN THE CASE OF BANKING SECTOR
Dr. Sady MAZZIONI Ilse Maria BEUREN	Community University of Chapecó Region - Unochapecó (BRAZIL) Federal University of Santa Catarina - UFSC (BRAZIL)	INFORMATION SHARING, INTER-ORGANIZATIONAL KNOWLEDGE AND GREEN INNOVATION
Dr. Valter HOXHA	Mediterranean University of Albania (ALBANIA)	HISTORICAL MANAGEMENT OF THE AROMATIC AND MEDICINAL PLANTS SECTOR IN ALBANIA: LACK OF INFORMATION AS A CONTINUOUS PROBLEM FOR RATIONAL DECISION-MAKING
Oana-Maria COZMA	"Alexandru Ioan Cuza" University of Iasi (ROMANIA)	EXPLORING THE DIMENSIONS OF LABOUR: INSTITUTIONAL, HUMAN CAPITAL, AND CULTURAL THEORIES IN A COMPARATIVE PERSPECTIVE
Dr. Ana GORENCA	Mediterranean University of Albania (ALBANIA)	EU NEXT GENERATION AND GREEN DEAL IN NON -MEMBER STATES: AN ARGUMENTATIVE LITERATURE REVIEW
Dr. Hoang Thi My NHI Dr. Nguyen Thi Thu DUNG	Vietnam Academy of Social Sciences (VIETNAM) Vietnam National University (VIETNAM)	INDONESIAN ISLAMIC CONSUMER CULTURE FROM THE PERSPECTIVE OF CONTEMPORARY CONSUMERISM
Isabelle Margareta OPREA Liviu Gelu DRAGHICI Sorin Alin OPREA	School of Advanced Studies of the Romanian Academy (ROMANIA) University POLITEHNICA of Bucharest (ROMANIA)	TRANSFORMING TRANSACTIONS: THE INFLUENCE OF BANK DIGITALIZATION ON E-PAYMENTS IN ROMANIA
Elvis PONARI Resina PLLAHA	European University of Tirana (ALBANIA) Luarasi University (ALBANIA)	PENSIONS IN ALBANIA: BALANCING PUBLIC RESPONSIBILITY AND PRIVATE PARTICIPATION
Assist. Prof. Dr. Besnik HAJDARI Diellorita ABAZI	University "Isa Boletini" Mitrovica (KOSOVO) Advocacy for Society Development -AFSD (KOSOVO)	OPPORTUNITY AND RISK OF IMPLEMENTING INNOVATION IN BUSINESS MANAGEMENT

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# ONLINE PRESENTATIONS

21.01.2025 / HALL-6, SESSION-1



LISBON LOCAL TIME



08 00 : 10 00



ANKARA LOCAL TIME



11 00 : 13 00

## HEAD OF SESSION: Prof. Dr Ivan PAVLOVIC

AUTHORS	AFFILIATION	TOPIC TITLE
Ana-Lucia BLENDEA Alin CIOBÎCĂ Lacramioara ATUDOREI	University of Medicine and Pharmacy (ROMANIA) Alexandru Ioan Cuza University (ROMANIA) University of Medicine and Pharmacy (ROMANIA)	OMEGA-3, ANTIOXIDANTS AND VITAMINS: IDENTIFYING AND ANALYZING THE INFLUENCE OF NUTRITIONAL COMPONENTS ON THE ACTIVITY OF THE CENTRAL NERVOUS SYSTEM AND THE STRESS RESPONSE
Prof. Dr Ivan PAVLOVIC	Scientific Institute of Veterinary Medicine of Serbia (SERBIA)	BISECURITY MEASURES IN BREEDING OF PARENTS FLOCK OF PHEASANTS
Dr. Małgorzata Jusiakowska-Piputa Assoc. Prof. Dr. Anna Kopiczko	Witelon Collegium State University (POLAND) Józef Piłsudski University of Physical Education in Warsaw (POLAND)	MODIFIABLE LIFESTYLE FACTORS AND FEMALE REPRODUCTIVE STATUS
Manal Ghatesse Amal Raoufi Saad Harizi Fouzia Hmimid Mostafa Kabine Nouredine Bourhim Yassine Zouheir	Hassan II University (MOROCCO)	ENHANCING ANTIBIOTIC ACTION THROUGH SYNERGY WITH NATURAL COMPOUNDS: A SUSTAINABLE APPROACH
Amal RAOUFI Fouzia HMIMID Mostafa KABINE	Hassan II University of Casablanca (MOROCCO) Chouaib Doukkali University (MOROCCO) Hassan II University of Casablanca (MOROCCO)	PROTECTIVE EFFECT OF AROMATIC AND MEDICINAL PLANT EXTRACT ON HYDROGEN PEROXIDE INDUCED OXIDATIVE DAMAGE IN SACCHAROMYCES CEREVISIAE: BIOCHEMICAL, MORPHOLOGICAL AND PHYSIOLOGICAL STUDY
Dr. ZAMIRA SHABANI EMILJANO PJETRI EDONA HAXHIJA Dr. DRITA KRUJA	University of Shkodra "Luigj Gurakuqi" (ALBANIA) AAB College (ALBANIA) European University of Tirana (ALBANIA)	ASSESSMENT OF BURNOUT IN NURSING CLINICAL MENTORS AT THE UNIVERSITY OF SHKODRA: INSIGHTS INTO INTERACTION DURING CLINICAL PRACTICE
Bledar Hodo	Hygeia International Hospital Tirana (ALBANIA)	CREATING VASCULAR ACCESS IN PATIENTS ON DIALYSIS WITH SEVERE VENOUS STENOSIS
Fatima Zahra TAGRI Prof. Dr. Imane NAIT IRAHHAL Prof. Dr. Ahmed ERRHIF Prof. Dr. Fouzia HMIMID	Chouaib Doukkali University (MOROCCO) Hassan 2 University (MOROCCO)	ASSESSMENT OF OXIDATIVE AND GENERAL STRESS IN PERNA PERNA MUSSELS FROM AN INDUSTRIAL SITE IN CASABLANCA'S COAST DURING AUTUMN
Adeniyi, O. A. Ipinmoroti M. O.	Ajayi Crowther University Oyo (NIGERIA) Osun State University (NIGERIA)	FISH SPECIES DISTRIBUTION AND ABUNDANCE IN ELEYELE LAKE, NIGERIA

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# ONLINE PRESENTATIONS

## 21.01.2025 / HALL-1, SESSION-2



LISBON LOCAL TIME

10<sup>30</sup> : 12<sup>30</sup>



ANKARA LOCAL TIME

13<sup>30</sup> : 15<sup>30</sup>

**HEAD OF SESSION: Assist. Prof. Dr. Emine Filiz KOLMEK**

AUTHORS	AFFILIATION	TOPIC TITLE
Durdane Şefika COŞKUN Assist. Prof. Dr. Fatma Seda ÇARDAK	Alparslan Türkeş Science and Technology University (TÜRKİYE)	STUDY ON URBAN MEMORY WITHIN THE SCOPE OF REFUNCTIONALITY OF HISTORICAL HEALTH BUILDINGS
Assist. Prof. Dr. Pelin ÖZDEN	İzmir Kavram Vocational School (TÜRKİYE)	PARTICIPATORY PLANNING AND URBAN TRANSFORMATION: A COMMUNITY CENTERED PERSPECTIVE
Prof. Dr. Arın YILMAZ Eylül Deniz ACAR Alperen KAMAN	Balıkesir University (TÜRKİYE)	INVESTIGATION OF THE MECHANICAL AND DURABILITY PERFORMANCE OF CALCIUM ALUMINA CEMENT AND WHITE CEMENT BASED MORTARS WITH DIFFERENT PROPORTIONS OF PLASTICIZERS ADDED
Emine Öğsüz Ahmad Abu Arra Mehmet Emin Birpınar Şükrü Ayhan Gazioğlu Eyüp Şişman	Yıldız Technical University (TÜRKİYE) Ministry of Environment and Urbanization (TÜRKİYE)	EVALUATING OPTIMAL TEMPORAL PERIODS FOR CITY-BASED DROUGHT ANALYSIS: VALIDATING WMO'S YEAR PERIOD AND EXPLORING ACCEPTABLE TIME PERIOD
Emine Öğsüz Ahmad Abu Arra Eyüp Şişman	Yıldız Technical University (TÜRKİYE)	EVALUATING REANALYSIS DATA FOR DROUGHT ASSESSMENT: A CASE STUDY OF KOCAELİ
Assist. Prof. Dr. Emine Filiz KOLMEK	Hamad Bin Khalifa University (QATAR)	VISUAL LANGUAGE OF ISLAMIC ARTS: AN EXPLORATION OF ISLAMIC DECORATIVE ARTS AND RELIGIOUS SYMBOLISM

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# ONLINE PRESENTATIONS

## 21.01.2025 / HALL-2, SESSION-2



LISBON LOCAL TIME

10<sup>30</sup> : 12<sup>30</sup>



ANKARA LOCAL TIME

13<sup>30</sup> : 15<sup>30</sup>

**HEAD OF SESSION: Assoc. Prof. Dr. Öznur IŞIR**

AUTHORS	AFFILIATION	TOPIC TITLE
Assist. Prof. Dr. Göknıl ÖZKÖK SEZENER	MSFAU, İstanbul State Conservatory (TÜRKİYE)	DEVELOPMENT PROCESS OF VIOLA AS AN INSTRUMENT IN THE HISTORY OF STRING INSTRUMENTS FAMILY
Dr. Duygu Deniz DEMİREL	Mersin University (TÜRKİYE)	NEVİD KODALLI AND HIS ROLE IN THE DEVELOPMENT OF POLYPHONIC MUSIC
Zahidova Flora Ramiz gizi	Azerbaijan State Pedagogical University (AZARBAIJAN)	APPLICATION OF RESEARCH AND MODELING TRAINING IN MUSIC LESSONS
Aslı TEKGÜL	Dokuz Eylül University (TÜRKİYE)	SIMULTANEOUS MULTI-MEDIA SPACES IN LIVE CINEMA
Dr. Aliyeva Maralkhanım Tofig gizi	Azerbaijan State Pedagogical University (AZARBAIJAN)	ABOUT THE CONCEPT OF CREATIVITY AND THE SCIENCE OF HEURISTICS
Assoc. Prof. Dr. Öznur IŞIR	Balıkesir University (TÜRKİYE)	ARTIFICIAL INTELLIGENCE APPLICATIONS IN DESIGN: A COURSE PROPOSAL
Buse AĞAÇDALI Prof. Dr. Sibel Kılıç	Marmara University (TÜRKİYE)	LAND ART: REFLECTION IN JEWELRY DESIGNS
Harika KOYUNCU Prof. Dr. Sibel KILIÇ	Altınbaş University (TÜRKİYE) Marmara University (TÜRKİYE)	ANALYSIS OF THE NOUVEAUX REALISTES MOVEMENT, MANIFESTO AND ARTISTS

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# ONLINE PRESENTATIONS

## 21.01.2025 / HALL-3, SESSION-2



LISBON LOCAL TIME

10<sup>30</sup> : 12<sup>30</sup>



ANKARA LOCAL TIME

13<sup>30</sup> : 15<sup>30</sup>

**HEAD OF SESSION: Dr. Maria EL-HARRAM**

AUTHORS	AFFILIATION	TOPIC TITLE
Dr. Atika Mouaddine Dr. Ahmed Barakat Dr. Hicham Bouzekraoui Dr. Maria Elharram	Sultan Moulay Slimane University (MOROCCO)	PREDICTION AND MAPPING SOIL SATURATED HYDRAULIC CONDUCTIVITY IN AN IRRIGATED PERIMETER USING ARTIFICIAL NEURON NETWORKS AND RANDOM FORESTS MODEL
Dr. Maria EL-HARRAM Mohamed EL BAGHDADI El Hassania EL HAMZAOU Abdessalam SALMI Ayoub OUTALLEB	Sultan Moulay Slimane University (MOROCCO)	CHARACTERIZATION OF ORGANIC CARBON STORAGE IN BENI-MOUSSA SOILS (TADLA PLAIN, MOROCCO)
Jamila ZOUHRI Maria EL-HARRAM	Sultan Moulay Slimane University (MOROCCO)	CHARACTERIZATION OF SOIL VARIATION USING A STEPWISE MULTI-SENSOR FUSION APPROACH (THE TADLA PLAIN, MOROCCO)
Dr. Ayoub OUTALLEB Dr. Mohamed EL BAGHDADI Dr. El hassania EL HAMZAOU Dr. Maria EL-HARRAM	Sultan Moulay Slimane University (MOROCCO)	TECHNOLOGICAL ADVANCES IN GROUNDWATER ASSESSMENT AND MANAGEMENT: A GLOBAL SYNTHESIS WITH APPLICATION TO THE OUED MOULOUYA BASIN, MOROCCO
Dr. Hicham BOUZEKRAOUI Atika MOUADDINE	Sultan Moulay Slimane University (MOROCCO)	GEOHIKING TRAILS PROPOSAL AS A TOOL FOR GEODIVERSITY VALORISATION IN SOUTHERN MIDDLE-ATLAS, CASE STUDY OF TAGUZIRT AND FOUM AL ANGER MUNICIPALITIES (MOROCCO)
Yassine ELJAOUHARY Abdelghani QADEM Sebastien LEBAUT	Sultan Moulay Slimane University (MOROCCO)	CHARACTERIZATION OF CLIMATIC DROUGHT IN A SEMI-ARID MOUNTAINOUS REGION: THE CASE OF THE OUED MOULOUYA BASIN
Najat ITOBI Abdelghani QADEM	Sultan Moulay Slimane University (MOROCCO)	SPATIO-TEMPORAL ANALYSIS OF VEGETATION COVER DYNAMICS IN THE BOUREGREG WATERSHED (MOROCCO)
El hassania EL HAMZAOU Mohamed EL BAGHDADI Maria EL HARRAM Ayoub OUTALLEB Jamila ZOUHRI Abdessalam SALMI Atika MOUADDINE	Sultan Moulay Slimane University (MOROCCO)	MAGNETIC SUSCEPTIBILITY AS A TOOL FOR ASSESSING SOIL DEGRADATION AND CONTAMINATION IN THE BENI-MOUSSA REGION, TADLA PLAIN, MOROCCO
Abdelfettah ES-SEQALLY Dr. Abdelghani QADEM	Sultan Moulay Slimane University (MOROCCO)	CONTRIBUTION OF RAIN-FLOW MODELLING TO KNOWLEDGE OF WATER RESOURCES: APPLICATION OF THE GR2M MODEL TO THE ANSEGMIR BASIN (HAUT MOULOUYA, MOROCCO)

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# ONLINE PRESENTATIONS

## 21.01.2025 / HALL-4, SESSION-2



LISBON LOCAL TIME

10<sup>30</sup> : 12<sup>30</sup>



ANKARA LOCAL TIME

13<sup>30</sup> : 15<sup>30</sup>

**HEAD OF SESSION: Assoc. Prof. Dr. Nadia Rusi (Peto)**

AUTHORS	AFFILIATION	TOPIC TITLE
Priscilla Rebecca Rodrigues Dr. Geeta Shrivastava	Himalayan University (INDIA)	THE ROLE OF SOCIO-LEGAL INTERVENTIONS IN CONTROLLING WATER POLLUTION FROM INDUSTRIAL SOURCES
Assoc. Prof. Dr. Nadia Rusi (Peto) Evis QAJA	University of Tirana (ALBANIA)	STRENGTHENING INSTITUTIONAL RESILIENCE AND DEMOCRATIC GOVERNANCE: ADVANCING EUROPEAN INTEGRATION AT THE LOCAL LEVEL IN ALBANIA
Sonila KAMAMI	University of Tirana (ALBANIA)	HARMONIZING CONTRACT LAW IN THE EUROPEAN UNION: A CRITICAL ANALYSIS OF CHALLENGES AND PROGRESS
Assoc. Prof. Dr. Bedri BAHTIRI LLM. Burim H. BEHLULI	University of Prishtina (KOSOVO) Heimerer College (KOSOVO)	THE IMPORTANCE OF FINALIZING AND ENACTING THE CIVIL CODE FOR THE REPUBLIC OF KOSOVO
Dr. sci. c. Aida Omersoftić Dr. sci. Minela Kerla	University of Sarajevo (BOSNIA AND HERZEGOVINA) UONEDU (BOSNIA AND HERZEGOVINA)	TRANSFORMATIONAL LEADERSHIP OF PRIMARY SCHOOL PRINCIPALS IN SARAJEVO CANTON
Sadjola XHELILI	European University of Tirana (ALBANIA)	THE POLITICS OF IDENTITY IN THE DIGITAL AGE: A CRITICAL REVIEW OF THE PERSONALIZATION PARADIGM IN POLITICAL PR AND SOCIAL MEDIA
Dritan Idrizi	European University of Tirana (ALBANIA)	THE ROLE OF ICT IN MODERN PEDAGOGY: ALBANIAN CASE STUDY
Jonila GABRANI Rexhina MYRTA	European University of Tirana (ALBANIA)	CRISIS-READY: BUILDING HEALTH DIPLOMACY AND PREPAREDNESS IN THE WESTERN BALKANS
Jonila GABRANI Assoc. Prof. Dr. Voltisa LAMA Esther VAN POEL Kledia NAKUCI Llukan RRUMBULLAKU Sara WILLEMS	European University of Tirana (ALBANIA) Ghent University (BELGIUM) State Agency for Strategic Programming and Aid Coordination (ALBANIA) University of Medicine (BELGIUM) Ghent University (ALBANIA)	PRIMARY HEALTHCARE ROLES AND CONTRIBUTIONS IN ALLEVIATING THE VACCINE ACCEPTANCY DUE TO COVID -19 PANDEMIC IN ALBANIA: DESCRIPTIVE RESULTS FROM THE PRICOV- 19
Dr. Besian Zogaj	Political Sciences and International Relations (ALBANIA)	ELECTORAL SYSTEMS AND GENDER REPRESENTATION IN ALBANIA: AN INSTITUTIONAL ANALYSIS (1991–2021)
Lect. Dr. Kilda Gushta Erinda Zaganjori	University of Shkodra “Luigj Gurakuqi” (ALBANIA) University of Medicine (ALBANIA)	THE IMPACT OF THE INTENSITY AND QUALITY OF COLLABORATION BETWEEN THERAPISTS AND PARENTS ON THE IMPROVEMENT OF SOCIAL AND COMMUNICATION SKILLS IN CHILDREN WITH AUTISM SPECTRUM DISORDER

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# ONLINE PRESENTATIONS

## 21.01.2025 / HALL-5, SESSION-2



LISBON LOCAL TIME

10<sup>30</sup> : 12<sup>30</sup>



ANKARA LOCAL TIME

13<sup>30</sup> : 15<sup>30</sup>

**HEAD OF SESSION: Assoc. Prof. Ophelia Ivanova Kaneva**

AUTHORS	AFFILIATION	TOPIC TITLE
Dr. Brahim OUAZIK Dr. Abderrahim AIT LHAJ Dr. Mohamed EL HASNAOUI Dr. Hassan CHAIB	Ibn Tofail University (MOROCCO) Ibnou Zohr University (MOROCCO)	THEORETICAL STUDY OF STRUCTURAL AND ELECTRONIC PROPERTIES OF BARIUM STANNATE SINGLE CRYSTALS, USING PBESOL FUNCTIONAL
Assoc. Prof. Ophelia Ivanova Kaneva	Varna Free University (BULGARIA)	UNIVERSAL DESIGN AND DIGITAL TECHNOLOGIES IN EDUCATION – A BULGARIAN PERSPECTIVE
Dr. Nikolay KOKODII Dr. Anastasia NATAROVA	Karazin Kharkiv University (UKRAINE) University of Air Force (UKRAINE)	ANALYSIS OF THE DEVELOPMENT OF ANTAGONISTIC POPULATIONS
Dr. Bogdan-Catalin SERBAN Dr. Marius BUMBAC Vlad DIACONESCU	National Institute for Research and Development in Microtechnologies-IMT Bucharest (ROMANIA) Valahia University of Targoviste (ROMANIA) University of Medicine and Pharmacy "Carol Davila" (ROMANIA)	COVALENT ORGANIC FRAMEWORK: CURRENT RESEARCH AND FUTURE TRENDS
Dr. Bogdan-Catalin SERBAN Dr. Marius BUMBAC Vlad DIACONESCU	National Institute for Research and Development in Microtechnologies-IMT Bucharest (ROMANIA) Valahia University of Targoviste (ROMANIA) University of Medicine and Pharmacy "Carol Davila" (ROMANIA)	NOVEL SURFACE ACOUSTIC WAVE RELATIVE HUMIDITY SENSOR
Dr. Brunilda LUFI Prof. Dr. Valentina SINAJ	University of Tirana (ALBANIA)	THE USE OF DIGITAL TECHNOLOGIES IN TEACHING MATHEMATICS AT ALBANIAN UNIVERSITIES
Chau HO MINH Duy NGUYEN NGOC Ngoc NGUYEN VAN	CEO of Asia 96 New Materials Joint Stock Company (VIETNAM) Nha Trang University (VIETNAM)	THE IMPACT OF ECONOMIC BENEFITS, SOCIAL RESPONSIBILITY, AND ENVIRONMENTAL RESPONSIBILITY ON INFORMATION SHARING IN THE ADOBE BRICK SUPPLY CHAIN: THE MEDIATING ROLE OF COMMITMENT
SISSAH Safae NAHLI Siham CHAFIK Miryam	Laboratory for Research and Studies in Management (MOROCCO)	THE ADOPTION OF AI-ASSISTED MANAGEMENT CONTROL TOOLS: A LEVER FOR CORPORATE PERFORMANCE MANAGEMENT: BIBLIOMETRIC ANALYSIS

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# IN-PERSON PRESENTATIONS

## 21.01.2025



LISBON LOCAL TIME

10<sup>00</sup> : 12<sup>00</sup>



**Address:** Regus Meeting Center  
Rua Dom Joao V, 30 Lisbon 1250-091, Portugal

### HEAD OF SESSION: Prof. Dr. Ümit M. KOÇYİĞİT

AUTHORS	AFFILIATION	TOPIC TITLE
Mustafa NOORI Prof. Dr. Murat OLGUN	Atatürk University (TÜRKİYE) Konya Technical University (TÜRKİYE)	INVESTIGATION OF PERFORMANCE CHARACTERISTICS OF ADDITIVE DEEP MIXING COLUMNS USING OPTIMIZATION ALGORITHMS AND MODEL EXPERIMENTS
Assist. Prof. Dr. Gözde BOZKURT Prof. Dr. Volkan ÖNGEL	İstanbul Beykent University (TÜRKİYE)	PHILLIPS-OKUN MODEL APPROACH ACCORDING TO AGE GROUPS IN TURKEY
Marian AMBROZY	College of International Business ISM Slovakia in Prešov (SLOVAKIA)	DIALECTICS IN THE WORD OF PHYSICS
Assist. Prof. Dr. Sara ÇEBİ Lect. Sonia LOTFI	Trabzon University (TÜRKİYE) İstanbul Medipol University (TÜRKİYE)	FROM CULTURAL ROOTS TO MODERN ART: THE REFLECTIONS OF SAQQAKHANEH MOVEMENT
Şüheda Yıldırım Prof. Dr. Ümit M. KOÇYİĞİT	Sivas Cumhuriyet University (TÜRKİYE)	DETERMINATION OF ANTIDIABETIC ACTIVITIES OF NEW SYNTHESIS THIAZOL DERIVATIVES IN VITRO CONDITIONS
Prof. Dr. Ümit M. KOÇYİĞİT	Sivas Cumhuriyet University (TÜRKİYE)	EFFECT OF AESCULUS HIPPOCASTANUM PLANT EXTRACT ON ACETYLCHOLINESTERASE ENZYME




















Görüş

# Investigation of the Effect of Different Drivetrain Types on Vehicle Performance in Fuel Cell Vehicles

Dr. CEYDA KÖK

Işıkdeğir Technical University, Department of Electronic and Automation, Mechatronic Program.



# Investigation of the Effect of Different Drivetrain Types on Vehicle Performance in Fuel Cell Vehicles

Dr. CEYDA KÖK

İskenderun Technical University, Department of Electronic and Automation, Mechatronic Program

**Cell Vehicles**

İkizdere Technical University, Department of Electronic and Automation, Mechatronic Program



observer hall1

Dr. Adem YILMAZ

Halil İzzet SARISAL

Mustafa ÖZKUR

Engin ARI Yılmazlık

Halil İzzet SARISAL

Ayşe Özgenel Koca

Halil İzzet SARISAL

Halil İzzet SARISAL

Tolga Büyüktanır

HALL-1, SESSION-3, Cerrah ALP GÖZÜK



Dr. Habib Saleh


Hasil: 100. Hasil: 100.



Dr. Adem YILMAZ



HAMEDOU DIABY



He is a man with short dark hair, wearing a dark shirt, speaking in a video call window. The background shows a bookshelf with books and a small blue object on top.

5. Başarı Oğuzkurt Kılıç



Hacıîl Rıza KOVALIOĞLU

HAS-1 Rafael BOYER

**Tolga Büyüktanır**

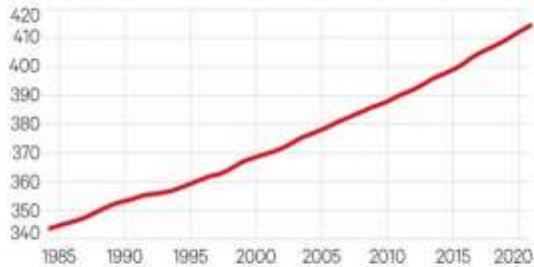
HALL-1, SESSIO...



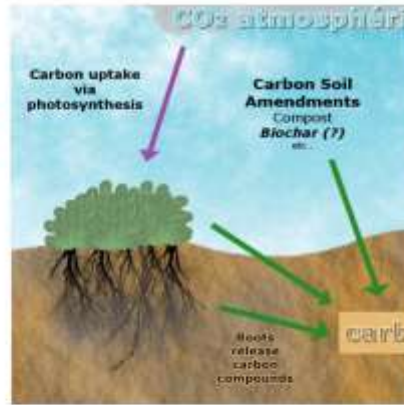
# Introduction

## Evolution des concentrations de dioxyde de carbone

En parties par million



LES ECHOES / SOURCE : ORGANISATION METEOROLOGIQUE MONDIALE



**Participants List (Top Screenshot):**

- O...Ortak internet sahibi, berr
- DELE
- Aghaie Krasimiro-Cajaj
- dounia seksaoui
- Fatima Zohra TALEB

**Participants List (Bottom Screenshot):**

- O...Ortak internet sahibi, berr
- Maria Rita AJ
- Eva Gaja, University of Trier
- Hel, A, UONBSU
- 32 - 44 Kacimur BERTOLU HED...
- Saskia HED
- Dritan Idrizi







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**ZEMİN PARAMETRELERİ BİLİNER BİR BÖLGENİN SIVILAŞMA  
POTANSİYELİNİN İNCELENMESİ; AKSARAY, EREĞLİKAPI ÖRNEĞİ**  
EXAMINING THE LIQUEFACTION POTENTIAL OF A REGION WITH KNOWN SOIL  
PARAMETERS; AKSARAY, EREĞLİKAPI EXAMPLE

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**ÖZET**

Sıvılaşma; en genel açıklaması ile zemin tabakalarının deprem etkisi altında, suyun ortamdan uzaklaşması ile tıpkı bir sıvı gibi davranmasıdır. Yapılar ne kadar sağlam inşa edilsede, eğer ihtiyaç var ve ilgili yapı alanında gerekli iyileştirmeler yapılmamış ise; bu durum büyük hasarların oluşmasına neden olabilmektedir. Dolayısı ile zemin yapısı sıvılaşma potansiyeli dikkate alınarak incelenmeli ve iyileştirmeler ile dayanımı artırılmalıdır. Bu durumlar düşünülerek bu çalışmada; Aksaray ili sınırları içerisinde yer alan ve zemin parametreleri bilinen bir bölgenin depremselliği de göz önünde bulundurularak, sıvılaşma potansiyeli incelenmiştir. Analizlerde zemin sınıfı, yeraltı su seviyesi, kayma dalgası hızı (Vs), zeminin taşıma kapasitesi gibi faktörler kullanılmıştır. Aynı zamanda bu çalışma ile olası bir deprem durumunda; zemin sıvılaşmasının önüne geçilmesinin iyileştirme yöntemleri ile ne kadar önemli olduğu vurgulanmaktadır. Zemin yapısının karmaşık ve değişgen olması düşünüldüğünde bu ve benzeri çalışmaların sayıca artırılması gerektiği düşünülmektedir.

**Anahtar Kelimeler:** Deprem, Kayma Dalgası Hızı, Sıvılaşma

**ABSTRACT**

Liquefaction; The most general explanation is that the soil layers behave like a liquid under the influence of an earthquake, as water moves away from the environment. No matter how soil the buildings are built, if there is a need and the necessary improvements are not made in the revelant building area; This may cause major damage. Therefore, the soil structure should be examined taking into account its liquefaction potential and its strength should be increased with improvements. Considering these situations, in this study; The liquefaction potential of a region located within the borders of Aksaray province and whose soil parametres are known was examined, taking into account the seismicity. Factors such as soil class, groundwater level, shear wave velocity (Vs), and soil bearing capacity were used in the analyses. At the same time, with this study, in case of a possible earthquake; It is emphasized how important it is to prevent soil liquefaction through improvement methods. Considering that the soil

structure is complex and variable, it is thought that these and similar studies should be increased in number.

**Keywords:** Earthquake, Liquefaction, Shear Wave Velocity.



**TÜRKİYE’NİN AKSARAY ŞEHRİNDE BULUNAN BİR BÖLGESİ İÇİN EŞDEĞER  
DOĞRUSAL ANALİZ YÖNTEMİ İLE DEPREMSELLİĞİNİN İNCELENMESİ**  
INVESTIGATION OF SEISMICITY WITH EQUIVALENT LINEAR ANALYSIS  
METHOD FOR A REGION IN AKSARAY CITY OF TURKEY

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**ÖZET**

Deprem zamanı ve şiddeti bilinmeyen bir doğa olayıdır. Gerekli önlemlerin alınmaması durumunda hasarlar meydana gelmektedir. Oluşan hasarlar ise, depremin büyüklüğüne, etki ettiği zemin profilinin genel yapısına, depremin olduğu derinliğe bağlıdır. Dolayısı ile yaşam alanı içerisinde yer alan bölgelerin olası bir deprem durumunda nasıl bir davranış sergileyeceği araştırılmalı ve analizlerle yorumlanmalıdır. Zemin sınıfı, yeraltı suyu seviyesi, genel zemin parametreleri, zemin dinamik davranışı, araştırılan bölgelerin deprem potansiyeli gibi faktörler değerlendirilmelidir. Analizler sonucunda elde edilen parametreler ise yapı tasarımında tasarımcıya yol göstermektedir. Bu nedenle depremselliğin araştırılması büyük önem arz etmektedir. Ayrıca mühendislik problemlerinin çözümünde gerçeğe en yakın çözümü sunan yöntem nonlinear çözüm metodudur. Nonlinear çözüme en yakın çözüm sunan yöntem ise “Eşdeğer Lineer Analiz Yöntemi” dir. Bu çalışmada; Türkiye’ de Aksaray ilinde yer alan bir bölgenin zemin parametreleri ve bölgenin deprem potansiyeli dikkate alınarak “Eşdeğer Lineer Analiz Yöntemi” ile 1D (Bir boyutlu) sismik analizler yapılmıştır. Mevcut zemin parametreleri ve ilgili bölgenin depremselliği yorumlanmıştır. Analizlerde geçmiş yıllarda meydana gelen deprem kayıtları kullanılmıştır. Aynı zamanda inceleme alanının sismik dinamik tepkisi, farklı koşullarda jeolojik davranış açısından değerlendirilmiştir.

**Anahtar Kelimeler:** Deprem, Eşdeğer Lineer Analiz Yöntemi, Zemin Sınıfı

**ABSTRACT**

An earthquake is a natural event whose time and intensity are unknown. If necessary precautions are not taken, damage may occur. The damages that occur depend on the magnitude of the earthquake, the general structure of the soil profile it affects, and the depth at which the earthquake occurs. Therefore, how the regions within the living space will behave in the event of a possible earthquake should be investigated and interpreted through analysis. Factors such as soil class, groundwater level, general soil parameters, soil dynamic behaviour, and earthquake potential of the investigated regions should be evaluated. The

parameters obtained as a result of the analysis guide the designer in building design. Therefore, researching seismicity is of great importance. In addition, the method that offers the closest solution to reality in solving engineering problems is the nonlinear solution method. The method that provides the closest solution to the nonlinear solution is the “Equivalent Linear Analysis Method”. In this study; 1D (One-dimensional) seismic analyses were carried out using the “Equivalent Linear Analysis Method”, taking into account the soil parameters of a region located in Aksaray province in Turkey and the earthquake potential of the region. The existing soil parameters and the seismicity of the relevant region are interpreted. Earthquake records from previous years were used in the analysis. At the same time, the seismic dynamic response of the study area was evaluated in terms of geological behaviour under different conditions.

**Keywords:** Earthquake, Equivalent Linear Analysis Method, Soil Classification

# SÜRDÜRÜLEBİLİR TARIMDA VERMİKOMPOST UYGULAMASININ TOPRAK SAĞLIĞI ÜZERİNDEKİ ETKİSİ

## EFFECT OF VERMICOMPOST APPLICATION ON SOIL HEALTH IN SUSTAINABLE AGRICULTURE

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### ÖZET

Sürdürülebilir tarımda toprak sağlığını korumanın temelinde; toprağı işleme tekniklerinin doğru bir şekilde uygulanması, toprakların organik madde açısından desteklenmesi, toprak analizlerine göre gübreleme programlarının uygulanması ile gübreleme programlarında organik gübrelere yer verilmesi ve tuzluluk yönetiminin kararlılıkla yönetilmesi gibi unsurlar bulunmaktadır. Sürdürülebilir tarım, çevresel, ekonomik ve sosyal boyutlarla bütünleşik bir şekilde ele alınarak, sağlıklı ekosistemlerin korunmasını ve tarımsal üretimin başarılı bir şekilde devam etmesini amaçlamaktadır. Toprak sağlığı, bu bütünleşmiş yaklaşımın temel taşlarından biri olarak kabul edilir. Fiziksel, kimyasal ve biyolojik yönleri ile toprak sağlığı, tarımsal verimliliği artırmanın yanı sıra, su yönetimini iyileştirir ve erozyonu önler. Özellikle, toprak yoğunluğu, dokusu ve yapısı gibi fiziksel özellikler, kök gelişimini etkileyerek bitkilerin su ve besin ihtiyacını karşılamalarında kritik bir rol oynar. Ayrıca, kimyasal öğeler, özellikle pH düzeyi ve besin elementleri, bitkilerin sağlıklı bir şekilde büyümesi için gereklidir. Biyolojik yönden, toprakta yaşayan mikroorganizmalar ve fauna, ekosistem hizmetlerinin sağlanmasına katkı sunarak biyoçeşitliliği destekler. Sürdürülebilir tarım uygulamalarının benimsenmesi, hem çevresel sorunlara karşı çözüm bulma noktasında hem de gelecekteki nesiller için doğal kaynakların korunmasında etkili bir yaklaşım sunmaktadır.

**Anahtar Kelimeler:** Solucan, vermikompost, organik madde, toprak, bitki, çevre.

### ABSTRACT

In sustainable agriculture, the fundamental aspects of maintaining soil health include the proper implementation of soil tillage techniques, supporting soils with organic matter, applying fertilization programs based on soil analysis, incorporating organic fertilizers into these programs, and managing salinity consistently. Sustainable agriculture is addressed in an

integrated manner with environmental, economic, and social dimensions, aiming to preserve healthy ecosystems and ensure the continued success of agricultural production. Soil health is considered one of the cornerstones of this integrated approach. With its physical, chemical, and biological aspects, soil health not only enhances agricultural productivity but also improves water management and prevents erosion. Particularly, physical properties such as soil density, texture, and structure play a critical role in root development, affecting the plants' ability to meet their water and nutrient needs. Additionally, chemical elements, especially pH levels and nutrients, are essential for the healthy growth of plants. Biologically, microorganisms and fauna in the soil contribute to ecosystem services, supporting biodiversity. The adoption of sustainable agricultural practices offers an effective approach both in finding solutions to environmental problems and in conserving natural resources for future generations.

**Keywords:** Earthworm, vermicompost, organic material, soil, plant, environment.

**GÜMÜLCİNE'DEKİ (YUNANİSTAN) ZEYTİN (*Olea europaea* L.) BAHÇELERİNİN  
YAPRAK ÖRNEKLERİ İLE BESLENME DURUMUNUN BELİRLENMESİ  
DETERMINATION OF NUTRITION STATUS OF OLIVE (*Olea europaea* L.)  
ORCHARDS IN GÜMÜLCİNE (GREECE) BY MEANS OF LEAF ANALYSIS**

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**ÖZET**

Yapılan bu çalışmada, Batı Trakya'da Yunanistan'ın Gümülcine Bölgesi'ndeki 25 farklı zeytin bahçesinden GPS yardımıyla alınan zeytin (*Olea europaea* L.) yapraklarının analizleri yapılmış ve bilimsel çalışmalara göre sonuçlar değerlendirilmiştir. Çalışmada amaç olarak, zeytin yapraklarında N, P, K, Ca, Mg, Fe, Mn, Zn ve Cu analizleri yapılarak bahçelerin mevcut bitki besleme durumu ortaya konulmaya çalışılmıştır. Zeytin yapraklarının ortalama N değerleri %1,75 olup, "yeterli" sınıfına girmektedir. Ortalama makro element değerleri dikkate alındığında fosfor %1,06, potasyum %4,32, kalsiyum %12,92, magnezyum %1,06 olup, tüm elementlerin "çok yüksek" sınıfına girdiği görülmektedir. Ortalama mikro element değerlerine bakıldığında; demir 0,77 mg kg<sup>-1</sup>, bakır 0,12 mg kg<sup>-1</sup>, çinko 0,14 mg kg<sup>-1</sup>, mangan 0,27 mg kg<sup>-1</sup> olup tüm elementlerin "çok düşük" düzeyde olduğu bulunmuştur. Araştırma alanlarındaki zeytin bahçelerinin makro elementlerce genellikle zengin, mikro elementler bakımından da fakir olması, gübrelemede sadece makro elementlere dikkat edildiğini göstermektedir. Bundan sonraki gübreleme programlarında üreticilerin mutlaka mikro elementlere de yer vermesi gerektiği son derece önemlidir.

**Anahtar Kelimeler:** Bitki besleme, makro element, mikro element, yaprak analizi, zeytin (*Olea europaea* L.).

## ABSTRACT

In this study, analyses of olive (*Olea europaea* L.) leaves were conducted from 25 different olive orchards in the Gümülcine region of Western Thrace, Greece, with the assistance of GPS. The aim of the study was to assess the current plant nutrition status of the orchards by analyzing the levels of N, P, K, Ca, Mg, Fe, Mn, Zn, and Cu in olive leaves. The average nitrogen value of the olive leaves was determined as 1.75%, falling into the "sufficient" category. When considering the average values of macronutrients, phosphorus was found to be 1,06%, potassium 4,32%, calcium 12,92%, and magnesium 1,06%, all of which were classified as "very high." Looking at the average values of micronutrients, iron was found to be 0,77 mg kg<sup>-1</sup>, copper 0,12 mg kg<sup>-1</sup>, zinc 0,14 mg kg<sup>-1</sup>, and manganese 0,27 mg kg<sup>-1</sup>, all of which were at "very low" levels. The fact that olive orchards in the research area are generally rich in macronutrients but poor in micronutrients indicates a focus on macronutrients in fertilization. It is of utmost importance that future fertilization programs include micronutrients as well.

**Keywords:** Plant nutrition, macro elements, micro elements, leaf analysis, olive (*Olea europaea* L.).

## KURUTMANIN ÇİLEKTEKİ PESTİSİT KALINTILARI ÜZERİNE ETKİLERİ EFFECTS OF DRYING ON PESTICIDE RESIDUES IN STRAWBERRIES

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### ÖZET

Pestisitler, tarımsal ürünlerin üretimi sırasında zararlı organizmaların kontrolü ve hasat sonrası depolama süresinin uzatılması amacıyla yaygın olarak kullanılmaktadır. Ancak, pestisitlerin aşırı kullanımı, gıda ürünlerinde kalıntı riskini artırmaktadır. Gıdalar, tüketime hazır hale gelene kadar çeşitli ön işlemler ve işleme yöntemlerinden geçmekte olup, bu uygulamalar pestisit kalıntı seviyelerini önemli ölçüde etkileyebilmektedir. Pestisit kalıntılarının işleme süreçleriyle uzaklaştırılması; pestisitlerin fizikokimyasal özellikleri, gıdanın yapısı, işleme koşulları ve işlem süresi gibi faktörlere bağlıdır. Pestisitlerin gıda işleme süreçlerinde davranışlarının anlaşılması, gıda güvenliği ve halk sağlığı açısından kritik bir öneme sahiptir. Bu çalışma, çileklerde kullanılan Acetamiprid, Boscalid, Azoxystrobin ve Tebuconazole isimli pestisitlerin, çileklerin sıcak hava ile kurutulması (65 °C sıcaklık, 1,5 m/s hava hızı, tepsili kurutucu) sırasında gösterdiği davranışları, bozunma oranlarını ve işleme faktörlerini belirlemeyi amaçlamaktadır. Kurutma işlemi sonrasında çileklerdeki pestisit kalıntı miktarları, kuru madde artışına bağlı olarak, başlangıç numunelerine göre artmıştır. Kurutma işlemi, yaş ağırlık bazında, en çok Tebuconazole kalıntılarında artışa sebep olurken (0,0713 mg/kg'dan 0,6993 mg/kg'a çıkmıştır), en az ise Acetamiprid kalıntılarını arttırdığı görülmüştür (0,051 mg/kg'dan 0,1237 mg/kg'a çıkmıştır). Kuru madde bazında bozunma oranları incelendiğinde ise, kurutma sırasında en az bozunan pestisit %5,1 bozunma oranıyla Tebuconazole olurken, en fazla bozunan pestisit %73,98 oranıyla Acetamiprid olmuştur. Kurutma işleminin ardından ilgili pestisitler için işleme faktörleri 2.42-9.8 aralığında değişmiştir. İşleme faktörünün 1'den büyük olması, pestisitlerin kurutma sırasında yoğunlaştığını ortaya koymuştur. Sonuç olarak, kurutma işleminin pestisitler üzerinde etkili olduğu, farklı pestisitlerin ise farklı oranlarda bozunma davranışı gösterdiği belirlenmiştir.

**Anahtar Kelimeler:** Pestisit, Çilek, Kurutma, Acetamiprid, Boscalid, Azoxystrobin, Tebuconazole.



## ABSTRACT

Pesticides are widely used in agricultural production to control harmful organisms and extend the storage period of crops after harvest. However, the excessive use of pesticides increases the risk of residues in food products. Foods undergo various pre-treatments and processing methods until they are ready for consumption, and these applications can significantly affect pesticide residue levels. The removal of pesticide residues during processing depends on factors such as the physicochemical properties of pesticides, the nature of the food, processing conditions, and duration of the treatment. Understanding the behavior of pesticides during food processing is critical for food safety and public health. This study aims to determine the behavior, degradation rates, and processing factors of pesticides Acetamiprid, Boscalid, Azoxystrobin, and Tebuconazole used in strawberries, during hot-air drying (65 °C temperature, 1,5 m/s air velocity, in tray dryer). After the drying process, pesticide residue levels in strawberries increased compared to the initial samples due to the increase in dry matter content. On a fresh weight basis, the drying process caused the highest increase in Tebuconazole residues (from 0,0713 mg/kg to 0,6993 mg/kg), while the smallest increase was observed in Acetamiprid residues (from 0,051 mg/kg to 0,1237 mg/kg). When degradation rates on a dry matter basis were examined, Tebuconazole was the least degraded pesticide during drying, with a degradation rate of 5,1%, while Acetamiprid showed the highest degradation, with a rate of 73,98%. Following the drying process, processing factors for the studied pesticides ranged from 2.42 to 9.8. Processing factors greater than 1 indicated that pesticide residues concentrated during drying. In conclusion, the drying process significantly affects pesticide residues, and different pesticides exhibit varying levels of degradation behavior.

**Keywords:** Pesticide, Strawberry, Drying, Acetamiprid, Boscalid, Azoxystrobin, Tebuconazole.

## Teşekkür

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## A STUDY ON TEMPERATURE-DEPENDENT RHEOLOGICAL BEHAVIOR OF MODIFIED BITUMEN

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### ABSTRACT

This study investigates the rheological properties of bitumen modified with three distinct additives: Styrene-Butadiene-Styrene (SBS), animal bone ash, and waste cooking oil. Rheological frequency sweep tests were conducted at two temperatures, 15°C and 25°C, using an Anton Paar Rheometer. Key metrics including storage modulus ( $G'$ ), loss modulus ( $G''$ ), complex viscosity ( $\eta^*$ ), and the loss factor ( $\tan \delta$ ) were analysed under two stress conditions ( $G-R = 180$  kPa and  $G-R = 600$  kPa) to assess the performance of the modified bitumen. The study revealed that SBS significantly enhanced the elastic properties of the bitumen, particularly at higher temperatures, while animal bone ash introduced stiffness beneficial at high temperatures but increased cracking susceptibility at lower temperatures. Waste cooking oil improved flexibility but reduced the stiffness of the bitumen, making it less suitable for high-stress conditions. Overall, the results highlight the importance of selecting appropriate additives based on environmental and loading conditions to optimize bitumen performance in real-world applications.

**Keywords:** Sustainable Additives, Viscoelastic Behavior, Complex Viscosity, Storage Modulus, Loss Modulus.

**SURİYE GÖÇÜNÜN TÜRKİYE'DEKİ SOSYOPOLİTİK ETKİLERİ: SORUNLAR,  
POLİTİKALAR VE GELECEK PERSPEKTİFLERİ**  
THE SOCIOPOLITICAL EFFECT OF THE SYRIAN MIGRATION IN TURKEY:  
CHALLENGES, POLICIES, AND FUTURE PERSPECTIVES

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**ÖZET**

2011 yılında başlayan Suriye iç savaşı, milyonlarca insanı evlerinden eden büyük bir göç dalgasına yol açmıştır. Bu bağlamda, Türkiye, coğrafi konumu ve açık kapı politikası nedeniyle dünya çapında en fazla mülteci kabul eden ülkelerden biri olmuştur. 2024 itibarıyla yaklaşık 3,7 milyon Suriyeli mültecinin Türkiye'deki varlığı, sosyal, ekonomik ve politik düzlemlerde önemli etkiler yaratmıştır. Bu çalışmada, Türkiye'deki Suriyeli mültecilerin entegrasyon süreçleri, toplumsal uyum ve ekonomik katılım sorunları, siyaset sosyolojisinin kavramları ışığında değerlendirilmekte ve Türkiye'nin bu sürece dair geliştirdiği politikaların etkileri incelenmektedir.

Çalışma, hem mevcut literatürün eleştirel bir analizini hem de politika yapım süreçlerini değerlendirmeyi amaçlamaktadır. Temel sorunlar arasında mültecilerin eğitime, sağlığa ve istihdama erişimde karşılaştıkları zorluklar, yerel halkla yaşanan gerilimler ve kayıt dışı ekonomide artan eşitsizlikler öne çıkmaktadır.

Araştırma, Türkiye'nin mültecilerin temel haklarını korumaya yönelik "Geçici Koruma Statüsü" gibi politikalarının etkinliğini, belediyeler ve sivil toplum kuruluşlarının desteğini ve bu mekanizmaların eksikliklerini ortaya koymaktadır. Siyaset sosyolojisi bağlamında, yerel halkın mültecilere yönelik tutumları, sosyal uyum projelerinin etkileri ve uluslararası destek mekanizmalarının önemi ele alınmıştır. Çalışma, sürdürülebilir mülteci politikalarının geliştirilmesi ve yerel halkın refahının sağlanması için öneriler sunmaktadır.

Bu analiz, Türkiye'nin mülteci politikalarının ulusal ve uluslararası boyutlarını daha iyi anlamak, toplumsal uyum ve ekonomik kalkınmayı destekleyen stratejiler geliştirmek için önemli bir katkı sunmayı hedeflemektedir. Hem mültecilerin hem de yerel halkın refahı için çok boyutlu ve uzun vadeli çözümlerin önemi vurgulanmaktadır.

**Anahtar Kelimeler:** Suriye Göçü, Sosyopolitik Etkiler, Entegrasyon Süreçleri, Sürdürülebilir Mülteci Politikaları.

**ABSTRACT**

The Syrian civil war, which began in 2011, has led to a massive wave of migration, displacing millions of people from their homes. In this context, Turkey, due to its geographic location

and open-door policy, has become one of the countries that has accepted the most refugees worldwide. As of 2024, the presence of approximately 3.7 million Syrian refugees in Turkey has created significant impacts on social, economic, and political levels. This study evaluates the integration processes of Syrian refugees in Turkey, social cohesion and economic participation issues in light of the concepts of political sociology, and examines the effects of the policies developed by Turkey regarding this process.

The study aims to critically analyze the existing literature as well as evaluate policy-making processes. Major issues include the challenges refugees face in accessing education, healthcare, and employment, tensions with the local population, and increasing inequalities in the informal economy.

The research reveals the effectiveness of Turkey's policies such as the "Temporary Protection Status" aimed at protecting the fundamental rights of refugees, the support from municipalities and non-governmental organizations, and the deficiencies of these mechanisms. In the context of political sociology, the attitudes of the local population towards refugees, the effects of social cohesion projects, and the importance of international support mechanisms are addressed. The study offers recommendations for the development of sustainable refugee policies and ensuring the welfare of the local population.

This analysis aims to contribute to better understanding the national and international dimensions of Turkey's refugee policies and to develop strategies that support social cohesion and economic development. The importance of multi-dimensional and long-term solutions for the welfare of both refugees and the local population is emphasized.

**Keywords:** Syrian Migration, Sociopolitical Effects, Integration Processes, Sustainable Refugee Policies

**TÜRKİYE'DE EĞİTİM ALMIŞ ULUSLARARASI MEZUNLARIN KARIYER  
HAYATINA TÜRKİYE'NİN ETKİLERİ**  
TÜRKİYE'S IMPACT ON THE CAREER LIFE OF INTERNATIONAL GRADUATES  
EDUCATED IN TÜRKİYE

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**ÖZET**

Bu araştırma, Türkiye'de üniversite eğitimi almış uluslararası mezunların, kendi ülkelerine döndükten sonra bu eğitimin onlara ne tür fırsatlar sağladığını ve ülkelerinde nasıl algılandığını incelemeyi amaçlamaktadır. Mezunların ülkelerine döndükten sonra Türkiye ile kurdukları ilişkilerin Türkiye'nin sosyal sermayesine nasıl katkıda bulunduğu da ele alınmaktadır. Çalışmada Türkiye'de eğitim almanın Afrika, Orta Doğu ve Türki Cumhuriyetler gibi farklı bölgelerdeki algı ve etkileri bölgesel farklılıklar bağlamında karşılaştırmalı olarak incelenmiştir.

Nitel yöntemle gerçekleştirilen bu çalışmada farklı bölgelerden 10 uluslararası öğrenci ile derinlemesine mülakatlar gerçekleştirilmiştir. Örneklem, Türkiye'de eğitim almanın etkilerini ve mezunların Türkiye ile olan ilişkilerini bölgesel farklılıklar üzerinden değerlendirmek amacıyla maximum çeşitleme ile seçilmiştir. Görüşmelerde mezunların Türkiye'deki eğitimin kendi ülkelerindeki iş bulma fırsatlarına, profesyonel itibarlarına ve toplumsal statülerine olan etkileri ile Türkiye'ye olan katkıları üzerinde durulmuştur.

Bulgular, Türkiye'de eğitim almış olmanın mezunların kendi ülkelerinde farklı açılardan fırsat sağladığını ve Türkiye'ye çeşitli alanlarda katkı sunduklarını ortaya koymaktadır. Afrika ülkelerinden gelen mezunlar, Türkiye'de eğitim almanın istihdam piyasasında kendilerine önemli bir prestij kazandırdığını ve bu sayede iş yaşamında avantaj elde ettiklerini belirtmiştir. Benzer şekilde Türki Cumhuriyetlerden gelen mezunlar da Türkiye'deki eğitimin kariyerlerinde fırsatlar sağladığını ifade etmiştir. Ancak bu avantajların Afrika'daki kadar belirgin olmadığı gözlemlenmiştir. Orta Doğu'dan gelen mezunlar ise Türkiye'deki eğitimin belirli alanlarda avantaj sağladığını, ancak bu avantajın bölgeden bölgeye değişiklik gösterdiğini ifade etmişlerdir.

**Anahtar Kelimeler:** Uluslararası Mezunlar, Sosyal Sermaye, Türkiye'de Yükseköğrenim

## ABSTRACT

This research aims to examine what kind of opportunities this education provides to international graduates who have received university education in Türkiye and how they are perceived in their countries after returning to their home countries. It is also discussed how the relations that graduates establish with Türkiye after returning to their countries contribute to Türkiye's social capital. In the study, the perceptions and effects of education in Türkiye in different regions such as Africa, the Middle East and the Turkic Republics were examined comparatively in the context of regional differences.

In this study, which was carried out by qualitative method, in-depth interviews were conducted with 10 international students from different regions. The sample was selected with maximum variation in order to evaluate the effects of studying in Türkiye and the relationship of graduates with Türkiye based on regional differences. The interviews focused on the effects of education in Türkiye on job opportunities, professional reputation and social status of graduates in their own countries, as well as their contributions to Türkiye.

The findings reveal that having been educated in Türkiye provides graduates with opportunities in different aspects in their own countries and that they contribute to Türkiye in various fields. Graduates from African countries stated that getting an education in Türkiye gives them a significant prestige in the employment market and thus they gain an advantage in business life. Similarly, graduates from the Turkic Republics stated that education in Turkey provides opportunities in their careers. However, it has been observed that these advantages are not as pronounced as in Africa. Graduates from the Middle East, on the other hand, stated that education in Türkiye provides advantages in certain areas, but this advantage varies from region to region.

**Keywords:** International Graduates, Social Capital, Higher Education in Türkiye.

**ALİ DURMUŞ, " AKHİSARLI BİR OSMANLI ÂLİMİ AHMED-İ RÛMÎ VE AKÂİD RİSALESİ ", İKSAD YAYINLARI, ANKARA: 2022, SS. 128.**

ALİ DURMUŞ, "AN AKHISAR SCHOLAR IN THE OTTOMAN EMPIRE: AHMED-I RÛMÎ AND THE TREATISE OF CREED", İKSAD PUBLISHING, ANKARA: 2022, PP. 128.

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**ÖZET**

"'Bir Akhisarlı Osmanlı Alimi Ahmed-i Rûmî ve İtikad Risalesi' adlı eser, Dr. Ali Durmuş'un dağılma araştırmaları ve sonuç analizlerinden ortaya çıkan bir çalışmasıdır. İksad Yayınları tarafından 2022 yılında yayınlanan bu kitap, 17. yüzyıl Osmanlı İmparatorluğu'nun özelliklerine ışık tutmaktadır. Ahmed-i Rûmî, Osmanlı döneminin yaygın dinî ve ilmî şahsiyetlerinden biri olarak kabul edilmektedir. Osmanlı tarihinde dinî canlanma ve ıslahat çabaları açısından dikkate alınmayan bir değere sahip olan Kadızadelis hareketinin önde gelen isimlerinden biridir.

Eserin odak noktası Ahmed-i Rûmî'nin hayatı, ilmî eserleri ve özellikle İtikad Risalesi'nin ayrıntılı bir incelemesidir. İtikad Risalesi, dönemin dinî inançları ve ilmî politikaları hakkında kapsamlı bir çalışma sunmaktadır. Ahmed-i Rûmî bu risalede İslam inancının temellerini, yani ilminin güçlendirilmesini ve Sünnî inancının özünü ayrıntılı bir şekilde ele almaktadır. Kitap, Ahmed-i Rûmî'nin eserleri ve çabaları aracılığıyla Osmanlı İmparatorluğu'ndaki dini ve ilmi tartışmaların ve sosyo-politik gelişmelerin nasıl şekillendiğini ele almaktadır.

Ali Durmuş bu çalışmayla Kadızadelis hareketinin ve Ahmed-i Rûmî'nin Osmanlı ilmi ve dini icrasındaki rolünü analiz etmektedir. Kitap, Osmanlı tarihinde dini uyanış ve reformun nasıl gerçekleştirildiğine dair önemli bir bakış açısı sunmaktadır. Bu eser, Osmanlı dini ve ilmi tarihi üzerine yapılan çalışmalar için vazgeçilmez bir kaynaktır. Bu baskı, Osmanlı dönemindeki dini hareketler, ilmi tartışmalar ve toplumsal hareketler hakkında ayrıntılı bilgi arayan araştırmacılar, tarihçiler ve belgeselciler için büyük önem taşımaktadır.

**Anahtar Kelimeler:** Osmanlı, Akhisar, Risale, Akaid, Ahmet el-Rûmî

## ABSTRACT

"The work titled 'An Akhisari Ottoman Scholar Ahmed-i Rûmî and The Creed Treatise' is a study by Dr. Ali Durmuş that emerges from dissolution research and result analysis. Published by İksad Publishing in 2022, this book sheds light on the characteristics of the 17th-century Ottoman Empire. Ahmed-i Rûmî is recognized as one of the widespread religious and scholarly personalities of the Ottoman era. He is one of the prominent figures of the Kadızadelis movement, which holds an unconsidered value in Ottoman history for religious revitalization and reform efforts.

The focus of the work is a detailed examination of Ahmed-i Rûmî's life, scholarly works, and especially The Creed Treatise. The Creed Treatise offers a comprehensive study on the religious beliefs and scholarly policies of the period. In this treatise, Ahmed-i Rûmî elaborately addresses the foundations of Islam creed, namely the reinforcement of his scholarship and the essence of the Sunni belief. The book reveals how religious and scholarly discussions, as well as socio-political developments in the Ottoman Empire, were shaped through the works and efforts of Ahmed-i Rûmî.

With this study, Ali Durmuş analyzes the role of the Kadızadelis movement and Ahmed-i Rûmî in Ottoman scholarly and religious performance. The book provides a significant perspective on how religious awakening and reform were realized in Ottoman history. This work is an indispensable source for studies on Ottoman religious and scholarly history. The edition is of great importance for researchers, historians, and documentarians seeking detailed information on religious movements, scholarly discussions, and social movements of the Ottoman period.

**Keywords:** Ottoman, Akhisar, Risale, Akaid, Ahmet el-Rumi



**MEHMET ÖZMENLİ, TÜRKLERDE DEVLET VE SİVİL TEŞKİLATLAR, İKSAD  
YAYINEVİ, ANKARA: 2023, SS. 184**

MEHMET ÖZMENLİ, STATE AND CIVIL ORGANIZATIONS AMONG THE TURKS,  
İKSAD PUBLISHING HOUSE, ANKARA: 2023, PP. 184

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## ÖZET

Prof. Dr. Mehmet Özmenli'nin editörlüğünü yaptığı "Türklerde Devlet ve Sivil Teşkilatlar" adlı kitap, Türk tarihi bağlamında devlet ve sivil örgütler arasındaki karmaşık ilişkinin kapsamlı bir incelemesini sunmaktadır. Bu akademik çalışma, erken göçebe aşiretlerden Osmanlı İmparatorluğu'na ve modern Türkiye Cumhuriyeti'ne kadar uzanan çeşitli Türk devletleri ve imparatorlukları boyunca devlet yapılarının ve sivil toplum örgütlerinin gelişimini araştırmaktadır. Ciltte, Yardımcı Doçent Dr. Nazım Kuruca, Öğretim Görevlisi Hüseyin Kara, Vedat Meral, Yardımcı Doçent Dr. Bekir Sarıyıldız, Dr. Emrah Akar, Öğretim Görevlisi Gökhan Hamzaçebi ve Sultan Gürsoy gibi saygın bir tarihçi ve bilim insanı grubunun katkıları yer almakta olup, her bir katılımcı Türk idari ve toplumsal örgütlenmesinin farklı yönlerini analiz etmektedir. Kitap, Türk devlet oluşumunun, askeri örgütlenmenin, kültürel ve sosyal kurumların temel yönleriyle başlayıp Osmanlı İmparatorluğu ve modern Türkiye'deki sivil örgütlerin karmaşık dinamiklerine kadar uzanan kapsamlı bir genel bakış sağlamak üzere yapılandırılmıştır. Selçuklu ve Osmanlı imparatorluklarının vaka çalışmalarında görüldüğü gibi askeri örgütlerin önemini vurgulayarak, askeri elitlerin yönetim ve toplumsal yapıdaki rolünü vurgulamaktadır.

**Anahtar Kelimeler:** Osmanlı, Türk, Devlet, Teşkilat, Sivil

## ABSTRACT

The book "Türklerde Devlet ve Sivil Teşkilatlar" (State and Civil Organizations among the Turks), edited by Prof. Dr. Mehmet Özmenli, offers a comprehensive examination of the complex relationship between the state and civil organizations in the context of Turkish history. This academic work investigates the development of state structures and civil society organizations throughout various periods of Turkish states and empires, ranging from early nomadic tribes to the Ottoman Empire and progressing to the modern Turkish Republic. The volume includes contributions from an esteemed group of historians and scholars, such as

Assistant Professor Dr. Nazım Kuruca, Lecturer Hüseyin Kara, Vedat Meral, Assistant Professor Dr. Bekir Sarıyıldız, Dr. Emrah Akar, Lecturer Gökhan Hamzaçebi, and Sultan Gürsoy, with each contributor analyzing different aspects of Turkish administrative and societal organization.

The book is structured to provide a comprehensive overview, starting with the foundational aspects of Turkish state formation, military organization, cultural and social institutions, and extending to the complex dynamics of civil organizations within the Ottoman Empire and modern Turkey. It underscores the importance of military organizations, as seen in the case studies of the Seljuk and Ottoman empires, highlighting the role of military elites in governance and societal structure.

One of the key themes explored is the transformation of civil and military organizations over time, reflecting changes in governance, societal needs, and external influences. The adaptation and integration of various cultural and administrative practices from conquered territories and neighboring civilizations are meticulously analyzed. This includes the influence of Islamic principles on governance and civil society, particularly during the Ottoman era, where a sophisticated blend of Islamic law and Turkish traditions governed state affairs and civil society interactions.

The book also delves into the economic foundations of Turkish states, examining the fiscal policies, trade practices, and economic strategies that supported the expansion and sustainability of these empires. The analysis of economic structures provides insights into the complexities of managing vast empires with diverse populations and resources.

**Keywords:** Ottoman, Turkish, State, Organization, Civil

**GÖRSEL PROPAGANDA VE İNGİLİZ ORDUSU: “YOU BELONG HERE”  
KAMPANYA VIDEO VE AFİŞLERİNİN BİÇİM VE İÇERİK ANALİZİ  
VISUAL PROPAGANDA AND THE BRITISH ARMY: FORM AND CONTENT  
ANALYSIS OF “YOU BELONG HERE” CAMPAIGN VIDEOS AND POSTERS**

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**ÖZET**

Bu bildiri, Birinci Dünya Savaşı sırasında yürüttüğü etkili propaganda faaliyetleriyle ön plana çıkan İngiltere’nin, 2023 yılında başlattığı ve “You Belong Here (Sen Buraya Aitsin)” adıyla orduya katılım çağrısında bulunduğu kampanyada kullanılan görsel propaganda tekniklerini incelemeyi amaçlamaktadır. Çalışma kapsamında, kampanyaya ait görsel unsurlar ve sloganlar, biçimsel ve içerik odaklı bir analizle değerlendirilmektedir. Biçimsel analiz kapsamında görsel unsurlarda yer alan renk paleti, tipografi, semboller ve görsel kompozisyon değerlendirilmekte, içerik analizi kapsamında ise, kampanyada vurgulanmak istenilen aidiyet duygusu, kapsayıcılık, cesaret ve ulusal birlik temalarının ne şekilde işlendiği ele alınmaktadır.

Kampanya, ordunun kapsayıcılığını vurgulamanın yanı sıra bireylere aidiyet duygusu aşılayarak, bireysel kimlikleri ulusal bir kimlik çatısı altında birleştirmeyi ve bu doğrultuda orduya katılımı teşvik etmeyi hedeflemektedir. Bu bağlamda, görsel unsurların, özellikle genç bireyler ve azınlık gruplarına yönelik mesajlarla şekillendirildiği dikkat çekmektedir. Sosyal ve psikolojik aidiyet ihtiyacından hareketle tasarlanan kampanyada, propaganda teorilerinden türetilen ikna ve manipülasyon stratejilerinin etkili bir biçimde uygulandığı görülmektedir.

Sonuç olarak, “You Belong Here” kampanyası, çeşitli eleştirilere konu olmuş bir çalışma olmakla birlikte, görsel propaganda araçlarının kullanımında önemli bir başarı sergilemiş ve afişlerin ve kitle iletişim araçlarının, özellikle de sosyal medya platformlarının, etkin bir biçimde değerlendirildiği bir strateji ortaya koymaktadır. Kampanya, görsel unsurlar aracılığıyla hedef kitlesine yönelik etkili mesajlar sunarken, ikna edici ve manipülatif unsurların modern propaganda teknikleri çerçevesinde nasıl uygulanabileceğine dair dikkat çekici bir örnek oluşturmaktadır. Bu bağlamda, çalışma yalnızca kampanyanın etkilerini incelemekle kalmayıp, aynı zamanda görsel propaganda ve iletişim stratejilerinin nasıl geliştirilebileceğine dair bir temel sunmayı ve tartışmaya katkı sağlamayı amaçlamaktadır.

**Anahtar Kelimeler:** Görsel Propaganda, Afiş, Video, İngiliz Ordusu.

## ABSTRACT

This paper aims to analyse the visual propaganda techniques used in the campaign launched in 2023 by Britain, which came to the forefront with its effective propaganda activities during the First World War, calling for participation in the army with the name 'You Belong Here'. Within the scope of the study, the visual elements and slogans of the campaign are evaluated through a formal and content-oriented analysis. Within the scope of formal analysis, the colour palette, typography, symbols and visual composition in the visual elements are evaluated, while within the scope of content analysis, the themes of sense of belonging, inclusiveness, courage and national unity, which are intended to be emphasised in the campaign, are discussed.

In addition to emphasising the inclusiveness of the army, the campaign aims to instil a sense of belonging in individuals, to unite individual identities under a national identity and to encourage participation in the army accordingly. In this context, it is noteworthy that the visual elements are shaped with messages targeting especially young individuals and minority groups. In the campaign, which is based on the social and psychological need for belonging, it is seen that persuasion and manipulation strategies derived from propaganda theories are effectively applied.

In conclusion, although the 'You Belong Here' campaign has been subjected to various criticisms, it has demonstrated a significant success in the use of visual propaganda tools and reveals a strategy in which posters and mass media, especially social media platforms, are effectively utilised. While the campaign presents effective messages to its target audience through visual elements, it constitutes a remarkable example of how persuasive and manipulative elements can be applied within the framework of modern propaganda techniques. In this context, the study aims not only to analyse the effects of the campaign, but also to contribute to the discussion by providing a basis for how visual propaganda and communication strategies can be developed.

**Keywords:** Visual Propaganda, Poster, Video, British Army.

## SOSYAL MEDYANIN TOPLUMSAL VE SİYASAL ETKİLERİ SOCIAL AND POLITICAL EFFECTS OF SOCIAL MEDIA

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### ÖZET

Bu bildirinin konusu, sosyal medyanın toplumsal ve siyasal etkileridir. Sosyal medya, bireylerin etkileşim kurduğu, bilgi paylaştığı ve kamusal söylemler ürettiği dijital platformlar olarak modern toplumlardaki etkisini giderek artırmaktadır. Siyaset sosyolojisi, toplumsal yapıyı ve politik süreçleri anlamak için bireylerin ve grupların davranışlarını, ideolojilerini, ve güç ilişkilerini inceler. Sosyal medyanın yükselen rolü, bu ilişkileri yeniden şekillendirdiği için siyaset sosyolojisi perspektifinden önemli bir araştırma alanıdır. Sosyal medya, siyasal davranışları, kamuoyu oluşumunu, toplumsal hareketleri ve siyasi partilerin stratejilerini etkileyen bir araç olarak incelenmektedir. Sosyal medyanın toplumsal ve siyasal etkileri, özellikle son yıllarda büyük bir değişim göstermiştir. Sosyal medya, toplumsal cinsiyet, etnik kimlik, sınıf gibi toplumsal kategoriler üzerinden dinamikleri etkileyebilirken, aynı zamanda seçim sonuçları, toplumsal hareketler ve kamu politikaları üzerinde de doğrudan etkiler yaratmaktadır. Bu konuda yapılan araştırmaların artması, sosyal medya platformlarının gücünü, bilgi yayılımını ve kamuoyu oluşturma süreçlerini anlamada büyük önem taşımaktadır. Ele alınan bu konu, toplumsal değişim ve demokratik süreçlerin yeniden şekillenmesi açısından kritik bir alandır. Bildiride sosyal medyanın toplumsal etkileri (örneğin toplumsal cinsiyet rolleri, kültürel normlar) ve siyasal etkileri (örneğin seçim süreçleri, politik kampanyalar, siyasal mobilizasyon) ele alınacaktır. Ancak çalışma, yalnızca belirli sosyal medya platformlarıyla (özellikle Facebook, Twitter, Instagram ve TikTok gibi geniş kullanıcı tabanına sahip olanlar) sınırlı kalacaktır. Ayrıca, araştırma, belirli coğrafi bölgelerde (özellikle Batı ve gelişmekte olan ülkelerde) ve belirli dönemdeki olaylara (örneğin, seçimler, protestolar) odaklanacaktır. Çalışmanın bir diğer sınırlılığı, dijital okuryazarlık düzeylerinin toplumsal ve kültürel farklılıklar gösterdiği gerçeğidir; bu nedenle, sosyal medya kullanımının etkileri, farklı topluluklarda farklılık gösterebilir. Bu çalışmada, nicel araştırma yöntemleri kullanılacaktır. Nicel veriler, anketler ve sosyal medya üzerindeki etkileşim analizleri yoluyla toplanacaktır. Anketler, sosyal medya kullanıcılarının siyasal davranışları, tutumları ve algılarını ölçmeyi hedeflerken, içerik analizi, sosyal medya platformlarında yer alan siyasi içeriklerin incelenmesine olanak tanıyacaktır. Ayrıca, sosyal medya etkileşim verilerinin analizi, farklı platformlarda yayılan bilgi ve dezenformasyonun toplumsal ve siyasal sonuçlarını anlamaya yönelik önemli bir araç olacaktır. Bu çalışmanın temel hedefi, sosyal medyanın toplumsal yapılar üzerindeki etkilerini daha iyi anlamak, siyasal davranışları şekillendiren mekanizmaları ortaya koymak ve bu etkilerin demokratik süreçler üzerindeki rolünü analiz etmektir. Literatüre, sosyal medyanın siyasal iletişimdeki dinamiklerini,

toplumsal gruplar arasındaki etkileşimleri ve toplumsal hareketlerin dijitalleşmesini açıklığa kavuşturan yeni bir bakış açısı sunmayı amaçlamaktadır. Sosyal medyanın manipülasyon ve dezenformasyonun yayılmasındaki rolünü inceleyerek, kamu politikalarına yönelik önerilerde bulunulacaktır.

**Anahtar Kelimeler:** Sosyal Medya, Toplumsal Etkiler, Siyasal İletişim, Siyaset Sosyolojisi

## ABSTRACT

The topic of this paper is the social and political impacts of social media. Social media, as digital platforms where individuals interact, share information, and produce public discourse, is increasingly influencing modern societies. Political sociology examines the behaviors, ideologies, and power relations of individuals and groups to understand social structures and political processes. The rising role of social media is reshaping these relationships, making it a significant research area from a political sociology perspective. Social media is studied as a tool that influences political behaviors, public opinion formation, social movements, and political party strategies. The social and political impacts of social media have shown significant changes, especially in recent years. Social media can affect dynamics through social categories such as gender, ethnic identity, and class, while also having direct impacts on election results, social movements, and public policies. The increase in research on this topic is crucial for understanding the power of social media platforms, information dissemination, and public opinion formation processes. This topic is critical for reshaping social change and democratic processes. The paper will address the social impacts of social media (e.g., gender roles, cultural norms) and political impacts (e.g., election processes, political campaigns, political mobilization). However, the study will be limited to specific social media platforms (especially those with large user bases like Facebook, Twitter, Instagram, and TikTok). Additionally, the research will focus on specific geographic regions (particularly Western and developing countries) and events during specific periods (e.g., elections, protests). Another limitation of the study is the fact that digital literacy levels show social and cultural differences; therefore, the impacts of social media usage may vary across different communities. Quantitative research methods will be used in this study. Quantitative data will be collected through surveys and interaction analyses on social media. Surveys aim to measure the political behaviors, attitudes, and perceptions of social media users, while content analysis will allow the examination of political content on social media platforms. Additionally, the analysis of social media interaction data will be an important tool for understanding the social and political consequences of information and disinformation spread across different platforms. The main goal of this study is to better understand the impacts of social media on social structures, reveal the mechanisms shaping political behaviors, and analyze the role of these impacts on democratic processes. The study aims to provide a new perspective to the literature by clarifying the dynamics of social media in political communication, interactions between social groups, and the digitalization of social

movements. By examining the role of social media in the spread of manipulation and disinformation, recommendations for public policies will be made.

**Keywords:** Social Media, Social Effects, Political Communication, Political Sociology

## HAZRETİ MUHAMMED'İN İSTİHDAM İLKELERİ KAPSAMINDA ETNİK TARAFSIZLIK ETHNIC NEUTRALITY WITHIN THE SCOPE OF PROPHET MUHAMMAD'S EMPLOYMENT PRINCIPLES

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### ÖZET

İrkçiliğin kötülenmesi ve yok sayılması diyebileceğimiz etnik tarafsızlığın İslâm'ın temel ilkelerinden biri olduğu açıktır. Bu çerçevede Hazreti Muhammed etnik tarafsızlığa önem vermiş, etnik ayrımcılığı zaman zaman sert bir şekilde eleştirmiş, çevresindekileri de bu konuda uyarmıştır. Nitekim bir hadiste, “Arabın aceme, acemin de araba üstünlüğü yoktur. Üstünlük ancak takvadadır” buyrulmaktadır. Hazreti Muhammed tüm işlerde bu ilkeyi esas almıştır. Onun, etnik ayrımcılığı ortadan kaldırmasına yönelik verilecek en güzel örneklerden birisi, ashaptan siyahi köle Zeyd b. Sâbit'ten boşanan eşiyle evlenmesidir. Bu bağlamda, istihdam konusunda da Hazreti Muhammed etnik ayrımcılığa karşı çıkmış, sadece ehliyet ve liyakat sahibi kişilerin göreve getirilmesine çalışmıştır. Şöyle ki “Başınıza uzuvları eksik siyahi bir köle dahi getirilirse, ona itaat ediniz” buyuran Hazreti Muhammed, Bilal Habeşi'yi, sesi güzel olması sebebiyle, ırk ve rengini asla dikkate almadan müezzin olarak görevlendirmiştir. Bu şerefli göreve, ezanı rüyasında görüp Hazreti Muhammed'e söyleyen Abdullah b. Zeyd ve Hazreti Ömer'in getirilmesi gerekirken, Hz. Peygamber, sesinin daha etkin ve gür olduğu gerekçesini ileri sürerek, yani ehliyet vasfını önemseyerek Bilal'i tayin etmiştir. Üsâme b. Zeyd'in de ordu komutanı tayin edilmesindeki amacın, etnik ayrımcılığın ortadan kaldırılması olabilir. Nitekim hizmet, kıdem ve şöhret yönleriyle daha önde olan birçok sahabinin yer aldığı bir orduya, yaşça çok genç olan ve siyahi ırka mensup birisinin komutan tayin edilmesi bunu akla getirmektedir. Arap olmayan bir kimsenin yönetici olması imkansızdı. Hazreti Muhammed'in bu uygulaması sonrasında söz konusu bu düşünce ortadan kalkmıştır. Bu ve daha fazla örneklemelerden yola çıkarak etnik tarafsızlığın, Hazreti Muhammed'in istihdam ilkelerinden birisi olduğu açık bir şekilde görülmektedir.

**Anahtar Kelimeler:** Etnik tarafsızlık, İstihdam ilkeleri, Hazreti Muhammed

### ABSTRACT

Ethnic electorate, which we can call the worsening and ignoring of racism, is one of the foundations of the principles of Islam. This union gave importance to ethnic parents, criticized ethnic discrimination harshly from time to time and warned about this issue for years. As a matter of fact, it is stated in a hadith: “An Arab has no advantage over a non-Arab, and the



non-Arab has a advantage over Arab”. The Prophet Muhammad took this principle as a basis in all his affairs. One of the best examples of his elimination of ethnic discrimination is that the Prophet Muhammad marrying the black slave Zayd ben Thabit’s wife who divorced. In this context, the Prophet Muhammad opposed ethnic discrimination in employment and tried to appoint only qualified and qualified people. The Prophet Muhammad, who said, “Even if a black slave with missing limbs is brought to you, obey him” appointed Bilal Habeshi as a muezzin, regardless of his race and color, because of his beautiful voice. It was more appropriate to appoint Abdallah ben Zayd and Omar, who saw the call to prayer in his dreams and told it to the Prophet Muhammad, for this honorable task. However, the Prophet Muhammad appointed Bilal on the grounds that his voice was more effective and loud, that is, he cared about his qualifications. Likewise, the Prophet Muhammad’s purpose of appointing Usama ben Zayd as army commander may have been to eliminate ethnic discrimination. As a matter of fact, the appointment of a very young black man as the commander of an army that included many companions who were more prominent in terms of service, seniority and fame brings this to mind. According to an idea among the Arabs, it was impossible for a non-Arab to become a ruler. After this practice of the Prophet Muhammad, this idea disappeared. Based on these and more examples, it is clearly seen that ethnic neutrality is one of the employment principles of the Prophet Muhammad.

**Keywords:** Ethnic Neutrality, Employment Principles, The Prophet Muhammad

## İSLAM HUKUKUNDA İSYAN SUÇUNUN ÖZEL GÖRÜNÜŞ ŞEKİLLERİNİN CEZAYA ETKİSİ

### THE INFLUENCE OF THE SPECIFIC MANIFESTATIONS OF THE CRIME OF REBELLION ON PUNISHMENT IN ISLAMIC LAW

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#### ÖZET

İslam ceza hukukunda bağı kavramıyla belirtilen devlete isyan suçu, meşru otoriteye karşı silahlı başkaldırıyı ifade eden, toplumsal düzeni bozmaya yönelik fiilleri kapsayan ağır bir suçtur. Suçun özel görünüş şekillerinden olan teşebbüs, iştirak, içtima ve şüphe bu suçun cezalandırması sürecinde temel belirleyici unsurlardandır. Bununla birlikte suçun bastırılması ve sonrasında öngörülen cezanın mahiyeti dikkate alındığında bağı suçunun had mi yoksa tazir suçları kapsamında mı yer alması gerektiği ise İslam hukukçuları arasında tartışma konusudur. İlgili suça teşebbüs durumunda karşı müdahalenin başlatılma zamanı, bastırılması ve bu aşama için öngörülebilecek cezanın mahiyeti ayrı bir değerlendirmeye konu olmuştur. Ayrıca bu suç tabiatı gereği çok failli bir suçtur. Bu kapsamda iştirak sürecinin de ayrıca ele alınması gerektiği muhakkaktır. Suçun mahiyeti dikkate alındığında bağı suçunun gasp, yağma veya öldürme gibi başka suçlarla içtimayı da mümkündür. Bu durumlarda suça öngörülen cezanın ağırlaştırılması söz konusudur. Çeşitli sebeplere dayalı şüphe ilkesinin dikkate alınması durumu ise cezanın hafiflemesine veya düşürülmesine imkân tanımaktadır. İslam hukuku adalet, hakkaniyet ve suç ceza dengesi ilkelerini esas alan bir hukuk sistemidir. Bu bağlamda bağı suçunun özel görünüş şekilleri ile failerin niyeti ilgili suça müdahale şekliyle birlikte cezanın tespitinde önem ifade etmekte ve doğrudan etkili olmaktadır.

**Anahtar Kelimeler:** İslam Hukuku, Suç, Ceza, Bağy Suçu, İsyân, Suçun Özel Görünümü

#### ABSTRACT

In Islamic criminal law, the crime of rebellion (bagy), defined as an armed insurrection against legitimate authority, encompasses acts aimed at destabilizing public order and undermining societal harmony. The specific manifestations of this crime, including attempt, complicity, concurrence of crimes, and doubt, constitute critical factors in determining the nature and extent of the prescribed punishment. Nevertheless, whether bagy should be classified as a hudud offense, with fixed divine punishments, or as a tazir offense, which allows judicial discretion, remains a contested issue among Islamic jurists, particularly in light of its suppression and post-crime adjudication. In cases of attempted rebellion, the timing and

method of suppression, as well as the determination of appropriate penalties for this preliminary stage, require meticulous evaluation. As bagy is inherently a collective offense, the role of complicity-distinguishing between leaders, active participants, and coerced followers-demands careful legal scrutiny. Additionally, the concurrence of rebellion with other criminal acts such as theft, plunder, or murder necessitates the aggravation of penalties, reflecting the compounded harm inflicted by such offenses. The application of the principle of doubt is equally significant, as it may lead to the mitigation or annulment of penalties in cases where uncertainty exists regarding the intent or circumstances of the perpetrators. Grounded in principles of justice, proportionality, and equity, Islamic law ensures a balanced approach to the adjudication of bagy. Thus, the specific manifestations of rebellion, coupled with the intent of the offenders, profoundly influence the legal response, the method of intervention, and the determination of punishment.

**Keywords:** Islamic Law, Criminal Law, Rebellion, Bagy, Punishment, Specific Manifestations of Crime

## SEZARYEN SONRASI VAJİNAL DOĞUM: EĞİLİMLER, RİSKLER VE SONUÇLARIN İNCELEMESİ

### VAGINAL BIRTH AFTER CESAREAN SECTION: REVIEW OF TRENDS, RISKS, AND OUTCOMES

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#### ÖZET

Dünya genelinde sezaryen doğum oranları son yıllarda önemli ölçüde artmıştır. Bu artış, özellikle tekrar sezaryen doğumların yaygınlaşmasından kaynaklanmaktadır. Sezaryen sonrası vajinal doğum (VBAC) oranları ise zamanla düşüş göstermiştir. Bunun temel nedeni, sezaryen sonrası doğum denemesi (TOLAC) sırasında uterin rüptür riski gibi potansiyel komplikasyonlardan duyulan endişelerdir. Araştırma süreci içerisinde, PubMed, Google Scholar, Scopus, Web of Science, CINAHL, ScienceDirect, gibi arama motorları kullanılarak son beş yıl içinde yayımlanan makaleler taranmıştır. Anahtar kelimeler olarak "sezaryen sonrası vajinal doğum", "sezaryen", "uterin rüptür riski", "doğum yönetimi" ve "neonatal sonuçlar" gibi ifadeler kullanılmıştır.

VBAC, uterin rüptür riski gibi ciddi komplikasyonlar taşımasına rağmen, uygun klinik yönetimle büyük oranda başarıya ulaşabilmektedir. Yapılan çalışmalar, TOLAC'ın başarılı olma ihtimalinin yüksek olduğunu, ancak uterin rüptür ve diğer komplikasyonlar gibi risklerin göz önünde bulundurulması gerektiğini göstermektedir. Sezaryen sonrası yapılan her doğumda, maternal morbidite de artmakta, bu da birden fazla sezaryen doğum yapmış kadınların iyileşme süreçlerini etkileyebilmektedir. TOLAC'a uygun hastalarda ise başarılı bir VBAC sonrası iyileşme süreci daha hızlı olabilmektedir.

Neonatal sonuçlar açısından yapılan araştırmalar, VBAC ve elektif sezaryen doğum arasındaki farkların minimal olduğunu ortaya koymuştur. Neonatal mortalite, sepsis ve solunum sıkıntısı gibi komplikasyonlar her iki doğum şekliyle de ilişkili olsa da, genel olarak bu komplikasyonlar, iyi izlenen hastalarda düşük oranlarda gerçekleşmektedir.

Sonuç olarak, VBAC, uygun hastalar için güvenli ve etkili bir seçenek olabilir. Bu nedenle, sezaryen sonrası vajinal doğum, doğru hasta seçimi, uygun klinik izlem ve yönetimle, sezaryen doğum yerine tercih edilebilecek bir alternatif olarak değerlendirilmelidir.

**Anahtar Kelimeler:** Sezaryen sonrası vajinal doğum (VBAC), Sezaryen doğum, Uterin rüptür riski, Neonatal sonuçlar, Doğum yönetimi

## ABSTRACT

Cesarean section (CS) rates have significantly increased worldwide in recent years. This increase is particularly attributed to the rise in repeat cesarean births. On the other hand, the rates of vaginal birth after cesarean (VBAC) have declined over time. The primary reason for this decrease is the concerns regarding potential complications, such as the risk of uterine rupture, during a trial of labor after cesarean (TOLAC). In the research process, databases such as PubMed, Google Scholar, Scopus, Web of Science, CINAHL, and ScienceDirect were used to search for articles published in the last five years. Keywords such as "vaginal birth after cesarean," "cesarean," "uterine rupture risk," "labor management," and "neonatal outcomes" were used.

Although VBAC carries serious complications, such as the risk of uterine rupture, it can be successfully achieved with appropriate clinical management. Studies have shown that the likelihood of a successful TOLAC is high, but risks like uterine rupture and other complications must be considered. Maternal morbidity increases with each cesarean birth, which can affect the recovery process for women who have had multiple cesareans. However, in patients suitable for TOLAC, the recovery process after a successful VBAC tends to be quicker.

Research on neonatal outcomes has shown that the differences between VBAC and elective cesarean births are minimal. Complications such as neonatal mortality, sepsis, and respiratory distress are associated with both types of birth, but overall, these complications occur at low rates in well-monitored patients.

In conclusion, VBAC can be a safe and effective option for appropriate patients. Therefore, vaginal birth after cesarean should be considered as an alternative to cesarean delivery, with proper patient selection, clinical monitoring, and management.

**Keywords:** Vaginal Birth After Cesarean (VBAC), Cesarean section, Uterine rupture risk, Neonatal outcomes, Birth management.

**LİSE ÖĞRENCİLERİNDE OLUMLU YA DA OLUMSUZA ODAKLANMANIN  
AKILLI TELEFON BAĞIMLILIĞI İLE SOSYAL MEDYA KULLANIMINA ETKİSİ**  
THE EFFECT OF FOCUSING ON POSITIVE OR NEGATIVE ON SMART PHONE  
ADDICTION AND SOCIAL MEDIA USAGE IN HIGH SCHOOL STUDENTS

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**ÖZET**

Bu bildirinin amacı, lise öğrencilerinde olumlu ya da olumsuz düşünceye odaklanmanın akıllı telefon bağımlılığı ve sosyal medya kullanımına etkisini ortaya koymaktır. Çalışmanın evrenini ülkemizdeki lise öğrencileri oluşturmaktadır. Araştırma 2023-2024 eğitim öğretim yılında Selami Değer Anadolu Lisesi, Siirt Türk Nisan Telekom Fen Lisesi, Siirt Anadolu Erkek İmam Hatip Lisesi’ndeki 9. Sınıf ve 10. sınıf öğrencileri ile anket yöntemi ile yüz yüze olarak toplanmıştır. Araştırma 240 öğrenci ile tamamlanmıştır. Araştırma verileri “Öğrenci Tanıtım Formu”, “Akıllı Telefon Bağımlılığı Ölçeği”, “Ergenler için Sosyal Medya Bağımlılığı Ölçeği” ve “Olumlu ve Olumsuz Yaşantı Ölçeği- Ergen Formu” ile elde edilmiştir. Çalışmada verilerin değerlendirilmesinde yüzde, ortalama, standart sapma, mann whitney-u ve regresyon analizi kullanılmıştır. Araştırmaya katılan öğrencilerin yaş, cinsiyet, okul türünün benzer olduğu, çoğunluğunun ise 9. sınıfa gittiği belirlenmiştir. Katılımcıların akıllı telefon bağımlılığı puan ortalamalarının  $30,31 \pm 11,80$ , olumlu ve olumsuz yaşantı puan ortalamalarının  $36,05 \pm 6,14$ , sosyal medya bağımlılığı puan ortalamalarının ise  $22,66 \pm 8,17$  olduğu bulunmuştur. Araştırmanın sonucuna göre, olumsuz duyguların sosyal medya ve akıllı telefon bağımlılığı üzerinde önemli bir etkisinin olduğu tespit edilmiştir.

**Anahtar Kelimeler:** Lise Öğrencileri, Akıllı Telefon Bağımlılığı, Sosyal Medya Kullanımı.

**ABSTRACT**

The aim of this report is to reveal the effect of focusing on positive or negative thoughts on smartphone addiction and social media use in high school students. The universe of the study

consists of high school students in our country. The research was collected face to face with the survey method from 9th and 10th grade students at Selami Değer Anatolian High School, Siirt Türk Nisan Telekom Science High School, Siirt Anatolian Male Imam Hatip High School in the 2023-2024 academic year. The research was completed with 240 students. The research data were obtained with the "Student Introduction Form", "Smartphone Addiction Scale", "Social Media Addiction Scale for Adolescents" and "Positive and Negative Experience Scale-Adolescent Form". Percentage, mean, standard deviation, Mann Whitney-u and regression analysis were used in the evaluation of the data in the study. It was determined that the age, gender and school type of the students participating in the research were similar, and the majority of them were in the 9th grade. It was found that the participants' smartphone addiction average score was  $30.31 \pm 11.80$ , their positive and negative experience average score was  $36.05 \pm 6.14$ , and their social media addiction average score was  $22.66 \pm 8.17$ . According to the results of the research, it was determined that negative emotions have a significant effect on social media and smartphone addiction.

**Keywords:** High School Students, Smartphone Addiction, Social Media Usage.



**ÇOCUKLARIN SİĞARA DUMANI MARUZİYETİ İLE İLGİLİ EBEVEYN  
ALGILARININ VE İLİŞKİLİ FAKTÖRLERİN BELİRLENMESİ: GÜNEYDOĞU  
ANADOLU BÖLGESİ ÖRNEĞİ**

**DETERMINATION OF PARENTAL PERCEPTIONS AND RELATED FACTORS  
ABOUT CHILDREN'S EXPOSURE TO CIGARETTE SMOKE: THE CASE OF  
SOUTHEASTERN ANATOLIA REGION**

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**ÖZET**

Bu bildirinin amacı, ebeveynlerin çocuklarının sigara dumanına maruziyeti ile ilgili algılarını ve ilişki faktörleri belirlemektir. Çalışmanın evrenini Güneydoğu Anadolu Bölgesindeki ebeveynler oluşturmaktadır. Araştırmanın örnekleme rastgele örnekleme yöntemi ile belirlenmiştir. Araştırma 0-18 yaş arası en az bir çocuğa sahip 440 ebeveyn ile tamamlanmıştır. Araştırma verileri ebeveynlerden anket yöntemi ile online Google formlar aracılığıyla toplanmıştır. Araştırma verileri “Ebeveyn Bilgi Formu”, “Çocukların Sigara Maruziyeti ile İlgili Ebeveyn Algısı” ölçeği ile elde edilmiştir. Çalışmada verilerin değerlendirilmesinde yüzde, ortalama, standart sapma, mann whitney-u, kruskal wallis analizi kullanılmıştır. Çalışmaya katılan ebeveynlerin % 38.4’ü anne, %40.7’si babadır. Ebeveynlerin % 42.5’i şu anda sigara içtiğini, %57.6’sı sigara içmediğini bildirdi. Katılımcıların % 70.7’si çekirdek aileye sahiptir. Ayrıca ebeveynlerin % 52.7’si ise gelirin gidere eşit olduğunu bildirmiş olup, %45.7’si üniversite ve üzeri eğitim düzeyine sahiptir. Katılımcıların ölçek ortalama toplam puanı  $76.44 \pm 23.89$  idi. Araştırma sonucuna göre, katılımcıların sigara dumanı maruziyet algılarının yüksek düzey olduğu tespit edilmiştir. Çalışma durumunun sigara dumanı maruziyeti algısı ile ilişkili bir faktör olmadığı saptanmıştır. Evin dışında sigara içenlerin ise toplam ölçek puanları anlamlı derecede yüksek bulunmuştur.

**Anahtar Kelimeler:** Ebeveynler, Sigara Dumanı, Algı.

**ABSTRACT**

The purpose of this report is to determine parents' perceptions of their children's exposure to secondhand smoke and the associated factors. The study population consists of parents in the Southeastern Anatolia Region. The study sample was determined by random sampling. The

study was completed with 440 parents who have at least one child between the ages of 0-18. The study data were collected from parents through online Google forms using a survey method. The study data were obtained using the "Parent Introduction Form" and the "Parent Perception of Children's Exposure to Smoking" scale. Percentage, mean, standard deviation, Mann Whitney-U, Kruskal Wallis and regression analysis were used to evaluate the data in the study. 38.4% of the parents participating in the study were mothers, 40.7% were fathers. 42.5% of the parents reported that they currently smoked and 57.6% reported that they did not smoke. The participants' total scale mean score was  $76.44 \pm 23.89$ . The total scale scores of those who smoked outside the home were found to be significantly higher. According to the results of the study, it was determined that the participants' perception of cigarette smoke exposure was high.

**Keywords:** Parents, Cigarette Smoke, Perception.

## KALIN BAĞIRSAKTA GÖRÜLEN ADENOMATÖZ POLİPLER: OLGU SUNUMU

### ADENOMATOUS POLYPS IN THE LARGE INTESTINE: CASE REPORT

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### ÖZET

Kolon poliplerinin bulundukları konum, boyut ve histolojik yapıları oldukça önemlidir. Tespit edildikleri zaman biyopsi alınması veya ekstripe edilmeleri ile histopatolojik yapılarının değerlendirilmesi olası malignite açısından gerekmektedir. Adenomatöz poliplerle karşılaşma sıklığının, hiperplastik poliplere kıyasla 4-5 kat daha fazla olduğu bilinmektedir. Bu olgu sunumunda kliniğimize karın ağrısı ve makatta kanama şikayetleri ile Genel Cerrahi polikliniğine başvuru yapan hastanın kolonoskopik görüntüleri, histolojik bulgular ışığında sunulmuştur.

51 yaşındaki bayan hasta karın ağrısı ve makatta kanama şikayetleri ile Genel cerrahi polikliniğine başvurmuştur. Tanısal amaçlı kolonoskopi yaptırması planlanmıştır. Kolonoskopi sırasında hastanın perine muayenesi ve rektal tuşesi normal bulunmuş ancak, rektumdan başlayıp, splenik flexuraya kadar devam eden, büyüklükleri ve çapları farklı çok sayıda polipler izlenmiştir. Rektum ve sigmoid kolondan random biyopsiler alınmıştır. Poliplerden spesmenler ışık mikroskobu altında incelenerek hastaya düşük dereceli displazi ile karakterize yüzeyel adenomatöz değişiklikler tanısı konulmuştur.

Kolorektal kanser taraması adenom tespitine, özellikle yüksek risk olduğu düşünülen ileri adenoma (advance adenom) dayanmaktadır. Bu sebeplerden dolayı bütün poliplerden boyutlarına bakılmaksızın mutlaka örnekleme yapılmalıdır.

**Anahtar Kelimeler:** Polip, Adenomatöz polipler, Kolonoskopi, Histopatoloji.

## ABSTRACT

The location, size and histologic structure of colon polyps are very important. When they are detected, biopsy or extraction and evaluation of their histopathologic structures are necessary in terms of possible malignancy. It is known that the incidence of adenomatous polyps is 4-5 times higher than hyperplastic polyps. In this case report, colonoscopic images of a patient who was admitted to our clinic with complaints of abdominal pain and rectal bleeding to the General Surgery outpatient clinic are presented in the light of histologic findings.

51 year old woman was admitted to the general surgery outpatient clinic with complaints of abdominal pain and rectal bleeding. Colonoscopy was planned for diagnostic purposes. During colonoscopy, perineal examination and rectal palpation were normal, but multiple polyps of different sizes and diameters starting from the rectum and continuing to the splenic flexure were observed. Random biopsies were taken from rectum and sigmoid colon. The specimens were examined under light microscope and the patient was diagnosed with superficial adenomatous changes characterized by low-grade dysplasia.

Colorectal cancer screening is based on the detection of adenomas, especially advanced adenomas, which are considered high risk. For these reasons, all polyps should be sampled regardless of their size.

**Keywords:** Polyp, Adenomatous polyps, Colonoscopy, Histopathology.

**ENDOSKOPİK GÖRÜNTÜLEME YÖNTEMİ İLE MİDE POLİPLERİNDE  
BİYOPSİ'NİN ÖNEMİ**  
THE IMPORTANCE OF BIOPSY IN GASTRIC POLYPS WITH ENDOSCOPIC  
IMAGING

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**ÖZET**

Poliplerin en önemli klinik özellikleri maligniteye, anemiye, kanamaya ve obstrüksiyona yol açabilmeleridir. Üst gastrointestinal sistem (GİS) poliplerinin yerleşim oranları % 4,1 duodenumda iken, bu sıralama antrum bölgesinde % 40,7, korpusta %16,3, fundus bölgesinde %11,4 ve özefagusta %7,3 olarak görülmektedir. Bu olgu sunumunda kliniğimize hazımsızlık, midede şişkinlik hissi, mide bulantısı ve mide yanması gibi semptomların yanında karın ağrısı şikayetler ile Genel Cerrahi polikliniğine başvuru yapan hastanın endoskopik görüntüleri, histolojik bulgular ışığında sunulmuştur.

51 yaşındaki kadın hasta hazımsızlık, midede şişkinlik hissi, mide bulantısı ve mide yanması gibi semptomların yanında karın ağrısı şikayetleri ile Genel Cerrahi polikliniğine başvurmuştur. Tanısal amaçlı endoskopi yapılması planlanmıştır.

Antrum mukozası hiperemik ve ödemli olmasının yanında, 5 adet polip izlenmiş ve poliplerden biyopsiler alınmıştır. Poliplerden biyopsiler ışık mikroskobu altında Hematoksilen & Eozin (H&E) ile boyanarak görüntülere reaktif gastropati tanısı konulmuştur.

Antrumdan alınan biyopsiler sonucunda hastada Reaktif gastropati olduğu saptanmıştır. Gastrointestinal sistemde saptanan poliplerden biyopsi alınması kesin tanının konulması açısından oldukça önemlidir. Çünkü poliplerin bir kısmı yüksek malignite riski taşıdığından göz ardı edilmemelidir.

**Anahtar Kelimeler:** Üst gastrointestinal sistem polipleri, Reaktif gastropati, Mide histoloji.

## ABSTRACT

The most important clinical features of polyps are that they can lead to malignancy, anemia, bleeding and obstruction. The localization rates of upper gastrointestinal tract (GIS) polyps were 4.1% in the duodenum, 40.7% in the antrum, 16.3% in the corpus, 11.4% in the fundus and 7.3% in the esophagus. In this case report, endoscopic images and histologic findings of a patient who presented to the General Surgery outpatient clinic with symptoms such as indigestion, bloating, nausea, heartburn and abdominal pain are presented in the light of histologic findings.

51 year old woman was admitted to the General Surgery outpatient clinic with complaints of indigestion, bloating, nausea, heartburn and abdominal pain. Endoscopy is planned for diagnostic purposes

The antrum mucosa was hyperemic and edematous, 5 polyps were observed and biopsies were taken from the polyps. Biopsies of polyps were stained with Hematoxylin & Eosin (H&E) under light microscope and the images were diagnosed as reactive gastropathy.

Biopsies taken from the antrum revealed that the patient had reactive gastropathy. Biopsy of polyps detected in the gastrointestinal system is very important in terms of making a definitive diagnosis. Because some of the polyps carry a high risk of malignancy, they should not be ignored.

**Keywords:** Upper gastrointestinal tract polyps, Reactive gastropathy, Gastric histology.

## CLINIC, DIAGNOSIS AND TREATMEN OF MYASTHENIC SYNDROME

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## **ABSTRACT**

Fatigable or variable weakness is a hallmark of myasthenia gravis (MG). Women are more commonly affected than men by about 2:1. The initial symptoms of MG can occur in childhood as well as in the elderly. While no age group is spared, the initial onset in females tends to peak in the 3rd decade compared with males in which the onset tends to be most common in the 5th and 6th decades. Initial symptoms are most often referable to the eyes. About half of all patients experience either fluctuating ptosis or binocular diplopia as the first symptoms. Within one month of onset of symptoms, 80% of all MG patients will have some degree of ocular involvement. Presenting symptoms of generalized weakness, leg weakness or bulbar symptoms each account for about 10% of the patients.

**Keywords:** Myasthenia, Syndrome, Treatment, Clinic, Diagnostics



## CLINICAL AND PATHOLOGICAL FEATURES OF SOFT TISSUE SARCOMAS

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### ABSTRACT

Soft tissue sarcomas (STS) are a rare group of heterogeneous tumors of mesenchymal origin and account for less than 0.2% of all cancers in the adult population [1]. Due to their propensity to cause malignant transformation in many different tissues, STS is considered one of the most diverse tumors [1, 2]. Due to the complexity of STS, a multimodal approach is usually chosen for their treatment, and a multidisciplinary approach plays an important role in the proper treatment of these tumors, making them vital [3]. The clinical manifestations of SCCs cover a wide spectrum. Both slow-growing and rapidly spreading types with high metastatic potential are encountered in the clinic. Sarcomas are generally malignant tumors with a poor prognosis. The survival of patients depends on prognostic factors such as the histological type of sarcoma, degree of differentiation, stage of the disease, and completeness of tumor resection [4]. The etiology of the disease is still not fully understood, which in turn makes it difficult to prevent rare STS [5]. Accordingly, the optimal treatment of SCS remains a difficult problem for clinicians that cannot be completely solved, and many factors must be taken into account when choosing a treatment strategy, including the patient's clinical symptoms, tumor characteristics, tumor size, and histopathological subtype [2, 6]. The epidemiology of soft tissue sarcomas in developed and developing countries, as well as the clinical characteristics of the tumor, tumor localization, and prevalence according to tumor histomorphological types, have been studied in various studies [7, 8, 9]. However, although the prevalence of various types of soft tissue sarcomas in the Azerbaijani population has been studied, the incidence of all types, tumor localization, and clinical characteristics have not been studied in detail [10, 11]. Therefore, the aim of our study was to study the prevalence of soft tissue sarcomas according to histopathological types, tumor localization, and other characteristics.

**SERUM TRİMETİLAMİN N-OKSİT VE LİPOLİSAKKARİT DÜZEYLERİNİN  
H.PYLORİ POZİTİF KRONİK GASTRİTLİ HASTALARDA PATOGENEZİNDEKİ  
ROLÜ: PROSPEKTİF ÇALIŞMA ANALİZİ**

THE ROLE OF SERUM TRIMETHYLAMINE N-OXIDE AND LIPOPOLYSACCHARIDE  
LEVELS IN THE PATHOGENESIS OF THE DISEASE IN PATIENTS WITH CHRONIC  
GASTRITIS INFECTED WITH H. PYLORI PROSPECTIVE STUDY ANALYSIS

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**ÖZET**

Bu çalışmada, *Helicobacter pylori* ile enfekte kronik gastritli hastalarda trimetilamin N-oksit (TMAO) ve lipopolisakkarit (LPS) düzeyleri arasındaki ilişki araştırılmıştır. *Helicobacter pylori* enfeksiyonu, dünya genelinde sık rastlanan bir bakteri olup, özellikle sindirim sistemi hastalıklarıyla yakından ilişkilidir. *H.pylori*, mide mukozasında uzun süreli iltihaplanmalara neden olabilir ve zamanla kronik gastrit, peptik ülser ve mide kanseri gibi ciddi sağlık sorunlarının ortaya çıkmasına yol açabilir. *H. pylori*'nin mide asidine dayanıklılığı ve mukoza tabakasına zarar veren toksinler salgılaması, bu hastalıkların gelişiminde önemli bir rol oynar.*H.pylori* inflamatuvar yanıtı tetikleyerek gastrointestinal sistemi etkilediği bilinmektedir. Literatürde, TMAO ve LPS'in sistemik inflamasyon ve immün yanıt üzerindeki etkileri yaygın olarak araştırılmıştır. Fakat, *H. pylori* ile enfekte hastalarda bu iki molekül arasındaki ilişkinin tam olarak aydınlatılamadığı bilinmektedir. Bu çalışmada, *H. pylori* pozitif kronik gastritli hastalarda serum TMAO ve LPS düzeyleri ölçülmüş ve bu iki biyomolekül arasındaki ilişki analiz edilmiştir. Bulgular, *H. pylori* enfeksiyonu ile inflamatuvar süreçler arasındaki etkileşimlerin anlaşılmasına katkı sağlamaktadır. Çalışmanın sonuçları, TMAO ve LPS'in, *H. pylori* enfeksiyonuna bağlı inflamatuvar süreçlerde potansiyel rol oynayabileceğini göstermektedir.

**Anahtar Kelimeler:** *Helikobakter Pylori*, Gastrit, Serum Trimetilamin N-Oksit, Lipopolisakkarit.

## ABSTRACT

This study investigates the relationship between trimethylamine N-oxide (TMAO) and lipopolysaccharide (LPS) levels in patients with chronic gastritis infected with *Helicobacter pylori*. *H. pylori* infection is a globally prevalent condition associated with various gastrointestinal diseases, such as chronic gastritis, peptic ulcers, and gastric cancer. It is well-known that this infection triggers an inflammatory response affecting the gastrointestinal system. TMAO is a metabolite linked to lipid metabolism in the gut microbiota and has gained attention for its adverse effects, particularly on cardiovascular diseases. Lipopolysaccharides (LPS), components of the cell wall of gram-negative bacteria, can stimulate inflammatory responses. Although the effects of TMAO and LPS on systemic inflammation and immune responses have been widely studied, the relationship between these two molecules in *H. pylori*-infected patients remains unclear. In this study, serum TMAO and LPS levels were measured in *H. pylori*-positive chronic gastritis patients, and the relationship between these two biomolecules was analyzed. The findings contribute to a better understanding of the interactions between *H. pylori* infection and inflammatory processes. The results suggest that TMAO and LPS may play a potential role in the inflammatory pathways triggered by *H. pylori* infection.

**Keywords:** *Helicobacter Pylori*, Gastritis, Serum Trimethylamine N-Oxide, Lipopolysaccharide.

**KUZEY KIBRIS'TA ECZACILIK ÖĞRENCİLERİNİN PROSTAT KANSERİ VE  
YUMURTALIK KANSERİ HAKKINDAKİ BİLGİLERİNİN DEĞERLENDİRİLMESİ**  
EVALUATION OF PHARMACY STUDENTS' KNOWLEDGE ABOUT PROSTATE  
CANCER AND OVARIAN CANCER IN NORTHERN CYPRUS

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**ÖZET**

Onkoloji eczacıları, kanser tedavisinde önemli görevler üstlenmektedir. Bu görevler arasında anti-kanser ilaçlarının hazırlanması, kanser hastalarına ilaçları güvenli bir şekilde dağıtılması, kanser hastalarına ilaçlar konusunda danışmanlık sağlanması ve anti-kanser ilaçların yaratacağı yan etkiler konusundan hastalara eğitim verilmesi yer almaktadır. Erkeklerde prostat kanseri ve kadınlarda yumurtalık kanseri çok iyi bilinmesi gereken kanser türleridir. Bu yüzden eczacılık öğrencileri çok iyi bir eğitim alarak bu kanser türlerinde hastalara danışmanlık vermeleri gerekmektedir. Bu çalışma, 1 Ekim 2024 - 1 Aralık 2024 tarihleri arasında 2 aylık bir süre içerisinde Uluslararası Kıbrıs Üniversitesi'nde öğrenim gören eczacılık öğrencilerine yönelik kesitsel bir çalışma olarak yürütüldü. Bu çalışmanın amacı, Uluslararası Kıbrıs Üniversitesi'nde öğrenim gören eczacılık öğrencilerinin prostat ve over kanseri hakkındaki bilgilerini değerlendirmektir. Gerekli örneklem büyüklüğünü tahmin etmek için, %5 hata payı, %95 güven düzeyi, %50 yanıt dağılımı ve 1626 kişilik bir nüfus büyüklüğü (Uluslararası Kıbrıs Üniversitesi Eczacılık öğrencileri) ile Raosoft, Inc (Seattle, WA, ABD) yazılım hesaplayıcısı kullanılmıştır. Önerilen örneklem büyüklüğü 311 olarak belirlendi. Veri analizi için SPSS 21.0 sürümü kullanıldı. Bu çalışma Uluslararası Kıbrıs Üniversitesi Bilimsel Araştırma ve Yayın Etiği Komitesi tarafından onaylandı (EKK23-24/014/02). Bu çalışmaya, 322 eczacılık öğrencisi gönüllü olarak katılmıştır. Çalışmaya katılan öğrencilerin 191 kadın ve 131 erkekti. 171 eczacılık öğrencisi 22 ve üzeri yaşındaydı. 239 eczacılık öğrencisinin prostat kanseri konusunda iyi bilgiye sahipken 83 eczacılık öğrenci zayıf bilgiye sahipti. 194 eczacılık öğrencisi yumurtalık kanseri konusunda iyi bilgiye sahipken 128 eczacılık öğrencisi zayıf bilgiye sahipti. Bu çalışma, eczacılık öğrencilerinin hem prostat kanseri hemde yumurtalık kanseri konusunda iyi bilgiye sahip olduğunu göstermiştir. Kanser vakalarının her geçen gün artması nedeniyle onkoloji eczacılığı dersinin

eczacılık eğitimi veren fakültelerin müfredatlarına zorunlu ders olarak eklenmesi gerektiğini düşünmekteyiz.

**Anahtar Kelimeler:** Prostat Kanseri, Yumurtalık Kanseri, Eczacılık Öğrencileri, Eczacılık, Kanser, Onkoloji Eczacılığı

## ABSTRACT

Oncology pharmacists have significant duties in cancer treatment. These duties include preparing anti-cancer drugs, safely distributing drugs to cancer patients, providing counseling to cancer patients about drugs, and educating patients about the side effects of anti-cancer drugs. Prostate cancer in men and ovarian cancer in women are types of cancer that need to be well-known. Therefore, pharmacy students need to receive good training and provide counseling to patients about these types of cancer. This study was conducted as a cross-sectional study among pharmacy students studying at Cyprus International University over a 2-month period between October 1, 2024 and December 1, 2024. The aim of this study was to evaluate the knowledge of pharmacy students studying at Cyprus International University about prostate and ovarian cancer. To estimate the required sample size, Raosoft, Inc (Seattle, WA, USA) software calculator was used with a 5% margin of error, 95% confidence level, 50% response distribution and a population size of 1626 (Cyprus International University Pharmacy students). The recommended sample size was determined as 311. SPSS version 21.0 was used for data analysis. This study was approved by the Scientific Research and Publication Ethics Committee of Cyprus International University (EKK23-24/014/02). 322 pharmacy students participated in this study voluntarily. 191 of the pharmacy students who participated in this study were female and 131 were male. 171 pharmacy students were 22 years old and above. 239 pharmacy students had good knowledge about prostate cancer while 83 pharmacy students had poor knowledge. 194 pharmacy students had good knowledge about ovarian cancer while 128 pharmacy students had poor knowledge. This study showed that pharmacy students have good knowledge about both prostate cancer and ovarian cancer. We think that oncology pharmacy course should be added as a compulsory course to the curriculum of faculties providing pharmacy education due to the increasing number of cancer cases day by day.

**Keywords:** Prostate Cancer, Ovarian Cancer, Pharmacy Students, Pharmacy, Cancer, Oncology Pharmacy

# SEPSİSLİ HASTALARDA PROGNOSTİK NUTRİSYONAL İNDEKS VE İLİŞKİLİ FAKTÖRLER

## PROGNOSTIC NUTRITIONAL INDEX AND RELATED FACTORS IN PATIENTS WITH SEPSIS

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### ÖZET

Periferik kandaki serum albümin konsantrasyonu ve toplam lenfosit sayısından hesaplanan prognostik beslenme indeksi (PNI), kronik inflamasyonu, bağışıklık sistemini ve beslenme durumunu yansıtan ve farklı hastalarda prognostik önemi gösterilen bir indekstir. Bu çalışmada, septik hastalarda prognostik nutrisyonel indeksin mortaliteyi predikte edip etmediğini değerlendirmeyi amaçladık. Bu retrospektif çalışmaya, Selçuk Üniversitesi Tıp Fakültesi yoğun bakım ünitesine yatırılan akut böbrek hasarı olan 60 septik hasta dahil edildi. Bunlardan 30 hasta mortalite ile sonuçlanırken 30 hasta taburcu edilmişti. PNI hesaplaması serum albümin konsantrasyonu (g/L)  $+0,005 \times$  toplam lenfosit sayısı formülü ile yapıldı. Hayatta kalan hastalarda PNI ( $36,8 \pm 9,6$ ), mortalite ile seyreden hastalardan ( $28,5 \pm 4,4$ ) anlamlı olarak yüksek bulundu ( $p < 0,001$ ). PNI değeri monosit ( $r = 0,370$ ,  $p = 0,004$ ) kalsiyum ( $r = 0,372$ ,  $p = 0,003$ ) ve yatış süresi ( $r = 0,383$ ,  $p = 0,002$ ) ile pozitif korele bulundu. Mortalite ile ilişkili faktörler univariate ve multivariate regresyon analizi ile belirlendi. Multivariate logistic regresyon analizinde, PNI (OR 0.885; 95% CI 0.797-0.983;  $P = 0,028$ ), septik şok (OR 3.465; 95% CI 1.058-11354;  $P = 0,040$ ), hemodiyafiltrasyon ihtiyacı (OR 3.614; 95% CI 1.152-11.347;  $P = 0,028$ ) ve mekanik ventilatör ihtiyacı (OR 6.154; 95% CI 1.318-28.737;  $P = 0,021$ ) mortalitenin bağımsız prediktörleri idi. ROC analizi, PNI'nin hastane mortalitesini tahmin etmede istatistiksel olarak anlamlı bir belirteç olduğunu gösterdi (AUC:0,717 [95% CI, 0,616-0,804],  $p < 0,001$ ). Optimum kesme değeri 31,96, sensitivite %57,38, spesifite %77,14, pozitif prediktif değeri %81,4 PPV ve negatif prediktif değer %50,9 olarak belirlendi. Sonuç olarak bulgularımız PNI'nin sepsis için önemli bir risk faktörü olduğunu doğrulamaktadır.

**Anahtar Kelimeler:** mortalite; prognostic nutrisyonel indeks; sepsis.

### ABSTRACT

Prognostic nutritional index (PNI), calculated from serum albumin concentration and total lymphocyte count in peripheral blood, is an index that reflects chronic inflammation, immune system and nutritional status and has been shown to be of prognostic importance in different

patients. In this study, we aimed to evaluate whether prognostic nutritional index predicts mortality in septic patients. Sixty septic patients with acute kidney injury who were admitted to the intensive care unit of Selcuk University Faculty of Medicine were included in this retrospective study. Of these, 30 patients resulted in mortality and 30 patients were discharged. PNI calculation was made with the formula serum albumin concentration (g/L)  $+0.005 \times$  total lymphocyte count. PNI in surviving patients ( $36.8 \pm 9.6$ ) was found to be significantly higher than in patients with mortality ( $28.5 \pm 4.4$ ) ( $p < 0.001$ ). PNI value was positively correlated with monocyte ( $r = 0.370$ ,  $p = 0.004$ ), calcium ( $r = 0.372$ ,  $p = 0.003$ ) and hospitalization time ( $r = 0.383$ ,  $p = 0.002$ ). Factors associated with mortality were determined by univariate and multivariate regression analysis. In multivariate logistic regression analysis, PNI (OR 0.885; 95% CI 0.797-0.983;  $P = 0.028$ ), septic shock (OR 3.465; 95% CI 1.058-11.354;  $P = 0.040$ ), need for hemodiafiltration (OR 3.614; 95% CI 1.152-11.347;  $P = 0.028$ ) and need for mechanical ventilation (OR 6.154; 95% CI 1.318-28.737;  $P = 0.021$ ) were independent predictors of mortality. ROC analysis showed that PNI was a statistically significant marker for predicting in hospital mortality (AUC:0.717 [95% CI, 0.616-0.804],  $p < 0.001$ ). The optimal cut-off value was determined as 31.96 with a sensitivity of 57.38%, specificity of 77.14%, PPV of 81.4% and NPV of 50.9%. In conclusion, our findings confirm that PNI is an important risk factor for sepsis.

**Keywords:** mortality; prognostic nutritional index; sepsis.



**GESTASYONEL DİYABETİ OLAN GEBENİN ROY ADAPTASYON MODELİNE  
GÖRE DEĞERLENDİRİLMESİ; OLGU SUNUMU**  
EVALUATION OF THE PREGNANT WOMAN WITH GESTATIONAL DIABETES  
ACCORDING TO THE ROY ADAPTATION MODEL; CASE REPORT

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**ÖZET**

Gebelik süreci biyopsikososyal yönden değişim ve gelişimlerin yaşandığı bir dönemdir. Gebelik döneminde yaşanan problemlerin azalması, gebeliğe uyum sağlanması, anne ve bebeğin sağlığının geliştirilmesinde başta hemşireler olmak üzere tüm sağlık ekibine büyük sorumluluklar düşmektedir. Gebenin bir bütün olarak değerlendirilmesi, etkin hemşirelik bakım sürecinin oluşması ve uygulanması bakımından önemlidir. Son yıllarda gebelik sürecinde gestasyonel diyabet görülme prevalansı artmaktadır. Gestasyonel diyabet, gebe kadında glukoz metabolizmasının bozulmasıdır. Gestasyonel diyabetes mellitus tanısı gebelik sürecinin riskli olarak değerlendirilmesine neden olmaktadır. Gestasyonel diyabetli gebeler, psikolojik açıdan stres yaşayabilmektedir. Gebe ve fetus açısından kısa ve uzun vadede çeşitli komplikasyonlara neden olmaktadır. Polihidramnios, preeklamsi, preterm doğum, makrozomili bebek ve bununla ilişkili travmatik doğum ve sezeryanda artış görülmektedir. Gestasyonel diyabet, risk faktörü ortadan kaldırıldığında veya yönetildiğinde engellenebilir bir sağlık problemidir. Gestasyonel diyabetin yönetilmesinde beslenme düzeni önem kazanmaktadır. Buna bağlı olarak gestasyonel diyabetes mellitus tanılı gebelerin yeni bir beslenme alışkanlığı oluşturması gerekmektedir. Bu süreçte aile destek sisteminin güçlendirilmesi, sağlıklı beslenme alışkanlıklarının benimsenme konusunda motivasyonu arttırmaktadır. Gebenin diyet süreciyle yaşadığı sosyal izolasyonu azaltmak ve özgüvenini geliştirmek önemlidir. Gebelerin çeşitli uyaranlara rağmen başetme mekanizmalarını geliştirerek diyetlerine uyum sağlaması beklenmektedir. Hemşirelerin amacı, uyumlu yanıtların gelişmesini sağlamaktır. Bu olgu sunumunda, A.A. isimli gebenin gestasyonel diyabet tanısı koyulduktan sonraki diyet sürecine uyumunu sağlamak amacıyla Roy Adaptasyon Modeli kullanılmıştır.

**Anahtar Kelimeler:** Gestasyonel Diyabet, Olgu Sunumu, Roy Adaptasyon Modeli

## ABSTRACT

Pregnancy is a period of biopsychosocial changes and developments. The entire healthcare team, especially nurses, have great responsibilities in reducing the problems experienced during pregnancy, adapting to pregnancy and improving the health of the mother and baby. Evaluation of the pregnant woman as a whole is important for the formation and implementation of an effective nursing care process. In recent years, the prevalence of gestational diabetes during pregnancy has been increasing. Gestational diabetes is the deterioration of glucose metabolism in pregnant women. The diagnosis of gestational diabetes mellitus causes the pregnancy process to be evaluated as risky. Pregnant women with gestational diabetes may experience psychological stress. It causes various complications in the short and long term for the pregnant woman and the fetus. There is an increase in polyhydramnios, preeclampsia, preterm birth, macrosomia babies and related traumatic births and cesarean sections. Gestational diabetes is a preventable health problem when the risk factor is eliminated or managed. Nutritional order is important in the management of gestational diabetes. Accordingly, pregnant women diagnosed with gestational diabetes mellitus need to develop new eating habits. Strengthening the family support system during this process increases motivation to adopt healthy eating habits. It is important to reduce the social isolation experienced by the pregnant woman during the diet process and to improve her self-confidence. Pregnant women are expected to adapt to their diets by developing coping mechanisms despite various stimuli. The aim of nurses is to ensure the development of adaptive responses. In this case report, the Roy Adaptation Model was used to ensure the adaptation of a pregnant woman named A.A. to the diet process after she was diagnosed with gestational diabetes.

**Keywords:** Gestational Diabetes Mellitus, Case Report, Roy Adaptation Model

## KUERSETİNİN BAĞIRSAK MİKROBİYOTASI ÜZERİNDEKİ POTANSİYEL ETKİLERİ: DERLEME

### POTENTIAL EFFECTS OF QUERCETIN ON GUT MICROBIOTA: A REVIEW

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#### ÖZET

Kuersetin, flavonoid sınıfına ait doğal bir polifenolik bileşik olup diyetle zengin kaynakları meyve ve sebzelerdir. Diyetle çoğunlukla glikozit formunda alınan bu bileşik, organizmada sindirim ve emilimden sonra biyoyararlanımı oldukça düşük olmasına karşın yapılan preklinik, hayvan modeli, *in vivo* ve *in vitro* çalışmalarda anti-inflamatuvar, anti-oksidatif, anti-diyabetik ve anti-osteoporotik etkinliklerinin olabileceği gösterilmiştir. Literatürde kuersetin besin takviyesi ve/veya günlük diyetle alınabilen gelecekte insan sağlığı açısından umut vadeden nötrasötik bir bileşik olarak ön plana çıkmaktadır. Kuersetin'in besin takviyesi formu ise 2010 yılında Gıda ve İlaç Dairesi (FDA) tarafından "güvenli takviye bileşeni" olarak *Genel Olarak Güvenli Olarak Kabul Edilen (GRAS)* listesine eklenmiştir. Organizmada genel biyoyararlanım açısından ele alındığında ise diyet kuersetinin öncelikle ince bağırsakta emilimi olmakta (%5-10), ardından büyük oranda emilmeden kalın bağırsağa geçerek bağırsak mikrobiyotasındaki bazı bakteri suşları tarafından kullanılabilmekte, çeşitli metabolitlere dönüştürülmektedir. Organizma açısından önemli kabul edilen bu son metabolitler ise kuersetinin biyoyararlanımını artırarak oksidatif stresi azaltma, vazodilatör etkinlik gösterme gibi çeşitli etkinlikleri ile potansiyel sağlık etkilerini göstermektedir. Öte yandan, bu bileşik bağırsak bariyerinin fonksiyonunu güçlendirip mikrobiyotada mikroorganizma çeşitliliğini artırma potansiyeli göstermektedir. Böylelikle mikrobiyotada patojen bakteriler azalırken, yararlı bakteriler artmakta, mikrobiyota kompozisyonu düzenlenmektedir. Bu potansiyel etkileri nedeniyle kuersetin potansiyel prebiyotik bir bileşen olarak düşünülebilir. Ayrıca bağırsak mikrobiyotası üzerindeki bu etkinlikleri nedeniyle, bu bileşik birçok hayvan çalışmasında karaciğer yağlanması azaltılması yanı sıra; depresyon, obezite, inflamatuvar bağırsak hastalıkları ve ateroskleroz gibi birçok kronik hastalığın önlenmesi ve tıbbi beslenme tedavisine destek olarak kullanılması düşünülmektedir. Kuersetin genel olarak "güvenli" kabul edilse de özellikle yüksek doz kullanımında bazı sağlık sorunlarına (kanama bozuklukları, böbrek hastalıkları ve bazı ilaç bileşenleri ile etkileşimleri gibi) neden olabileceği unutulmamalıdır. Bu bileşiğin güvenli terapötik dozunun

belirlenebilmesi, bağırsak mikrobiyotası üzerindeki net etkinliğinin anlaşılabilmesi, çeşitli hastalıklarda kullanılabilecek etkin doz ve sürenin belirlenebilmesi için bu alanda daha fazla sayıda insan çalışmasına ihtiyaç bulunmaktadır. Bu derlemede ise güncel literatür taranarak, kuersetinin bağırsak mikrobiyotası üzerindeki potansiyel olumlu/olumsuz etkinliklerinin değerlendirilmesi amaçlanmıştır.

**Anahtar Kelimeler:** kuersetin, gastrointestinal mikrobiyom, mikrobiyota.

## ABSTRACT

Quercetin is a natural polyphenolic compound belonging to the flavonoid class, and its rich sources in the diet are fruits and vegetables. This compound, which is mostly taken in the form of glycosides with the diet, has a very low bioavailability after digestion and absorption in the body, but preclinical, animal model, in vivo and in vitro studies have shown that it may have anti-inflammatory, anti-oxidative, anti-diabetic and anti-osteoporotic activities. In the literature, quercetin stands out as a promising nutraceuticals compound for human health in the future that can be taken as a dietary supplement and/or with the daily diet. The dietary supplement form of quercetin was added to the Generally Recognized as Safe (GRAS) list as a “safe supplement ingredient” by the Food and Drug Administration (FDA) in 2010. When considered in terms of general bioavailability in the body, dietary quercetin is primarily absorbed in the small intestine (5-10%), then passes to the large intestine without being mostly absorbed and can be used by some bacterial strains in the intestinal microbiota and is converted into various metabolites. These last metabolites, which are considered important for the body, show potential health effects with various activities such as reducing oxidative stress and vasodilator activity by increasing the bioavailability of quercetin. On the other hand, this compound shows the potential to strengthen the function of the intestinal barrier and increase the diversity of microorganisms in the microbiota. Thus, while pathogenic bacteria in the microbiota decrease, beneficial bacteria increase, and the composition of the microbiota is regulated. Due to these potential effects, quercetin can be considered as a potential prebiotic component. In addition, due to these activities on the intestinal microbiota, this compound is used in many animal studies to reduce fatty liver, as well as to prevent many chronic diseases such as depression, obesity, inflammatory bowel diseases and atherosclerosis, and to support medical nutrition therapy. Although quercetin is generally considered “safe”, it should be kept in mind that it can cause some health problems (such as bleeding disorders, kidney diseases, and interactions with some drug components), especially when used in high doses. More human studies are needed in this area to determine the safe therapeutic dose of this compound, to understand its clear effectiveness on the intestinal microbiota, and to determine the effective dose and duration that can be used in various diseases. In this review, it is aimed to evaluate the potential positive/negative effects of quercetin on the intestinal microbiota by scanning the current literature.

**Keywords:** quercetin, gastrointestinal microbiome, microbiota.

## ÇOCUKLARDA SOLUNUM SIKINTISININ NADİR NEDENİ-PULMONER ARTER SLİNG

### A RARE CAUSE OF RESPIRATORY DISTRESS IN CHILDREN-PULMONARY ARTERY SLING

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## ÖZET

Pulmoner arter sling askısı (PAS), sol pulmoner arterin (LPA) sağ pulmoner arterden (RPA) köken aldığı ve hilusa ulaşmak için trakea ile özofagus arasında seyrederken distal trakea ve sağ ana bronşu çevrelediği nadir bir konjenital durumdur. Yaklaşık 1/200 000 aralığında görülür. Ligamentum arteriosum veya duktus arteriosus, ana pulmoner arterden (MPA) kaynaklanır ve vasküler halkayı tamamlamak üzere inen torasik aorta katılmak üzere sol ana bronşa anterior ve superior olarak geçer. PAS'lı hastaların klinik sonuçları, ilişkili trakeal lezyonlara ve karmaşık kardiyak anomalilere bağlıdır. PAS'lı hastaların %65'e varan kısmında halka askı kompleksi oluşturan yaygın trakeal stenozun eşlik ettiği tespit edilmiştir.

**Anahtar Kelimeler:** hışıltı, öksürük, sling, pulmoner arter.

## ABSTRACT

Pulmonary artery sling (PAS) is a rare congenital condition in which the left pulmonary artery originates from the right pulmonary artery and surrounds the distal trachea and right main bronchus as it courses between the trachea and esophagus to reach the hilus. It is seen in the range of approximately 1/200 000. The ligamentum arteriosum or ductus arteriosus originates

from the main pulmonary artery and passes anteriorly and superiorly to the left main bronchus to join the descending thoracic aorta to complete the vascular ring. Clinical outcomes of patients with PAS depend on associated tracheal lesions and complex cardiac anomalies. It has been found that up to 65% of patients with PAS are accompanied by widespread tracheal stenosis that forms a ring sling complex.

**Keywords:** Wheezing, cough, sling, pulmonary artery.

## **EXPLOITING BIOLOGICAL AGENTS AND SYSTEMIC DELIVERY MECHANISMS FOR ENHANCED AND SUSTAINABLE PEST MANAGEMENT IN AGRICULTURE**

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### **ABSTRACT**

The development and use of an organic insecticide made of natural substances is discussed in this paper with the purpose of encouraging ecologically friendly pest control methods. The main objective is to promote the use of green technology in agriculture as an alternative to traditional chemical pesticides, which known for their high costs and detrimental effects on agricultural ecosystems. The developed products, in contrast to single-pesticide applications, function as a comprehensive control measure and are specifically assessed for their ability to effectively manage pests that impact cucumber crops. The process involves grinding and filtering a mixture of organic materials, followed by dilution with water at a ratio of 1:2 for application via spraying. Applying insecticides in the morning or evening, when there is less air movement, will maximize their effectiveness while having the least negative effects on the environment. The application is via fine mist nozzle on cucumber stems, leaves, blossoms, and fruits, to increase coverage and efficacy. According to the results, the bio-systemic pesticide formulation speeds up the growth of cucumber stems, which could lead to higher yield rates. Additionally, the benefits of its organic composition include enhanced market acceptance due to customer demand for organic produce and improved farm profitability due to lower pesticide expenditures. By raising farmer income, this strategy not only improves economic sustainability but also promotes environmental responsibility by lowering chemical exposure in agricultural settings. In general, by enthusiast commercial farmers' support the use of this organic insecticide, indicating a wider change in society toward the adoption of sustainable agriculture methods. The benefits of increasing agricultural output and encouraging farming communities to embrace organic pest management techniques are highlighted in this paper.

**Keywords:** insecticide, organic, systemic, agricultural, pest control.



## A NOVEL PBI-BASED COMPOSITE MEMBRANE WITH SILICON DIOXIDE NANOPARTICLES FOR HIGH-TEMPERATURE PEMFC

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### ABSTRACT

Nafion, a membrane composed of perfluorinated sulfonic acid (PFSA), is known for its effectiveness at high humidity but shows limited efficiency at high temperatures in proton exchange membrane fuel cell (PEMFC) systems. In this study, a strong composite membrane specifically designed for high temperature PEMFC (HT-PEMFC) applications was presented. This proposed polymer electrolyte membrane contains polybenzimidazole (PBI) and sulfonated graphene oxide (SGO) enriched with silicon dioxide (SiO<sub>2</sub>) nanoparticles. Different concentrations of SiO<sub>2</sub> were evaluated to determine their effects on key performance parameters, including efflorescence ratio, ionic conductivity, resistance to acid dissolution and performance in single cell tests. The composite membrane containing 2.5 wt. % SiO<sub>2</sub> showed optimal performance among the configurations tested. At 25 °C, the membrane achieves an ionic conductivity of 10.784 mS cm<sup>-1</sup>, which increases significantly to 34.562 mS cm<sup>-1</sup> at 160 °C. This composite membrane also exhibits exceptional acid doping stability, with an increase in length of 44.42 % and an increase in thickness of 86.72 %. The performance evaluation of the HT-PEMFC highlights the exceptional suitability of the 2.5 wt. % SiO<sub>2</sub> composite membrane for HT-PEMFC applications, where it exhibits better resistance to impurities, superior kinetic performance and improved thermal stability. The incorporation of SiO<sub>2</sub> fillers improves the thermal stability of PBI-SGO composite membranes, making them very effective for high temperature applications. Given its excellent performance characteristics, the PBI-SGO-SiO<sub>2</sub> composite membrane has great potential for the further development of HT-PEMC technology.

**Keywords:** Polybenzimidazole, Silicon dioxide, Sulfonated graphene oxide.

## **ROUTE OPTIMIZATION TECHNOLOGY: A REVIEW OF METHODS, APPLICATIONS, AND FUTURE DIRECTIONS**

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### **ABSTRACT**

Route optimization technology has become a crucial component in many industries, significantly affecting not just operational effectiveness but also the financial sustainability and environmental sustainability of many processes. This paper aims to provide a thorough analysis of the various route optimization tactics that are available, including both cutting-edge, novel approaches that are presently being studied and tried-and-true traditional methods. We undertake an exhaustive evaluation of the mathematical foundations that support these strategies while concurrently assessing their real-world applications across an array of disciplines, such as logistics, transportation, and urban development. Moreover, we emphasize the challenges and prospects that are anticipated in the forthcoming period. Particular attention is devoted to the specific frameworks utilized in the investigation and appraisal of route optimization technologies, meticulously outlining the systematic approach employed to integrate existing knowledge and identify promising paths for prospective research endeavors.

Furthermore, this thorough review aims to promote more research and innovation in this important area in addition to clarifying the current state of route optimization technology. This study seeks to contribute to the current discussion on route optimization and its crucial role in enhancing operational efficiency across a range of sectors by offering a thorough synthesis of the body of academic material now in existence and highlighting possible directions for future research.

**Keywords:** route optimization, vehicle routing problem, logistics optimization, traveling salesman problem.

**SYNTHESIS, MOLECULAR DOCKING, ADME INVESTIGATION AND  
THEORETICAL STUDY OF STEREOSELECTIVITY OF [1+2] CYCLOADDITION  
REACTIONS OF THE EPOXIDE OF  $\beta$ -HIMACHALENE WITH  
DICHLOROCARBENE AND DIBROMOCARBENE**

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**ABSTRACT**

The [2+1] cycloaddition reactions between the epoxide of  $\beta$ -himachalene, dichlorocarbene, and dibromocarbene were investigated experimentally and theoretically; there are two primary products with quantifiable yields from the condensations of  $\beta$ -himachalene with dichlorocarbene and dibromocarbene. Using spectroscopic methods, such as  $^1\text{H}$  and  $^{13}\text{C}$  NMR, the compounds' structures were determined. Density functional theory (DFT) was used to theoretically study the stereoselectivity of these cycloaddition processes at various levels: B3LYP/6-311+g (d, p), B3LYP-GD3BJ/6-311+g (d, p), wb97xd/6-311+g(d,p), and MO6-2X/6-311+g(d,p). The B3LYP DFT approach produced theoretical conclusions that were consistent with the experiment and were more precise and dependable.

**Keywords:** [2+1] cycloaddition, DFT,  $\beta$ -himachalene, MO6-2X/6-311+g(d,p), B3LYP/6-311+g(d,p).

## SYNTHESIS OF MESOPOROUS TITANIUM DIOXIDE BY THE CLASSICAL SOL-GEL METHOD (TiO<sub>2</sub>-C) AND BIOPOLYMER ROUTE (TiO<sub>2</sub>-BP) DOPED WITH SILVER (Ag) VIA THE WET IMPREGNATION METHOD

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### ABSTRACT

This work aims to synthesize nanometric TiO<sub>2</sub> powders using the sol-gel method, comparing the classical route (TiO<sub>2</sub>-C) and the biopolymer-based route (TiO<sub>2</sub>-BP) to produce a material with hierarchical porosity. The resulting samples are then doped with silver at concentrations of 1%, 5%, and 10% to study the effect of this doping on their physical and optical properties. These concentrations cover low, medium, and high doping levels. The samples were characterized using several techniques, including nitrogen adsorption analysis, X-ray diffraction (XRD), scanning electron microscopy (SEM), energy-dispersive X-ray spectroscopy (EDS), zeta potential, UV-visible spectroscopy, Fourier-transform infrared (FTIR) spectroscopy, and Raman spectroscopy. The results show that the nanoparticles exhibit an anatase structure, with grain sizes ranging from 13 nm to 22 nm. The band gap energy varies from 3.2 eV to 1.5 eV depending on the Ag concentration. FTIR spectra reveal the presence of the Ti-O-Ti bond. The samples were also tested for isopropanol decomposition and evaluated for the adsorption of a cationic dye (BM).

**Keywords:** Nanoparticles, surfactant, Biopolymer, Mesoporous Materials, TiO<sub>2</sub>-C, TiO<sub>2</sub>-BP.

## THE ROLE OF BF<sub>3</sub> CATALYST IN CYCLOPENTA-1,3-DIENE CYCLOADDITION WITH FLUORESCENT ENONES: A THEORETICAL APPROACH

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### ABSTRACT

The role of catalysts in the cycloaddition reaction between cyclopenta-1,3-diene and an equimolar mixture of fluorescent enones—3-oxo-1-phenylbut-1-en-1-ylum and 4,4,4-trifluoro-3-oxo-1-phenylbut-1-en-1-ylum—was investigated using Molecular Electron Density Theory (MEDT). The study explored the reaction pathways and stereoselectivity in the presence and absence of the BF<sub>3</sub> catalyst. Free energy profile analysis revealed that, without catalysis, the reaction predominantly produces P-2 as the major product when reacting with 4,4,4-trifluoro-3-oxo-1-phenylbut-1-en-1-ylum. In contrast, the inclusion of BF<sub>3</sub> significantly alters the reaction selectivity, favoring the formation of P-1 as the dominant product. These findings underscore the critical influence of BF<sub>3</sub> in controlling the stereoselectivity and outcome of cycloaddition reactions involving fluorescent enones, offering valuable insights into catalyst-mediated reaction mechanisms.

**Keywords:** Cycloaddition reaction, MEDT, BF<sub>3</sub> catalyst, Cyclopenta-1,3-diene, Stereoisomers, Stereoselectivity.

## EVALUATION OF WATER QUALITY OF BATLLAVA LAKE, KOSOVO

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### ABSTRACT

In this study are shown data on physical-chemical parameters in water samples of Batllava Lake which is one of the largest artificial lakes in Kosovo. Evaluation of water quality for this ecosystem is important because it is used for drinking water for Pristina and Podujeva population. Water samples from Batllava Lake were taken at the end of October 2024 at 10 different stations. The physical-chemical parameters that were determined in the water samples from these stations were: temperature, pH, DO, BOD<sub>5</sub>, COD, Conductivity, Turbidity, TDS, TSS, nutrients (nitrates, nitrites, ammonium ions, N-total, phosphates, P-Total), the main ions (sulfates, chlorides, calcium and magnesium ions). Measurements were performed in field by using multi-parameter portable equipment for determination of temperature, pH, DO, Conductivity, Turbidity and TDS. Semi-automated techniques were used for evaluation of BOD and COD. UV-VIS methods were used for determination of nutrients. Volumetric methods were used for evaluation of main ions and gravimetric for TSS. Generally, water quality in Batllava Lake can be classified as good. This fact was supported by presence of pollutants almost in all analyzed samples. This could be related with intense human activity in its water basin. Urban pollution, agricultural activity and transport are the main sources that cause the decrease of water quality in this water ecosystem. The physical-chemical parameters should be analyzed continuously from respective institutions in order to have a complete assessment of the environmental problems that may be encountered in the lake.

**Keywords:** Water quality, Water analyzes, Physical-Chemical parameters, Batllava Lake

## POTENTIAL TUBULIN POLYMERIZATION INHIBITORS IN MCF-7 CELLS AGAINST BREAST CANCER: A COMPUTATIONAL APPROACH

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### ABSTRACT

This work aims to help in the fight against cancer, this dangerous disease that continues to spread worldwide. According to the WHO, the number of new cancer cases in developing countries is expected to increase by 70%, and there will be a 50% increase in disease-related mortality rates, which could reach 15 million by 2030. Given their great importance in drug design, we employed computational methods to develop 3-phenoxy  $\beta$ -lactams as inhibitors of tubulin polymerization. In this context, a series of 3-phenoxy  $\beta$ -lactams were studied against MCF-7 breast cancer. The best-established H-QSAR model has the following statistical parameters:  $R^2_{\text{train}} = 0.905$ ,  $Q^2_{\text{cv}} = 0.749$ ,  $\text{SEE} = 0.301$ ,  $R^2_{\text{pred}} = 0.504$ , and  $R^2_{\text{test}} = 0.827$ , which demonstrates the predictive quality of this model and confirms its robustness and predictive power for the proposal of new compounds. This allowed us to propose six new, more active molecules. Next, molecular docking was used to study an improved anticancer efficacy against tubulin polymerization, which demonstrated significant interactions with the chosen receptor and a strong binding affinity with certain newly suggested compounds. The results of the ADME-Tox studies were favorable for four new molecules, and we can say that they can be used in the future as drugs against breast cancer. Finally, during 500 ns of molecular dynamics simulations at ambient temperature, we studied the stability of three complexes formed between the chosen receptor and three proposed ligands. As shown by the trajectory analysis, RMSD, RMSF, radius of gyration, SASA, hydrogen bonds, and binding free energy (MMPBSA), the three ligands remain stable in the protein binding pocket throughout the simulation, which confirms the anticancer potential of the three new molecules and motivates researchers to conduct in vitro and in vivo tests.

**Keywords:** Breast cancer,  $\beta$ -lactams, H-QSAR, Molecular docking, Molecular dynamics.



## GIYİLEBİLİR TEKSTİL UYGULAMALARI İÇİN İLETKEN KOMPOZİT HİDROJELLER

### CONDUCTIVE COMPOSITE HYDROGELS FOR WEARABLE TEXTILE APPLICATIONS

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#### ÖZET

Hidrojeller, genellikle kimyasal veya fiziksel çapraz bağlanma yoluyla oluşturulan, üç boyutlu çapraz bağlı bir ağ yapısına sahip esnek polimerik bir malzeme sınıfıdır. Bu ağlar, suyu emme ve tutma yeteneği sağlayan hidrofilik fonksiyonel gruplar içerirken, sağlam çapraz bağlı yapıları sayesinde yapısal bütünlüklerini korurlar. Hidrojeller, esneklik, gerilebilirlik ve biyouyumluluk gibi dikkate değer özelliklere sahiptir ve bu da onları deri biyomalzemeleri, tıbbi cihazlar, ilaç taşıma sistemleri ve yara bakımı gibi uygulamalar için son derece uygun kılar. İleri bir hidrojel alt sınıfı olan iletken hidrojeller, mekanik esneklik, elektriksel iletkenlik ve biyouyumluluğu birleştirerek sağlık izleme, insan-makine arayüzleri, yumuşak robotik ve giyilebilir teknolojiler gibi yenilikçi uygulamalar için büyük bir potansiyel sunar. Kompozit hidrojeller, çapraz bağlı polimer matrislerine iletken dolgu maddelerinin veya malzemelerin eklenmesiyle oluşturulur ve ağ içinde iyon veya elektron hareketliliğini kolaylaştırarak elektriksel iletkenliği artırır. Kompozit hidrojellerin iletkenlik ve mekanik özellikleri, iletken dolgu maddelerinin seçimi ve konsantrasyonu ile hassas bir şekilde ayarlanabilir ve bu da onları belirli işlevsel gereksinimlere uygun şekilde özelleştirilebilir hale getirir. Bu kompozit hidrojeller, çevresel veya mekanik uyarıları (örneğin basınç veya sıcaklık değişiklikleri gibi) ölçülebilir elektrik sinyallerine (kapasitans, akım veya direnç) dönüştürme yeteneğine sahiptir. Kompozit hidrojellerin kumaş teknolojisiyle birleşimi, esneklik, nem tutma, sıcaklık kontrolü ve biyouyumluluk özelliklerine sahip multifonksiyonel tekstillerin geliştirilmesini sağlar. Gümüş nanotel veya MXene gibi iletken dolgu malzemeleriyle güçlendirilen bu malzemeler, tıbbi uygulamalar, giyilebilir elektronikler, spor giyim ve esnek elektronik cihazlar için büyük potansiyel sunar. Kumaşlar, temel kullanım alanlarının ötesine geçerek çok işlevlilik özellikleriyle dikkat çekiyor. Hidrojel teknolojisinin kilit uygulamaları arasında, bükülme, gerilme ve burulmaya dayanıklı enerji depolama için esnek süperkapasitörlerin geliştirilmesi ve gerilim, sıcaklık ve fizyolojik sinyallerin izlenmesi için esnek sensörlerin tasarımı yer alır. Süregelen araştırmalar, kompozit hidrojellerin tasarımını ve işlevselliğini ilerletmeye devam ederek, bu malzemelerin çok yönlü, yeni nesil esnek elektronik sistemlerde kullanımının önünü açmaktadır.

**Anahtar Kelimeler:** Kompozit Hidrojeller, İletkenlik, Multifonksiyonel Tekstiller, Giyilebilir Teknolojiler

## ABSTRACT

Hydrogels are a class of flexible polymeric materials characterized by a three-dimensional cross-linked network structure, typically formed via chemical or physical cross-linking. These networks incorporate hydrophilic functional groups, enabling the absorption and retention of substantial quantities of water while maintaining structural integrity due to their robust cross-linked framework. Hydrogels possess remarkable properties, including flexibility, stretchability, and biocompatibility, making them highly suitable for applications such as skin biomaterials, medical devices, drug delivery systems, and wound care. Conductive hydrogels, an advanced subclass of hydrogels, integrate mechanical flexibility, electrical conductivity, and biocompatibility, rendering them highly promising for innovative applications in healthcare monitoring, human-machine interfaces, soft robotics, and wearable technologies. Composite hydrogels, which consist of cross-linked polymer matrices embedded with conductive fillers or materials, exhibit enhanced electrical conductivity by facilitating ion or electron mobility within the network. The conductivity and mechanical characteristics of composite hydrogels can be finely tuned through the selection and concentration of conductive fillers, enabling precise customization for specific functional requirements. These composite hydrogels are capable of detecting and transducing environmental or mechanical stimuli, such as pressure or temperature changes, into measurable electrical signals, including capacitance, current, or resistance. Composite hydrogels combined with fabric technology enable multifunctional textiles with flexibility, moisture retention, temperature control, and biocompatibility. Enhanced by conductive fillers like silver nanowires or MXene, they show great promise for medical, wearable electronics, sportswear, and flexible electronic devices. Key applications include the development of flexible supercapacitors for energy storage, designed to withstand bending, stretching, and twisting, as well as flexible sensors for strain, temperature, and physiological signal monitoring. Ongoing research continues to advance the design and functionality of composite hydrogels, unlocking new possibilities for their implementation in versatile, next-generation flexible electronic systems.

**Keywords:** Composite Hydrogels, Conductivity, Multifunctional Textiles, Wearable Technologies

## AN INTEGRATED MOBILE SOLUTION FOR OPTIMIZING SME FINANCIAL MANAGEMENT AND TAX COMPLIANCE

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### ABSTRACT

In the digital age, small and medium-sized enterprises (SMEs) face increasing challenges in balancing financial sustainability and tax compliance. To address these critical issues, this study presents an integrated mobile solution aimed at optimizing SME financial management and enhancing tax efficiency. The proposed platform is designed to streamline SME operations by enabling the management of Payment Recording Devices (PRDs), initiating service calls, and tracking their status in real-time. The design considerations and functionalities of the platform focus on leveraging API integration to ensure seamless data synchronization between the application and centralized databases. Furthermore, AI-driven algorithms analyze user behavior and device lifecycle data, and provide personalized financial insights and targeted banking campaign recommendations to support informed decision-making. Developed using a cross-platform framework like React Native, the proposed solution emphasizes broad compatibility, robust security, and user-friendly operation. Through these advancements, the platform has the potential to significantly enhance SME financial health, improve tax compliance processes, and contribute to efficient tax collection. By addressing these challenges, the solution promotes economic development and societal welfare while paving the way for more sustainable and resilient SME ecosystems. Additionally, the platform aims to offer proactive compliance alerts and tax filing reminders, ensuring that SMEs remain up-to-date with their fiscal responsibilities and avoid penalties. It also facilitates secure and transparent transaction records, which help in building trust with financial institutions and governmental bodies, and also in supporting SMEs in achieving financial stability and growth.

**Keywords:** Financial Management; Tax Compliance; Mobile Application; AI-Driven Insights; Payment Recording Devices; SMEs.

## DESIGN OF A SELF-SERVICE FUEL DISPENSING SYSTEM FOR ENHANCING OPERATIONAL EFFICIENCY AND CUSTOMER EXPERIENCE

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### ABSTRACT

This study investigates the design and implementation of a self-service fuel dispensing system aimed at enhancing operational efficiency and customer experience in fuel stations. The system enables drivers to complete the refueling process autonomously without the need for attendants. It integrates technologies such as license plate recognition for vehicle identification, automated fuel product selection, and a secure prepayment mechanism through payment gateways. Communication between the fuel pump and the central management system is established through real-time data transfer protocols. Key technical components include the integration of Electronic Cash Register (ECR) systems with fuel pumps to validate prepayment limits and initiate fuel dispensing. The prepayment process is conducted via Universal Payment Terminals (UPT), while Pump Communication Services (PCS) ensure accurate activation of the designated pump based on user input. A user-friendly interface guides customers through each step and ensures reliability. The system addresses challenges such as maintaining network reliability for uninterrupted payment processing, ensuring correct pump operation, and managing timeout scenarios for incomplete transactions. By improving customer autonomy and optimizing resource allocation, this solution reduces dependency on manual labor and eliminates common inefficiencies in fuel station operations. This innovative system not only minimizes operational costs but also enhances the customer experience by significantly reducing wait times and increasing transaction speed. Moreover, it incorporates real-time monitoring capabilities that allow station managers to oversee operations effectively, troubleshoot issues promptly, and ensure continuous service availability.

**Keywords:** Self-Service Fuel System, Operational Efficiency, Automated Payment, Vehicle Identification, Customer Experience, Fuel Station Automation.

## INVESTIGATION OF THE EFFECT OF DIFFERENT DRIVETRAIN TYPES ON VEHICLE PERFORMANCE IN FUEL CELL VEHICLES

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### ABSTRACT

In today's world where the importance of sustainable transportation is increasing, fuel cell vehicles, which contribute to the understanding of environmental friendliness with zero emission technology and reduce fossil fuel dependency, are shaping the transportation system of the future. Fuel cell vehicles are powered by fuel cells that convert chemical energy into electrical energy. In addition to fuel cell efficiency, drivetrain type factors directly affect the efficient operation of fuel cell vehicles. Drivetrain types have significant effects on the handling, dynamic performance, overall efficiency and fuel consumption of vehicles. Front-wheel drive, rear-wheel drive and all-wheel drive systems have different performances on fuel cell vehicles. Therefore, the effects of different drivetrain types on vehicle dynamics, energy efficiency and fuel consumption play a critical role in fuel cell vehicles. This study aimed to compare the effects of different drivetrain types on fuel cell vehicle technology. With reference to the technical specifications of the Hyundai Nexo fuel cell vehicle, this study compared the vehicle dynamic performance, fuel consumption, overall vehicle efficiency and battery performance of three different drivetrain types with the Worldwide Harmonized Light-Duty Vehicles Test Procedure driving cycle. The results show that the front-wheel drive vehicle has the lowest fuel consumption with 272.142 grams, while the all-wheel drive vehicle has the highest fuel consumption with 298.100 grams. In terms of maximum acceleration, the four-wheel drive vehicle shows the best performance with  $9.3 \text{ m/s}^2$ . The rear-wheel drive vehicle shows a more balanced performance and is close to the four-wheel drive performance in acceleration with  $5.8 \text{ m/s}^2$ . In the energy efficiency of the whole vehicle system, front-wheel drive has the best efficiency with 31.6%, while all-wheel drive has the lowest efficiency with 29.7%. As for the effect of drivetrain types on battery performance, four-wheel drive stands out as the drivetrain type that consumes the battery charge capacity the fastest due to its high energy consumption. In front-wheel drive, the battery is used in a more controlled manner, providing the most efficient handling. These results show that drivetrain type has significant effects on the efficiency of vehicle dynamic performance and fuel consumption.

**Keywords:** Fuel cell vehicles, drivetrain type, fuel consumption, battery state of charge

## ANALYSIS OF ADVANCED ELECTRIC MACHINES FOR ELECTRIC VEHICLES

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### ABSTRACT

The transition toward electric vehicles represent a pivotal strategy to enhance energy efficiency and mitigate environmental challenges caused by conventional internal combustion engine vehicles. At the heart of this transformation are electric machines, which form the backbone of electric vehicles propulsion systems. Electric machines are critical components of the powertrain of electric vehicles due to their properties such as providing optimum energy conversion, high torque density and improved power efficiency. The increasing trend towards further improvement of traction machines, especially their power density and efficiency, is leading to innovative designs and improvements of basic machine topologies and the emergence of new machine classes. This paper examines the cutting-edge developments in electric machine technologies, focusing on their topologies and traction drive system integration. Focus is placed on current technology and near-future trends to meet the high specific power and efficiency requirements that are decisive for the industry. Challenges such as material sustainability, thermal management, and cost-effectiveness are analyzed, alongside future opportunities driven by technological innovation. The paper presents a comprehensive framework that advances the topologies and applications of advanced electrical machines in the electric vehicle industry, excluding considerations related to associated power electronics inverters.

**Keywords:** Efficiency, Electric machines, Electric vehicles, Power density, Traction drive system.

**DİNAMİK, MODÜLER, İLERİ DÜZEY YAZILIM GELİŞTİRME PLATFORMU-  
WILABS**  
DYNAMIC, MODULAR, ADVANCED SOFTWARE DEVELOPMENT PLATFORM -  
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**ÖZET**

Yazılım projelerinin altyapısının oluşturulması; projenin amacı, kullanıcı sayısı, veri boyutu ve hizmet edilecek platform gibi birçok faktöre bağlıdır. Bu unsurlar, mimari seçimlerin ve altyapı gereksinimlerinin belirlenmesinde belirleyici rol oynar. Projelerde mimari seçimi, veri tiplerine uygun saklama çözümlerinin oluşturulması, ölçeklenebilirlik sağlanması ve kritik öneme sahiptir. Ayrıca, projede kullanılacak teknoloji kombinasyonunun doğru bir şekilde belirlenmesi de büyük önem oluşturmaktadır. Bu bağlamda, yazılım projelerinde altyapı gereksinimlerini hızlı ve etkin bir şekilde karşılamak amacıyla Wilabs yazılım platformu geliştirilmiştir. WiLabs, projedeki altyapı zorluklarını çözüp, yazılım geliştirme süreçlerinin doğruluğunu artırmayı hedefler ve bununla birlikte zaman ve maliyet tasarrufu yapmayı amaçlar. Bu platform, yazılım altyapı modüllerini kompakt bir yapıda birleştirerek yazılım geliştirme sürecini verimli bir şekilde yürütülmesini sağlar. WiLabs iş ihtiyaçlarının değişmesi ve yeni teknolojilerin adapte edilmesi noktasında kolay uyum sağlayan esnek ve modüler şekilde tasarlanmıştır. WiLabs platformu, çeşitli altyapı modüllerini bünyesinde barındırmaktadır. Bunlar arasında, OAuth 2.0 tabanlı bir kimlik doğrulama altyapısı, TCP ve HTTP/s protokolleri üzerinden veri toplayan güvenli bir log sistemi ve dağıtılmış önbellek (distributed cache) yapıları yer almaktadır. WiLabs modülleri, yüksek performanslı veri saklama ve işleme imkanı sunmaktadır. Ayrıca, WiLabs'ın cluster yapısı, node'lar arasında güvenli iletişim sağlayarak izleme ve uyarı süreçlerini kolaylaştırmaktadır. Event bus altyapısı ise mesaj yönlendirme, hata yönetimi ve retry mekanizmalarını içermektedir. Yazılım projelerinde ayrıca dinamik yönlendirme kuralları ile IP, başlık (header) ve kapasite gibi kriterlere dayalı yönlendirme yapılabilmektedir. WiLabs platformu, yazılım projelerinin altyapı kurulumunu ve yönetimini kolaylaştırırken, projelerin hızlıca devreye alınmasını ve sürdürülebilirliğini artırmaktadır. WiLabs altyapı kurulum süreçlerini daha etkin hale getirip proje başlatma sürelerini kısaltmakta ve maliyetleri azaltmaktadır.

**Anahtar Kelimeler:** Microservis Mimarisi, Sanallaştırma, Gerçek Zamanlı Olay İşleme, Orkestrasyon.



## ABSTRACT

The establishment of the infrastructure for software projects depends on various factors such as the project's purpose, the number of users, data size, and the platform to be served. These elements play a crucial role in determining architectural choices and infrastructure requirements. Architectural selection in projects, creating storage solutions appropriate for data types, ensuring scalability, and meeting critical requirements are vital. Additionally, determining the correct combination of technologies to be used in the project is of great importance. In this context, the WiLabs software platform has been developed to quickly and efficiently meet the infrastructure requirements in software projects. WiLabs aims to solve the infrastructure challenges of projects, increase the accuracy of software development processes, and save time and costs. This platform ensures that the software development process is carried out efficiently by integrating software infrastructure modules into a compact structure. WiLabs is designed to be flexible and modular, enabling easy adaptation to changing business needs and the integration of new technologies. The WiLabs platform includes various infrastructure modules, such as an OAuth 2.0-based authentication infrastructure, a secure log system that collects data over TCP and HTTP/s protocols, and distributed cache structures. WiLabs modules provide high-performance data storage and processing capabilities. Furthermore, the cluster structure of WiLabs facilitates secure communication between nodes, streamlining monitoring and alerting processes. The event bus infrastructure includes message routing, error management, and retry mechanisms. In software projects, dynamic routing rules can also be applied, allowing routing based on criteria such as IP, headers, and capacity. The WiLabs platform simplifies the infrastructure setup and management of software projects, increasing the speed of deployment and enhancing their sustainability. WiLabs is making infrastructure setup processes more efficient, reducing project initiation times and lowering costs.

**Keywords:** Microservices Architecture, Virtualization, Real-Time Event Processing, Orchestration.

## URBAN DYNAMICS AND CLIMATE NEUTRALITY: GIS INSIGHTS FOR SUSTAINABLE URBAN MANAGEMENT IN ISTANBUL

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### ABSTRACT

Urbanization has led to challenges such as transportation issues, environmental degradation, and air pollution, necessitating technology-based solutions for effective city management. In response, the concepts of smart and sustainable cities aim to mitigate environmental impacts and reduce ecological footprints by leveraging technology to address urban management challenges. Climate-neutrality initiative focuses on minimizing greenhouse gas emissions and employing innovative technologies to achieve sustainability goals. Within this framework, identifying the criteria influencing climate and environmental changes and analyzing their interrelationships are crucial for advancing research and applications in climate-neutral sustainable city strategies. This study aims to examine urban dynamics through a spatiotemporal analysis of air pollution caused by transportation, aligning with climate-neutral city objectives to inform sustainable urban planning. The study focuses on neighborhoods within Istanbul's most populous, industrialized, and densely urbanized districts. Air pollutant parameters measured periodically via smart sensors from January 2020 to December 2024, along with traffic loads from primary transportation arteries, were analyzed spatially and temporally. The findings reveal a consistent upward trend in all air pollutant concentrations across the study area. Time series clustering shows that SO<sub>2</sub>, PM<sub>10</sub> and CO levels generally show an upward clustering trend for study area. These results show that air quality in the study area has declined significantly over time, underlining that although transportation dynamics have a significant impact, other factors also have an impact on air quality decline. The study offers valuable insights for formulating climate-neutral urban strategies and recommends the need for future research to explore additional factors contributing to air pollution.

**Keywords:** Climate Neutrality, Sustainable Cities, Geographic Information Technologies, Spatio-Temporal Analysis

## THE IMPACT OF CREATIVE ARTIFICIAL INTELLIGENCE APPLICATIONS ON PRE-SERVICE TEACHERS' PROJECT WRITING SKILLS

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### ABSTRACT

The aim of this study is to examine the impact of creative artificial intelligence (AI) applications on pre-service teachers' project writing skills. Specifically, the study investigates how AI support affects pre-service teachers' analytical thinking, planning, and writing processes. The study aims to contribute to the integration of educational technologies into teacher training programs. The research employs a mixed-methods design combining qualitative and quantitative approaches. The sample consists of 160 pre-service teachers from various universities in Turkey who possess basic knowledge of project writing. Data were collected through structured interview forms and a project writing performance evaluation scale. In the data analysis process, quantitative data were analyzed using inferential statistical methods, while qualitative data were evaluated through content analysis. The findings indicate that AI applications significantly contribute to areas such as project format compliance, resource organization, and time management. Additionally, AI-supported feedback was found to help participants develop more original and creative approaches in their projects. In conclusion, creative AI applications enhance pre-service teachers' project writing skills and enable them to approach academic writing processes with greater confidence. It is recommended that AI applications be integrated into teacher training programs. Future studies are advised to include participants from diverse disciplines to conduct broader and more comprehensive research.

**Keywords:** Artificial intelligence, creative writing, pre-service teachers, project writing skills, educational technologies.

## THE ROLE OF LEARNING ENGINEERING IN SCIENCE EDUCATION AND CONSTRUCTING NEXT-GENERATION LEARNING

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### ABSTRACT

The aim of this study is to examine the role of learning engineering approaches in science education and their contributions to constructing next-generation learning processes. Specifically, the study explores how digital technologies and innovative learning models transform learning experiences in science teaching. The study aims to provide a scientific perspective on creating more effective, student-centered, and sustainable learning environments in science education. The research was conducted using a mixed-methods design that combines qualitative and quantitative data collection methods. The sample consists of 135 participants, including 120 pre-service science teachers and 15 science teachers from different regions of Turkey. Data were collected through semi-structured interview forms and a learning engineering awareness scale. Quantitative data were analyzed using inferential statistical methods, while qualitative data were evaluated through content analysis. The findings reveal that learning engineering supports problem-solving skills, critical thinking, and collaborative learning processes in science education. Participants stated that learning engineering tools foster creativity and interdisciplinary perspectives in lessons. In conclusion, it was found that the effective use of learning engineering approaches in science education plays a critical role in constructing next-generation learning models. In this context, it is recommended to integrate learning engineering tools and applications into science education programs. Future studies are advised to conduct broader research involving diverse age groups and disciplines.

**Keywords:** Learning engineering, science education, next-generation learning, digital technologies, interdisciplinary learning.

## DAMAL ALEVİLERİNİN DİNİ RİTÜELLERİNDE DAYANDIKLARI DİNİ METİNLER

RELIGIOUS TEXTS BASED ON DAMAL ALEVIS IN THEIR RELIGIOUS RITUALS

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### ÖZET

Alevilik, Türk-İslâm tarihinin bir öznesi ve parçası olduğu kadar, günümüzde de önemli bir sosyal gerçeklik olarak konumunu korumaktadır. Bu olgusal gerçekliği konu edinen akademik veya popüler değerlerde birçok çalışma yayımlanmakta ve yayımlanmaya da devam etmektedir. Damal Alevileri dini ritüellerinde dayandıkları dini metinlerin başında İmam Cafer'in Buyruğu geldiği tespit edilmiştir. Bu çerçevede Ardahan ili Damal ilçesinde yaşayan Alevilerin dini inanç ve pratikleri yerine getirirken dayandıkları diğer dini metinler de önem arz etmektedir. Bunların başında Kur'an önemli yer tutmaktadır. Yine dini ritüellerde onlar Halil Öztoprak'ın kitabı, Ahmet Yesevi'nin eserleri ve Hacı Bektaş'ın Vahdetnâmesini kendileri için asli kaynak kabul ederler. Zikredilen şahısların kitap ve buyruklarıyla dini hayatlarını deruhte etmektedirler. Alevi geleneğinde ilmihal geleneği de önemli bir yer tutmaktadır. Dini hayattaki pratiklerini tarihi gelenekte rivayet ve yazılı bir forma dayandırarak devam etmektedirler. Bağdaştırıcı ve batinî bir yönü bulunan Damal Aleviliğinde dört kapı-kırk makam, üç sünnet-yedi farz ve on iki farz kavramları inancın arka planını inşa etmektedir. Şeriat, tarikat, marifet ve hakikat şeklinde ifade edilen dörtlü bir ayırım dört kapı inancını sembolize etmektedir. Diğerleri ise bu dört kapının talibinin mutlaka bilmesi gereken kavramlardır. Üç sünnete gelince, ilki Tanrının adının dillerden ve sevgisinin gönüllerden eksik olmamasıdır. İkincisi Hz. Muhammed'e karşı olan kin ve nefretin inanç gereği gönüllerden silinmesidir. Üçüncü sünnet ise Hz. Ali olup bunun gereği olan yola teslim olmaktır. Yedi farza gelince ilki musâhiplik, ikincisi mürebbiye düşmek, üçüncüsü rehber sahibi olmak, dördüncüsü mürşide tabi olmak, beşincisi tövbe almak, altıncısı sır tutmak, yedincisi ise hak ile sohbet etmektir. Bu kavramların hepsi içinde mistik ve ahlaki prensipler barındırmaktadır. İfade edilen kavramlar ve sembolize edilerek kutsal sayılan bu imgeler dini metinler ele alınmaktadır. Dolayısıyla dini metinlerin bu amaçla irdelenmesini gerektirmektedir. Çalışmada, Damal Alevîlerinin dinî ritüellerinde dayandıkları dinî

metinlerin neler olduđu tespit edilmeye çalışılmıştır. Ayrıca çalışma BAP projesi bağlamında ele alınarak, Ardahan ili Damal ilçesi Alevilerinin kendilerince muteber saydıkları bu eserler ele alındı.

**Anahtar Kelimeler:** İslam Hukuku, Din, Alevilik, Metin, Sembol.

## ABSTRACT

Alevism maintains its position as an important social reality today, as well as being a subject and part of Turkish-Islamic history. Many academic or popular studies on this factual reality have been published and continue to be published. In this context, the religious texts that the Alevis living in Damal district of Ardahan rely on while fulfilling their religious beliefs and practices are also important. Within the framework of our BAP study, it was determined that the Commandment of Imam Cafer is one of the religious texts that Damal Alevis rely on in their religious rituals. In addition, the Holy Quran is kept in cem houses. They also accept Halil Öztoprak's book, Ahmet Yesevi's works and Hacı Bektaş's Vahdetnâme as the primary sources for themselves in religious rituals. They undertake their religious life with the books and orders of the mentioned persons. There is also a tradition of catechism in the Alevi tradition. They continue their religious practices by basing them on narrations and written forms in historical tradition. In Damal Alevism, which has a syncretistic and esoteric aspect, the concepts of four gates-forty positions, three sunnahs-seven fards and twelve farzs build the background of the belief. A fourfold distinction expressed as sharia, sect, knowledge and truth symbolizes the belief in the four doors. The others are concepts that the aspirant of these four doors must know. As for the three sunnahs, the first is that God's name should not be absent from the tongues and His love should not be absent from the hearts. Secondly, Hz. It is the erasure of grudge and hatred against Muhammad from the hearts as a matter of faith. The third circumcision is Hz. Being Ali means surrendering to the path that requires it. As for the seven obligations, the first is to be a companion, the second is to be a governess, the third is to have a guide, the fourth is to follow the guide, the fifth is to repent, the sixth is to keep secrets, and the seventh is to converse with the truth. All of these concepts contain mystical and moral principles. Religious texts are discussed in these images, which are expressed and symbolized and considered sacred. Therefore, religious texts need to be examined for this purpose. The study was handled in the context of the BAP project and these works, which the Alevis of Damal district of Ardahan province considered to be reliable, were discussed.

**Keywords:** Islamic Law, Religion, Alevism, Text, Symbol.

## DAMAL ALEVÎLERİNDE DİNİ RİTÜELLERDE UYGULANAN ÂDAP-ERKAN<sup>1</sup>

### ADAP-ERKAN APPLIED IN RELIGIOUS RITUALS IN DAMAL ALEVIS

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### ÖZET

Tasavvufi yapılarda olduğu gibi Alevîlikte ve Bektaşilikte de âdap-erkân, diğer bir ifadeyle yolun temel usul ve uygulamaları önemli bir yer tutar. Tarikat nizamnâmesi veya yol mensuplarının insân-ı kâmil oluncaya kadar uymaları gereken kurallar olarak adlandırılabilir olan âdap-erkân, Alevîlik ve Bektaşilikte büyük benzerlik göstermekle birlikte belli ölçüde farklılıklar da içermektedir. Erkannâme olarak bu kurallar formülize edilmiştir Alevilik halife, dede, mürebbi, rehber, musâhip ve talip'ten oluşan altı dereceli bir hiyerarşiye sahiptir. Günümüzde ise Damal Alevilerinde dedelik, rehberlik ve tâliplik olmak üzere üç dereceli bir hiyerarşi bulunmaktadır. Dedeler mürşitlik, pîrlik ve mürebbilik görevlerini yerine getiren kimseler olup bunların Hz. Peygamber soyundan geldiklerine inanılır. Rehber dedenin yardımcısı, tâlip de yol mensubu demektir. Kırklar meclisi ve cem geleneğinde dini ve batınî bir form yüklenmiştir. Miraç hadisesi sırasında Hz. Muhammed'in doksan bin kelamı konuşmak için Allah'a vardığından ve orada bazı tecrübeler yaşadığından söz edilir. Bu inanışa göre Hz. Ali'nin de miraçta bulunduğu ve kırklar meclisinde pîr olduğu rivayet edilir. Selmân-ı Farisi'nin ise kırklar meclisine üzüm getirdiği ve bu üzümünden bir şerbet yapıp içildiği sonrasında ya Allah diyerek üryan büryan semaha kalkıldığı rivayetleri bulunmaktadır. Cemde on iki hizmet denen bir adâp-erkân geleneği bulunmaktadır. Alevilikte dedelik, rehberlik, gözcülük, çerağcılık, zâkirlik, süpürgecilik, suculuk, sofracılık, semahcılık, okuyuculuk, iznikçilik ve bekçilik makamları bulunmaktadır. Dedenin (pîr, mürşit) postunun yeri başköşedir. Bunların dışında cem çeşitler/erkânı, ikrar cemi/yola kabul erkânı, musâhiplik erkânı, görgü erkânı, Abdal Mûsa Kurbanı, hizmet görme (baş okutma) erkânı, koldan kopan erkânı, dârdan indirme erkânı, muharrem erkânı ve düşkünlük erkânı gibi dinî ritüeller bulunmaktadır. Bu çalışmada, Damal Alevilerinde dinî ritüellerde uygulanan âdap-erkan

<sup>1</sup> Bu çalışma 27.03.2024 tarihinde tamamlanan, 2022-008 Numaralı ve “Ardahan İli Alevî-Bektaşî Vatandaşlarımızın Dini Uygulamalarındaki Fikhî Dayanakları ve Sosyo-Psikolojik Farkındalığı Üzerine Ampirik Bir Araştırma” başlıklı projeden üretilmiştir.

kavramlarının onlar için ifade ettiđi anlamının belirlenmesini ve toplumsal öneminin ortaya konulması amaçlanmıştır. Çalışma daha önce yaptığımız BAP projesi çerçevesinde Ardahan İli Damal ilçesi Alevilerinin dini ritüellerde uyguladıkları âdap-erken hususları ele alındı. Konu tarihi doküman, metin analizi ve yapılan saha çalışması perspektifinde ortaya konuldu.

**Anahtar Kelimeler:** İslam Hukuku, Din, Alevilik, Âdap-Erkan.

## ABSTRACT

As in Sufi structures, in Alevism and Bektashism, etiquette, in other words, the basic procedures and practices of the path, has an important place. Adap-erkan, which can be called the regulations of the sect or the rules that the members of the path must follow until they become perfect human beings, show great similarities in Alevism and Bektashism, but also contain certain differences. These rules have been formulated as Erkannâme. Alevism has a six-level hierarchy consisting of caliph, dede, tutor, guide, companion and talip. Today, among Damal Alevis, there is a three-level hierarchy: dede, guidance and talip. Dedes are people who fulfill the duties of mentor, teacher and tutor, and they are the people of Hz. It is believed that they are descendants of the Prophet. Guide means the assistant of the dede and talip means the member of the road. A religious and esoteric form has been assumed in the tradition of the Council of Forties and the Cem. During the Miraj incident, Hz. It is said that Muhammad went to Allah to speak ninety thousand words and had some experiences there. According to this belief, Hz. It is rumored that Ali also performed the ascension and became the master of the council of forty. There are narrations that Selman-ı Farisi brought grapes to the assembly of the forties and that a sherbet was made and drank from these grapes, and then they stood up for the semah with their eyes wide open, saying "Oh Allah". There is a tradition of etiquette in cem called twelve services. In Alevism, there are positions of dede, guide, watchman, charag, zakir, broom maker, water bearer, table cook, semah maker, reader, izzik and watchman. The place of the grandfather's (pîr, guide) hide is in the corner of the head. Apart from these, there are religious rituals such as the rituals of cem, the rituals of confession, the rituals of companionship, the rituals of etiquette, the Abdal Musa Sacrifice, the rituals of being served (reading the head), the rituals of breaking off from one's arm, the rituals of taking off from the dormitory, the rituals of muharram and the rituals of indulgence. In the study, within the framework of the BAP project we had previously carried out, the issues of etiquette and etiquette applied by the Alevis of Damal district of Ardahan Province in religious rituals were discussed. The subject was presented in the perspective of historical documents, text analysis and fieldwork.

**Keywords:** Islamic Law, Religion, Alevism, Adap-Erkan.



## DİVAN ŞİİRİNDE KAHVENÂMELER POEMS ABOUT COFFEE IN DIVAN POETRY

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### ÖZET

Osmanlı topraklarında 16. yüzyıldan itibaren bazı mükeyyifat unsurları önemli bir mesele olarak ortaya çıkmış ve bunlar hakkında Osmanlı şeyhülislâm ve müftüleri birçok fetvâ vermiştir. Bu meselelerin en başta gelenleri kahve, tütün, esrar, afyon, boza gibi içecekler olup Arapça’da asıl anlamının şarap olduğu, iştah kestiği için bu manayı aldığı, bugünkü anlamının da ehl-i keyif tarafından verildiği bildirilen kahve ise en çok öne çıkan ve hakkında manzum fetvâlarla kahvenâmeler yazılanı olmuştur. Öyle ki yüzyılın sonlarında Bostanzâde Muhammed Efendi o tarihe kadar hakkında olumsuz bir kanaat bulunan kahve meselesini dinî ve tıbbi delillerle birlikte verdiği 64 beyitlik manzum fetvâ ile çözerek bu mükeyyifin caiz olduğunu açıklamıştır. Bu manzum fetvâ, kahvenin dönüm noktası olmuş ve daha sonra kahvenin lehinde veya aleyhinde birçok manzume yazılmış, manzum fetvâlar verilmiştir. Mesela bir manzum fetvâda rüşvetçi bir müftünün kahveyi men edip edemeyeceği sorulmuştur. Bir başka manzum fetvâ da kahve hakkındaki bir tartışma üzerine verilmiş olup bu tartışmada kahve sözcüğünün Arap harfleriyle yazılışından hareketle bu harflerin ters çevrilmesi durumunda “hüve hak” yani “o haktır, gerçektir” anlamının ortaya çıktığı söylenmiştir. Bu bildiride Divan şiirinde kahve hakkında verilmiş manzum fetvâlar da dâhil her türlü manzume kahvenâme adı altında ele alınarak analitik biçimde incelenecektir.

**Anahtar Kelimeler:** Kahve, mükeyyifat, fetvâ, şiir, kahvenâme.

### ABSTRACT

In the Ottoman lands, some mukeyyifat elements emerged as an important issue from the 16th century onwards, and Ottoman sheikhs and muftis issued many fatwas regarding them. The most important of these issues are beverages such as coffee, tobacco, hashish, opium, and boza. Coffee, on the other hand, has the original meaning of wine in Arabic and took this meaning because it suppresses the appetite, and its current meaning was given by the people of pleasure. Coffee is the beverage that stands out among mukeyyifats and about which fatwas in verse and coffee books were written. So much so that at the end of the century, Bostanzâde Muhammed Efendi resolved the coffee issue, about which there had been a negative opinion until that date, with a fatwa in verse consisting of 64 couplets, together with religious and medical evidence, and declared that this mukeyyifat was permissible. This fatwa in verse was

a turning point for coffee, and later many verses were written in favor of or against coffee, and fatwas in verse were issued. For example, in one verse fatwa, it was asked whether a corrupt mufti could ban coffee. Another verse fatwa was given on a discussion about coffee, and in this discussion, it was said that the word coffee was written in Arabic letters, and that if these letters were reversed, the meaning would be "huwa haq", meaning "it is the truth, it is real". In this paper, all kinds of verses, including the verse fatwas given about coffee in Divan poetry, will be examined analytically under the name of kahvenâme.

**Keywords:** Coffee, mükeyyifat, fatwa, poem, kahvenâme..

## FETVAYA KONU OLAN ŞİİR HAKKINDAKİ BİR BAHİSLEŞME A BETTING ABOUT THE POETRY SUBJECT TO THE FATWA

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### ÖZET

Osmanlı fetvâlarında günlük hayata ait her türlü mesele ele alınmış ve bunların içinde şiir ve edebiyat da önemli bir yer ve değere sahip olmuştur. Şiir ve edebiyat konuları sadece kendine ait konuları değil, meselelerin şiir ve edebiyat terimleri ve sanatları ile ele alınıp açıklanmasını da kapsamıştır. Mesela kahve, tütün, esrar, afyon, boza gibi içeceklerle ilgili meseleler şiir yoluyla sorulmuş ve buna aynı şekilde şiirle cevap verilmiştir. Buna verilebilecek en güzel örnek 16. yüzyılın sonlarında Bostanzâde Muhammed Efendi'nin toplumda olumsuz yaklaşılan kahve hakkında verdiği 64 beyitlik manzum fetvâdır. Bu bildiride ise şiir üzerine yapılmış bir bahisleşme hakkında verilmiş manzum fetva tanıtılacaktır. Bu fetva değişik yazma eserlerde farklı şeyhülislamlara ait görünmekte olup bir kitapta Şeyhülislam Sadi Çelebi'ye ait görünürken başka bir kitapta Şeyhülislam Ebussuud Efendi'ye ait görünmektedir. Ayrıca farklı yazma eserlerde hacim ve muhteva bakımından da farklı biçimde yer almaktadır. Bu durum, bu fetvânın veriliş ve naklediliş biçimi ile ilgili birtakım soruların sorulmasına sebep olmakta, üzerinde oynandığı kanaatini doğurmaktadır. Her ne kadar nüshaların çoğunda bu fetvâ Şeyhülislam Sadi Çelebi'ye ait görünse de Ebussuud Efendi'ye ait görünen nüshalarda hem hacminin hem de muhtevasının farklı olması iki ayrı fetvâ olduğuna dair de bir görüşün ortaya çıkmasına sebep olabilmektedir. Bildirimizde bu hususlar analitik biçimde incelenerek ortaya konulacaktır.

**Anahtar kelimeler:** Osmanlı, fetvâ, bahis, şiir, edebiyat.

### ABSTRACT

In Ottoman fatwas, all kinds of issues related to daily life were addressed, and poetry and literature had an important place and value among them. Poetry and literature issues did not only cover their own subjects, but also included the handling and explanation of issues with the terms and arts of poetry and literature. For example, issues related to beverages such as coffee, tobacco, hashish, opium, and boza were asked through poetry and answered in the same way through poetry. The best example that can be given to this is the 64-couplet verse fatwa given by Sheikhs al-islam Bostanzade Muhammed Efendi about coffee, which was viewed negatively in society, at the end of the 16th century. In this paper, a verse fatwa given about a discussion on poetry will be introduced. This fatwa appears to belong to different

sheikhs al-islams in different manuscripts, and in one book it appears to belong to Sheikhs al-islam Sadi Çelebi, while in another book it appears to belong to Sheikhs al-islam Ebussuud Efendi. In addition, it appears differently in terms of volume and content in different manuscripts. This situation raises some questions about the way this fatwa was given and transmitted, and gives rise to the belief that it has been tampered with. Although this fatwa appears to belong to Sheikh al-Islam Sadi Çelebi in most of the copies, the fact that both its volume and content are different in the copies that appear to belong to Ebussuud Efendi may also lead to the emergence of an opinion that these are two separate fatwas. In our report, these issues will be examined analytically and presented.

**Keywords:** Ottoman, fatwa, betting, poem, literature.

**MƏHƏMMƏD FÜZULİNİN FARSCA DİVANINDA QRAFİKAYA GÖRƏ  
FORMALAŞAN OMOFONLAR**  
HOMOPHONS FORMED ACCORDING TO THE GRAPHICS IN THE PERSIAN DIVAN  
OF MUHAMMAD FUZULI

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## XÜLASƏ

Məhəmməd Füzuli Azərbaycan ədəbi-bədii düşüncəsinin inkişafında müstəsna xidmətləri olan dahi sənətkarlardandır. Əsərlərini 3 dildə yaratmış şairin Azərbaycan dilindəki bədii irsi kimi fars dilindəki “Divan”ı da gözəl, səlis, insanı valeh edən ahəngə malikdir.

Biz bu araşdırmamızda aşağıda qeyd etdiyimiz müxtəlif qrafikalı omofonların Məhəmməd Füzulinin fars dilindəki “Divan”ında işlənmə yeri, işlənmə tezliyi, kontekstdən asılı olaraq mənə çalarlarını tədqiqatə cəlb etmişik.

Məlum olduğu kimi, ərəb əlifbası əsasında formalaşmış fars dilinə xas əsas problemlərdən biri bu dildə qrafikaya görə mövcud olan omofonlardır. Omofon – yazılış və mənə cəhətdən fərqli, tələffüzə eyni olan müxtəlif nominativ, morfoloji tərkibli leksemlərdir. İngiliscə - “homophone”, azərbaycanca - “omofon”, fars dilində “həməvə” adlanan bu termin yunanca “homos”- (oxşar) və “fonem”- (səs) sözlərinin birləşməsindən əmələ gələrək, “oxşar səslənmə” mənasını verir. Təəssüflə qeyd etməliyik ki, fars dilinin öyrənilməsində çox ciddi çətinliklər yaradan omofonlar səthi şəkildə, ara-sıra tədqiqatçıların diqqətini çəksə də mövzu ciddi elmi-nəzəri yanaşmalardan kənarda qalmışdır.

Farsların ərəb qrafikasını qəbul etdikləri halda, bu hərflərin bir çoxunun tələffüzünü qəbul etməmələri fars yazısını çətinləşdirən başlıca səbəblərdən biridir. Ona görə də fars dilinin qrafik quruluşunda:

1. **2 müxtəlif qrafikalı /t/ - ط/ت**
2. **2 müxtəlif qrafikalı /h/ - ه/ح**
3. **2 müxtəlif qrafikalı ğ /ɣ/ - غ/ق**
4. **2 müxtəlif qrafikalı /x/ - خ/خو**
5. **2 müxtəlif qrafikalı /ʕ/ - ع//ع**
6. **2 müxtəlif qrafikalı /a/, /ə/, /e/, /o/ - ع/آ**
7. **2 müxtəlif qrafikalı /a/ - ا//ی**
8. **3 müxtəlif qrafikalı /s/ - س//س ض ث**

#### 9. 4 müxtəlif qrafikalı /z/ - ذ // ز // ض // ظ

Yuxarıda göstərdiyimiz qrafik nümunələrin hər biri yazılışa görə müxtəlif olsa da fars dilində eyni şəkildə tələffüz edilir. Nümunə olaraq: 3 müxtəlif – "س", "ث", "ص" hərflərinin hər üçü bir /s/ fonemi məxrəcində tələffüz edilir. Eksperiment araşdırmaları göstərir ki kar, sürtünən, dil, dildibi /s/ samitini tələffüzü zamanı ağ ciyərlərdən gələn hava axını ağızda yaranan novdan keçərək bu səsi formalaşdırır.

**Açar sözlər:** Məhəmməd Füzuli, omofon, fonetika, qrafika, samit, fars dili

## ABSTRACT

Mahammad Fuzuli is an artist who occupies a unique place in developing Azerbaijani literary and artistic thought. He created his works in 3 languages. Like the poet's works in Azerbaijani, his "Divan" in Persian has a beautiful, fluent, captivating harmony.

One of the main problems that the Persian language, which was formed using the Arabic alphabet, often encounters is the homophones that exist in this language due to its graphics.

Homophones are lexemes with different nominative and morphological components that are different in spelling and meaning, but the same in pronunciation. In English - "homophone", in Azerbaijani - "омофон", in Persian - "хамابа". This term is formed from the combination of the Greek words "homos" - (similar) and "phoneme" - (sound), and means "similar sounding". Although homophones are occasionally discussed as a serious problem in learning Persian, it should be noted that the subject has not been seriously studied.

One of the main reasons for the difficulty of writing Persian is that the Persians while adopting the Arabic script, did not adopt the pronunciation of many of these letters. Therefore, in the graphic structure of the Persian language:

1. 2 different graphics /t/ - ط // ت
2. 2 different graphics /h/ - ح // ه
3. 2 different graphics ġ /ɣ/ - غ // ق
4. 2 different graphics /x/ - خ // ح
5. 2 different graphics /ʃ/ - ع // ع
6. 2 different graphics /a/, /ə/, /e/, /o/ - آ // ا
7. 2 different graphics /a/ - ا // ا
8. 3 different graphics /s/ - ث // س // ض
9. 4 different graphics /z/ - ذ // ز // ض // ظ

Although each of the graphic examples given above is different in spelling, each of them is pronounced in the same way in Persian. Although there are 3 different letters - "ص", "ث", "س", all three of them are pronounced in the denominator of the same /s/ phoneme. Experimental studies show that during the pronunciation of the deaf, fricative, tongue, and tongue-tied

consonant /s/, the air flow from the lungs passes through the groove formed in the mouth and forms this sound.

In this thesis, we have selected and grouped the homophones in the graphic structure of the Persian language from the Persian divan of Muhammad Fuzuli [number].

**Keywords:** Muhammad Fuzuli, homophone, phonetics, graphics, consonant, Persian language

## UŞAQ ƏDƏBİYYATI TƏRBIYƏ PROSESİNİN MÜHÜM VASİTƏSİ KİMİ CHILDREN'S LITERATURE AS AN IMPORTANT MEANS OF EDUCATION

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### XÜLASƏ

XXI əsr. Təəssüflə qeyd etməliyik ki, idarəçiliyin əksər sferalarda süni intellektə ötürülməsi ilə xarakterizə edilən informasiya cəmiyyətində milli-mənəvi, əxlaqi dəyərlər daha çox aşınmaya məruz qalmışdır. Bu aşınma cismani və ruhani mövcudiyyətin məcmusu olaraq yaradılmış insan və insanlığın dərin böhranını şərtləndirən başlıca məqamlardandır. Heç kimə sirr deyil ki, bu gün dünyanın üzləşdiyi bütün problemlərin kökündə də məhz insan faktoru dayanır. Planetimizin dağıdılaraq məhvə sürüklənməsində də, yenidən qurularaq bərpa olunmasında da bu faktorun rolu digər amillərlə müqayisədə ölçüyəgəlməz miqyasdadır.

Məntiqi alqoritm insan və onun evi olan dünyanın nicatının məhz cəmiyyətin bünövrəsini təşkil edən düzgün tərbiyələndirilmiş uşaqlarla birbaşa əlaqəli olduğunu göstərir. Bu mənada tərbiyə sisteminə təsir edən mikro, makro, ictimai-siyasi, sosial mühit, informasiya mühiti, özünüdərk səviyyəsi, təhsil sistemi və s. göstəricilərlə yanaşı uşaq ədəbiyyatının müstəsna rolunu xüsusi qeyd etməliyik. Tərbiyə prosesində adında “ədəb” sözünü ehtiva edən, başlıca məramı, məqsədi ədəbləndirmək, tərbiyələndirmək olan ədəbiyyatın nüfuz imkanları sonsuzdur. Bu ədəbiyyat kiçikyaşlı nəsli vətənpərvərlik, humanizm, sadıqlıq, ədalət, dürüstlük kimi müsbət keyfiyyətlərin daşıyıcısı kimi də və ya əksinə, mənfi, qeyri-insani xüsusiyyətlərə sahib biri kimi də formalaşdırı bilər. Məhz buna görə də uşaqlar üçün nəzərdə tutulan əsərlərin ideya-tematikasına, qabardılan mövzuların aktuallığına, nəyi və nə cür yazmaq kimi əhəmiyyətli məsələlərə çox ciddi yanaşılmalıdır. Ən müxtəlif mövzularla zəngin mündəricələrdə tərbiyə amili hər zaman prioritet götürülməli, uşaq yaşlarında qəbul olunan informasiyaların təhtəlsüurda uzun müddətli qalıcılığı və dünyagörüşünün formalaşmasındakı önəmi nəzərə alınmalıdır.

Uşaq ədəbiyyatının nağıl, şeir, tapmaca və digər başqa janrlarda yazılmış nümunələrini dinləyərək intellektual ortamda böyümüş uşaqların istər təxəyyül, təfəkkür və özgüvən baxımından, istərsə cəmiyyətdə özünüdərsə, səmərəlilik cəhətdən daha yaxşı perspektiv vəd etməsi məlum həqiqətlərdəndir.

**Açar sözlər:** Uşaq ədəbiyyatı, tərbiyə, əxlaq, milli-mənəvi dəyərlər.



## ABSTRACT

21st century. We must regret that in the information society, characterized by the transfer of management in most spheres to artificial intelligence, national-spiritual, moral values have been subjected to greater erosion. This erosion is one of the main factors that caused a deep crisis for man and humanity, created as a set of physical and spiritual existence. It is no secret to anyone that the human factor is at the root of all the world's problems today. The role of this factor in the destruction and destruction of our planet, as well as in its reconstruction and restoration, is immeasurable compared to other factors.

The logical algorithm shows that the salvation of man and the world, his home, is directly related to properly educated children, who form the foundation of society. In this sense, we should especially note the exceptional role of children's literature, along with micro, macro, socio-political, social environment, information environment, level of self-awareness, education system, and indicators that affect the education system. The influence of literature, which contains the word "etiquette" in its name and whose main purpose and goal is to educate and educate, is endless. This literature can shape the younger generation as a bearer of positive qualities such as patriotism, humanism, loyalty, justice, and honesty, or, conversely, as someone with negative, inhuman characteristics. That is why the ideological and thematic content of works intended for children, the relevance of the topics raised, and important issues such as what and how to write should be approached very seriously. In content rich with a wide variety of topics, the educational factor should always be given priority, and the long-term persistence of information received in childhood in the subconscious and its importance in the formation of a worldview should be taken into account.

It is a well-known fact that children who grow up in an intellectual environment by listening to examples of children's literature written in fairy tales, poems, riddles, and other genres have better prospects in terms of imagination, thinking, and self-confidence, as well as self-affirmation and efficiency in society.

**Keywords:** Children's literature, upbringing, morality, national and spiritual values.

## XX YÜZYIL DÜNYA EDEBİYATINDA KADIN SORUNU WOMEN'S ISSUES IN 20-TH CENTURY WORLD LITERATURE

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### ÖZET

Kadının rolü her zaman yaşadığı döneme göre değişmiştir. Onların kaderinin izlerini dünya edebiyatında görmek mümkündür. Edebiyat, nesillerin tanıklığı, araştıran zihinler için bir bilgi hazinesi ve dünya görüşünün oluşmasının kaynağıdır. Çünkü edebî metin millî edebiyat ve kültür eseridir. Ünlü Fransız yazar Françoise Sagan, otobiyografik eseri "Merhaba Keder"de kadınların kaderini anlatır. Farklı bir toplum ve kültürde yaşayan Suad, otobiyografik romanı "Yakıp Diri Diri"de bir kadının kaderini ele alıyor.

İşkenceye uğrayan, vahşice katledilen sayısız kadın ve bu vahşete sebep olan "erkekler", "namus cinayetleri" adı altında herkesin gözünde kahramanlaştırılıyor.

"Erkek yasalarının" kurbanı olan ana karakterimiz, başına gelenleri başka kadınların yaşamaması için anlatan bir kadının mucizevi bir şekilde hayatta kalmasıyla "namusu" lekелendiği için ölüme mahkûm edilir. bu dehşetler. Ve en korkuncu da bu tür olayların sadece dünyanın belli bölgelerinde, belli coğrafyalarda yaşandığını söyleyemeyiz. Bugün bile bu tür vahşi suçların kurbanı olan çok sayıda kadın var. Ve bugün, bu durumu yaşamış ve suskunluğa mahkûm edilmiş kadınlar karşısında, bu çalışma suskunluk lanetini kırıyor.

Böylesine acımasız bir işkenceye maruz kalan Suad, babasının kendisine "yeşil domates" yüzünden yaşattıklarını ayrıntılarıyla hatırlıyor. Ama kız kardeşinin adını hatırlayamıyor. Eserde birçok çelişkili nokta da yer alıyor.

Françoise Sagan'ın "Merhaba, Hüzün" adlı romanı bambaşka bir yaşam tarzına, bambaşka düşüncelere sahip insanları yansıtır. Düşünce tarzı ve çevre farklılıkları: 17 yaşındaki Cecil, babası Raymond ile birlikte yaşıyor. Cecil, her şeyin kendi istediği gibi olması gerektiğine inanarak, hayatın kendi istekleri doğrultusunda ilerlemesi gerektiğini düşünen, aşkı eğlence olarak gören, sıkıcı çevresinden kolayca kaçabilen, her şeye çılgın bir coşkuyla yaklaşan genç bir kızdır.

Annesini kaybetmiş, babasına yeni kavuşmuş, babası da benzer bir hayat yaşayan biri. Ve Cecil'in hayatı, alışılmadık bir yaşam tarzına sahip biri için en beklenmedik olayla karşılaştığında değişir: Yeni babası, ciddi bir hayatı olan eğitilmiş, kültürlü biriyle evlenir. Cecil bu durumu kabullenmek istemez ve bunu bozmak için oyunlar kurar. Ve amacına ulaşır. Artık Anna'nın gidişine pişman olan birine dönüşmüştür. Anna'nın ölümünü bir tesadüf olarak kabul eder ve hayatına devam eder. İki eser arasındaki farklar dikkat çekici derecede çoktur.

İki kadın farklı şekilde gösteriliyor. Suad'ın kadın karakteri kaderine boyun eğiyor. Cecile Sagan kendi hayatının senaristi oluyor.

**Anahtar Kelimeler:** felsefe, duygular, kader, kadının kaderi

## ABSTRACT

The role of women has always changed according to the period they lived in. It is possible to see the traces of their fate in world literature. Literature is the testimony of generations, a treasure trove of knowledge for inquiring minds and the source of the formation of a worldview. Because literary texts are national works of literature and culture. Famous French author Françoise Sagan tells the fate of women in her autobiographical work "Hello Sorrow". Suad, who lives in a different society and culture, deals with the fate of a woman in her autobiographical novel "Burn Alive". Countless women who are tortured and brutally murdered and the "men" who cause this brutality are made heroes in the eyes of everyone under the name of "honor killings".

Our main character, who is the victim of "male laws", is sentenced to death because her "honor" is tarnished by the miraculous survival of a woman who tells what happened to her so that other women do not experience these horrors. And the most frightening thing is that we cannot say that such events only occur in certain regions of the world, in certain geographies. Even today, there are many women who are victims of such brutal crimes. And today, in the face of women who have experienced this situation and are condemned to silence, this work breaks the curse of silence.

Suad, who was subjected to such brutal torture, remembers in detail what her father made her go through because of the "green tomato". But she cannot remember her sister's name. There are also many contradictory points in the work.

Françoise Sagan's novel "Hello, Sadness" reflects people with completely different lifestyles and completely different thoughts. Differences in thought style and environment: 17-year-old Cecil lives with his father Raymond. Cecil is a young girl who believes that everything should be as she wants, that life should progress according to her wishes, that sees love as entertainment, that can easily escape from her boring environment, and that approaches everything with crazy enthusiasm.

Someone who has lost her mother, has just reunited with her father, and whose father lives a similar life. And Cecil's life changes when he encounters the most unexpected event for someone with an unconventional lifestyle: His new father marries an educated, cultured man with a serious life. Cecil does not want to accept this situation and plays games to ruin it. And he achieves his goal. Now he has become someone who regrets Anna's departure. He accepts Anna's death as a coincidence and moves on with his life. The differences between the two

works are strikingly many. The two women are shown differently. Suad's female character submits to her fate. Cecile Sagan becomes the scriptwriter of her own life.

**Keywords:** philosophy, emotions, fate, the fate of women

**1930-2024 YILLARI ARASINDAKİ TÜRKİYE'DEKİ MİMARİ PROJE  
YARIŞMALARININ UYGULANMA ORANLARININ ANALİZİ**  
ANALYSIS OF IMPLEMENTATION RATES OF ARCHITECTURAL PROJECT  
COMPETITIONS IN TURKEY BETWEEN 1930 AND 2024

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**ÖZET**

Bu bildirinin amacı Türkiye’de 1930-2024 yılları arasında açılan proje yarışmalarının uygulanma oranlarını incelemektir. Mimari proje yarışmaları özellikle kamusal alanda proje elde etmek için önemli bir araç olarak görülmesine karşın yarışma ile elde edilen projelerin uygulanma oranlarının giderek düştüğü yönünde eleştiriler vardır. Bu eleştiriler hipotez olarak alınmıştır. Buna karşın yarışma sonucunda elde edilen projelerin uygulanma oranına ilişkin bir çalışma yapılmamıştır. Bu kapsamda tez, makale ve kitaplar incelenmiştir. İncelenen bu araştırmalarda, proje yarışmalarını genellikle konuları, ödül alanlar veya yarışmayı düzenleyen kurumlar bağlamında ele almış, ancak uygulanma oranlarını bütüncül bir şekilde değerlendiren bir araştırma yapılmamıştır. Bu çalışmada Ankara Mimarlar Odası’nın hazırlamış olduğu yarışmalar dizini, yarismo.org ve arkitera.com’dan proje yarışmaları derlenmiştir. Bu arşivlerde yer alan projeler yarışmayı düzenleyen idare, yarışmanın türü, yarışmanın şekli, yarışmanın yöntemi ve hangi yönetmeliğe bağlı olduğu verileri işlenmiştir. yarismo.org’da yer alan 2004 yılı sorası verilerinin bir kısmı uygulanmayı da içermektedir. Bu arşivlerden derlenen 1147 yarışmanın, 262 adeti fikir, öğrenci, metin, ödül yarışması olması ve bu yarışmaların uygulanma motivasyonu ile açılmaması sebebiyle araştırmanın kapsamı dışında kalmıştır. Kalan 888 yarışma arama motorunda tek tek taratılarak uygulanma verisi elde edilmeye çalışılmıştır. Bu arama sonucunda yüksek lisans tezlerinden, akademik kitaplardan, mimarlık dergilerinden, yarışmacı mimarlar hakkında düzenlenen arşivlerden, internet sitelerinden, gazete kütüphanelerinden ve sempozyum videolarından yararlanılarak uygulanma verilerine ulaşılmıştır. Bu araştırma yapılırken açılan yarışmaların bazılarının verilerine hiç ulaşılammıştır. Bunların bir kısmı açıklanmayan yarışmalardır. Ancak açıklandığı bilinen ve uygulanma ile ilgili veriye ulaşılammayan yarışmalar bulunmaktadır, bu da araştırmanın sınırlılıklarındandır. Bu çalışmada elde edilen veriler, proje yarışmalarının uygulanma oranlarında tarihsel süreçte bir düşüş yaşandığını göstermektedir. Bu alanda

yapılacak çalışmalara öncülük etmesi açısından bu düşünün nedenleri üzerine olası öngörüler ortaya konulacaktır.

**Anahtar Kelimeler:** proje yarışmaları, mimarlık yarışmaları, uygulanma, mimari proje yarışmaları

## ABSTRACT

This paper aims to examine the implementation rates of project competitions held in Turkey between 1930 and 2024. Architectural project competitions are considered a significant tool, particularly for obtaining projects in the public domain. However, there have been criticisms suggesting a decreasing rate of implementation of projects obtained through competitions. These criticisms were taken as a hypothesis. Despite this, no study has specifically examined the implementation rates of projects resulting from competitions. Within this scope, theses, articles, and books were reviewed. Previous research mostly focused on the themes, award recipients, or the institutions organizing the competitions but lacked a comprehensive evaluation of their implementation rates. In this study, project competitions were compiled from the competition index prepared by the Ankara Chamber of Architects, yarismo.org, and arkitera.com. The data from these archives were processed in terms of the organizing authority, competition type, format, method, and governing regulations. Some of the data after 2004 available on yarismo.org also include implementation rates. Out of the 1,147 competitions compiled from these archives, 262 were excluded due to being idea, student, text, or award-based competitions that were not motivated by implementation. For the remaining 888 competitions, individual searches were conducted using search engines to obtain implementation data. This process utilized master's theses, academic books, architectural journals, archives about competing architects, websites, newspaper clippings, and symposium videos. However, data for some competitions could not be obtained during the study. Some of these were competitions with undisclosed results, while others had missing data due to archival deficiencies, representing a limitation of the study. The findings indicate a historical decline in the implementation rates of project competitions. To guide future studies in this field, potential predictions regarding the reasons for this decline will be proposed.

**Keywords:** project competitions, architectural competitions, implementation, architectural project competition

**TARİHİ ÇEVREDE SANAYİ ALANLARININ KÜLTÜREL VE KENTSEL  
DÖNÜŞÜM SÜRECİ ÜZERİNE BİR İNCELEME: ZECHE ZOLLVEREİN  
ENDÜSTRİ KOMPLEKSİ**

AN EXAMINATION OF THE CULTURAL AND URBAN TRANSFORMATION  
PROCESS OF INDUSTRIAL AREAS IN HISTORICAL ENVIRONMENTS: THE ZECHE  
ZOLLVEREIN INDUSTRIAL COMPLEX

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**ÖZET**

Bu bildiri, tarihi çevrelerdeki sanayi alanlarının kültürel ve kentsel dönüşüm sürecini incelemekte ve Zeche Zollverein Endüstri Kompleksi örneği üzerinden bu dönüşümün nasıl gerçekleştiğini ele almaktadır. Zeche Zollverein, Almanya'nın Essen şehrinde yer alan eski bir kömür madeni ve kok fabrikasıdır. Bu çalışma, sanayi mirasının yeniden işlevlendirilmesi sürecinin başarılı bir örneği olarak, tarihi endüstriyel alanların modern toplumda nasıl değerlendirildiğini ve tarihsel kimliklerinin nasıl korunduğunu ortaya koymaktadır. Çalışma, sanayi alanlarının modern toplumda nasıl yeniden kullanıldığını, tarihsel değerlerinin nasıl korunduğunu ve kentsel gelişimle nasıl uyumlu hale getirildiğini araştırmaktadır. Araştırmada kullanılan metod, nitel bir yaklaşımla literatür taraması yöntemlerinden faydalanan sanayi alanlarının yeniden işlevlendirilmesi sürecine dair bir analiz sunmaktadır. Zeche Zollverein'in dönüşüm süreci, bu sürecin uygulama örnekleriyle desteklenerek ele alınmış ve karşılaşılan zorluklar ile elde edilen başarılar detaylı bir şekilde tartışılmıştır. Ayrıca, benzer dönüşüm projeleriyle karşılaştırmalar yapılarak bu tür dönüşümlerin toplumsal ve kültürel etkileri vurgulanmıştır. Çalışmanın en önemli katkısı, sanayi alanlarının sadece fiziksel restorasyonu değil, aynı zamanda kültürel ve toplumsal açıdan yeniden yapılandırılmasına dair derinlemesine bir anlayış sunmasıdır. Çalışmada sanayi alanlarının dönüşümüne dair yerel ve küresel düzeydeki uygulama örneklerini karşılaştırmalı bir şekilde incelenmiştir. Kentsel kimlik ve kültürel bellek bağlamında da ele alınmıştır. Bu bağlamda, tarihi yapıların ve sanayi alanlarının kentsel dönüşüm süreçlerinde sürdürülebilirliğin sağlanmasına ve tarihi çevrenin

korunarak çağdaş ihtiyaçlara cevap verecek şekilde dönüştürülmesine dair önemli çıkarımlar sunmaktadır.

**Anahtar Kelimeler:** Yeniden İşlevlendirme, Sanayi Alanları, Sürdürülebilirlik, Tarihi Çevre

## ABSTRACT

This study examines the cultural and urban transformation process of industrial areas within historical environments, focusing on how this transformation has occurred through the example of the Zeche Zollverein Industrial Complex. Located in Essen, Germany, Zeche Zollverein is a former coal mine and coking plant. As a successful example of the adaptive reuse of industrial heritage, this study highlights how historical industrial sites are evaluated in modern society and how their historical identities are preserved. The research investigates how industrial sites are repurposed in contemporary society, how their historical values are maintained, and how they are integrated into urban development. The methodology employed in this study is qualitative, utilizing literature review methods to provide an analysis of the adaptive reuse process of industrial sites. The transformation of Zeche Zollverein is explored, supported by case examples, with a detailed discussion of the challenges encountered and the successes achieved. Furthermore, comparisons with similar transformation projects are made, emphasizing the social and cultural impacts of such transformations. The key contribution of this study lies in offering an in-depth understanding of the transformation of industrial areas, not only through physical restoration but also in terms of cultural and social restructuring. This research examines local and global examples of industrial site transformations in a comparative manner and develops perspectives on topics such as urban identity and cultural memory. In this regard, the study presents critical insights into ensuring sustainability in urban transformation processes involving historic structures and industrial areas, emphasizing the preservation of historical environments while adapting them to contemporary needs.

**Keywords:** Adaptive Reuse, Industrial Sites, Sustainability, Historical Environment



**ARA MEKAN KAVRAMINDA ÇOK ANLAMLILIK SORUNU**  
**THE PROBLEM OF POLYSEMY IN THE CONCEPT OF IN-BETWEEN SPACE**

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**ÖZET**

Ara mekân kavramının çeşitli bilgi alanlarında veya mekansal araştırma disiplinleri içerisinde birden çok anlam ve çeşitli yorumlar taşıması zamanla kavram karmaşası yaşanmasına sebep olmaktadır. Çok anlamlılık durumu, kavramı kullanışsız ve belirsiz bir hale getirmektedir. Bu problem üzerinden ara mekân kavramının benzer tanımlarının ve yorumlarının epistemolojik açıdan incelenmesiyle kavram karmaşasını çözümleyici bir bakış açısı oluşturmak amaçlanmıştır. Bu bağlamda yapılan bir çalışmaya rastlanmaması alandaki boşluğu ortaya koyarken kavramın yalın bir çerçevede algılanabileceği bir kavramsal altlık oluşturulabilmesi önemsenmektedir. Çalışmanın yöntemi Scopus veritabanında belli ölçütlere göre sınırlandırılan bir örneklem içerisindeki 30 makalede yer alan ara mekân kavramı kullanımlarının, kavramın tanımı itibarıyla taşıdığı semantik boyutlarının pragmatik açıdan irdelenmesi, tanımlardaki semantik boyutlarına göre kategorize edilmesi ve en sonunda birlikte yorumlanarak kavramın anlamsal yapısının çerçevelenmesidir. Bu süreçteki araştırma soruları “ara mekân kavramının ne olduğu, neyi ifade ettiği ve hangi kavramlarla ifade edildiği”, kavramın belirsizliklerinin kaynağı veya sebeplerinin ne olduğu” ve “kavramın hangi amaçlarla kullanıldığı” şeklindedir. Bu sorular kavramın taşıdığı bağlamı dolayısıyla pragmatik yapısı üzerinden kavramın anlam sınırlarını çözümlemeyi sağlamaktadır. Ara mekân kavramının farklı bilgi alanlarında, farklı ölçeklerde farklı anlamlar ve olguları ifade etmek için kullanılması kavramın kaplamının aşırı genişlemesine sebep olmuştur. Bu noktada belli semantik boyutların (fiziksel, işlevsel, biçimsel vb.) ortaya çıkarılması, kavramın sınırlarının çizilmesini ve anlaşılabilir bir epistemolojik çerçeve oluşturulmasını sağlayabilir.

**Anahtar Kelimeler:** Ara mekân, Çok Anlamlılık, Semantik, Epistemoloji.

## ABSTRACT

The fact that the concept of in-between space carries multiple meanings and various interpretations in various fields of knowledge or spatial research disciplines leads to concept confusion over time. Polysemy renders the concept useless and ambiguous. Through this problem, it is aimed to create a perspective that analyzes the concept confusion by examining similar definitions and interpretations of the concept of in-between space from an epistemological point of view. While the lack of a study in this context reveals the gap in the field, it is important to create a conceptual infrastructure where the concept can be perceived in a simple framework. The method of the study is to pragmatically examine the semantic dimensions of the concept of intermediate space in 30 articles in a sample limited according to certain criteria in the Scopus database, to categorize them according to their semantic dimensions in the definitions, and finally to frame the semantic structure of the concept by interpreting them together. The research questions in this process are “what the concept of intermediate space is, what it expresses, and with which concepts it is expressed”, “what are the sources or reasons for the ambiguities of the concept” and “for what purposes the concept is used”. These questions enable us to analyze the boundaries of meaning of the concept through its contextual and therefore pragmatic structure. The use of the concept of in-between space to express different meanings and phenomena in different fields of knowledge and at different scales has led to an over-extension of the concept's scope. At this point, revealing certain semantic dimensions (physical, functional, formal, etc.) can help to draw the boundaries of the concept and create a comprehensible epistemological framework.

**Keywords:** In-between space, Polysemy, Semantics, Epistemology.

**YENİDEN İŞLEVLENDİRİLEN MEKANLARIN MARKALAŞMASI VE MEKAN -  
KULLANICI İLİŞKİSİNE ETKİSİ: ADANA SİNEMA MÜZESİ ÖRNEĞİ**  
THE BRANDING OF RE-PURPOSED SPACES AND ITS IMPACT ON THE SPACE-  
USER RELATIONSHIP: THE CASE OF THE ADANA CINEMA MUSEUM

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**ÖZET**

Yeniden işlevlendirme, tarihi yapıların modern ihtiyaçlara yönelik uyarlanması sürecidir. Bu süreçte, eski yapılar mevcut kullanım dışı alanlardan, kültürel veya ticari amaçlar doğrultusunda yeni işlevler kazandırılarak tekrar hayata döndürülür. Bu durum, mekanın kimliğini, kullanımını ve kullanıcılarla olan ilişkisini yeniden tanımlama fırsatı sunar. Yeniden işlevlendirme, tarihi yapıların korunmasını sağlamakla birlikte topluma kazandırılan yeni fonksiyonlar ile ekonomik ve sosyal faydalar yaratmaktadır. Markalaşma ise, yeniden işlevlendirilen mekanların kültürel ve sosyal açıdan değer kazanması ve tanınırlığının artırılması ile ilgili bir süreçtir. Bu süreç, mekanın kimliğini güçlendirir ve toplumsal bellekte yer edinmesine yardımcı olur.

Bu çalışmada, geleneksel yapıların yeniden işlevlendirilmesine Türkiye’den bir örnek olarak Adana Sinema Müzesi ele alınmış ve bu bağlamda markalaşma süreçleri mekan-kullanıcı ilişkisi içerisinde değerlendirilmiştir. Çalışmada, öncelikle yeniden işlevlendirme ve markalaşma kavramlarının teorik temelleri incelenmiş ve literatürdeki önemli yaklaşımlar ele alınmıştır. Yeniden işlevlendirilen mekanların kullanıcılarla olan etkileşimi, mekansal kimlik ve kullanım örnekleri üzerine yapılan çalışmalar gözden geçirilmiştir. Bu bağlamda, markalaşma stratejilerinin tarihi mekanların sosyal ve ekonomik sürdürülebilirliğine katkıları değerlendirilmiştir.

Çalışma kapsamında incelenen müze yapısı, kullanırlılığını yitirmiş bir geleneksel konut iken günümüzde çağdaş bir müzeye dönüştürülmüştür. Yapının tarihi süreci araştırılmış ve ulaşılan bilgilere ek olarak, yapılan gözlemler, kullanıcılarla gerçekleştirilen röportajlar, mekanın kullanıcılarla olan ilişkisi ve markalaşma sürecinin etkileri ele alınmıştır. Bu incelemeler,

yeniden işlevlendirme ve markalaşma süreçlerinin birbirini nasıl tamamladığını ve desteklediğini ortaya koymaktadır.

Araştırma, yeniden işlevlendirme ve markalaşma kavramlarının birbirini olumlu yönde desteklediğini ve bu süreçlerin mekan-kullanıcı ilişkisine önemli ölçüde etki ettiğini göstermektedir. Adana Sinema Müzesi örneği, tarihi yapıların yeniden işlevlendirilmesinin, bu mekanların daha tanınır hale gelmesine ve sürdürülebilirliklerine nasıl katkı sunduğunu gösteren önemli bir örnek olarak öne çıkmaktadır.

**Anahtar Kelimeler:** Yeniden İşlevlendirme, Markalaşma, Mekan - Kullanıcı İlişkisi.

## ABSTRACT

Adaptive reuse is the process of adapting historical buildings to meet modern needs. Through this process, disused structures are revitalized with new functions, such as cultural or commercial purposes, bringing them back to life. This transformation offers an opportunity to redefine the identity, usage, and relationship of the space with its users. While ensuring the preservation of historical buildings, adaptive reuse also generates economic and social benefits by integrating new functions into these spaces. Branding, on the other hand, is a process that enhances the cultural and social value and recognition of adaptively reused spaces. This process strengthens the identity of the space and helps it establish a place in collective memory.

This study focuses on the adaptive reuse of traditional buildings, taking the Adana Cinema Museum in Turkey as an example, and evaluates branding processes within the context of space-user relationships. The research begins by examining the theoretical foundations of adaptive reuse and branding concepts, along with significant approaches from the literature. Studies on the interaction of users with adaptively reused spaces, spatial identity, and usage patterns are reviewed. In this context, the contributions of branding strategies to the social and economic sustainability of historical spaces are assessed.

The museum building examined in this study was originally a traditional residence that had lost its functionality but has been transformed into a contemporary museum. The historical process of the structure was investigated, complemented by observations and interviews with users. The relationship between the space and its users, as well as the effects of the branding process, were analyzed. These evaluations reveal how adaptive reuse and branding processes complement and support one another.

The research demonstrates that adaptive reuse and branding mutually reinforce each other and significantly impact the relationship between spaces and their users. The Adana Cinema Museum serves as a notable example of how the adaptive reuse of historical structures contributes to their recognition and sustainability.

**Keywords:** Re-purposing, Branding, Space-User Relationship.

**TÜRKİYE'DE MEKANSAL ÜRETİM ŞARTLARININ PIERRE BOURDIEU'UN  
ALAN TEORİSİ ÜZERİNDEN ÇÖZÜMLENMESİ**  
ANALYZING THE CONDITIONS OF SPATIAL PRODUCTION IN TURKEY THROUGH  
PIERRE BOURDIEU'S FIELD THEORY

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**ÖZET**

Bu çalışma, Türkiye’de mekânsal üretim süreçlerini Pierre Bourdieu’nun alan teorisi çerçevesinde incelemeyi amaçlamaktadır. Mekânsal üretim, yalnızca fiziksel yapıların inşasıyla sınırlı kalmayıp, aynı zamanda ekonomik, sosyal ve kültürel güç ilişkilerinin şekillendirdiği çok katmanlı bir süreç olarak ele alınmıştır. Çalışma, Bourdieu’nun alan, habitus ve sermaye kavramlarını temel alarak, Türkiye’deki mekânsal üretim süreçlerinde aktörler arası güç ilişkilerini ve bu ilişkilerin mekâna yansıyan sonuçlarını analiz etmektedir. Bu bağlamda, yerel yönetimler, özel sektör, devlet kurumları ve kullanıcılar gibi farklı aktörlerin rolü detaylı şekilde incelenmiştir. Metodolojik olarak, Bourdieu’nun alan teorisinde tanımladığı oyun ve oyuncu okumaları üzerinden mekânsal üretim süreçleri, farklı ölçeklerde çözümlenmiştir. Bu bağlamda aktörler, "oyuncu" olarak ele alınarak her bir oyuncunun sermaye türleri (ekonomik, kültürel, sosyal, sembolik) üzerinden oynadığı "oyun" detaylandırılmıştır. Ayrıca, vaka incelemeleriyle sosyolojik bir analiz yapılarak aktörler arasındaki ilişkiler incelenmiştir. Çalışmanın bulguları, konjonktürel koşulların (dönemin sosyal, ekonomik ve politik durumu) sermaye türlerinin değerini farklılaştırdığı ve bunun mekânsal üretim süreçlerinde etik sorunlar ile niteliksel eksiklikler yarattığına işaret etmektedir. Sermayenin farklı türlerinin farklı aktörler tarafından çeşitli şekillerde değer bulmasının, mekân üretiminde toplumsal eşitsizlikleri derinleştirip meşrulaştırdığı gözlemlenmiştir. Sonuç olarak, bu çalışma, Bourdieu’nun alan teorisini Türkiye bağlamında uygulayarak mekânsal üretim süreçlerindeki güç dinamiklerini ve eşitsizlikleri anlamaya katkı sağlamaktadır. Araştırma, mekânın yalnızca bir sonuç değil, aynı zamanda bir mücadele alanı olduğuna vurgu yaparak bu alana dair eleştirel bir bakış sunmaktadır.

**Anahtar Kelimeler:** Mekânsal Üretim, Bourdieu, Sermaye, Eşitsizlik, Alan Teorisi

## ABSTRACT

This study aims to analyze the processes of spatial production in Turkey within the framework of Pierre Bourdieu's field theory. Spatial production is not only limited to the construction of physical structures, but also considered as a multi-layered process shaped by economic, social and cultural power relations. Based on Bourdieu's concepts of space, habitus and capital, the study analyzes the power relations between actors in spatial production processes in Turkey and the consequences of these relations reflected on space. In this context, the roles of different actors such as local governments, private sector, state institutions and users are analyzed in detail. Methodologically, spatial production processes have been analyzed at different scales through the game and player readings defined by Bourdieu in field theory. In this context, the actors are considered as “players” and the “game” played by each player through types of capital (economic, cultural, social, symbolic) is detailed. In addition, a sociological analysis was conducted through case studies to examine the relationships between actors. The findings of the study indicate that conjunctural conditions (the social, economic and political situation of the period) differentiate the value of capital types and this creates ethical problems and qualitative deficiencies in spatial production processes. It has been observed that different types of capital are valued differently by different actors, deepening and legitimizing social inequalities in the production of space. In conclusion, this study contributes to understanding the power dynamics and inequalities in spatial production processes by applying Bourdieu's field theory in the Turkish context. By emphasizing that space is not only a result, but also a field of struggle, the research offers a critical view of this field.

**Keywords:** Spatial Production, Bourdieu, Capital, Inequality, Field Theory

## AN OVERVIEW OF THE ISO 50001 (ENERGY MANAGEMENT) AND ITS INTEGRATION INTO ARCHITECTURE, ENGINEERING, AND CONSTRUCTION PROJECTS

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### ABSTRACT

ISO 50001 is an international standard that provides a comprehensive framework for establishing, implementing, maintaining, and continually improving an effective and efficient energy management system (EnMS). By adhering to this standard, organizations can ensure a systematic approach to achieving sustainable and measurable enhancements in energy performance, encompassing areas such as energy efficiency, energy utilization, and energy consumption. The significant aspect of ISO 50001 lies in its applicability across various industries, sizes, and geographical locations, making it universally relevant. However, the Architecture, Engineering, and Construction (AEC) industry specifically benefits from this standard due to its inherent high energy demands and immense potential for considerable energy savings. With ISO 50001, organizations operating in the AEC sector can optimize their energy usage, reduce environmental impact, and enhance their overall sustainability practices.

The purpose of this study is to investigate how ISO 50001 can be integrated into architecture, engineering, and construction (AEC) projects and highlight the benefits of adhering to the standard in a structured application of an Energy Management System. The study consists of 7 sections. The first section summarizes the purpose of the study. The second section provides a literature review on the definition of ISO 50001. It explains the ISO 50001 Certification Process. The third section describes a method detailing the implementation steps associated with ISO 50001. The fourth section presents findings from the implementation of ISO 50001 principles. The fifth section discusses the benefits, challenges, and examples of integrating ISO 50001 into AEC projects. The sixth section offers recommendations on how AEC organizations can assess the effectiveness of energy management using ISO 50001. Finally, the seventh section provides detailed results of the study.

**Keywords:** ISO 50001, Energy Management, Overview, Architecture Engineering and Construction (AEC) Projects, International Organization for Standardization (ISO).



## AN OVERVIEW OF THE ISO 31000 (RISK MANAGEMENT) AND ITS INTEGRATION INTO ARCHITECTURE, ENGINEERING, AND CONSTRUCTION PROJECTS

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### ABSTRACT

International Organization for Standardization (ISO) is the world's largest developer of voluntary international standards. International standards provide state-of-the-art specifications for products, services, and good practices, helping to make industry more efficient and effective. Developed through global consensus by experts from national standards bodies and others, the standards that result reflect the wealth of scientific, technical, and industrial experience from all the countries involved in their preparation. ISO 31000 was the first international risk management standard created in 2009 (ISO31000, 2009). ISO defines risk as the 'effect of uncertainty on objectives'. It uses this definition to describe risk management as 'a systematic application of management policies, procedures, and practices to the tasks of analyzing, evaluating, tracking, controlling, and communicating risk'. The purpose of ISO 31000 is to provide an international reference for the effective management of risks in organizations. According to the standard, the successful management of risk supports the achievement of organizations' objectives. It is also asserted that good risk management improves the performance of organizations because of the potential for adding value.

The aim of this study is to investigate how ISO 31000 can be integrated into architecture, engineering, and construction (AEC) projects and to emphasize the benefits of adhering to the standard in risk management practices. The study consists of 7 sections. The first section provides an overview of the study's objective. The second section presents a literature review on the definition of ISO 31000. This section focuses on ISO 31000 and related standards. The third section outlines a method detailing the implementation steps related to ISO 31000. The fourth section presents the findings from the key principles of ISO 31000. The fifth section discusses the benefits, challenges, and examples for AEC companies in integrating ISO 31000 into their projects. The sixth section provides recommendations on how AEC companies can evaluate the effectiveness of risk management using ISO 31000. Finally, the seventh section presents the conclusions of the study.

**Keywords:** ISO 31000, Risk Management, Overview, Architecture Engineering and Construction (AEC) Projects, International Organization for Standardization (ISO).



## ORAL HYGIENE AND PERIODONTAL STATUS AT CHILDREN WITH DISABILITY LIVING IN ALBANIA

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### ABSTRACT

**Background:** This study was carried out at 9 special school for disabled children in Albania. The purpose of this study is to determine the caries prevalence and oral hygiene status of 599 children with different disabilities attending different schools for disabled at Albania.

**Methods:** Participants are grouped according to disability: Autistic Disorder, Down Syndrome, Cerebral Palsy, Mental Retarded, Blind, Deaf-Mute and age (0-5, 6-10, 11-14, 15-18 years old children). Oral hygiene was evaluated by visually assessing the presence of plaque on teeth using Green and Vermillion index. Periodontal health was measured using CPI and CPITN index.

**Results:** The mean OHI-S of total population is 1.91, there is significant difference across disability type ( $p \leq 0.001$ , Anova test) for OHI-S index. In total 43.2 % has good, 49.4% fair and 7.4% bad oral hygiene. Periodontal health is bad among disability groups with mental retarded and blind group having the lowest CPI and CPITN value and autistic group having the best. Periodontal health decreases as age increases. Children with disabilities need professional care and treatment to improve their oral hygiene and periodontal health.

**Conclusions:** The subjects in this study had poor oral hygiene and need for oral health education and periodontal treatment.

**Keyword:** oral health, disability, hygiene, periodontal.

## ZOONOTIC RESISTANT BACTERIA

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### ABSTRACT

Zoonotic bacteria, capable of transmitting between animals and humans, pose significant public health challenges, particularly when they develop antimicrobial resistance. Resistant zoonotic pathogens, such as *Salmonella* spp., *Campylobacter* spp., and *Escherichia coli*, compromise the effectiveness of treatments and increase morbidity, mortality, and healthcare costs. The rise of these resistant strains is closely linked to the misuse and overuse of antibiotics in animal husbandry, agriculture, and human healthcare. Livestock and poultry serve as reservoirs for resistant bacteria, which can spread to humans through direct contact, consumption of contaminated food, or environmental pathways. For example, resistant *Salmonella* and *Campylobacter* are commonly associated with undercooked meat and eggs, while resistant *E. coli* strains are linked to fecal contamination of food and water. These pathogens often carry mobile genetic elements such as plasmids, enabling the rapid spread of resistance genes across bacterial populations. The One Health approach emphasizes the interconnectedness of human, animal, and environmental health in addressing this issue. Strategies include stricter regulations on antibiotic use in animals, enhanced surveillance systems, improved hygiene practices, and promoting alternative methods for infection control, such as vaccines and probiotics. Public education and global collaboration are vital to reducing the emergence and dissemination of resistant zoonotic bacteria. Tackling zoonotic resistant bacteria requires a multidisciplinary effort involving veterinarians, physicians, microbiologists, and policymakers. While significant progress has been made in identifying key drivers and pathways of resistance, ongoing research is needed to develop innovative solutions that balance agricultural productivity with public health. Addressing this issue effectively is crucial for preserving the efficacy of antibiotics and safeguarding global health.

**Keywords:** Zoonotic bacteria, antimicrobial resistance, One Health, foodborne pathogens, public health.

## PALLIATIVE CARE IN BLADDER CANCER

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### ABSTRACT

Palliative care plays a critical role in the management of bladder cancer, particularly in advanced stages where curative treatment is no longer feasible. This multidisciplinary approach focuses on alleviating symptoms, improving quality of life, and addressing the psychological, social, and spiritual needs of patients and their families. Common symptoms in advanced bladder cancer include pain, hematuria, dysuria, urinary obstruction, and systemic complications such as fatigue and weight loss. Effective palliative interventions include pain management with opioids, radiation therapy for bleeding control, urinary diversion for obstruction relief, and psychosocial support to enhance emotional well-being. The integration of palliative care begins early in the disease trajectory, complementing curative treatments and transitioning to exclusive supportive care when disease progression occurs. This approach also involves close collaboration among oncologists, palliative care specialists, urologists, and primary care providers to ensure comprehensive care. Advance care planning and communication about prognosis and treatment goals are essential to align care with patient preferences. Emerging therapies, such as immunotherapy and targeted treatments, have shown promise in managing symptoms and extending survival in metastatic bladder cancer, further emphasizing the importance of a holistic care model. Palliative care also addresses caregiver burden, offering resources and respite to those supporting the patient. Despite its benefits, barriers to palliative care include late referrals, limited awareness, and inadequate access to services, particularly in low-resource settings. Addressing these challenges requires education, policy advocacy, and the development of integrated care pathways. In conclusion, palliative care is integral to the comprehensive management of bladder cancer, enhancing the quality of life and dignity of patients while supporting their families. Early integration, symptom-focused interventions, and a patient-centered approach are vital for optimizing outcomes in this vulnerable population.

**Keywords:** Bladder cancer, Palliative care, Symptom management, Quality of life, Holistic care

## GRAM-POSITIVE COCCI INVASIVE INFECTIONS IN CHILDREN

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### ABSTRACT

Bacterial infections caused by staphylococci and streptococci are frequent in childhood. This study evaluates the prevalence of invasive gram-positive cocci infections in hospitalized children. A retrospective study was conducted in the Pediatric Hospital of QSUNT, infectious diseases ward, analyzing medical records of children hospitalized between January 2021 and February 2023. A total of 288 blood cultures, 23 CSF analyses, and 10 pus samples were examined, identifying 41 confirmed cases of invasive infections caused by *Staphylococcus*, *Streptococcus*, and *Pneumococcus*. Data included demographics (age, gender, residence), clinical parameters (pathogen, diagnosis, hospital stay, comorbidities), antibiogram results, and antimicrobial treatments. Among 41 children, 56.1% were females and 43.9% males, aged 0-11 years (mean age  $2.8 \pm 2.2$  years). Staphylococcal infections predominated (78%) over streptococcal infections ( $p < 0.01$ ). Blood cultures detected *Staphylococcus* (9.7%) and *Streptococcus* (1.4%). *Streptococcus* was found in 34.8% of CSF samples, while *Staphylococcus* dominated pus samples (30%) ( $p < 0.01$ ). Prevalence rates were 10.4% for staphylococcal, 2.1% for streptococcal, and 1.7% for pneumococcal infections. Pneumococcal meningitis symptoms were positive in 80% of cases, compared to 5% for staphylococcal and 66.7% for streptococcal infections. Comorbidities occurred in 29.3%, including hydrocephalus (2.4%) and post-COVID syndrome (12.2%). Pneumococcal infections had the longest hospital stays ( $19.6 \pm 10.5$  days). Lab findings showed elevated ferritin, fibrinogen, INR, and WBC levels in pneumococcal infections. Neutrophil counts and PCR were higher in streptococcal cases. Ceftriaxone (63.4%) and vancomycin (39%) were the primary treatments, with cefotaxime added for pneumococcal cases. Antibiotic sensitivity ranged from 70%-96%. All patients recovered without complications or deaths. The clinical outcomes were favorable, with no complications or fatalities.

**Keywords:** Staphylococcal infections, Streptococcal infections, Blood culture, CSF, Pus.

## STRATEGIES FOR MANAGING HYPOXEMIC RESPIRATORY FAILURE AND ARDS

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### ABSTRACT

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), a novel viral pathogen, has significantly challenged healthcare systems due to its capacity to cause severe respiratory complications. In its most critical forms, the resulting disease can lead to hypoxemic respiratory failure, often progressing to acute respiratory distress syndrome (ARDS), necessitating invasive mechanical ventilation. Managing these conditions effectively requires a comprehensive approach that combines evidence-based strategies with individualized patient care. ARDS caused by viral infections is characterized by severe hypoxemia and heterogeneous lung involvement. Central to its management is a lung-protective ventilation strategy aimed at minimizing ventilator-induced lung injury. This includes using low tidal volumes (4–8 mL/kg predicted body weight) to reduce overdistension, ensuring adequate positive end-expiratory pressure (PEEP) to maintain alveolar recruitment, and carefully monitoring plateau pressures to keep them below 30 cm H<sub>2</sub>O, thereby mitigating the risk of barotrauma. Prone positioning has proven to be a vital intervention for patients with moderate to severe ARDS, enhancing oxygenation and reducing mortality. In extreme cases of refractory hypoxemia, extracorporeal membrane oxygenation (ECMO) may be considered in specialized centers. Pharmacologic treatments such as corticosteroids have demonstrated improved outcomes in severe cases, while anticoagulation strategies address the hypercoagulable state often observed in critically ill patients. Comprehensive care extends beyond ventilatory strategies, addressing secondary complications like bacterial infections and thromboembolic events. Tailored treatment plans, informed by ongoing research, are crucial for optimizing outcomes. Adherence to established ARDS management principles remains the cornerstone of care, ensuring a balance between supporting respiratory function and preventing further lung injury. Combining early recognition, meticulous supportive care, and evidence-based interventions provides the best opportunity to improve survival and quality of life for patients with ARDS caused by viral infections.

**Keywords:** ARDS, respiratory failure, hypoxemia, lung-protective ventilation, mechanical ventilation.

## TIMELY INTERVENTION IN RUPTURED ABDOMINAL AORTIC ANEURYSM

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### ABSTRACT

Ruptured abdominal aortic aneurysm (rAAA) is a critical vascular emergency with a high mortality rate, requiring urgent diagnosis and intervention to improve survival outcomes. Timely management, from pre-hospital care to surgical intervention, plays a pivotal role in patient outcomes. This narrative explores the importance of time goals in the care of rAAA patients, emphasizing the need for streamlined processes across the care continuum. Rapid pre-hospital transport and early recognition by emergency medical services are essential for improving survival. Upon arrival at the emergency department, expedited evaluation, imaging, and surgical decision-making are critical. Delays in diagnosis or intervention significantly increase mortality risk. Best practices suggest imaging within 15 minutes of arrival and a door-to-operation time of less than 90 minutes to maximize survival potential. Interdisciplinary collaboration between emergency, radiology, anesthesiology, and vascular surgery teams is essential for ensuring efficient workflows. Prompt surgical repair, whether through open surgery or endovascular techniques, has demonstrated improved outcomes when performed within the recommended timeframes. Postoperative care in intensive settings focuses on managing complications such as acute kidney injury, coagulopathy, and hemodynamic instability, which are common in rAAA patients. Despite advances in surgical techniques and critical care, achieving optimal time goals remains a challenge due to logistical and resource constraints in many settings. Efforts to improve survival must prioritize system-level changes, including enhanced pre-hospital protocols, rapid triage systems, and surgical team readiness. This narrative highlights that time goals are not just guidelines but essential components of care for rAAA patients. Reducing delays at every stage, from recognition to intervention, is crucial for improving outcomes. Future research should focus on refining workflows and expanding access to timely intervention in diverse healthcare settings.

**Keywords:** Abdominal aortic aneurysm, rupture, emergency care, time-sensitive intervention, survival outcomes.

## ZINC OXIDE NANOPARTICLES - ERYTHROCYTE INTERACTION: CONCENTRATION-DEPENDENT ZNONPS TOXICITY IN HUMAN ERYTHROCYTES

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### ABSTRACT

**Background and aim:** Zinc oxide nanoparticles (ZnONPs) have gained significant interest for their potential applications in the field of medicine. Due to their unique morphology and high reactivity, ZnONPs hold considerable promise in various biomedical applications such as drug delivery, antibacterial and antifungal activity, wound healing, anticancer applications, and anti-inflammatory effects. They have shown potential interactions with blood cells, particularly erythrocytes, raising concerns about potential adverse effects. Thus, studying the cytotoxic effects of ZnONPs on erythrocytes provides insights into their potential impact on human health. This study delves into the intricate interplay between ZnONPs and human erythrocytes, aiming to provide a comprehensive understanding of the mechanisms governing red blood cell toxicity response.

**Methodology:** Blood samples were drawn from healthy individuals of our staff after taking their consent according to the Albanian Law and Ethics Committee. The blood was taken in EDTA tubes and processed within an hour. For morphologic examination the blood was centrifugated for 10 min at 3000 rpm in order to divide the plasma from the cells. The plasma was removed and 1 ml of erythrocyte volume was taken and diluted in 3 ml of physiologic solution (NaCl 0,9%) to wash them from remaining plasma and protein traces. The procedure was repeated 3 times until a clear supernatant was acquired. Then 1 ml of the erythrocyte mass was put in 4 different tubes and exposed and incubated at different concentrations of ZnONPs (12.5, 25, 50 and 100 µg/ml) for 3 and 24 hours. The morphological alterations were determined under light microscopy. For hemolysis examination the blood as taken was divided in 4 tubes each of 1 ml and directly exposed and incubated to the different concentrations of ZnONPs (12.5, 25, 50 and 100 µg/ml) for 3 and 24 hours. Then each tube was centrifugated for 10 min at 3000 rpm to divide the plasma from the cells. The plasma only was taken from each tube and examined in a Sysmex XS-1000i Blood Analyser for presence of hemoglobin traces.

**Results:** Under light microscopy examination the presence of echinocytes (abnormal erythrocytes) was detected in each concentration and time exposure. Echinocytes were counted by eye in 10 different high fields and a concentration dependent rising number of them was observed from 10 to 70 % of the erythrocyte total number in the 3 hours exposure. Similar findings were observed in the 24 hours exposure but with limitations because of hemolytic effect. The hemolytic examination of the plasma revealed dose dependent presence

of hemoglobin for the 3 and 24 hours exposure. Respectively, in 3 hours exposure the hemoglobin values were 0 g/dL, 0,2 g/dL, 0,4 g/dL and 0,6 g/dL for ZnONPs concentrations of 12,5 µg/ml, 25 µg/ml, 50 µg/ml and 100 µg/ml. The P value was statistically relevant  $p = 0.040833$  ( $p < 0.05$ ). For the 24 hours exposure the hemoglobin values were 0,2 g/dL, 0,2 g/dL, 0,4 g/dL and 0,7 g/dL for ZnONPs concentrations of 12,5 µg/ml, 25 µg/ml, 50 µg/ml and 100 µg/ml. The P value was statistically relevant  $p = 0.008864$  ( $p < 0.01$ ).

**Conclusion:** Our results demonstrate that ZnONPs caused hemolytic effects through cell membrane destabilization, and hemolytic processes as primary toxicological outcomes leading so toward eryptosis. Our findings reveal dose-dependent cytotoxic effects of ZnONPs on human erythrocytes, mirroring their potential adverse effects on circulating red blood cells in vivo.

**Keywords:** erythrocytes, hemolysis, eryptosis, zinc oxide nanoparticles



## EXPLORING THE PHARMACOLOGICAL POTENTIAL OF *EBENUS PINNATA* AITON : PHYTOCHEMICAL ANALYSIS AND BIOLOGICAL ACTIVITIES

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### ABSTRACT

*Ebenus pinnata* Aiton, is a perennial herb endemic to North Africa and the Iberian Peninsula. Commonly known as Sofat Ibagra, this plant has been traditionally used in folk medicine to treat various ailments, including inflammation, wounds, and digestive disorders. However, scientific research on *Ebenus pinnata* Aiton is limited, and its pharmacological potential remains largely unexplored. This study, aimed to investigate this plant phytochemical profile and biological activities specifically, on the antioxidant and antibacterial properties. Plant material was collected from the Ain Kerma forest massif in Morocco, species identification was confirmed, and bioactive compounds were extracted using hydro-ethanolic stem, leaf and flower maceration. Phytochemical screening revealed the presence of various bioactive compounds, including flavonoids, tannins, and phenolic acids. Quantitative analysis demonstrated that these compounds were particularly abundant in stems with  $179.73 \pm 0.06$  mg GAE/g DW total phenolics and  $106.26 \pm 0.77$  mg QE/g DW total flavonoids. Strong antioxidant activity was observed across all parts, with stem extracts demonstrating the highest potency. DPPH IC<sub>50</sub> value was  $21.62 \pm 1.41$  µg/mL, ABTS IC<sub>50</sub> value was  $4.41 \pm 0.2086$  µg/mL. The phosphomolybdenum assay confirmed this trend, with a total antioxidant capacity ( $74.55 \pm 16.53$  mg AAE/g DW). Additionally, antibacterial activity was assessed against Gram-positive and negative bacteria, with the extracts showing promising antibacterial activity, especially against *Staphylococcus epidermidis*, *Staphylococcus aureus* and *Micrococcus luteus*. These findings support the traditional use of *Ebenus pinnata* and suggest its potential as a source of natural bioactive compounds with pharmaceutical and nutraceutical applications.

**Keywords :** *Ebenus pinnata* Aiton, Antioxydant, Antibacterial, DPPH, ABTS, TAC.

## RESEARCH, TECHNIQUES, AND FUTURE PROSPECTS OF UTILISING AI TO ASCERTAIN MALWARE

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### ABSTRACT

Artificial intelligence (AI) is the technology that could be used for upgrading the security posture against a variety of security challenges and cyber-attacks. Malware is defined as a software aiming to access any device without the explicit permission of its owner. Forensics investigations have reported that many organizations have encountered unusual records, collected by their antiviral security monitoring systems. Most of their arrangements skeptically pass a large amount of diplomatic data through various unethical strategies that make malware identification tougher. However, these procedures have varied limitations that call for an unused inquiry about the track. Artificial Intelligence (AI) helps in the advancement of malware detection and prevention while providing opportunities to develop robust, efficient and scalable malware recognition modules. Nonetheless, questions around data privacy, algorithmic accountability, and the potential for misuse have been existing around the corner, it is very clear that the adoption of these advanced technologies is not without growing areas of concern. It is very clear that the traditional techniques are not enough to protect us from the evolving landscape of cyber threats, and therefore turning towards more intelligent systems looks almost inevitable. Not just theoretically, it has real-world implications that can severely impact organizations, individuals, and even nations. This article will address the comprehensive report of the technical advancements and their practical applications, also engaging critically with the limitations, challenges, and ethical considerations involved in adopting these new technologies for cyber security. This paper provides insights into performance evaluation metrics and discusses several research issues that impede the effectiveness of existing techniques. The study also provides recommendations for future research directions and is a valuable resource for researchers and practitioners working in the field of malware detection.

**Keywords:** Artificial Intelligence, Malware, Cyber Security, Antivirus, Cyber Attack

**AI-POWERED SUPPLY CHAIN OPTIMIZATION: A CASE STUDY APPROACH****Midun THANGAVEL**

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**ABSTRACT**

AI- powered supply chain optimization offers substantial benefits in the global markets. This research demonstrates the potential for AI-driven improvements in efficiency, cost reduction, and delivery time. This case study examines the implementation of artificial intelligence (AI) in optimizing a supply chain, integrating machine learning algorithms and predictive analytics into existing logistics operations. Supply chain optimization is crucial for businesses to remain competitive. AI-powered solutions offer potential for improved efficiency, reduced costs, and enhanced decision-making. This study explores AI integration into existing logistics operations. Results show significant improvements in efficiency (25%), cost reduction (18%), and delivery time (30%). Case studies illustrate successful implementations in various industries, highlighting the challenges and best practices in adopting AI solutions. The AI-powered framework enables real-time monitoring, data-driven decision-making, enhanced demand forecasting, optimized inventory management, demonstrating the potential for AI-driven supply chain optimization also improve customer satisfaction, positioning business for greater competitiveness in an increasingly complex market.

**Keywords:** Supply Chain Optimization, Artificial Intelligence, Machine Learning, Predictive Analytics, Supply Chain Frameworks.

## ANALYTICAL CHARACTERIZATION OF PARAMETERS GOVERNING THRUST VECTORING IN SUPERSONIC NOZZLE CONFIGURATIONS

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### ABSTRACT

This study used numerical simulations to examine and confirm the impact of fluid injection in the diverging section of a supersonic nozzle. The injection induces a range of complex phenomena, such as boundary layer separation, which results in the formation of a shock wave in the primary jet upstream of the interaction zone between the primary and secondary jets. This shock wave causes a deviation of the primary jet and, consequently, the thrust vector, from the nozzle's centerline. To model this behavior accurately, various factors must be taken into account, including the Mach numbers of both jets, the pressure ratios NPR and SPR, injection mass-flow rate, upstream boundary layer thickness, injection slot location, nozzle geometry, and more. This work aims to quantitatively assess thrust vectoring through secondary injection using the ANSYS-FLUENT simulation tool, while analyzing the associated physical effects. The thrust vectoring performance metrics, including deviation angle, efficiency, and lateral forces, will be compared and evaluated against experimental data.

**Keywords:** Supersonic Nozzle, Transverse Injection, CFD, Nozzle Pressure Ratio (NPR), Secondary Pressure Ratio (SPR).

## A PARAMETRIC ANALYSIS OF FRACTAL GEOMETRY IN THE FORM-FINDING OF TENSILE STRUCTURES

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### ABSTRACT

This study aims to analyse the structural viability of fractal geometrical forms in tensile structures using a parametric analysis approach. Fractals are infinitely repetitive mathematical models that can be constructed to form intricate shapes. Previously, fractal geometry was used to construct the complex and highly symbolic architecture of the late twentieth century. However, the form was mainly utilised as a guide in the aesthetics of architectural design at the time. This study examines if fractal geometry can be utilised in enhancing the structural integrity and durability of specifically modern tensile structures, effectively showcasing the functional merits of fractal architecture besides its aesthetic merits. This study was conducted using the visual coding software Grasshopper in Rhino to parametrically create a variation of fractal-tensile forms and analyse the individual merits of each design using finite element analysis (FEA) of the tensile forces in each design. This study seeks to demonstrate fractals as a new design methodology in the form finding of tensile structures, highlighting benefits of both form and function.

**Keywords:** fractals; tensile structure; architectural form-finding

## ADVANCED POWER MANAGEMENT IN DC MICROGRID PHOTOVOLTAIC SYSTEMS USING HYBRID ENERGY STORAGE AND OPTIMIZED PID CONTROL

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### ABSTRACT

The integration of hybrid energy storage systems, comprising batteries and supercapacitors, within DC microgrid photovoltaic systems is vital for enhancing energy reliability and operational flexibility. This hybrid configuration effectively addresses the intermittency of solar power generation while providing substantial economic benefits through optimized energy management. This study presents an advanced power management strategy for photovoltaic systems incorporating a hybrid battery-supercapacitor energy storage system. To enhance system performance, a Proportional-Integral-Derivative (PID) controller was optimized using the Grey Wolf Optimisation (GWO). Extensive simulations were performed under various load and irradiance conditions to evaluate the effectiveness of the proposed control strategies. The results indicate that the approach significantly improves system efficiency, stability, and adaptability in managing hybrid energy storage, thereby demonstrating its potential to optimize the overall performance of DC microgrid photovoltaic systems.

**Keywords :** Energy management, PID controller, hybrid energy storage system (HESS), GWO (GWO).

## THE WEAKNESSES OF SALEM AL.'S AUTHENTICATION AND KEY AGREEMENT SCHEME FOR SECURING MULTI-SERVER

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### ABSTRACT

The Internet of Things (IoT) has become the new technology for information exchange, and the multi-server infrastructure has been established due to the increase of data in IoT. The multi-server architecture, which allows for single registration but authentication in a multi-server environment, has become a fundamental function of information services. This architecture provides both convenience and scalability with management and monitoring capabilities. Many researchers have proposed multi-server architecture identity authentication protocols to provide authentication and key agreement schemes for communication. In those researches, Salem et al. proposed an ECC (Elliptic Curve Cryptography) scheme, AMAKAS (Anonymous Mutual Authentication and Key Agreement Scheme), for securing multi-server environments. However, in the security analysis of this protocol, it still has a register center(RC) internal attack and smart card loss attack. If an attacker gets the secret from the RC, the message in the insecure channels, and the content of a user's smart card, they can impersonate the IoT and the user to get some secure data in the system. Therefore, this paper explores the weaknesses of Salem et al.'s protocol and hopes to provide a modified secure multi-server key negotiation and authentication protocol in the future.

**Keywords:** Internet of Things (IoT), Security, Authentication, key agreement, Impersonation.

## **GEOGEBRA'S ABILITY TO INTEGRATE ALGEBRA WITH GEOMETRY**

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### **ABSTRACT**

This article examines the role of GeoGebra in enhancing the teaching of linear geometry. GeoGebra is a powerful and interactive tool that combines graphing, algebra, and geometry in a single platform, making it easier to understand and apply mathematical concepts. The use of GeoGebra allows for the visualization of lines, planes, and vectors, helping students better grasp the relationships between various elements of linear geometry. The article discusses the benefits of integrating this tool into teaching, as well as concrete examples of its use to illustrate concepts such as line equations, matrices, and geometric transformations. GeoGebra also helps develop students' analytical and critical thinking skills by encouraging them to experiment and solve mathematical problems in an interactive and engaging environment.

**Keywords:** Algebra, Linear Geometry, GeoGebra, Visualization



## APPLICATIONS OF MACHINE LEARNING IN BIOINFORMATICS: PREDICTIVE MODELS FOR GENOMIC DATA ANALYSIS AND PERSONALIZED HEALTHCARE

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### ABSTRACT

Machine learning (ML) has become an indispensable tool in bioinformatics, enabling innovative solutions to complex problems in genomic data analysis and personalized healthcare. This paper highlights the application of ML techniques, such as deep learning and ensemble methods, for the accurate interpretation of high-throughput genomic data. Predictive models have demonstrated remarkable success in identifying genetic markers, predicting disease susceptibility, and optimizing therapeutic strategies tailored to individual patients. For instance, neural networks have been employed to classify gene expression patterns associated with specific diseases, while clustering algorithms aid in understanding evolutionary relationships. Despite the progress, challenges such as data heterogeneity, algorithm interpretability, and computational scalability remain significant. This study emphasizes the potential of ML to revolutionize bioinformatics and personalized medicine while addressing ethical and technical challenges. Through case studies and emerging trends, it underlines the need for interdisciplinary collaboration to realize the full potential of ML in bioinformatics.

**Keywords:** Machine Learning, Predictive Models, Bioinformatics.

## REACTION OF BIS-(3-BROMOPHENYL) HYDRAZONE WITH POLYHALOGENMETHANES

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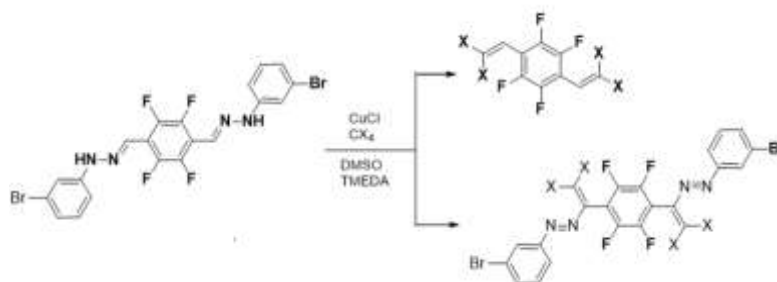
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### ABSTRACT

It has already been proven in concrete reactions that "non-covalent" bonds ( $O \cdots Br$ ,  $O \cdots Si$ ,  $O \cdots S$ ,  $N \cdots Br$ ,  $N \cdots N$ ,  $N \cdots P$ ,  $N \cdots S$ ,  $Cl \cdots Cl$ ,  $Cl \cdots N$ ) play a key role in organic reactions, the synthesis of metal complexes, the formation of single crystals, and catalysis. Taking this into account, bisphenylhydrazones containing halogen atoms were synthesized, and compounds with the bis-4,4- dichloro- 1,2- diazabuta-1,3- diene structure were synthesized as a result of the reaction of the compound with polyhalogen alkanes under catalytic olefination reaction conditions. As a result of NMR and QA studies of the reaction products obtained during the reaction with bis-(3-bromophenyl) hydrazone, it was determined by NMR method that, in addition to the expected corresponding reaction products, the vinyl derivatives 1,4-bis-(2,2-dichlorovinyl)-2,3,5,6-tetrafluorobenzene and 1,4-bis-(2,2-dibromovinyl)-2,3,5,6-tetrafluorobenzene were obtained.



**Scheme.** Reaction of bis-(3-bromophenyl) hydrazone with polyhalogenmethanes (X-Cl, Br)

The reaction mixture was separated by column chromatography and single crystals of the vinyl derivatives were obtained. The production of the vinyl derivatives was further confirmed by X-Ray diffraction.

**Keywords:** bisphenylhydrazones derivatives, polyhalogenmethanes

## **HIRSHFIELD SURFACE ANALYSIS OF BIS{4-[(E)-(2,2-DICHLORO-1-(4-NITROPHENYL)VINYL)DIAZENYL]PHENYL}METHANE**

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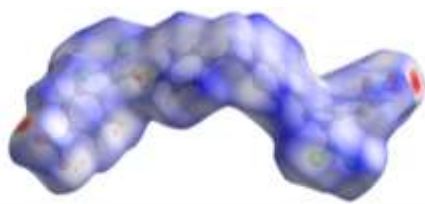
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### **ABSTRACT**

Hirshfield surface analysis is widely used to determine intermolecular interactions in small crystals. However, it should be noted that Hirshfield analysis is a versatile analysis and is also used for large supramolecular materials. Hirshfield surface analysis is of particular importance in studying how the introduction of different functional groups into the crystal structure affects the mutual bonds. Hirshfield surface has been proven to be a powerful visual analysis for studying intermolecular interactions and crystal structure characteristics, taking into account various characteristic features. Hirshfeld surface analysis revealed that N–O $\cdots$ Cl halogen bonds, N–O $\cdots$ H hydrogen bonds, and strong N–O $\cdots$ C interactions, as well as  $\pi\cdots\pi$  stacking interactions, play a key role in the formation of the crystal structure of bis{4-[(E)-(2,2-dichloro-1-(4-nitrophenyl)vinyl)diazenyl]phenyl}methane.



Intermolecular interactions in bis{4-[(E)-(2,2-dichloro-1-(4-nitrophenyl)vinyl)diazenyl]phenyl}methane

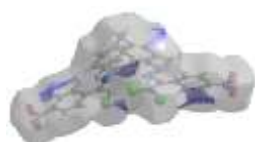


a. O...Cl

b. O...C

c. O...H

d. H...N



e. C...H



f. N...C



k. Cl...H

**Keywords:** dichlorodiazadienes derivatives, non-covalent interaction, hirshfeld surface analysis

## IMMOBILIZATION OF DOXORUBICIN ONTO POLY- $\epsilon$ -CAPROLACTONE BASED CARRIER AND APPLY KINETIC MODEL FOR RELEASE

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### ABSTRACT

It is known that the classic accept of biologically active substances does not provide a therapeutic effect in the blood for a long time [1]. The release of drug substances immobilized on polymers into the medium can remain at a therapeutic level for a certain period of time. This leads to a more perfect and effective therapeutic effect [2]. Among such polymers, poly- $\epsilon$ -caprolactone (PCL) is an aliphatic polyester widely used in medicine for drug delivery and controlled release. Its unique physical, chemical, and mechanical properties, along with its biocompatibility and biodegradability, have led to its application in pharmaceutical fields [3].

In the study, nanocapsules based on low molecular weight PCL were prepared, and the encapsulation efficiency, drug loading, and release kinetics were investigated using doxorubicin (Dox) as a model drug. To enhance adhesion and stability during nanocapsule preparation, poly-N-vinylpyrrolidone (10 kDa) and polyethylene glycol (4000 Da) were used. The release of Dox from the nanocapsules was studied in two cell-specific pH environments (pH 4.8, characteristic of cancer cells, and pH 7.4, typical for healthy cells).

The encapsulation efficiency for the antibiotic was found to be high, at 71.8%. The drug loading was 15.69%, meaning that 1 mg of nanocapsule could carry approximately 0.157 mg of Dox. It was determined that in a relatively weakly acidic medium, the release reached 50% within 12 hours, stabilizing at around 90% after 24 hours. In a neutral medium, the release was observed to be lower, with only 32% of the immobilized Dox being released into the medium over a 72-hour period.

In both mediums, the release during the first 4 hours was burstly and showed a time-dependent, near-linear relationship. The equilibrium release in the pH = 4.8 medium was reached after 20 hours, while in the pH = 7.4 medium, equilibrium occurred after 10-12 hours. It has been shown that the release mechanism is characterized by diffusion, which is also typical for hydrogel systems. To determine a more precise mechanism, the kinetic results

were applied to zero-order, first-order, Higuchi, Korsmeyer-Peppas, and Hixon-Crowell equations, and the correlation coefficients were compared.

**Table.** Kinetic parameters of doxorubicin release from PCL gel at different pH mediums

pH medium	Zero order		I order		Higuichi		Korsmeyer-Peppas			Hixson-Crowell	
	$K_o$	$R^2$	$K_I \times 10^{-2}$	$R^2$	$K_H$	$R^2$	$K$	$n$	$R^2$	$K_{HK}$	$R^2$
pH=4.8	1.129	0.8171	3.45	0.9594	11.16	0.9473	11.99	0.58	0.9363	-0.004	0.710
pH=7.4	0.365	0.6548	0.46	0.6934	3.78	0.8369	4.79	0.51	0.8794	-0.001	0.917

According to the obtained results, the release of Dox from the PCL-based nanocapsules at pH = 4.8 follows the Higuchi mechanism, while at neutral pH = 7.4, the release kinetics are more consistent with the Hixon-Crowell model. On the other hand, the value of n ranging from 0.5 to 1.0 in both mediums supports a non-Fickian release mechanism, indicating that the release occurs through both diffusion and the erosion of polymer macromolecules in these mediums. The results suggest that pharmaceutical formulations with a cylindrical geometric structure can be developed from drug delivery systems where Dox is immobilized within a PCL-based matrix

**Keywords:** poly- $\epsilon$ -caprolactone, immobilization, doxorubicine, release, kinetic model

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## CUSTOMER SATISFACTION CLASSIFICATION USING ENSEMBLE LEARNING ALGORITHMS BASED ON RECURSIVE FEATURE ELIMINATION

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### ABSTRACT

Online food delivery has become an increasingly significant aspect of modern life, particularly in metropolitan areas. This study focuses on the Bangalore region of India, examining the effectiveness of machine learning methods in predicting and classifying customer satisfaction in online food delivery processes. The primary objective of this study is to identify the factors influencing customer satisfaction and enhance the accuracy of predictive models. The dataset used in the analysis encompasses a wide range of information, including customer preferences, demographic details, and delivery process characteristics. To address the issue of data imbalance, the Synthetic Minority Oversampling Technique (SMOTE) was employed, and feature selection was conducted using the Recursive Feature Elimination (RFE) method. The performance of models using all features was compared with those utilizing RFE-selected features across ensemble learning algorithms, including Random Forest, AdaBoost, Gradient Boosting, Extra Trees, and Bagging. The findings reveal that when all features were utilized, the Random Forest algorithm achieved the highest accuracy of 95.24%. However, analyses conducted with fewer features selected through the RFE method demonstrated that the Extra Trees algorithm achieved an even higher accuracy of 95.83%. Additionally, general performance improvements were observed in other algorithms when using RFE-selected features. These results highlight the effectiveness of feature selection in optimizing model performance and improving accuracy. In conclusion, this study underscores the potential of ensemble learning algorithms and the significance of systematic feature selection methods, such as RFE, in the analysis of online food delivery. Feature selection not only enhances model accuracy but also minimizes the impact of irrelevant features, thereby improving computational efficiency. This approach facilitates the development of more effective models for predicting customer satisfaction and contributes to strategic decision-making in the online food delivery industry.

**Keywords:** Classification, Customer Satisfaction, Ensemble Learning, Machine Learning, Recursive Feature Elimination (RFE).



**PERVAPORASYON MEMBRAN TEKNOLOJİLERİ İLE PEYNİR ALTI  
SUYUNDAN ETANOL ÜRETİMİ**  
ETHANOL PRODUCTION FROM WHEY WITH PERVAPORATION MEMBRANE  
TECHNOLOGIES

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## ÖZET

Peynir altı suyu (PAS) peynir üretimi sırasında atık olarak ortaya çıkan sıvıdır ve yüksek miktarda laktoz, protein, vitamin, mineraller içerir. Laktoz içeriğinin yüksek olması (%4.5–5 laktoz(k/h), %0.8–1 protein(k/h), %0.06 yağ(k/h)) etanol üretimi gibi biyoyakıtların üretiminde hammadde olarak kullanılmasını destekler.

PAS'dan etanol üretimde fermentasyon tekniği yaygın olarak kullanılmaktadır. Fermentasyon mikroorganizmaların laktozu etanole dönüştürdüğü biyokimyasal süreçtir. Bu süreç genellikle maya ve bakteri kullanılarak gerçekleştirilir ve düşük maliyetli bir yöntemdir. Ancak uzun süreler, yan ürün oluşumu, düşük verim ve fermentasyon sırasında kontaminasyon riski faktörleri bu süreci düşük verimli hale getirir.

Ultrafiltrasyon alternatif bir yöntemdir. Ultrafiltrasyon, sıvıların hidrostatik basıncıyla yarı geçirgen membrana karşı itildiği membran filtrasyonudur. Temelde, basınçla çalışan eleme prensibiyle yönetilen ve partikül boyutuna bağlı ayırma prosesidir. Düşük basınçta büyüklüklerine göre seçilmiş maddeler ayrılır. Bu yöntem fermentasyondan önce laktozun saflaştırmasını sağlar. Böylece fermentasyon verimi artar.

Fermentasyon ile etanol üretiminde pervaporasyon membran teknolojileri ön plandadır. Pervaporasyon, sıvı karışımlarının kısmi buharlaşmayla bir membran kullanılarak ayrılmasıdır ve membran boyunca faz değişimi olmamaktadır.

Fermentöre bir pervaporasyon membran sistemi entegre edilerek, inhibasyona neden olan ürünün fermentasyon ortamından sürekli olarak uzaklaştırılması vasıtasıyla etanol üretim veriminin artırılır.

Ultrafiltrasyon tekniği, yüksek verim ve daha kısa işlem süresi, yan ürün minimizasyonu ve kontaminasyon riskinin düşük olmasıyla önemli avantajlara sahiptir. Sonuçta, etanol üretiminde ultrafiltrasyon methodu fermentasyona göre daha verimli ve güvenilir bir yöntem olarak öne çıkmaktadır.

PAS'dan etanol üretiminin son yıllarda sürdürülebilir biyoyakıt olarak kullanılmasının sadece çevresel atıkları azaltmadığını ekonomiye katkı sağladığını da göstermektedir. Gün geçtikçe tükenmekte olan fosil yakıt rezervleri düşünüldüğünde, biyo-etanolün dünyanın yakıt talebinin karşılanmasında yardımcı olabileceği düşünülmektedir.

**Anahtar Kelimeler:** Peynir altı suyu, Etanol, Biyoyakıt, Pervaporasyon, Membran teknolojisi

## ABSTRACT

Whey (PAS) is the liquid produced as waste during cheese production and contains high amounts of lactose, protein, vitamins and minerals. Its high lactose content (4.5-5% lactose (k/h), 0.8-1% protein (k/h), 0.06% fat (k/h)) supports its use as a feedstock for the production of biofuels such as ethanol.

Fermentation technique is widely used in ethanol production from PAS. Fermentation is the biochemical process by which microorganisms convert lactose to ethanol. This process is usually carried out using yeast and bacteria and is a low-cost method. However, factors such as long times, by-product formation, low yields and the risk of contamination during fermentation make this process less efficient.

Ultrafiltration is an alternative method. Ultrafiltration is membrane filtration in which liquids are pushed against a semi-permeable membrane by hydrostatic pressure. Basically, it is a particle size-dependent separation process governed by the principle of pressure-driven sieving. At low pressure, selected substances are separated according to their size. This method allows the purification of lactose before fermentation. Thus, fermentation efficiency increases.

Pervaporation membrane technologies are at the forefront in ethanol production by fermentation. Pervaporation is the separation of liquid mixtures by partial evaporation using a membrane, with no phase change across the membrane.

By integrating a pervaporation membrane system into the fermenter, the ethanol production yield is increased through the continuous removal of the inhibitory product from the fermentation medium.

The ultrafiltration technique has significant advantages with high yields and shorter processing time, by-product minimization and low risk of contamination. As a result, ultrafiltration is a more efficient and reliable method of ethanol production than fermentation.

In recent years, ethanol production from PAS has shown that its use as a sustainable biofuel not only reduces environmental waste but also contributes to the economy. Considering the depleting fossil fuel reserves, it is thought that bio-ethanol can help meet the world's fuel demand.

**Keywords:** Whey, Ethanol, Biofuel, Pervaporation, Membrane technology.

# HİBRİT MEMBRAN TEKNİKLERİ KULLANILARAK LAKTOZSUZ SÜT ÜRETİM HATTI TASARIMI VE PROTOTİP İMALATI

## DESIGN AND PROTOTYPE MANUFACTURING OF LACTOSE-FREE MILK PRODUCTION LINE USING HYBRID MEMBRANE TECHNIQUES

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### ÖZET

Laktozsuz UHT içme sütü üretiminde en yaygın yöntem laktozun hidrolizasyonudur. Ancak laktozdan glukoz+galaktoz oluşmasıyla daha tatlımsı bir tat oluşması bir dezavantajdır. Bu çalışmada laktozsuz sütlerdeki tatlılık sorununu azaltmak için membran filtrasyon tekniklerinin kombine edildiği bir ön işlem hattı tasarımı gerçekleştirilmiştir.

Bu çalışma kapsamında, yağsız inek sütü tedarik edilmiştir\*. Süt farklı sıcaklık ve basınçlar altında 10 kDa ultrafiltrasyon (UF) membranından geçirilerek UF permeat (UFP) ve UF retentat (UFR) ayrımı yapılmıştır.

Ultrafiltrasyon çalışmaları 30, 40 ve 50°C sıcaklıklarda ve 2 ve 4 barda gerçekleştirilmiştir. Başta 10 litre yağsız inek sütünün UF çalışmalarına başlanarak yağsız süt membrandan geçerken belirli aralıklarla permeat çıkışından süre tutulup numune alınarak membran akısı hesaplanmıştır. Sonrasında nanofiltrasyon (NF) beslemek için en uygun UF çalışmasının 40°C 4 bar parametresi olduğu sonucuna varılmıştır. NF çalışmaları için 30 ve 40°C sıcaklıklarda ve 10 ve 20 barda gerçekleştirilmiştir. UFP, UFR, NF Permeat (NFP) ve NF Retentat (NFR) numuneleri kimyasal kompozisyonları ve mikrobiyel sayıları değerlendirilmiştir\*. Değerlerde ürün eldesi için 40°C 4 bar UFR ve 30°C 10 bar NFP birleştirilmiş ve laktoz oranında %50 azalma görülmüştür. Standardizasyon aşamasında yağsız, yarım yağlı ve tam yağlı sütler için formülasyon oluşturulmuş ve hazırlanan numunelere belirlenen parametrelerde laktaz eklenmiştir. 4°C’de çalışılan numuneler soğuk

depoda (8 saat ve 14 saat), 40°C'de çalışılan numuneler 40°C etüvde (1 saat ve 2 saat) bekletilmiştir. Sonuçta, laktazın 4°C sıcaklıkta 14 saat süreyle katılmasının en uygun olduğu ve işlem sonunda laktoz miktarının <%0,01 olduğu görülmüştür.

Bu çalışmayla laktozsuz UHT süt tüketicilerinin tatlılık ve kahverengileşme şikayetlerinin önleneceği ve kahverengileşmeyle kısalan raf ömrü sorunun önleneceği düşünülmektedir.

**Anahtar Kelimeler:** Laktozsuz süt, Hibrit Membran, Ultrafiltrasyon, Nanofiltrasyon

## ABSTRACT

The most common method for producing lactose-free UHT drinking milk is the hydrolysis of lactose. However, a disadvantage is the formation of glucose+galactose from lactose, resulting in a sweeter taste. In this study, a pretreatment line design combining membrane filtration techniques was realized to reduce the sweetness problem in lactose-free milk.

Within the scope of this study, skimmed cow's milk was procured\*. The milk was passed through a 10 kDa ultrafiltration (UF) membrane under different temperatures and pressures to separate UF permeate (UFP) and UF retentate (UFR).

Ultrafiltration studies were carried out at temperatures of 30, 40 and 50°C and at 2 and 4 bar. Initially, UF studies of 10 liters of skimmed cow's milk were started and membrane flux was calculated by timing and sampling from the permeate outlet at certain intervals as the skim milk passed through the membrane. Afterwards, it was concluded that the most suitable UF operation for feeding nanofiltration (NF) was 40°C 4 bar parameter. For NF studies, temperatures of 30 and 40°C and 10 and 20 bar were used. The chemical composition and microbial counts of UFP, UFR, NF Permeate (NFP) and NF Retentate (NFR) samples were evaluated\*. UFR at 40°C 4 bar and NFP at 30°C 10 bar were combined to produce a product with a 50% reduction in lactose content. At the standardization stage, formulations were created for skim, semi-skimmed and whole milk and lactase was added to the prepared samples at the specified parameters. Samples studied at 4°C were kept in cold storage (8 hours and 14 hours) and samples studied at 40°C were kept in a 40°C oven (1 hour and 2 hours). As a result, it was found that the addition of lactase at 4°C for 14 hours was the most appropriate and the lactose content was <0.01% at the end of the process.

It is thought that this study will prevent sweetness and browning complaints of lactose-free UHT milk consumers and prevent the problem of shortened shelf life due to browning.

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Bu çalışma TÜBİTAK 3230361 numaralı projesidir.

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\* Yağsız inek sütü Gemak Gıda End. Mak. Tic. A.Ş. Süt ve Gıda Ürünleri İşleme Fabrikası'ndan (Sütanka markası) tedarik edilmiştir.

\* Laboratuvar çalışmaları Ankara Üniversitesi Süt Teknolojisi bölümü laboratuvarında yürütülmüştür.

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\* Skimmed cow's milk Gemak Gıda End. Mak. Tic. A.Ş. Milk and Food Products Processing Factory (Sütanka brand).

\* Laboratory studies were conducted in the laboratory of the Department of Dairy Technology, Ankara University.

**FAİZ HASSASIYETİNE SAHİP KİŞİLERİN SATIN ALMA DAVRANIŞI  
KARŞISINDA İZLEDİKLERİ TUTUMLARI İNCELEMAYA YÖNELİK BİR  
ARAŞTIRMA**

**A STUDY ON THE ATTITUDES OF INDIVIDUALS WITH INTEREST SENSITIVITY  
TOWARDS THEIR PURCHASING BEHAVIOR**

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**ÖZET**

Faiz hassasiyeti taşıyan insanların finansman ihtiyaçlarını gidermek, faiz hassasiyetini yok sayan bir finansman sistemin içinde adeta bir imtihan vesilesi olmuştur. Bu çalışma faiz hassasiyetine sahip kişilerin satın alma davranışı karşısında ihtiyaç duydukları nakit için izledikleri tutumları incelemeye yönelik yapılmıştır. Günümüzde konvansiyonel bankaları kullananlar ve yaşadıkları huzursuzluk bereketsizlik üzerine görüşmeler yapılmıştır. Bu araştırmada nakit ihtiyacı için konvansiyonel bankaları tercih etmeyip buna karşın izledikleri tutumları öğrenmek amaçlanmıştır. Araştırma yüz yüze görüşme tekniği ile 30 katılımcıya önceden hazırlanmış soruları sorarak ve izinleri dahilinde alınan ses kayıtlarının yazıya aktarılmasıyla gerçekleştirilmiştir. Ölçüt örnekleme ile katılımcıların dahil edilme kriteri belirlenmiştir. Bu araştırmada katılımcıların görüşmeye dahil edilme kriteri olarak konvansiyonel bankalardan hiç kredi çekmemiş olmak olarak belirlenmiştir. Kartopu örneklem yöntemi kullanılarak bağlantı kurulan bir kişinin başka kişilere yönlendirmesi istenmiştir. Elde edilen bulgulara giderek zayıflayan güvene dayalı borç ilişkileri ve kişilerin katılım bankalarına dair eleştirileri göze çarpmaktadır. Faiz hassasiyetine sahip kişilerin çevrelerinden aldıkları eleştiriler de önemli bulgular arasındadır. Ama en nihayetinde faiz hassasiyeti olan kişilerin bereket, içsel huzur, dini inanç çerçevesinde ortak tutum sergilediklerini söyleyebiliriz. Araştırmada elde edilen bulgular bize faiz hassasiyeti olan insanların dini motivasyonlarını ön plana çıkararak faizden kaçındıklarını ve alternatif olarak karz-ı hasene yöneldiklerini gösteriyor. Borçlanma imkanı olmayan insanların ise almayı erteledikleri ihtiyaçları ve çevrenin baskısı onlar için bir imtihan vesilesi olmuştur.

**Anahtar Kelimeler:** Faiz hassasiyeti, konvansiyonel bankalar, finansman.

**ABSTRACT**

For individuals with interest sensitivity, meeting their financing needs within a financing system that disregards interest sensitivity has become almost a test. This study aims to examine the attitudes of individuals with interest sensitivity towards the purchasing behavior

in response to their cash needs. Interviews have been conducted with those using conventional banks and their discomfort with the lack of blessing. The purpose of this research is to understand the attitudes of those who avoid conventional banks for their cash needs. The research was conducted through face-to-face interviews with 30 participants, using pre-prepared questions, and by transcribing voice recordings with their consent. The criteria for participant inclusion were determined by purposive sampling. The inclusion criterion for participants in this study was not having ever taken a loan from a conventional bank. A snowball sampling method was used to ask a person to refer others. The findings highlight a weakening trust-based debt relationship and individuals' criticisms of participation banks. Criticisms received from their social circles are also significant findings. Ultimately, we can say that individuals with interest sensitivity share common attitudes in terms of prosperity, inner peace, and religious beliefs. The findings of this research show that people with interest sensitivity avoid interest by emphasizing their religious motivations and turn to **karz-i hasene** (benevolent loan) as an alternative. For those who have no borrowing options, delayed purchases and the pressure from their environment have become a test for them.

**Keywords:** Interest sensitivity, conventional banks, financing

## DAVRANIŞSAL İKTİSAT PERSPEKTİFİNDEN TÜKETİCİ DAVRANIŞLARI CONSUMER BEHAVIOR FROM A BEHAVIORAL ECONOMICS PERSPECTIVE

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### ÖZET

İktisat bilimi, psikoloji ve iktisadın iş birliği içinde olduğu bilim dalıdır. Davranışsal iktisat, tüketici davranışlarını incelemek için psikolojik yönden etkilerini ortaya koyan bir yaklaşımdır. İnsanlar sınırsız olan ihtiyaçlarını karşılamak ve hayatlarını idame ettirmek amacıyla tüketme ihtiyacı duyarlar. Sosyal veya kültürel açıdan ihtiyaçların karşılanması tüketim ile giderilmektedir. İnsanın ihtiyaçları sınırsızdır ancak kaynaklar sınırlıdır. Bu sınırlılıkla birlikte insan ihtiyaçları arasında seçim yapma durumunda kalmaktadır. Tüketici davranışları çevresel faktörlere bağlı olarak değişiklik göstermektedir. Aynı zamanda tüketici davranışları hem karmaşık hem de zamanlama açısından farklılıklar göstermektedir. Bireyler olaylar karşısında düşünen ve etkilenen varlıklardır. Bireyler üzerindeki bu duygu değişimleri tüketim kültürü üzerinde önemli bir etkiye sahiptir. Birey doğduğu andan itibaren tüketmek mecburiyetindedir. Tüketimin gerçekleşebilmesi için de üretimin desteklenmesi gerekmektedir. Tüketicinin davranışları dinamik ve güdümlü bir yapıya sahiptir. Bu sebeple tüketici davranışlarında hangi yönde değişiklik göstereceği tahmin edilememektedir. Burada merak konusu tüketimin ne amaçla ortaya çıktığıdır. İhtiyaç odaklı bir tüketim mi yoksa gösteriş odaklı bir tüketim mi? Bireyler tüketim yaparken kişisel ve sosyal faktörlerin etkisiyle hareket etmektedirler. Bu yüzden her tüketicinin davranışları birbiriyle farklılık göstermektedir. Günümüzde tüketimin artış göstermesiyle birlikte tüketim çeşitliliğinde de bir artış göstermiştir. Bu artışların tüketicinin davranışlarına birçok faktöre bağlı olarak etkileri olmaya başlamıştır. Tüketici davranışlarını etkileyen faktörler arasında sosyal, psikolojik ve kişisel faktörler yer almaktadır. Bu çalışmanın amacı iktisat ve psikoloji arasındaki ilişkinin ne olduğu, tüketici davranışları etkilerinin nasıl olduğu ve tüketici davranışlarını etkileyen faktörlerin neler olduğu değerlendirilecektir.

**Anahtar Kelimeler:** Tüketim, Tüketici, Tüketici Davranışları, Davranışsal İktisat.

### ABSTARCT

Economics is the science in which psychology and economics cooperate. Behavioral economics is an approach to the study of consumer behavior, which uses psychological aspects to examine its effects. People need to consume meet their unlimited needs and to sustain their lives. Social or cultural needs are met through consumption. Human needs are unlimited but resources are limited. With this limitation, people are forced to choose between



their needs. Consumer behavior changes depending on environmental factors. At the same time, consumer behavior is both complex and variable in terms of timing. Individuals are thinking and affected by events. These emotional changes on individuals have a significant impact on consumption culture. Individuals are obliged to consume from the moment they are born. Production must be supported for consumption to take place. Consumer behavior has a dynamic and guided structure. For this reason, it cannot be predicted in which direction consumer behavior will change. The question of curiosity here is the purpose of consumption. Need- oriented consumption or vanity-oriented consumption? Individuals are influenced by personal and social factors when they consume. Therefore, the behavior of each consumer differs from each other. Today, with the increase in consumption, there has also been an increase in consumption diversity. These increases have started to have effects on consumer behavior depending on many factors. Among the factors affecting consumer behavior are social, psychological and personal factors. The aim of this study is to evaluate what the relationship between economics and psychology is, how it affects consumer behavior and what factors affect consumer behavior.

**Keywords:** Consumption, Consumer, Consumer Behavior, Behavioral Economics.

## STRATEGIC MANAGEMENT IN HIGHER EDUCATION INSTITUTIONS: ADAPTATION TO GLOBAL RANKING SYSTEMS

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### ABSTRACT

This paper examines the role of strategic management in the adaptation of higher education institutions (HEIs) to international ranking systems through a comprehensive literature review. In the context of globalization and intensifying competition in the education sector, universities are required to implement strategic approaches that align with the demands of global ranking indicators. This study evaluates the influence of international ranking systems (QS, THE, ARWU) on managerial decisions in HEIs and explores the strategies employed for effective adaptation. The paper draws on classical strategic management frameworks (Mintzberg, Porter, Ansoff) to analyze their application in aligning with the requirements of ranking systems. The findings from the literature review indicate that ranking systems significantly impact key performance areas such as research productivity, academic reputation, teaching quality, and international collaboration. Effective adaptation strategies include enhancing research activities, fostering international partnerships, and integrating digital technologies into teaching and administrative processes. For Azerbaijani universities, key challenges in integrating into international ranking systems include resource constraints, limited research capacity, and underdeveloped internationalization efforts. Addressing these challenges requires revising existing strategic management practices, increasing state support for global collaborations, and optimizing internal governance processes. The results of this study highlight that aligning strategic management processes with the demands of international rankings can strengthen the competitive position of HEIs in the global educational landscape. By prioritizing long-term strategic planning and adopting innovative approaches, universities can achieve deeper integration into the global education system and improve their international rankings.

**Keywords:** Higher education, strategic management, international rankings, adaptation strategies, Azerbaijani universities.

**ÖĞRETMENLERİN MESLEKİ DOYUM VE MESLEKİ TÜKENMİŞLİKLERİ  
ARASINDAKİ İLİŞKİDE POZİTİF PSİKOLOJİK SERMAYENİN ARACI ROLÜ**  
THE MEDIATING ROLE OF POSITIVE PSYCHOLOGICAL CAPITAL IN THE  
RELATIONSHIP BETWEEN TEACHERS JOB SATISFACTION AND OCCUPATIONAL  
BURNOUT

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**ÖZET**

Bu araştırmada öğretmenlerin mesleki doyumları ve mesleki tükenmişlikleri arasındaki ilişkide pozitif psikolojik sermayenin aracı rolünün incelenmesi amaçlanmıştır. Araştırma nicel araştırma yöntemlerinden ilişkisel modele uygun olarak düzenlenmiştir. Araştırmanın çalışma grubu Türkiye'deki 41 farklı ilde görev yapan öğretmenlerden oluşmaktadır. Çalışmaya katılan öğretmenler 185'i kadın ve 206'sı erkek olmak üzere toplam 391 kişiden oluşmaktadır. Veriler uygun örnekleme yöntemi ile online olarak gönüllülük esasına uygun olacak şekilde toplanmıştır. Bu çalışmada veri toplama araçları olarak Mesleki Doyum Ölçeği, Maslach Tükenmişlik Ölçeği ve Pozitif Psikolojik Sermaye Ölçeği kullanılmıştır. Araştırmadan elde edilen veriler korelasyon analizlerinin yanı sıra aracılık etkisinin incelenmesi için Preacher ve Hayes'in önerileri doğrultusunda Process Macro (model 4) kullanılarak gerçekleştirilmiştir. Regresyon analizinde Bootstrap tekniği ile aracılık etkisinin anlamlılığı incelenmiştir. Analiz sonuçlarına göre mesleki doyum, pozitif psikolojik sermayeyi olumlu yönde anlamlı bir şekilde yordamaktadır. Diğer taraftan mesleki doyum, mesleki tükenmişliği negatif yönde anlamlı bir şekilde yordamaktadır. Pozitif psikolojik sermayenin ise mesleki tükenmişliği negatif yönde anlamlı bir şekilde yordadığı görülmektedir. Mesleki doyumun, mesleki tükenmişlik üzerindeki dolaylı etkisinin anlamlı olduğu ve pozitif psikolojik sermayenin, mesleki doyum ile mesleki tükenmişlik arasındaki ilişkiye aracılık ettiği tespit edilmiştir. Ayrıca demografik değişkenlere (cinsiyet, eğitim durumu, mesleki kıdem) göre anlamlı farklılıklar tespit edilmiştir. Elde edilen sonuçlar doğrultusunda öğretmenlerin mesleki tükenmişliklerini azaltmak için mesleki doyum ve pozitif psikolojik sermayeyi artırmaya yönelik önerilerde bulunulmuştur.

**Anahtar Kelimeler:** Mesleki tükenmişlik, Mesleki doyum, Pozitif psikolojik sermaye, Eğitim psikolojisi.

## ABSTRACT

This study investigates the mediating role of positive psychological capital in the relationship between job satisfaction and occupational burnout among teachers. The research was designed in accordance with the correlational model, one of the quantitative research methods. The study group consisted of teachers working in 41 different provinces in Turkey. A total of 391 teachers participated, comprising 185 females and 206 males. Data were collected online using a convenience sampling method, based on voluntary participation. In this study, Job Satisfaction Scale, Maslach Burnout Scale, Positive Psychological Capital Scale were used as data collection tools. The data obtained from the research were analyzed using the Process Macro (model 4), in line with the recommendations of Preacher and Hayes, to examine the mediating effect alongside correlation analyses. The data obtained from the research were analyzed using the Process Macro (model 4), in line with the recommendations of Preacher and Hayes, to examine the mediating effect alongside correlation analyses. In the regression analysis, the significance of the mediating effect was examined using the Bootstrapping Method. According to the analysis results, job satisfaction significantly predicts positive psychological capital in a positive direction. On the other hand, job satisfaction has a significant negative effect on occupational burnout. Positive psychological capital has a significant negative effect on occupational burnout. It has been determined that the indirect effect of job satisfaction on occupational burnout is significant; thus, positive psychological capital mediates the relationship between job satisfaction and occupational burnout. In addition, significant differences were found according to demographic variables (gender, educational status, professional seniority). Based on the obtained results, recommendations were made to enhance job satisfaction and positive psychological capital to reduce occupational burnout among teachers.

**Keywords:** Occupational burnout, Job satisfaction, Positive psychological capital, Educational psychology.

**TOKSİK LİDERLİK VE DEMOGRAFİK ÖZELLİKLER BAĞLAMINDA  
ALGI FARKLILIKLARI: STK ÇALIŞANLARI GAZİANTEP İL ÖRNEĞİ**  
PERCEPTUAL DIFFERENCES IN THE CONTEXT OF TOXIC LEADERSHIP AND  
DEMOGRAPHIC CHARACTERISTICS: A CASE STUDY OF NGO EMPLOYEES IN  
GAZİANTEP

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**ÖZET**

STK çalışanları için toksik liderlik, yöneticilerin veya üst düzey yöneticilerin yetkilerini veya otoritelerini olumsuz biçimde kullanarak kontrol sağlamaya çalıştıkları bir iş ortamında çalışmak anlamına gelir. Bu da korku kültürü, tükenmişlik ve motivasyon kaybına yol açabilir. STK çalışanları için bu toksik liderlik unsurları sadece motivasyon kaybına yol açmaz; aynı zamanda faydalanıcılara sunulan hizmetlerin kalitesini etkiler ve organizasyonun misyonunu yerine getirme yeteneğini zayıflatır. STK'lar bağlamında, toksik liderlik hem çalışanlar hem de organizasyonun misyonu üzerinde olumsuz etkiler yaratabilir. Dolayısıyla, toksik liderliğe karşı koymak için etik liderlik, açık iletişim ve tüm çalışanların iyiliğini ve gelişimini önemseyen destekleyici bir organizasyon kültürüne güçlü bir vurgu yapılması gerekmektedir.

Bu çalışmanın amacı, STK çalışanlarının toksik liderlik algılarını incelemektir. Bu amaç doğrultusunda, Gaziantep ilinde faaliyet gösteren yerel STK çalışanları araştırma evreni olarak belirlenmiştir. Araştırma verileri toplanırken evrenin tamamına ulaşmadaki maliyet ve zamansal kısıtlılıklardan dolayı kolayda örnekleme ve kartopu örnekleme yöntemlerinin birlikte kullanılmasına karar verilmiştir. Google Formlar üzerinden oluşturulan anketler, WhatsApp uygulaması üzerinden araştırma evreninde yer alan çalışanlara gönderilmiştir. Gönüllülük esasına dayalı olarak yürütülen veri toplama süreci boyunca elde edilen anket

sayısı 107 olmuştur. Alan araştırması sonucu elde edilen veriler güvenilirlik ve geçerlilik, T-Testi ve ANOVA analizleri ile incelenip, elde edilen veriler sonuç kısmında paylaşılabacaktır.

**Anahtar Kelimeler:** Liderlik, Toksik Liderlik Algısı, Demografik Özellikler.

## ABSTRACT

For NGO employees, toxic leadership refers to working in an environment where managers or senior leaders misuse their authority or power in harmful ways to maintain control. This can lead to a culture of fear, burnout, and loss of motivation. For NGO staff, these elements of toxic leadership not only result in diminished morale but also impact the quality of services provided to beneficiaries and weaken the organization's ability to fulfill its mission. In the context of NGOs, toxic leadership negatively affects both employees and the organization's overarching goals. Therefore, countering toxic leadership requires a strong emphasis on ethical leadership, transparent communication, and a supportive organizational culture that prioritizes the well-being and development of all employees.

The aim of this study is to examine the perceptions of toxic leadership among NGO employees. For this purpose, the study focuses on local NGO employees operating in the province of Gaziantep as the research population. Due to the financial and time constraints of reaching the entire population, a combination of convenience sampling and snowball sampling methods was employed to collect data. Surveys created via Google Forms were distributed to employees in the research population through the WhatsApp application. The data collection process was conducted on a voluntary basis, resulting in a total of 107 completed surveys. The data obtained through the field research will be analyzed using reliability and validity tests, T-tests, and ANOVA analyses, with the findings presented in the results section.

**Keywords:** Leadership, Toxic Leadership Perception, Demographic Characteristics.

**KARA PARANIN AKLANMASI VE TERÖRİZMİN FİNANSMANI İLE MALİ  
SUÇLARIN VERGİSEL BOYUTU VE TERÖRÜN FİNANSMANI İLE  
MÜCADELEDE ULUSLARASI KURULUŞLARIN ROLÜ**  
MONEY LAUNDERING, FINANCING OF TERRORISM AND TAX DIMENSION OF  
FINANCIAL CRIMES AND THE ROLE OF INTERNATIONAL ORGANIZATIONS IN  
FIGHTING AGAINST FINANCING OF TERRORISM

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## ÖZET

Yasa dışı yollardan elde edilen kazanç anlamına gelen kara para; ülkelerin finansal sistemini, ekonomik verilerini ve bununla birlikte uluslararası finansal yapıları olumsuz etkileyen bir kavramdır. Finansal sistemler ve kuruluşlar yasa dışı yollarla elde edilen kazancın aklanması ve buna bağlı olarak terörizmin finansmanı amacıyla çeşitli risklerle karşılaşmaktadırlar. Dolayısıyla bankalar ve diğer finansal kuruluşlar bu riskleri taşıyan en etken kuruluşlar olması ve kara paranın aklanması açısından en sık kullanılan kurumların başında yer almaktadır. Ülkelerin, uluslararası alanda gerek ekonomik ve gerekse sosyo-politik itibarını zedeleyen çeşitli girişimlerin ve faaliyetlerin engellenmesi açısından alınan önlemler ve bunların izlenmesi için etkin kuruluşlar yer almaktadır. Bu çalışmada kara para, kara paranın aklanması ve terörizmin finansmanı konuları ele alınırken, kara para suçlarının vergisel boyutu ve bununla mücadelede uluslararası kuruluşların rolünün etkenliği ele alınmıştır.

**Anahtar Kelimeler:** Kara Para, Kara Para Aklanması, Terörizmin Finansmanı, Siber Suçlar, Uluslararası Kuruluşlar

## ABSTRACT

Black money, which means earnings obtained through illegal means, is a concept that negatively affects countries' financial systems, economic data and international financial structures. Financial systems and institutions face various risks for the laundering of illegally obtained earnings and the financing of terrorism. Therefore, banks and other financial institutions are the most effective institutions that carry these risks and are among the most frequently used institutions in terms of money laundering. There are effective institutions to monitor and prevent various initiatives and activities that damage the economic and socio-political reputation of countries in the international arena. This study addresses the issues of black money, money laundering and financing of terrorism, while the tax dimension of black

money crimes and the effectiveness of the role of international organizations in combating this are discussed.

**Keywords:** Black Money, Money Laundering, Financing of Terrorism, Cyber Crimes, International Organizations



## DON NORMAN'S PRINCIPLES OF LIMITATION IN USER EXPERIENCE DESIGN: HOW IT RELATES TO SOCIAL PSYCHOLOGY

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### ABSTRACT

This paper aims to set forth the changes in the feelings, thoughts and behaviours of people, during the pandemic. To this end, studies on religion or pietism and Covid-19 pandemic in Turkey were tried to be collected. Firstly, articles, theses and books drafted in this field were analysed. In the research period, concepts and phrases like coronavirus, coronavirus and religion, coronavirus and spirirtualism, coronavirus and pietism, etc. were searched in the search engines. However, when the related literature in Turkey is reviewed, no books or theses based on empirical research, covering the concepts of both coronavirus and religion were found out. Some non-empirical books partially mention the effects of pandemic on religious emotions, thoughts and behaviours of people. However, 9 articles on the subject were identified, 4 of which were theoretical and 5 were empirical. Data for 4 empirical research were obtained through quantitative method while data for 1 of them were obtained through qualitative method. The researcher carried out the study by categorizing the concerned studies dated 2020 according to their subjects, objectives, methods, findings and results. In this study, meta-analysis method The goal of this research is to find the relationship between limitation principles and social psychology in user experience designs. This research aims to elucidate the concept of the limitation principle within Don Norman's theoretical framework. The limitation principle is a crucial rule that significantly influences user experience designs. The limitation principle protects the user from unlimited possibilities of action; it is necessary to set limits on the interactions/interface. There are four types of

constraints: physical, semantic, cultural, and logical. Natural mapping works by providing logical constraints. If there are two light sources and two control buttons, the right button should control the bulb on the right, and the left button should control the bulb on the left. There are neither cultural nor physical limits here. Therefore, cultural roots and perceptions have influenced social psychology. As known, cultural effects and issues are different in each society; in that way, we are interested to know how user experience designers manage this difference in their work. So, the main issues of this study are how social society affects user experience and how social psychology relates to Don Norman's theory of limitation. In this study, we have employed descriptive research and qualitative research methods. Findings show that social society has an effective role in user experience design and should pay more attention to all user experience designs, and the functional effect of user experience has defined the goal of designs. These effects have determined the cultural and social psychology issues.

**Keywords:** User Experience, Social Psychology, Design, User Interface

**YÜKSEKÖĞRETİMDE KALİTE ARAYIŞI: KOŞULLU AKREDİTASYON ALAN  
ÜNİVERSİTELERİN GELİŞMEYE AÇIK YÖNLERİ**  
EXPLORING QUALITY IN HIGHER EDUCATION: AREAS FOR IMPROVEMENT IN  
UNIVERSITIES WITH CONDITIONAL ACCREDITATION

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**ÖZET**

Bu çalışmanın amacı, Yükseköğretim Kalite Kurulu (YÖKAK) tarafından 2023 yılında kurumsal akreditasyon verilen devlet üniversitelerinin kurumsal akreditasyon raporlarını (KAR) incelemektir. Yapılan inceleme 2023 yılında kurumsal akreditasyon başvurusunda bulunan ve koşullu akreditasyon verilen on devlet üniversitesinin raporlarındaki “Liderlik, Yönetişim ve Kalite” boyutunda tespit edilen gelişmeye açık yönleri belirlemektir. 2023 yılı kurumsal akreditasyon başvurusu sonrasında koşullu akreditasyon verilen 10 devlet üniversitesi bulunmaktadır. Kurumsal akreditasyon raporları, dört temel bölümden oluşmaktadır: “Liderlik, Yönetişim ve Kalite”, “Eğitim ve Öğretim”, “Araştırma ve Geliştirme” ve “Toplumsal Katkı”. Bu çalışmada, 2023 kurumsal akreditasyon başvurusu sonrasında değerlendirilen ve koşullu akreditasyon almış on devlet üniversitesinin KAR’larda Liderlik, Yönetişim ve Kalite boyutunda belirtilen geliştirmeye açık yönler ele alınmıştır. Araştırmada nitel araştırma yöntemi kullanılmış olup, araştırmanın deseni doküman inceleme olarak belirlenmiştir. YÖKAK tarafından 2023 yılında akreditasyon verilen devlet üniversitelerinin KAR’larına, YÖKAK resmi web sitesinden ulaşılmıştır. Raporlar öncelikle okunarak incelenmiştir ve 2023 başvurusu sonrasında yapılan kurumsal akreditasyon değerlendirmesi sonucunda hazırlanan KAR’ların Liderlik, Yönetişim ve Kalite boyutunda geliştirmeye açık yönleri içerik analizi yöntemiyle analiz edilmiştir. İçerik analizi sürecinde öncelikle kodlar oluşturulmuş, ardından bu kodlar kategori ve temalar altında gruplandırılarak sistematik bir analiz gerçekleştirilmiştir. Çalışmanın bulgularına göre, koşullu akreditasyon alan üniversitelerin KAR’larının analiz edilmesi sonucunda ulaşılan 28 kod, beş kategori ve

iki tema altında toplanmıştır. Analiz sonuçları, özellikle paydaş katılımı, kalite süreçlerinin işletilmesi, liderlik uygulamaları ve stratejik planlamaya ilişkin eksikliklerin öne çıktığını göstermektedir. Paydaş katılımının etkin bir şekilde sağlanamaması, kalite güvencesi sistemlerinin tam anlamıyla içselleştirilememesi ve liderlik süreçlerinin kurumsal düzeyde iyileştirilmesi gerekliliği, bu üniversitelerin ortak geliştirme alanları olarak tespit edilmiştir. Sonuç olarak, bu çalışmada elde edilen bulgular, koşullu akreditasyon almış devlet üniversitelerinin kalite güvencesi ve liderlik sistemlerinin geliştirilmesi açısından önemli iyileştirme fırsatları sunduğunu ortaya koymaktadır. Bu eksikliklerin giderilmesi, üniversitelerin sürdürülebilir gelişimine ve kalite kültürünün kurumsal düzeyde yaygınlaşmasına katkı sağlayacaktır.

**Anahtar Kelimeler:** Akreditasyon, Devlet Üniversitesi, Doküman İncelemesi, Kalite, Koşullu Akreditasyon, Liderlik-Yönetişim ve Kalite, Yükseköğretimde Akreditasyon.

## ABSTRACT

The purpose of this study is to examine the accreditation processes of state universities that received conditional accreditation by the Turkish Higher Education Quality Council (THEQC) in 2023 and to identify areas for improvement in the dimensions of Leadership, Governance, and Quality. As of 2023, 10 state universities have been granted conditional accreditation. The institutional accreditation reports (IARs) consist of four main sections: Leadership, Governance, and Quality; Education and Training; Research and Development; and Societal Contribution. This study focuses on the areas for improvement identified in the Leadership, Governance, and Quality dimensions of these universities. The research employs a qualitative method, specifically document analysis. The selection criteria for the documents include the year 2023, state universities as the institution type, and conditional accreditation as the accreditation outcome. The reports were obtained from the THEQC website. Through the analysis of the reports, areas for improvement were identified using content analysis. During the content analysis process, codes were initially created and subsequently categorized into themes to enable a systematic review. According to the findings, 28 codes, five categories, and two themes were identified regarding the areas for improvement in state universities with conditional accreditation in 2023. The results highlight deficiencies particularly related to stakeholder participation, the execution of quality assurance processes, leadership practices, and strategic planning. Common areas for improvement among these universities include the insufficient engagement of stakeholders, the inability to internalize quality assurance systems completely, and the need for institutional-level improvements in leadership processes. In conclusion, the findings of this study reveal significant opportunities for enhancing the quality assurance and leadership systems of state universities with conditional accreditation. Addressing these deficiencies will contribute to the sustainable

development of these institutions and the dissemination of a quality culture at the institutional level.

**Keywords:** Accreditation, Accreditation in Higher Education, Conditional Accreditation, Document Analysis, Leadership-Governance and Quality Assurance, Quality, State Universities.

**YÜKSEKÖĞRETİM KURUMLARI AKREDİTASYON SÜRECİNDE  
KOŞULLU AKREDİTASYON ÜZERİNE BİR ARAŞTIRMA:  
2022 VAKIF ÜNİVERSİTELERİ ÖRNEĞİ**  
A STUDY ON CONDITIONAL ACCREDITATION IN THE ACCREDITATION  
PROCESS OF HIGHER EDUCATION INSTITUTIONS:  
2022 FOUNDATION UNIVERSITIES EXAMPLE

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## ÖZET

Bu araştırmanın amacı, Yüksek Öğretim Akreditasyon Kurulu (YÖKAK) tarafından, kurumsal akreditasyon süreçlerine tabi tutulan 2022 yılı vakıf üniversiteleri arasından “Koşullu Akreditasyon” almış üniversitelerin akreditasyon süreçlerini incelemektir. Koşullu akreditasyon alan üniversitelerin değerlendirme raporlarında farklı başlıklar bulunmaktadır. Akreditasyon süreçlerinde üniversitelerin değerlendirilmesinin yapıldığı kurumsal akreditasyon raporu (KAR) dört temel başlık içermektedir. Bu araştırmanın amacı, 2022 yılında koşullu akreditasyon alan vakıf üniversiteleri için sunulmuş kurumsal akreditasyon raporlarındaki dört başlık içinden “liderlik, yönetim, kalite” başlığına ait geliştirilmeye açık yönleri incelemektir. Bu çalışmada nitel araştırma yöntemlerinden doküman analizi deseni kullanılmıştır. YÖKAK’ın web sitesinden, 2022 yılında koşullu akreditasyon alan 10 vakıf üniversitesi olduğu belirlenmiştir. Belirlenen bu 10 vakıf üniversitesinin değerlendirme raporları YÖKAK web sitesinden indirilmiştir. Bu sonuç raporlarından kalite, yönetim ve güvence alt başlıklarında, geliştirilmeye açık yönler ve bu yönlerle ilgili yapılan değerlendirmeler içerik analizine tabi tutulmuştur. Gerçekleştirilen içerik analizinde, “Koşullu Akreditasyon” alan vakıf üniversitelerinin gelişmeye açık yönlerinin neler olduğu tespit edilmiştir. Veri analizi sürecinde, 10 üniversiteye ait YÖKAK raporları ayrıntılı olarak okunmuş ve okuma sırasında ilk aşamada kodlar belirlenmiş, ardından bu kodlar kategori ve temalara ayrılarak analiz tamamlanmıştır. Bu analiz sonucunda 64 kod belirlenmiştir. Bu

kodlar önce altı kategori olarak sınıflandırılmıştır. Bu altı kategoride üç tema altında toplanmıştır. Ortaya çıkan bulgular ile 2022 yılı “Koşullu Akreditasyon” alan vakıf üniversitelerindeki liderlik ve yönetim başlığında belirtilen sonuçlara ulaşılmıştır.

**Anahtar Kelimeler:** Akreditasyon, Kalite, Kalite Güvence Sistemi, Koşullu Akreditasyon, Kurumsal Akreditasyon, Yönetim, Yönetim Sistemi, Yükseköğretimde Kalite, Yükseköğretimde Akreditasyon.

## ABSTRACT

The aim of this research is to examine the accreditation processes of foundation universities that received "Conditional Accreditation" among the institutions subjected to institutional accreditation processes by the Turkish Higher Education Quality Council (THEQC) in 2022. The evaluation reports of universities with conditional accreditation include various sections. The Institutional Accreditation Report (IAR), which evaluates universities within the accreditation processes, consists of four main sections. This study focuses on examining the areas for improvement identified under the section "Leadership, Management and Quality" in the institutional accreditation reports of foundation universities that received conditional accreditation in 2022. The study employs a qualitative research method, specifically the document analysis design. According to the THEQC website, 10 foundation universities received conditional accreditation in 2022. The evaluation reports of these 10 universities were downloaded from the THEQC website. Content analysis was conducted on the sections related to leadership, management and quality assurance system in these reports to identify the areas for improvement and evaluations regarding these areas. Through the content analysis, the areas for development for foundation universities with "Conditional Accreditation" were identified. During the data analysis process, the reports of the 10 universities were thoroughly reviewed. In the first stage, codes were identified during the reading process. Subsequently, these codes were categorized and organized into themes, completing the analysis. As a result of this analysis, 64 codes were identified. These codes were initially grouped into six categories, which were then consolidated under three themes. The findings obtained from the analysis revealed the results concerning the leadership and management section of foundation universities that received "Conditional Accreditation" in 2022.

**Keywords:** Quality in Higher Education, Quality Assurance System, Institutional Accreditation, Accreditation, Accreditation in Higher Education, Quality, Management, Management System, Conditional Accreditation.

**ORTAOKUL MÜZİK DERSİ ÖĞRETİM PROGRAMININ YAŞAM BOYU  
ÖĞRENME TEMEL YETKİNLİKLERİ AÇISINDAN İNCELENMESİ**  
EXAMINING THE SECONDARY SCHOOL MUSIC COURSE CURRICULUM IN  
TERMS OF LIFELONG LEARNING BASIC COMPETENCIES

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**ÖZET**

Yaşam boyu öğrenme, bireylerin yaşamları boyunca çeşitli becerilerini geliştirmeye yönelik, formal veya informal ortamlarda sürdürdükleri öğrenme eylemidir. Nitelikli bireylerin yetişmesinde önemli bir paya sahip olan yaşam boyu öğrenmeyi, günümüzde pek çok ülke eğitim sistemine dahil etmektedir. Bu bağlamda Avrupa ülkelerinde yaşam boyu öğrenmeyle ilgili Avrupa Yeterlilikler Çerçevesi oluşturulmuştur. Ülkemizde de bu yeterlilikler çerçevesine benzer olarak Türkiye Yeterlilikler Çerçevesi belirlenmiştir. Bu kapsamda 2018 itibarıyla yenilenen tüm derslerin öğretim programlarına Türkiye Yeterlilikler Çerçevesi bağlamında sekiz temel yetkinlik eklenmiştir. Yapılan literatür taramasında yaşam boyu öğrenme ve müzik dersi öğretim programını ele alan çok az sayıda çalışmanın olduğu görülmüştür. Bu çalışmanın; yaşam boyu öğrenme temel yetkinlikleriyle müzik dersi öğretim programını birlikte ele alması, genel müzik eğitime katkı sağlaması, eğitimciler ve öğrenciler için yaşam boyu öğrenmeye yönelik bir bakış açısı sağlaması ve bu konuda yapılan araştırmalara öncülük etmesi bakımından önemli olduğu düşünülmektedir. Bu bağlamda çalışmanın amacı, ortaokul müzik dersi öğretim programında bulunan kazanımların yaşam boyu öğrenme temel yetkinlikleri açısından incelenmesi olarak belirlenmiştir. Durum çalışması deseninde tasarlanan çalışmadaki veriler, doküman incelemesi yöntemiyle toplanmış ve verilerin çözümlenmesinde betimsel analiz uygulanmıştır. Çalışma sonucunda müzik dersi öğretim programında bulunan kazanımların en fazla “öğrenmeyi öğrenme” yetkinliği ile ilişkili olduğu saptanmıştır. Bununla birlikte kazanımların sırasıyla “girişimcilik ve inisiyatif alma”, “kültürel farkındalık ve ifade”, “dijital yetkinlik”, “sosyal ve vatandaşlık ile ilgili yetkinlikler” ve ana dilde yetkinlik” becerileriyle ilişkili olduğu görülmüş; “yabancı dillerde yetkinlik” ve “matematiksel bilimsel teknolojik yetkinliklerin herhangi bir kazanım ile ilişkilendirilmediği sonucuna ulaşılmıştır. Çalışmada ulaşılan sonuçlar bağlamında öğrenciler, eğitimciler ve araştırmacılar için birtakım önerilerde bulunulmuştur.

**Anahtar Kelimeler:** Yaşam Boyu Öğrenme, Müzik Dersi, Müzik Eğitimi, Öğretim Programı.



## ABSTRACT

Lifelong learning is the learning action that individuals continue in formal or informal environments throughout their lives to develop various skills. Lifelong learning, which has an important share in the development of qualified individuals, is currently included in many countries' education systems. In this context, the European Qualifications Framework has been established in European countries regarding lifelong learning. In our country, the Turkish Qualifications Framework has been determined as similar to this qualifications framework. In this context, eight basic competencies have been added to the curriculum of all renewed courses as of 2018 within the context of the Turkish Qualifications Framework. In the literature review, it has been seen that there are very few studies addressing lifelong learning and music lesson curriculum. It is thought that this study is important in terms of addressing lifelong learning basic competencies and music lesson curriculum together, contributing to general music education, providing a perspective on lifelong learning for educators and students, and pioneering research on this subject. In this context, the purpose of the study was determined as examining the achievements in the secondary school music lesson curriculum in terms of lifelong learning basic competencies. The data in the study designed in the case study design were collected by document review method and descriptive analysis was applied in the analysis of the data. As a result of the study, it was determined that the gains in the music lesson curriculum were mostly related to the “learning to learn” competency. However, it was seen that the gains were related to the skills of “entrepreneurship and taking initiative”, “cultural awareness and expression”, “digital competence”, “social and citizenship-related competencies” and competence in the mother tongue” respectively; it was concluded that “competence in foreign languages” and “mathematical scientific technological competencies” were not associated with any gain. In the context of the results obtained in the study, some suggestions were made for students, educators and researchers.

**Keywords:** Lifelong Learning, Music Lesson, Music Education, Curriculum.

**PROTOTIP BIR PROBLEME SEPTIC HERMITE BAZLARA DAYALI EN KÜÇÜK  
KARELER SONLU ELEMAN YÖNTEMİNİN UYGULANMASI**  
APPLICATION OF LEAST SQUARES FINITE ELEMENT METHOD BASED ON  
SEPTIC HERMITE BASIS TO A PROTOTYPE PROBLEM

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**ÖZET**

İster jeolojik ister biyolojik olsun doğadaki hemen hemen her olay fizik kanunlarının yardımıyla değişik birimleri ilişkilendiren matematiksel olarak bazen cebirsel, çoğunlukla da diferansiyel veya integral denklemler olarak tanımlanabilir. Doğadaki olayları modelleyen bu tür denklemlerin tam çözümlerini bulmak genellikle zor ve bazen de imkânsızdır. Bu sebepten ötürü nümerik yöntemler bu denklemlerin çözümlerinin bulunmasında bir alternatif olarak öne çıkarlar ve araştırmacılar tarafından sıklıkla da kullanılırlar. Nümerik yöntemler genellikle ele alınan bir diferansiyel denklemi günümüz modern bilgisayar yardımıyla kolaylıkla çözülebilecek cebirsel denklem sistemine dönüştürürler. Diferansiyel denklemlerin çözümünde kullanılan çok sayıda nümerik yöntem literatürde mevcuttur ve yaygın olarak kullanılmaktadır. Bunlardan biri ve yaygın olarak kullanılan sonlu eleman yönteminde, verilen bir çözüm bölgesi alt bölgelerin kolleksiyonu olarak göz önüne alınır ve her bir alt bölge üzerinde ana denkleme geleneksel varyasyonel yöntemlerden biri ile yaklaşılr. Literatür araştırması yapıldığında Hermite baz fonksiyonlarının son yıllarda kullanılmaya başlandığı görülür. Önceleri klasik, trigonometrik, üstel baz fonksiyonlarının sıklıkla birçok denklemlerle ve/veya yöntemle tek başına veya harmonik bir şekilde kullanıldığını görülmektedir. Sonlu eleman yöntemlerinden Galerkin, Petrov-Galerkin, kollokasyon, subdomain yöntemleri geçmişte birçok farklı baz fonksiyonları ile birlikte kullanılmıştır. Bu çalışmada ise sonlu eleman yöntemiyle septik Hermite baz fonksiyonlar kullanılarak, tam çözüme sahip ikinci mertebeden prototip bir diferansiyel denklemin yaklaşık çözümünün en küçük kareler yöntemi kullanılarak şeması elde edilecektir. Elde edilen bu şema kullanılarak sembolik programlama dili MATLAB yardımıyla bu şemanın kodu yazılarak program simüle edilecektir. Simülasyon sonucu elde edilen sonuçlar tablolar ve grafikler yardımıyla çalışma içerisinde sunulacaktır. Ele alınan problemin tam çözümü mevcut olduğu için, tam çözüm ile yaklaşık çözüm arasındaki hata miktarları  $L_2$  ve  $L_\infty$  hata normları kullanılarak hesaplanmış ve uygulanan yöntemin etkinliği test edilmiştir.

**Anahtar Kelimeler:** Sonlu Elemanlar Yöntemi, Diferansiyel denklem, En küçük kareler methodu, Septik Hermite basis.

Bu çalışma İnönü Üniversitesi tarafından FDK-2023-3402 numaralı bilimsel araştırma projesi kapsamında desteklenmektedir.

## ABSTRACT

Almost every phenomenon in nature, whether geological or biological, can be described mathematically, sometimes algebraically, often as differential or integral equations that relate different units with the help of physical laws. It is often difficult and sometimes impossible to find exact solutions of such equations modelling phenomena in nature. For this reason, numerical methods stand out as an alternative way for finding the solutions of these equations and are frequently used by researchers. Numerical methods usually transform a differential equation into a system of algebraic equations that can be easily solved with the help of modern computers. Many numerical methods for solving differential equations are available in the literature and are widely used. In one of them, the widely used finite element method, a given solution region is considered as a collection of sub-regions and the governing equation is approximated on each sub-region by one of the conventional variational methods. When the literature is searched, it is seen that Hermite basis functions have started to be used in recent years. In the past, classical, trigonometric, exponential basis functions were often used alone or harmonically with many equations and/or methods. Finite element methods such as Galerkin, Petrov-Galerkin, collocation, subdomain methods have been used with many different basis functions in the past. In this study, the scheme of the approximate solution of a prototype second order differential equation with exact solution will be obtained using the least squares method by using septic Hermite basis functions with finite element method. Using this scheme, the code of this scheme will be written in the symbolic programming language MATLAB and the programme will be simulated. The results obtained as a result of the simulation will be presented in the study with the help of tables and graphs. Since the exact solution of the problem is available, the error values between the exact solution and the approximate solution are calculated using the error norms  $L_2$  and  $L_\infty$  and the effectiveness of the applied method is tested.

**Keywords:** Finite Element Method, Differential Equation, Least Squares Method, Septic Hermite basis.

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# OKUL ÖNCESİ ÖĞRETMENLERİNİN ÖZEL GEREKSİNİMLİ ÇOCUKLARIN KAYNAŞTIRILMASINA YÖNELİK ÖZ YETERLİLİK ALGILARININ ÇEŞİTLİ DEĞİŞKENLERE GÖRE İNCELENMESİ

EXAMINATION OF PRESCHOOL TEACHERS' SELF-EFFICACY PERCEPTIONS  
TOWARDS THE INCLUSIVE INTEGRATION OF CHILDREN WITH SPECIAL NEEDS  
ACCORDING TO VARIOUS VARIABLES

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## ÖZET

Bu araştırmanın amacı; “okul öncesi öğretmenlerinin özel gereksinimli çocukların kaynaştırılmasına yönelik öz yeterlilik algıları” incelenerek, kaynaştırmaya yönelik öz yeterlilik algılarının yaş, cinsiyet, mesleki deneyim, sınıfta bulunan toplam öğrenci sayısı, özel eğitimle ilgili eğitim alma süresi, sınıfta kaynaştırma öğrencisi bulunma , özel eğitim öğrencilerine eğitim verme tecrübesi, özel gereksinimli yakınınız var mı değişkenleri ile analiz edilerek ortaya çıkan sonuçların belirtilmesidir. Araştırmada betimsel tarama modeline göre veriler toplanmıştır. Araştırmada Sakarya İlinin Adapazarı İlçesinde görev yapan toplam 126 okul öncesi öğretmeni ile nicel veriler toplanmıştır. Bu kapsamda öğretmenlere Sönmez ve Bıçak'ın (2017) Türkçeye uyarlamış olduğu “Özel Gereksinimli Çocukların Kaynaştırılmasına Yönelik Öğretmen Yeterliği” anketinden elde edilen nicel veriler sonucunda öğretmenlerin öz yeterlilik algıları orta düzeyde bulunmuştur. Alt problemlerden yaş, cinsiyet, mesleki deneyim, sınıfta bulunan öğrenci sayısı, sınıfta kaynaştırma öğrencisi bulunma durumu ve özel gereksinimli yakını olma durumu değişkenlerine göre farklılık olmadığı, özel eğitimle ilgili eğitim alma süresi ile özel eğitim öğrencilerine eğitim verme tecrübesine göre farklılaştığı görülmüştür. Üst düzeyde eğitim alan ve veren öğretmenlerin öz yeterlilik algılarının diğer öğretmenlerden daha fazla olduğu görülmüştür.

Araştırma sonucunda öğretmenlerin özel eğitim ile ilgili eğitim alma süreleri arttıkça kaynaştırma uygulamalarına daha hakim olduklarından dolayı öz yeterlilik algıları da yükseldiği düşünülmektedir. Ayrıca öğretmenlerin özel eğitim öğrencilerine eğitim verme tecrübesi arttıkça, bu bireyleri daha iyi tanıdıkları, onlara nasıl yaklaşacaklarını bilecekler ve eğitim ortamlarını, programları onlara göre düzenleme tecrübeleri de artacaktır. Bunun sonucunda da öz yeterlilik algılarının da yükseldiği düşünülmektedir.

Araştırmanın sonucunda ise kaynaştırma uygulamalarına yönelik öğretmen öz yeterlilik algılarının artması için; öğretmenlere hizmet içi eğitim, seminer gibi eğitimler verilmesi gerektiği, öğretmenlerin kaynaştırma öğrencilerin daha fazla eğitim vermesi, üniversitelerde daha fazla kaynaştırma eğitimi verilmesi, kaynaştırma öğrencisi bulunan sınıflarda staj yapılması, okul idarecilerinin ve rehber öğretmenlerin öğretmenlere destek olması gerektiği gibi önerilerde bulunulmuştur.

**Anahtar Kelimeler:** Özel Gereksinimli Çocuk, Kaynaştırma, Öz Yeterlilik Algısı

## ABSTRACT

The purpose of this study is to examine the “self-efficacy perceptions of preschool teachers towards the inclusion of children with special needs” and to analyze the self-efficacy perceptions towards inclusion with the variables of age, gender, professional experience, total number of students in the classroom, duration of education regarding special education, presence of a mainstreaming student in the classroom, experience in educating special education students, and whether you have a relative with special needs. Data were collected in the study according to the descriptive scanning model. Quantitative data were collected with a total of 126 preschool teachers working in Adapazarı District of Sakarya Province. In this context, as a result of the quantitative data obtained from the “Teacher Competence for the Inclusion of Children with Special Needs” questionnaire adapted into Turkish by Sönmez and Bıçak (2017), the teachers’ self-efficacy perceptions were found to be at a moderate level. It was observed that there was no difference according to the variables of age, gender, professional experience, number of students in the class, presence of an inclusive student in the class and presence of a relative with special needs from the sub-problems, but it differed according to the duration of receiving special education education and experience in teaching special education students. It was observed that the self-efficacy perceptions of teachers who received and provided high-level education were higher than other teachers.

As a result of the research, it is thought that as the duration of receiving special education education increases, the perception of self-efficacy increases because they are more familiar with inclusive practices. In addition, as the experience of teachers in teaching special education students increases, they will know these individuals better, they will know how to approach them and their experience in organizing educational environments and programs according to them will increase. As a result, it is thought that their self-efficacy perceptions also increase.

As a result of the research, in order for the self-efficacy perceptions of teachers towards inclusive practices to increase; Suggestions were made such as providing in-service training and seminars for teachers, providing more training for mainstream students, providing more mainstream education at universities, providing internships in classes with mainstream

students, and providing support to teachers from school administrators and guidance counselors.

**Keywords:** Special Needs Child, Integration, Self-Sufficiency Perception

# İŞBİRLİKLİ ÖĞRENME YÖNTEMİNİN SOFT BECERİLER AÇISINDAN İNCELENMESİ

## INVESTIGATION OF COOPERATIVE LEARNING METHOD IN TERMS OF SOFT SKILLS

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### ÖZET

Öğretim programlarındaki öğrenme-öğretme yaşantıları öğesi, programın öğrenme çıktılarının ete kemiğe büründüğü öğesidir. Zira öğrenme-öğretme yaşantıları öğrenen açısından ne kadar rahatsız edici eteknlrden uzak ve keyifli bir ortamda olursa ve aktif katılım sağlarsa program o kadar başarılı bir şekilde uygulanmış olur. Bu nedenle işe koşulan öğretim yöntemlerinin dikkatli bir şekilde seçilmesi gerekir. İşbirlikli öğrenme yöntemi zikredilen ortamları sağlayacak öğrenme yöntemlerindendir. Ulusal ve uluslararası alanyazında işbirlikli öğrenm yönteminin akademik öğrenmeye katkısının olduğu araştırmalar hayli fazladır. Lisans öncesi öğretim kademelerinde alan becerilerinin kazanımı, yükseköğretimde mesleki becerilerin kazanımı kadar bu akademik bilgi ve becerileri tamamlayıcı beceriler de edinmek önem arz etmektedir. Bu tamamlayıcı beceriler “soft beceriler” olarak adlandırılmaktadır. Bu çalışmada işbirlikli öğrenme yöntemi soft beceriler açısından ele alınmaktadır. Bu bağlamda nitel araştırma modeli doküman inceleme deseni kullanılmıştır. Analiz çalışmaları devam etmektedir. Elde edilecek bulguların yorumu, tartışılması, sonuç ve öneriler kongrede sunulacaktır.

**Anahtar Kelimeler:** İşbirlikli öğrenme yöntemi, soft beceriler, öğretim yöntemleri.

### ABSTRACT

The learning-teaching experiences element in curricula is the element in which the learning outcomes of the curriculum are embodied. This is because the more the learning-teaching experiences are free from disturbing factors and in a pleasant environment for the learner and the more active participation is provided, the more successful the programme is implemented. For this reason, the teaching methods employed should be carefully selected. Cooperative learning method is one of the learning methods that will provide the mentioned environments. In the national and international literature, there is a great deal of research on the contribution of cooperative learning method to academic learning. It is important to acquire skills that complement these academic knowledge and skills as well as the acquisition of field skills in

pre-degree education levels and professional skills in higher education. These complementary skills are called "soft skills". In this study, co-operative learning method is discussed in terms of soft skills. In this context, qualitative research model document analysis design was used. Analysis studies are ongoing. Interpretation of the findings, discussion, conclusions and recommendations will be presented at the congress.

**Keywords:** Cooperative learning method, soft skills, teaching methods.



## TÜRKİYE YÜZYILI MAARİF MODELİ ORTAÖĞRETİM BİYOLOJİ DERSİ ÖĞRETİM PROGRAMININ BİLGİ OKURYAZARLIĞI AÇISINDAN İNCELENMESİ

INVESTIGATION OF TURKEY CENTURY EDUCATION MODEL SECONDARY  
EDUCATION BIOLOGY CURRICULUM IN TERMS OF INFORMATION LITERACY

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### ÖZET

Bu çalışmanın amacı, Türkiye Yüzyılı Maarif Modeli (TYMM) ortaöğretim biyoloji dersi öğretim programını bilgi okuryazarlığı açısından incelemektir. Biyoloji öğretimi anaokulundan ortaöğretime kadar fen bilimleri alan becerileri kapsamında ele alınırken ortaöğretimde ayrı bir ders olarak yerini almaktadır. Tüm öğretim kademelerinde özellikle iyi bir gözlemci olma, verileri analiz etme, akıl yürütme, bilimsel çıkarımlar yapma gibi konularda bireye yetkinlik kazandırma özellikleri ile bilgi okuryazarlığı ile daha fazla ilişkilendirilebilir. Bu nedenle ortaöğretim biyoloji dersi öğretim programında bilgi okuryazarlığının ne düzeyde var olduğu ve nasıl işe koşulduğu önem arz etmektedir. Çalışmanın amacı doğrultusunda yöntem olarak nitel araştırma modeli doküman inceleme deseni kullanılmıştır. Veri kaynağı olarak Milli Eğitim Bakanlığı internet sitesinden ulaşılan TYMM ortaöğretim biyoloji dersi öğretim programı kullanılmıştır. Program tüm öğeleri ile dikkatli incelenmiş, kategoriler oluşturulup içerik analizi yöntemi ile analiz edilmiştir. Analizler devam ettiği için sonuçlar ve değerlendirmeler kongrede sunulacaktır.

**Anahtar Kelimeler:** Türkiye Yüzyılı Maarif Modeli, biyoloji dersi öğretim programı, bilgi okuryazarlığı

### ABSTRACT

The aim of this study is to examine the secondary biology curriculum of the Turkish Century Education Model (TYMM) in terms of information literacy. While biology teaching is handled within the scope of science field skills from kindergarten to secondary education, it takes its place as a separate course in secondary education. In all levels of education, it can be more associated with information literacy with its features of being a good observer, analysing data, reasoning, and making scientific inferences. For this reason, it is important to what extent information literacy is present in the secondary biology curriculum and how it is used. In line with the aim of the study, qualitative research model document analysis design

was used as a method. The TYMM secondary biology curriculum, which was accessed from the website of the Ministry of National Education, was used as the data source. The curriculum was carefully examined with all its elements, categories were created and analysed by content analysis method. The results and evaluations will be presented at the congress as the analyses are ongoing.

**Keywords:** Turkish Century Education Model, biology curriculum, information literacy.

## **GENTRIFICATION AND SOCIAL COHESION IN URBAN COMMUNITIES: NAVIGATING THE COMPLEXITIES OF URBAN TRANSFORMATION**

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### **ABSTRACT**

Gentrification is a transformative urban process characterized by the influx of higher-income residents into historically marginalized neighborhoods, leading to significant economic, social, and cultural changes. It has become a defining feature of contemporary urban transformation, reshaping neighborhoods through shifts in economic investment, demographic composition, and cultural identity. Contemporary gentrification is multidimensional, involving physical redevelopment, economic restructuring, and social reconfiguration. Physical changes include renovating old buildings, repurposing industrial sites, and improving public spaces. Economically, rising property values and new commercial activities cater to wealthier consumers. While the process often enhances infrastructural quality and economic vitality, it also raises critical issues related to the displacement of long-term residents, loss of cultural identity, and exacerbation of social inequalities. This research paper synthesizes a broad body of literature to examine the conceptual frameworks of gentrification, the factors that drive it, and its implications for social cohesion. These factors sometimes become responsible for the overall process of changes in urban areas. Also, the key themes to be discussed, including the economic benefits and drawbacks of gentrification, the social ramifications for displaced populations, and strategies for mitigating negative impacts through inclusive urban planning. Drawing on global case studies, including Western urban contexts, emerging economies, and the Albanian setting, this study explores how gentrification's interplay with policy interventions, real estate markets, global capital, and cultural rebranding shapes the urban fabric. The literary underpinning highlights that the process of gentrification gets engaged with a social exclusion process. Engaging with local communities and businesses, gentrification with assistance from a greater excluding process has been planned to bring development within society. We consider policy responses, community activism, and sustainable urban development strategies to mitigate negative outcomes. Ultimately, this

paper highlights the need for inclusive policies that prioritize equity, cultural preservation, and long-term social resilience in rapidly changing urban environments.

**Keywords:** Gentrification, Social Cohesion, Urban Communities, Cultural Identity, Urban Policy, Globalization

## RELATIONSHIP BETWEEN INTERNET USE AND FARM PROFITABILITY: EVIDENCE FROM RICE FARMERS IN VIETNAM

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### ABSTRACT

This paper aims to estimate the impact of Internet use on the profitability of farms in the Vietnamese Mekong River Delta. Although the Internet has been widely used by farmers who reside in rural area, there are a few studies investigating the causal effect of Internet access on farm economic performance in Vietnam. The study used data collected from 220 rice-farming households located in the Mekong River Delta's coastal zones, where rice cultivation was affected negatively due to salinity intrusion during the dry season. The data were grouped into two categories based on the Internet accessibility, namely Internet user group and Internet non-user group. Ordinary least square regression model was primarily employed to examine the causal relationship between Internet users and the profitability of rice farms. T-test was also used to investigate the mean differences between the two groups. It was found that group of internet users tended to have higher educational level and were also younger and less experience in rice farming as compared to the non-users group. The findings revealed that the Internet use had positive and significant association with rice farm profitability in terms of return on investment. This suggests that internet use may profoundly enhance rice farm performance in the Mekong River Delta. Results of the study imply that the government should place more emphasis on widely promoting technical guidance and training to farmers through the Internet.

**Keywords:** Internet, profitability, rice farms, Mekong Delta

## FUNCTIONAL URBAN AREAS IN ALBANIA: NEW TERRITORIAL REALITIES AND CHALLENGES

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### ABSTRACT

In most countries of Central and Eastern Europe (CEE), territorial-administrative divisions were derived in line with their historical, geographical, and political evolution. However, decentralization reforms in Albania started very late compared with other countries of the CEE countries. Local government in Albania has inherited a fragmented legal foundation that results in an unclear division of functions and responsibilities between levels of government. Albania met with a new reality over its territory at the brink of EU accession. The research question is how does Albania adopt urban policy and what analogies and barriers exist in the definition and functioning of Functional Urban Areas (FUA) and in its implementation of urban policy. National urban policy is under preparation and until its adoption the National Development and Territorial Development Concept (NDTC) must be taken into account. The methodology is based on the discourse analysis of the strategic documents specific to urban development and the review of literature on urban policy in EU (definition of urban areas/metropolitan areas, urban policy of the European Union, etc.). According to the latest Population and Housing Census of Albania in 2024, peripheral regions in the north and south of Albania have been nearly abandoned, while the central and western ones, although have been more dynamic on the urban growth perspective, they still have not kept a pace with population growth. Whereas the population has tripled in the capital region, and developed land has doubled without proper physical and social infrastructure, thereby creating a problematic urban model. This in return harms future development of the country, especially high expectations on tourism, agriculture and energy developments.

**Keywords:** Functional Urban Areas (FUA), Albania, Tirana metropolitan area, EU accession, discourse analysis.

## DIGITALISATION OF LEGACY POLYMER PROCESSING TECHNOLOGY AS PART OF THE DIGITAL TRANSFORMATION

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### ABSTRACT

This paper sets out to explore the limitations to a full implementation of Industry 4.0 and beyond by the majority of manufacturing processes which predate the digital age. We will particularly focus on the processing and shaping of polymers where there is stark contrast between the emerging digital age manufacturing technologies which are revolutionising, the design, geometry and properties of products. Digital technologies such as extruded-based 3D printing and stereolithography are opening new designs and the fabrication of hitherto impossible shapes which are in stark contrast to what now appear to be very limited technologies such as injection moulding, extrusion and thermal forming. We first address digital manufacturing processes to identify their unique properties and contributions to digital manufacturing. We identify future trends, for example the digitalisation of materials. We then review a number of selected legacy technologies including injection moulding, extrusion and thermos-forming and identify the blocks to implementation of digital technology. We conclude the paper with a road map to the digitalisation of the legacy technologies and the benefits which follow and enhance economic activity.

**Keywords:** Digital Manufacturing, legacy technology, Industry 4.0, Injection moulding, extrusion, thermoforming

## PERSISTENCE AND REDUCTION OF READYMIX IN OKRA (ABELMOSCHUS ESCULENTUS) FRUITS

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### ABSTRACT

Persistence and reduction of readymix residues was studied in okra (*Abelmoschus esculentus* L.) fruits following foliar application of formulation at dose of 275 g a.i./ha (equivalent to 25 g a.i./ha cypermethrin +250g a.i./ha chlorpyrifos) and 550 g a. i./ ha (equivalent to 50 g a.i./ha cypermethrin +500g a.i./ha chlorpyrifos) in a field at the Research field of CCS HAU, Hisar, India. Samples of okra fruits were collected periodically and residues were estimated by GC-ECD and confirmed by GC-MS. The average initial deposits of cypermethrin in readymix were 0.051 mg kg<sup>-1</sup> and 0.110 mg kg<sup>-1</sup> and average initial deposits of chlorpyrifos in readymix were 0.070 mg kg<sup>-1</sup> and 0.148 mg kg<sup>-1</sup> in the okra fruits at single and double dose, respectively, one hour after the application. Residues of readymix reached equal to below determination level (0.01mg/kg) on 7th in single dose and after 15 days in double dose in both the cases. Half-life periods for cypermethrin & chlorpyrifos in readymix were observed to be 2.74 & 2.16 days and 3.31& 3.27 days at single and double dose, respectively following first order kinetics. Residues were below maximum residue limit (MRL) value of 0.2 mg/kg on 0 day in single dose and 1 day in double dose in case of cypermethrin whereas on 0 day in both the doses in case of chlorpyrifos. Safe waiting period of 2 days has been suggested for safety sake.

**Keywords:** Cypermethrin, Chlorpyrifos, Readymix, Okra, Persistence



## APPLICATION OF RESPONSE SURFACE METHODOLOGY IN OPTIMIZING CHITOSAN BEADS FOR RADIOACTIVE WASTEWATER TREATMENT

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### ABSTRACT

Presence of radioactive contaminants in wastewater poses a significant environmental and health risk, necessitating effective treatment solutions. This study investigates the optimization of chitosan-Argan nutshell beads for the removal of radioactive elements from wastewater, utilizing Response Surface Methodology (RSM) to enhance the treatment efficiency. Chitosan, known for its biocompatibility and adsorption properties, was combined with Argan nutshell powder to form composite beads. These beads were then evaluated for their capacity to remove radioactive contaminants from synthetic wastewater. The Box-Behnken design (BBD) under RSM was employed to analyze the influence of key operational parameters, including initial contaminant concentration, pH, bead dosage, and contact time, on the removal efficiency. Experimental results indicated that all tested parameters significantly affected the removal efficiency, with initial contaminant concentration and pH

showing the most substantial impact. The optimized conditions, as determined by RSM, were found to be an initial contaminant concentration of 50 mg/L, a pH of 6, a bead dosage of 0.5 g/L, and a contact time of 120 minutes. Under these conditions, the removal efficiency reached up to 95%, demonstrating the potential of chitosan-Argan nutshell beads as a viable solution for radioactive wastewater treatment. Furthermore, the adsorption process was characterized by fitting the experimental data to various isotherm and kinetic models. The adsorption isotherms conformed well to the Sips model, indicating a heterogeneous surface adsorption, while the kinetic data were best described by the Avrami model, suggesting a complex adsorption mechanism involving pore diffusion, electrostatic interactions, and hydrogen bonding. This study highlights the efficacy of chitosan-Argan nutshell beads in removing radioactive contaminants from wastewater and underscores the importance of optimizing treatment parameters using RSM. The findings provide a foundation for developing cost-effective and environmentally friendly treatment technologies for radioactive wastewater.

**Keywords:** Chitosan; bead; radioactive wastewater; Response Surface Methodology

**EDUCATIONAL IMPACT ON HEALTH OF PUPILS****Edison IKONOMI**

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**ABSTRACT**

The increase in age of adolescents is directly proportional to increase in time that young people spend with their peers, both in and out of school. In adolescence, it is observed that they share same behaviors, including smoking, alcohol, peer relationships, bullying, sexual behaviors, etc. Study aims to increase our understanding of healthy behaviors of adolescents in their social and societal context. The study is based on school, based on self-administration of questionnaires by pupils in classes. During months of March - May 2024, a transversal study was conducted among pupils aged 16 years. Total number of participants was 183, of which 8 were unreliable. Of 175 questionnaires that entered analysis, 6 questionnaires were also excluded. The participation rate in study was  $169/183=93\%$ . Hi-square test was used to assess statistically significant differences associated with gender. All data analysis was performed through statistical package SPSS (Statistical Package for Social Sciences, version 20.0). 46.8% boys and 53.2% girls participated in study. The most used means of communication are Facebook 76.9%. Have consumed cannabis 5.9% at least once in their lifetime. One in three pupils is injured at least once a year, to such an extent as to require medical assistance. Study sheds light on behaviors related to health of pupils during period of adolescence, a period of important changes not only physical, but also of increased independence, which can affect development of their health and health behaviors.

**Keywords:** Adolescents, Healthy Behaviors, Physical Changes, Smoking, Alcohol, Bullying.

**MOTOR SKILLS HELP CHILDREN IN PERFORMANCE MOVEMENT****Edison IKONOMI**

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**ABSTRACT**

Coordination and balance are two essential qualities in performance of all actions that involve movement and require adequate body control. Often the importance of working on these skills goes unnoticed, as they don't stand out in physical appearance, but are associated with motor skills and intelligence. The physical attributes of balance and coordination also allow appropriate posture for table top tasks and subsequent success at fine motor tasks. Physical Education (P.E.) is a part of school curriculum which includes athletics and swimming carnivals and often participation is compulsory. Without appropriate balance and coordination the child will find it difficult to comply with school regulations to participate. In order to fulfill the purpose of this review we are using methods of literature analysis, and is made combination of data from different works and authors of various articles. To successfully realize this review paper we studied and analyzed contemporary scientific literature provided by various Internet-based research sectors. With the right combination of coordination and balance, an athlete can executes action with less expenditure of energy and time. Generates better results, as a coordinated movement meets criteria of efficiency, harmony and precision.

**Keywords:** Performance, Development, Activity, Children, School, Nature, Exercise.

## THE POSITIVE EFFECTS OF DIET AND PHYSICAL ACTIVITY ON TYPE 2 DIABETES MELLITUS

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### ABSTRACT

Diabetes mellitus (sugar disease) is a chronic disorder of carbohydrate metabolism characterized by an increased concentration of glucose in the blood (hyperglycemia). Glucose from the digestive tract is transferred through the blood to the cells, where it is used as a source of energy. Insulin is a hormone that allows glucose from the blood to enter the cells. When there is enough insulin, glucose enters the cells, so its concentration in the blood is kept at a low level. Disturbance of carbohydrate metabolism occurs with an absolute lack of insulin (Diabetes mellitus type 1) or if there is resistance to insulin (Diabetes mellitus type 2). Glycosylated (glycated) hemoglobin (HbA1c) is an important biomarker for diagnosing and monitoring diabetes, which gives us information about the average level of glucose in the blood over the last 2 to 3 months. Hemoglobin is a protein found in erythrocytes and its main function is to transport oxygen throughout the body. At the same time, blood glucose is not enzymatically bound to hemoglobin (hemoglobin is glycated), which results in HbA1c. A normal HbA1c level in people who do not have diabetes is between 4.5% and 6.2%. Values between 6.2% and 6.5% indicate an increased risk of diabetes, and if the level is above 6.5%, it is a sign of diabetes. Poor diabetes control leads to an increased risk of complications from the disease, so it is recommended that the HbA1c value be below 6.5%. People who have diabetes should control HbA1c every 3 months. 245 respondents were analyzed. The division is made according to the type of therapy used, namely oral, insulin and combined. The results indicate a significant improvement in the condition of the patients, which corresponds to the values of the HbA1c marker.

At the same time, in order to determine the risk factors for the occurrence of hyperglycemia and how they affect the level of glucose in the blood, to determine the eating habits and physical activity habits of people with hyperglycemia, a study was conducted that included 150 patients with hyperglycemia in Kosovo, with the help of an online questionnaire that included patients with hyperglycemia, complemented by a biochemical analysis of the blood of these patients. Also, the value of glucose in the blood was taken into account, as well as anthropometric measurements, which were used to calculate the body mass index of each patient (that is, the BMI index).

In order to determine the relationship between risk factors, as well as food habits, with the level of glucose in the blood, i.e. with hyperglycemia, the responses from the questionnaire were sublimated, the BMI values were calculated and with the help of the regression analysis, the Pearson's correlation coefficient was calculated (which shows the size of that connection,

that is, the degree of strength of the connection between the variables) and the coefficient of determination (shows the direction of that connection). Results where  $p < 0.05$  are considered significant. With increasing awareness of the relationship between nutrition and health, attention is being paid to functional, nutritional and fortified food products, as well as dietary supplements, which will minimize the risk of diseases including type 2 diabetes and provide health benefits.

**Keywords:** Hyperglycemia, Risk Factors, Nutritional Support.

## DEVELOPMENTAL THERAPIST STRATEGIES FOR EFFECTIVE SUPPORT AND PARENTING OF CHILDREN WITH SPECIAL NEEDS

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### ABSTRACT

This study focuses on providing practical advice from a developmental therapist for parents of children with special needs, emphasizing the importance of a tailored approach supported by experts. The study explores how parents can create a safe and encouraging environment for their children by using emotional support strategies and behavior management techniques that are suited to the child's specific needs. Therapists offer advice on how parents can build a strong and trusting relationship with their children through open communication, positive reinforcement, and clear approaches to handling everyday challenges. In this context, the study explains how parental support can contribute to the emotional, social, and cognitive development of children with special needs. Through interviews with parents and therapists, the study identifies effective practices that improve the quality of life for children and families, providing concrete examples to illustrate how these techniques can be applied in daily life.

**Keywords:** Developmental therapist, parenting, support, strategies, parenting advice, positive reinforcement, support for children with special needs, daily life.

## STRENGTHENING EDUCATIONAL LEADERSHIP IN ALBANIA: CHALLENGES, STRATEGIES, AND FUTURE DIRECTIONS

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### ABSTRACT

Leadership in education plays an indispensable role in shaping the quality and effectiveness of educational systems, and this is particularly true in the context of Albania. Educational leaders are central to setting clear goals, creating a conducive learning environment, and fostering the professional growth of teachers. However, in Albania, the role of leadership in education faces a myriad of challenges that undermine the full potential of the education sector. These challenges include limited financial resources, the migration of qualified staff, political influence, and significant disparities between urban and rural education.

This study seeks to explore the multifaceted role of educational leadership in Albania, focusing on how leadership practices can improve student outcomes, enhance teacher performance, and promote inclusive community involvement. By examining key leadership models and their application in Albanian schools, the research highlights the importance of transformational leadership, instructional leadership, and community-based leadership approaches in addressing the evolving needs of the education system. Furthermore, this study investigates the impact of external factors such as political interference and the limited availability of resources, which hinder effective leadership.

The findings suggest that to overcome these challenges, a concerted effort is required to invest in leadership development programs, ensure equitable distribution of resources, and build stronger community-school partnerships. In conclusion, the study recommends specific actions to strengthen educational leadership, including enhancing leadership training, supporting policy reforms that prioritize education, and fostering greater collaboration among educational stakeholders. These measures are critical for creating a more resilient and forward-looking education system in Albania that can meet the needs of all students, regardless of their background or geographical location.

**Keywords:** Leadership in education, professional development, community, staff migration, urban-rural disparities, political influence in education



## **BETWEEN STAGES AND CLASSROOMS: THE CONSTRUCTION OF PROFESSIONAL IDENTITY AMONG MUSIC TEACHERS**

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### **ABSTRACT**

This article aims to reflect on the construction of the professional identity of musicians and music teachers - particularly in cases where individuals integrate both roles in their careers. Working in these two domains requires a process that involves technical and artistic development, as well as pedagogical aspects and an awareness of the relationship between music education and human development. The purpose of this text is to discuss how these professionals construct their professional identities, as they commonly navigate between the world of musical performance and their roles as music educators. To build the data for this article, a systematic literature review will be used as the methodology, based on Brazilian databases: Journal of ABEM, Journal OPUS, and the National Library of Theses and Dissertations, with a timeframe covering the last five years - from January 2020 to January 2025 - and using the descriptors: Professional Identity / Music. The importance of discussing the formation of these professionals' identities is justified by the fact that this field is often occupied by individuals with diverse roles. It is also essential to address the challenges faced by musicians and music teachers, who, due to the need for professional integration, frequently accumulate multiple roles in distinct environments such as music schools, conservatories, orchestras, bands, recording studios, churches, social projects, and others.

**Keywords:** Professional Identity, Music Education, Professional Practice.

## EXPLORING TONAL AND POST-TONAL CHARACTERISTICS IN SCHOENBERG'S DODECAPHONIC CLOSURES

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### ABSTRACT

The question of the closures constantly emerges as one of the basic elements of the musical form, no matter which musical language the composer uses. Numerous authors give examples of dodecaphonic music closures, often creating analogy with tonal cadences, or completely opposite, completely negating the possibility of redefining tonal cadence in new, dodecaphonic conditions; but without explanation whether these are individual cases in which tonal analogies have been recorded or there are some other aspects of organization of closures.

There is no detailed study that would provide us with answers to which musical components and in which correlations they cause a greater or lesser degree of tension in dodecaphonic conditions, but we cannot ignore the attempts of authors who have made efforts to contribute to this issue.

If we try to consider the harmonic characteristics of dodecaphonic music, we conclude that the dodecaphonic row has a constructive role, but it cannot construct functional tension and relaxation within the harmony like in tonal music. This work will illustrate systematization and ranking of closures at the hierarchical level at which they operate in the examples of Schoenberg's dodecaphonic music, on the basis of the possibility of determining the tension and resolution in the dodecaphonic conditions. These are primarily post-tonal elements, but also the frequent influence of tonality elements on the closures construction. Dodecaphonic instrumental works by Arnold Schoenberg are analyzed (op.25, op.26, op.29, op.30, op.31, op.33a&b, op.36, op.37, op.42, op.45, op.47) and represented a comprehensive analytical sample and contributes to a greater relevance of the obtained results. The parameters that are most important for the construction of the closures in Schoenberg's dodecaphony works are determined and highlighted, and terminology is proposed: perfect closure - closure – semiclosure, which are similar to the types of cadences in the tonality system.

**Keywords:** Schoenberg, dodecaphony, post-tonal, closure, perception.

## SOCIAL CORPORATE RESPONSIBILITY GOVERNANCE AND THE DYNAMICS OF LEGAL CONCERNS IN ALBANIA: A SCOPING REVIEW

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### ABSTRACT

The concept of responsibility in corporate governance, as a fundamental principle in legal studies, remains central to both private and public law. Social responsibility often shows characteristics that warrant a multidimensional perspective of significant relevance, as it has challenged the foundations of knowledge, democracy, and economic markets, intellectual capital and human resources related to enterprise governance. The principle of Fiduciary Duty is incorporated within the Albanian Code of Corporate Governance, in commercial law, and in labor law, serving as a tool to avert conflicts of interest among company organs. International norms and practices elevate our understanding, encompassing criminal responsibility in cases of violations of fiduciary duties.

The primary objective of this paper is to examine the State-of-the Art of Corporate Social Responsibility and assess the pertinence and applicability of the legal framework in Albania. The context of the European Court for Human Rights (ECHR) has been selected due to Albania's efforts to align its regulations and judicial practices and the efforts of the country to adhere to the EU context. The methodology employed in this paper relies on qualitative methods, including a scoping review and a desk-research of laws and judicial practices.

Results reveal a lack of substantial research in this context. However, desk research reveals there is an initiative to incorporate stakeholders into the company's structures, specifically human capitals and resources, to empower them and enhance the company's competitiveness in Albania. Legal interpretations and analyses of Albanian court rulings lean towards a positivist view of the theory of Social Responsibility and social dialogue as applied in Europe. The safeguarding of human resources and its enforcement are still at nascent stages. The paper lastly presents a framework for Albanian policy approaches that will foster a sustainable environment for investors and stakeholders.

**Keywords:** corporate social responsibility, corporate governance, ECHR, juridical regulations, Albania

## **THE DYNAMICS OF ADVERTISING WARFARE ON AUDIENCE ENGAGEMENT – A CASE STUDY OF ALMAZA BEER AND BEIRUT BEER (2018–2024)**

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### **ABSTRACT**

Comparative advertising consists of attacks and counterattacks that are exchanged between two direct competitors to try and obtain the highest market share in their geographic region or target market. In the Lebanese beer market, Almaza and Beirut Beer compete to lure consumers toward their brands by using competitive advertising. Our study aims to analyze the effectiveness of such advertising practices by taking into consideration audience engagement in these competitive ads and comparing the data obtained with the degree of engagement in other normal ads.

## ÖĞRETMEN ADAYLARINDA DUYGUSAL YEME VE SOSYAL FİZİK KAYGISI EMOTIONAL NUTRITION AND SOCIAL PHYSICAL ANXIETY IN PROSPECTIVE TEACHERS

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### ÖZET

Bu çalışma, öğretmen adaylarının duygusal yeme davranışı ile sosyal fizik kaygı düzeylerini ve bu iki kavram arasındaki ilişki düzeyini incelemeyi hedeflemiştir. Bu bağlamda çalışma; 18-30 yaş aralığında 286 öğretmen adayıyla (%59,8 kadın, 40,2 erkek) yürütülmüştür. Veri toplama aracı olarak, kişisel bilgi formu, “Sosyal Fizik Kaygı Envanteri (SFKE)” ve “Türkçe Duygusal Yeme Ölçeği (TDYÖ)” kullanılmıştır. Verilerin değerlendirilmesinde; SPSS programından yararlanılmıştır. Verilerin analizinde, demografik özelliklere ilişkin bulgular için tanımlayıcı istatistiklerden; normal dağıldığı tespit edilen verilerin analizinde ilişkisiz ölçümlerde ortalama puanların karşılaştırılması için Varyans analizi (tek yönlü ANOVA, bağımsız örneklem t-testi), anlamlı farklılığın hangi gruplar arasında olduğunu belirlemek için ise LSD testi uygulanmıştır. Ayrıca ölçekler arasındaki ilişkiyi incelemek amacıyla Pearson korelasyon çarpımı testinden yararlanılmıştır. Araştırma sonucunda, katılımcıların %40,6’ında duygusal yeme bozukluğunun olduğu tespit edilmiştir. Öğretmen adaylarının, duygusal yeme ve sosyal fizik kaygılarının cinsiyet ve sınıf değişkenlerine göre istatistiksel olarak anlamlı bir fark oluşturmadığı ( $p>0,05$ ) fakat medeni durum değişkenine göre duygusal yeme ölçeğine verdikleri cevapların puan ortalamaları ( $p<0,05$ ) ile cinsiyet, yaş ve medeni durum değişkenlerine göre sosyal fizik kaygısı ölçeğine verdikleri cevapların puan ortalamaları arasında anlamlı bir farklılık olduğu saptanmıştır ( $p<0,05$ ). Duygusal yeme puanı ile sosyal fizik kaygı puanı ( $R=-.275$ ;  $p<0,000$ ) arasında düşük düzeyde negatif yönde anlamlı ilişki tespit edilmiştir. Aynı zamanda, sosyal fizik kaygısı ile duygusal yeme ölçeğinin alt boyutları arasında pozitif yönde anlamlı ilişki olduğu sonucuna ulaşılmıştır. Bu bulgular doğrultusunda öğretmen adaylarında duygusal yeme davranışı arttıkça sosyal fizik kaygı düzeyinin azaldığı söylenebilir.

**Anahtar Kelimeler:** Duygusal yeme, sosyal fizik kaygısı, öğretmen adayı, yeme davranışı.

## ABSTRACT

This study aimed to examine teacher candidates' emotional eating behavior and social physique anxiety levels and the relationship between these two concepts. In this context, the study was conducted with 286 teacher candidates aged 18-30 (59.8% female, 40.2% male). A personal information form, "Social Physique Anxiety Inventory (SFAI)" and "Turkish Emotional Eating Scale (TDYÖ)" were used as data collection tools. Statistical analyses were conducted using the SPSS program. In the data analysis, descriptive statistics were used for the findings related to demographic characteristics; Variance analysis (one-way ANOVA, independent sample t-test) was used to compare mean scores in unrelated measurements, and LSD test was used to determine between which groups there was a significant difference. In addition, the Pearson correlation product test was used to examine the relationship between the scales. As a result of the research, it was determined that 40.6% of the participants had an emotional eating disorder. It was found that there was no determinant effect on the emotional eating and social physique anxiety of the teacher candidates according to the gender and class variables. It was found that there was a significant difference between the mean scores of the responses of the teacher candidates to the emotional eating scale according to the marital status variable ( $p < 0.05$ ) and the mean scores of the responses of the teacher candidates to the social physique anxiety scale according to the gender, age and marital status variables ( $p < 0.05$ ). A low-level negative significant relationship was found between the emotional eating score and the social physique anxiety score ( $R = -.275$ ;  $p < 0.000$ ). At the same time, it was concluded that there was a positive significant relationship between the social physique anxiety and the sub-dimensions of the emotional eating scale. In line with these findings, it can be said that social physique anxiety decreases as the emotional eating behavior increases in the teacher candidates.

**Keywords:** Emotional nutrition, social physical anxiety, prospective teachers, eating behavior.

**ÖĞRETMEN ADAYLARININ TEKNOLOJİYE YÖNELİK TUTUMLARI İLE  
AKADEMİK ÖZ-YETERLİKLERİ**  
PRE-SERVICE TEACHERS' ATTITUDES TOWARDS TECHNOLOGY AND THEIR  
ACADEMIC SELF-EFFICACY

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**ÖZET**

Hızlı bir değişimin içerisinde bulunan dünya, sosyo-ekonomik, kültürel ve küresel değerler penceresinde eğitim kurumlarını ve öğretmenleri çok daha fazla değerli kılmakta ve sorumluluk yüklemektedir. Teknolojinin hızlı gelişimi ile hayatın birçok alanında yenilikler olmuştur. Gelişen teknolojik yaşam ile akademik alanda hayatını devam ettireceğini düşünen bireylerin daha da artan ihtiyaç ile teknolojik olarak kendini iyi yönde geliştirmiş olması beklenmektedir. Bu bağlamda bu çalışma; öğretmen adayları arasında kendisine akademik yönde inancı olan bireylerin teknolojiye yönelik tutumlarını incelenmeyi amaçlamıştır.

Bu çalışmanın örneklemini, öğretmen olma inancıyla dershanelerde sınava hazırlanan farklı bölümlerden 312 öğretmen adayı oluşturmaktadır. Çalışmanın verileri “Akademik Özyeterlik Ölçeği” ve “Öğretmen Adaylarının Teknolojiye Yönelik Tutumları Ölçeği” ile toplanmıştır. Bu iki ölçeğin yanı sıra demografik bilgilere ulaşabilmek için kişisel bilgi formundan yararlanılmıştır. Elde edilen verilerin analizinde SPSS 25.0 paket programından yararlanılmıştır. Verilerin analizinde, demografik özelliklere ilişkin bulgular için tanımlayıcı istatistiklerden; ilişkisiz ölçümlerde ortalama puanların karşılaştırılması için Varyans analizinden (tek yönlü ANOVA, bağımsız örneklem t-testi), anlamlı farklılığın hangi gruplar arasında olduğunu belirlemek için ise LSD testi uygulanmıştır. Ayrıca ölçekler arasındaki ilişkiyi incelemek amacıyla Pearson korelasyon çarpımı testi ve öğretmen adaylarının akademik özyeterliklerinin teknolojiye yönelik tutumlarını tahmin etme derecesini belirlemek için çoklu doğrusal regresyon analizi (enter yöntemi) kullanılmıştır.

Araştırmanın sonucunda, cinsiyet ve yaş değişkenlerinin öğretmen adaylarının akademik özyeterlik ve teknolojiye yönelik tutum üzerinde belirleyici olmadığı görülmüştür. Bilişim Teknolojileri bölümü öğretmen adaylarının akademik özyeterliklerinin diğer bölümlerin öğretmen adaylarına göre daha yüksek düzeyde olduğu tespit edilmiştir. Öğretmen adaylarının teknolojiye yönelik yetenek/beceri derecelerine göre de akademik özyeterlikleri ile teknolojiye yönelik tutumları arasında anlamlı bir farklılık bulunmuştur. Bununla birlikte

öğretmen adaylarının akademik özyeterliklerinin düşük, teknolojiye yönelik tutumlarının ise orta düzeyde olduğu kaydedilmiştir. Nitekim araştırmaya katılan öğretmen adaylarının akademik özyeterlikleri ile teknolojiye yönelik tutumları arasında negatif yönlü düşük düzeyde anlamlı bir ilişki bulunmuş olup akademik özyeterliğin teknolojiye yönelik tutum düzeyinin %7'sini açıkladığı ortaya konmuştur.

**Anahtar Kelime:** Öğretmen Adayları, Akademik Öz-yeterlilik, Teknoloji, Tutum

## ABSTRACT

The world, which is rapidly changing, makes educational institutions and teachers much more valuable and responsible from the perspective of socioeconomic, cultural, and global values. With the rapid development of technology, there have been innovations in many areas of life. Individuals who think they will continue their lives in the academic field with the developing technological life are expected to be well-developed technologically with the increasing need. In this context, this study examines the attitudes towards technology of individuals who believe in themselves academically among pre-service teachers.

The sample of this study consisted of 312 pre-service teachers from different departments who were preparing for the exam in a training center with the belief of becoming a teacher. The study's data were collected with the "Academic Self-Efficacy Scale" and "Pre-service Teachers' Attitudes Towards Technology Scale". In addition to these two scales, a personal information form was used to reach demographic information. SPSS 25.0 package program was used in the analysis of the data obtained. In the analysis of the data, descriptive statistics were used for the findings related to demographic characteristics, analysis of variance (one-way ANOVA, independent sample t-test) was used for the comparison of mean scores in unrelated measurements, and LSD test was applied to determine between which groups there was a significant difference. In addition, Pearson's product of correlation test was used to examine the relationship between the scales, and multiple linear regression analysis (enter method) was used to determine the degree to which pre-service teachers' academic self-efficacy predicts their attitudes towards technology.

As a result of the research, it was seen that gender and age variables were not determinative of pre-service teachers' academic self-efficacy and attitude toward technology. It was determined that the academic self-efficacy of the pre-service teachers of the Department of Information Technologies was at a higher level than the pre-service teachers of other departments. A significant difference was found between academic self-efficacy and attitudes towards technology according to pre-service teachers' degree of ability/skill towards technology. However, it was noted that pre-service teachers' academic self-efficacy was low, and their attitudes toward technology were at a medium level. A negative and low-level significant relationship was found between the academic self-efficacy of the pre-service teachers



participating in the study and their attitudes towards technology, and it was revealed that academic self-efficacy explained 7% of the level of attitude towards technology.

**Keywords:** Pre-service Teachers, Academic Self-Efficacy, Technology, Attitude

**MENSTRUASYON DÖNGÜSÜNÜN FARKLI EVRELERİNDE DENGİ, FİZİKSEL  
AKTİVİTE VE ANKSİYETE DÜZEYLERİNİN KARŞILAŞTIRILMASI**  
COMPARISON OF BALANCE, PHYSICAL ACTIVITY AND ANXIETY LEVELS IN  
DIFFERENT PHASES OF MENSTRUAL CYCLE

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**ÖZET**

**Amaç:** Menstruasyon döngüsü, kadınların fizyolojik, psikolojik ve davranışsal özelliklerini etkileyerek yaşam kalitesinde değişimlere yol açabilir. Bu çalışma, döngünün farklı evrelerinde ortaya çıkan etkileri değerlendirerek premenstruasyon ve menstruasyon dönemleri arasındaki olası farklılıkları belirlemeyi amaçlamaktadır.

**Yöntem:** Araştırmaya, 18-45 yaş aralığında, düzenli menstruasyon döngüsüne sahip 60 kadın katılmıştır. Değerlendirmeler premenstruasyon ve menstruasyon dönemlerinde gerçekleştirilmiştir. Katılımcıların denge performansı Tek Ayak Üzerinde Durma Testi ve Yıldız Denge Testi ile, fiziksel aktivite düzeyleri Uluslararası Fiziksel Aktivite İndeksi ile, anksiyete düzeyleri ise Yaygın Anksiyete Bozukluğu Testi ile ölçülmüştür.

**Sonuçlar:** Denge testleri sonuçlarına göre, premenstruasyon döneminde sağ ( $p=0,005$ ) ve sol ( $p=0,013$ ) tek ayak üzerinde durma testinde ve sağ ayak yıldız denge testinde ( $p=0,004$ ) daha iyi performans sergilenmiştir. Ancak sol ayak yıldız denge testinde anlamlı bir fark bulunmamıştır ( $p=0,281$ ). Fiziksel aktivite düzeylerinde menstruasyon döneminde azalma gözlenmiştir ( $p=0,033$ ). Anksiyete düzeyleri açısından ise dönemler arasında istatistiksel olarak anlamlı bir fark tespit edilmemiştir ( $p=0,463$ ).

**Tartışma:** Bu çalışma, premenstruasyon döneminde denge performansının daha iyi olduğunu, ancak menstruasyon döneminde fiziksel aktivite düzeylerinde azalma görüldüğünü göstermiştir. Hormonal değişimlerin denge ve fiziksel aktivite üzerindeki etkileri bu bulguları desteklemektedir. Anksiyete düzeylerindeki farkın istatistiksel olarak anlamlı olmaması, bu alanda daha fazla araştırmaya ihtiyaç duyulduğunu düşündürmektedir. Bulgular, menstrual döngü boyunca bireyselleştirilmiş fiziksel aktivite programlarının performansı artırmada etkili olabileceğini önermektedir.

**Anahtar Kelimeler:** Anksiyete, Postüral Denge, Fiziksel Aktivite

## ABSTRACT

**Purpose:** The menstrual cycle influences women's physiological, psychological, and behavioral characteristics, potentially impacting their quality of life. This study aimed to evaluate the effects of different phases of the menstrual cycle and identify potential differences between the premenstrual and menstrual phases.

**Methods:** The study included 60 women aged 18–45 with regular menstrual cycles. Assessments were conducted during the premenstrual and menstrual phases. Balance was evaluated using the Single-Leg Stance Test and Star Excursion Balance Test. Physical activity levels were assessed with the International Physical Activity Questionnaire, and anxiety levels were measured using the Generalized Anxiety Disorder Scale.

**Results:** During the premenstrual phase, balance performance was significantly better in the Single-Leg Stance Test for both the right ( $p=0.005$ ) and left legs ( $p=0.013$ ) and in the Star Excursion Balance Test for the right leg ( $p=0.004$ ). No significant difference was observed in the left leg's Star Excursion Balance Test ( $p=0.281$ ). Physical activity levels were significantly lower during the menstrual phase ( $p=0.033$ ). However, no statistically significant differences were found in anxiety levels between phases ( $p=0.463$ ).

**Discussion:** The findings indicate that balance performance is superior during the premenstrual phase, whereas physical activity levels decline during menstruation, likely due to hormonal fluctuations and associated physical discomfort. The absence of significant differences in anxiety levels highlights the need for further research. These results underscore the potential benefits of tailoring physical activity programs to the menstrual cycle to optimize performance.

**Keywords:** Anxiety, Physical Activity, Postural Balance

# BİGOREKSİYA EĞİLİMİ, DİJİTAL BAĞIMLILIK VE İNTERNET BAĞIMLILIĞI ARASINDAKİ İLİŞKİ: ERKEK ÜNİVERSİTE ÖĞRENCİLERİ ÜZERİNDE KESİTSEL BİR ÇALIŞMA

THE RELATIONSHIP BETWEEN BIGOREXIA TENDENCY, DIGITAL ADDICTION  
AND INTERNET ADDICTION: A CROSS-SECTIONAL STUDY ON MALE  
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## ÖZET

Bigoreksiya, bireylerin kaslı bir vücuda sahip olma arzusu ve beden imajıyla ilgili aşırı takıntılarıyla tanımlanan bir beden dismorfik bozukluk türüdür. Özellikle erkekler arasında sosyal medya ve dijital platformların etkisiyle bu eğilim giderek artmaktadır. Dijital bağımlılık ve internet bağımlılığı, bireylerin günlük yaşamlarını ve sosyal işlevselliklerini etkileyen önemli faktörlerdir. Bu çalışma, erkek üniversite öğrencilerinde bigoreksiya eğilimi ile dijital bağımlılık ve internet bağımlılığı arasındaki ilişkiyi incelemeyi amaçlamaktadır. Kesitsel tasarımda gerçekleştirilen çalışmaya 18 yaş ve üzeri 100 erkek üniversite öğrencisi katılmıştır. Veri toplama araçları olarak Kas Algısı Bozukluğu Envanteri, Dijital Bağımlılık Ölçeği ve İnternet Bağımlılığı Ölçeği kullanılmıştır. Katılımcılardan elde edilen veriler tanımlayıcı istatistikler, Pearson korelasyon analizi ve çoklu doğrusal regresyon analizi ile değerlendirilmiştir. Bigoreksiya eğilimi ile dijital bağımlılık arasında orta düzeyde pozitif yönlü anlamlı bir ilişki bulunmuştur ( $r=0,42$ ,  $p<0,01$ ). Bigoreksiya eğilimi ile internet bağımlılığı arasında pozitif anlamlı bir ilişki saptanmıştır ( $r=0,38$ ,  $p<0,01$ ). Çoklu doğrusal regresyon analizi sonuçlarına göre, dijital bağımlılık ( $\beta=0,35$ ,  $p<0,01$ ) ve internet bağımlılığı ( $\beta=0,28$ ,  $p<0,01$ ) bigoreksiya eğiliminin anlamlı yordayıcıları olarak bulunmuştur. Çalışmanın sonuçları, erkek üniversite öğrencileri arasında bigoreksiya eğilimi ile dijital ve internet

bağımlılığı arasındaki güçlü ilişkiyi ortaya koymaktadır. Dijital platformların, özellikle sosyal medyanın, beden imajı algısı üzerindeki etkileri bu bulgularla bir kez daha vurgulanmaktadır. Bu sonuçlar, dijital medya kullanımının olumsuz etkilerini azaltmaya yönelik farkındalık ve müdahale programlarının geliştirilmesi gerekliliğini ortaya koymaktadır.

**Anahtar Kelimeler:** Bigoreksiya Eğilimi, Dijital Bağımlılık, İnternet Bağımlılığı, Erkek Üniversite Öğrencileri, Beden İmajı

## ABSTRACT

Bigorexia is a type of body dysmorphic disorder defined by individuals' desire to have a muscular body and excessive obsession with body image. This tendency is increasing especially among men due to the influence of social media and digital platforms. Digital addiction and internet addiction are important factors affecting individuals' daily living and social functioning. This study aims to examine the relationship between bigorexia tendency and digital addiction and internet addiction in male university students. 100 male university students aged 18 and over participated in the cross-sectional study. Muscle Dysmorphia Inventory, Digital Addiction Scale and Internet Addiction Scale were used as data collection tools. The data obtained from the participants were evaluated with descriptive statistics, Pearson correlation analysis and multiple linear regression analysis. A moderately positive significant relationship was found between bigorexia tendency and digital addiction ( $r=0.42$ ,  $p<0.01$ ). A positive significant relationship was found between bigorexia tendency and internet addiction ( $r=0.38$ ,  $p<0.01$ ). According to the results of multiple linear regression analysis, digital addiction ( $\beta=0.35$ ,  $p<0.01$ ) and internet addiction ( $\beta=0.28$ ,  $p<0.01$ ) were found to be significant predictors of bigorexia tendency. The results of the study reveal a strong relationship between bigorexia tendency and digital and internet addiction among male university students. The effects of digital platforms, especially social media, on body image perception are emphasized once again by these findings. These results reveal the need to develop awareness and intervention programs to reduce the negative effects of digital media use.

**Keywords:** Bigorexia Tendency, Digital Addiction, Internet Addiction, Male University Students, Body Image

## SPORDA BATIL İNANÇLAR VE RİTÜELLER SUPERSTITIONS AND RITUALS IN SPORT

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### ÖZET

Batıl inançlar ve ritüeller, her toplumda ve kültürde binlerce yıldır varlığını sürdürmektedir. Psikolojik ve sosyolojik bir olgu olan batıl inançlar günümüz modern toplumlarında da etkili olmaya devam etmektedir. Bireyler kendi kontrolleri dışında gelişen olayları, edindikleri batıl inançlarla davranışa dönüştürüp istedikleri şekilde sonuçlanmasını sağlamaya çalışmaktadır. Batıl inançlar içinde bulunulan toplumsal yapıya ve kültüre göre farklılık göstermektedir. Batıl inançlar, farklı şekilde ortaya çıksa da değişiklik gösterse de mantık çerçevesinde içinde bulunulan durum, olay ve sonucuyla net bir ilişkisi bulunmamaktadır. İnsanlar içinde bulundukları durumdan kaynaklı stres ve kaygıyla baş etmek, motivasyonlarını yükseltmek ve başarıya ulaşmak için batıl inançları gereği farklı davranışlar ve ritüeller sergilemektedir. İnsanlar batıl inanış, davranış ve ritüellerin akıl, mantık ve bilimle uyuşmadığını bilse dahi bunları sürdürmeye devam etmektedir. Batıl inançların devam etmesindeki en önemli etken bunların fayda sağladığının düşünülmesidir. Batıl inançlı ritüeller, birey tarafından olumlu bir etkiye sahip olduğu algılanan olağandışı, tekrarlayan, katı davranış olarak bilinse de gerçekte bu davranışlar ile bir olayın sonucu ile arasında nedensel bir bağlantı yoktur. Toplumun her kesiminde sıklıkla görülen batıl inançlı ritüellerin spor alanında etkili bir yere sahip olduğu ve farklı branşlarda sporcuların müsabaka öncesi ve sonrasında bu ritüelleri uyguladıkları görülmektedir. Sporcuların çoğu performanslarının artması ve başarı sağlamak için uyguladıkları ritüellerin olumlu sonuçlar getirdiği düşüncesindedir. Sporcuların ritüelleri de spor seyircileri tarafından kabul görmekte ve desteklenmektedir. Dünyanın her yerinde ve farklı spor branşlarında hem sporcu hem de seyirciler tarafından yapılan ritüellerin oldukça fazla olması dikkat çekicidir. Bu çerçevede çalışma, sporda batıl inanç ve ritüellerin, yaygın olmasının nedenleri ile sporda batıl inanç ve ritüellerin psikolojik, sosyolojik ve fiziksel etkilerini incelemek amacıyla planlanmış ve yürütülmüştür.

**Anahtar Kelimeler:** Spor, Batıl İnanç, Ritüel

### ABSTRACT

Superstitions and rituals have existed in every society and culture for thousands of years. Superstitions, which are a psychological and sociological phenomenon, continue to be

influential in today's modern societies. Individuals try to turn events that happen outside of their control into behaviors with the superstitious beliefs they have acquired and end up in the way they want. Superstitions differ according to the social structure and culture. Although superstitions appear differently or differ, logically, they do not have a clear relationship with the current situation, event and outcome. People exhibit different behaviors and rituals in accordance with their superstitions in order to cope with the stress and anxiety caused by the situation they are in, to increase their motivation and to achieve success. Even if people know that superstitions, behaviors and rituals do not agree with reason, logic and science, they continue to maintain them. The most important factor in the continuation of superstitions is that they are thought to be beneficial. Although superstitious rituals are known as unusual, repetitive, rigid behavior that is perceived by the individual to have a positive effect, in reality there is no causal link between these behaviors and the outcome of an event. It is seen that superstitious rituals, which are frequently seen in every part of the society, have an effective place in the field of sports and that athletes in different branches practice these rituals before and after the competition. Most of the athletes think that the rituals they practice to increase their performance and achieve success bring positive results. The rituals of the athletes are also accepted and supported by the sports audience. It is noteworthy that there are many rituals performed by both athletes and spectators all over the world and in different sports branches. In this context, the study was planned and conducted in order to examine the reasons for the prevalence of superstitions and rituals in sports and the psychological, sociological and physical effects of superstitions and rituals in sports.

**Keywords:** Sport, Superstition, Ritual

## SPORTİF PERFORMANSTA KAROTENOİDLERİN ROLÜ THE ROLE OF CAROTENOIDS IN SPORTS PERFORMANCE

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### ÖZET

Bu bildiride karotenoidlerin sportif performansa etkileri incelenmektedir. Bu bağlamda karotenoidlerin antioksidan özelliklerini, sporcuların oksidatif stres yönetimi, dayanıklılık artırımı ve toparlanma süreçlerine katkılarını ortaya koyan çeşitli çalışmalar üzerine literatür taraması yapılmıştır. İlk olarak bu konularda yapılan makale ve tezler incelenmiş, ardından da çeşitli bilimsel tarama motorlarına karotenoidler, sporcu performansı, fonksiyonel besinler gibi kavram ve ifadeler yazılmıştır. Konu başlığı ile ilgili toplam 39 makale çalışmasına ulaşıp analiz edilmiştir. İlgili çalışmalarda Lutein, zeaksantin,  $\beta$ -karoten ve astaksantin gibi türlerin oksidatif denge ve enerji metabolizması optimizasyonu, gen ekspresyonunu düzenleyerek kas sağlığını destekleme ve inflamasyonu azaltması ifade edilmiştir. Bu çalışmada meta-analiz yöntemi kullanılmış olup veriler içerik analizi ile analiz edilmiştir. Çalışma kapsamında karotenoidlerin yalnızca fiziksel performansa değil, aynı zamanda zihinsel dayanıklılık ve bilişsel odaklanma üzerindeki potansiyel etkilerine de değinilmiştir. Bu da sporcuların hem fiziksel hem de zihinsel kapasitelerini artırmak için karotenoid alımına daha fazla önem vermesi gerektiğini göstermektedir. Araştırmanın sonucuna göre, karotenoidlerin sportif performans üzerindeki olumlu etkileri ortaya konulurken, bireysel farklılıkların önemine dikkat çekilmiştir. Bu bulgular, sporcuların beslenme stratejilerinin optimize edilmesinde karotenoidlerin ve alternatif antioksidan kaynakları olarak spirulina, pancar suyu, brokoli filizleri ve *Opuntia ficus-indica* (OFI) suyu takviyesinin önemli bir rol oynayabileceğini göstermektedir. Ayrıca, sporcu beslenmesi ile ilgili gelecekte yapılacak çalışmalara ışık tutması amacıyla farklı spor dallarındaki atletler arasında karotenoid kullanımının karşılaştırmalı analizine ihtiyaç duyulduğu belirtilmiştir.

**Anahtar Kelimeler:** Karotenoidler, Sportif Performans, Fonksiyonel Besinler, Antioksidan

### ABSTRACT

This paper examines the effects of carotenoids on athletic performance. In this context, a literature review was conducted on various studies highlighting the antioxidant properties of carotenoids and their contributions to oxidative stress management, endurance enhancement,



and recovery processes in athletes. Initially, articles and theses on these topics were reviewed. Subsequently, scientific search engines were utilized with keywords such as carotenoids, athletic performance, and functional foods. A total of 39 studies related to the subject were analyzed. The relevant studies reported that types such as lutein, zeaxanthin,  $\beta$ -carotene, and astaxanthin support muscle health by optimizing oxidative balance and energy metabolism, regulating gene expression, and reducing inflammation. The meta-analysis method was employed in this study, and the data were analyzed using content analysis. In addition to their impact on physical performance, the study also addressed the potential effects of carotenoids on mental resilience and cognitive focus. This highlights the importance of carotenoid intake for enhancing both the physical and mental capacities of athletes. The findings demonstrate the positive effects of carotenoids on athletic performance while emphasizing the importance of individual differences. These results suggest that carotenoids, along with alternative antioxidant sources such as spirulina, beet juice, broccoli sprouts, and *Opuntia ficus-indica* (OFI) juice supplements, can play a significant role in optimizing athletes' nutritional strategies. Furthermore, the study underlines the need for future research to include comparative analyses of carotenoid use among athletes from different sports disciplines to provide further insights into sports nutrition.

**Keywords:** Carotenoids, Athletic Performance, Functional Foods, Antioxidant.

## FARKLI POPÜLASYONLARDA N-3 YAĞ ASİDİ ALIM MİKTARLARI KORONER KALP HASTALIKLARINI ÖNLEMeye YÖNELİK DİYET ÖNERİLERİNİ KARŞILIYOR MU? KITALAR ÖRNEKLEMİ

DO OMEGA-3 FATTY ACID INTAKE LEVELS IN DIFFERENT POPULATIONS ALIGN WITH DIETARY RECOMMENDATIONS FOR PREVENTING CORONARY HEART DISEASES? A CONTINENTAL SAMPLE

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### ÖZET

Bu bildirinin amacı, farklı kıtalardaki omega-3 yağ asidi alım düzeylerini ve bu alımların koroner kalp hastalıklarını önleme üzerindeki etkilerini kapsamlı şekilde incelemektedir. Bunun için dünya genelinde omega-3 ve kardiyovasküler hastalık ilişkisi üzerine yapılan çalışmalar ve WHO, ESC, AHA, NICE, APSC ve TKDCD gibi rehberler derlenmeye çalışılmıştır. Bu alanda yapılan makale ve rehberler taranmıştır. Araştırma süresince omega-3, kardiyovasküler hastalıklar, omega-3 indeksi gibi kavramlar incelenmiştir. Rehberlerden alınan bilgilere göre omega-3 yağ asitleri (EPA ve DHA), kardiyovasküler sağlık açısından kritik öneme sahiptir. Bu yağ asitlerinin biyoyararlanımı, kırmızı kan hücrelerindeki Omega-3 İndeksi (O3I) ile ölçülmektedir. Bunun yanı sıra Asya, Avrupa, Kuzey Amerika, Afrika, Güney Amerika ve Okyanusya kıtalarında yapılan orijinal araştırma makalesi sonuçlarına göre, O3I'nin %8'in üzerinde olduğu bölgelerde düşük kardiyovasküler risk, %4'ün altındaki bölgelerde ise yüksek risk tespit edilmiştir. Çalışmada kıtalar arası omega-3 alım farklarının sebeplerine ve kardiyovasküler sağlık sonuçlarında değinilmiştir. Japonya ve Güney Kore gibi yüksek balık tüketimine sahip kıyı ülkelerinde omega-3 alım düzeyleri önerilen seviyelere ulaşırken, ABD ve Avrupa'nın pek çok bölgesinde bu oran düşük kalmaktadır. Özellikle Afrika ve Güney Amerika'da iç bölgelerde omega-3 eksikliği yaygındır. Çalışmada meta-analiz yöntemi kullanılmış olup veriler içerik analizi ile analiz edilmiştir. Araştırmanın sonucuna göre, omega-3 yağ asitlerinden zengin beslenmenin kalp sağlığı üzerindeki faydaları ışığında bireysel ve toplumsal düzeyde kapsamlı sağlık politikalarının geliştirilmesi gerekmektedir. Bu adımlar, küresel sağlık hedeflerine ulaşmada kritik bir rol oynamaktadır.

**Anahtar Kelimeler:** Omega-3 Yağ Asitleri, Kardiyovasküler Sağlık, Kalp Sağlığı Rehberleri

## ABSTRACT

The aim of this study is to comprehensively examine omega-3 fatty acid intake levels across different continents and their effects on preventing coronary heart diseases. To achieve this, studies on the relationship between omega-3 and cardiovascular diseases worldwide, as well as guidelines from organizations like WHO, ESC, AHA, NICE, APSC, and TKDCD, have been compiled. Relevant articles and guidelines in this field were reviewed.

During the research process, concepts such as omega-3, cardiovascular diseases, and the Omega-3 Index (O3I) were analyzed. According to the guidelines, omega-3 fatty acids (EPA and DHA) are critical for cardiovascular health. The bioavailability of these fatty acids is measured by the Omega-3 Index in red blood cells (O3I). Furthermore, original research articles conducted in Asia, Europe, North America, Africa, South America, and Oceania indicate that regions with an O3I above 8% have low cardiovascular risk, while those below 4% exhibit high risk.

The study addresses the reasons for intercontinental differences in omega-3 intake and their implications for cardiovascular health outcomes. Coastal countries like Japan and South Korea, known for high fish consumption, achieve recommended omega-3 levels, whereas many parts of the USA and Europe fall short. Omega-3 deficiency is particularly prevalent in inland regions of Africa and South America. The meta-analysis method was employed, and the data were analyzed using content analysis.

The findings underline the need for comprehensive health policies at both individual and societal levels, emphasizing the benefits of omega-3-rich diets for heart health. These steps are critical in achieving global health targets.

**Keywords:** Omega-3 Fatty Acids, Cardiovascular Health, Heart Health Guidelines

**EVRE 3 JİNEKOMASTİDE MEME KÜÇÜLTME-DİKLEŞTİRME İLE TROMBOSİT  
MPV DEĞERLERİ ARASINDAKİ İLİŞKİ**  
RELATIONSHIP BETWEEN BREAST REDUCTION-MASTOPEXY AND PLATELET  
MPV VALUES IN STAGE 3 GYNECOMASTIA

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**ÖZET**

Literatürde jinekomastide trombosit sayısı ve volümü ile ilgili sınırlı sayıda veri bulunmaktadır. Trombositler başlıca kanama ve pıhtılaşma mekanizmalarında yer alan ana hücreler olmasına rağmen; sepsis, inflamasyon, hücresel proliferasyon, kanser, kemotaksis, dokuların şekillenmesi ve yara iyileşmesi gibi birçok fizyolojik patolojik süreçte yer alırlar. Bizler bu çalışmada jinekomasti olgularında trombosit aktivasyon belirteçlerinden biri olan, ortalama trombosit hacmi (MPV)'nin düzeylerini tespit ederek literatüre katkıda bulunmayı amaçladık.

Mayıs 2017-Nisan 2024 yılları arasında tarafıma başvuran bilateral evre 3 jinekomastili 16 hasta çalışmaya dahil edilmiştir. Hem glanduler hem de lipomatöz tarzdaki tüm evre 3 jinekomastili hastalar superior tabanlı dermal pediküllü meme küçültme ve dikleştirme tekniğine uygun olarak opere edilmiştir.

Jinekomastiye neden olabilecek altta yatan bir neden görülmedi. Tamamen gelişime bağlı yapısal jinekomasti olduğu tespit edildi. Operasyon öncesi alınan kan örneklerindeki ortalama MPV değerleri  $9,37 \pm 1,2$  fl tespit edildi. Hastaların yaş ortalaması 32 olup eksize edilen meme dokusu miktarı bir meme başına ortalama 350 gram olarak tartıldı.

İleri derecede evre 3 jinekomastili hastalarda tek başına liposuction yeterli olamamaktadır. Öyle ki pitotik olan NAK' nin elevasyonu gerekmektedir. Biz de makromastik ve pitotik jinekomasti vakalarımızda superior tabanlı dermal pediküllü meme küçültme ve dikleştirme tekniğine uygun yaklaşım ile ideal kontür ve görünümü sağladık. NAK flebini ince tutmaktan kaçınmadık. Belirgin bir hipertrofik skar ve keloid görülmedi. Yara takibi sürecinde lateral ve medial fleplerin alt birleşim yerinde deplesyon görünmesi, kendi içinde katlanan NAK flebinin görece dolgun görünümü idi. Zamanla minimal pitozisin etkisi ile yumuşak bir geçiş sağlandığı da görülmüştür. Ayrıca bu durum da güçlü bir pektoral kas imajını yaratmakta idi.

Yaptığımız literatür taramalarında jinekomasti ve MPV değerlerini gösteren literatür bulunmamaktadır. Böylelikle jinekomasti ile dokuların şekillenmesi ve yara iyileşmesi gibi birçok fizyolojik, patolojik süreçte yer alan trombositlerin MPV değerleri arasındaki ilişkiyi açığa çıkartmayı hedefledik.

**Anahtar Kelimeler:** Evre 3 jinekomasti, meme küçültme ve dikleştirme, superior pedikül, trombosit, MVP.

## ABSTRACT

There is limited data in the literature on platelet count and volume in gynecomastia. Although platelets are the main cells involved in bleeding and coagulation mechanisms, they are involved in many physiological and pathological processes such as sepsis, inflammation, cellular proliferation, cancer, chemotaxis, tissue formation and wound healing. In this study, we aimed to contribute to the literature by determining the levels of mean platelet volume (MPV), one of the platelet activation markers in gynecomastia cases.

16 Patients with bilateral stage 3 gynecomastia who applied to me between May 2017 and April 2024 were included in the study. All patients with stage 3 gynecomastia, both glandular and lipomatous, were operated in accordance with the superior-based dermal pedicle breast reduction and mastopexy technique.

No underlying cause was observed that could cause gynecomastia. It was determined that it was structural gynecomastia due to development. The mean MPV values in the blood samples taken before the operation were determined as  $9.37 \pm 1.2$  fl. The mean age of the patients was 32 and the amount of excised breast tissue was weighed as 350 grams per breast. Liposuction alone is not sufficient in patients with advanced stage 3 gynecomastia. In fact, elevation of the ptotic NAC is required. In our macromastic and ptotic gynecomastia cases, we achieved the ideal contour and appearance with the approach appropriate to the superior-based dermal pedicle breast reduction and mastopexy technique. We did not hesitate to keep the NAC flap thin. No obvious hypertrophic scar or keloid was observed. During the wound follow-up process, the depletion seen at the lower junction of the lateral and medial flaps was the relatively full appearance of the NAC flap folded within itself. It was also observed that a smooth transition was achieved with the effect of minimal ptosis over time. In addition, this situation created a strong pectoral muscle image. In our literature review, there is no literature showing gynecomastia and MPV values. Thus, we aimed to reveal the relationship between gynecomastia and MPV values of platelets involved in many physiological and pathological processes such as tissue formation and wound healing.

**Keywords:** Stage 3 gynecomastia, breast reduction and lift, superior pedicle, platelet, MVP.

## İNSAN VE HAYVANLARDA KUTAN MİKOZİSE YOL AÇAN BAZI DERMATOFİT ETKENLERİNDE “SUBTİLİSİN” VİRULANS FAKTÖRÜNÜN BİYOİNFORMATİK ANALİZİ

BIOINFORMATICS ANALYSIS OF THE VIRULENCE FACTOR “SUBTILISIN” IN SOME DERMATOPHYTE AGENTS CAUSING CUTAN MYCOSIS IN HUMANS AND ANIMALS

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### ÖZET

Ascomycota şubesinin Onygenales takımı, Arthrodermataceae familyasında yer alan dermatofitler, insanlarda ve hayvanlarda, genellikle derinin stratum corneum tabakası, tırnak/pençe ve saç/kıl gibi keratinize dokularda yüzeysel mikotik enfeksiyonlara (dermatofitozis) yol açan fungal patojenlerdir.

Arthrodermataceae familyası içerisinde *Microsporum*, *Trichophyton*, *Epidermophyton*, *Nannizzia*, *Arthroderma*, *Paraphyton*, *Lophophyton*, *Ctenomyces*, *Guarromyces* olmak üzere dokuz cins yer almaktadır. Dermatofitozis olgularından ise *Microsporum*, *Trichophyton* ve *Epidermophyton* cinslerine dahil olan, sıklıkla zoofilik, antropofilik özellikte, nadiren geofilik mantar türleri sorumludur. İnsanlar ve hayvanlar arasında bulaşma mevcut olduğundan, birçok türü potansiyel zoonotik özelliktedir. Dünya çapında yüksek bir enfeksiyon oranına sahip olan dermatofitler, en yaygın patojenik filamentöz mantarlardır. Kutan mikozis etkenlerince oluşturulan enfeksiyonlar genellikle yüzeysel olmasına rağmen, bağışıklık sistemi baskılanmış hastalarda yayılabilmekte ve invaziv hale geçebilmektedir.

Dermatofitler, konak dokularına yapışma, çimlenme, istila ve penetrasyon esnasında özellikle proteazlar olmak üzere geniş bir hidrolitik enzim repertuarı kullanarak deri ve hücre dışı matrisin bileşenlerini parçalama yoluyla besin elde edebilirler. Mantarlar tarafından salgılanan proteazların ana aileleri subtilisinler (serin proteazlar) ve fungalisinlerdir (metaloproteazlar). Serin proteazları kodlayan SUB'lar aynı zamanda patojene insanlarda ve hayvanlarda

keratinize dokuları (deri ve saç) sindirme yeteneği kazandırır. Dermatofitlerin yüksek görülme oranlarına rağmen, hastalığı oluşturma mekanizmaları üzerine yapılan araştırmalar ise sınırlıdır. Virülans faktörlere ait moleküler özelliklerin bilinmesi, etkili potansiyel ilaç aday moleküllerinin geliştirilmesi ve enfeksiyonların kontrol altına alınması açısından önem arz etmektedir. Bu çalışmada, virülans faktörü olarak bilinen ve proteazlardan olan subtilisin ailesinin SUB1, SUB2 ve SUB3 proteinlerinin biyoinformatik analizi gerçekleştirilmiştir. Bu proteinlerin özellikleri, filogenetik analizi ve korunmuş motiflerinin kritik yönleri vurgulanmıştır. STRING veritabanı kullanılarak SUB1, SUB2 ve SUB3 proteinlerinin protein-protein etkileşimi incelenmiştir.

**Anahtar Kelimeler:** Biyoinformatik, Dermatofit, Dermatofitoz, Fungus, Patogenez, Proteaz, Subtilisin.

## ABSTRACT

Dermatophytes are fungal pathogens belonging to the order Onygenales within the phylum Ascomycota and the family Arthrodermataceae. They cause superficial fungal infections, known as dermatophytosis, in both humans and animals. These infections typically occur in keratinized tissues, such as the stratum corneum layer of the skin, nails or claws, and hair.

The family Arthrodermataceae consists of nine genera: *Microsporum*, *Trichophyton*, *Epidermophyton*, *Nannizzia*, *Arthroderma*, *Paraphyton*, *Lophophyton*, *Ctenomyces*, and *Guarromyces*. Dermatophytosis is caused by fungal species from the genera *Microsporum*, *Trichophyton*, and *Epidermophyton*, which are often classified as zoophilic, anthropophilic, and, to a lesser extent, geophilic. Because transmission can occur between humans and animals, many of these species have the potential to be zoonotic. Dermatophytes have a high infection rate globally and are the most common pathogenic filamentous fungi. While infections caused by these cutaneous mycosis agents are typically superficial, they can spread and become invasive in immunosuppressed patients.

Dermatophytes can obtain nutrients by degrading the components of the skin and extracellular matrix using a wide repertoire of hydrolytic enzymes, especially proteases, during adhesion, germination, invasion and penetration into host tissues. The main families of proteases secreted by fungi are subtilisins (serine proteases) and fungalins (metalloproteases). SUBs encoding serine proteases also provide the pathogen with the ability to digest keratinized tissues (skin and hair) in humans and animals. Despite the high prevalence of dermatophytes, research on the mechanisms of disease formation is limited. Knowing the molecular properties of virulence factors is important for the development of effective potential drug candidate molecules and controlling infections. In this study, bioinformatic analysis of SUB1, SUB2 and SUB3 proteins of the subtilisin family, which are known as virulence factors and proteases, was performed. The properties of these proteins, phylogenetic analysis and critical

aspects of their conserved motifs were emphasized. Protein-protein interactions of SUB1, SUB2 and SUB3 proteins were investigated using the STRING database.

**Keywords:** Bioinformatics, Dermatophyte, Dermatophytosis, Fungus, Pathogenesis, Protease, Subtilisin



**YETİŞKİN HASTALARDA İNTRAMUSKÜLER ENJEKSİYON AĞRISINI  
AZALTMADA SHOTBLOCKER'IN ETKİSİNİN BELİRLENMESİ: RANDOMİZE  
KONTROLLÜ ÇALIŞMA**

**DETERMINATION OF THE EFFECT OF SHOTBLOCKER IN REDUCING  
INTRAMUSCULAR INJECTION PAIN IN ADULT PATIENTS: RANDOMIZED  
CONTROLLED TRIAL**

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**ÖZET**

Bu çalışma, acil serviste intramusküler enjeksiyon uygulanan yetişkin hastalarda ShotBlocker'ın IMI ağrısı üzerine etkisini belirlemek amacıyla randomize kontrollü bir çalışma olarak yürütülmüştür. Araştırmanın verileri Nisan 2024-Haziran 2024 tarihleri arasında Türkiye'de bir devlet hastanesinin acil servisine başvuran hastalardan toplanmıştır. Veri toplama araçları olarak; Kişisel ve İlaç Bilgi Formu ile Görsel Analog Skala kullanılmıştır. Verilerin analizinde kategorik değişkenler için sayı, yüzde, ortalama ve standart sapma kullanılmıştır. Testlerin anlamlılık düzeyi için  $p<0,05$  değeri kabul edilmiştir. 40 müdahale, 40 kontrol grubunda olacak şekilde 80 katılımcının verileri analiz edildi. Araştırmada her iki grupta kadın ve erkek sayıları eşit olarak dağıldı. Müdahale grubunda bulunan katılımcıların yaş ortalamalarının  $42.2\pm14.6$ , kontrol grubunda bulunan katılımcıların ise yaş ortalamalarının  $47.0\pm15.1$  olduğu belirlendi. Her iki grupta en fazla uygulanan ilaç diklofenak soydum olmuştur (Müdahale: 24, Kontrol:22). Müdahale grubunda önceki ağrı deneyimi ile müdahale sonrası ağrı deneyimi puan ortalamaları kendi aralarında incelendiğinde; cinsiyet, medeni durum, eğitim düzeyi, gelir durumu ve ilaç türü açısından anlamlı farklılık bulunmuştur. ShotBlocker, intramusküler enjeksiyonla ilişkili ağrıyı azaltmada etkili bir nonfarmakolojik yöntemdir.

**Anahtar Kelimeler:** Intramusküler enjeksiyon, ShotBlocker, Hemşirelik.

**ABSTRACT**

This study was conducted in a randomized controlled trial to determine the effect of ShotBlocker on IMI pain in adult patients who received intramuscular injection in the emergency department. The

study data were collected from patients who applied to the emergency department of a state hospital in Turkey between April 2024 and June 2024. Personal Information and Drug Information Form and Visual Analog Scale Form were used as data collection tools. Number, percentage, mean and standard deviation were used for categorical variables in the analysis of the data. The significance level of the tests was accepted as  $p < 0.05$ . The data of a total of 80 participants, 40 in the intervention group and 40 in the control group, were analyzed. The number of women and men in the study was equally distributed in both groups. The mean age of the participants in the intervention group was determined as  $42.2 \pm 14.6$ , and the mean age of the participants in the control group was determined as  $47.0 \pm 15.1$ . The most frequently administered drug in both groups was diclofenac sodium (Intervention: 24, Control: 22). When the mean scores of previous pain experience and post-intervention pain experience were examined in the intervention group, a significant difference was found in terms of gender, marital status, education level, income status and type of medication. ShotBlocker is an effective nonpharmacological method of reducing pain associated with intramuscular injection.

**Keywords:** Intramuscular injection, ShotBlocker, Nursing.

## THE ROLE OF PROTEINS IN THE NUTRITION OF ATHLETES

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### ABSTRACT

**Introduction.** Effective nutrition of athletes is perhaps the first of the important factors of their health. Considering that the features of metabolic processes in the body depend on the substances contained in food and the mechanism of their action, the diet should be developed taking into account the age of the athlete and the type of sport.

The presence of a normal amount of protein in the diet has a positive effect on the overall performance of the athlete, the activity of the central nervous system, and also reduces fatigue and enhances reflex activity, ensuring rapid recovery of strength.

**The purpose of the study.** The main objective of our work is to study and characterize the issue related to the intake of food additives and protein powders from a hygienic point of view.

**Material and method.** Questionnaires were prepared and a survey was conducted among athletes and sports enthusiasts (250 young men).

**Results of the study.** During the survey "Do you eat protein foods?" 58.1% of participants answered "partially", 9% answered "no", and 32.9% answered "yes". Our survey also revealed that a certain number of participants had no information about the composition and caloric content of food.

**Conclusion.** It was determined that athletes have a high tendency to meet their protein needs using protein powder. It should be noted that proteins play a leading role in the mechanism of muscle development and recovery, therefore athletes need protein during heavy physical training. To meet this need, they prefer to take protein powder, resorting to an easier way.

Based on the results of our research, it can be concluded that it is appropriate to meet the need for protein and other nutrients by using a diet prepared by a nutritionist.

**Keywords:** Protein, Athlete, Questionnaire.

## THE ROLE OF ENGLISH AS A LINGUA FRANCA IN SHAPING SOCIAL PSYCHOLOGY WITHIN THE GLOBAL ECONOMY

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### ABSTRACT

English, as the world's dominant lingua franca, plays a transformative role in shaping social psychology in today's interconnected global landscape. This paper examines how English serves as a unifying force, bridging linguistic and cultural divides while influencing identity formation, group dynamics, and interpersonal communication. It explores the psychological implications of English as a medium of communication in diverse professional, educational, and social contexts. Particular attention is given to how English shapes perceptions of power, prestige, and belonging, contributing to the creation of shared cultural narratives across borders. The study also investigates the challenges posed by the global spread of English, including its impact on linguistic diversity and the marginalization of non-English-speaking communities. Through an interdisciplinary approach combining insights from social psychology and linguistics, this paper highlights how English enables collaboration and understanding in multicultural environments, while simultaneously introducing complexities tied to linguistic hegemony and identity negotiation. The findings underscore the importance of fostering inclusive practices that respect linguistic diversity, even as English continues to dominate global communication. By understanding the psychological and cultural dimensions of English's role as a lingua franca, stakeholders in education, business, and governance can better navigate the challenges and opportunities presented by this linguistic phenomenon.

**Keywords:** English as a Lingua Franca, Social Psychology, Global Communication, Linguistic Diversity

**ALMANCA ÖĞRETİMİNDE KULLANILAN NETZWERK NEU A1 KİTABINDAKİ  
KAZANIMLARA UYGUN OYUN ÖRNEKLERİ İLE SINIF İÇİ ETKİNLİKLER In-  
CLASS ACTIVITIES WITH GAME EXAMPLES SUITABLE FOR THE ACQUISITIONS  
IN THE NETZWERK NEU A1 BOOK USED IN GERMAN TEACHING**

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**ÖZET**

Oyun çocukların, gençlerin hatta yetişkinlerin bile çoğu koşulda isteyerek ve gönüllü olarak içinde yer aldığı fiziksel, zihinsel, duygusal, dilsel ve sosyal gelişime temel olan vazgeçilmez etkinliktir. Bazen belirli bir amaç olmadan sadece eğlenmek için oynanan oyun, bazen ise amaçlı eğlenirken öğrenmek için kullanılan, kişinin aktif olduğu bir sürecin de oluşmasını sağlar. Yeni bir bilgi öğrenen bireylerin öğrenme esnasında zorlandıkları veya sıkıldıkları anlarda zamanın etkili ve anlamlı değerlendirilmesini sağlamak için sınıf içi etkinlik olarak oyundan destek alınabilir. Özellikle yeni bir yabancı dil öğrenme söz konusuysa, kişinin hem ilgisini hem de dikkatini vermesi ve aktif rol oynayarak dili uygulamaya dönüştürüp o dili kullanması gerekmektedir. Sınıf içerisinde konulara göre uyarlanması kolay olan ve birden fazla kazanım edinmede kolaylık sağlayabilen oyunlar mevcuttur. Bu çalışmanın amacı, yabancı dil olarak Almanca öğretiminde kullanılan Netzwerk neu A1 kitabındaki ders konularına paralel kazanımları edindirmeyi hedefleyen oyun etkinliklerini incelemektedir. Konu ve kazanım odaklı ilerleyen oyun örnekleri, benzer özelliklerine göre “Spielen Sie The Situationen”, “Würfeln Sie Zweimal und Spielen Sie”, “Spiele In Kleinen Oder Großen Gruppen” (“Durumları Oynayın”, ‘Zarı iki kez atın ve oynayın’, ‘Küçük veya büyük gruplar halinde oynayın’) başlıkları altında toplanmıştır. Nitel araştırma yöntemiyle gerçekleştirilen bu çalışmada, doküman analizi aracılığıyla incelenen kitabın, oyun örneklerinin hangi öğrenme kazanımlarına yönelik olarak kullanıldığı araştırılmıştır. Kitap, A1.1 ve A1.2 seviyelerinde toplam 12 ünite içermektedir Öğrencilerin neredeyse tüm ünitelerde oyun şeklinde diyaloglar kurmaları, bu diyalogları canlandırmaları ve takım çalışması veya birden fazla katılımcı ile oynanan oyunlar aracılığıyla sınıf içi etkili ve aktif katılımın artırılması amaçlanmıştır. Dil evrenseldir; farklı kaynaklarla ve farklı yöntemlerle öğretilse de konuların

değişmezliği nedeniyle, sınıf içi etkinliklerde öğreten bireyler için bahsi geçen kitaptaki oyunlar örnek teşkil edebilmektedir.

**Anahtar Kelimeler:** Almanca ve Oyun, Oyunun Derse Etkisi, Yabancı Dil, Netzwerk Neu

## ABSTRACT

Play is an indispensable activity that is the basis for physical, mental, emotional, linguistic and social development in which children, young people and even adults willingly and voluntarily take part under most circumstances. Sometimes the game is played just to have fun without a specific purpose, sometimes it is used to learn while having fun with a purpose, and it provides the formation of a process in which the person is active. When individuals who learn new information have difficulty or get bored during learning, games can be used as an in-class activity to ensure effective and meaningful use of time. Especially when it comes to learning a new foreign language, it is necessary for the individual to give both attention and interest and to use the language by playing an active role and turning the language into practice. There are games that are easy to adapt according to the subjects in the classroom and can facilitate the acquisition of more than one acquisition. The aim of this study is to examine the game activities that aim to achieve learning outcomes parallel to the course topics in the Netzwerk neu A1 book used in teaching German as a foreign language. The game examples, which focus on topics and outcomes, are grouped under the titles “Spielen Sie The Situationen”, “Würfeln Sie Zweimal und Spielen Sie”, “Spiele In Kleinen Oder Großen Gruppen” (“Play the Situations”, “Roll the dice twice and play”, “Play in small or large groups”) according to their similar characteristics. In this study, which was conducted with qualitative research method, the learning outcomes for which the game examples of the book were used were investigated through document analysis. The book contains a total of 12 units at A1.1 and A1.2 levels. In almost all of the units, it is aimed to increase effective and active participation in the classroom by having students create dialogues in the form of games, act out these dialogues, and play games with teamwork or more than one participant. Language is universal; even though it is taught with different resources and methods, the games in the book can serve as an example for teachers in classroom activities due to the immutability of the subjects.

**Keywords:** German and Games, Effects of Games on the Lesson, Foreign Language, Netzwerk Neu

**SAĞLIK SİGORTASI SATIN ALIMI ÖNCESİ TÜKETİCİ DAVRANIŞI İLE  
DEMOGRAFİK ÖZELLİKLER FARKLILIĞI  
DIFFERENCE BETWEEN CONSUMER BEHAVIOR AND DEMOGRAPHIC  
CHARACTERISTICS IN HEALTH INSURANCE PURCHASE**

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**ÖZET**

Sağlık sigortası, bireylerin gelecekteki sağlık harcamalarına karşı finansal güvence sağlayan önemli bir araçtır ve giderek daha fazla insanın ilgisini çekmektedir. Tüketicilerin sağlık sigortası satın alım kararları, birçok faktörün etkisi altında şekillenen karmaşık bir süreçtir. Bu faktörler arasında demografik özellikler, eğitim durumu, sosyal medya kullanımı gibi çeşitli etmenler bulunmaktadır. Bu araştırma, sağlık sigortası satın alımı öncesinde tüketicilerin davranışlarını etkileyen demografik özelliklerin farklılıklarını incelemeyi amaçlamaktadır. Veriler, İşlek (2012) tarafından geliştirilen “Satın Alım Öncesi Tüketici Davranışı Ölçeği” kullanılarak toplanmış ve araştırma Türkiye genelindeki 385 sağlık sigortası tüketicisiyle gerçekleştirilmiştir. Anketin ilk bölümünde katılımcıların demografik özellikleri sorgulanırken, ikinci bölümde satın alım öncesi davranışlarını ölçen ifadeler yer almıştır. Araştırmanın hipotezleri, cinsiyet, medeni durum, sektör, yaş, eğitim durumu ve sosyal medya kullanımı ile satın alım öncesi tüketici davranışı arasındaki farklılıkları test etmek amacıyla t-testi ve ANOVA analiziyle test edilmiştir. Araştırma bulguları, sağlık sigortası tüketicilerinin demografik özelliklerine göre satın alım öncesi davranışlarının farklılıklar gösterdiğini ortaya koymuştur. Özellikle, medeni durum, sektör ve eğitim durumu gibi faktörler, tüketicilerin satın alım kararlarını etkileyen önemli değişkenler olarak öne çıkmıştır. Cinsiyet, yaş ve sosyal medya kullanımı ise davranışsal farklılıklar yaratmamıştır. Bu sonuçlar, sağlık sigortası sektöründe tüketici davranışlarını daha iyi anlayabilmek ve hedef kitleye yönelik etkili pazarlama stratejileri geliştirmek için önemli bir temel oluşturmaktadır.

**Anahtar Kelimeler:** Sağlık sigortası, Tüketici davranışı, Demografik özellikler, Satın alım öncesi, Pazarlama stratejileri



## ABSTRACT

Health insurance is an essential tool that provides financial security against future healthcare expenses and is attracting increasing interest from individuals. The decisions regarding the purchase of health insurance are shaped by a complex process influenced by several factors. Among these factors are demographic characteristics, education level, and social media usage. This study aims to examine the differences in demographic characteristics that affect consumer behavior prior to purchasing health insurance. Data were collected using the "Pre-Purchase Consumer Behavior Scale" developed by İşlek (2012), and the study was conducted with 385 health insurance consumers across Turkey. The first section of the survey asked about the demographic characteristics of the participants, while the second section included statements measuring pre-purchase behaviors. The hypotheses of the study were tested using t-test and ANOVA analysis to assess the differences between gender, marital status, sector, age, education level, and social media usage in relation to pre-purchase consumer behavior. The findings of the study revealed that consumer behaviors before purchasing health insurance differ according to demographic characteristics. Particularly, factors such as marital status, sector, and education level emerged as significant variables influencing purchasing decisions. Gender, age, and social media usage, however, did not create behavioral differences. These results provide an important foundation for better understanding consumer behavior in the health insurance sector and developing effective marketing strategies targeting specific consumer groups.

**Keywords:** Health insurance, Consumer behavior, Demographic characteristics, Pre-purchase, Marketing strategies.

**SOSYAL MEDYA PAZARLAMASININ SAĞLIK SİGORTASI TÜKETİCİLERİNİN  
SATIN ALMA KARARLARINA ETKİSİ**  
THE EFFECT OF SOCIAL MEDIA MARKETING ON HEALTH INSURANCE  
CONSUMERS' PURCHASE DECISIONS

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**ÖZET**

Sağlık sektöründe hızla büyüyen dijital iletişim kanalları, özellikle sosyal medya platformları, tüketicilerle doğrudan etkileşim kurma ve marka bilinirliğini artırma potansiyeli sunmaktadır. Bu çalışma, Türkiye genelinde sağlık sigortası tüketicileri üzerinde gerçekleştirilen bir araştırmanın bulgularını sunmaktadır. Araştırma, sosyal medya pazarlama aktivitelerinin etkinlik ve beğeni boyutlarının satın alım öncesi tüketici davranışları üzerindeki potansiyel etkilerini değerlendirmeyi amaçlamaktadır. Araştırmada nicel tasarımlardan anket yöntemi kullanılmıştır. Çalışmada Yüksek Bilgili (2018) tarafından geliştirilen “Sosyal Medya Pazarlama Aktiviteleri Ölçeği” ve İşlek (2012) tarafından oluşturulan “Satın Alım Öncesi Tüketici Davranışı Ölçeği” kullanılmıştır. Araştırmada kullanılan ölçekler sağlık sigortası tüketicilerinden 385 kişiye uygulanmıştır. Demografik özellikler, sosyal medya kullanım alışkanlıkları ve tüketicilerin satın alım öncesi davranışlarına ilişkin bilgiler içermektedir. Araştırma hipotezleri, regresyon analizi kullanılarak test edilmiştir. Bu araştırma, sağlık sigortası tüketicilerinin sosyal medya pazarlama aktivitelerinin etkinlik ve beğeni boyutlarının satın alım öncesi tüketici davranışları üzerindeki potansiyel etkilerini değerlendirmektedir. Regresyon analizi sonuçlarına göre, etkinlik ve beğeni boyutunun tüketicilerin satın alım öncesi davranışlarının %53,1’ini anlamlı düzeyde açıklamaktadır.

**Anahtar Kelimeler:** Dijital Pazarlama, Sağlık Sektörü, Tüketici Alışkanlıkları, Veri Analizi, Sosyal Medya Etkisi

## ABSTRACT

Digital communication channels, particularly social media platforms, are rapidly growing in the healthcare sector, offering the potential to directly interact with consumers and enhance brand awareness. This study presents findings from research conducted on health insurance consumers across Turkey. The research aims to assess the potential effects of social media marketing activities on pre-purchase consumer behaviors. A quantitative design utilizing survey methods was employed in this study. The "Social Media Marketing Activities Scale" developed by Yüksekbiçgili (2018) and the "Pre-Purchase Consumer Behavior Scale" created by İşlek (2012) were utilized. The research was administered to 385 health insurance consumers, capturing demographic characteristics, social media usage habits, and information on consumers' pre-purchase behaviors. Hypotheses were tested using regression analysis. This research evaluates the potential effects of the effectiveness and attractiveness dimensions of social media marketing activities on pre-purchase consumer behaviors among health insurance consumers. According to the regression analysis results, the effectiveness and attractiveness dimensions significantly explain 53.1% of consumers' pre-purchase behaviors.

**Keywords:** Digital Marketing, Healthcare Sector, Consumer Habits, Data Analysis, Social Media Impact

## IMPACT OF ARTIFICIAL INTELLIGENCE ON INTERNATIONAL RELATIONS

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### ABSTRACT

The advent of Artificial Intelligence (AI) has fundamentally transformed multiple aspects of global governance, with significant implications for international relations. This study examines how AI technologies, such as machine learning, autonomous systems, and data analytics, are reshaping diplomatic strategies, global security, and international cooperation. AI's impact on foreign policy, conflict resolution, and the management of global institutions will be analyzed, focusing on the growing role of AI in military applications and cybersecurity. Furthermore, this paper will explore how AI influences power dynamics among state and non-state actors in the global arena, particularly in terms of economic competitiveness, political influence, and the development of global norms for AI governance. The research also reflects on the ethical considerations and challenges associated with AI's increasing role in shaping international relations.

**Keywords:** Artificial Intelligence, International Relations, Global Governance, Diplomacy, Global Security, Foreign Policy, Ethics in AI.

## INTANGIBLE HERITAGE AS A CULTURAL BRIDGE BETWEEN ALBANIA AND SPAIN: IMPORTANCE AND LEGAL FRAMEWORK IN ALBANIA

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### ABSTRACT

Intangible heritage is a fundamental element for preserving cultural identity and strengthening the ties between communities. This paper focuses on identifying and analyzing the commonalities and differences between Albania and Spain in the field of intangible heritage, concentrating on some of the most characteristic and representative elements of the cultures of these two countries. Through a comparative analysis, various elements are discussed, such as traditional music and songs (for example, Albanian iso-polyphony and Spanish flamenco), festivals and rituals (such as the Summer Day and La Tomatina), traditional gastronomy (such as “byrek” and tapas), and folk tales, all of which are crucial for the preservation and transmission of heritage in these cultures. Although Albania and Spain have developed different traditions and histories, they share significant similarities in how they preserve and transmit these cultural values from generation to generation. Identifying intangible heritage between Spain and Albania is important as it raises awareness of the richness of traditions and customs in shaping each country. Promoting cultural diversity demonstrates how different cultures share common elements, thus strengthening the bonds between countries. Cultural heritage helps transcend geographical boundaries and fosters joint projects in cultural tourism, artistic exchanges, and the inclusion of shared elements in UNESCO's World Heritage List. In Albania, the protection of intangible heritage is guaranteed by Law No. 27/2018 “On Cultural Heritage and Museums,” which aims to identify, preserve, and promote it.

This paper emphasizes the importance of intercultural cooperation through legal instruments and international mechanisms such as UNESCO, proposing initiatives for the joint protection and promotion of intangible heritage as a global asset. Furthermore, intangible heritage represents an extraordinary potential for the development of cultural tourism, attracting visitors and fostering international recognition of the authentic traditions between the two countries.

**Keywords:** Intangible heritage, Albania, Spain, traditional culture, cultural identity, cultural tourism, legal protection.

## CRITICAL THINKING KEY COMPETENCY FOR CLIMATE CHANGE RESILIENCE

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### ABSTRACT

Education plays a crucial role in developing students' concern for today's environmental issues. In this regard, critical thinking is essential for understanding the interdisciplinary nature of climate change and engaging meaningfully with the topic. This study aims to describe how critical thinking is included in the student textbooks of the Moroccan high school as a tool to foster awareness, resilience and action among Moroccan students. Relying on teaching materials issued by the ministry of education as data resources, a descriptive qualitative approach is used. Document analysis method is adopted as a tool to collect data that are analyzed through the content analysis method. The results of the research show that various environmental topics are introduced to deliver climate change discourse in the different student textbooks. However, those results indicate a fragmented approach that does not address the interconnectedness of the issue to the broader ecosystem. This points to the significant need of fostering understanding, response, and adaptation to climate change through a critical thinking lens.

**Keywords:** Critical Thinking, English Textbooks, Climate change, High School students' awareness

## STUDY OF THE STRUCTURAL PROPERTIES OF ALGINATES EXTRACTED FROM *SARGASSUM*

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### ABSTRACT

Alginates are polysaccharides primarily derived from brown macroalgae, recognized for their gelling, thickening, and stabilizing properties, which make them valuable in various industries, including food and pharmaceuticals. This study focuses on the extraction and characterization of alginates from *Sargassum* using FTIR spectroscopy. **Materials and Methods** **Extraction Process:** Alginates were extracted from *Sargassum* through an alkaline method, involving the washing, drying, and grinding of the algae, followed by treatment with sodium hydroxide (NaOH). The resulting solution was filtered, and alginates were precipitated using calcium chloride (CaCl<sub>2</sub>) (Norrbin & Arvidsson, 2019). **Characterization by FTIR:** FTIR spectroscopy was utilized to identify functional groups and confirm the presence of alginates. **Results and Discussion:** FTIR analyses demonstrated characteristic peaks associated with alginate, including bands for carboxyl groups (1700-1750 cm<sup>-1</sup>) and C–O bonds (1000-1300 cm<sup>-1</sup>), the results indicate successful extraction and confirm the integrity of the alginate structure. The extracted alginates showed potential for diverse applications due to their favorable rheological properties and biocompatibility. **Conclusion :** The extraction of alginates from *Sargassum* was successfully achieved, with FTIR characterization confirming the quality and functional properties of the alginates. This study highlights the potential of *Sargassum* as a sustainable source of alginates for various applications in food, pharmaceuticals, and biotechnology

**Keywords:** Alginates, *Sargassum*, characterization

## EVALUATION OF THE INFLAMMATORY POTENTIAL OF DIET IN MOROCCAN POPULATION OF SAFI CITY

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### ABSTRACT

**Introduction :** Inflammation is a physiological and multidimensional mechanism necessary to respond to harmful agents, involving different cells, organs and organ systems. According to the Food and Agriculture Organization of the United Nations (FAO), red meat consumption should not exceed 71 grams per day, in order to minimize the risk of being associated with a pathological state. The effects of red meat on brain inflammation have been confirmed in the animal model. Indeed, beyond nutritional standards, the consumption of red meat has been associated with the neuroinflammatory aspect as well as the risk of brain toxicity. On the other hand, many studies confirm the correlation between obesity and the triggering of a chronic inflammatory process, this correlation could be bidirectional, meaning that the increase in the dietary inflammatory index (DII) leads to an increase in the body mass index and obesity.

**Objective :** To assess the inflammatory potential of diet in the Moroccan context.

**Methodology :** A literature review will be conducted on the link between diet and inflammation with analytical documentation allowing the characterization of the DII with an emphasis on the definition, use and design of DII categories as well as the calculation process. In addition, the associations between obesity, DII and meat consumption will be analyzed.



**Results:** Through several research studies, the literature has concluded that a healthy diet with anti-inflammatory properties can have preventive effects against certain chronic diseases. On the other hand, a Western diet with more pro-inflammatory properties could increase this risk. The use of the DII calculated according to the formula created by Cavicchia et al. (2009) and developed by Shivappa et al. (2014), will allow to evaluate the dietary profile of individuals and subsequently determine their dietary objectives, thus minimizing the risk of certain pathological syndromes.

The results obtained from the present study will be discussed according to the link between obesity, red meat consumption and inflammation.

**Keywords:** Diets, anti-inflammatory diet, pro-inflammatory diet, DII.

## PERFORMANCE OF NEW ANTHROPOMETRIC INDICES IN THE EARLY IDENTIFICATION OF METABOLIC SYNDROME AMONG ADULTS IN MOROCCO

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### ABSTRACT

Adverse cardiometabolic effects are closely linked to metabolic syndrome (MetS). The objective of this study was to evaluate the performance of newly developed anthropometric indices in the early identification of metabolic syndrome. The study further sought to establish optimal cutoff points for these indices within the adult population of Morocco. An epidemiological study was conducted on 827 healthy individuals aged 20 years and older, with women representing 69% of the sample. Data collected included blood pressure, weight, waist circumference, height, blood glucose, and lipid profiles. MetS was determined using the Joint Statement criteria. Anthropometric indices, such as body surface index (BSI), Deurenberg fat mass index, CUNBAE, conicity index, and Normalized weight adjusted index (NWA) were analyzed. Logistic regression was used to assess the relationship between these indices and MS, while ROC curves compared their predictive abilities. All indices were significantly associated with MetS risk. In male subjects, indices such as CUNBAE and the Deurenberg fat mass Index demonstrate optimal performance, exhibiting AUCs approaching 0.78, thereby achieving a balanced sensitivity and specificity. In contrast, the performance of these indices in female subjects is generally lower, although the Deurenberg Index and CUNBAE still exhibit the highest performance among the evaluated measures. This study highlights the significance of these indices as potential screening tools for MetS, while emphasizing that their performance varies according to gender.

**Keywords:** Metabolic syndrome, Anthropometric indices, cut-off values, ROC analyses, Moroccan population.

## THE INFLUENCE OF THE BACKGROUND WIND DIRECTION ON THE DISTRIBUTION OF PM<sub>10</sub> CONCENTRATION IN THE SURFACE LAYER OF THE ATMOSPHERE C. KUTAISI DURING CALM

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### ABSTRACT

By the 3D regional model of the evolution of mesoscale atmospheric processes and the transfer-diffusion equation of impurities there has been numerically modeled and analyzed a distribution of PM<sub>10</sub> emitted by motor transport in the atmosphere of Kutaisi. In order to adequately considering an influence of the complex relief on the local meteorological processes the terrain-following coordinate system is used. The calm meteorological situation in the subsurface air, when in the free atmosphere the eastern, western, southern and northern background winds blow, are considered. It is shown that the relief of the city and the surrounding area determines the generation of the local anticyclonic eddy in the surface layer of the atmosphere. The vorticity centers are located in different areas of the city during different background wind. The changes in time and spatial distribution of PM<sub>10</sub> concentration in the ground layer of the atmosphere were analyzed for all noted four meteorological situations. As a result, the differences in the spatial distribution and time changes of the PM<sub>10</sub> concentration fields are obtained. During the western background wind, the process of "self-cleaning" of the atmosphere is especially clear. The change in time of the aerosol concentration, in all four considered cases, takes place conditionally in four stages and depends on the intensity of traffic, the location of highways and the topography of the city. Areas of relatively high pollution are defined. It is obtained that the time change of the thermal stability of the atmosphere in the ground layer of the atmosphere plays an important role in the process of the time change of the microaerosol concentration field and in formation of the high polluted area.

**Keywords:** Atmosphere Pollution with PM<sub>10</sub>, Numerical Modelling, Concentration, Ground Layer Calm.

## **ISOLATION, CHARACTERIZATION AND THERAPEUTIC APPLICATIONS OF BACTERIOPHAGES AGAINST PATHOGENIC BACTERIA OF THE ESKAPE GROUP**

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### **ABSTRACT**

Resistance to antimicrobials, including commonly used antibiotics, is a serious global health problem with significant risks to the public. The emergence of antibiotic resistance compromises our ability to treat common infections, increases the cost of treatment, disrupts the progress we have made in the fight against disease, and thus poses a serious problem for our communities, healthcare systems and economies. According to the WHO, every year antibiotic-resistant infections cause more than 750,000 deaths, equivalent to more than one death every minute, a figure predicted to rise to 10 million by 2050. Faced with the scarcity of new antimicrobials on the market and the rapid evolution of bacterial resistance mechanisms, alternative strategies to antibiotic therapy are being developed for the treatment of bacterial infections. These new approaches include the fight against virulence factors, vaccination and modulation of host immunity, as well as protection or regulation of the microbiota and phagotherapy. Phage therapy is based on the use of natural phages to infect and lyse bacteria at the site of infection. Advances in biotechnology have further expanded the repertoire of potential phage therapies to include new strategies using bioengineered phages and purified phage lytic proteins. Current research into the use of phages and their lytic proteins, particularly against multi-drug resistant bacterial infections, suggests that phage therapy could be used as an alternative or complement to antibiotic treatments. The aim of this study is to

build up a bank of bacteriophages specific to bacteria in the ESKAPE group and then to characterize them functionally and genetically.

**Keywords:** Antibiotic resistance; Bacteriophages; Phagotherapy; ESKAPE pathogens; Wastewater.

## VALORIZATION OF THE WASTE OF THE ESSENTIAL OIL EXTRACTION OF *ROSA DAMASCENA* FLOWERS: PHYTOCHEMICAL PROFILING, ANTIOXIDANT ACTIVITY, AND ENZYME INHIBITORY ACTIVITY ASSESSMENT

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### ABSTRACT

*Rosa damascena* is a precious and fragrant flower that is widely used in traditional medicine, cosmetics, and perfumes. It is also important from an economic, cultural, and pharmacological standpoint. Due to *Rosa damascena*'s low essential oil yield, the rose oil industry produces a significant amount of waste biomass annually. Regretfully, most distilleries dispose of this residual material without considering its potential value. In fact, this biomass, considered as a by-product, represents an untapped resource rich in bioactive compounds.

The aim of this study is to valorize the waste of the essential oil extraction of *Rosa damascena* flowers by conducting phytochemical profiling of its hydro-ethanolic extract (RDFORE) and assessing its antioxidant and enzyme inhibitory activities.

To accomplish our objective, a quantitative analysis of the phenolic compounds, including polyphenols and flavonoids, was performed using colorimetric methods in 96-well microplates. The antioxidant activity was assessed using two distinct methods, the 2,2-diphenyl-1-picrylhydrazyl (DPPH) radical scavenging and ferric reducing power (FRAP). Additionally, the waste extract's anti-acetylcholinesterase potential was investigated by an enzymatic bioassay employing the Ellman method in 96-well microplates.

The study's findings showed that RDFORE has a high content of phenolic components. Furthermore, RDFORE showed notable antioxidant qualities such iron chelating ability and free radical scavenging activity. Moreover, RDFORE demonstrated inhibitory action against acetylcholinesterase in relation to the enzyme.

This study reveals that waste from the production of *Rosa damascena* essential oil has the potential to be a valuable and sustainable bio-resource. The antioxidant and acetylcholinesterase inhibitory effects of RDFORE, linked to its phenolic and flavonoid content, highlight its promise as a natural antioxidant.

**Keywords:** *Rosa damascena*, valorization, essential oil production waste, phenolic compounds, antioxidant activity, enzyme inhibitory.

**Acknowledgment:** This work was supported by the 4th Project on the Valorization of Medicinal and Aromatic Plants (VPMA4-2022/12) co-financed by the National Center for Scientific and Technical Research (CNRST) of the Kingdom of Morocco, the National Agency for Medicinal and Aromatic Plants (ANPMA) and Cadi Ayyad University of Marrakech. (2022-2025).

## ASPECTS OF THE DEVELOPMENTAL APPROACH IN NATURAL SCIENCE TEACHING: CHALLENGES AND OPPORTUNITIES IN CURRICULUM IMPLEMENTATION

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### ABSTRACT

The implementation of the new curriculum requires the reformation of the education system. The purpose of the research is to present the aspects of the developmental approach in the teaching of natural sciences, the identification of innovative challenges and opportunities during the practical implementation of the curriculum. The research is quantitative and qualitative. It was realized with 210 participants, educators, teachers (coaches, coordinators) and directors, in 50 schools of pre-university education in Kosovo.

Questionnaires for educators, teachers and interviews with principals were used for data collection. The participants involved in the research were asked to analyze 10 questions, where 36 answers were given ready for approval or not (in compliance or not), based on basic curricular issues such as: competences, development approach, curricular load or other factors.

The results of the research in the four levels of the field of natural sciences, for the aspects of the developmental approach during the implementation of the curriculum, show the following data: the approved/positive answers at the pre-primary level are 16.2%, the primary level 18.5%, the lower secondary level 14.05 %, and at the upper secondary level 15.47%. The data obtained in total give 16.74% approved/positive answers.

The research identified challenges and opportunities in implementing the curriculum. Most educators and teachers present a challenge, the curricular load, didactic materials and limited time, while innovative teaching is an opportunity. The directors present the challenge of working conditions, the professional development of the staff, as an opportunity to increase institutional responsibility.

The developmental approach as an opportunity, eliminates the bottlenecks of the implementation the program in natural sciences, with the change of teaching strategies and additional commitments to increase the interest of students.

**Keywords:** developmental approach, curriculum, teaching, opportunities, natural sciences.



## THE IMPACT OF SUSTAINABLE FINANCE MARKETS ON THE CORPORATE CONDUCT. A STATE-OF-THE-ART RESEARCH

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### ABSTRACT

The introduction of sustainability in financial markets (SFM), especially through sustainable finance domains, has emerged as a response to the need for transformation, transitioning the focus from the goal of financial profit to one that also encompasses social well-being and environmental conservation. The purpose of this paper is to investigate the state of the art of the effect of SFM implementation on investment choices and corporate conduct. In addition, this paper thoroughly examines the significance and impact of integrating SFM investments into a diversified portfolio, noting that the influence of sustainable criteria on asset allocation greatly varies by context, becoming critical when distributing resources across different regions or sectors within a specific asset category. The mean-variance- model as proposed in this review, serves as a useful tool for investors seeking to effectively integrate SFM factors into their asset allocation strategies, offering a balanced approach to optimizing portfolios that considers not only financial aims but also the ethical and social concerns, especially in emerging countries. Results reveal that the implementation of SFM criteria is tailored to the preferences and objectives of investors, with the reassuring observation that shifts in asset allocation towards high-scoring investments do not seem to significantly affect the absolute or risk-adjusted returns of portfolios. In conclusion, current research reveals that when applying these strategies to financial domains, it is crucial to monitor the development of risks related to extraordinary occurrences such as environmental disasters or corporate issues, to ensure flexibility and resilience for investors aiming to align financial interests with sustainable goals, facilitated by tools such as the benchmark.

**Keywords:** Sustainable Development Goals, Sustainable Finance, Assets, Mean-Variance-Model, Environmental Resilience.

## **BUSINESS INNOVATION AND ORGANIZATIONAL SUSTAINABILITY: A CROSS-SECTIONAL STUDY OF ENTREPRENEURIAL BUSINESS IN ALBANIA**

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### **ABSTRACT**

The current research was designed to investigate the correlation between business innovation and organizational sustainability in Albania. A survey research methodology was employed for this investigation, and a sample of 200 entrepreneurs was selected for the study. The primary instrument utilized for data collection was a structured questionnaire, which was administered to respondents through purposive sampling techniques. The data gathered were analyzed employing Pearson Product Moment Correlation coefficient and regression. The findings indicate a statistically significant correlation between various dimensions of business innovation, including product innovation, process innovation, and marketing innovation, and the organizational sustainability metrics of environmental, social, and economic sustainability among entrepreneurs in Albania. As a result, it is recommended that business consultants recognize the importance of consumer data regarding the adoption of innovations, as such information is invaluable to managers and policymakers. Furthermore, it is advised that the government acknowledges that technological advancements, including the Internet, 3-D printing, and crowdfunding platforms, have the potential to significantly bolster the innovation endeavors of individuals, although the successful transition from household to business sector may be contingent upon achieving both technical and commercial viability.

**Keywords:** business innovation, organizational sustainability, product innovation, process innovation, marketing innovation

## **TRANSFORMING BOSNIA AND HERZEGOVINA BOARDROOMS: ADOPTING EU GENDER DIVERSITY STANDARDS IN THE TRANSITING ECONOMIES. GAPS AND OPPORTUNITIES IN THE CASE OF BANKING SECTOR**

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### **ABSTRACT**

The representation of women in corporate boardrooms remains a significant challenge in Bosnia and Herzegovina (BiH). This paper examines the gaps between current gender diversity practices in BiH and the European Union's (EU) regulatory framework, which mandates increased female representation on corporate boards. Drawing on comparative analyses and case studies, the research identifies structural, cultural, and regulatory barriers that hinder the integration of EU gender diversity standards in transitioning economies like BiH. Opportunities for transformation are explored, including the potential for enhanced corporate governance, improved financial performance, and alignment with EU accession goals. The paper highlights the status of the gender diversity gap, status of gender diversity in most regulated sector and regulatory gaps. Furthermore, it provides actionable recommendations for regulators, policymakers, and banking sector leaders to foster a more inclusive and equitable boardroom culture. By addressing these disparities, BiH's banking sector can position itself as a model for integrating diversity and driving sustainable growth in the region.

This study contributes to the discourse on gender equality and governance by showcasing the challenges and opportunities of adopting EU policies in transitioning economies, with a focus on the listed banking sector in Bosnia and Herzegovina..

**Keywords:** transition economies, board diversity, gender diversity, EU policies, banking sector, Bosnia and Herzegovina.

## INFORMATION SHARING, INTER-ORGANIZATIONAL KNOWLEDGE AND GREEN INNOVATION

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### ABSTRACT

As environmental awareness grows, so does the demand for green innovation, encouraging sustainable and responsible solutions in organizations. This scenario requires the sharing of green knowledge, promoting collaborations that accelerate green practices in various sectors. To promote understanding of this context, the article examines the sequential mediation of the elements of green inter-organizational knowledge in the relationship between information sharing and green innovation in the network of agricultural cooperatives. The proposed conceptual model was empirically validated through structural equation modeling, based on data collected from cross-sectional responses from different stakeholders. The results indicated the direct effect of information sharing, green knowledge sharing and green knowledge integration on green innovation. The indirect effect of green knowledge sharing and green knowledge integration on the relationship between information sharing and green innovation was demonstrated. In addition, it was found that green knowledge sharing and green knowledge integration sequentially mediate the relationship between information sharing and green innovation. From the perspective of the Knowledge-Based View, the study reinforces that sustainable information sharing and inter-organizational knowledge act as catalysts for green innovation, promoting continuous learning, strategic collaboration and the development of innovative environmental solutions. As a managerial implication, the findings indicate the need for cooperatives to create structures that promote the integration of green knowledge, such as collaboration platforms or joint training programs. This not only improves operational efficiency but also positions cooperatives as leaders in responsible environmental practices.

**Keywords:** Information sharing. Green innovation. Green knowledge sharing. Green knowledge integration. Knowledge-Based View.

## **HISTORICAL MANAGEMENT OF THE AROMATIC AND MEDICINAL PLANTS SECTOR IN ALBANIA: LACK OF INFORMATION AS A CONTINUOUS PROBLEM FOR RATIONAL DECISION-MAKING**

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### **ABSTRACT**

The use of aromatic and medicinal plants in Albania has gone through a huge change in the past century, and this was fully influenced by specific political and economic system. However, a persistent lack of information is considered as a major factor that obstructs the rational decision-making process. In this article, it shows the historical management approaches of the time from 1920 to 2023, the effects of inaccurate resource inventories on the country, and the utilization of the resource base for sustainable development. It is a tool in modern economic disciplines that reveals the repercussions of information asymmetry in rational decision-making. This article has used a mixed-methods approach in historical analysis as well as the evaluation of inventory methodologies. We put forward the information that will fill in the gap of suitable decision-making and sustainable resource management.

**Keywords:** Aromatic and medicinal plants, Resource management, Information asymmetry, Inventory methodologies, Sustainable development

## EXPLORING THE DIMENSIONS OF LABOUR: INSTITUTIONAL, HUMAN CAPITAL, AND CULTURAL THEORIES IN A COMPARATIVE PERSPECTIVE

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### ABSTRACT

This study explores the dimensions of labour through a comparative analysis of three central theories: institutional, human capital, and cultural. Through a systematic literature review, it investigates how these frameworks explain labour market dynamics, workforce development, and economic outcomes. Institutional theory examines the role of formal rules, regulations, and organizations in shaping labour relations. Human capital theory highlights the importance of education, skills, and training in improving productivity and economic opportunities. Cultural theory focuses on how norms, values, and societal attitudes shape labour practices and expectations. The comparative approach identifies the unique contributions, overlaps, and limitations of each theory. The findings reveal that while each framework offers important insights, an integrated perspective combining institutional structures, human capital investment, and cultural influences provides a more comprehensive understanding of labour dynamics. This synthesis highlights the need for interdisciplinary approaches to effectively address labour market challenges and design inclusive workforce policies. By linking these theoretical perspectives, this paper contributes to a deeper understanding of labour and lays the groundwork for future research and policy development aimed at fostering sustainable labour systems.

**Keywords:** Labour Theories, Institutional Perspective, Human Capital Approach, Cultural View

## EU NEXT GENERATION AND GREEN DEAL IN NON -MEMBER STATES: AN ARGUMENTATIVE LITERATURE REVIEW

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### ABSTRACT

This paper seeks to conduct a comprehensive analysis of the inaugural major climate policy in Europe – the Green Deal and its impact on building the Next Generation EU with the objective of formulating insights pertaining to the long-term economic implications, the perspectives of international trading partners, and the novel instruments that the European Commission ought to implement to guarantee the efficacy of this initiative. Specifically, attention has been directed towards the limitations that the European Green Deal has exhibited during its execution and the discrepancies with extant environmental legislation within both the national and regional frameworks. The purpose of this investigation is anchored in the ambition to furnish a holistic overview of European undertakings concerning one of the pivotal challenges of contemporary society: climate change. Through an argumentative review, the paper highlights also the most relevant procedural flaws that characterize the functioning of the EU budget and the role in providing legal backing to the political commitments of the Green Deal. Moreover, particular attention is devoted to the new mechanisms that will be introduced to support the European Green Deal, such as the Carbon Border Adjustment Mechanism (CBAM) and the new own resource based on revenues from the EU Emissions Trading System (ETS) especially among non-EU members.

**Keywords:** Green Deal, EU Next Generation, CBAM, ETS, non-EU members

## INDONESIAN ISLAMIC CONSUMER CULTURE FROM THE PERSPECTIVE OF CONTEMPORARY CONSUMERISM

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### ABSTRACT

In the era of rapid digital technology growth and deep international integration, consumer culture has become increasingly dynamic and a subject of intense debate among leaders of major economies regarding global trends. This paper examines Islamic consumer culture in Indonesia as a representative case study in Southeast Asia. Employing a religious culture perspective, it applies the theory of consumerism and utilizes methods focusing on characteristics and habits to investigate this phenomenon. The study clarifies key concepts, including consumerism and consumer culture in general, before specifically analyzing factors influencing Islamic consumer culture in Indonesia. It then presents the current state of Islamic consumer behavior in the country. Based on this analysis, the paper assesses both the positive changes and limitations within this evolving landscape. Finally, it offers projections regarding the future trends of Islamic consumer culture in Indonesia.

**Keywords:** Islam, consumer culture, Indonesia.



## TRANSFORMING TRANSACTIONS: THE INFLUENCE OF BANK DIGITALIZATION ON E-PAYMENTS IN ROMANIA

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### ABSTRACT

Bank digitalization has significantly influenced the development of electronic payment systems worldwide, with Romania being no exception. Previous studies have highlighted the global shift towards digital financial services, driven by technological innovation and changing consumer preferences. In the Romanian context, research has explored the adoption of digital banking platforms and the increasing reliance on electronic payments, particularly post-pandemic. However, gaps remain in understanding the interplay between these advancements and their impact on financial behavior and inclusion.

This study aims to examine how bank digitalization has transformed electronic payment practices in Romania, focusing on consumer adoption, transaction efficiency, and barriers to broader implementation. The research employs a mixed-methods approach, combining quantitative analysis of transaction data from Romanian banks.

The findings indicate a steady increase in the adoption of electronic payment systems, with significant growth in mobile and online transactions. However, challenges such as digital literacy, rural access, and cybersecurity concerns persist. Bank digitalization has notably improved transaction speed, reduced costs, and fostered greater financial inclusion, but its benefits are unevenly distributed across demographic groups. Additionally, the study highlights the role of public-private partnerships in enhancing digital infrastructure and promoting consumer trust in electronic payment systems.

The study concludes that while bank digitalization has positively impacted electronic payments in Romania, targeted strategies are needed to address existing barriers, strengthen consumer trust, and ensure equitable access to these transformative financial technologies.

**Keywords:** Bank Digitalization, Electronic Payments, Financial Inclusion, Transaction Efficiency.

## **PENSIONS IN ALBANIA: BALANCING PUBLIC RESPONSIBILITY AND PRIVATE PARTICIPATION**

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### **ABSTRACT**

This paper aims to examine the importance of balancing public responsibility and private participation in Albania's pension schemes. To this end, existing studies and reports on pensions systems, public and private schemes, and their impact on long-term sustainability were reviewed. Initially, articles, reports, and official documents on pensions reform in Albania were analysed. During the research period, key words such as "public pensions", "private pensions", "contribution schemes" and "pension reforms" were used to identify reliable sources. The existing literature revealed a lack of extensive empirical studies on the impact of current reforms. However, several theoretical reports and statistical analyses indicate that private sector involvement is essential for a more sustainable system. Among five primary sources analysed, three were theoretical studies and two were empirical, with data collected through both qualitative and quantitative methods. The study categorized the literature based on objectives, methods, and key findings, applying content analysis to draw conclusions. The results suggest that a combination of public and private schemes, supported by legal reforms and fiscal incentives, can improve transparency, public trust, and the sustainability of the pension system in Albania.

**Keywords:** Public Pensions, Private Pensions, Contributions, Sustainability, Pension Reforms, Transparency.

## OPPORTUNITY AND RISK OF IMPLEMENTING INNOVATION IN BUSINESS MANAGEMENT

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### ABSTRACT

Innovation and Entrepreneurship are two different terms that have completely different meanings. However, there is a relationship between innovation and entrepreneurship, which is sometimes confusing. The main difference between innovation and entrepreneurship is that innovation means introducing something new. This could be an idea, product, model or service. On the other hand, making a great idea in a business opportunity is entrepreneurship. Entrepreneurship starts with innovation. There is a risk involved in entrepreneurship which is not there in innovation. Sources of innovation are economic changes, technological changes, new knowledge, new markets, etc. Entrepreneurship is making great ideas on a business opportunity by taking a risk. Entrepreneurship understands the business opportunity for great innovative ideas and adds a tangible value to innovation. Entrepreneurs are always looking for sources of innovation and they do not limit themselves to some kind of innovation. Entrepreneurs create business with the opportunity identified and run it profitably. They need skills such as planning, decision making, management, leadership, motivation and risk taking. Successful entrepreneurship is always the result of hard work, commitment and taking risks.

**Keywords:** IT, Innovation, Entrepreneurship, E-Business, risk management, etc.

## **OMEGA-3, ANTIOXIDANTS AND VITAMINS: IDENTIFYING AND ANALYZING THE INFLUENCE OF NUTRITIONAL COMPONENTS ON THE ACTIVITY OF THE CENTRAL NERVOUS SYSTEM AND THE STRESS RESPONSE**

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### **ABSTRACT**

The interplay between nutritional components and the central nervous system (CNS) has garnered significant scientific interest, particularly concerning the modulation of stress responses. This study investigates the roles of omega-3 fatty acids, antioxidants, and vitamins in influencing CNS activity and stress-related mechanisms. Omega-3 fatty acids are recognized for their neuroprotective properties, enhancing neuronal membrane fluidity and reducing neuroinflammation. Antioxidants, including polyphenols and carotenoids, mitigate oxidative stress by neutralizing reactive oxygen species, preserving neuronal integrity. Vitamins such as B-complex, C, and D play critical roles in neurotransmitter synthesis, energy metabolism, and neurogenesis. This comprehensive analysis synthesizes current evidence to elucidate the synergistic and individual effects of these nutritional components on CNS activity and stress modulation. The findings underscore the potential of targeted nutritional strategies to mitigate stress-related disorders and support optimal CNS function.

**Keywords:** Omega-3 Fatty Acids, Antioxidants, Vitamins, Central Nervous System, Stress Response.

**BISECURITY MEASURES IN BREEDING OF PARENTS FLOCK OF PHEASANTS****Ivan PAVLOVIC**

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**ABSTRACT**

Today, the pheasant is the most numerous and productive species of feathered game. In order to maintain an increased fund of pheasant game in the new modern approach to the organization of hunting in open and polygon hunting grounds, the technique of settling with pheasants obtained by a controlled method of cultivation in farm buildings, so-called pheasantries. The first stage in the successful production of pheasant game under controlled conditions is the formation of a breeding flock. When sexually mature, hens and roosters are placed together in outdoor breeder pens. Only healthy males and females with usually the best expressed characteristics are selected for breeding, from which the parents flock is formed. A typical space requirement for breeders is 2.5-3.0 m<sup>2</sup> per bird. Pheasants are polygamous animals, which means that one rooster per 8-12 hens is sufficient to maintain fertility. Biosecurity measures are a key factor in modern farming of pheasant game. Aviaries are closed units where mother flocks and hatched pheasants are kept until they are released into the hunting grounds. Each part on the side and above is fenced with a braided wire 2 m high. In the interior of the aviary there are feeders, waterers and canopies. In most pheasants, the floor of the aviary is made of earth, which is planted with clover, grass or sorghum. Before moving in the flock, wire parts, drains and canopies are mechanically cleaned and disinfected. During this breeding phase, it is necessary to implement preventive measures to protect the breeding flock by means of vaccination against NCD. In addition to the control of the flock for Salmonella status, bacteriological and parasitological control of the feces of the parents flock is carried out, at least once a month during the entire keeping in the aviaries.

**Keywords:** pheasants, farm breeding, parent flock, bioscurity measure

**MODIFIABLE LIFESTYLE FACTORS AND FEMALE REPRODUCTIVE STATUS****Malgorzata Jusiakowska-Piputa**

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**ABSTRACT**

Declining birth rates are the real cause of Europe's demographic crisis. Research suggests that lifestyle factors, such as sufficient or insufficient physical activity or the use of stimulants, may affect fertility. In this study, we examined the effects of physical activity and alcohol consumption on the reproductive status of 636 women aged 23-46 years with normal ovarian function in three groups. We found that anti-Müllerian hormone (AMH) is useful for detecting changes in reproductive potential. The ovarian follicle pool is formed during fetal development and decreases with age. Folliculotropic hormone (FSH) is a standard marker of the hypothalamic-pituitary-ovarian axis. The International Physical Activity Questionnaire was used to assess physical activity in metabolic equivalents (METs). A semi-quantitative alcohol frequency questionnaire was used to measure alcohol consumption. Blood samples were taken to measure AMH and FSH levels. Analysis of variance (MANOVA and MANCOVA) was used to assess the effect of selected factors on AMH and FSH. Statistical significance was set at  $p \leq 0.05$  for all analyses. An effect of alcohol consumption on AMH levels was observed in the youngest group of women ( $p < 0.01$ ). A difference was found between FSH levels ( $p < 0.001$ ) depending on the predictor analyzed in women aged 36-40 years. The study confirmed the interaction between physical activity and alcohol consumption on both markers AMH and FSH in the group of women aged 31-35 years ( $p < 0.01$ ). The results confirmed a statistically significant association between AMH and FSH levels and sufficient and insufficient physical activity and alcohol consumption.

**Keywords:** AMH, FSH, Fertility, Physical activity, Alcohol

## ENHANCING ANTIBIOTIC ACTION THROUGH SYNERGY WITH NATURAL COMPOUNDS: A SUSTAINABLE APPROACH

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### ABSTRACT

The alarming rise in antibiotic-resistant bacteria has resulted in a big challenge to global public health. In response, the search for alternatives has increased interest in natural compounds from plants as a sustainable and effective alternative of bacterial. Plant-derived compounds represent an enormous source of bioactive molecules with antimicrobial properties, and most of them have shown great potential in trying to outsmart the bacteria in their resistance. The following review will discuss various plant-based compounds that have been used against multi-resistant bacterial strains, their mechanisms of action, their impact on bacterial viability, and their possible application as adjunctive or alternative agents to conventional antibiotics. Plant compounds such as alkaloids, flavonoids, terpenoids, and phenolic acids exhibit a wide range of antibacterial activities, targeting bacterial cell walls,

disrupting membrane integrity, inhibiting protein synthesis, or interfering with essential enzymatic pathways. Many of these molecules also have the ability to modulate bacterial resistance mechanisms, thereby restoring the efficacy of existing antibiotics. Additionally, their natural origin makes them more environmentally friendly and biodegradable compared to synthetic antimicrobials. This review illustrates that what is needed, if the plant products are to be established as a realistic alternative in the fight against resistant bacteria, is more research and development of the technology, especially on the clinical use of plant products as antimicrobials.

In conclusion, the exploration of plant-derived compounds holds immense potential for the development of novel therapeutic agents, offering sustainable and natural solutions to modern medical challenges.

**Keywords:** natural compounds, resistant bacteria, infections, public health



## PROTECTIVE EFFECT OF AROMATIC AND MEDICINAL PLANT EXTRACT ON HYDROGEN PEROXIDE INDUCED OXIDATIVE DAMAGE IN *SACCHAROMYCES CEREVISIAE*: BIOCHEMICAL, MORPHOLOGICAL AND PHYSIOLOGICAL STUDY

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### ABSTRACT

Reactive oxygen species (ROS) are essential for cell survival as they are involved in various physiological processes such as apoptosis, immunity, differentiation and signalization. However, an excess of ROS can create an imbalance in the ROS/antioxidant balance called oxidative stress. The latter is capable of generating damage to cellular components such as membranes, proteins, lipids and DNA leading to several diseases that can be associated with oxidative stress such as diabetes, kidney disease, cancer, cardiovascular, neurological and respiratory diseases.

Aromatic and medicinal plants are rich in phenolic compounds, which are recognized for their beneficial effects on health. Studies have shown that there is a good correlation between the ability of phenolic compounds to interact with the membrane and their antioxidant effectiveness in order to combat lipid peroxidation. It turned out that the phenolic compounds extracted from PAMs accumulate at the level of the polar heads of the phospholipids of the membranes of the cells forming a barrier that would limit the diffusion of the radicals in the membrane, thus protecting the latter from oxidation.

*Saccharomyces cerevisiae* is one of the most widely used eukaryotic model organisms. It has been used as a model to study aging, gene expression regulation, signal transduction, cell cycle, metabolism, apoptosis, neurodegenerative disorders, and many other biological processes. The study of the protective effect of PAMs against oxidative stress induced in *Saccharomyces cerevisiae* can aim to understand the mechanisms involved in the interactions between phenolic compounds and peroxy radicals.

**Keywords:** Oxidative stress, antioxidant, *S. cerevisiae*, aromatic and medicinal plant.

## ASSESSMENT OF BURNOUT IN NURSING CLINICAL MENTORS AT THE UNIVERSITY OF SHKODRA: INSIGHTS INTO INTERACTION DURING CLINICAL PRACTICE

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### ABSTRACT

**Introduction:** Burnout is a significant issue in healthcare, particularly among nursing professionals. Clinical mentors and nursing students are at heightened risk due to the dual pressures of clinical practice and teaching responsibilities.

**Aim:** This study aims to evaluate burnout levels among clinical mentors at the University of Shkodra and identify contributing factors within the context of clinical practice.

**Objectives:** The study assesses the degree of burnout in clinical mentors and nursing students using validated instruments, explores factors such as workload, emotional pressure, and social support, and evaluates the impact of burnout on mentor performance and student engagement. Recommendations for stress management and improving working conditions are also provided.

**Material and Methods:** A cross-sectional study was conducted using a standardized, anonymous online questionnaire distributed via WhatsApp to clinical mentors and nursing students from the Faculty of Nursing, University of Shkodra. Data were collected from October to November 2024 and analyzed using the R program.

**Results:** Most participants were female (72%), and 56% held a bachelor's degree. Nearly half (45%) of the clinical mentors reported needing more support and resources to manage the stress of mentoring. A significant proportion (65%) viewed mentoring as an additional burden rather than an engaging experience, while 31% felt pressured to balance their mentoring responsibilities with providing adequate support to students.

**Conclusions:** Clinical mentors face considerable challenges, with many requiring additional resources and support to manage stress. The perception of mentoring as a burden rather than a rewarding experience may hinder their effectiveness. Addressing these issues is essential to improve mentor well-being and enhance the quality of mentoring in clinical practice.

**Keywords:** Burnout, Clinical Mentors, Nursing Students, Work Environment.

## CREATING VASCULAR ACCESS IN PATIENTS ON DIALYSIS WITH SEVERE VENOUS STENOSIS

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### ABSTRACT

This paper aims to share our experience on managing to create a vascular access in severe venous stenosis, a serious complication that is seen in chronic renal disease patients. In patients suffering from end-stage renal disease (ESRD), functioning access for hemodialysis is a life sustaining requirement.

Vascular access modalities for long-term hemodialysis include tunneled dialysis catheter placement and surgical access creation [arteriovenous fistula (AVF), arteriovenous graft (AVG) and percutaneous arteriovenous fistula (pAVF)]. The purely autologous AVF is considered first vascular access option of choice and preferred to a polytetrafluoroethylene (PTFE)-graft (AVG). Although central venous catheters (CVCs) are regarded as tertiary options due to their significantly higher morbidity and mortality rate, they are frequently used if hemodialysis needs to be initiated immediately and as a definitive solution in a subset of patients with poor native vessels and significant comorbidities.

Central vein occlusion (CVO) poses a special challenge in patients with already compromised vascular access and no remaining available sites.

Depending upon the anatomy and chronicity of occlusion, conventional endovascular techniques utilizing hydrophilic coated wires, directional catheters, sheaths, and angioplasty balloons may be sufficient to recanalize an occlusion. In a majority of patients with acute CVO, successful recanalization can be performed with relatively simple techniques.

In our hospital we have performed successfully angioplasty in chronic CVO and inserted a central venous catheter for dialysis in 9 patients.

We tried but could not realize a successful angioplasty in 2 patients (we performed A-V GRAFT between right femoral artery and right femoral vein ).

**Keywords:** Central vein occlusion, Dialysis, Central catheter, Angioplasty

## ASSESSMENT OF OXIDATIVE AND GENERAL STRESS IN *PERNA PERNA* MUSSELS FROM AN INDUSTRIAL SITE IN CASABLANCA'S COAST DURING AUTUMN

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### ABSTRACT

Moroccan Atlantic coasts, particularly coastal industrial cities, are facing environmental threats. As the final receptor of contaminants, the ocean receives industrial sewage discharges, domestic wastewater, and agricultural runoff. In our study, we chose Casablanca, the largest city in Morocco, known for its economic activity and high population. Situated along the coast, Casablanca's activities are particularly susceptible to having direct impacts on the quality of its marine and coastal environments.

For this purpose, we selected two sampling points based on their location: the first one (S1) was situated in the industrial zone, and the second one (S2) was far from industrial activities to serve as a comparison basis. The *Perna perna* mussel species was chosen as the biological model due to its high bioaccumulation rate of contaminants, making it an ideal bioindicator for biomonitoring programs. In this study, individuals of the same size were sampled during autumn (October 2024) and transported to the laboratory for dissection. Several biomarkers were analyzed to assess neurotoxicity, lipid peroxidation, and general oxidative stress.

The results showed a difference in biomarker responses between the industrial site (S1) and the non-industrial site (S2), with most biomarkers indicating higher levels of stress at S1. To build on these findings, future studies should incorporate additional biomarkers to provide a more comprehensive assessment of pollution impacts. Furthermore, extending the sampling to other seasons would help capture seasonal variations in biomarker responses, offering a broader perspective on the environmental pressures affecting this coastal ecosystem.

**Keywords:** Biomonitoring, biomarkers, oxidative stress, *Perna perna*, Moroccan Atlantic coasts.

**FISH SPECIES DISTRIBUTION AND ABUNDANCE IN ELEYELE LAKE, NIGERIA****Adeniyi, O. A.**

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**ABSTRACT**

Fish distribution and abundance is a vital tool in the management of fisheries resources, aquatic health and future sustainability of aquatic resources that include commercial fisheries. A study on the distribution and abundance of fish resources of Eleyele lake was carried out using the catch from gillnets of different mesh sizes set between September 2018 and August 2019. The Lake was stratified spatially into three (3) stations; A, B, and C according to their ecological features. The fish caught were sorted according to their species using standard measures. Data obtained was subjected to statistical analysis using SPSS and diversity indices at  $\alpha$  0.05

The fish species encountered during the period of study were 454 consisting of 9 families and 15 species. The most dominant species were *Oreochromis niloticus* (154) followed by *Coptodon Zilli* (105) while the least was *Hydrocyanus vittatus* with only one individual recorded. Spatially, there were more fish species recorded in Station A (168) followed by Station C (160) while Station B had the lowest (126) and seasonally, there were more fish during the raining months (275) than the dry season (179). The diversity index was 4.98.

Eleyele lake is rich in ichthyofauna diversity with *Oreochromis niloticus* dominating the catch and *Hydrocyanus vittatus* and *Synodontis melanoptera* are being threatened. Proper management needs to be put in place in order to conserve and protect the threatened species.

**TARİHİ SAĞLIK YAPILARININ YENİDEN İŞLEVLENDİRME KAPSAMINDA  
KENTSEL BELLEK ÜZERİNDE İNCELEME**  
STUDY ON URBAN MEMORY WITHIN THE SCOPE OF REFUNCTIONALITY OF  
HISTORICAL HEALTH BUILDINGS

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**ÖZET**

Kentler fiziksel duruşların yanında yaşayanların anılarıyla var olurlar. Anılarda bulunanlar günümüzde yıkılmış ve kaybolmuş olsa dahi her zihin de canlı kalarak hafızayı yeniden oluşturmaktadır. Böylece hafıza geçmişten kalanların bulunduğu değil yeniden inşaa ettiği bir kavram olmaktadır. Anılar bireyin bulunduğu toplumsal çevre yardımıyla yeniden inşa edildiği için kentteki her farklı grup geçmişin yeniden inşasında hatırlayan birer özneye dönüşmektedir.

Kent hafızasının yeniden oluşumu bireylerin hatırladıkları ve unuttukları ile meydana gelmektedir. Kentte ki mekanlardaki her değişiklik bu hafızanın yeniden oluşmasına olanak sağlamaktadır. Kentte hafıza için önemli bir mekan da sağlık yapılarıdır.

Sağlık yapıları geçmişten günümüze kentsel hafıza için hem ruhsal hem de fiziksel olarak önemli bir konuma sahiptir. Bundan dolayı önemli yere sahip tarihi değeri olan sağlık yapıları gelecek nesillere aktarılması amacıyla yeniden işlen kazandırılarak koruma altına alınması büyük önem arz etmektedir. Çok sayıda tarihi sağlık yapısı bulunan ülkemiz de yapıların korunması yeniden işlevlendirme yöntemi ile sıkça sağlanmaktadır. Ancak

hızlı bir değişim yaşadığımız günümüz şartlarında mekansal değişimler kent belleğine zarar vermektedir. Önem derecesine bağlı olarak bazı mekânların korunması gündeme gelirken , sağlık yapıları koruma kapsamında bazı yapılara göre geri planda kalmaktadır. Bu çalışma kapsamında tarihi sağlık yapılarının yeniden işlevlendirilerek korunması ve kentsel bellek üzerindeki etkisi ile ilgili bir araştırma yapılmıştır. Bu araştırma Türkiye'de bulunan sağlık yapıları üzerinde yapılmıştır.

Literatür taraması kapsamında, yeniden işlevlendirilmiş 6 adet tarihi sağlık yapısı incelenmiştir. Bu yapılar Gureba-i Müslimin Hastanesi, Mareşal Fevzi Çakmak Askeri Hastane , Atık Valide Sultan Kulliyesi Darüşşifası, Mustafa Rıfat Eczanesi, Şifahye Ve

Gıyasiye Medresesi ve Verem Savaş Dispanteri dir. İnceleme kapsamında incelenen sağlık yapıları ülkemizde günümüze ulaşan ve işlev değişikliği ile yeniden kazandırılan yapılar arasından seçilmiştir. Bu çalışmanın amacı sağlık yapılarının kent için önemine ,kent belleğine olan etkisine değinmek ve kent belleğine etkilerini araştırmaktır. Bu araştırma da işlev değişikliğine uğrayan sağlık yapılarının Lynch’ in kentsel bellek ilkelerinin kapsamında incelenerek etkisi tartışılmıştır.

**Anahtar Kelimeler:** Kent Belleği ,Yeniden İşlevlendirme,Sağlık Yapıları ,Kent Belleği İlkeleri

## ABSTRACT

Cities exist not only through their physical presence but also through the memories of those who inhabit them. Even if structures from the past have been destroyed or lost, they remain alive in the minds of individuals, reconstructing memory anew. In this way, memory becomes a concept not solely tied to remnants of the past but one that is actively reconstructed. Since memories are reconstructed with the help of the social environment in which individuals exist, every group within the city transforms into a subject of remembrance in the reconstruction of the past.

The reformation of urban memory is shaped by what individuals remember and forget. Every change in the spaces within a city contributes to the reformation of this memory. One of the significant spaces in the city for memory is healthcare structures.

Healthcare structures have held a crucial place in urban memory, both emotionally and physically, from the past to the present. Therefore, preserving historically significant healthcare structures and restoring them for future generations carries great importance. In Turkey, a country rich in historical healthcare buildings, preservation is frequently achieved through adaptive reuse. However, under the rapidly changing conditions of the present day, spatial transformations can harm urban memory. While the preservation of certain spaces based on their importance becomes a matter of focus, healthcare structures often remain in the background compared to other structures in conservation efforts.

This study investigates the preservation of historical healthcare structures through adaptive reuse and their impact on urban memory. The research is centered on healthcare structures located in Turkey. Within the scope of the literature review, six historically adapted healthcare structures were examined: Gureba-i Müslimin Hospital, Mareşal Fevzi Çakmak Military Hospital, Atik Valide Sultan Complex Darüşşifa, Mustafa Rıfat Pharmacy, Şifahiye and Gıyasiye Madrasah, and the Tuberculosis Control Dispensary. These structures were selected from among those that have survived to the present day in Turkey and have been reintegrated into urban life through functional changes.



The aim of this study is to highlight the importance of healthcare structures for cities, explore their impact on urban memory, and examine their effects. The research discusses the impact of healthcare structures that have undergone functional changes within the framework of Lynch's urban memory principles

**Keywords:** Urban Memory, Adaptive Reuse, Healthcare Structures, Principles of Urban Memory.

## KATILIMCI PLANLAMA VE KENTSEL DÖNÜŞÜM: TOPLUM MERKEZLİ BİR PERSPEKTİF

### PARTICIPATORY PLANNING AND URBAN TRANSFORMATION: A COMMUNITY CENTERED PERSPECTIVE

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#### ÖZET

Kentsel dönüşüm, hızla değişen şehirlerin ekonomik, sosyal ve fiziksel yapısını iyileştirmeyi amaçlarken, genellikle toplumun gerçek ihtiyaçlarını ve taleplerini göz ardı eden yukarıdan aşağı bir yaklaşımla yürütülmektedir. Bu durum, yerinden edilme, toplumsal bağların zayıflaması ve mekânsal adaletsizlik gibi sorunlara yol açmaktadır. Çalışma, kentsel dönüşüm süreçlerinde katılımcı planlamanın etkilerini incelemek için literatür taraması ve örnek olay analizi yöntemlerini kullanmaktadır. Türkiye'den seçilmiş başarılı ve başarısız kentsel dönüşüm projeleri karşılaştırılarak, katılım düzeyinin sosyal, ekonomik ve mekânsal sonuçlar üzerindeki etkisi değerlendirilmiştir. Çalışmada kentsel dönüşüm süreçlerinde katılımcı planlama yaklaşımlarının önemini vurgulayarak, daha adil, sürdürülebilir ve toplum merkezli çözümlerin nasıl geliştirilebileceğini tartışılmaktadır. Katılımcı planlama, yerel halkın, sivil toplum kuruluşlarının ve diğer paydaşların karar alma süreçlerine aktif olarak dahil edilmesini sağlar. Bu yaklaşım, toplumun ihtiyaçlarını ve beklentilerini anlamayı kolaylaştırırken, dönüşüm projelerinin sosyal kabul edilebilirliğini artırır. Araştırma, katılımcılığın yalnızca bir araç değil, aynı zamanda demokratik bir hak olduğunu savunmaktadır. Vatandaşların bilgiye erişiminin sağlanması, şeffaf iletişim mekanizmalarının kurulması ve toplumsal eşitlik ilkelerine dayalı karar süreçlerinin benimsenmesi, katılımcı planlamanın etkinliğini artıran temel unsurlar olarak değerlendirilmektedir. Sonuç olarak, katılımcı planlama; kentsel dönüşümün daha kapsayıcı ve adil bir şekilde gerçekleştirilmesine katkıda bulunabilir. Çalışmada literatür taramasının yanı sıra, ikincil veri analizi yöntemi kullanılarak Türkiye'deki farklı kentsel dönüşüm projeleri detaylı bir şekilde incelenmiştir. Bu kapsamda, çeşitli resmî belgeler, raporlar ve akademik çalışmalar değerlendirilmiş ve projelerdeki katılım düzeyinin sosyal, ekonomik ve mekânsal sonuçlara etkisi analiz edilmiştir. Seçilen başarılı ve başarısız projeler karşılaştırılarak, katılımcılığın süreçlerdeki etkinliği ve sonuçlar üzerindeki dönüştürücü etkisi derinlemesine ele alınmıştır. Bu yöntem, geçmişteki uygulamalardan ders çıkarılmasını sağlayarak gelecekte daha kapsayıcı ve sürdürülebilir projeler geliştirilmesi için önemli çıkarımlar sunmaktadır. Bu çalışma, kentsel dönüşüm süreçlerinde katılımcı planlamanın önemini vurgulayarak, bu alandaki uygulamalara yönelik

çeşitli çıkarımlar sunmaktadır. Toplum merkezli bir yaklaşımla ele alınan bulgular, daha kapsayıcı ve sürdürülebilir dönüşüm projeleri geliştirmek isteyen uygulayıcılar ve politika yapıcılar için faydalı bir perspektif sağlamayı amaçlamaktadır.

**Anahtar Kelimeler:** Katılımcı Planlama, Katılım, Kentsel Dönüşüm, Vatandaş Katılımı, Mekânsal Adalet

## ABSTRACT

Urban regeneration aims to improve the economic, social and physical structure of rapidly changing cities but it is often carried out with a top-down approach that ignores the real needs and demands of society. This approach leads to issues such as displacement, the weakening of social ties, and spatial injustice. This study employs a literature review and case study analysis to examine the effects of participatory planning in urban regeneration processes. Selected successful and unsuccessful urban regeneration projects from Turkey are compared to assess the impact of participation levels on social, economic, and spatial outcomes. The study underscores the importance of participatory planning approaches in urban regeneration and explores how more equitable, sustainable, and community-centered solutions can be developed. Participatory planning ensures that local residents, civil society organizations, and other stakeholders are actively involved in decision-making processes. This approach facilitates understanding community needs and expectations while increasing the social acceptability of transformation projects. The research asserts that participation is not merely a tool but a democratic right. Ensuring citizens' access to information, establishing transparent communication mechanisms, and adopting decision-making processes based on social equity principles are identified as key elements that enhance the effectiveness of participatory planning. As a result, participatory planning contributes to more inclusive and fair urban transformation. In addition to the literature review, the study analyzed different urban regeneration projects in Turkey in detail using secondary data analysis. Various official documents, reports, and academic studies were evaluated to analyze the impact of participation levels on social, economic, and spatial outcomes. By comparing selected successful and unsuccessful projects, the study provides an in-depth discussion on the effectiveness of participation and its transformative impact on outcomes. This methodology offers lessons from past practices and provides valuable insights for developing more inclusive and sustainable projects in the future. The study highlights the significance of participatory planning in urban transformation processes and offers practical implications for this field. The findings, presented with a community-centered perspective, aim to guide practitioners and policymakers seeking to develop more inclusive and sustainable transformation projects.

**Keywords:** Participatory Planning, Participation, Urban Transformation, Citizen Participation, Spatial Justice.

**FARKLI ORANLARDA AKIŞKANLAŞTIRICI İLAVE EDİLMİŞ TALK CEVHERİ  
KATKILI KALSİYUM ALÜMINAT ÇİMENTOSU VE BEYAZ ÇİMENTO ESASLI  
HARÇLARIN MEKANİK VE DURABİLİTE PERFORMANSININ İNCELENMESİ**  
INVESTIGATION OF THE MECHANICAL AND DURABILITY PERFORMANCE OF  
CALCIUM ALUMINA CEMENT AND WHITE CEMENT BASED MORTARS WITH  
DIFFERENT PROPORTIONS OF PLASTICIZERS ADDED

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**ÖZET**

Günümüzde yapılan çalışmalarda çevreye zararlı çimento üretimi ve kullanımı sık sık ele alınmaktadır. Bu çalışmada özel çimentolardan olan kalsiyum alüminat çimentosu (ISIDAÇ 40) ve beyaz çimento bağlayıcı olarak kullanılmıştır. Bu çimentolar ayrı ayrı yüksek dayanım gösteren iki bağlayıcıdır. Kalsiyum alüminat çimentosu yüksek sülfat direncinden dolayı sülfat etkisine maruz kalınan uygulamalarda sıklıkla tercih edilmekteyken beyaz çimento yapı kimyasalları ürünlerinde ve estetik görünüm için sıklıkla kullanılmaktadır. Çalışma kapsamında çimento kullanımını azaltmak için talk ikame edilmiş olup farklı mekanik ve durabilite deneyleriyle performansı incelenirken akışkanlaştırıcı ilavesiyle de su/çimento oranının mekanik ve durabilite performansı üzerindeki etkisi de araştırılmıştır.

Bu çalışmada kalsiyum alüminat çimentosu ve beyaz çimento eşit miktarda (225 g) olmak üzere 450 g bağlayıcı kullanılmıştır. Bağlayıcı ağırlığına göre farklı oranlarda (%0, %5, %10, %15 ve %20) talk ikame edilip farklı oranlarda akışkanlaştırıcı kullanılmıştır. Su/çimento oranı 0.45 olarak belirlenmiş olup 1170 gram CEN standart kumu kullanılmıştır. 50x50x50 mm boyutlarındaki küp numuneler üretilerek yapılan bu çalışmada 7 ve 28 günlük basınç dayanımları ile su emme deneyi, donma çözülme deneyi ve yüksek sıcaklık deneyleri uygulanmıştır.

**Anahtar Kelimeler:** Kalsiyum alüminat çimentosu, beyaz çimento, talk, akışkanlaştırıcı

## ABSTRACT

In today's studies, the production and use of environmentally harmful cement is frequently discussed. In this study, calcium aluminate cement (ISIDAÇ 40) and white cement, which are special cements, were used as binders. These cements are two binders that show high strength individually. Calcium aluminate cement is often preferred in applications exposed to sulfate effect due to its high sulfate resistance, while white cement is frequently used in construction chemicals products and for aesthetic appearance. Within the scope of the study, talc was substituted to reduce the use of cement and its performance was investigated with different mechanical and durability tests, while the effect of water / cement ratio on mechanical and durability performance was also investigated with the addition of plasticizer.

In this study, 450 g of binder was used with equal amounts (225 g) of calcium aluminate cement and white cement. Different proportions of talc (0%, 5%, 10%, 15% and 20%) were substituted and different proportions of plasticizer were used according to the binder weight. The water/cement ratio was 0.45 and 1170 grams of CEN standard sand was used. In this study, 50x50x50 mm cube specimens were produced and 7 and 28 days compressive strengths, water absorption test, freeze thaw test and high temperature tests were performed.

**Keywords:** Calcium aluminate cement, white cement, talc, plasticizer

## EVALUATING OPTIMAL TEMPORAL PERIODS FOR CITY-BASED DROUGHT ANALYSIS: VALIDATING WMO'S YEAR PERIOD AND EXPLORING ACCEPTABLE TIME PERIOD

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### ABSTRACT

Drought, a multifaceted and critical natural hazard occurring in various climates, exerts detrimental effects on all aspects of life, including water supplies, agriculture, and ecosystems. The consequences of water scarcity are prevalent in numerous regions globally, exacerbated by drought conditions. Thorough and precise drought assessment, monitoring, and mapping are crucial for effective water and drought management methods, especially in areas with data limitations and water scarcity issues. The standardized precipitation index (SPI), a widely recognized standardized drought index, relies only on precipitation data across several time scales, underscoring the importance of the precision, consistency, and continuity of this data. Since many cities and regions, especially developing countries, do not have well-distributed observation gauges, these in-situ gauges may not meet the recommended time period determined by the Meteorological Organization (WMO) for drought studies. This issue leads to data availability problems and insufficient and inaccurate drought evaluation. To address and fill this gap and limitation, precipitation data from satellite and reanalysis sources such as ERA5-Land and IMERG NASA can be used. The main objective of this research is to 1) validate and ensure the efficiency of the time period determined by WMO of 20 – 30 years as an ideal period; 2) evaluate and validate the shorter time period (Acceptable Time Period). The evaluation process was carried out using statistical metrics and the innovative drought classification matrix (IDCM). Kocaeli station from Kocaeli Province, in Türkiye, is selected as an application and case study. The results will contribute to more effective water resource and drought management strategies. This study has a huge contribution to the academic field,

including validating the time period recommended by the WMO and the acceptable time period, leading to a more reliable drought evaluation using this period.

## EVALUATING REANALYSIS DATA FOR DROUGHT ASSESSMENT: A CASE STUDY OF KOCAELI

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### ABSTRACT

It is known that in many developing countries like Türkiye, the quality and quantity of measurement data required for comprehensive drought analyses at small, medium, and large scales are extremely limited. Also, it is essential that thirty-year data cannot be obtained in line with World Meteorological Organization (WMO) recommendations regarding drought management in most provinces and districts at medium and small scales. In this study, the usability of reanalysis data sources and observation data in drought studies was investigated for Kocaeli, which ranks seventh in terms of surface area and tenth in terms of total population in Türkiye. Drought calculations were carried out using the Standardized Precipitation Index (SPI) methodology for 3, 6, and 12-month timescales. When the long-term precipitation measurements made in 3397 km<sup>2</sup> throughout the province are examined, it is seen that there are only one or two stations that can be used for analyses in line with WMO recommendations. Although there has been a significant increase in the number of automatic meteorological observation stations in the province after 2016, the duration of the records in question and their distribution throughout the province are insufficient to perform comprehensive drought analyses within the scope of drought management and adaptation to climate change. In recent years, reanalysis data has been used directly in hydrology, climate change, and drought studies in regions with a lack of data, problems in data supply, and data quality. In this study, the effect of the ERA-5 data source, which is the most used in the literature, on drought analyses, together with its similarities and differences, whether the use of the relevant data source in such analyses is reliable, and what should be done for the analyses were examined and evaluated. When the analysis results obtained from the data sources in question are compared with the observation time series, it is understood that there are significant differences and similarities. When the relevant metric results obtained are interpreted to compare the results and to reveal differences and similarities, it is understood that comprehensive studies are needed before the direct use of reanalysis data and that these studies should be carried out within the framework of a plan. As a result, it is understood that it is possible to use reanalysis data together with observation data for more detailed and



reliable analysis of drought events at relatively small scales in the province and district, as in the example of Kocaeli province, and that planned and detailed research is needed for this, and that reanalysis products will become widespread much more rapidly in drought studies in the future.

Keywords: WMO, SPI, Precipitation, NASA.

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## VISUAL LANGUAGE OF ISLAMIC ARTS: AN EXPLORATION OF ISLAMIC DECORATIVE ARTS AND RELIGIOUS SYMBOLISM

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### ABSTRACT

#### **Visual Language of Islamic Arts: An Exploration of Islamic Decorative Arts and Religious Symbolism**

Symbolism serves as the physical manifestation of feelings, thoughts, ideas, or themes, often conveying concepts that cannot be expressed otherwise. In Islamic art, which is deeply rooted in the unseen, the sacred, and the realm of meaning, symbolism becomes a critical medium through metaphors, representations, references, and signs. To understand any artistic or architectural work within the Islamic tradition, it is essential to examine the symbolic meanings embedded in its forms and designs.

This study delves into the symbolic language of Islamic art and architecture by exploring recurring motifs and their meanings. Drawing on examples from sacred architecture and palatial structures, it investigates the symbolism of the center and vertical axis, the geometric forms of the square and circle, the intricate meanings behind the triangle, hexagon, octagon, and star, as well as the colors green, white, and red. Furthermore, the study examines the symbolic significance of the number seven and the spiritual connotations of water, offering a comprehensive analysis of how these elements contribute to the deeper understanding of Islamic artistic and architectural masterpieces.

**Keywords:** Symbolism, Islamic Decorative Arts, Islamic Architecture, Geometry and Meaning

## YAYLI ÇALGILAR TARİHİ İÇİNDE VİYOLANIN BİR ÇALGI OLARAK GELİŞİM SÜRECİ

### DEVELOPMENT PROCESS OF VIOLA AS AN INSTRUMENT IN THE HISTORY OF STRING INSTRUMENTS FAMILY

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#### ÖZET

Bu bildiri, farklı ses renklerine, farklı tınılara sahip dört çalgıdan oluşan yaylı çalgılar ailesi içinde solo bir çalgı olarak çok geç keşfedilmiş olan viyolanın tarihsel süreç boyunca gelişimine ve bu gelişmeye katkıda bulunan isimlere değinmeyi amaçlamaktadır. Viyolanın ve beraberinde tüm yaylı çalgılar ailesinin, 16. yüzyıldan 19. yüzyıla uzanan form gelişiminin yanı sıra, klasik müzik tarihinde uzun bir döneme yayılan viyola repertuarındaki gelişimini de kapsayan bu bildiri, bir çalgının tarih boyu nasıl bir gelişim ve değişim süreci geçirdiğini derinleştirmeyi amaçlamaktadır. Yaylı Çalgılar, tek bir isim altında, pek çok çalgıdan oluşan bir çalgı grubu iken yüzyıllar içinde büyük form değişiklikleri ile bugün kullanılan yapılarına ulaşmışlardır. Barok Dönemden itibaren Avrupa’da, dönemlerinin önde gelen çalgı yapım ustaları ve bu isimlerin yaylı çalgılara ses rengi, ses kapasitesi ve bu özelliklere etken olacak form gelişimi açısından sağladıkları olanaklara yer verilecek olan bu çalışmada, viyola çalgısının diğer yaylı çalgılardan farklı özelliklerinin ortaya çıkması konusunda en verimli dönem olan 20. yüzyıldaki gelişmelere de değinilecektir.

**Anahtar Kelimeler:** Viyola, Yaylı Çalgılar, Çalgı Formu

#### ABSTRACT

This research aims to touch upon the development of the viola, which was discovered very late as a solo instrument within the string instrument family consisting of four instruments with different sound colours and different timbres, throughout the historical process and the names that contributed to this development. This report, which covers the development of the viola and the entire family of string instruments from the 16th to the 19th century, as well as the development of the viola repertoire over a long period in the history of classical music, aims to deepen how an instrument has undergone a process of development and change throughout history. While string instruments were a group of instruments consisting of many instruments under a common name, they have reached the structures used today with great changes in form over the centuries. In this study, which will include the leading instrument-making masters of their periods in Europe from the Baroque Period onwards and the

opportunities provided by these names to string instruments in terms of sound colour, sound capacity and the development of form that will affect these features, the developments in the 20th century, which is the most productive period in terms of the emergence of the different characteristics of the viola instrument from other string instruments, will also be mentioned.

**Keywords:** Viola, String Instruments, Instrument Form

## NEVİD KODALLI VE TÜRKİYE’DEKİ ÇOK SESLİ MÜZİĞİN GELİŞİMİNDEKİ ROLÜ

NEVİD KODALLI AND HIS ROLE IN THE DEVELOPMENT OF POLYPHONIC MUSIC

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### ÖZET

Bu makale, Cumhuriyet döneminin ikinci kuşak bestecilerinden Nevit Kodallı’nın Türkiye’deki çok sesli müziğin gelişimindeki rolünü ve etkilerini incelemeyi amaçlamaktadır. Kodallı’nın yaşamı, müzik eğitimi, eserleri ve Türkiye’de çok sesli müziğe yaptığı katkılar ele alınmıştır. Makale, Kodallı’nın hem bir besteci hem de bir eğitmen olarak, geleneksel halk müziği motiflerini Batı müziği teknikleriyle birleştirerek modern ulusal çok sesli müzik kimliğinin oluşturulmasındaki rolünü irdelemektedir.

Araştırma, Kodallı’nın eserlerinde halk müziği öğelerinin senfonik formlarla nasıl harmanlandığını ve bu sentezin Cumhuriyet ideolojisinin ulusal kimlik oluşturma çabalarına nasıl hizmet ettiğini analiz etmektedir. Özellikle "Atatürk Oratoryosu" ve "Van Gogh Operası" gibi önemli eserleri, onun ulusal ve evrensel müzik anlayışını ortaya koyan örnekler olarak incelenmiştir. Ayrıca, Kodallı’nın Ankara Devlet Konservatuvarı’ndaki eğitimci kimliğiyle, Türkiye’nin modern müzik eğitiminin temellerine nasıl katkıda bulunduğu da yer verilmiştir.

Sonuç olarak, Nevit Kodallı’nın ulusal müzik kültürüne etkisi, hem geleneksel müziğin modernize edilmesi hem de uluslararası düzeyde tanınır bir ulusal müzik kimliği oluşturulması açısından belirleyici olmuştur. Kodallı’nın eserleri, Türkiye’nin çok sesli müzik tarihinde kalıcı bir miras niteliği taşımakta ve Cumhuriyet dönemi kültürel politikalarının sanatsal bir yansıması olarak değerlendirilmektedir. Bunun yanında, onun eserleri ve eğitimci kimliği, yalnızca Türkiye’deki çok sesli müziğin gelişimi için değil, çağdaş müzik anlayışının gelişimi açısından da önemli bir rol oynamıştır. Bu bağlamda Kodallı, Cumhuriyet Türkiye’sinin kültürel dönüşüm sürecinde sanatın ulusal bir kimlik oluşturmadaki işlevini gösteren en önemli figürlerden biri olmuştur.

**Anahtar Kelimeler:** Nevid Kodallı, Cumhuriyet Dönemi, Ulusal Müzik Kültürü, Çok sesli Müzik

### ABSTRACT

This article aims to analyze the role and influence of Nevit Kodallı, one of the second-generation composers of the Republican era, in the development of polyphonic music in

Turkey. The study explores Kodallı's life, musical education, works, and his contributions to polyphonic music in Turkey. It focuses on Kodallı's role as both a composer and an educator, emphasizing how he combined traditional folk music motifs with Western musical techniques to shape a modern national polyphonic music identity.

The research investigates how folk music elements are integrated into symphonic forms in Kodallı's compositions and how this synthesis supported the Republican ideology's efforts to construct a national identity. Significant works such as Atatürk Oratorio and Van Gogh Opera are analyzed as examples reflecting his synthesis of national and universal musical approaches. Additionally, the article explores Kodallı's role as an educator at Ankara State Conservatory, highlighting his contributions to the foundation of modern music education in Turkey.

In conclusion, Nevit Kodallı's impact on the national music culture was crucial, both in modernizing traditional music and in establishing a nationally recognized polyphonic music identity on an international level. Kodallı's works constitute a lasting legacy in the history of polyphonic music in Turkey and serve as artistic reflections of the cultural policies of the Republican era. Furthermore, his compositions and role as an educator were instrumental not only in the development of polyphonic music in Turkey but also in the advancement of contemporary musical understanding. In this context, Kodallı emerges as one of the key figures demonstrating the role of art in shaping national identity during Turkey's cultural transformation under the Republic.

**Keywords:** Nevit Kodallı, Republican Era, National Music Culture, Polyphonic Music

## MUSİQİ DƏRSLƏRİNDƏ TƏDQİQAT VƏ MODELLEŞDİRMƏ TƏLİMİNİN TƏTBİQİ

### APPLICATION OF RESEARCH AND MODELING TRAINING IN MUSIC LESSONS

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## XÜLASƏ

Məqalədə müasir inkişafedici texnologiyalardan olan tədqiqat və modelləşdirmə təliminin musiqinin tədrisində əhəmiyyəti araşdırılır. Burada qeyd olunur ki, müəllimlər müasir texnologiyalardan istifadə etməklə dərsləri daha maraqlı edən, şagirdləri, əsasən, sağlam mühakimələr irəli sürməyə, sonradan real həyata tətbiq edəcəkləri məzmunu başa düşməyə yardım edən mühüm vasitələrə çevirə bilirlər.

Tədqiqat fəaliyyəti problemin qoyuluşu və axtarış mexanizmlərinin işi nəticəsində həyata keçirilən intellektual-yaradıcı fəaliyyətin xüsusi bir növüdür. Axtarış mexanizmləri rolunda insanın təfəkkürü çıxış edir. Lakin axtarışın olması faktı hələ tam olaraq tədqiqat fəaliyyəti deyil. Buraya həmçinin alınan nəticələrin təhlili, qiymətləndirilməsi və bununla əlaqədar proqnozlaşdırma, fərziyələrin qurulması da daxildir. Modelləşdirmə texnologiyası da sənət əsərlərinin fəal fəaliyyətdə mənimsənilməsini təmin edir. Bu texnologiya ənənəvi sözlü-informativ metodla birgə istifadə edilə bilər. Bu zaman informasiyanın ötürülməsi üçün vaxt qısalır. Hər dəfə qısa bir zaman ərzində müəllim danışmağı, göstərməyi, oxumağı, izah etməyi və s. çatdırma bilməlidir. Beləliklə, şagirdləri düşünməyə vadar edən düzgün sualların axtarılma-tapılması mühüm rol oynayır. Modelləşdirmə və tədqiqat metodlarının istifadəsi təcrübəsi onların yüksək səmərəsini göstərir. Digər müasir və ənənəvi metodlarla birgə onlar uşaqların musiqi qabiliyyətlərini, təfəkkürlərini və dünyagörüşlərini formalaşdırır.

**Açar sözlər:** musiqi dərsi, müasir texnologiyalar, modelləşdirmə, tədqiqat təlimi

## ABSTRACT

The article examines the importance of research and modeling training in music education, which is based on modern interactive technologies. It notes that teachers can use modern technologies to make lessons more interesting, help students make sound judgments, and understand content that they can later apply to real life.

Research activity is a special type of intellectual-creative activity carried out as a result of the formulation of the problem and the work of search mechanisms. Human thinking acts as a search mechanism. However, the fact of the search itself is not yet a complete research activity. It also includes the analysis and evaluation of the results obtained and the related prediction and formulation of hypotheses. Modeling technology also ensures the active mastery of works of art. This technology can be used in conjunction with the traditional verbal-informative method. In this case, the time for transmitting information is shortened. Sometimes, in a short period of time, the teacher must be able to speak, show, read, explain, etc. In this case, the search for the right questions that make students think plays an important role. The experience of using modeling and research methods shows their high effectiveness. Together with other modern and traditional methods, they form the musical abilities, thinking and worldview of children.

**Keywords:** Music Lessons, Modern Technologies, Modeling, Research Training



## CANLI SİNEMADA EŞ ZAMANLI ÇOKLU MEDYA ALANLARI SIMULTANEOUS MULTI-MEDIA SPACES IN LIVE CINEMA

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### ÖZET

Canlı sinema, görsel-işitsel materyallere dayalı bir uygulamadır ve sinema ile performans sanatı arasında bir köprü kurmaktadır. Gösterim sırasında sanatçı tek başına ya da kendisine eşlik eden sanatçılarla birlikte sahnede yer alır. Çalışma, sessiz sinema döneminden soyut sinema, etkinlik sineması ve genişletilmiş sinemanın ortaya çıkışına kadar canlı sinemayla ilgili tarihsel pratikleri inceleyerek başlar. Sanatçı sahnede yer almaktadır ve canlı sinema bir performans sanatı biçimidir. Medyayı bir araç olarak kullanan canlı sinema, intermedya, dijital, yeni medya ve multimedya ile bağlantılıdır.

Tezde canlı sinema üretimlerinin çoklu medya biçimlerinde gerçek zaman, artırılmış estetik, ve izleyicinin katılımcı rolü çalışılmıştır. Pratiğin canlılığında zaman unsuru önemli bir rol oynarken, performans boyunca doğrusal anlatımın kırılması yeni hikâye anlatma biçimleri oluşturmaktadır. Canlı sinemada, seyirci performansa dahil edilir ve yeni bir boyut katar.

**Anahtar Kelimeler:** Canlı sinema, gerçek zaman, canlılık, katılımcı izleyici, medya.

### ABSTRACT

Live cinema is a performance practice based on audiovisual materials. As an intermediate concept, it bridges cinema and performance art. While screening the performance, the performer is present on the stage either solo or with accompanying performers. The study begins by investigating historical practices related live cinema from the age of silent cinema to the emergence of abstract cinema, event cinema, and expanded cinema. The artist is present on the stage and live cinema is a form of performance art. Using media as a tool live cinema has connections over intermedia, digital, new media, and multimedia.

The thesis analyzes examples from the field and focuses on the real-time, aesthetics, and participatory spectatorship of live cinema. While the time aspect plays a crucial role in the liveness of the practice, the breakage of the linear narration along the performance forms new ways of storytelling. In live cinema, the audience is involved in the performance and adds a new dimension to it.

**Keywords:** Live cinema, real-time, liveness, participatory audience, media.

## YARDICILIQ KONSEPSİYASI VƏ EVRİSTİKA ELMİ HAQQINDA ABOUT THE CONCEPT OF CREATIVITY AND THE SCIENCE OF HEURISTICS

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### XÜLASƏ

Məqalədə bəşəriyyətin müxtəlif dövrlərində yaradıcılıq anlayışına baxışlar təhlil edilir və belə nəticəyə gəlinir ki, yaradıcılıq formalarının müxtəlifliyi bilavasitə insan fəaliyyətinə, bu və ya digər materialın, praktiki və ya reallığın ideal çevrilməsinə əsaslanır. Yaradıcı fəaliyyət insan əməyinin əsas amili olmalıdır. Yaradıcılıq fenomenin özü yalnız qnoseoloji və ya metodoloji problemlərdən biri kimi deyil, bütün bəşər cəmiyyətinin varlığının ən vacib nəzəri əsası kimi görünür ki, o, global sosial təsisatların gələcəkdəki yaşam məntiqini özündə ehtiva edir və bəşər tarixinin mənası ilə qırılmaz əlaqədədir.

Gələcəkdə formalaşmalı olan evrologiya (və ya evristika) elminin əsas prinsipləri izah edilir. Məqalədə qeyd olunur ki, evristika yaradıcı məsələlərin həllini sürətləndirən metodlar nəzəriyyəsi kimi çıxış edə bilər. Evristik proseslər əqli fəaliyyətin əsas üsullarını əhatə etməli və müəyyən spesifikasiyalara malik olmalıdır. Qeyd etməliyik ki, fenomenoloji səviyyədə fəal inkişaf edən evristika ciddi metodoloji araşdırmaya ehtiyac duyur, əks halda ümumi yaradıcılıq nəzəriyyəsi yaradıcılıq faktların gerçəkdə, praktikada necə həyata keçirildiyi nəzəriyyəsi deyil, yaradıcı faktlar nəzəriyyəsi kimi çıxış edəcəkdir.

**Açar sözlər:** yaradıcılıq məhfumu, məhsuladar təxəyyül, idrak, evriologiya

### ABSTRACT

The article analyzes the views on the concept of creativity in different periods of mankind and concludes that the diversity of creative forms is based directly on human activity, the ideal transformation of this or that material-practical or reality. Creative activity should be a key factor in human labor. The phenomenon of creativity itself appears not only as one of the epistemological or methodological problems, but as the most important theoretical basis for the existence of all human society, which contains the future logic of life of global social institutions and is inextricably linked with the meaning of human history.

It explains the basic principles of the science of heuristics (or heuristics), which must be formed in the future. It is noted that heuristics can act as a theory of methods that accelerate the solution of creative problems. Heuristic processes must include the basic methods of mental activity and have a specific specificity. We should note that heuristics, which are actively developing at the phenomenological level, need serious methodological research, otherwise the general theory of creativity will act as a theory of creative facts, not a theory of how creative facts are actually realized in practice.

**Keywords:** phenomenon of creativity, productive imagination, cognition, heuristics

## TASARIMDA YAPAY ZEKA UYGULAMLARI: BİR DERS ÖNERİSİ

### ARTIFICIAL INTELLIGENCE APPLICATIONS IN DESIGN: A COURSE PROPOSAL

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#### ÖZET

Üretken yapay zekâ teknolojileri günümüzde üretim süreçlerini kökten değiştirtirmekte; eğitim, sanat ve tasarım alanında devrimsel etkilere yol açmaktadır. Bu etkiler göz önünde bulundurulduğunda YZ teknolojilerinin grafik tasarım eğitime dahil olması kaçınılmaz görünmektedir. Öğrencilerin bu teknolojilere karşı yaklaşımları ve bu teknolojilerin tasarım eğitiminde nasıl bir yer bulabileceği bu çalışmanın problemini oluşturmaktadır.

Bu kapsamda “Tasarımda Yapay Zekâ Uygulamaları” isimli bir ders içeriği geliştirilmiş, Balıkesir Üniversitesi Güzel Sanatlar Fakültesi Grafik Sanatlar Bölümü müfredatına seçmeli ders olarak dahil edilmiş ve 2024-2025 güz yarıyılında yürütülmüştür. Dersin başlangıcında, öğrencilerin yapay zekâya yönelik tutumlarını belirlemek amacıyla bir ön görüşme gerçekleştirilmiştir. Dersin sonunda yarı yapılandırılmış, açık uçlu bir görüşme daha yapılarak öğrencilerin yapay zekâ uygulamalarının sektöre ve eğitime olan etkilerine dair görüşleri ile derse yönelik geri bildirimleri toplanmıştır. Bu görüşmelerden elde edilen sonuçlar tematik analize tabi tutulmuştur. Ayrıca dönem boyunca öğrencilerin ürettikleri çalışmalar raporlaştırılarak tasarım süreçlerindeki deneyimleri kayıt altına alınmıştır. Yapay zekâ ve tasarım etkileşiminin eğitim süreçlerine adaptasyonunu inceleyen bu çalışma; öğrencilerin bu yeni teknolojilere yönelik algılarını, uygulama süreçlerinde karşılaştıkları zorlukları ve olası fırsatları bütüncül bir bakışla değerlendirmeye çalışılmıştır.

Çalışma; üretken yapay zekânın tasarım eğitimi programlarına eklemlenmesi noktasında edinilen deneyimleri, geliştirilmiş 14 haftalık ders planını, uygulama çıktılarını ve öğrenci görüşlerini paylaşarak hem yeni müfredat geliştirme çalışmalarına hem de gelecekteki araştırmalara örnek oluşturabilmesi açısından değerli bulunabilir.

**Anahtar Kelimeler:** Grafik Tasarım, Üretken Yapay Zekâ, Tasarım Eğitimi.

#### ABSTRACT

Generative artificial intelligence technologies radically change the production processes of today; it leads to revolutionary effects in the field of education, art and design. Considering these effects, the inclusion of AI technologies in graphic design education seems inevitable. Students' approaches towards these technologies and how these technologies can find a place in design education constitute the problem of this study.

In this context, a course content titled 'Artificial Intelligence Applications in Design' was developed, included as an selective course in the curriculum of Balıkesir University Faculty of Fine Arts, Department of Graphic Arts and conducted in the first semester of 2024-2025. A preliminary interview was conducted to determine students' attitudes towards artificial intelligence at the beginning of the course. At the end of the course, another semi-structured, open-ended interview was conducted to collect students' views on the effects of artificial intelligence applications on the industry and education, and their feedback on the course. The results obtained from these interviews were subjected to thematic analysis. In addition, the works produced by the students during the semester were reported and their experiences in the design processes were recorded. This study, which examines the adaptation of artificial intelligence and design interaction to educational processes; It has been tried to evaluate students' perceptions of these new technologies, the difficulties they face in the application processes and possible opportunities with a holistic perspective.

The study can be considered valuable in terms of setting an example for both new curriculum development studies and future research by sharing the experiences gained at the point of incorporating generative artificial intelligence into design education programmes, the developed 14-week lesson plan, application outputs and student opinions.

**Keywords:** Graphic Design, Generative Artificial Intelligence, Design Education.

## ARAZİ SANATININ: MÜCEVHERAT TASARIMLARINA YANSIMASI LAND ART: REFLECTION IN JEWELRY DESIGNS

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### ÖZET

Arazi Sanatı anlayışının mücevher tasarımlarına etkisini ve bu etkileşimin yenilikçi yaklaşımlar üzerindeki katkısını ele almaktadır. 1960'lı yıllarda Amerika Birleşik Devletleri'nde ortaya çıkan Arazi Sanatı, doğanın özünü kullanarak sanat eserleri yaratma pratiğine dayanır. Örneğin, Robert Smithson'un Spiral Jetty adlı eseri ve Andy Goldsworthy'nin doğal malzemelerle oluşturduğu yerleştirmeler, bu sanatın önemli örneklerindendir. Ancak Arazi Sanatı eserleri, doğada zamanla yok oldukları için kalıcı bir sanat eseri niteliği taşıma konusunda eleştirilmiştir. Bu çalışmada, Arazi Sanatı eserlerinden ilham alarak mücevher tasarımlarına doğanın benzersiz izlerini entegre etme ve bu tasarımları kalıcı birer eser niteliğine dönüştürme yolları araştırılmıştır. Arazi Sanatının geçici estetiği, mücevher" tasarımlarında sürdürülebilir ve doğal bir yaklaşımı teşvik etmektedir. Araştırmada, Arazi Sanatının geçiciliği, mücevher tasarımında sürdürülebilir bir yaklaşıma dönüştürülmüştür. Böylece doğal formlar ve estetik özellikler, kalıcı yapılar haline getirilmiştir. Bu süreç içerisinde doğadan ilham alan ve Arazi Sanatının temel ilkelerini seçen bu tasarımların, mücevher alanında özgün ve klasik sanat eserleri olması amaçlanmıştır. Ayrıca Arazi Sanatı, mücevher sanatıyla beraber zarif bir estetik yaklaşımla kalıcı bir sanat formülüne dönüştürülmüştür.

**Anahtar Kelimeler:** Arazi Sanatı, Kuyumculuk Tasarımı, Doğa, Sürdürülebilirlik, Arazi sanatı, Sanat ve Tasarım.

### ABSTRACT

This study explores the influence of Land Art on jewelry design and its contribution to innovative approaches. Emerging in the United States during the 1960s, Land Art is based on the practice of creating artworks by utilizing the essence of nature. Notable examples include Robert Smithson's Spiral Jetty and Andy Goldsworthy's installations created with natural materials. However, Land Art has been criticized for its impermanence, as these works often deteriorate over time in their natural settings. This research investigates ways to integrate

nature's unique imprints into jewelry designs inspired by Land Art while transforming these designs into lasting art forms. The transient aesthetics of Land Art promote a sustainable and natural approach in jewelry design. In this study, the ephemerality of Land Art is reinterpreted into a sustainable methodology for jewelry design, enabling the transformation of natural forms and aesthetic qualities into enduring structures. By adopting the core principles of Land Art and drawing inspiration from nature, the aim is to create unique and timeless pieces within the realm of jewelry design. Furthermore, Land Art, in conjunction with jewelry design, is reimagined as an elegant aesthetic approach to crafting a lasting artistic formula.

**Keywords:** Land Art, Jewelry Design, Nature, Sustainability, Art and Design

**YENİ GERÇEKÇİLİK AKIMI, MANİFESTOSU VE AKIMA YÖN VEREN  
SANATÇILARIN ESER İNCELEMESİ**  
ANALYSIS OF THE NOUVEAUX REALISTES MOVEMENT, MANIFESTO AND  
ARTISTS

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**ÖZET**

Yeni Gerçekçilik, 1960 yıllarının başında eleştirmen Pierre Restany tarafından Paris'te kurulan bir gruptur. Geleceğe yönelik yeni, akıllıca yaklaşımlar sunmak üzere bir araya gelen sanatçılar arasında Arman, Cesar, Yves Klein, Niki de Saint, Daniel Spoerri, Jean Tinguely, Martiel Raysse bulunmaktadır. Grup üyeleri, "Geleceğin, kavramsal ya da düşsel bir prizmadan geçirilmiş yansıma olduğuna değil ta kendisinin algılanmasını, yola çıkış macerası olarak tanımlamışlardır. Çağdaş Sanatın başlangıcı olarak kabul gören, Yeni Gerçekçilik akımının ele alınış sebebi; Dadaizm'in, hazır nesneye yüklediği anlatıma yeni bir felsefi bakış açısı ile yaklaşp, bu bağlamda yeni bir akımın doğuşuna vesile olmasıdır. Dadaizm'de hazır nesnenin sanata dahil edilmesi ile bir meydan okuma getirilmeye çalışılmış olmakla birlikte, yeni akımda bu baş kaldırıya estetik anlamlar yüklenerek sanat görüşüne farklı bakış açıları sunulmuştur. Akımın en önemli özelliği, grupta yer alan sanatçıların nesneyi; özgün yorumlama bağlamında biricik kılması, forma oldukça yüksek anlamlar yükleyerek, kendine has bir uygulama süreci ile birlikte hazır olandan, sanat nesnesine dönüştürmesidir. Diğer önemli özelliği ise, akımı meydana getiren bütünsel kuralların olmamasıdır. Bu akımda farklı disiplinlerin bir araya gelmesi ve heykel kavramının ön plana çıkması ve bu akımın çerçevesinde kendine özgü yapısal özellikleri ile ele alınması konuyu özgün ve ilgi çekici kılan bir unsur olmuştur. O dönemin farklı sanat akımları, Çağdaş Sanata yükledikleri farklı görüş ve anlamlar ile toplumsal değişim ve dönüşümün baş mimarı olarak kabul görmüştür. Araştırmada; Yeni Gerçekçilik akımının tanımlanması, özellikle akıma yön veren sanatçıların Çağdaş Sanat eserleri irdelenecektir. Bu doğrultuda; Yeni Gerçekçilik akımı ve bu akımı temsil eden sanatçıların kavram olarak değerlendirdiği dünya genelinde örneklerine değinilmiştir. Araştırmanın Yeni Gerçekçilik akımına farklı bir bakış açısı getirmesi ve eser incelemesinde literatüre katkı sunması hedeflenmektedir.

**Anahtar Kelimeler:** Sanat Akımı, Yeni Gerçekçilik, Hazır Nesne, Güçlü Değişim, Çağdaş Sanat



## ABSTRACT

The Nouveaux Realistes is a group founded in Paris in the early 1960s by the critic Pierre Restany. Among the artists who came together to present new, intelligent approaches to the future were Arman, Cesar, Yves Klein, Niki de Saint, Daniel Spoerri, Jean Tinguely, Martiel Raysse. The members of the group defined the perception of the future not as a reflection through a conceptual or imaginary prism, but as the perception of the future itself, as the adventure of setting out. The reason for The Nouveaux Realistes movement, which is accepted as the beginning of Contemporary Art, is that Dadaism approached the narrative that it attributed to the ready-made object with a new philosophical perspective, and in this context, it was instrumental in the birth of a new movement. Although Dadaism tried to bring a challenge with the inclusion of the ready-made object in art, in the new movement, aesthetic meanings were attributed to this rebellion and different perspectives were presented to the view of art. The most important feature of the movement is that the artists in the group make the object unique in the context of original interpretation, attribute very high meanings to the form, and transform it from a ready-made object into an art object with a unique application process. Another important feature is that there are no holistic rules that constitute the movement. The coming together of different disciplines in this movement and the concept of sculpture coming to the forefront and being handled with its unique structural features within the framework of this movement has been an element that makes the subject unique and interesting. Different art movements of that period were recognised as the chief architect of social change and transformation with the different views and meanings they attributed to Contemporary Art. In the research; the definition of The Nouveaux Realistes movement, especially the Contemporary Art works of the artists who shaped the movement will be analysed. In this direction; The Nouveaux Realistes movement and its examples around the world, which are evaluated as a concept by the artists representing this movement, are mentioned. It is aimed that the research will bring a different perspective to The Nouveaux Realistes movement and contribute to the literature in the analysis of artefacts.

**Keywords:** Art Movement, New Realism, Ready Object, Strong Change, Contemporary Art.

## **PREDICTION AND MAPPING SOIL SATURATED HYDRAULIC CONDUCTIVITY IN AN IRRIGATED PERIMETER USING ARTIFICIAL NEURON NETWORKS AND RANDOM FORESTS MODEL**

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### **ABSTRACT**

This study aims to examine the potential of predicting hydraulic conductivity (Ks) in soils using machine learning models, focusing on the irrigated perimeter of Beni Moussa, located in southern Tadla, Morocco. To this end, data on soil physicochemical properties were collected and analyzed. Bulk density, porosity, calcium carbonate (CaCO<sub>3</sub>), organic matter, organic carbon, soil moisture, and soil texture (percentages of clay, silt, and sand) were included as input variables for the models. The study utilized the Artificial Neural Network (ANN) and Random Forest (RF) algorithms as predictive tools. The performance of the models was evaluated using metrics such as Root Mean Square Error (RMSE) and the coefficient of determination (R<sup>2</sup>). Results showed that the ANN model achieved prediction accuracies exceeding 90% in most cases, with RMSE values ranging between 0.09 and 0.21 and R<sup>2</sup> values between 0.91 and 0.98. Similarly, the RF model displayed RMSE values not exceeding 0.25 and R<sup>2</sup> values between 0.89 and 0.98. Upon comparative analysis, it was found that the RF model generally provided superior predictions, with an average RMSE of 0.16 and an R<sup>2</sup> of 0.94 across all combinations. RMSE was used to measure the deviation between laboratory-measured Ks values and those predicted by the models, while R<sup>2</sup> assessed the accuracy of predictions relative to the regression line. It was observed that models incorporating the largest number of predictors yielded the most precise results. The study categorized the findings according to the input variables, model performance, and prediction outcomes. A meta-analysis approach was applied, and data were analyzed through statistical evaluation. The results underline the significant potential of machine learning methods, especially the Random Forest algorithm, in predicting hydraulic conductivity. This highlights their value as tools for effective soil and water management in irrigated agricultural areas.

**Keywords:** hydraulic conductivity, soil, modeling, Random Forest, artificial neuron.

## **CHARACTERIZATION OF ORGANIC CARBON STORAGE IN BENI-MOUSSA SOILS (TADLA PLAIN, MOROCCO)**

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### **ABSTRACT**

Since the pre-industrial era (1880-1899), economic and demographic growth has led to a significant increase in anthropogenic greenhouse gas emissions. Soil organic carbon (SOC) is crucial in maintaining soil properties. It is a major global carbon reservoir sensitive to land management practices. Increasing carbon storage in the form of organic matter in soils could, therefore, effectively contribute to reducing atmospheric greenhouse gases, thus helping to prevent climate change. However, the mineralization of this carbon, with its variable lifetimes, depends on many factors, including land use and agricultural practices. It is, therefore, essential to determine the potential of this “sink” according to soil type. This study aims to assess the carbon storage potential of different soil types in Beni-Moussa in a semi-arid environment to identify those with a high sequestration capacity and those contributing least to this effect in the Tadla Plain.

**Keywords:** soil, carbon storage, climate change

## CHARACTERIZATION OF SOIL VARIATION USING A STEPWISE MULTI-SENSOR FUSION APPROACH (THE TADLA PLAIN, MOROCCO)

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### ABSTRACT

The main objective of this study is to evaluate the potential of a progressive fusion of portable X-ray fluorescence (pXRF) and electromagnetic induction (EMI) spectra detected in close proximity with distant Sentinel-2 bands and a digital elevation model (DEM) will be studied to predict the physico-chemical properties of the soil in the irrigated perimeters of Beni-Moussa and Beni-Amir in the Tadla plain, Morocco. pXRF spectra with partial least squares regression (PLSR) models can predict sand, total nitrogen (TN), organic carbon (CO), silt and clay content and pH.

A clustering analysis using combinations of mapped soil or proximal properties and remote sensing data suggested that data fusion improved the characterization of soil variability at the field scale of soil properties (S. Chatterjee et al. 2021).

**Keywords:** Digital soil mapping, pXRF spectroscopy, Electromagnetic induction, Sentinel-2, PLSR, Tadla plain, Soil property.

## **TECHNOLOGICAL ADVANCES IN GROUNDWATER ASSESSMENT AND MANAGEMENT: A GLOBAL SYNTHESIS WITH APPLICATION TO THE OUED MOULOYA BASIN, MOROCCO**

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### **ABSTRACT**

Groundwater is a critical resource, particularly in arid and semi-arid regions where it is often the only reliable source for domestic, agricultural, and industrial needs. However, increasing pressures from over-extraction, climate change, and inadequate management systems highlight the urgency of adopting modern technologies to ensure the sustainable use of this vital resource.

This article reviews recent technological advancements in groundwater assessment and management, combining remote sensing tools (GRACE, LANDSAT, SENTINEL) with advanced hydrological models (SWAT, MODFLOW). These approaches enable monitoring and modeling spatiotemporal water storage variations, identifying recharge zones, and understanding natural and anthropogenic impacts on aquifers. For instance, GRACE provides a global perspective on gravimetric anomalies to detect groundwater storage changes, while LANDSAT and SENTINEL contribute to land-use monitoring and ground deformation analysis. Integrating these data into models like SWAT improves understanding of water budgets, including interactions between precipitation, evapotranspiration, and runoff.

Globally, this review highlights studies demonstrating the effectiveness of machine learning techniques (e.g., Random Forest, XGBoost) in predicting hydrological fluctuations and identifying influential factors. In Morocco's Oued Moulouya Basin, located in the northeast, these tools remain underutilized despite growing water challenges. Research reveals prolonged droughts and intensified groundwater withdrawals, exacerbating stress on these resources. Recent work using models such as WetSpa-M shows that integrating remote sensing technologies with local data can identify vulnerable zones and guide sustainable management solutions.

This review underscores current limitations, such as data resolution and the lack of field validation, while proposing concrete recommendations. The widespread adoption of these tools in integrated strategies is crucial for ensuring water security and promoting equitable groundwater management, accounting for local and global contexts.

**Keywords:** GRACE, remote sensing, hydrological modeling, machine learning, sustainable management, Oued Moulouya Basin, water resources.

## **GEOHIKING TRAILS PROPOSAL AS A TOOL FOR GEODIVERSITY VALORISATION IN SOUTHERN MIDDLE-ATLAS, CASE STUDY OF TAGUZIRT AND FOUM AL ANCER MUNICIPALITIES (MOROCCO)**

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### **ABSTRACT**

Geotourism is an emerging sector of sustainable nature tourism, focusing on geological phenomena and geomorphological landforms. It invites geotourism enthusiasts to explore Earth's stunning attractions and abiotic curiosities. Geohiking trails play a crucial role in promoting geotourism, serving as open-air classrooms for disseminating geological and geomorphological knowledge while providing health benefits to hikers. Mountains hold significant geotourism potential due to their geo(morpho)logical diversity, which contributes to their high scientific value. The communes of Fom El Ancer and Tagzirt are administratively part of the Beni Mellal province in the Beni Mellal-Khenifra region of central Morocco. Geographically, they are located on the northwestern flank of the southern Middle-Atlas Mountain range. These two communes are among the most visited in the Beni Mellal province, thanks to their breathtaking natural mountain landscapes. They boast numerous geological and geomorphological sites and landscapes of great scientific and aesthetic value, allowing for the reconstruction of the geological history and geomorphological phenomena in this region of the southern Middle Atlas. This geodiversity stems from magmatic, sedimentary, and structural phenomena ranging from the Jurassic to the Quaternary periods, as well as various geomorphological processes, primarily fluvial, karstic, and speleological in nature. The aim of this study is to assess the geotourism potential of these two municipalities by inventorying, categorizing, and analyzing the morphogenesis of their geosites. It also seeks to identify the strengths, weaknesses, opportunities, and threats (SWOT analysis) of these sites. Furthermore, the study emphasizes the valorization of these geodiversity elements by creating a geohiking trail map connecting the sites of geodiversity interest within these two municipalities in the southern Middle Atlas.

**Keywords:** Geotourism, Geosites, Geodiversity, Fom El Ancer and Tagzirt, Southern Middle-Atlas, Morocco.

## CHARACTERIZATION OF CLIMATIC DROUGHT IN A SEMI-ARID MOUNTAINOUS REGION: THE CASE OF THE OUED MOULOUYA BASIN

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### ABSTRACT

Extreme climatic phenomena, particularly drought, significantly impact hydrosystems, especially in the southern Mediterranean region, where they threaten water availability and influence human behavior. Located in North Africa, Morocco is particularly vulnerable to these climatic changes. This study analyzes climatic variability and drought characteristics in the Oued Moulouya watershed using the Standardized Precipitation Index (SPI) over 12 months across nine stations (Ansegmir, Ksibat, Laarichat, Louggagh, Missouri, Outat El Hadj, Tabouazant, Tendit, and Zaida). The results show a predominance of near-normal conditions (58%), with periods marked by drought (20%) and humidity (22%), varying across stations. Ksibat recorded a high rate of very humid periods (5%), while Tabouazant experienced the highest occurrence of severe droughts (7%). Some stations, such as Ksibat, Missouri, and Louggagh, are more humid, while Tabouazant, Outat El Hadj, and Tendit face more pronounced droughts. Laarichat, on the other hand, exhibits notable regularity in precipitation. This moderate climatic variability highlights regular alternations between humidity and drought, influenced by specific local factors.

**Keywords:** climatic, drought, Moulouya, SPI.



## SPATIO-TEMPORAL ANALYSIS OF VEGETATION COVER DYNAMICS IN THE BOUREGREG WATERSHED (MOROCCO)

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### ABSTRACT

For centuries, humans have exploited natural resources to meet their daily needs. Recent scientific and technological advancements have significantly facilitated this exploitation, but they have also led to increased overexploitation, particularly of vegetation cover. This paper aims to study the evolution of vegetation cover in the Oued Bouregreg watershed, located in the central-northwest of Morocco, covering an area of 9,814.43 km<sup>2</sup>, between 1985 and 2024. The methodological approach is based on a spatio-temporal analysis of vegetation dynamics, using remote sensing and GIS tools. The data analyzed comes from Landsat satellite images (TM and OLI\_TIRS types) for the years 1985, 1995, 2005, 2015, and 2024. The Normalized Difference Vegetation Index (NDVI) was used to assess the variations in vegetation cover over time and identify spatial differences between these periods. The results revealed a significant spatio-temporal dynamic of vegetation cover in the basin. In 1985, vegetation covered only 14.2% of the total area, while bare soil covered 85.8%. A progressive increase in vegetation was observed, reaching 36.6% in 1995 and peaking at 47.5% in 2024, primarily due to the expansion of agricultural activities. These results highlight the importance of monitoring and sustainably managing natural resources.

**Keywords:** Bouregreg, remote sensing, GIS, vegetation, NDVI.

## **MAGNETIC SUSCEPTIBILITY AS A TOOL FOR ASSESSING SOIL DEGRADATION AND CONTAMINATION IN THE BENI-MOUSSA REGION, TADLA PLAIN, MOROCCO**

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### **ABSTRACT**

This study investigates the magnetic susceptibility (MS) of soils in the Beni-Moussa region to evaluate soil degradation and contamination by heavy metals. Magnetic susceptibility values indicate moderate to high levels, reflecting significant concentrations of ferromagnetic minerals. Frequency dependence ( $\chi_{fd}$ ) analysis highlights the presence of ultrafine superparamagnetic (SP) minerals, with 59.70% of samples exhibiting a mix of SP and non-SP grains. The strong correlation ( $R^2 = 0.99$ ) between high-frequency ( $\chi_{hf}$ ) and low-frequency ( $\chi_{lf}$ ) susceptibility suggests consistent mineralogical characteristics.

The results reveal that MS is shaped by the parent material, soil formation processes, and anthropogenic activities, making it a reliable tool for assessing soil health and environmental contamination. These findings underline the potential of magnetic susceptibility as an efficient and non-invasive method for monitoring soil degradation and heavy metal pollution in agricultural landscapes.

**Keywords:** Magnetic susceptibility, Contamination, Heavy metal pollution.

## CONTRIBUTION OF RAIN-FLOW MODELLING TO KNOWLEDGE OF WATER RESOURCES: APPLICATION OF THE GR2M MODEL TO THE ANSEGMIR BASIN (HAUT MOULOUYA, MOROCCO)

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### ABSTRACT

Hydrological modelling is used to simulate the transformation of rainfall into flow in natural basins. It is an essential tool for understanding the dynamics of a catchment, which is very useful for many practical applications linked to water resource management. In this article, we applied the GR2M model to the Oued Ansegmir catchment, located in the Midelt province in north-east Morocco, which covers an area of **1061.826 km<sup>2</sup>**, to gain a better understanding of the hydrological behaviour of this catchment. Our aim was to apply rainfall-flow modelling to obtain precise information on variations in flow as a function of rainfall.

This study is based on the use of the GR2M model, with flow (Q), precipitation (P) and PTE (potential evapotranspiration) as input parameters. The output parameter we considered was the run-off water level. The average monthly rainfall was calculated using three methods: the inverse square of the distance (IDW), the arithmetic means and the Thiessen method.

The GR model calibration process produced very satisfactory results. In order to verify the validity of the adjustment obtained during calibration, it is necessary to evaluate the model's performance over a period separate from that used to adjust the model's parameters. The results obtained are very encouraging. These results indicate that the model takes into account the various exchanges (atmospheric and underground) as well as reservoir capacity.

**Keywords:** Modelling, Assimilation, Rainfall, GR2M, Oued Ansegmir, Morocco.

## THE ROLE OF SOCIO-LEGAL INTERVENTIONS IN CONTROLLING WATER POLLUTION FROM INDUSTRIAL SOURCES

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### ABSTRACT

Water pollution caused by industrial effluents is a critical global concern that endangers ecosystems, public health, and sustainable development. Industrial waste often contains hazardous substances, including heavy metals and toxic chemicals, which contaminate water bodies, leading to significant environmental and social challenges. This paper explores the socio-legal aspects of addressing water pollution, focusing on legislative frameworks, enforcement mechanisms, and the role of community engagement in managing industrial discharges. Through the analysis of case studies from diverse regions and comparative legal approaches, the study highlights the efficacy of integrated socio-legal strategies in controlling water pollution. It further identifies gaps in existing policies and enforcement practices while emphasizing the need for robust governance, technological innovations, and participatory governance. The paper concludes with actionable recommendations to strengthen regulatory structures, enhance accountability, and foster collaborative efforts among stakeholders, ensuring sustainable water management and the protection of public health.

**Keywords:** Industrial Water Pollution, Socio-Legal Interventions, Effluent Management, Environmental Law, Water Quality

## STRENGTHENING INSTITUTIONAL RESILIENCE AND DEMOCRATIC GOVERNANCE: ADVANCING EUROPEAN INTEGRATION AT THE LOCAL LEVEL IN ALBANIA

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### ABSTRACT

This paper explores the role of institutional resilience and specialized competencies of Albanian municipalities in meeting the demands of European integration. Local governance in Albania faces significant challenges in aligning with European Union standards, including limited administrative capacities, high staff turnover, and rigid recruitment processes. These obstacles hinder the effective implementation of European integration functions at the local level.

The analysis highlights the critical need for capacity-building measures, enhanced recruitment strategies, and streamlined human resource management practices to address the shortage of qualified staff and prolonged vacancies in key positions. Additionally, the paper examines the impact of inconsistent application of staffing policies and bureaucratic inefficiencies on municipal performance, particularly regarding the delivery of essential services and adherence to EU governance norms.

By focusing on the intersection of administrative competencies and democratic governance, the study underscores the importance of fostering inter-departmental cooperation and promoting sustainable human resource planning. These efforts are essential to improving the responsiveness and functionality of local institutions, which serve as pivotal actors in Albania's path toward European integration.

The findings provide valuable insights for policymakers, practitioners, and academics working to enhance institutional performance at the local and regional levels. By addressing these systemic challenges, Albanian municipalities can play a more active role in aligning with EU standards, thereby contributing to the country's overall integration process.

**Keywords:** Local governance, institutional resilience, European integration, Albania.

## HARMONIZING CONTRACT LAW IN THE EUROPEAN UNION: A CRITICAL ANALYSIS OF CHALLENGES AND PROGRESS

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### ABSTRACT

Diversification of contract law based on the national legislation of member states within the EU has posed a persistent challenge to the Union's economy, impacting not only the performance of the internal market but also global competitiveness. Contract law directly influences market security, stability, and trust, thereby enhancing economic activity and promoting the development of the internal market in the EU. The European Parliament has been advocating for over 25 years for the commencement of preparatory work on the formulation of a European Code of Private Law, as only through the unification of private law can a single market be realized. The COVID-19 health crisis, as well as the current energy crisis, demand a clear assessment of the state of this crucial legal instrument for the functioning and performance of the EU economy. The results of this study indicate that to date, there has been no significant progress toward the creation of a unified European Civil Code or a harmonized European contract law. Also, the Establishment of the Single Digital Market represents another challenge for contract law in the EU. The issue of harmonization remains one of the current challenges in the EU legal system.

**Keywords:** Contract law, harmonization, diversification, EU legal system, performance of the internal market

## THE IMPORTANCE OF FINALIZING AND ENACTING THE CIVIL CODE FOR THE REPUBLIC OF KOSOVO

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### ABSTRACT

The Republic of Kosovo is on the verge of a pivotal legal milestone with the preparation and enactment of its Civil Code. This endeavor represents a significant step toward strengthening legal certainty in civil-legal relations and promoting the creative development of civil law in alignment with contemporary scientific knowledge and judicial practices. The Civil Code is one of the most important legal acts in the field of civil law. It significantly increases legal certainty across all civil law relations while fostering innovation in accordance with established judicial practices and modern legal science. The drafting of the Civil Code stems from decades-long initiatives by legal professionals, with the necessary conditions now in place for its finalization and adoption. The Civil Code establishes a comprehensive legislative framework essential for Kosovo's legal and economic integration with the European Union. It harmonizes existing civil law provisions with EU standards while preserving the foundational principles of Roman law that underpin European civil law traditions. Structured into five primary books—General Principles of Civil Law, Property Law, Obligations Law, Family Law, and Inheritance Law—it also includes transitional and final provisions to address historical and contemporary legal relationships. Beyond legislative consolidation, the Civil Code modernizes Kosovo's legal system by aligning it with international and EU legal instruments. This fosters a cohesive and secure environment for individuals and businesses, ensuring the preservation of legal traditions while avoiding experimental legislative practices. Kosovo aspires to achieve a robust legal order that supports societal and economic development. This codification underscores Kosovo's dedication to advancing legal harmonization and European integration, laying a solid foundation for sustainable progress and the rule of law.

**Keywords:** Civil Code, Legal Codification, EU Integration, Property Law, Family Law, Inheritance Law, Legal Certainty, Civil Law Harmonization, Kosovo.

## TRANSFORMATIONAL LEADERSHIP OF PRIMARY SCHOOL PRINCIPALS IN SARAJEVO CANTON

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### ABSTRACT

Due to the unpredictability of changes in the technical, technological and information direction, the world is changing faster than ever. The school, as an organization that sublimates all changes in the environment, must change in accordance with the changes that it encounters. Global changes in the world necessarily require school reform and, in this direction, educational policies around the world confirm the importance of principal leadership in generating and implementing innovation in schools. Transformational leadership style is recognized as key in times of great change, in countries in transition and in crisis situations. Given that Bosnia and Herzegovina is in the post-war and transition period, our field of research is aimed at discovering the transformational leadership style of primary school principals in the Sarajevo Canton.

This paper explores the presence and intensity of the transformational leadership style of primary school principals in the Sarajevo Canton. In a sample of 30 primary school principals, the presence of transformational leadership factors of school principals is investigated: vision building, individual attention and intellectual stimulation. Using a qualitative research method- structured interview, based on the perception of the principal, the presence of elements of the transformational leadership style is investigated, based on previously established questions for school principals. The results obtained in this paper indicate a high degree of presence of elements of the transformational leadership style as well as the principal's readiness for change, which is one of the fundamental conditions for implementing innovations. The results indicate the principal's readiness for innovative ways of working, joint vision building with teachers, sharing care for teachers, as well as intellectual stimulation of teachers with the aim of innovative improvement in work with students.

According to the principal's assessments, we conclude that the implementation of the transformational leadership style requires systematic education of principals in the field of educational management, especially in the field of transformational leadership.

**Keywords:** school reform, transformational leadership style, principals, vision building, intellectual stimulation.



## THE POLITICS OF IDENTITY IN THE DIGITAL AGE: A CRITICAL REVIEW OF THE PERSONALIZATION PARADIGM IN POLITICAL PR AND SOCIAL MEDIA

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### ABSTRACT

The emergence of social media has redefined the boundaries of political communication, shifting the focus from institutional ideologies to personalized narratives of political leaders. This paper critically reviews existing literature on the personalization paradigm, examining its intersection with political public relations and personal branding within the digital context. By exploring theoretical constructs such as visual narratives, simulated intimacy, and strategic authenticity, this study highlights the nuanced relationship between technology, identity, and political representation. The review addresses three key areas: (1) the evolution of political PR in the digital era, (2) the theoretical implications of personal branding as a political strategy, and (3) the ethical and strategic challenges of balancing authenticity with the calculated nature of political image-building. Through an interdisciplinary lens incorporating political communication, visual semiotics, and digital media studies, this paper identifies critical gaps in the current understanding of personalization and offers new perspectives on its implications for transparency, democratic engagement, and leader-citizen relations. The findings contribute to a deeper theoretical comprehension of personalization as both a communicative strategy and a socio-cultural phenomenon reshaping modern politics.

**Keywords:** Personalization, political PR, personal branding, visual narratives, simulated intimacy, digital political communication.

## THE ROLE OF ICT IN MODERN PEDAGOGY: ALBANIAN CASE STUDY

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### ABSTRACT

Teaching and learning paradigms have evolved as a result of the use of information and communication technology (ICT), especially in higher education. This study explores how ICT can change the way that English is taught as a foreign language (EFL) in the distinctive context of Albanian institutions of higher learning. This study highlights the potential of ICT to oust conventional didactic frameworks and replace them with dynamic, learner-centred paradigms by contrasting global educational trends with regional specificities. Applying a mixed-methods approach, the study combines qualitative information gathered from in-depth interviews with five educators with quantitative data from surveys given to 150 students in higher education.

The findings highlight the potential of ICT to improve understanding, foster collaborative learning, and increase student involvement while also highlighting enduring obstacles such as inadequate technology infrastructure, low levels of digital competency, and unequal access to resources. Despite their size, these obstacles are not insurmountable. The study promotes a multipronged approach to increase ICT integration, which includes significant investment in cutting-edge infrastructure, extensive policy changes to give digital education top priority, and focused capacity-building initiatives to improve digital literacy among teachers and students. By tackling these issues, this study views ICT as a revolutionary force that can bridge pedagogical gaps and promote inclusive, equitable, and creative educational ecosystems rather than just as an auxiliary tool.

**Keywords:** ICT, Higher education, Albanian universities, EFL instruction, student-centered learning

## **CRISIS-READY: BUILDING HEALTH DIPLOMACY AND PREPAREDNESS IN THE WESTERN BALKANS**

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### **ABSTRACT**

The Western Balkans face significant challenges in managing public health emergencies due to diverse healthcare systems, political fragmentation, and resource disparities. Health diplomacy has emerged as a critical tool for fostering regional cooperation and strengthening preparedness to address these crises. The COVID-19 pandemic exposed the region's vulnerabilities and highlighted the need for a coordinated diplomatic approach to public health challenges. This paper explores the concept of Health Diplomacy in Crisis (HDC) and evaluates its role in enhancing emergency preparedness in the Western Balkans. By examining the current state of health diplomacy in the region, we identify key challenges, including geopolitical tensions, lack of cross-border collaboration, and insufficient healthcare infrastructure. The study draws valuable lessons from Swiss science diplomacy, particularly the initiatives led by the Swiss Agency for Development and Cooperation (SDC) and the Geneva Science Diplomacy Anticipator (GESDA), which provide a model for integrating scientific expertise into diplomatic efforts. The paper proposes a comprehensive framework to improve health diplomacy in the Western Balkans, including the establishment of a regional health diplomacy coordination mechanism, capacity building for health professionals and diplomats, leveraging digital health technologies, and strengthening partnerships with international organizations. These measures aim to enhance the region's resilience to future health crises, ensuring timely responses and equitable access to medical resources. By adopting a collaborative approach, the Western Balkans can address transboundary health threats more effectively, promote regional stability, and contribute to global health security. This study underscores the importance of anticipatory health diplomacy and evidence-based policies to navigate the complexities of public health emergencies in a politically sensitive region.

**Keywords:** Health Diplomacy, Emergency Preparedness, Western Balkans, Public Health Crises, International Cooperation.

## **PRIMARY HEALTHCARE ROLES AND CONTRIBUTIONS IN ALLEVIATING THE VACCINE ACCEPTANCY DUE TO COVID -19 PANDEMIC IN ALBANIA: DESCRIPTIVE RESULTS FROM THE PRICOV- 19**

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### **ABSTRACT**

**Background:** Vaccine hesitancy was identified as a global health threat in 2019, and skepticism around COVID-19 vaccines quickly became widespread. In Albania, initial resistance was particularly high among younger populations due to misinformation, lack of reliable data, and the influence of social media. As the first point of contact in the healthcare system, Primary Health Care (PHC) has played a vital role in vaccination efforts, especially in addressing vaccine hesitancy. Vaccination centers were set up across the country, prioritizing healthcare workers, the elderly, and other high-risk groups. Healthcare professionals also actively promoted vaccine uptake through counseling and outreach campaigns.

**Methods:** A survey was conducted among PHC staff to assess their roles in managing the COVID-19 vaccination process, focusing on their involvement in campaigns, addressing hesitancy, and confidence in communicating with patients. Data from health records and official databases were also collected to quantify the number of patients treated, tests conducted, and vaccination rates achieved. Ethical approval was obtained from the Research Ethics Council, Tirana University of Medicine (Nr.1279/3; 06.05.2022).

**Results:** Of 139 participants, 137 completed the survey (99% response rate). The majority were female (85%) and nurses (63.6%). Most respondents (79%) were actively involved in the vaccination process, particularly in patient counselling (60%) and advising hesitant individuals (54%). Although vaccine hesitancy was common, the reasons for uptake included seeing sick relatives (134 responses) and the desire for social freedom (128). About 71% of PHC staff reported their patients were somewhat hesitant, with concerns about long-term side effects and vaccine safety.

**Conclusions:** PHC in Albania played a proactive role in the COVID-19 vaccination campaign, particularly in managing vaccine hesitancy. Targeted interventions helped to alleviate public concerns and promote vaccine acceptability, reducing pandemic-related anxiety.

**Keywords:** COVID-19; primary health care; PRICOV-19; vaccination; vaccine hesitancy family medicine; infectious diseases.

## ELECTORAL SYSTEMS AND GENDER REPRESENTATION IN ALBANIA: AN INSTITUTIONAL ANALYSIS (1991–2021)

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### ABSTRACT

This study examines the impact of Albania's electoral system on gender representation in the national legislature during the period 1991–2021. Adopting an institutional approach, the research explores how changes in electoral rules, quotas, and political party dynamics have influenced the inclusion of women in Albanian politics. The study analyzes the evolution of the electoral framework from the post-communist transition, characterized by a mixed electoral system, to the adoption of proportional representation with gender quotas in the 2000s. By combining quantitative analysis of electoral outcomes with qualitative insights from policy debates, the paper reveals that institutional reforms, particularly the introduction and strengthening of gender quotas, have significantly enhanced women's representation. However, structural barriers, including patriarchal cultural norms and party leadership resistance, continue to moderate these gains. The findings underscore the critical role of electoral design in shaping gender equity in political institutions and provide policy recommendations for sustaining and expanding female political participation in Albania. This research contributes to the broader discourse on institutional mechanisms for achieving gender parity in emerging democracies.

**Keywords:** electoral systems, gender representation, quotas, political parties, Albania

## **THE IMPACT OF THE INTENSITY AND QUALITY OF COLLABORATION BETWEEN THERAPISTS AND PARENTS ON THE IMPROVEMENT OF SOCIAL AND COMMUNICATION SKILLS IN CHILDREN WITH AUTISM SPECTRUM DISORDER**

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### **ABSTRACT**

The relationship between therapists and parents is essential for the development and improvement of children with autism spectrum disorder. This partnership allows for an integrated approach where therapists provide professional expertise, and parents contribute their deep understanding of the child's behavior and needs. By collaborating with parents, therapists can ensure that the therapies offered align with the child's home environment and daily routine, leading to faster progress. Additionally, parents can help therapists better understand the challenges and progress of the child in different settings. This study aims to examine whether a close and effective collaboration between therapists and parents directly impacts the development of children's skills, both in the therapeutic environment and in their daily life. Data was collected from a number of studies and observed cases, primarily at the “Towards the Future” service center in Shkodra, highlighting the importance of collaboration in creating coherent and sustainable support, contributing to the improvement of the quality of life for children and families facing the challenges of autism spectrum disorder.

**Keywords:** Intensity, Quality, Collaboration, Social Skills, Communication Skills

## THEORETICAL STUDY OF STRUCTURAL AND ELECTRONIC PROPERTIES OF BARIUM STANNATE SINGLE CRYSTALS, USING PBESOL FUNCTIONAL

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### ABSTRACT

In this study, we investigated the structural and electronic properties of single crystals of barium stannate ( $\text{BaSnO}_3$ ) using the ultrasoft pseudopotential approach for core-valence interactions and the Perdew-Burke-Ernzerhof (PBESOL) functional for exchange-correlation within the framework of density functional theory (DFT), as implemented in Quantum Espresso. The optimized lattice parameter obtained (4.138 Å) using PBESOL shows excellent agreement with the experimental value (4.116 Å). However, the calculated energy band gap for  $\text{BaSnO}_3$  (0.61 eV) is significantly underestimated compared to the experimental value of 3.4 eV. To address this discrepancy, we performed additional calculations incorporating Hubbard  $U$  and Hubbard  $V$  corrections, which are known to improve the accuracy of electronic property predictions. These corrections yielded optimized band gap values of 4.42 eV and 4.15 eV, respectively.

**Keywords:**  $\text{BaSnO}_3$ , DFT, PBESOL, Hubbard  $U$ , Hubbard  $V$ .



## UNIVERSAL DESIGN AND DIGITAL TECHNOLOGIES IN EDUCATION – A BULGARIAN PERSPECTIVE

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### ABSTRACT

In the context of contemporary Bulgarian education, the integration of universal design and digital technologies is becoming increasingly relevant and necessary. These two concepts not only improve the quality of education but also support greater inclusiveness and equality for all students. Together with that, the significant progress that universal design concept is achieving globally allows to focus on and analyze Bulgarian perspective especially in the educational area.

**Keywords:** Universal Design, Educational Management, Horizontal Support for Professionals

## ANALYSIS OF THE DEVELOPMENT OF ANTAGONISTIC POPULATIONS

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### ABSTRACT

This is studies the problem of interaction between antagonistic animal populations (predator-prey system). These are situation arises in nature spontaneously when animal populations move across a territory or artificially when animals are resettled in a certain environment where local inhabitants are located.

Operations to resettle bison from Belarus to the central regions of Russia, Caucasus and some regions of Ukraine have been successfully completed.

Musk oxen were brought from Canada to the Arctic territories of Russia.

There is a known problem that has arisen in Australia, where several dozen rabbits were brought in the 19th century. They had no natural enemies there and as a result the number of rabbits increased so much that it became a disaster. The problem has not been solved to this day.

The mathematical problem called the "predator-prey system" was first studied by the Italian mathematician V. Volterra. He studied the dynamics of changes in the numbers of lynxes and hares in Canada over 60 years from 1845 to 1905. A more complex model, taking into account the natural mortality of predators and prey, was called the "Volterra-Lotka model."

The process is described by a system of differential equations. Its solution cannot be obtained in the form of formulas. Numerical methods must be used. This complicates the analysis of the solution and the possibility of predicting situations that may arise.

In our work we used an approximate solution method – the linearization method. It assumes that the deviations of the values from the average value are small. But it turned out that in this problem it also describes large deviations from the average values well. With its help we get formulas for determining the period of fluctuations in the number of populations, their maximum and minimum numbers, and the rate of establishment of numbers are given. Some unexpected results also appear that are not visible when solving the equations numerically.

**Keywords:** mathematical model, antagonistic populations, linearization

## COVALENT ORGANIC FRAMEWORK: CURRENT RESEARCH AND FUTURE TRENDS

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### ABSTRACT

Covalent–organic frameworks (COFs) are a novel class of crystalline porous polymers prepared by linking organic precursors with different structures through strong covalent bonds.

The remarkable properties of these molecular architectures such as extremely high specific surface areas, chemical and thermal stability, multiple pathways for the design of their poly heterocyclic skeletons, tunable pores, topological controllability, biodegradability, ordered channel structure, versatile covalent functionalization, good biocompatibility makes COFs promising materials for a wide range of applications.

The present review emphasizes the most relevant examples of these applications as follows:

- gas storage: appropriate materials for storage of different gases such as carbon dioxide, methane, hydrogen at low and high pressure;
- atmospheric water harvesting;
- gas adsorption and separation: selective removal of ethane from an ethylene/ethane mixture
- energy applications: promising perspectives in the design of supercapacitors, metal-ion/sulfur batteries, and perovskites solar cells with improved performances;
- wastewater treatment: removal of several pollutants such as drugs, perfluorinated compounds, heavy metals, and pesticides;
- smart sensing materials: gas sensing (volatile organic compounds, gaseous HCl, humidity sensing, pH detection, biosensing);
- catalysis applications: used in homogeneous and heterogeneous catalysis in several reactions such as oxidations, reductions, coupling reactions (Sonogashira, Heck, Suzuki);
- biomedical- delivery of chemotherapeutics, captopril, ibuprofen, disease diagnostic, bioimaging;
- desalination technology: promising membranes- based COF for desalination of seawater.

Lastly, perspectives on future trends and issues associated with COFs are detailed.

**Keywords:** covalent–organic frameworks, gas storage, supercapacitor, pollutants

## NOVEL SURFACE ACOUSTIC WAVE RELATIVE HUMIDITY SENSOR

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### ABSTRACT

This paper reports the design and manufacturing processes for a surface acoustic wave (SAW) relative humidity (RH) sensor. This device is used as a sensing layer novel ternary nanocomposite based on polyvinylpyrrolidone (PVP)/oxysulfonated carbon nano-onions (abbreviated as ox-CNOs-SO<sub>3</sub>H) - carbon black. The used sensor is of the "delay line" type, dual, made on a quartz piezoelectric substrate. The sensor features a dual delay line to compensate for thermal drift. Thus, one delay line is coated with the RH-sensitive ternary nanocomposite, and the second delay line is the piezoelectric substrate without the sensitive layer. The sensitive films are deposited on a piezoelectric quartz substrate by the "spin coating" method.

The ternary nanocomposite used as sensing film presents several notable advantages:

- the presence of ox-CNOs-SO<sub>3</sub>H confers a high specific surface/volume ratio, affinity for water molecules ("mass loading"), as well as a variation of the resistance of the sensitive layer upon contact with them ("electric loading");
- excellent mechanical properties;
- detection over a wide temperature range;
- the hydrophilic character of PVP and ox-CNOs-SO<sub>3</sub>H facilitates the interaction with water molecules;
- carbon black improves the ox-CNOs-SO<sub>3</sub>H dispersion in the polymer matrix and modulates the conduction of the moisture-sensitive layer, making it an excellent filler.
- quick response of the sensor to the variation of the RH level;
- reversibility;

**Keywords:** SAW sensor, oxysulfonated carbon nano-onions, mass loading

## THE USE OF DIGITAL TECHNOLOGIES IN TEACHING MATHEMATICS AT ALBANIAN UNIVERSITIES

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### ABSTRACT

This paper examines the use of digital technologies in mathematics teaching in Albanian universities, assessing the benefits, challenges, and opportunities that this approach can offer for students and teachers. Digital tools such as MATLAB, R, and Python are critical for mathematics instruction at various academic levels, offering opportunities to improve the quality of teaching, engage students, and develop a more interactive learning environment. This study is based on an online questionnaire distributed to 300 students across Albanian universities, and data analysis reveals that the use of technology in teaching enhances student engagement and boosts self-confidence. However, several barriers to effective use have been identified, including a lack of technological equipment and issues with infrastructure. This paper suggests that enhancing teacher training and investing in technological infrastructure are critical for the successful integration of technology in teaching.

**Keywords:** Learning, educational technology , mathematical education, digital tools.

## THE IMPACT OF ECONOMIC BENEFITS, SOCIAL RESPONSIBILITY, AND ENVIRONMENTAL RESPONSIBILITY ON INFORMATION SHARING IN THE ADOBE BRICK SUPPLY CHAIN: THE MEDIATING ROLE OF COMMITMENT

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### ABSTRACT

The article examines the impact of economic benefits, social responsibility, and environmental responsibility on information sharing within the supply chain of adobe bricks, mediated by the role of commitment. The research sample comprises 342 from enterprises, production facilities, consumers, support units and governmental agencies directly or indirectly involved in the operations of the adobe brick supply chain in Khanh Hoa province, Vietnam. The results, analyzed using the structural equation modeling approach, clarify the influence of these factors on commitment. Economic benefits and environmental responsibility both have a positive impact on commitment. The analysis also sheds light on the mediating mechanism of commitment, through which these factors affect information sharing, a critical component of supply chain collaboration. The article proposes several implications to encourage enterprises in the adobe brick industry to harmonize economic benefits, social responsibility, and environmental responsibility. This contributes to emission reduction, resource conservation, and the creation of shared value for society through the supply chain.

**Keywords:** Economic Benefits, Environmental Responsibility, Supply Chain, Commitment, Information Sharing.

## THE ADOPTION OF AI-ASSISTED MANAGEMENT CONTROL TOOLS: A LEVER FOR CORPORATE PERFORMANCE MANAGEMENT: BIBLIOMETRIC ANALYSIS

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### ABSTRACT

In today's unstable, fast-changing international economic and political environment, companies are paying ever greater attention to all the details that can influence their results, with rapid technological development leaving no opportunity to waste time, and highly demanding customers with ever-increasing risks. Managers need to be more risk-aware, and look for any means or tools to ensure better productivity whatever the context.

Generally speaking, performance is one of the vital objectives of companies in all sectors. As a result, the notion of performance is not limited to the economic aspect alone, but takes into account all stakeholder expectations, which can be expressed in terms of social, societal and environmental dimensions. Company performance management based on accounting and management control tools. The steering system, via these tools, makes several contributions to the company's performance and strategy.

Indeed, if companies want to manage and steer their performance by taking into account technological development, the company's leverage function, management control must be one of the company's weapons. The latter must not only take charge of all the tasks linked to achieving the desired performance, but also those linked to adapting to changes in its environment.

AI refers to a set of technologies that enable machines or computer systems to perform tasks that usually require human intelligence, such as understanding language, recognizing images or making decisions. Since its beginnings in the 1950s, artificial intelligence has undergone a profound transformation, encompassing significant advances in the fields of machine learning, deep learning and natural language processing. Today, AI is ubiquitous, influencing fields such as healthcare, finance, industry and marketing.



In an economic environment increasingly marked by competition and dynamism, AI is positioning itself as a vector for business transformation. Its potential for optimizing operational processes, strengthening decision-making and steering the overall performance of organizations is considerable. Companies are adopting AI-based tools to strengthen their management control, a key area in managing resources and enhancing financial results. Through its ability to process massive volumes of data and provide accurate predictive analysis, AI offers companies the opportunity to better grasp market trends, adjust their strategies and improve their long-term performance.

The aim of this work is to shed light on AI and its impact on overall corporate performance management via management control tools. Indeed, performance management and management control is a controversial subject that deserves to be analyzed in greater depth.

The present paper addresses the following problem: To what extent does AI impact the steering of companies' overall performance via the adoption of management control tools? To this end, a bibliometric analysis of the literature review was carried out by analyzing the scientific articles dealing with this topic.

To carry out this bibliometric analysis of the subject, firstly, we rely on a literature review to conceptualize the key notions of the present theme in order to answer this problematic. Secondly, we will present our bibliometric data collection methodology, followed by a presentation and discussion of the results obtained using VOSVIEWER software.

Based on the bibliometric analysis, there are three possible outcomes for this article: either artificial intelligence has helped management control tools to improve overall corporate performance, or artificial intelligence has hindered the use of management control tools to steer overall performance, or artificial intelligence has had no impact on the use of management control tools to steer performance.

**Keywords:** AI, Performance, management control, bibliometric analysis, VOSVIEWER.

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**OPTİMİZASYON ALGORİTMALARI VE MODEL DENEYLERİ KULLANILARAK  
KATKILI DERİN KARIŞTIRMA KOLONLARININ PERFORMANS  
ÖZELLİKLERİNİN ARAŞTIRILMASI**  
INVESTIGATION OF PERFORMANCE CHARACTERISTICS OF ADDITIVE DEEP  
MIXING COLUMNS USING OPTIMIZATION ALGORITHMS AND MODEL  
EXPERIMENTS

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**ÖZET**

Bu çalışmada, kil zemin ortamında çimento, silis dumanı ve akışkanlaştırıcı katkı maddesi kullanılarak oluşturulan derin karıştırma kolonlarının (DKK) performansını etkileyen faktörler, yanıt yüzeyi yöntemi (YYY) modeli oluşturularak ve amaç fonksiyonu belirlenerek incelenecek; ardından, maksimum dayanım Lagrange Çarpanları, Parçacık Sürü Optimizasyonu ve Arı Algoritması yöntemleri karşılaştırılarak bulunacaktır. Çalışmada kullanılmak üzere düşük plastisiteli kil (CL) zemini, Konya Teknik Üniversitesi kampüsü olarak ayrılmış alandan temin edilmiştir. Design Expert programı kullanılarak yanıt yüzeyi yöntemi çerçevesinde bir deneysel program oluşturulmuştur. Çimento ve silis dumanı yüzdeleri, kuru kil ağırlığına göre ağırlık yüzdesi şeklinde belirlenmiş ve çimento için %5-20, silis dumanı için %0-15 sınır değerleri seçilmiştir. Akışkanlaştırıcı katkı miktarı, bağlayıcı miktarının %0-5'i olarak belirlenmiş ve su/bağlayıcı oranı 0,9-2,5 aralığında seçilmiştir. Zeminin su içeriği ise %25-33 arasında tutulmuştur. Derin karıştırma deney düzeneğinde, 21 farklı tasarım için büyük ölçekli derin karıştırma kolonları üretilmiş ve 28 günlük kür süresi sonunda numuneler alınmıştır. Numuneler üzerinde serbest basınç deneyleri gerçekleştirilmiştir. Daha sonra, varyans analizi sonucunda elde edilen regresyon denklemi amaç fonksiyonu olarak kullanılmıştır. Maksimum dayanım, üç farklı algoritma ile belirlenmiştir.

**Anahtar Kelimeler:** Derin karıştırma kolonları, Killi zemin, Optimizasyon, Serbest basınç mukavemeti, Silis dumanı, Yanıt yüzey yöntemi, Arı algoritması, Lagrang çarpanları, Parçacık sürü optimizasyonu

## ABSTRACT

In this study, the factors affecting the performance of deep mixing columns (DMCs) composed of cement, silica fume and plasticizer admixture in a clayey soil environment will be investigated by establishing a response surface method (RSM) model and finding the objective function, and then the maximum strength will be found by comparing Lagrange Multipliers, Particle swarm optimization and Bee algorithm methods. Low plasticity clay soil (CL) was obtained from the land allocated as Konya Technical University Industrial Campus for the study. An experimental program was created using the response surface method within the Design Expert program. The percentages of cement and silica fume are in the form of weight percentages of dry clay and the limit values of 5-20% for cement and 0-15% for silica fume were selected. The plasticizer additive was selected as 0-5% of the binder amount and the water/binder ratio was selected in the range of 0.9-2.5. The water content of the soil is between 25-33%. In the deep mixing experimental setup, large scale deep mixing columns were manufactured for 21 designs and core samples were taken after 28 days of curing period. Free compression tests were performed on the cores. Then, the regression equation found as a result of variance analysis was used as the objective function. Maximum strength was found with 3 different algorithms.

**Keywords:** Deep mixing columns, Clay soil, Optimization, Free compressive strength, Silica fume, Response surface method, Bee algorithm, Lagrangian multipliers, Particle swarm optimization

## TÜRKİYE’DE YAŞ GRUPLARINA GÖRE PHILLIPS-OKUN MODELİ YAKLAŞIMI PHILLIPS-OKUN MODEL APPROACH ACCORDING TO AGE GROUPS IN TURKEY

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### ÖZET

Bu çalışmada, Türkiye’de yaş gruplarına göre ekonomik büyüme, işsizlik oranı ve enflasyon arasındaki ilişkileri açıklayan Okun Yasası ve Phillips Eğrisi, bir kombine model kapsamında ele alınmıştır. Okun Yasası, ekonomik büyüme ile işsizlik oranı arasındaki ters yönlü ilişkiyi, Phillips Eğrisi ise işsizlik ile enflasyon arasındaki negatif ilişkiyi tanımlamaktadır. Çalışma, farklı yaş gruplarındaki bu ilişkilerin heterojenliğini ortaya koymayı amaçlamaktadır. Modelde bağımlı değişken olarak GSYH büyüme oranı, bağımsız değişken olarak işsizlik oranı ve araç değişken olarak enflasyon oranı kullanılmış olup; Eşanlı denklem sistemi yöntemiyle tahmin edilmiştir. Veriler, 2003-2023 dönemi için derlenmiş ve analiz, yaş gruplarına (15-24, 25-54, 55-64, 64+) göre yapılmıştır. Bulgular, işsizlik oranı, büyüme ve enflasyon arasındaki ilişkilerin yaş gruplarına göre farklılaştığını göstermektedir. Elde edilen bulgular; yaş gruplarına göre ekonomik politika tasarımlarında farklılaşmaya gidilmesi gerektiğini ortaya koymaktadır. Gençler için işsizlikle mücadeleye yönelik teşvikler, büyüme üzerinde olumlu etkiler yaratabilirken, orta yaş grubu için istihdam istikrarını korumak önemlidir. İleri yaş gruplarında ise sosyal güvenlik politikaları büyüme üzerindeki dolaylı etkileri dengeleyebilir. Çalışma, işgücü piyasasındaki demografik farklılıkları göz önüne alarak Türkiye’nin ekonomik büyüme ve enflasyon hedeflerini destekleyici bir çerçeve sunmaktadır. Bu çalışmanın sonuçları, politika yapıcılar ve akademisyenler için, farklı yaş gruplarını hedefleyen ekonomik politikalar tasarlamak ve büyüme-enflasyon-işsizlik ilişkisini daha iyi anlamak açısından önemli bir yol gösterici olmayı amaçlamaktadır.

**Anahtar Kelimeler:** Okun Yasası, Phillips Eğrisi, Eşanlı Denklem Sistemleri

### ABSTRACT

In this study, Okun's Law and Phillips Curve, which explain the relationships between economic growth, unemployment rate and inflation according to age groups in Turkey, are discussed within the scope of a combined model. Okun's Law defines the inverse relationship

between economic growth and unemployment rate, while Phillips Curve defines the negative relationship between unemployment and inflation. The study aims to reveal the heterogeneity of these relationships in different age groups. In the model, GDP growth rate is used as the dependent variable, unemployment rate as the independent variable and inflation rate as the instrumental variable; It is estimated by the simultaneous equation system method. Data are compiled for the period 2003-2023 and the analysis is made according to age groups (15-24, 25-54, 55-64, 64+). The findings show that the relationships between unemployment rate, growth and inflation differ according to age groups. The findings reveal that differentiation should be made in economic policy designs according to age groups. While incentives aimed at combating unemployment for young people can have positive effects on growth, it is important to maintain employment stability for the middle age group. In older age groups, social security policies can offset the indirect effects on growth. The study provides a framework supporting Turkey's economic growth and inflation targets by considering demographic differences in the labor market. The results of this study aim to be an important guide for policy makers and academics in designing economic policies targeting different age groups and better understanding the growth-inflation-unemployment relationship.

**Keywords:** Okun's Law, Phillips Curve, Systems of Simultaneous Equations

## DIALECTICS IN THE WORD OF PHYSICS

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### ABSTRACT

Dialectic and its specific way of thinking has been present in philosophy for a long time. Manifestations of dialectical thinking can be identified in Heraclitus, but also in the sophists, in the dialogues of Plato. Later, the transcendence of thesis and antithesis in Kant gave rise to other philosophical systems in Fichte, Schelling, but above all in Hegel. Dialectical thinking was later developed by Marx and his followers. Critics blame him for the linearity of his dialectic compared to Hegel. Dialectics is also manifested in selected physical phenomena. Some of Kant's aporias still resonate today as open problems in theoretical physics. As Academician Krempaský emphasized, dialectics has a role in the birth of new physical qualities. In fact, within the framework of invariant laws, chance also plays an important role. In the same way, in the physics of microparticles we can talk about dialectics in the sense of the present corpuscular and wave properties. A solution in the sense of synthesis was postulated long ago by de Broglie. It turned out to be the beginning of today's real picture. We can also perceive contradictions between the Copenhagen and classical interpretations of quantum mechanics. It is also possible to identify a dialectical contradiction between the denial of causality and Laplace's demon. We can also perceive a dialectical contradiction in the cosmogonic question of the cyclical and linear image of the evolution of the universe. An interesting problem can be the question of classifying space objects among the planets, as in the case of Ceres and Pluto.

**Keywords:** dialectical thinking, contradictory aspects of physical reality, interpretations of quantum mechanics.

## FROM CULTURAL ROOTS TO MODERN ART: THE REFLECTIONS OF SAQQAKHANEH MOVEMENT

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### ABSTRACT

The Saqqakhaneh Movement represents a significant turning point in Iran's modern art history and is often described as "innovative traditionalism." This art movement was shaped by an effort to merge traditional symbols with modern art forms, drawing inspiration from Iran's deep cultural and religious roots. Traditional folk art, religious themes, and particularly historical-religious events such as the Ashura tragedy served as the primary sources of inspiration for this movement. In this way, the Saqqakhaneh Movement sought to transcend the tradition-modernity dichotomy in Iranian art history and create a new artistic language. This study examines ten works by prominent artists of this Movement within the framework of Walter Benjamin's concept of "reproduction." The analyzed works reveal how the artists were inspired by Iran's ancient traditions and Shia themes, as well as how they reproduced these elements using contemporary events, technological innovations, and modern art practices. In conclusion, this analysis highlights the significance and position of the Saqqakhaneh Movement in Iranian art, emphasizing the balance between traditional and modern elements achieved in this artistic movement. It underscores the movement's role in preserving Iranian cultural identity and shaping contemporary art. In this context, the Saqqakhaneh Movement can be regarded as a noteworthy example not only for Iran but also for the global art scene.

**Keywords:** Saqqakhaneh Movement, Iranian Art, Walter Benjamin, Reproduction, Traditional Themes.



**YENİ SENTEZ TİYAZOL TÜREVLERİNİN ANTİDİYABETİK AKTİVİTELERİNİN  
İN VİTRO KOŞULLARDA BELİRLENMESİ \***  
DETERMINATION OF ANTIDIABETIC ACTIVITIES OF NEW SYNTHESIS THIAZOL  
DERIVATIVES IN VITRO CONDITIONS

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**ÖZET**

Günümüze kadar yapılan ilaç alanındaki çalışmalar incelendiğinde, tedavisi henüz bulunamamış ve yeni ortaya çıkan hastalıkların tedavisinde bu araştırmaların yetersiz olduğu, güncel çalışmalara ihtiyaç duyulduğu anlaşılmaktadır. Dünyada etkinliği fazla, biyouyumluluğu yüksek ilaç sayısı yeterli düzeyde değildir. Güvenilir, etkili ilaç geliştirme zaman alan ve maliyeti yüksek süreçler olduğu için farklı disiplinlerin ortak çalışmasıyla maliyeti düşük, toksik etkisi az, tedavide etkin rol oynayan yeni keşif muadil ilaçlar alanındaki araştırma gerekliliği açıkça görülmektedir. Yeni sentezlenen türevi bileşiklerin antidiyabetik etkiler göstererek enzim inhibisyonu sağladığında, diyabet tedavisinde alternatif olarak kullanılabilirken maliyeti düşük, toksik etkisi az, tedavide etkin rol oynayan yeni keşif bileşikler elde edilmesi amaçlanmaktadır. In vitro şartlarda tiyazol türevi bileşiklerinin inhibitör etkileri incelenecektir. Bu çalışmada  $\alpha$ -amilaz ve  $\alpha$ -glukozidaz enzimlerinin aktivitelerinin %50'sinin inhibe edildiği tiyazol türevleri konsantrasyonları (IC<sub>50</sub>) hesaplanacaktır. Elde edilen sonuçlar standart olarak kullanılan maddeler ile karşılaştırılacak, yeni bir enzim inhibitörlerinin keşfini mümkün kılacaktır.

**Anahtar kelimeler:** Tiyazol türevleri,  $\alpha$ -amilaz,  $\alpha$ -glukozidaz

\* Bu çalışma Şüheda Yıldırım'ın yüksek lisans tezinin bir parçasıdır.

**Destek bilgileri:** Sivas Cumhuriyet Üniversitesi Bilimsel Araştırma Projesi Fonu, Hibe/Ödül Numarası:ECZ-2024-106

**ABSTRACT**

When the studies in the field of medicine conducted to date are examined, it is understood that these studies are insufficient and that current studies are needed in the treatment of newly

emerging diseases that have not yet been cured. The number of drugs with high efficacy and high biocompatibility in the world is not sufficient. Since developing reliable and effective drugs is a time-consuming and costly process, the need for research in the field of new discovered equivalent drugs with low cost, low toxic effects and effective treatment is clearly seen with the joint work of different disciplines. When newly synthesized derivative compounds show antidiabetic effects and provide enzyme inhibition, it is aimed to obtain new discovered compounds with low cost, low toxic effects and effective treatment. The inhibitory effects of thiazole derivative compounds will be examined under in vitro conditions. In this study, the thiazole derivative concentrations (IC<sub>50</sub>) at which 50% of the activities of  $\alpha$ -amylase and  $\alpha$ -glucosidase enzymes are inhibited will be calculated. The results obtained will be compared with the substances used as standards, and will enable the discovery of new enzyme inhibitors.

**Keywords:** Thiazole derivatives,  $\alpha$ -amylase,  $\alpha$ -glucosidase

\* This study is a part of Şüheda Yıldırım 's Master's thesis.

**Funding information:** Sivas Cumhuriyet University Scientific Research Project Fund,  
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***AESCULUS HIPPOCASTANUM* BİTKİ EKSTRAKTININ ASETİLKOLİNESTERAZ  
ENZİMİ ÜZERİNDEKİ ETKİSİ**  
EFFECT OF AESCULUS HIPPOCASTANUM PLANT EXTRACT ON  
ACETYLCHOLINESTERASE ENZYME

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**ÖZET**

Asetilkolinesteraz (AChE), kolinerjik nörotransmisyonu sonlandırmada önemli bir rol oynayan ve ağırlıklı olarak kolinerjik hücre gövdelerinde ve aksonlarda lokalize olan ve kolinerjik nöronların presinaptik zarlarına bağlanan bir enzimdir. Merkezi sinir sistemindeki kolinerjik nörotransmisyon, öğrenme, hafıza, uyarılma ve uyku gibi bilişsel süreçlerin yanı sıra lokomotor aktiviteyi düzenlemede önemli bir rol oynar. AChE aktivitesi en sık kolinerjik sinir sisteminde görülür ve burada nörotransmitter asetilkolinin hidrolizi ile kolinerjik nörotransmisyonu sonlandırır. At kestanesi, Sapindaceae familyasından *Aesculus* cinsinden ağaç ya da çalı formundaki kışın yapraklarını döken türlerin ortak adı. Yapraklar uzun saplı ışımsal tüysü 5-9 yaprakçıklı olup el görünüşünde kenarları dişli ya da düzdür. Sapı uzundur. Dizilişi karşılıklı; kenarları düz veya dişlidir. Çiçekleri bir evcikli ya da erdişidir. Bileşik salkım kuruluşundadır. Dik duran uzun bir eksen etrafında toplanmıştır. Meyve üzeri dikenli veya düz büyük bir kapsüldür.. Bu çalışmada, bölgede doğal olarak yetişen *Aesculus Hippocastanum* metanol özütünün asetilkolinesteraz enzim aktivitesi üzerindeki etkisi spektrofotometrik olarak araştırılmıştır. % Aktivite-Ekstrakt Konsantrasyonu grafiği çizilerek IC<sub>50</sub> değeri hesaplanmıştır. Bu sonuçlara göre *Aesculus Hippocastanum* metanol özütünün enzim aktivitesin azalttığı görülmüştür.

**Anahtar kelimeler:** Asetilkolinesteraz, Kolinerjik, *Aesculus Hippocastanum*

**Destek bilgileri:**, Sivas Cumhuriyet Üniversitesi Bilimsel Araştırma Projesi Fonu, Hibe/Ödül Numarası: ECZ-2024-099

**ABSTRACT**

Acetylcholinesterase (AChE) is an enzyme that plays an important role in terminating cholinergic neurotransmission and is predominantly localized in cholinergic cell bodies and axons and binds to the presynaptic membranes of cholinergic neurons. Cholinergic neurotransmission in the central nervous system plays an important role in regulating cognitive processes such as learning, memory, arousal, and sleep, as well as locomotor activity. AChE activity is most frequently seen in the cholinergic nervous system, where it

terminates cholinergic neurotransmission by hydrolysis of the neurotransmitter acetylcholine. Horse chestnut is the common name of a tree or shrub species of the *Aesculus* genus of the Sapindaceae family that sheds its leaves in winter. The leaves have long-stalked radial pinnate 5-9 leaflets and are hand-shaped with toothed or smooth edges. The stem is long. The arrangement is reciprocal; the edges are smooth or toothed. The flowers are monoecious or hermaphroditic. It is in compound panicle formation. It is gathered around a long axis standing upright. The fruit is a large capsule with thorns or flat top. In this study, the effect of *Aesculus Hippocastanum* methanol extract, which grows naturally in the region, on acetylcholinesterase enzyme activity was investigated spectrophotometrically. The IC<sub>50</sub> value was calculated by drawing the % Activity-Extract Concentration graph. According to these results, it was seen that *Aesculus Hippocastanum* methanol extract reduced the enzyme activity.

**Keywords:** Acetylcholinesterase, Cholinergic, *Aesculus Hippocastanum*.

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