

17th INTERNATIONAL MARDIN ARTUKLU SCIENTIFIC RESEARCHES CONFERENCE

June 01-03, 2026 / Mardin, Türkiye

ABSTRACTS BOOK



**EDITOR:
Dr. İlknur PORSUK DORU**

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THE BOOK OF ABSTRACTS

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adapted by Mariam Rasulan

CONGRESS ID

CONGRESS TITLE

17th INTERNATIONAL MARDIN ARTUKLU SCIENTIFIC
RESEARCHES CONFERENCE

DATE and PLACE

June 01-03, 2026 / MARDİN, TÜRKİYE

PARTICIPATION

Keynote & Invited

ORGANIZATIONS

IKSAD Institute

CONGRESS COORDINATOR

Esma AKSAKAL

LANGUAGES

Turkish, English

PARTICIPANTS COUNTRY (34)

Türkiye, Albania, Algeria, Afghanistan, Algeria, Benin, Bulgaria,
Cameroon, Canada, China, Egypt, Ethiopia, Hungary, India,
Indonesia, Iran, Israel/Palestine, Kosovo, Macedonia, Morocco,
Nigeria, Pakistan, Philippines, Poland, Romania, Serbia, Saudi
Arabia, Peru, Tanzania, TRNC, Tunisia, Ukraine, United Arab
Emirates, Vietnam

NUMBER of ACCEPTED PAPERS-221

NUMBER of REJECTED PAPERS-21

TOTAL NUMBER of PAPERS FROM TÜRKİYE- 104

TOTAL NUMBER OF INTERNATIONAL PARTICIPANTS: 117

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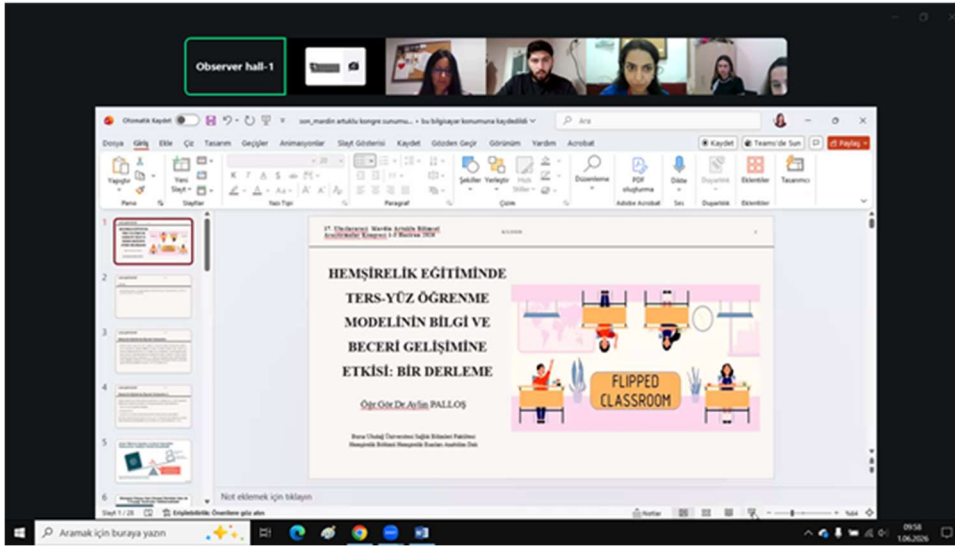
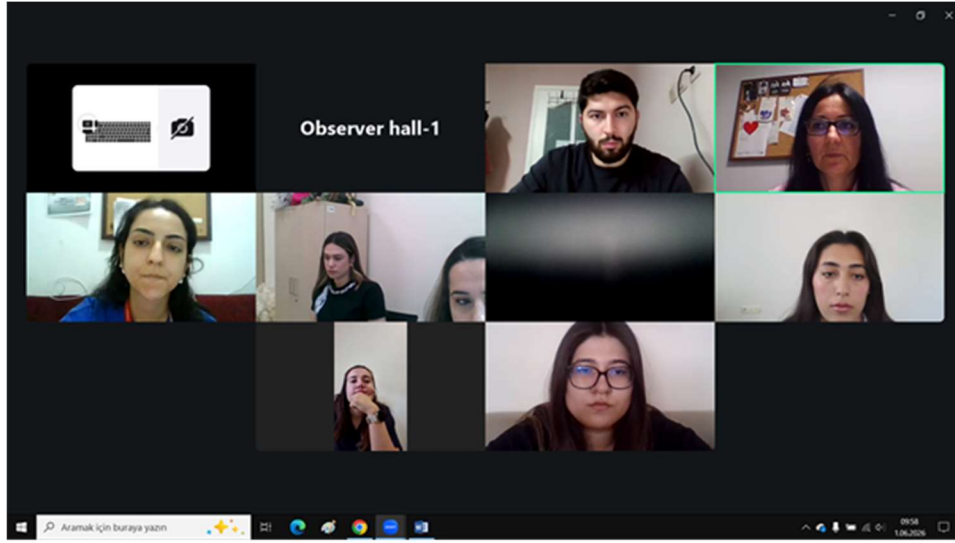
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Dr. Arzuman HÜSEYİNOV - Baku Eurasian University

CONFERENCE GALLERY



Observer hall-1

DİJİTAL ÖFKENİN ANATOMİSİ:

Sosyal Medya Ortamlarında Duygusal Tepkilerin Yapısı ve Oluşumu

Aramak için buraya yazın

12:45 19.06.2024

Observer hall-1

SERKAN ÖZTÜR...

Aramak için buraya yazın

15:18 19.06.2024

Observer hall-1

SİNİK TAKVİYESİNİN ALÜMİNYUM KÖPÜKLERİN MİKRO YAPILARI ÜZERİNDE ETKİLERİ

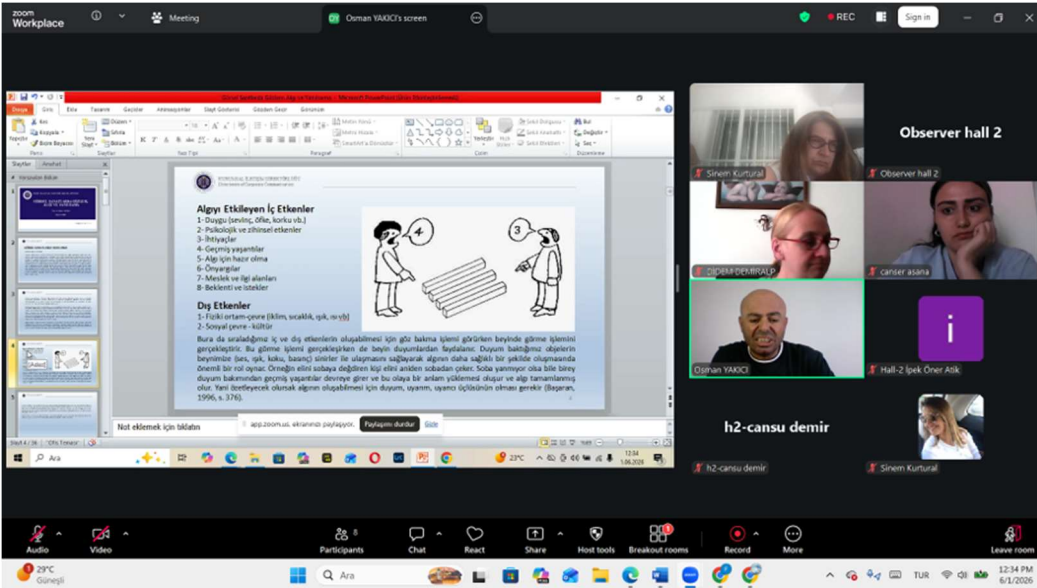
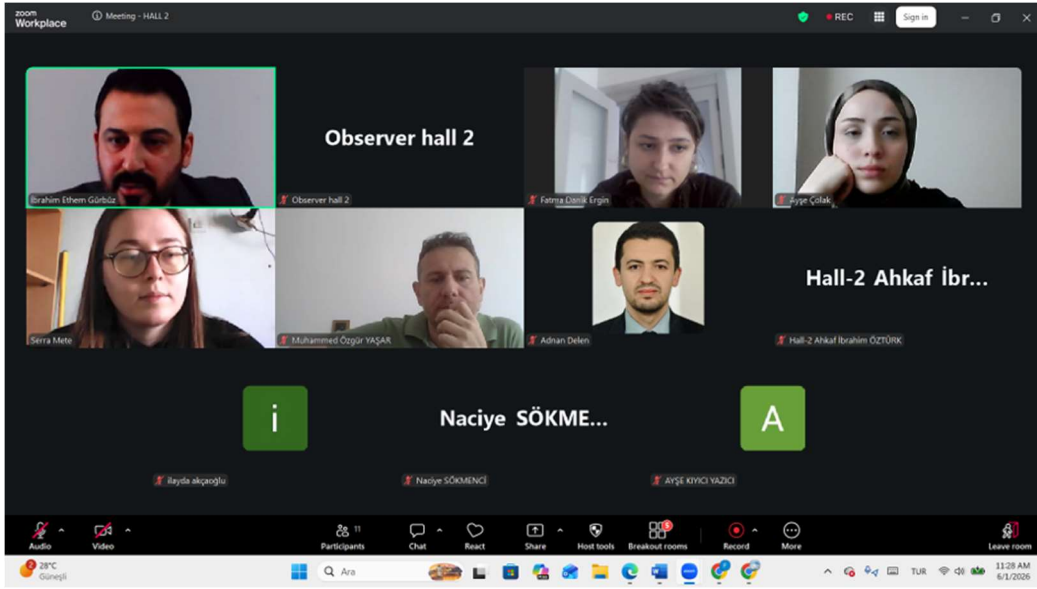
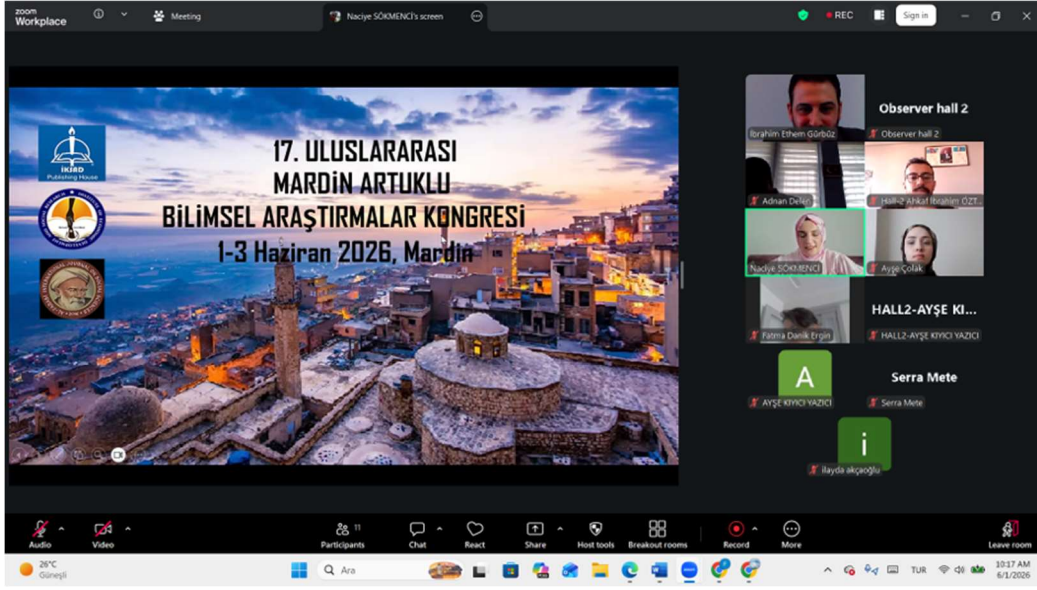
Nermin KARAGÖZ, Mehmet TÜRKER — Gazi Üniversitesi, Teknoloji Fakültesi, Metalürji ve Malzeme Mühendisliği, Ankara, Türkiye.

17. ULUSLARARASI MARMARA ARTIKLU BİLİMSEL ARAŞTIRMALAR KONGRESİ 1-3 Haziran 2024, Marmara

FEN BİLİMLERİ ENSTİTÜSÜ

Aramak için buraya yazın

15:47 19.06.2024



zoom Workplace Meeting - HALL 2

Observer hall 2

h2-cansu demir

Prof. Dr. Önder YAGMUR

29°C Güneşli

Ara

12:53 PM 6/1/2025

zoom Workplace Meeting - HALL 2

Observer hall 2

Ayşe Şenoğlu

[Hall-2] Samet...

h2-cansu demir

Prof. Dr. Önder YAGMUR

29°C Güneşli

Ara

4:00 PM 6/1/2025

zoom Workplace Meeting - Hall-2 Gamze ÇELİK's screen

Uzun Vadeli Sağlık Riskleri

PKOS ömür boyu takip gerektirir. Tedavi edilmediğinde Tip 2 diyabet (%35-40 oranında), hipertansiyon, kardiyovasküler hastalıklar ve endometriyum kanseri riskini artırır.

TYPE 2 DIABETES

Adıgüç A., Yıldırım F., & Bıyıkçıoğlu D. (2023). Klinikte endometriozis ve polikistik over sendromu yönetimi. *Hüti Sağlık Dergisi*, 4-19-26.

Observer hall 2

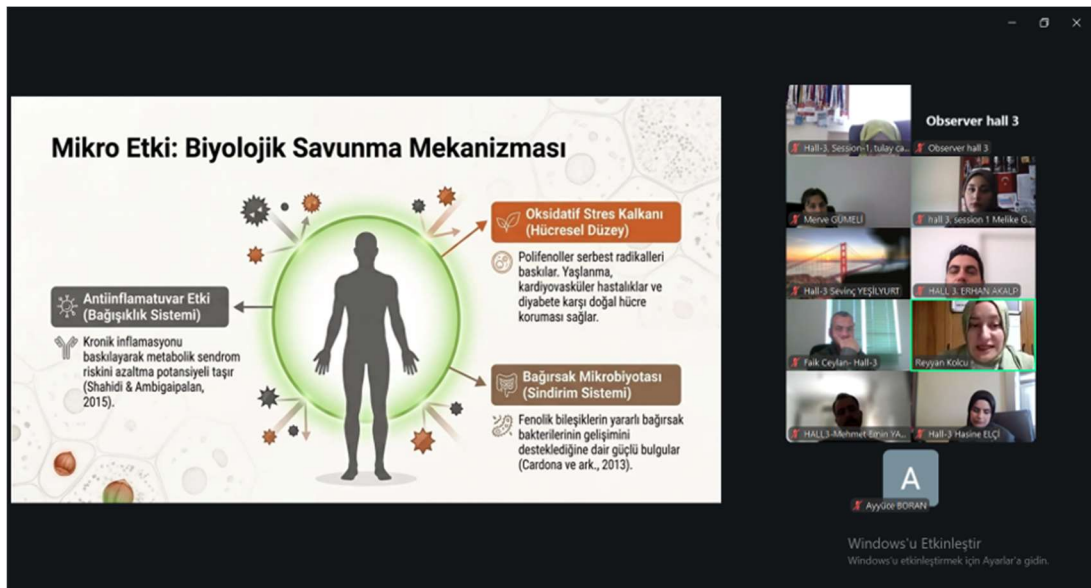
h2-cansu demir

Esra Koçak

29°C Güneşli

Ara

3:20 PM 6/1/2025





Saha incelemesi

- Çalışma kapsamında saha gözlemleri sonucunda tespit edilen merdiven hasarlarına ait görseller Şekil 6'da sunulmaktadır. İncelemeler, hasarların genel olarak yapısal yetersizlikler ile malzeme kaynaklı kusurlardan kaynaklandığını göstermektedir. Malzeme kusurları özellikle düşük beton kalitesi ve donatı korozyonu ile ilişkilidir. Eski yapılarda korozyonun deprem öncesinde başladığı, pas payı dökülmeleri ve aderans kaybı nedeniyle merdiven elemanlarının deprem performansının olumsuz etkilendiği görülmüştür. Yapısal açıdan ise en belirgin hasarlar, yetersiz donatı detaylandırmasına sahip merdiven sistemlerinde gözlenmiştir.

Şekil 6. Merdiven elemanlarına ait deprem hasarı görüntüleri.

Observer hall 3

HALL-3 / Ahmet İhsan Turan

Observer hall 3

HALL-3 / Mehmet Emin Özce

Kadir DOĞAN

Hall 3, Diana Ge...

Hall 3, Diana Georgieva

Zeynep Uslu

tiyana hamza

tiyana hamza

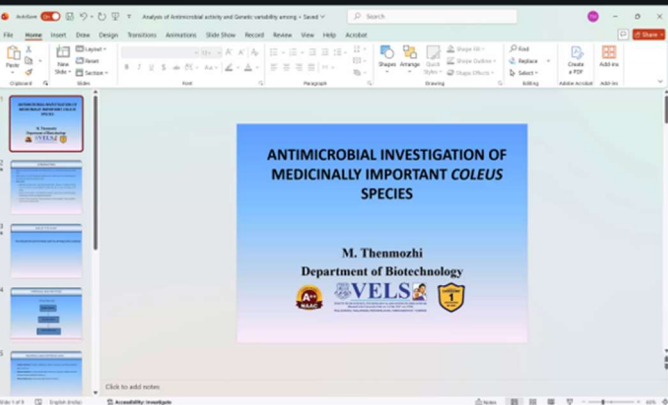
HALL-3 Burak D...

nurten.akgun

nurten.akgun

Doç. Dr. Mustaf...

Windows'u Etkinleştir
Windows'u etkinleştirmek için Ayarlar'a gidin.



Observer hall 3

Hall 3 / Giorgiu Gheorghe

Observer hall 3

Hall-3, Diana Ge...

Hall-3, Diana Georgieva

SESSION-3 | HA...

fayza

fayza

KR PadmaS3H3 Moderator

Amany Basuny

Amany Basuny

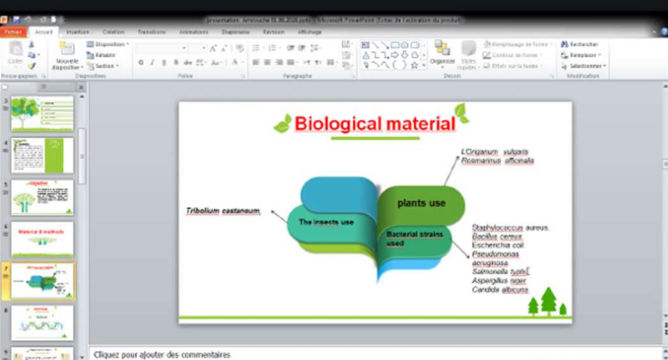
Amrouche Zoheir

Gobeze

Gobeze

Gobeze

Windows'u Etkinleştir
Windows'u etkinleştirmek için Ayarlar'a gidin.



Observer hall 3

Hall 3 / Giorgiu Gheorghe

Observer hall 3

Hall-3, Diana Ge...

Hall-3, Diana Georgieva

SESSION-3 | HA...

fayza

fayza

KR PadmaS3H3 Moderator

Amany Basuny

Amany Basuny

Amrouche Zoheir

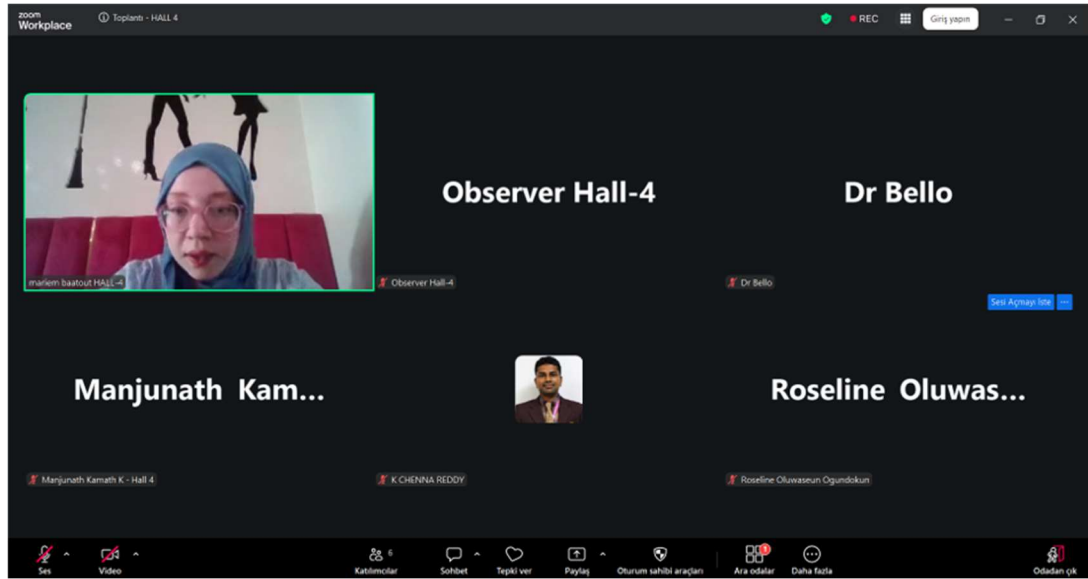
Gobeze

Gobeze

Gobeze

Windows'u Etkinleştir
Windows'u etkinleştirmek için Ayarlar'a gidin.

zoom Workplace Toplantı - HALL 4 REC Giriş yapın



Observer Hall-4 Dr Bello

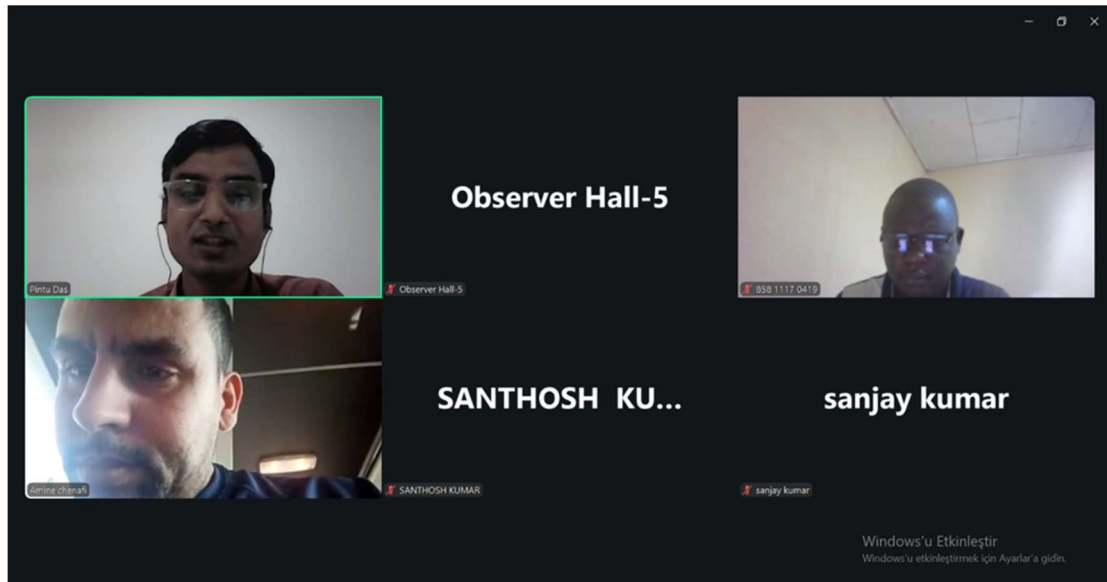
Manjunath Kam... Roseline Oluwas...

Manjunath Kamath K.- Hall 4 K.CHENNA REDDY Roseline Oluwasun Ogundokun

Ses Açmayı İste

Ses Video Katılımcılar Sohbet Tepki ver Paylaş Oturum sahibi araçları Ara odalar Daha fazla Oda dan çık

Observer Hall-5

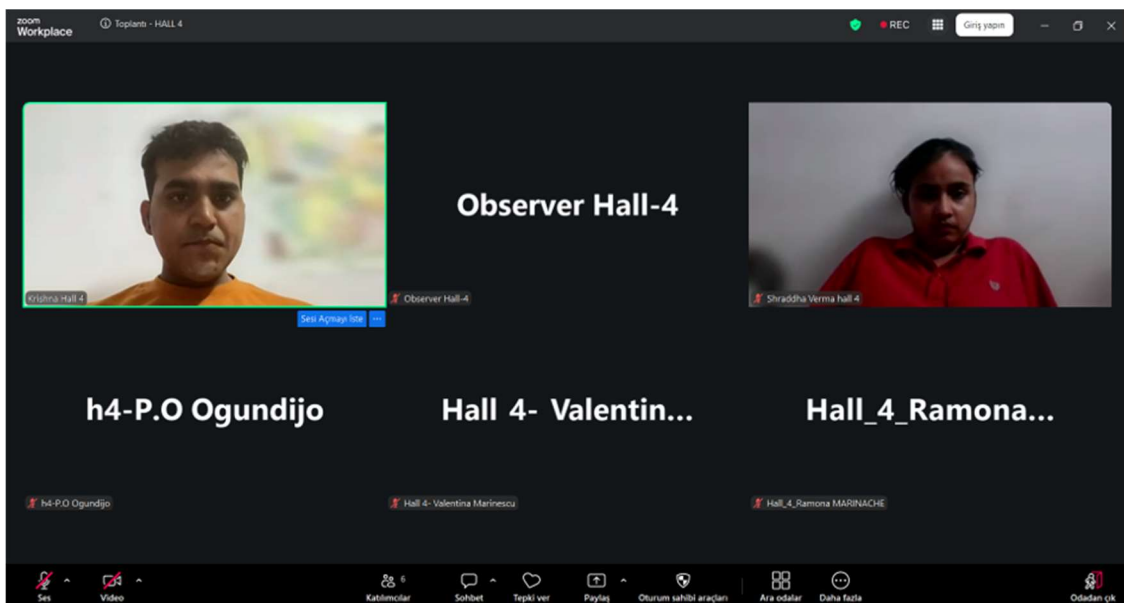


SANTHOSH KU... sanjay kumar

SANTHOSH KUMAR sanjay kumar

Windows'u Etkinleştir
Windows'u etkinleştirmek için Ayarlar'a gidin.

zoom Workplace Toplantı - HALL 4 REC Giriş yapın



Observer Hall-4

h4-P.O Ogundijo Hall 4- Valentin... Hall_4_Ramona...

Krishna Hall 4 Observer Hall-4 Shradha Verma hall 4

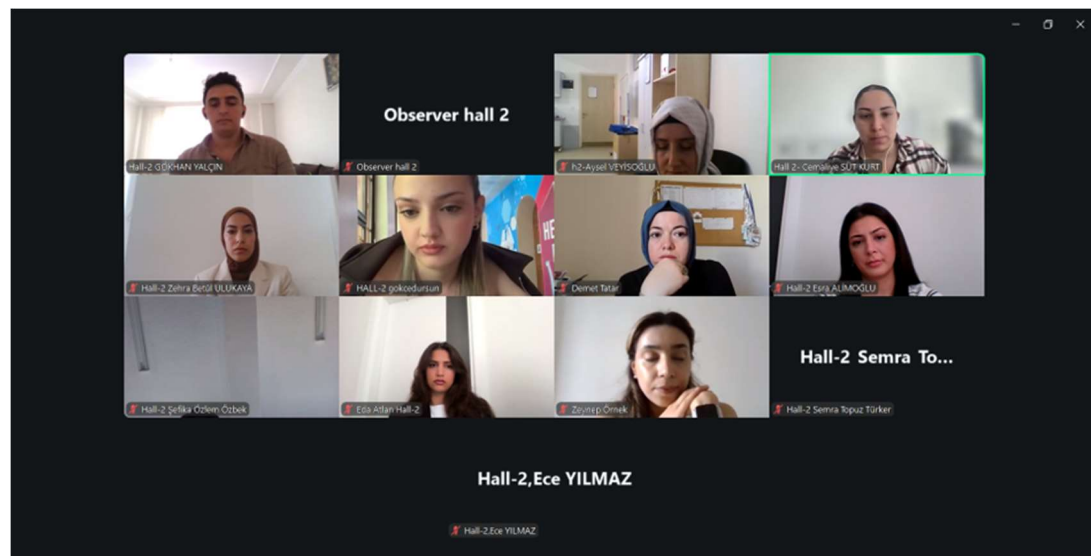
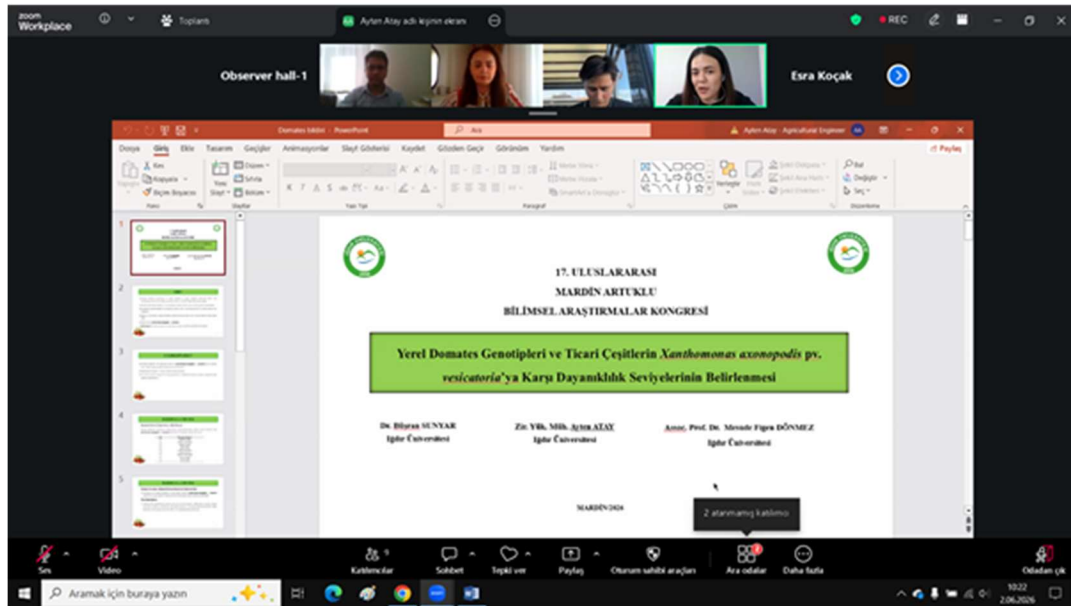
Ses Açmayı İste

Ses Video Katılımcılar Sohbet Tepki ver Paylaş Oturum sahibi araçları Ara odalar Daha fazla Oda dan çık

The screenshot shows a Zoom meeting window. On the left, there's a presentation slide titled "The tutor of the Tsarist family, 1813-1817". The slide contains text about Maria Fyodorovna accepting Archduke Michael as a tutor to her sons, Nicholas I and Alexander II, and mentions his lectures on law and political economy. Below the text is a portrait of Archduke Michael. At the bottom of the slide, it says "Földvári, Balázs; Kőrösi, ARTUR; Józsa, Mária. 01 June 2026."

The main part of the screen displays a grid of participants. Visible names include Esma Aksakal, Hall-4 Sándor Földvári, Hall-4 Yafarman Zai, Hall-4 Sarah Gracia Lumbantobing, Session Chair, session 3 - hall 4 D., FAVOUR C. UROKO H4 S3, Hall 4 sadaf noor, Dr Daljit Kaur, Masud Hamdan, Observer Hall-4, and Observer Hall-4.

At the top, there are tabs for "Zoom Workplace" and "Hall-4 Sándor Földvári adlı kişme". The top right corner shows system icons for network, volume, and battery. The bottom of the screen has a toolbar with icons for chat, video, gallery view, and other standard Zoom controls.



zoom Workplace

Toplantı

Hall-2 GÖKHAN YALÇIN adlı kişi

REC

Giriş yapın

17. ULUSLARARASI MARDİN ARTUKLU BİLİMSEL ARAŞTIRMALAR KONGRESİ

KAYISI (*Prunus armeniaca* L.) ÇEKİRDEĞİNİN GIDA ENDÜSTRİSİNDEKİ ÖNEMİ VE BİTKİ BAZLI SÜT ÜRETİMİNDE KULLANIM POTANSİYELİ

«THE IMPORTANCE OF APRICOT (*Prunus armeniaca* L.) KERNEL IN THE FOOD INDUSTRY AND ITS POTENTIAL USE IN PLANT-BASED MILK PRODUCTION»

Gökhan YALÇIN¹, Semra TOPUZ TÜRKER², Mustafa BAYRAM¹

¹Gıda Mühendisliği Anabilim Dalı, Lisansüstü Eğitim Enstitüsü, Tokat Gaziosmanpaşa Üniversitesi, Tokat, Türkiye

²Gıda Mühendisliği Bölümü, Mühendislik ve Mimarlık Fakültesi, Tokat Gaziosmanpaşa Üniversitesi, Tokat, Türkiye

Observer hall 2

H2-Aysel VEYİSOĞLU

Hall-2: Cemalیه SÜT KUT

Hall-2 Zehra Betül ULUKAYA

HALL-2 gokcedursun

Eda Atan Hall-2

Hall-2 Esra ALIMOĞLU

Hall-2 Semra To...

Hall-2 Semra Topuz Türker

Demet Tatar

Ses

Video

Katılımcılar

Sohbet

Teşekkür

Paylaş

Oturum sahibi araçları

Kayıt

Daha fazla

Odanı çık

zoom Workplace

Toplantı

Hall-2 Zehra Betül ULUKAYA adlı kişi

REC

Giriş yapın

SONUÇ VE ÖNERİLER

Atmalar branşı sporcularında psikolojik iyi oluş düzeyi yüksektir.

Psikolojik iyi oluş sportif başarı ile ilişkilidir.

Fiziksel antrenman kadar psikolojik destek de önemlidir.

ÖNERİLER

Spor psikolojisi desteği artırılmalı

Mental dayanıklılık eğitimleri uygulanmalı

Sporcuların psikolojik durumları düzenli takip edilmeli

“Başarı yalnızca fiziksel güç değil, zihinsel güç ile de şekillenir.”

PSİKOLOJİK İYİ OLUŞ

SPORTİF BAŞARI

PSİKOLOJİK DESTEK

PERFORMANS SÜREKLİLİĞİ

Observer hall 2

H2-Aysel VEYİSOĞLU

Observer hall 2

Hall-2: Cemalیه SÜT KUT

Hall-2 Zehra Betül ULUKAYA

Demet Tatar

Eda Atan Hall-2

Hall-2 Esra ALIMOĞLU

Hall-2 Şefika Özlem Özbek

HALL-2 gokcedursun

Zeynep Örnek

Hall-2 Semra To...

Hall-2,Ece YILMAZ

Zeynep Örnek

Hall-2 Semra Topuz Türker

Hall-2,Ece YILMAZ

Esra Koçak

Esra Koçak

Ses

Video

Katılımcılar

Sohbet

Teşekkür

Paylaş

Oturum sahibi araçları

Kayıt

Daha fazla

Odanı çık

zoom Workplace

Toplantı

Rumeyza Zeytinli adlı kişiyi ekle

REC

Giriş yapın

MARDİN ARTUKLU BİLİMSEL ARAŞTIRMALAR KONGRESİ

HALKLA İLİŞKİLERİN ULUSLARARASI YÜZÜ

Dijital Çağda Kamu Diplomasisi ve Türkiye'nin Yumuşak Güç Stratejileri

Rumeyza Zeytinli

Doç. Dr. Zübeyde Sallı

Karadeniz Teknik Üniversitesi - Halkla İlişkiler ve Kurumlar

Karadeniz Teknik Üniversitesi - Halkla İlişkiler ve Kurumlar

Observer hall 2

Eda Bozkurt S2 H2

Observer hall 2

Hall-2, Rıdvan Ö...

Hall-2, Rıdvan Öner

saadet çekir

İlayda akıncıoğlu

İbrahim Doğuca...

İbrahim Doğukan Koroğlu

1 atanmamış katılımcı

Windows'u Etkinleştir

Windows'u etkinleştirmek için Ayarlar'a gidin.

Ses

Video

Katılımcılar

Sohbet

Teşekkür

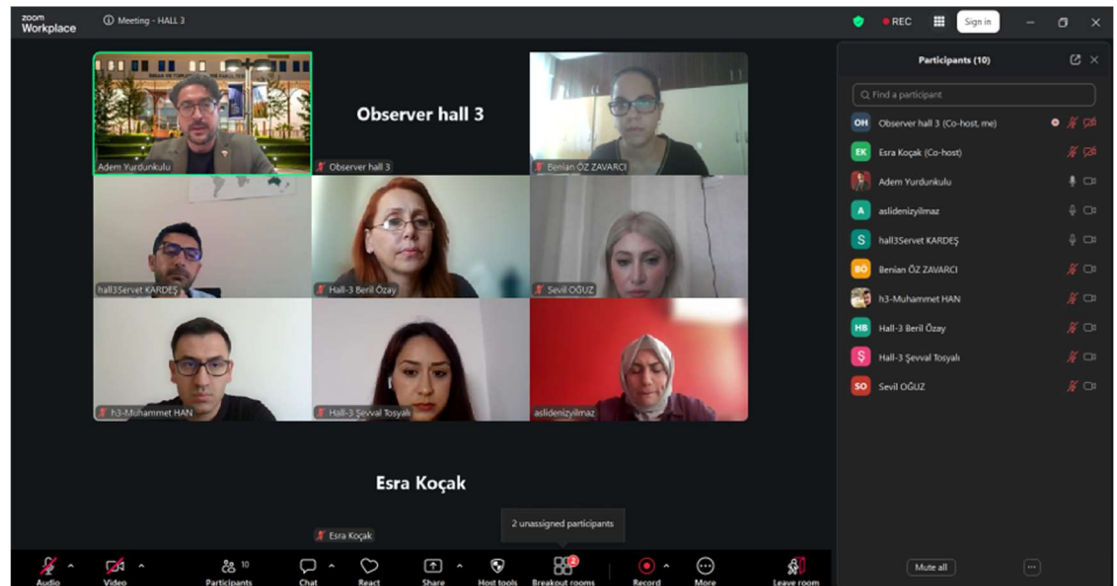
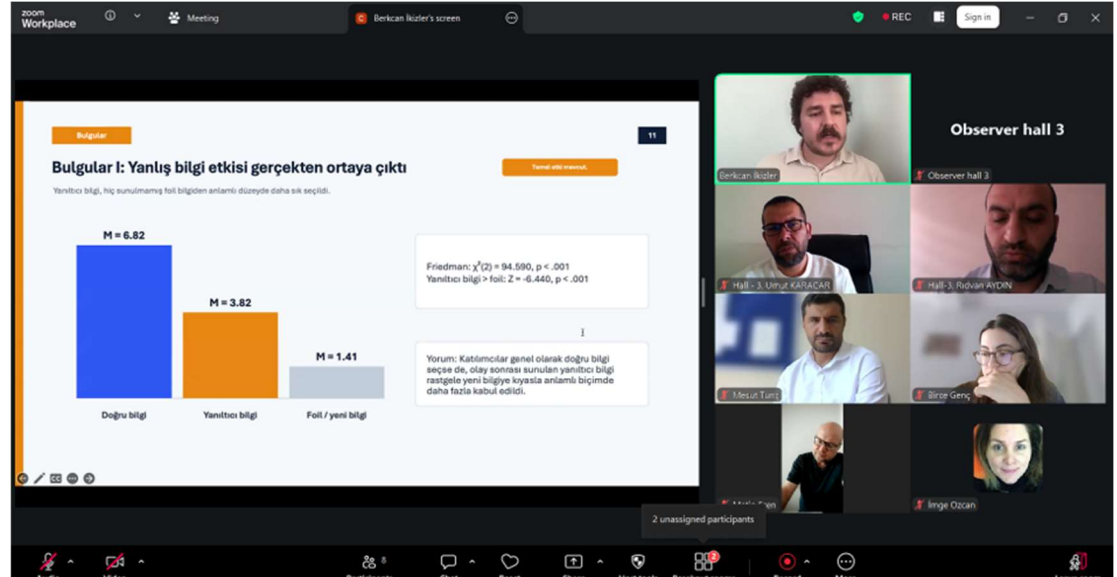
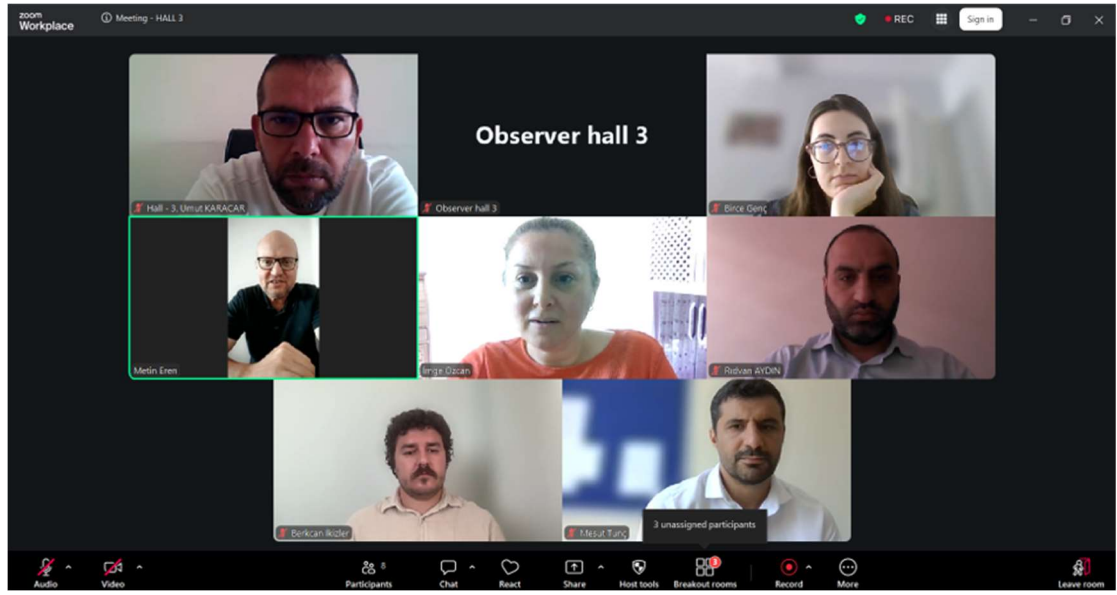
Paylaş

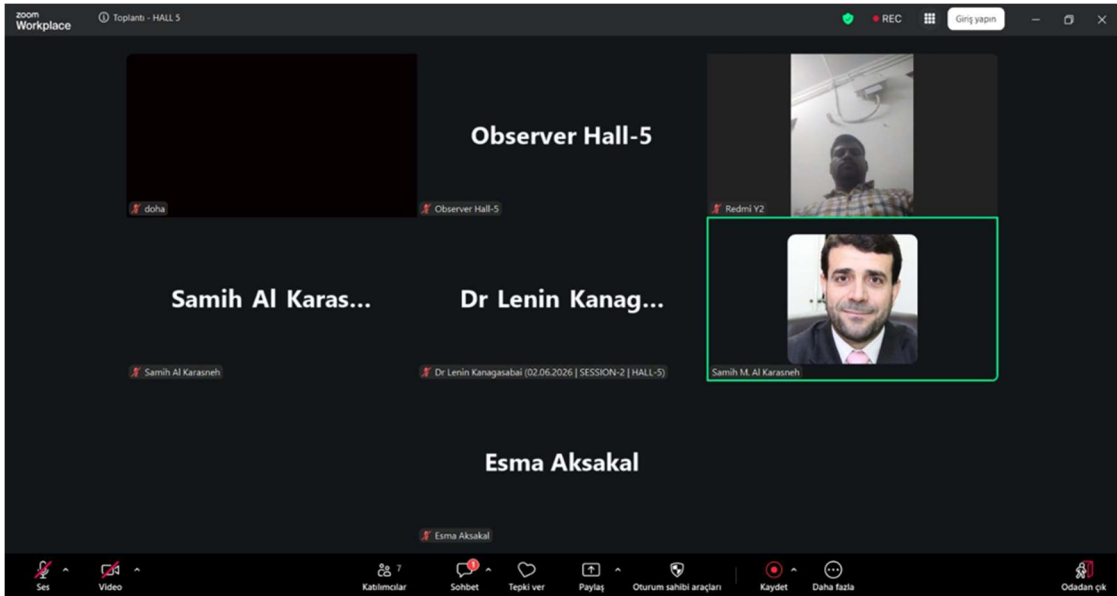
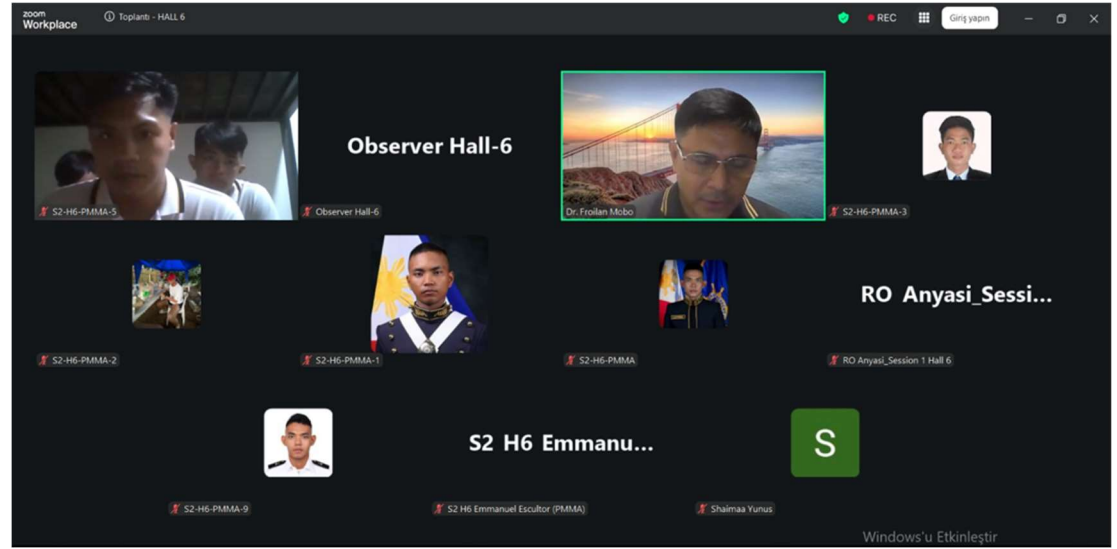
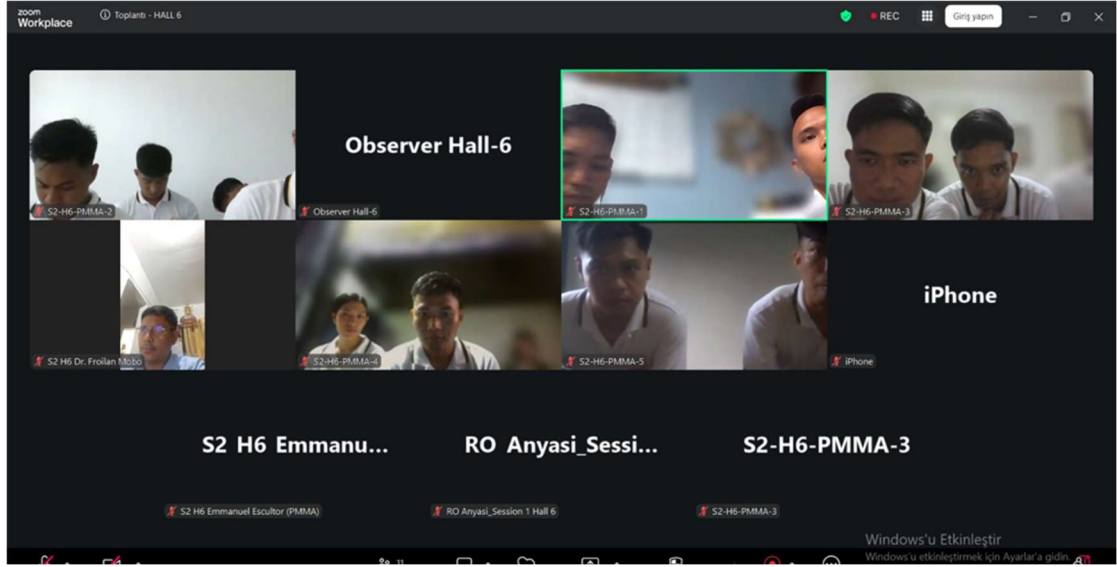
Oturum sahibi araçları

Kayıt

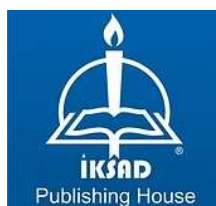
Daha fazla

Odanı çık





17th INTERNATIONAL MARDIN ARTUKLU SCIENTIFIC RESEARCHES CONFERENCE



CONGRESS PROGRAM

June 01-03, 2026 / Mardin, Türkiye

Zoom Meeting ID: 858 1117 0419

Zoom Passcode: 171717

Join Zoom Meeting:

<https://us02web.zoom.us/j/85811170419?pwd=vab4f1ikJrZZkvb49RaObR7XMtbO9I.1>

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Türkiye, Albania, Algeria, Afghanistan, Algeria, Benin, Bulgaria, Cameroon, Canada, China, Egypt, Ethiopia, Hungary, India, Indonesia, Iran, Israel/Palestine, Kosovo, Macedonia, Morocco, Nigeria, Pakistan, Philippines, Poland, Romania, Serbia, Saudi Arabia, Peru, Tanzania, TRNC, Tunisia, Ukraine, United Arab Emirates, Vietnam

Önemli, Dikkatle Okuyunuz Lütfen

- ❖ Kongremizde Yazım Kurallarına uygun gönderilmiş ve bilim kurulundan geçen bildiriler için online (video konferans sistemi üzerinden) sunum imkanı sağlanmıştır.
- ❖ Online sunum yapabilmek için <https://zoom.us/join> sitesi üzerinden giriş yaparak “Meeting ID or Personal Link Name” yerine ID numarasını girerek oturuma katılabilirsiniz.
- ❖ Zoom uygulaması ücretsizdir ve hesap oluşturmaya gerek yoktur.
- ❖ Zoom uygulaması kaydolmadan kullanılabilir.
- ❖ Uygulama tablet, telefon ve PC’lerde çalışıyor.
- ❖ Her oturumdaki sunucular, sunum saatinden 5 dk öncesinde oturuma bağlanmış olmaları gerekmektedir.
- ❖ Tüm kongre katılımcıları canlı bağlanarak tüm oturumları dinleyebilir.
- ❖ Moderatör – oturumdaki sunum ve bilimsel tartışma (soru-cevap) kısmından sorumludur.

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01.06.2026 | SESSION-1 | HALL-1**Ankara Local Time: 10:00-12:00***Meeting ID: 858 1117 0419**Zoom Passcode: 171717***HEAD OF SESSION: Lec. Sinan İRTEGÜN**

Authors	Affiliation	Presentation title
Lec. Dr. Aylin PALLOŞ	<i>Bursa Uludağ University</i>	THE EFFECT OF THE FLIPPED LEARNING MODEL ON KNOWLEDGE AND SKILL DEVELOPMENT IN NURSING EDUCATION: A REVIEW
Beyda Nur AKGÖZ Semra ASLAN Asst. Prof. Dr. Burcu ÇAKI DÖNER	<i>Gaziantep Islam Science and Technology University</i>	PUBLIC HEALTH AND NURSING APPROACHES IN DISASTERS
Büşra ERTAŞ Asst. Prof. Dr. Burcu ÇAKI DÖNER	<i>Gaziantep Islam Science and Technology University</i>	HEALTH TOURISM: TYPES OF SERVICES AND A NURSING PERSPECTIVE
Kübra Nur YILDIRIM Asst. Prof. Dr. Hatice ERDOĞAN	<i>Maltepe University</i>	POSTOPERATIVE FATIGUE AND FUNCTIONAL RECOVERY BEFORE DISCHARGE IN PATIENTS UNDERGOING OPEN HEART SURGERY: A NARRATIVE REVIEW FROM A NURSING PERSPECTIVE
Tural KAZIMZADE	<i>Ondokuz Mayıs University</i>	THE IMPACT OF HEALTHCARE MANAGERS' PERSONALITY TRAITS ON EMPLOYEE MOTIVATION: A DETAILED LITERATURE REVIEW AND CONCEPTUAL ANALYSIS
Dilay ERTÜRK Özlem ÇİÇEK	<i>İzmir Bakırçay University</i>	THE EFFECT OF BLACK COHOSH (<i>Actaea/Cimicifuga racemosa</i>) ON MENOPAUSAL SYMPTOMS
Dr. Mehmet Cem BAŞEL Aydın DURSUN	<i>VM Medical Park Hospital Mudanya University</i>	MITRAL VALVE REPAIR IN ISCHEMIC MODERATE MITRAL REGURGITATION
Hande ARICI TÜRK Prof. Dr. Yasemin YILDIRIM	<i>Bandırma Onyedİ Eylül University Ege University</i>	COMFORT IN END-OF-LIFE CARE

01.06.2026 | SESSION-1 | HALL-2Ankara Local Time: 10:⁰⁰-12:⁰⁰

Meeting ID: 858 1117 0419

Zoom Passcode: 171717

HEAD OF SESSION: Dr. İbrahim Ethem GÜRBÜZ

Authors	Affiliation	Presentation title
Ayşe KIYICI YAZICI Prof. Dr. Menekşe Seden TAPAN BROUTIN Prof. Dr. Çiğdem ARSLAN	<i>Bursa Uludağ University</i>	THE CLASSROOM REFLECTIONS OF THE MAARIF MODEL: AN AUTOETHNOGRAPHY IN 6TH GRADE MATHEMATICS TEACHING
Naciye SÖKMENCİ Prof. Dr. Menekşe Seden TAPAN BROUTIN Prof. Dr. Çiğdem ARSLAN	<i>Bursa Uludağ University</i>	TEACHING GEOMETRIC SHAPES FROM THE PERSPECTIVE OF A MATHEMATICS TEACHER: AN AUTOETHNOGRAPHIC STUDY ON THE MAARIF MODEL
Assoc. Prof. Dr. Gökçe ÖZDEMİR Ahkaf İbrahim ÖZTÜRK	<i>Gaziantep University</i>	EXAMINING SCHOOL ADMINISTRATORS' EMOTIONAL INTELLIGENCE SKILLS WITHIN THE FRAMEWORK OF GOLEMAN'S EMOTIONAL INTELLIGENCE MODEL
Asst. Prof. Dr. Muhammed Özgür YAŞAR	<i>Eskişehir Osmangazi University</i>	FROM DYSTOPIAN BILLBOARDS TO GRAMMAR POLICE: EFL TEACHER CANDIDATES' NAVIGATION OF AI-GENERATED FICTIONAL LINGUISTIC LANDSCAPES
Fetullah ÇİMEN Dr. Adnan DELEN Rosim SADUN Dr. Bünyamin İSPİR Prof Dr. Muhammet Hanifi ERÇOŞKUN Elanur ARSLAN Betül Ebrar YALÇIN	<i>Binali Yıldırım University Atatürk University</i>	DEVELOPMENT OF AN ACHIEVEMENT TEST FOR THE "GEOMETRY" UNIT OF THE 4TH GRADE PRIMARY SCHOOL MATHEMATICS COURSE: A VALIDITY AND RELIABILITY STUDY
Ayşe ÇOLAK Prof. Dr. Mutlu ŞAHİN	<i>Yıldız Technical University</i>	INVESTIGATING THE RELATIONSHIP BETWEEN MIDDLE SCHOOL STUDENTS' AWARENESS OF ENVIRONMENTAL EDUCATION CONCEPTS AND THEIR ATTITUDES TOWARDS ENVIRONMENTAL PROBLEMS: A DEMOGRAPHIC ANALYSIS
Serra METE Prof. Dr. Mutlu ŞAHİN	<i>Yıldız Technical University</i>	ANALYSIS OF SOCIAL-EMOTIONAL LEARNING SKILLS IN THE TURKEY CENTURY EDUCATION MODEL SCIENCE CURRICULUM
Fatma Danık ERGİN	<i>Gazi University</i>	ATTITUDES OF TEACHERS AND STUDENTS TOWARDS ARTIFICIAL INTELLIGENCE IN TÜRKİYE: A SYSTEMATIC REVIEW AND CONTENT ANALYSIS OF GRADUATE THESES

01.06.2026 | SESSION-1 | HALL-3**Ankara Local Time: 10:00-12:00***Meeting ID: 858 1117 0419**Zoom Passcode: 171717***HEAD OF SESSION: Dr. Erhan AKALP**

Authors	Affiliation	Presentation title
Lec. Dr. Faik CEYLAN	<i>Düzce University</i>	COMPARISON OF HYDROPONIC AND PEAT-BASED SYSTEMS FOR THE CULTIVATION OF ERUCA SATIVA MICROGREENS FERTILIZED BY MICROBIAL FERTILIZER
Dr. Hasine ELÇİ Lec. Dr. Elvan KOÇ	<i>Mardin Provincial Directorate of Agriculture and Forestry Artvin Çoruh University</i>	THE ROLE OF SLOW AND CONTROLLED-RELEASE FERTILIZERS IN WEED MANAGEMENT
Melike GENÇ Kaan KOLACA Nisanur ERGÜN Asst. Prof. Dr. Pınar BOZBEYOĞLU	<i>Gumushane University</i>	DESIGNING A MODIFIED DOMESTIC WATER PURIFICATION DEVICE WITH AN ACTIVATED CARBON FILTER PRODUCED FROM ROSEHIP SEEDS
Asst. Prof. Dr. Mehmet Emin YAKUT	<i>Bingöl University</i>	LAND COVER/LAND USE CHANGE İN MARDİN PROVINCE (1990-2018)
İmge İhsane ÖZCAN	<i>Zonguldak Bülent Ecevit University</i>	PHYSIOLOGICAL EFFECTS OF NANO-BIOSTIMULANT APPLICATIONS IN MEDICINAL AND AROMATIC PLANTS
Tülay CANATAN YILMAZ Dr. Mesut KIRBAŞ Abdullah Taner ÖNALDI Dr. Neffel Kürşat AKBULUT Harun GÜLCAN Fatih PALA Prof. Dr. Alper YILMAZ Prof. Dr. Sıddık KESKİN Prof. Dr. Sibel SOYCAN ÖNENÇ	<i>Bahri Dagdas International Agricultural Research Institute Necmettin Erbakan University Istanbul University Cerrahpaşa Van Yüziüncü Yıl University Namık Kemal University</i>	THE EFFECT OF ARTIFICIAL PASTURE AND THE SUPPLEMENTATION OF CONCENTRATED FEED IN ADDITION TO ARTIFICIAL PASTURE UNDER INSTITUTE CONDITIONS ON THE FEEDING PERFORMANCE OF DAGLIÇ AND AKKARAMAN MALE LAMBS
Merve GÜMELİ Fatma HEPSAĞ	<i>Osmaniye Korkut Ata University</i>	EXAMINATION OF THE EFFECTS OF NEW GENERATION FOOD PRESERVATION METHODS ON FOOD SAFETY AND QUALITY
Ayyüce BORAN Fatma HEPSAĞ	<i>Osmaniye Korkut Ata University</i>	FUNCTIONAL DIETARY SUPPLEMENTS DERIVED FROM ALGAE
Reyyan KOLCU Sevinç YEŞİLYURT	<i>Tekirdağ Namık Kemal University</i>	THE RELATIONSHIP BETWEEN HAZELNUT SKIN, HEALTH AND POLLUTION

01.06.2026 | SESSION-1 | HALL-4Ankara Local Time: 10:⁰⁰-12:⁰⁰

Meeting ID: 858 1117 0419

Zoom Passcode: 171717

HEAD OF SESSION: Asst. Prof. Dr. Muhammad FAISAL

Authors	Affiliation	Presentation title
Asst. Prof. Dr. Muhammad FAISAL	<i>Allama Iqbal Open University</i>	SUSTAINABLE AI AND GREEN COMPUTING: OPTIMIZING THE ENERGY FOOTPRINT OF LARGE-SCALE SOCIAL REGISTRIES
Asst. Prof. Dr. Muhammad FAISAL	<i>Allama Iqbal Open University</i>	PREDICTIVE GEOPOLITICAL RISK MODELING AI-DRIVEN ASSET PROTECTION FOR TRANSNATIONAL NON-PROFIT INFLOWS
Asst. Prof. Dr. Muhammad FAISAL	<i>Allama Iqbal Open University</i>	EDGE-AI ANOMALY DETECTION AND COMPRESSED MACHINE LEARNING FRAMEWORKS SAFEGUARDING PHYSICAL RELIEF SHIPMENTS IN CRISIS LOGISTICS
Babita Gupta	<i>Integral University</i>	ADVANCING FOOD SAFETY IN ARTIFICIAL INTELLIGENCE: CURRENT PROGRESS, CHALLENGES, AND FUTURE DIRECTIONS
Rotimi-Williams Bello Roseline Oluwaseun Ogundokun Pius A. Owolawi	<i>Africa University Tshwane University</i>	INTEGRATION OF AI TECHNOLOGIES INTO HEALTHCARE ENVIRONMENTS
Meriem EL ARFAOUI Houda LECHHEB	<i>Ibn tofail University</i>	UNSUPERVISED LEARNING FOR ANOMALY DETECTION IN FINANCIAL MARKETS
Manjunath Kamath K Madhusudhana R K. Chenna Reddy A Nageswara Rao Divya N	<i>Nitte (Deemed to be University)</i>	HIGH-EFFICIENCY REVERSIBLE DATA HIDING IN H.264/AVC USING INTEGRATED COMPRESSION-DOMAIN OPTIMIZATION
Dr. K Chenna Reddy Madhusudhana R A Nageswara Rao V. M. S. N. Pavan Kumar Ch	<i>Brindavan College ATME College</i>	ENERGY-AWARE SWARM DRONE COMMUNICATION FOR SUSTAINABLE UAV NETWORKS
Imene Boulhaia Manuel Bañobre-López nd Nadji Moulai-Mostefa	<i>Medea AinD'heb University</i>	RHEOLOGICAL BEHAVIOR OF NANOCOMPOSITE BASED ON AGAR GUM AND OCTENYL SUCCINIC ANHYDRIDE (OSA) STARCH
Mariem BAATOUT Assoc. Prof. Dr. Abdelwaheb GUEDES Nizar SAKLI	<i>Sousse University</i>	A SECURE MULTI-AGENT ARCHITECTURE FOR CONTEXTUALIZED INFORMATION RETRIEVAL AND GENERATION IN LOCAL ENVIRONMENTS

01.06.2026 | SESSION-1 | HALL-5Ankara Local Time: 10:⁰⁰-12:⁰⁰

Meeting ID: 858 1117 0419

Zoom Passcode: 171717

HEAD OF SESSION: Asst. Prof. Dr. Pintu Das

Authors	Affiliation	Presentation title
Moses Adeolu AGOI Emmanuel Taiwo AGOI Olajuwon Victor OLAYINKA Victor Oluwapelumi OGONGO	<i>Lagos State University Loughborough University</i>	ALGORITHMIC MATERIALITY: FROM DIGITAL FABRICATION TO BIO-INSPIRED STRUCTURAL SYSTEMS IN CONTEMPORARY ARCHITECTURE
Ravi Shankar Singh Pintu Das	<i>Sarala Birla University</i>	NALYTICAL MODELLING OF SOLUTE TRANSPORT WITH TIME-DEPENDENT DISPERSION IN HETEROGENEOUS POROUS MEDIA
Sanjay Kumar Asst. Prof. Dr. Pintu Das	<i>Sarala Birla University</i>	ADVANCED ADVECTION-DISPERSION MODELING OF GROUNDWATER CONTAMINATION WITH VARIABLE HYDRODYNAMIC REGIMES
Dr. Abdelmoutalib BENFRID	<i>Djillali Liabes University</i>	INVESTIGATION OF LOCAL BUCKLING IN POLYMER PLATES REINFORCED WITH NANOCOMPOSITE MATERIALS
Sara ABSSANE	<i>Cadi Ayyad University</i>	INTEGRATED PEMFC-ELECTROLYZER HYDROGEN ENERGY SYSTEM WITH INC MPPT CONTROL UNDER VARIABLE DC OPERATING CONDITIONS
Lec. S. Santhosh Kumar	<i>St. Joseph University</i>	PRODUCTION AND CHARACTERIZATION OF BIODIESEL FUEL PRODUCED FROM THIRD-GENERATION FEEDSTOCK
Zakia HAMMOU Zakia GUEZZEN Zouaoui SEREIR Yamna HAMMOU	<i>University of Science and Technology of Oran</i>	GRAPHENE DISTRIBUTION EFFECT ON THE DYNAMIC BEHAVIOR OF FUNCTIONALLY GRADED SHALLOW SHELLS
Mohamed Amine Chenafi Nebatti Ech Chergui Abdelkader Jesús Canales Vázquez Juan Carlos Pérez Flores	<i>University of Ain Temouchent (Belhadj Bouchaib) Universidad de Castilla-La Mancha</i>	LOW-TEMPERATURE SPRAY PYROLYSIS OF P-TYPE CU(MG,CR)O ₂ (CMCO)
Abdelghani FERRAS Hbib DJOURDEM	<i>Ahmed Zabana University Abdelhamid Ibn Badis University</i>	EXISTENCE AND UNIQUENESS FOR CAPUTO FRACTIONAL DIFFERENTIAL EQUATIONS WITH MIXED BOUNDARY CONDITIONS
Bale Baidi Blaise Azakine Sindanne SYLVERE	<i>Ngaoundere University Ebolowa University</i>	A PHYSICALLY CONSISTENT FRACTIONAL COMPLEX YOUNG'S MODULUS FOR LONGITUDINAL VIBRATION AND DAMPING MODELING

01.06.2026 | SESSION-2 | HALL-1Ankara Local Time: 12:³⁰-14:³⁰

Meeting ID: 858 1117 0419

Zoom Passcode: 171717

HEAD OF SESSION: Dr. Serhat TÜRKEN

Authors	Affiliation	Presentation title
Prof. Dr. Ramazan GÖRAL Yiğit BURAK	<i>Selcuk University</i>	CONCEPTUAL POSITIONING OF PEACE, BRAND IMAGE, AND INFRASTRUCTURE VARIABLES IN DESTINATION COMPETITIVENESS STUDIES: A COMPARATIVE LITERATURE REVIEW
Osman YAVUZ	<i>Mardin Artuklu University</i>	THE STRATEGIC IMPORTANCE OF ENTREPRENEURSHIP FOR INTERNATIONAL BUSINESSES IN GLOBAL CONTEXTS
Asst. Prof. Dr. Murat BULUT	<i>Karabük University</i>	THE IMPORTANCE OF EMPATHY IN EFFECTIVE COMMUNICATION
Asst. Prof. Dr. Hakan BENEK Muhammet Can ÖZEN	<i>Giresun University</i>	THE SWOT ANALYSIS OF THE TOURISM POTENTIAL OF GİRESUN PROVINCE LOCATED IN THE EASTERN BLACK SEA REGION
Lec. Türkan AYDOĞAN	<i>Avrasya University</i>	THE ANATOMY OF DIGITAL ANGER: THE STRUCTURE AND FORMATION OF EMOTIONAL RESPONSES IN SOCIAL MEDIA ENVIRONMENTS
Lec. Zekiye GENÇ	<i>Avrasya University</i>	THE CULTURE OF LYNCHING ON SOCIAL MEDIA, DIGITAL LYNCHING, AND THE EFFECT OF SILENCING

01.06.2026 | SESSION-2 | HALL-2Ankara Local Time: 12:³⁰-14:³⁰

Meeting ID: 858 1117 0419

Zoom Passcode: 171717

HEAD OF SESSION: Sinem KURTURAL

Authors	Affiliation	Presentation title
Prof. Dr. Önder YAĞMUR Osman YAKICI	<i>Atatürk University</i>	OBSERVATION PERCEPTION AND ILLUSION IN THE VISUAL ARTS
Assoc. Prof. Dr. Rahime Özgün KEHYA	<i>Kafkas University</i>	REPRESENTATION OF ROMA COMMUNITIES IN CINEMA: STEREOTYPING, MARGINALIZATION, AND TOWARDS PARTICIPATORY FILMMAKING
Asst. Prof. Dr. Didem DEMIRALP	<i>HBV University</i>	“DE ASTRONOMIA”DAN BİR SEÇKİ CONSTELLATION MYTHS BY HYGINUS-A COMPILATION FROM “DE ASTRONOMIA”
Dr. İpek Öner ATIK Prof. Dr. Özer KANBUROĞLU	<i>İstanbul Aydın University</i>	ARTISTIC FORMS OF TYPOGRAPHY: INTERACTION AND MEANING PRODUCTION IN PUBLIC SPACE
Canser ASANA	<i>Batman University</i>	UNIQUE STRUCTURES OF THE SOUTHEASTERN ANATOLIA REGION: ABBARAS
Dr. Devrim Hasan MENTEŞE	<i>Mardin Museum</i>	THE GALLERY TOMB IN THE EASTERN NECROPOLIS OF DARA (ANASTASIOPOLIS) ANCIENT CITY: AN ASSESSMENT OF ARCHITECTURE, RITUAL, AND COLLECTIVE BURIAL PRACTICES
Dr. Devrim Hasan MENTEŞE	<i>Mardin Museum</i>	THE MOSAICS AND SYRIAC CHURCH OF GOLA SETTLEMENT: AN ARCHAEOLOGICAL EVALUATION

01.06.2026 | SESSION-2 | HALL-3Ankara Local Time: 12:³⁰-14:³⁰

Meeting ID: 858 1117 0419	Zoom Passcode: 171717

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

Authors	Affiliation	Presentation title
Asst. Prof. Dr. Ahmet İhsan TURAN	<i>Erzincan Binali Yıldırım University</i>	INVESTIGATION OF STAIRCASE DAMAGE AFTER THE FEBRUARY 6, 2023 KAHRAMANMARAS EARTHQUAKES
Burak DÜNDAR Prof. Dr. Abdurrahman EYMEN	<i>Erciyes University</i>	GIS AND SVM/SMO-BASED SPATIAL SUITABILITY ANALYSIS FOR WIND POWER PLANT SITE SELECTION IN KAYSERİ PROVINCE
Eyyüp GÜRBÜZ Assoc. Prof. Dr. Derya SİNANOĞLU	<i>Batman University</i>	PERFORATION STRATEGIES IN MODERN WELL COMPLETION OPERATIONS: SYSTEM ANALYSIS OF TUBING CONVEYED PERFORATION (TCP)
Kadri DOĞAN Faik GÜRSOY	<i>Artvin Çoruh University Adıyaman University</i>	A NOVEL CONVERGENCE APPROACH FOR FIXED POINTS OF NONLINEAR MAPPINGS
Assoc. Prof. Dr. Mehmet Emin ÖNCÜ Prof. Dr. Yusuf CALAYIR	<i>Dicle University Yalova University</i>	THE EFFECT OF EDGE FRAME DISCONTINUITY ON THE SEISMIC BEHAVIOR OF BUILDINGS
Tiyana HAMZA Asst. Prof. Dr. Nurten AKGÜN	<i>Bursa Technical University</i>	OPTIMIZATION OF CHARGING STATION LOCATIONS WITHIN THE SCOPE OF WIDESPREAD ADOPTION OF ELECTRIC VEHICLES IN SOCIETY
Feruze DOĞAN Sami EKICI	<i>Fırat University</i>	BIRD'S-EYE-VIEW UAV DETECTION: YOLOV8 VERSUS YOLO11 UNDER A FIXED PROTOCOL
Zeynep USLU Erdoğan ARICI Betül BEKTAŞ EKİCİ	<i>Fırat University</i>	AN INVESTIGATION OF THE STRENGTH PERFORMANCE OF SBR LATEX AND POLYPROPYLENE FIBER-REINFORCED EXTERIOR PLASTER MORTARS

01.06.2026 | SESSION-2 | HALL-4Ankara Local Time: 12:³⁰-14:³⁰

Meeting ID: 858 1117 0419

Zoom Passcode: 171717

HEAD OF SESSION: Prof. Dr. Kastriote VLAHNA

Authors	Affiliation	Presentation title
Musa M. Kamara	<i>Oriental Studies–African Studies</i>	SOCIAL CULTURE CONFLICTS WITH DEMOCRATIZATION IN THE MIDDLE EAST
Shraddha Verma	<i>Jawaharlal Nehru University</i>	WORDS, FAITH, AND NATIONHOOD: LANGUAGE AND RELIGION IN UZBEKISTAN’S POST-SOVIET
Krishna Kumar Mishra	<i>Jawaharlal Nehru University</i>	COLLAPSE AND CONTINUITY: STATE TRANSFORMATION IN AFGHANISTAN AFTER THE FALL OF THE GHANI GOVERNMENT
Yusuf Ahmed Tijjani Dr. Isyaku Idris	<i>Ahmadu Bello University</i>	DO GOVERNANCE AND POLICY COMMITMENT ENHANCE SUSTAINABLE WASH OUTCOMES? THE MODERATING ROLE OF FUNDING EFFECTIVENESS IN KATSINA STATE'S SURWASH PROGRAMME
Lec. Ramona MARINACHE Prof. Dr. Valentina MARINESCU	<i>Bucharest University</i>	AGRICULTURE IN POPULIST DISCOURSES. A CASE STUDY IN ROMANIA
Prof. Dr. Valentina MARINESCU Lec. Ramona MARINACHE	<i>Bucharest University</i>	PUBLIC HEALTH CRISIS AS REFLECTED BY ROMANIAN MASS MEDIA
Prof. Dr. Kastriote VLAHNA Prof. Dr. Hajredin Kuçi	<i>“Hasan Prishtina” Pristina University Ukshin Hoti” Prizren University</i>	THE PRINCIPLE OF EQUALITY OF PARTIES IN CIVIL LITIGATION PROCEDURE: A COMPARATIVE ANALYSIS BETWEEN KOSOVO AND CROATIA
Prof. Dr. Hajredin Kuçi Prof. Dr. Kastriote VLAHNA	<i>“Hasan Prishtina” Pristina University Ukshin Hoti” Prizren University</i>	RECOGNITION AND ENFORCEMENT OF FOREIGN JUDGMENTS IN KOSOVO: CHALLENGES OF PRIVATE INTERNATIONAL LAW
Dafina VLAHNA	<i>“Hasan Prishtina” Pristina University</i>	FISCAL TRANSPARENCY AND PUBLIC BUDGET ACCOUNTABILITY IN KOSOVO: LEGAL AND INSTITUTIONAL CHALLENGES
Dafina VLAHNA	<i>“Hasan Prishtina” Pristina University</i>	TAX ADMINISTRATION REFORMS IN KOSOVO AND THEIR IMPACT ON LEGAL CERTAINTY FOR TAXPAYERS

01.06.2026 | SESSION-2 | HALL-5Ankara Local Time: 12:³⁰-14:³⁰

Meeting ID: 858 1117 0419

Zoom Passcode: 171717

HEAD OF SESSION: Prof. Dr. Ghaleb Rabab'ah

Authors	Affiliation	Presentation title
Ananda Majumdar	<i>QAHE & Kennedy University of Saint Lucia</i>	CONSTRUCTING SELVES: THE DYNAMIC INTERPLAY OF DISCOURSE AND IDENTITY
Ananda Majumdar	<i>QAHE & Kennedy University of Saint Lucia</i>	TRADITIONS AND TRANSFORMATIONS: THE DYNAMIC EVOLUTION OF MEDIEVAL EUROPE
Prof. Dr. Ghaleb Rabab'ah Assoc. Prof. Dr. Sharif Alghazo Lec. Dr. Omar Mofarrej Asst. Prof. Dr. Sanaa Benmesoud	<i>Sharjah University</i>	CONCEPTUAL METAPHOR OF 'DEATH' IN PAUL KALANITHI'S MEMOIR 'WHEN BREATH BECOMES AIR'
Franck AMOUSSOU	<i>Université André Salifou (UAS) de Zinder</i>	LEXICO-GRAMMAR, MEANINGS AND CONTEXT IN TONGUE OF PROMISE BY NANA OTUA OWUSUA 1: A SYSTEMIC FUNCTIONAL LINGUISTIC PERSPECTIVE
Ali Degboehlin	<i>Abomey-Calavi University</i>	EXPLORING THE IMPACTS OF CHRISTIANITY ON AFRICAN CULTURE IN CHINUA ACHEBE'S THINGS FALL APART AND BUCHI EMECHETA'S THE SLAVE GIRL
Assoc Prof. Dr. Dipanwita Pal	<i>Wollongong University</i>	WOMEN, NATURE AND THE AUSTRALIAN ABORIGINAL TRADITION
Shyhrete Muriqi Teuta Berisha	<i>Haxhi Zeka University</i>	DETERMINANTS OF HOUSEHOLD FOOD WASTE BEHAVIOR IN KOSOVO
Dipanshu Kumar Assoc.Prof. Dr. Simmi pal	<i>Sharda University International University</i>	DELEGATED LEGISLATION AND PRINCIPLES OF TRANSPARENCY IN INDIAN ADMINISTRATIVE LAW
Dr. Brahim Elhilali Dr. Moulay Lafdil Belghiti Dr. Abdelhak Saidi Dr. Abdelkader Chahlaoui	<i>Moulay Ismail University</i>	TRACE METAL CONTAMINATION IN SURFACE WATER SYSTEMS OF OUISLANE, MOROCCO: ASSESSMENT OF DISCHARGE STANDARDS AND IRRIGATION QUALITY THRESHOLDS
Dr. Moulay Lafdil Belghiti Dr. Abdelhak Saidi Dr. Brahim Elhilali Dr. Abdelkader Chahlaoui	<i>Moulay Ismail University</i>	ANTHROPOGENIC PRESSURES AND WATER QUALITY DEGRADATION IN OUED KHOUMANE (MOULAY IDRIS ZERHOUN, MOROCCO)

01.06.2026 | SESSION-3 | HALL-1**Ankara Local Time: 15:00-17:00***Meeting ID: 858 1117 0419**Zoom Passcode: 171717***HEAD OF SESSION: Asst. Prof. Dr. Dinçer ATASOY**

Authors	Affiliation	Presentation title
Prof. Dr. Serkan ÖZTÜRK Assoc. Prof. Dr. Hamdi ALKAN	<i>Gümüşhane University Van Yüzüncü Yıl University</i>	A SEISMOTECTONIC ANALYSIS ON THE CURRENT EARTHQUAKE HAZARD OF THE EASTERN BLACK SEA BASIN AND ITS SURROUNDINGS, TURKIYE
Assoc. Prof. Dr. Hamdi ALKAN Prof. Dr. Serkan ÖZTÜRK	<i>Van Yüzüncü Yıl University Gümüşhane University</i>	THE IMPACT OF SEISMOTECTONIC STRUCTURE IN SIMAV AND ITS SURROUNDINGS, TÜRKİYE, ON THE CURRENT EARTHQUAKE POTENTIAL AND FUTURE EARTHQUAKE HAZARD IN THE REGION
Alak Ahmad QASAB Prof. Dr. Hüseyin TOKTAMIŞ	<i>Gaziantep University</i>	INVESTIGATION OF THE EFFECT OF IONIZING RADIATION ON THE OPTICAL PROPERTIES OF OPTICAL GLASSES
Nermin KARGACI Prof. Dr. Mehmet Türker	<i>Gazi University</i>	EFFECTS OF Si3N4 REINFORCEMENT ON THE MICROSTRUCTURES OF ALUMINUM FOAMS
Sema ÇEVİK Prof. Dr. Muhammet KARATON	<i>Fırat University</i>	NUMERICAL ANALYSIS OF A REINFORCED CONCRETE BUILDING DAMAGED BY THE 6 FEBRUARY 2023 KAHRAMANMARAŞ EARTHQUAKE
Servet SOYGÜDER Nuri Eray AYDIN	<i>Ankara Yıldırım Beyazıt University</i>	EVALUATION OF INDUSTRIAL POWDER COATING LINES: A COMPARATIVE APPLICATION OF THE AHP, TOPSIS, AND VIKOR METHODS
Servet SOYGÜDER Suvarcan KARATAS	<i>Ankara Yıldırım Beyazıt University</i>	THE IMPACT OF MAINTENANCE STRATEGIES IN UAV SYSTEMS ON OPERATIONAL READINESS: A PROPOSAL FOR A HYBRID MODEL
Ahmet Selami ÇALIŞKAN Asst. Prof. Dr. Adem ÇANDAŞ	<i>Istanbul Technical University</i>	COMPUTER-AIDED DESIGN AND E-PROJECT IN NATURAL GAS INSTALLATION ENGINEERING

01.06.2026 | SESSION-3 | HALL-2**Ankara Local Time: 15:00-17:00***Meeting ID: 858 1117 0419**Zoom Passcode: 171717***HEAD OF SESSION: Assoc. Prof. Dr. Sevil PAMUK CEBECİ**

Authors	Affiliation	Presentation title
Kübra BOZKURT Asst. Prof. Dr. Ayşe ŞENOĞLU	<i>Tarsus University</i>	THE RELATIONSHIP BETWEEN HYPERTENSIVE DISORDERS OF PREGNANCY AND MATERNAL AGE
Gamze ÇELİK Asst. Prof. Dr. Ayşe ŞENOĞLU	<i>Tarsus University</i>	POLYCYSTIC OVARY SYNDROME IN WOMEN'S HEALTH: MULTIDISCIPLINARY AND CURRENT TREATMENT APPROACHES
İmmihan Hilal EMRE Assoc. Prof. Dr. Nurgül ÖZDEMİR	<i>Gaziantep University</i>	THE EFFECT OF COGNITIVE ASSESSMENT, FREE WILL AND DETERMINISM LEVELS ON VIOLENCE TENDENCIES AND MEDICATION ATTITUDES IN INDIVIDUALS DIAGNOSED WITH SCHIZOPHRENIA
Sultan BEBEK Assoc. Prof. Dr. Safiye ÖZGÜÇ	<i>Gaziantep University</i>	THE PREDICTIVE EFFECTS OF NARCISSISTIC CHARACTERISTICS AND PSYCHOLOGICAL MATURITY ON RELATIONSHIP SATISFACTION IN ROMANTIC RELATIONSHIPS
Yusuf Selimhan ÇELİK	<i>Marmara University</i>	ANALYSIS OF THE OPERATION PERFORMANCE OF HYDROGEN FUEL CELLS UNDER DIFFERENT CONDITIONS
Taner ENGİN Samet MEMİŞ	<i>Bandırma Onyedi Eylül University</i>	A COMPARATIVE EVALUATION OF AIS DATA SOURCES FOR MARITIME TRAFFIC ANALYSIS
Taner ENGİN Bulut Ozan CEYLAN Samet MEMİŞ	<i>Bandırma Onyedi Eylül University</i>	THE ROLE OF AI-POWERED ROUTING IN ENHANCING FUEL EFFICIENCY AND REDUCING EMISSIONS IN MARITIME TRANSPORT
Cansu DEMİR Kasım ŞİMŞEK	<i>Dicle University</i>	IN-PIT HAULAGE PLANNING AND OPTIMIZATION IN AN OPEN-PIT MINING OPERATION

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HEAD OF SESSION: Asst. Prof. Dr. Kanchi Ravi Padma

Authors	Affiliation	Presentation title
Tran Van Tuyen Pham Duc Hoa	<i>Ho Chi Minh City University University of Danang</i>	PSYCHOLOGICAL BARRIERS TO PHYSICAL EDUCATION PARTICIPATION AMONG MYOPIC STUDENTS AT HO CHI MINH CITY UNIVERSITY OF TECHNOLOGY AND ENGINEERING (HCMUTE): A CROSS-SECTIONAL STUDY USING THE HEALTH BELIEF MODEL.
Gheorghe GIURGIU Prof .Dr. Manole COJOCARU	<i>Deniplant-Aide Sante Medical Center Titu Maiorescu University</i>	OPTIMIZING OUTCOMES IN PSORIASIS: IMPACT OF DENIPLANT NUTRACEUTICALS
Hamza Belkhodja	<i>Mustapha University</i>	PHYTOCHEMICAL PROFILING BY LC-MS/MS, ANTIOXIDANT ACTIVITY, AND NEPHROPROTECTIVE EFFECTS OF ABELMOSCHUS ESCULENTUS EXTRACTS AGAINST GENTAMICIN-INDUCED NEPHROTOXICITY
Keddar Fayza Boualem Malika Fizir Meriem Brada Moussa Benabdelmoumene Djilali Belhadji Amel	<i>Hassiba Benbouali University Djilali Bounaama University Abdelhamid Ibn Badis University</i>	LC-MS/MS ANALYSIS, ANTIMICROBIAL ACTIVITY AGAINST URINARY-TRACT-INFECTION, AND ANTIOXIDANT CAPACITY OF PHENOLIC EXTRACTS FROM URTICA DIOICA LEAVES AND ROOTS
Diana Georgieva Galya Georgieva-Tsaneva	<i>Institute of Robotics</i>	A SIGNAL QUALITY-DRIVEN APPROACH TO ASSESS THE RELIABILITY OF PPG-DERIVED PULSE RATE VARIABILITY IN WEARABLE CARDIAC MONITORING
Dr. Amany Mohamed Basuny Dr. Ibrahim Taha Ibrahim Badawy Sayed Ali Galal Ali Enas Kamal Eldin Megahed	<i>Beni Suef University</i>	EVALUATION OF HYPOGLYCEMIC AND ANTIHYPERTENSIVE EFFICACY OF LEPIDIUM SATIVUM IN ELDERLY
Thenmozhi . M	<i>Vels Institute of Science</i>	ANTIMICROBIAL INVESTIGATION OF MEDICINALLY IMPORTANT <i>COLEUS</i> SPECIES
Asst. Prof. Dr. Kanchi Ravi Padma	<i>Women's University</i>	THE SIGNIFICANCE OF MIRACULOUSLY NUTRITIOUS MANGO (<i>MANGIFERA INDICA</i> L.), WHICH IS RICH IN BIOACTIVE SUBSTANCES THAT ARE EFFECTIVE AGAINST SARS COV-2 IN MITIGATING THE PANDEMIC: A SHORT REVIEW
Zoheir Amrouche Naoual Berrouane Marie-Laure Fauconnier Laribi-Habchi Hassiba	<i>KhemisMiliana University Blida University</i>	BIOLOGICAL & ANTIOXIDANT ACTIVITIES OF ALGERIAN ESSENTIAL OILS <i>ORIGANUM Vulgare</i> L. AND <i>Rosmarinus officinalis</i> L.
Gobeze Negash, HAILE	<i>Addis Ababa University</i>	EPIDEMIOLOGY AND ANTIMICROBIAL RESISTANCE OF <i>ESCHERICHIA COLI</i> AT THE HUMAN-ANIMAL-ENVIRONMENTAL INTERFACE IN ADDIS ABABA: A ONE HEALTH APPROACH

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Zoom Passcode: 171717

HEAD OF SESSION: **Assoc. Prof. Dr. Bhumika Sharma**

Authors	Affiliation	Presentation title
Dr. Mas'ud Hamdan	<i>Haifa University</i>	"THE REPORT": A SMALL TAP IN THE BIG REALM OF THE SERIO-COMICAL
Dr. Sándor FÖLDVÁRI	<i>Debrecen University</i>	MIKHAILO BALUGYÁNSZKY: ARCHITECT OF BOURGEOIS MODERNISATION IN EARLY 19TH-CENTURY RUSSIA THROUGH LAW CODIFICATION AND STATE ADMINISTRATION
Favour C. Uroko	<i>Nigeria University</i>	'SO EVEN FATHERS GET ATTRACTED TO THEIR DAUGHTERS': GENESIS 19:30-38 AND GROWING INCESTUOUS RELATIONS AMONGST FAMILIES IN A SUB-SAHARAN CONTEXT
Sarah Gracia Lumbantobing Yafarman Zai	<i>Sekolah Tinggi Teologi Mawar Saron Lampung</i>	CHRISTIAN RELIGIOUS EDUCATION AND ENVIRONMENTAL AWARENESS: A FAITH-BASED APPROACH TO PROMOTING SUSTAINABILITY IN THE DIGITAL AGE
Argona KUÇI	<i>South East European University</i>	INTERNATIONAL CHILD ABDUCTION AND THE PROTECTION OF THE BEST INTERESTS OF THE CHILD: CHALLENGES IN PRIVATE INTERNATIONAL LAW
Triumf SADIKAJ	<i>South East European University</i>	CYBERCRIME AND CRIMINAL LAW CHALLENGES IN KOSOVO: LEGAL FRAMEWORK AND INSTITUTIONAL RESPONSES
Fidelia Nwobi Hope Nwaigwe	<i>Chukwuemeka Odumegwu Ojukwu University Alex Ekwueme Federal University</i>	REMOTE WORK AND ADMINISTRATIVE PERFORMANCE IN MODERN ORGANIZATIONS: A STUDY OF CORPORATE AFFAIRS COMMISSION (CAC), AWKA, ANAMBRA STATE, NIGERIA.
Sadaf Noor Assoc. Prof. Dr. Bhumika Sharma	<i>Sharda University</i>	KARL MARX AND MAHATMA GANDHI: TWO DIFFERENT PATHS TO SOCIAL JUSTICE
Dr. Daljit Kaur	<i>Delhi University</i>	ECO-SPIRITUALITY AND ECOLOGICAL PRAXIS: A SYSTEMS-BASED ANALYSIS OF SIKH SUSTAINABILITY AND THE SEECHEWAL MODEL
Dr. Sohoutou Jean NOUNADONDE	<i>Parakou University</i>	BETWEEN COMPLIANCE AND ILLUSION: JOHNSON'S PSYCHOLOGICAL SURVIVAL IN JOYCE CARY'S MISTER JOHNSON

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HEAD OF SESSION: Dr. İlknur PORSUK DORU

Authors	Affiliation	Presentation title
Asst. Prof. Dr. Osman Cem ALTINCI Assoc. Prof. Dr. Özge SÜFER	<i>Osmaniye Korkut Ata University</i>	AI-DRIVEN MONITORING, PHENOTYPING, AND SELECTIVE BREEDING IN EDIBLE INSECT PRODUCTION SYSTEMS
Yavuz Han FIRAT Emin İlker MEDİNE	<i>Ege University</i>	IN VITRO ANTITUMOR POTENTIAL OF BERBERINE-LOADED NIOSOME IN OVARY CANCER CELLS
Dr. Büşran SUNYAR Ayten ATAY Assoc. Prof. Dr. Mesude Figen DÖNMEZ	<i>Iğdır University</i>	DETERMINATION OF RESISTANCE LEVELS OF LOCAL TOMATO GENOTYPES AND COMMERCIAL CULTIVARS AGAINST <i>Xanthomonas axonopodis</i> pv. <i>vesicatoria</i>
Dr. Büşran SUNYAR Ayten ATAY Assoc. Prof. Dr. Mesude Figen DÖNMEZ	<i>Iğdır University</i>	DETERMINATION OF RESISTANCE REACTIONS OF BEAN CULTIVARS/GENOTYPES AGAINST COMMON BACTERIAL BLIGHT
Yusuf KIZĞIN Aydın ALP	<i>Dicle University</i>	INVESTIGATION OF THE CULTIVATION POSSIBILITIES OF SWEET CORN (<i>Zea mays saccharata</i> Sturt.) VARIETIES UNDER THE ECOLOGICAL CONDITIONS OF DIYARBAKIR
Ömer GÜNEŞ Aydın ALP	<i>Dicle University</i>	INVESTIGATION OF THE EFFECTS OF DIFFERENT IRRIGATION METHODS ON YIELD AND QUALITY FACTORS IN KARACADAĞ RICE FARMING
Asst. Prof. Dr. İshak BAYYİĞİT Assoc. Prof. Dr. Veysi ACIBUCA	<i>Mardin Artuklu University</i>	EVALUATION OF THE COUNCIL OF EUROPE CULTURAL ROUTE ITER VITIS IN TERMS OF TÜRKİYE'S VITICULTURAL HERITAGE, LOCAL GRAPE VARIETIES AND RURAL DEVELOPMENT
Asst. Prof. Dr. İshak BAYYİĞİT Assoc. Prof. Dr. Mehmet Fırat BARAN	<i>Mardin Artuklu University</i>	IDENTIFICATION AND QUANTITATIVE ANALYSIS OF PHENOLIC COMPOUNDS IN APPLE (<i>Malus domestica</i>) EXTRACT BY LC-QTOF-MS

02.06.2026 | SESSION-1 | HALL-2Ankara Local Time: 10:⁰⁰-12:⁰⁰

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HEAD OF SESSION: Lec. Cemaliye SÜT

Authors	Affiliation	Presentation title
Gökhan YALÇIN Asst. Prof. Dr. Semra TOPUZ TÜRKER Prof .Dr. Mustafa BAYRAM	<i>Tokat Gaziosmanpaşa University</i>	THE IMPORTANCE OF APRICOT (<i>Prunus armeniaca</i> L.) KERNEL IN THE FOOD INDUSTRY AND ITS POTENTIAL USE IN PLANT-BASED MILK PRODUCTION
Gökçe Nur DURSUN Lec. Dr. Solmaz Ece YILMAZ	<i>Bezmialem Vakıf University</i>	MINDFULNESS-BASED NUTRITIONAL APPROACHES: SATTVIC DIET AND MINDFUL EATING
Zehra Betül ULUKAYA Asst. Prof. Dr. Yeliz AY YILDIZ	<i>AlanyaAlaaddin Keykubat University</i>	INVESTIGATION OF THE RELATIONSHIP BETWEEN PSYCHOLOGICAL WELL-BEING AND ATHLETIC SUCCESS IN ATHLETICS THROWING EVENTS ATHLETES
Assoc. Prof. Dr. Enes BELTEKİN Ayşegül ÖZKAN Esra ALİMOĞLU Eda Nur ATLAN	<i>Bingöl University</i>	THE EFFECT OF PHYSICAL ACTIVITY ON AGGRESSION AND VIOLENCE TENDENCY IN ADOLESCENTS: A REVIEW STUDY
Assoc. Prof. Dr. Enes BELTEKİN Eda Nur ATLAN Esra ALİMOĞLU Ayşegül ÖZKAN	<i>Bingöl University</i>	INVESTIGATION OF PARENTS' ATTITUDES TOWARD PHYSICAL EDUCATION AND SPORTS COURSE (A STUDY ON PRIVATE SCHOOLS)
Zeynep ÖRNEK Asst. Prof. Dr. Rabia Nur KOCAMIŞ	<i>İstanbul Nişantaşı University</i>	THE EFFECT OF COFFEE CONSUMPTION ON EATING BEHAVIOR AND SLEEP QUALITY IN ADULTS
Assoc Porf. Dr. Demet TATAR Assoc. Prof. Dr. Aysel VEYİSOĞLU	<i>Sinop University</i>	ANTIMICROBIAL ACTIVITY of <i>Chelidonium majus</i> L. EXTRACTS: COMPARISON of SOXHLET and AGITATED MACERATION METHODS
Assoc Porf. Dr. Demet TATAR Assoc. Prof. Dr. Aysel VEYİSOĞLU	<i>Sinop University</i>	INVESTIGATION OF THE ANTIMICROBIAL ACTIVITIES OF EXTRACTS OBTAINED BY THE MACERATION METHOD FROM DIFFERENT PARTS OF THE <i>Viola odorata</i> L. PLANT (FLOWER AND LEAF-STEM)

02.06.2026 | SESSION-1 | HALL-3**Ankara Local Time: 10:⁰⁰-12:⁰⁰***Meeting ID: 858 1117 0419**Zoom Passcode: 171717***HEAD OF SESSION: Prof. Dr. Metin EREN**

Authors	Affiliation	Presentation title
Umut KARACAR Prof. Dr. Metin EREN	<i>Van Yüzüncü Yıl University</i>	AN EXAMINATION OF BITLIS POEMS PUBLISHED IN DİDEBAN NEWSPAPER
Mesut TUNÇ	<i>Bitlis Eren University</i>	MONGOL INVASION IN HAMADAN: SIEGE, DESTRUCTION, AND ECONOMIC COLLAPSE
Rıdvan AYDIN Prof. Dr. Hasan Basri KARADENİZ	<i>Kütahya Dumlupınar University</i>	ACCORDING TO THE LAND REGISTRY BOOK NUMBER 47 DATED 1571, THE EGRİGOZ DISTRICT WAS SUBJECT TO THE KUTAHYA PROVINCE
Assoc. Prof. Dr. Hatice EKİCİ Birce GENÇ	<i>İzmir Katip Çelebi University</i>	MULTIDIMENSIONAL STRUCTURE OF STEREOTYPES TOWARD ROMANI INDIVIDUALS: A QUALITATIVE STUDY IN THE CONTEXT OF THE STEREOTYPE CONTENT MODEL
Berkcan İKİZLER Asst. Prof. Dr. Yıldız ÖZKILIÇ	<i>İzmir Bakırçay University</i>	COMPARISON OF THE EFFECTS OF MISINFORMATION ATTRIBUTED TO HUMANS AND ARTIFICIAL INTELLIGENCE TECHNOLOGIES ON MEMORY

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Zoom Passcode: 171717

HEAD OF SESSION: **Prof. Dr. Ivan PAVLOVIĆ**

Authors	Affiliation	Presentation title
Tran Le Nhat Quang Pham Tuan Hung	<i>University of Danang</i>	SELECTION OF COORDINATED DEFENSIVE DRILLS TO IMPROVE COMPETITIVE PERFORMANCE FOR MALE STUDENTS MAJORING IN BASKETBALL AT THE UNIVERSITY OF EDUCATION – THE UNIVERSITY OF DANANG
Dr. Zainab Khan	<i>Aligarh Muslim University</i>	AFFLUENZA AND PSYCHOLOGICAL WELL-BEING: A STUDY ON YOUTH LIFE SATISFACTION
Prof. Dr. Ivan PAVLOVIĆ Prof. Dr. Jovan BOJKOVSKI Prof Dr Vesna KARAPETKOVSKA HRISTOVA Aleksandra TASIĆ Ivanka HADŽIĆ Sara SIMEUNOVIĆ	<i>Belgrade University “St. Kliment Ohridski” Bitola University</i>	SUSTAINABLE APPROACHES TO THE CONCEPT OF INTEGRATED CONTROL OF HELMINTH PARASITES IN PASTURE
Housna AMIMI Soumia BELOUAFA Mohammed BERRADA	<i>University Hassan II of Casablanca</i>	OXYGENATED APATITES FOR BONE AND DENTAL APPLICATIONS: FROM SYNTHESIS TO TRANSLATIONAL CHALLENGES
Lawal N.A Sekoni R.T	<i>Federal Polytechnic Ilaro</i>	AN OVERVIEW OF MEDICAL WASTE MANAGEMENT (A CASE STUDY OF ILARO TOWNSHIP OGUN STATE NIGERIA)
Fatima Ezzahra EZ-ZAKY Prof. Dr.Soumia BELOUAFA Prof. Dr..Abdelmjid ABOURRICHE	<i>Hassan II University</i>	MACROALGAE-DERIVED BIOPOLYMERS: GREEN EXTRACTION STRATEGIES, PROPERTIES AND SUSTAINABLE APPLICATIONS
Dr. Blerta Drenofci Marinela Pane	<i>LOGOS University</i>	IMPLEMENTATION OF EMPLOYMENT QUOTA SYSTEM FOR PERSONS WITH DISABILITIES IN PUBLIC INSTITUTIONS IN ALBANIA: ALIGNMENT WITH EU DIRECTIVES AND NATIONAL LEGISLATION
Abdelhak Saidi Moulay Lafdil Belghiti Brahim Elhilali Abdelkader Chahlaoui	<i>Moulay Ismail University</i>	ANTHROPOGENIC PRESSURES AND WATER QUALITY DEGRADATION IN OUED KHOUMANE (MOULAY IDRIS ZERHOUN, MOROCCO)

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HEAD OF SESSION: Assoc. Prof. Dr.V. Ananthaswamy

Authors	Affiliation	Presentation title
Manal Elzain Muhammad Kamran	King Khalid University	HARMONIC ANALYSIS ON HILBERT SPACES UNDER UNCERTAINTY: AN INFORMATION-GEOMETRIC FRAMEWORK FOR MULTI-CRITERIA DECISION MAKING IN COMPLEX SYSTEMS
Dragana MEKIĆ Gyöngyi VASTAG Borko MATIJEVIĆ Gorana MRĐAN Suzana APOSTOLOV	Novi Sad University	STUDY OF LIPOPHILICITY AND TOXICITY OF SELECTED BIS-THIOCARBOHYDRAZONE DERIVATIVES USING LIQUID CHROMATOGRAPHY
Rajaa Diany	Sultan Moulay Slimane University	PORPHYRIN-BASED SENSITIZERS FOR SOLAR ENERGY HARVESTING: QUANTUM MODELLING AND IMPEDANCE SPECTROSCOPY INSIGHTS INTO DSSC PERFORMANCE
Asst. Prof. Dr. S. Sivasankari Assoc. Prof. Dr.V.Ananthaswamy Asst. Prof. Dr. G. Petchiammal	Madurai Kamaraj University	MATHEMATICAL INVESTIGATION OF THE NON-LINEAR BOUNDARY VALUE SYSTEM FOR JEFFREY FLUID FLOW
M. Shruthi Assoc. Prof.Dr. V. Ananthaswamy	Madurai Kamaraj University	SEMI-ANALYTICAL STUDY OF NON-LINEAR INITIAL VALUE PROBLEMS IN EPIDEMIC DYNAMICS
J. Anantha Jothi. Assoc. Prof. Dr.V.Ananthaswamy	Madurai Kamaraj University	A MATHEMATICAL ANALYSIS OF AN INITIAL VALUE PROBLEM IN A BIOCHEMICAL REACTION FRAMEWORK
Said Kerraj Younes Rachdi Mohamed Moussaoui Said Belaaouad	Casablanca University Mohammed VI Polytechnic University Mohammed V University	COMPUTATIONAL DESIGN OF CHROMIUM HALF-SANDWICH DSSC SENSITIZERS
Anjali Chaturvedi	Sleen India Bizventure	SOURCE IDENTIFICATION AND CONTROL OF LEAD IMPURITIES IN RAW MATERIALS USED IN SOLVENT BASED PAINTS
Alireza Hosseini	Tehran University	A FOURIER-INTERPOLATED SECOND-ORDER TOTAL GENERALIZED VARIATION MODEL FOR ARTIFACT-RESISTANT IMAGE RECONSTRUCTION
Alireza Hosseini	Tehran University	A GEOMETRY-AWARE TRIANGULAR MESH APPROACH TO TOTAL VARIATION FOR IMAGE RESTORATION

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Zoom Passcode: 171717

HEAD OF SESSION: Asst. Prof. Dr. K. VIGNESH

Authors	Affiliation	Presentation title
Boryana Dyulgerova	<i>Agricultural Academy</i>	SELECTION OF TOP-PERFORMING WINTER BARLEY GENOTYPES USING THE FAI-BLUP INDEX
Mokhnane Tarek ADJLANE Sabah Khiari Reguia	<i>Scientific and Technical Research Center on Arid Regions</i>	THE IMPACT OF AGRICULTURAL DYNAMICS ON GROUNDWATER RESOURCES IN THE OUED SOUF REGION
Ogunsola, T.O Adisa, J.O Ogunsola, A.O	<i>Oyo State College</i>	PRODUCTION OF ORANGE FLESHED SWEET POTATO AMONG SMALLHOLDER FARMERS IN OSUN STATE, NIGERIA
Samane Ghazali Gholamhassan Ranjbar Mohammad Hassan Rahimian Hossein Beyrami	<i>National Salinity Research Center (NSRC)</i>	SUSTAINABILITY EVALUATION OF THE HALOPHYTES' DEVELOPMENT BASED ON SOCIAL, ECONOMIC, AND ENVIRONMENTAL DIMENSIONS
Rouahna Houria Mancer Halima Rechachi Miled Zohra OtmeneTarek Abdelhafid Youcef Bettiche Farida Halitim Amor	<i>Batna University</i>	ADAPTATION OF CEREAL CROP TO SALT WATER
Asst. Prof. Dr. K. VIGNESH	<i>Palar Agricultural College</i>	EFFECTS OF ELEVATED CO ₂ AND TEMPERATURE ON HOST-PATHOGEN INTERACTIONS
Jorge Isaac Torres Manrique	<i>Kimblell Meneses, Catholic University Federico Villarreal National University</i>	CLIMATE CHANGE AND ITS IMPACT ON WATER RESOURCES. CHALLENGES, INTERDISCIPLINARITY AND FUNDAMENTAL RIGHTS
Habeeb Bolaji Onisabi	<i>Federal University</i>	ASSESSMENT OF URBAN GREEN SPACES AND CLIMATE ADAPTATION POTENTIAL IN LOKOJA, NORTH CENTRAL NIGERIA
R.O. Anyasi	<i>South Africa University</i>	THE USE OF <i>Pseudomonas parafulva</i> TO CONTROL THE INFESTATION OF APHIDS IN PLANTS
Djamila Marok-Alim Mohamed Amine Marok Zoulikha Krimi	<i>Djilali Bounàama of Khemis Miliana University</i>	BIOCHEMICAL AND MOLECULAR IDENTIFICATION OF DICEYA SOLANI INFECTING POTATO AND SOLANACEOUS CROPS IN ALGERIA

02.06.2026 | SESSION-2 | HALL-1Ankara Local Time: 12:³⁰-14:³⁰

Meeting ID: 858 1117 0419

Zoom Passcode: 171717

HEAD OF SESSION: Assoc. Prof. Dr. Behçet BATUR

Authors	Affiliation	Presentation title
Assoc. Prof. Dr. Behçet BATUR	<i>Gaziantep Islamic Science and Technology University</i>	IBN KHALDUN AND ISLAMIC SOCIOLOGY
Abdullah AKAN	<i>Batman University</i>	THE CONCEPT OF IDENTITY (AYNIYYAH) AND OTHERNESS (GHAYRIYYAH) ACCORDING TO THE ASH'ARITE SCHOOL.
Şefika Özlem ÖZBEK	<i>Firat University</i>	THE EVALUATION OF SAVINGS TOWARDS HUMAN HONOUR IN ISLAM FROM A FIQH PERSPECTIVE
Nergiz GEÇ	<i>Batman University</i>	EVALUATION OF THE MINBAR OF RUM MEHMED PASHA MOSQUE IN TERMS OF MATERIAL, STYLE AND PERIODICAL LAYERS
Mehmet ŞAYIR	<i>Gazi University</i>	NEW APPROACHES TO ACQUIRING ARABIC LISTENING AND SPEAKING SKILLS AS A FOREIGN LANGUAGE

02.06.2026 | SESSION-2 | HALL-2Ankara Local Time: 12:³⁰-14:³⁰

Meeting ID: 858 1117 0419

Zoom Passcode: 171717

HEAD OF SESSION: Prof. Dr. Eda BOZKURT

Authors	Affiliation	Presentation title
İlayda AKÇAOĞLU Assoc Prof. Dr. Derya KÖMÜRCÜ	<i>Yıldız Teknik University</i>	HOW DOES CLIMATE MIGRATION DIFFER FROM OTHER TYPES OF MIGRATION?
Ergül MOR	<i>Ankara Yıldırım Beyazıt University</i>	A COMPARATIVE ANALYSIS OF TÜRKİYE AND EUROPEAN UNION POLICIES IN COMBATING IRREGULAR MIGRATION FROM A SECURITY PERSPECTIVE
Dr. Rıdvan ÖNER	<i>Independent Researcher</i>	FROM VULNERABILITY TO AGENCY; SITUATED AGENCY REGIMES AMONG MIGRANT AGRICULTURAL WORKERS: MARDIN SAMPLE
Rumeysa ZEYTÜNLÜ Assoc. Prof. Dr. Zübeyde SÜLLÜ	<i>Kastamonu University</i>	THE INTERNATIONAL FACE OF PUBLIC RELATIONS: PUBLIC DIPLOMACY IN THE DIGITAL AGE AND TURKEY'S SOFT POWER STRATEGIES
Assoc. Prof. Dr. Zübeyde SÜLLÜ Samir İBAYEV	<i>Kastamonu University</i>	STRUCTURAL FEATURES OF ADVERTISING SLOGANS: A REVIEW ON SHORT TEXTS
Dr. Saadet ÇELİK	<i>Ankara Hacı Bayram Veli University</i>	THE COLONIAL HISTORY OF THE AFRICAN CONTINENT
Prof. Dr. Eda BOZKURT Furkan ÇELİK Resul ÖZDEMİR	<i>Atatürk University</i>	THE RELATIONSHIP BETWEEN EXPORTS AND ECONOMIC GROWTH IN N11 COUNTRIES: QUANTILE REGRESSION APPROACH
İbrahim Doğukan KÖROĞLU	<i>Ankara Yıldırım Beyazıt University</i>	THE RATIONAL LOGIC OF WAR: AN ANALYSIS OF GAME THEORY AND THE TIT-FOR-TAT STRATEGY

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HEAD OF SESSION: Asst. Prof. Dr. Adem YURDUNKULU

Authors	Affiliation	Presentation title
Uğur BEDİR Assoc. Prof. Dr. Servet KARDEŞ	MoNE Van Yüzüncü Yıl University	PARENTS' VIEWS ON PRESCHOOL CHILDREN'S DIGITAL DEVICE USAGE HABITS
Ümmühan GÜNGÖR Servet KARDEŞ	MoNE Van Yüzüncü Yıl University	PRESCHOOL TEACHERS' METHODS FOR DEALING WITH PROBLEMATIC BEHAVIORS IN CLASSROOM MANAGEMENT
Şevval TOSYALI Prof. Dr. Sevilay ŞAHİN	Gaziantep University	INVESTIGATION OF SECONDARY SCHOOL TEACHERS' INDIVIDUAL PERCEPTIONS OF PSYCHOLOGICAL CAPITAL COMPONENTS
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Aslı DENİZ YILMAZ Prof. Dr. Ahmet TEKİN	MoNE Firat University	EXAMINING THE RELATIONSHIP BETWEEN TEACHERS' ARTIFICIAL INTELLIGENCE LITERACY AND TECHNOLOGICAL PEDAGOGICAL CONTENT KNOWLEDGE
Prof. Dr. Burhan AKPINAR Sevil OĞUZ	Firat University	EVALUATION OF THE DIFFERENTIATION APPROACH IN TEACHING WITHIN THE FRAMEWORK OF THE 21ST TURKISH EDUCATION MODEL IN ENGLISH TEACHING
Prof. Dr. Burhan AKPINAR Muhammet HAN	Firat University	SCHOOL VIOLENCE: PEDAGOGICAL BACKGROUND
Beril ÖZAY Tutku KARAÖZ	Cyprus Health and Social Sciences University	COMPARISON OF TEACHER EDUCATION SYSTEMS IN JAPAN, SINGAPORE AND THE TRNC IN THE CONTEXT OF DIGITAL TRANSFORMATION IN EDUCATION

02.06.2026 | SESSION-2 | HALL-4Ankara Local Time: 12:³⁰-14:³⁰

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HEAD OF SESSION: Prof. Dr. Anupama Rajput

Authors	Affiliation	Presentation title
Ivan ARNAUTOVIĆ Slobodanka JOVIN Branka PAUNOVIĆ Slobodan POPOVIĆ	<i>Novi Sad University</i>	CONNECTING FINANCIAL MARKETS AND MODERN SUPPORT SYSTEMS IN BUSINESS DECISION-MAKING IN SMALL ECONOMIES
Ivan ARNAUTOVIĆ Slobodanka JOVIN Branka PAUNOVIĆ Slobodan POPOVIĆ	<i>Novi Sad University</i>	IMPORTANCE OF FINANCIAL MARKETS IN THE WORK AND DECISION-MAKING OF THE REAL ECONOMY ON THE EXAMPLE OF SMALL ECONOMIES SUCH AS THE ECONOMY OF THE REPUBLIC OF SERBIA
Prof. Dr. Laura Diaconu Maxim	<i>Iasi University</i>	REGIONAL ECONOMIC INEQUALITIES IN THE EUROPEAN UNION
Prof. Dr. S.Krishna Jayanthi Dr. C. Inbam Dr. S.Chandrasekar	<i>Sri Meenakshi Government Arts College for Women</i>	Q* g CLOSED SETS IN NEUTROSOPHIC FUZZY SUPRA TOPOLOGICAL SPACES
Dr. J.K. Oladejo P.O. Ogundijo E.A. Adesigbin P.D. Akinwunmi	<i>Ladoke Akintola University of Technology</i>	EFFECTS OF GENDER BASED VIOLENCE ON MENTAL HEALTH
Mohamed amine MOSTEFAI Nouredine TAOUAF	<i>Nour Bachir University</i>	EXPONENTIAL STABILITY FOR COUPLED LAM SYSTEM WITH A FRACTIONAL DERIVATIVE TIME DELAY
Prof. Dr. Bhawna Rajput Prof. Dr. Anupama Rajput	<i>Delhi University</i>	COST AND PROFIT EFFICIENCY OF MICROFINANCE INSTITUTIONS IN INDIA: A FRONTIER ANALYSIS APPROACH
Dr. Saurabh Kishor Sania Perwez	<i>Sharda University</i>	THE RIGHT TO LIFE OF GIG AND PLATFORM WORKERS: A LEGAL AND ETHICAL ANALYSIS OF FAST DELIVERY APPLICATIONS IN INDIA
K. Maruthamuthu C. Inbam	<i>Madurai Kamaraj University</i>	ON A NEW CLASS OF NEUTROSOPHIC NANO CLOSED SETS IN NEUTROSOPHIC NANO TOPOLOGICAL SPACES
Asst. Prof. Dr.Omid Moqimzai	<i>Faryab University</i>	THE SYNERGISTIC NEXUS OF MINERAL EXTRACTION AND AGRICULTURAL DEVELOPMENT IN AFGHANISTAN: ECONOMIC PROSPECTS, ENVIRONMENTAL RISKS, AND POLICY IMPERATIVES

02.06.2026 | SESSION-2 | HALL-5Ankara Local Time: 12:³⁰-14:³⁰

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Zoom Passcode: 171717

HEAD OF SESSION: Prof. Dr. Samih Karasneh

Authors	Affiliation	Presentation title
Uthman Irshad Ahmad Abdullah Anjum Perwez	<i>Al-Janoub International School</i>	THE ROLE OF SENIOR SECONDARY SCHOOL LEADERSHIP IN EFFECTIVE FUTURE DEVELOPMENT
Alba Berberi Ylvije Kraja	<i>University "Luigj Gurakuqi</i>	THE REMOTE WORK PARADOX: A COMPARATIVE ANALYSIS OF PERCEIVED FREEDOM vs. REALITY AMONG UNIVERSITYSTUDENTS WORKING REMOTELY
Liubov Althaim	<i>Ternopil Volodymyr Hnatiuk National Pedagogical University</i>	THE IMPORTANCE OF DEVELOPING A NEW DISTANCE LEARNING METHODOLOGY UNDER MARTIAL LAW
Prof. Dr. Samih Karasneh Prof. Dr. Bushra Alakashee	<i>Sharjah University</i>	NEGOTIATION AS A PEDAGOGICAL TOOL: ENHANCING ACHIEVEMENT AND SOCIAL COMPETENCE IN JORDANIAN TENTH-GRADE CIVIC EDUCATION
Thrinethra S. N. Jyothi A Goudar Mustafa Attar Murugendrappa M. V. Sharanappa Chapi	<i>B.M.S College</i>	STRUCTURAL, MAGNETIC, AND ELECTRICAL PROPERTIES OF NI-CU SPINEL FERRITE NANOPARTICLES FOR EMI APPLICATION
Dr. Lenin KANAGASABAI	<i>Independent Researcher</i>	NOVEL COGNITIVE ACTION OF EYE AND MIND DURING CREATION OF CLAY TOY INSPIRED OPTIMIZATION ALGORITHM FOR POWER LOSS REDUCTION IN ELECTRICAL DISTRIBUTION SYSTEM
Doha CHEMAOU Leila Essannouni Fedwa Essannouni	<i>Mohammed V University</i>	EFFICIENT FEATURE DIVERSITY IN CNN ENSEMBLES FOR MEDICAL IMAGE CLASSIFICATION
Leila Essannouni Fedwa Essannouni	<i>Mohammed V University</i>	NEW TRIGONOMETRIC ROBUST LOSS FUNCTION FOR ENHANCED LEARNING

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HEAD OF SESSION: **Prof. Froilan D. Mobo**

Authors	Affiliation	Presentation title
Patalita, Jourdyllene F. Popera, Mc Bryant B. Plaza, Robert L. Prangan, Ian Steeve Paut, Robert Christian Joel Paga, Joseph Jr. Prof. Froilan D. Mobo	<i>Philippine Merchant Marine Academy</i>	THE RELATIONSHIP BETWEEN SLEEP DURATION AND ACADEMIC PERFORMANCE (GPA) AMONG 4CL CADETS OF THE PHILIPPINE MERCHANT MARINE ACADEMY: A CORRELATIONAL STUDY
Fernandez, Caster Troy B. Tamondong, Jake Lyndell V. Valle, Airon Cairl O. Villares, Jhon Lim Fred A. Zartiga, Ezekiel Edgie G. Prof. Froilan D. Mobo	<i>Philippine Merchant Marine Academy</i>	THE RELATIONSHIP BETWEEN DORMITORY CONDITIONS AND SLEEP QUALITY OF 1CL PMMA CADETS, S.Y. 2025–2026
Gattoc, Kevin Mercado Avila, Niel John Priolo, Jayson Prudenciano, Keihl Philip Naje, Allan	<i>Philippine Merchant Marine Academy</i>	INFLUENCE OF DIGITAL EDUCATIONAL TOOLS ON THE COMPETENCE AND LEARNING ENGAGEMENT OF FIRST- CLASS MARINE ENGINEERING CADETS
Almario, Ralph William A. Caloracan, Charis Louisa Brito, Ian Ivan Altiche, Louis Vincent Labarinto, Janry	<i>Philippine Merchant Marine Academy</i>	A QUANTITATIVE STUDY ON THE RELATIONSHIP BETWEEN INTERNET CONNECTIVITY FREQUENCY AND LEVELS OF DEPRESSION, ANXIETY, AND STRESS AMONG FILIPINO SEAFARERS ON INTERNATIONAL VESSELS
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THE EFFECT OF THE FLIPPED LEARNING MODEL ON KNOWLEDGE AND SKILL DEVELOPMENT IN NURSING EDUCATION: A REVIEW

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ABSTRACT

Nursing education is a holistic process that aims to develop competencies in cognitive, affective, and psychomotor domains. However, traditional instructor-centered teaching methods may limit students' active participation and negatively affect the retention of learning. In addition, the increasing number of students and limited clinical practice opportunities may be insufficient to achieve the desired level of knowledge and skill acquisition. Therefore, the importance of student-centered and active learning approaches is increasing. The flipped learning model is an innovative approach that enables theoretical knowledge to be learned before class and allocates in-class time to application, discussion, and reinforcement activities. In this context, there is a need to comprehensively evaluate the findings related to the effects of the flipped learning model in nursing education. The aim of this review is to examine the effect of the flipped learning model on knowledge and skill development in nursing education.

The flipped learning model shifts students from passive recipients to active participants in the learning process. Studies have shown that this model increases students' knowledge levels and supports the retention of learning. In this process, pre-class preparation and in-class application activities play a key role. This approach supports the development of clinical skills, strengthens the link between theory and practice, enhances students' self-directed learning, critical thinking, and problem-solving skills, and increases learning satisfaction. However, the flipped learning model also has some limitations. Lack of pre-class preparation, insufficient technological infrastructure, and difficulties in accessing digital materials may reduce its effectiveness. Additionally, the process of planning and developing instructional materials can be time-consuming for educators. Furthermore, ensuring active participation of all students may not always be possible, and some students may be more inclined toward traditional methods.

In conclusion, the flipped learning model is an effective approach that supports knowledge and skill development in nursing education. However, in order to increase its effectiveness, careful planning of the teaching process, adequate technological infrastructure, and high levels of student motivation are required. Accordingly, it is recommended that the flipped learning model be implemented more widely and systematically in nursing education.

Keywords: Nursing education, nursing students, flipped learning model, active learning

HEMŞİRELİK EĞİTİMİNDE TERS-YÜZ ÖĞRENME MODELİNİN BİLGİ VE BECERİ GELİŞİMİNE ETKİSİ: BİR DERLEME

ÖZET

Hemşirelik eğitimi, bilişsel, duyuşsal ve psikomotor alanlarda yeterlilik kazandırmayı hedefleyen bütüncül bir süreçtir. Ancak geleneksel, eğitmen merkezli öğretim yöntemleri öğrencilerin aktif katılımını sınırlamakta ve öğrenmenin kalıcılığını olumsuz etkileyebilmektedir. Ayrıca artan öğrenci sayısı ve sınırlı klinik uygulama olanakları, bilgi ve beceri kazanımını istenilen düzeye ulaştırmada yetersiz kalabilmektedir. Bu doğrultuda, öğrenci merkezli ve aktif öğrenmeyi destekleyen yaklaşımların önemi artmaktadır. Ters-yüz öğrenme modeli, teorik bilginin ders öncesinde öğrenilmesini ve sınıf içi sürenin uygulama, tartışma ve pekiştirme etkinliklerine ayrılmasını sağlayan yenilikçi bir modeldir.

Bu bağlamda, ters-yüz öğrenme modelinin hemşirelik eğitimindeki etkilerine ilişkin bulguların bütüncül olarak değerlendirilmesine ihtiyaç duyulmaktadır. Bu derlemenin amacı, ters-yüz öğrenme modelinin hemşirelik eğitiminde bilgi ve beceri gelişimine etkisini incelemektir.

Ters-yüz öğrenme modeli, öğrenciyi pasif alıcı konumdan çıkararak aktif öğrenmenin merkezine yerleştirmektedir. Çalışmalar, bu modelin öğrencilerin bilgi düzeylerini artırdığını ve öğrenmenin kalıcılığını desteklediğini göstermektedir. Bu süreçte ders öncesi hazırlık ve sınıf içi uygulama etkinlikleri belirleyici olmaktadır. Bu yaklaşım, klinik becerilerin gelişimini desteklerken teori ile uygulama arasındaki bağı güçlendirmekte, öğrencilerin öz-yönelimli öğrenme, eleştirel düşünme ve problem çözme becerilerini desteklemekte ve öğrenme memnuniyetlerini artırmaktadır. Ancak, ters-yüz eğitim modelinin bazı sınırlılıkları da bulunmaktadır. Öğrencilerin ders öncesi hazırlık yapmaması, sınıf içi etkinliklerin verimliliğini azaltabilmektedir. Ayrıca teknolojik altyapı eksiklikleri ve dijital materyallere erişimde yaşanan sorunlar, yöntemin uygulanabilirliğini sınırlayabilmektedir. Öğretim elemanları açısından ise planlama ve materyal geliştirme süreci zaman alıcı olabilmektedir. Bunun yanında, tüm öğrencilerin aktif katılımını sağlamak her zaman mümkün olmayabilir ve bazı öğrenciler geleneksel yöntemlere daha fazla uyum gösterebilir.

Ters-yüz öğrenme modeli, hemşirelik eğitiminde bilgi ve beceri gelişimini destekleyen etkili bir yaklaşımdır. Ancak yöntemin etkinliğinin artırılabilmesi için öğrenci motivasyonu, teknolojik altyapı ve öğretim sürecinin dikkatli bir şekilde planlanması gerekmektedir. Bu doğrultuda, ters-yüz öğrenme modelinin hemşirelik eğitiminde daha yaygın ve sistematik biçimde uygulanması önerilmektedir.

Anahtar Kelimeler: Hemşirelik eğitimi, hemşirelik öğrencisi, ters-yüz öğrenme modeli, aktif öğrenme

PUBLIC HEALTH AND NURSING APPROACHES IN DISASTERS

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ABSTRACT

Disasters are extraordinary events that arise from natural, technological, or human causes, disrupt social order, lead to significant loss of life and property, and can overwhelm existing health systems.

The aim of this review is to examine the critical importance of public health services in the disaster management process and to evaluate them from a nursing perspective.

Today, the frequency and severity of disasters are increasing globally due to factors such as climate change, rapid urbanization, and population growth. Turkey, due to its location on active fault lines, is among the countries at high risk, especially in terms of earthquakes. Disasters not only cause physical destruction; they also profoundly affect public health, social life, and the economic order. In this process, basic public health services such as access to clean water, safe housing, sanitation, infectious disease control, and psychosocial support are critically important after a disaster. Vulnerable groups, especially children, the elderly, people with disabilities, and individuals with chronic diseases, are more affected by disasters. Therefore, preventive health services and community-based approaches are prominent in disaster management.

Disaster management is a multi-dimensional structure encompassing preparation, response, recovery, and damage mitigation processes. In this process, public health nurses; Nurses undertake important tasks in areas such as community education, risk analysis, triage, surveillance, psychosocial support, and rehabilitation. The effectiveness of nurses in disaster management ensures a strong link between the community and the health system. However, deficiencies in training, coordination problems, and logistical shortcomings are among the main difficulties encountered in disaster management.

To create a disaster-resilient society, it is necessary to strengthen public health services, make disaster nursing training practice-based, improve inter-institutional coordination, and establish sustainable support mechanisms for vulnerable groups. A scientifically based, holistic, and community-oriented approach to disaster management will play a critical role in reducing the negative impacts of future disasters on health.

Keywords: Disaster management, nursing approaches, public health

AFETLERDE HALK SAĞLIĞI VE HEMŞİRELİK YAKLAŞIMLARI

ÖZET

Afetler; doğal, teknolojik veya insan kaynaklı olarak ortaya çıkan, toplumsal düzeni bozan, ciddi can ve mal kayıplarına yol açan ve mevcut sağlık sistemlerini yetersiz bırakabilen olağan dışı durumlardır.

Bu derlemenin amacı, afet yönetimi sürecinde halk sağlığı hizmetlerinin kritik önemini irdelemek ve hemşirelik perspektifinde değerlendirmektir.

Günümüzde iklim değişikliği, hızlı kentleşme ve nüfus artışı gibi etkenler nedeniyle afetlerin sıklığı ve şiddeti küresel ölçekte artış göstermektedir. Türkiye ise aktif fay hatları üzerinde bulunması nedeniyle özellikle deprem açısından yüksek risk taşıyan ülkeler arasında yer almaktadır. Afetler yalnızca fiziksel yıkıma neden olmamakta; aynı zamanda toplum sağlığını, sosyal yaşamı ve ekonomik düzeni de derinden etkilemektedir. Bu süreçte; temiz suya erişim, güvenli barınma, sanitasyon, bulaşıcı hastalıkların kontrolü ve psikososyal destek gibi temel halk sağlığı hizmetleri afet sonrasında kritik önem taşımaktadır. Özellikle çocuklar, yaşlılar, engelliler ve kronik hastalığı olan bireyler gibi kırılgan gruplar afetlerden daha fazla etkilenmektedir. Bu nedenle afet yönetiminde koruyucu sağlık hizmetleri ve toplum temelli yaklaşımlar ön plana çıkmaktadır.

Afet yönetimi; hazırlık, müdahale, iyileştirme ve zarar azaltma süreçlerini kapsayan çok boyutlu bir yapıdır. Bu süreçte halk sağlığı hemşireleri; toplum eğitimi, risk analizi, triyaj, sürveyans, psikososyal destek ve rehabilitasyon gibi alanlarda önemli görevler üstlenmektedir. Hemşirelerin afet yönetimindeki etkinliği, toplum ile sağlık sistemi arasında güçlü bir bağ kurulmasını sağlamaktadır. Ancak eğitim eksiklikleri, koordinasyon sorunları ve lojistik aksaklıklar afet yönetiminde karşılaşılan temel güçlükler arasında yer almaktadır.

Afetlere karşı dirençli bir toplum oluşturabilmek için halk sağlığı hizmetlerinin güçlendirilmesi, afet hemşireliği eğitimlerinin uygulama temelli hale getirilmesi, kurumlar arası koordinasyonun geliştirilmesi ve kırılgan gruplara yönelik sürdürülebilir destek mekanizmalarının oluşturulması gerekmektedir. Bilimsel temelli, bütüncül ve toplum odaklı bir afet yönetimi anlayışı, gelecekte yaşanabilecek afetlerin sağlık üzerindeki olumsuz etkilerini azaltmada kritik rol oynayacaktır.

Anahtar Kelimeler: Afet yönetimi, halk sağlığı, hemşirelik yaklaşımları

HEALTH TOURISM: TYPES OF SERVICES AND A NURSING PERSPECTIVE

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ABSTRACT

The aim of this compilation is to examine health tourism in the world and in Turkey, to highlight the prominent service types in the field of health tourism, and to evaluate it from a nursing perspective.

Health tourism is defined as individuals traveling from their place of residence to a different region or country to benefit from health services. Today, increasing healthcare costs, long waiting times, technological advancements, and the search for higher quality services are influential factors in individuals turning to health tourism.

Globally, health tourism has become a rapidly developing sector due to increasing healthcare costs, long waiting times, and disparities in access to healthcare services. The desire of individuals living in developed countries to access more affordable and high-quality healthcare services has increased international patient mobility and transformed health tourism into a significant economic activity on a global scale. In this process, countries such as Thailand, India, Singapore, and Malaysia are among the prominent destinations for health tourism. Turkey, on the other hand, is seen to hold an important position in this field thanks to its geographical location, affordable healthcare services, developed healthcare infrastructure, and qualified healthcare personnel. The most common types of health tourism are medical tourism, thermal tourism, spa and wellness applications, and elderly and disabled tourism. Medical tourism, a significant aspect of health tourism, highlights interventions such as dental, eye, aesthetic, cardiovascular, and joint prosthetics, infertility treatment, and in vitro fertilization.

The nursing profession plays a critical role in the success of health tourism. High-quality and culturally sensitive nursing services increase patient satisfaction, facilitate treatment adherence, and strengthen loyalty to healthcare facilities. However, careful management of this sector in accordance with ethical principles, patient rights, and service quality is crucial for its sustainability.

Keywords: Health tourism, nursing, patient satisfaction, medical tourism

SAĞLIK TURİZMİ: HİZMET TÜRLERİ VE HEMŞİRELİK PERSPEKTİFİ

ÖZET

Bu derlemenin amacı, dünyada ve Türkiye’de sağlık turizmini incelemek, sağlık turizmi alanında öne çıkan hizmet türlerini ortaya koymak ve hemşirelik perspektifinde değerlendirmektir.

Sağlık turizmi, bireylerin sağlık hizmetlerinden yararlanmak amacıyla bulundukları yerden farklı bir bölgeye ya da ülkeye seyahat etmeleri olarak tanımlanmaktadır. Günümüzde artan sağlık maliyetleri, uzun bekleme süreleri, teknolojik gelişmeler ve daha kaliteli hizmet arayışı, bireylerin sağlık turizmine yönelmesinde etkili olmaktadır.

Dünyada sağlık turizmi; artan sağlık maliyetleri, uzun bekleme süreleri ve sağlık hizmetlerine erişimde yaşanan farklılıklar nedeniyle hızla gelişen bir sektör haline gelmiştir. Özellikle gelişmiş ülkelerde yaşayan bireylerin daha uygun maliyetli ve kaliteli sağlık hizmetlerine ulaşma isteği, uluslararası hasta hareketliliğini artırmış ve sağlık turizmini küresel ölçekte önemli bir ekonomik faaliyet alanına dönüştürmüştür. Bu süreçte Tayland, Hindistan, Singapur ve Malezya gibi ülkeler sağlık turizmi açısından öne çıkan destinasyonlar arasında yer almaktadır. Türkiye'nin ise; coğrafi konumu, uygun maliyetli sağlık hizmetleri, gelişmiş sağlık altyapısı ve nitelikli sağlık personeli sayesinde bu alanda önemli bir konumda olduğu görülmektedir.

Sağlık turizminin en sık türleri; medikal turizm, termal turizm, SPA ve wellness uygulamaları ile yaşlı ve engelli turizmidir. Sağlık turizminin önemli bir boyutu olan medikal turizm kapsamında; diş, göz, estetik, kalp-damar ve eklem protezleri, infertilite tedavisi ve invitro fertilizasyon gibi girişimler ön plana çıkmaktadır.

Hemşirelik mesleği, sağlık turizminin başarısında kritik bir rol oynamaktadır. Nitelikli ve kültürel açıdan duyarlı hemşirelik hizmeti, uluslararası hastaların memnuniyetini artırmakta, tedaviye uyumlarını kolaylaştırmakta ve sağlık tesislerine bağlılıklarını güçlendirmektedir. Ancak bu alanın; etik ilkeler, hasta hakları ve hizmet kalitesi doğrultusunda dikkatli bir şekilde yönetilmesi sürdürülebilirliği açısından büyük önem taşımaktadır.

Anahtar Kelimeler: Sağlık turizmi, hemşirelik, bakım, hasta memnuniyeti

POSTOPERATIVE FATIGUE AND FUNCTIONAL RECOVERY BEFORE DISCHARGE IN PATIENTS UNDERGOING OPEN HEART SURGERY: A NARRATIVE REVIEW FROM A NURSING PERSPECTIVE

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ABSTRACT

The aim of this review is to evaluate the effects of postoperative fatigue occurring during the pre-discharge period on functional recovery and activities of daily living in patients undergoing open heart surgery, and to present evidence-based practices related to nursing care.

This study is a review based on the examination of the literature regarding postoperative fatigue and functional recovery after open heart surgery. The literature search was conducted using the PubMed, Scopus, and Google Scholar databases. The keywords “postoperative fatigue”, “open heart surgery”, “cardiac surgery”, “functional recovery”, “activities of daily living”, and “nursing care” were used during the search process. Studies published between 2020 and 2025, indexed in SCI and TR Dizin journals, available in full text, and published in Turkish or English were included in the review. In addition, studies that were not directly related to the subject and duplicate studies were excluded from the evaluation. A non-systematic but structured approach was adopted throughout the review process.

The literature review revealed that postoperative fatigue is commonly experienced in patients undergoing open heart surgery and significantly affects physical functioning, particularly during the pre-discharge period. Inflammatory processes related to surgical trauma, cardiopulmonary bypass procedures, pain, sleep disturbances, immobilization, and psychological stress were identified as the main factors increasing fatigue levels. In addition, patients with higher levels of anxiety were found to experience more severe fatigue, which negatively affected the recovery process.

The reviewed studies indicated that postoperative fatigue delays early mobilization, decreases physical activity levels, and limits patients’ ability to maintain activities of daily living independently. Patients were found to require increased support in meeting self-care needs, maintaining personal hygiene, mobilizing, and performing routine daily activities. As fatigue levels increased, functional independence decreased, care dependency increased, and quality of life was negatively affected. Furthermore, patients experiencing kinesiphobia were found to participate less in physical activity, resulting in slower functional recovery.

Pain and impaired sleep quality were identified as important contributors to postoperative fatigue. Inadequate pain control was found to limit mobilization, while sleep disturbances reduced energy levels and negatively affected patients’ daily activities. Additionally, patients with lower physical activity levels demonstrated prolonged recovery periods and delayed improvement in functional capacity.

Evaluation of nursing care interventions demonstrated that early mobilization supports functional recovery, reduces the development of complications, and contributes to a faster return to activities of daily living.

Effective pain management, promotion of sleep quality, adequate nutritional support, teaching energy conservation techniques, and individualized patient education were also found to be effective in reducing fatigue levels. Enhanced Recovery After Surgery (ERAS) programs were associated with accelerated mobilization, shorter hospital stays, and improved recovery quality. In addition, rehabilitation-supported interventions were found to increase participation in physical activity and positively influence patients' functional independence.

Postoperative fatigue is a key determinant of functional recovery in patients undergoing open heart surgery, particularly in the pre-discharge period. Regular assessment and individualized nursing care are essential to enhance patient independence and recovery outcomes. The integration of evidence-based nursing interventions into clinical practice is strongly recommended.

Keywords: Postoperative fatigue, cardiac surgery, functional recovery, activities of daily living, nursing care

AÇIK KALP CERRAHİSİ HASTALARINDA TABURCULUK ÖNCESİ POSTOPERATİF YORGUNLUK VE FONKSİYONEL İYİLEŞME: HEMŞİRELİK BAKIMI PERSPEKTİFİNDEN BİR DERLEME

ÖZET

Bu derlemenin amacı, açık kalp cerrahisi uygulanan hastalarda taburculuk öncesi süreçte ortaya çıkan postoperatif yorgunluğun fonksiyonel iyileşme ve günlük yaşam aktiviteleri üzerindeki etkilerini değerlendirmek ve hemşirelik bakımına ilişkin kanıta dayalı uygulamaları ortaya koymaktır.

Bu çalışma, açık kalp cerrahisi sonrası postoperatif yorgunluk ve fonksiyonel iyileşmeye ilişkin literatürün incelenmesine dayanan bir derlemedir. Literatür taraması PubMed, Scopus ve Google Scholar veri tabanlarında gerçekleştirilmiş; tarama sürecinde “postoperative fatigue”, “open heart surgery”, “cardiac surgery”, “functional recovery”, “activities of daily living” ve “nursing care” anahtar kelimeleri kullanılmıştır. Derlemeye, 2020–2025 yılları arasında yayımlanan, SCI ve TR Dizin kapsamındaki dergilerde yer alan, tam metnine erişilebilen ve Türkçe ile İngilizce dillerinde yayımlanmış çalışmalar dahil edilmiştir. Ayrıca konu ile doğrudan ilişkili olmayan ve tekrar eden çalışmalar değerlendirme dışı bırakılmıştır. Derleme sürecinde sistematik olmayan fakat belirli bir çerçeve doğrultusunda yapılandırılmış bir yöntem izlenmiştir.

Literatür incelemesi sonucunda açık kalp cerrahisi sonrası postoperatif yorgunluğun hastalarda yaygın olarak görüldüğü ve özellikle taburculuk öncesi dönemde fiziksel fonksiyonları önemli ölçüde etkilediği belirlenmiştir. Cerrahi travmaya bağlı gelişen inflamatuvar süreç, kardiyopulmoner bypass uygulamaları, ağrı, uyku düzensizlikleri, immobilizasyon ve psikolojik stresin yorgunluk düzeyini artıran temel faktörler arasında yer aldığı görülmüştür. Bununla birlikte ameliyat sonrası dönemde anksiyete düzeyi yüksek olan bireylerde yorgunluk hissinin daha belirgin olduğu ve bu durumun iyileşme sürecini olumsuz etkileyebildiği saptanmıştır.

İncelenen çalışmalarda postoperatif yorgunluğun hastaların erken mobilizasyonunu geciktirdiği, fiziksel aktivite düzeyini azalttığı ve günlük yaşam aktivitelerini bağımsız olarak sürdürmelerini güçleştirdiği görülmüştür. Özellikle öz bakım gereksinimlerini karşılama, kişisel hijyen, hareket etme ve günlük rutin aktiviteleri yerine getirme konusunda hastaların destek ihtiyacının arttığı belirlenmiştir. Yorgunluk düzeyi yükseldikçe fonksiyonel bağımsızlığın azaldığı, bakım gereksiniminin arttığı ve yaşam kalitesinin olumsuz etkilendiği dikkat çekmektedir. Ayrıca hareket korkusu yaşayan hastalarda fiziksel aktiviteye katılımın azaldığı ve fonksiyonel iyileşmenin daha yavaş ilerlediği görülmektedir.

Literatürde ağrı ve uyku kalitesindeki bozulmanın postoperatif yorgunluğu artıran önemli etmenler arasında olduğu belirlenmiştir. Yetersiz ağrı kontrolünün mobilizasyonu sınırlandırdığı, uyku bozukluklarının ise enerji düzeyinde azalmaya neden olarak hastaların günlük aktivitelerini olumsuz etkilediği görülmektedir. Bununla birlikte fiziksel aktivite düzeyi düşük olan hastalarda iyileşme sürecinin daha uzun sürdüğü ve fonksiyonel kapasitenin daha geç toparlandığı dikkat çekmektedir.

Hemşirelik bakımına yönelik uygulamalar değerlendirildiğinde erken mobilizasyon girişimlerinin fonksiyonel iyileşmeyi desteklediği, komplikasyon gelişimini azalttığı ve hastaların günlük yaşam aktivitelerine daha kısa sürede dönmelerine katkı sağladığı belirlenmiştir. Ayrıca etkin ağrı yönetimi, uyku düzeninin desteklenmesi, yeterli beslenmenin sağlanması, enerji koruma yöntemlerinin öğretilmesi ve bireyselleştirilmiş eğitimlerin uygulanmasının yorgunluk düzeyini azaltmada etkili olduğu görülmüştür. Geliştirilmiş iyileşme programlarının uygulandığı hastalarda mobilizasyon sürecinin hızlandığı, hastanede kalış süresinin azaldığı ve iyileşme kalitesinin arttığı dikkat çekmektedir. Bunun yanında rehabilitasyon destekli uygulamaların fiziksel aktiviteye katılımı artırdığı ve hastaların fonksiyonel bağımsızlıklarını olumlu yönde etkilediği belirlenmiştir.

Sonuç:Açık kalp cerrahisi hastalarında postoperatif yorgunluk, taburculuk öncesi dönemde fonksiyonel iyileşmeyi etkileyen önemli bir faktördür. Hemşirelerin yorgunluk düzeyini düzenli olarak değerlendirmesi ve bireyselleştirilmiş bakım yaklaşımlarını uygulaması, hastaların günlük yaşam aktivitelerine daha erken ve bağımsız şekilde dönmelerine katkı sağlayabilir. Klinik uygulamalarda kanıta dayalı hemşirelik girişimlerinin yaygınlaştırılması önerilmektedir.

Anahtar Kelimeler: Postoperatif yorgunluk, açık kalp cerrahisi, fonksiyonel iyileşme, günlük yaşam aktiviteleri, hemşirelik bakımı

THE IMPACT OF HEALTHCARE MANAGERS' PERSONALITY TRAITS ON EMPLOYEE MOTIVATION: A DETAILED LITERATURE REVIEW AND CONCEPTUAL ANALYSIS

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ABSTRACT

This study aims to examine the effects of health managers' personality traits on the motivation levels of healthcare employees through a literature review method. The healthcare sector represents a dynamic field where employee motivation must be sustained due to high stress, long working hours, and critical responsibilities regarding human life. In this context, the fundamental personality types and leadership approaches exhibited by managers play a decisive role in employees' intrinsic motivation and their participation in institutional processes.

Investigations conducted within the framework of the Big Five Personality Model reveal that traits such as conscientiousness, extraversion, and agreeableness observed in managers are positively associated with employee motivation. Conversely, it is observed that dark personality traits of managers, such as narcissism and Machiavellianism, disrupt employees' motivational processes and negatively affect work productivity. Furthermore, it has been determined that ethical-based approaches, such as transformational and servant leadership, contribute to the achievement of institutional goals by increasing employee motivation. This study reveals the fundamental effects of health managers' personality traits on employee motivation and offers concrete suggestions for the use of personality inventories in the processes of manager selection, training, and development.

Keywords: Healthcare Manager, Personality Traits, Employee Motivation, Big Five Personality Model, Transformational Leadership, Servant Leadership, Dark Personality Traits.

SAĞLIK YÖNETİCİLERİNİN KİŞİLİK ÖZELLİKLERİNİN ÇALIŞAN MOTİVASYONU ÜZERİNDEKİ ETKİSİ: DETAYLI BİR LİTERATÜR TARAMASI VE KAVRAMSAL ANALİZ

ÖZET

Bu çalışma, sağlık yöneticilerinin sahip olduğu kişilik özelliklerinin sağlık kurumlarında görev yapan çalışanların motivasyon düzeyleri üzerindeki etkilerini literatür taraması yöntemiyle incelemeyi amaçlamaktadır. Sağlık sektörü; yüksek stres, uzun çalışma saatleri ve insan hayatına yönelik kritik sorumluluklar içermesi nedeniyle çalışan motivasyonunun süreklilik arz etmesi gereken dinamik bir alandır. Bu bağlamda, yöneticilerin temel kişilik tipleri ve sergiledikleri liderlik yaklaşımları, çalışanların içsel motivasyonları ve kurumsal süreçlere katılımı üzerinde belirleyici bir rol oynamaktadır.

Beş Faktör Kişilik Modeli çerçevesinde yapılan incelemeler; yöneticilerde gözlemlenen sorumluluk, dışadönüklük ve uyumluluk gibi özelliklerin, çalışan motivasyonu ile pozitif yönde ilişkili olduğunu ortaya koymaktadır.

Buna karşın yöneticilerin narsisizm ve makyavelizm gibi karanlık kişilik özelliklerinin, çalışanların motivasyon süreçlerini sekteye uğrattığı ve iş verimliliğini olumsuz etkilediği görülmektedir. Ayrıca dönüşümcü ve hizmetkâr liderlik gibi etik temelli yaklaşımların, çalışanların motivasyonunu artırarak kurumsal hedeflerin gerçekleştirilmesine katkı sağladığı saptanmıştır. Bu çalışma, sağlık yöneticilerinin kişilik özelliklerinin çalışan motivasyonu üzerindeki temel etkilerini ortaya koyarak; yönetici seçimi, eğitimi ve geliştirilmesi süreçlerinde kişilik envanterlerinin kullanımına yönelik somut öneriler sunmaktadır.

Anahtar Kelimeler: Sağlık Yöneticisi, Kişilik Özellikleri, Çalışan Motivasyonu, Beş Faktör Kişilik Modeli, Dönüşümcü Liderlik, Hizmetkâr Liderlik, Karanlık Kişilik Özellikleri.

THE EFFECT OF BLACK COHOSH (*Actaea/Cimicifuga racemosa*) ON MENOPAUSAL SYMPTOMS

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ABSTRACT

Menopause is a natural biological process that usually occurs between the ages of 45 and 54, marking the decline of reproductive function. This transition can be challenging and uncomfortable for many women. During menopause, the ovaries stop producing estrogen and progesterone, while the secretion of gonadotropin hormones specifically luteinizing hormone (LH) and follicle-stimulating hormone (FSH) increases. These hormonal changes can result in vasomotor, vaginal, and psychological symptoms, such as hot flashes, tissue atrophy, sexual dysfunction, sleep disturbances, cognitive impairment (commonly referred to as brain fog), and mood changes. To alleviate these symptoms, phytotherapeutic methods within traditional, complementary, and alternative medicine are used alongside hormonal therapies. One notable phytotherapeutic option is black cohosh (*Actaea/Cimicifuga racemosa*), a perennial plant with white flowers native to North America that has been used for thousands of years to manage menopausal symptoms. Black cohosh is believed to have a serotonergic rather than estrogenic effect, making it one of the most extensively studied herbal remedies for menopause. While its benefits are well-documented, some studies have reported weight gain as a potential side effect. Meta-analyses indicate that black cohosh can be used alone or in combination with other herbal preparations. This phytotherapeutic intervention has been shown to reduce both the severity and frequency of menopausal symptoms, thereby improving the quality of life for women during this stage. Scientific interest in black cohosh continues to grow alongside the increasing use of traditional, complementary, and alternative therapies, a trend influenced by concerns among healthcare professionals and women regarding hormone replacement therapy.

Keywords: Menopause, Black cohosh, *Actaea racemosa*, phytotherapy

KARA YILAN-BLACK COHOSH (*Actaea/Cimicifuga racemosa*) OTUNUN MENOPOZ SEMPTOMLARINA ETKİSİ

ÖZET

Menopoz genellikle üreme fonksiyonlarının azalmaya başladığı 45 ile 54 yaşları arasında meydana gelen fizyolojik bir süreçtir. Menopoz, çoğu kadın için sıkıntılı ve rahatsız edici bir dönem olabilir. Bu dönemde overlerden östrojen ve progesteron üretimi dururken, gonadotropin hormonlardan luteinize edici hormon ile folikül stimulan hormon üretimi artar. Bu hormonal değişiklikler, sıcak basmaları, doku atrofisi, cinsel işlev bozukluğu, uyku bozukluğu, beyin sisi ve psikolojik değişiklikler gibi vazomotor, vajinal ve psikolojik semptomlar ile hastalıklara neden olabilir. Bu semptomları azaltmak amacıyla hormonal tedavilerin yanı sıra geleneksel ve tamamlayıcı tedaviler kapsamına giren fitoterapik yöntemler de kullanılmaktadır. Bu fitoterapik yöntemlerden biri de kara yılan otudur.

Kara yılan-black cohosh (*Actaea/Cimicifuga racemosa*) otu menopoz semptomlarının yönetilmesinde kullanılan ve kökenleri Kuzey Amerika'ya uzanan binlerce yıllık bir bitkidir. Bu bitki beyaz çiçekli ve uzun ömürlüdür. Kara yılan otu bitkisinin östrojenik değil, serotonerjik bir etkiye sahip olduğu bilinmektedir. Bu nedenle menopoz semptomlarının tedavisinde en kapsamlı şekilde incelenen bitkisel ilaçlar arasında ele alınmaktadır. Yararları saptana bu uygulamanın bazı çalışmalarda kilo alımı ile ilgili yan etkisine de vurgu yapılmaktadır. Meta-analiz çalışmalarında tek ürün olarak veya başka bitkisel ürünlerle kombine bir şekilde kullanıldığı bilinmektedir. Menopoz semptomlarının şiddetini ve sıklığını azaltan bu fitoterapik müdahalenin, kadının yeni yaşam evresi olan bu dönemdeki yaşam kalitesini de iyileştirdiği bilinmektedir. Sağlık çalışanları ve kadınların hormon replasman tedavisine olan önyargıların sonucunda geleneksel, tamamlayıcı ve alternatif yöntemlere olan ilgi ve kullanımın artması ile de kara yılan-black cohosh otuna olan bilimsel ilgi artmıştır.

Anahtar Kelimeler: Menopoz, Kara yılan otu, Black cohosh, *Actaea racemosa*, fitoterapi

MITRAL VALVE REPAIR IN ISCHEMIC MODERATE MITRAL REGURGITATION

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ABSTRACT

Objectives: Comparison of data from patients with ischemic moderate mitral regurgitation due to coronary artery disease who underwent coronary bypass surgery in addition to mitral valve repair, and from patients with ischemic moderate mitral regurgitation who underwent coronary bypass surgery alone.

Methods: This study retrospectively evaluated data from VM Medicalpark Bursa Hospital between 2013 and 2019 in a single-center study. During this period, 273 patients with ischemic moderate mitral valve regurgitation secondary to coronary artery disease – acute coronary syndrome – were included in the study. The first group (Group 1) consisted of 75 patients who underwent coronary bypass surgery along with mitral valve repair, while the second group (Group 2) consisted of 198 patients who underwent only coronary bypass surgery.

Results: Demographic differences between the two groups were as follows: Group 2 had a higher number of smokers (135 patients in Group 2 vs. 33 patients in Group 1, $p = 0.001$), while Group 1 had significantly more cases of atrial fibrillation (27 patients in Group 1 vs. 13 patients in Group 2, $p = 0.05$). There was no difference between the groups in terms of the incidence of myocardial infarction (MI) and unstable angina pectoris (USAP). Left ventricular ejection fraction (LVEF) was significantly lower in Group 1 (LVEF 30% in Group 1 vs. LVEF 38% in Group 2, $p = 0.002$). No difference was found between the groups in terms of 30-day postoperative mortality rates. Group 1 had a shorter stay in the intensive care unit (32 hours in group 1 vs. 37 hours in group 2, $p=0.05$) and a significantly shorter hospital stay (6.5 days in group 1 vs. 7.8 days in group 2, $p=0.001$).

Conclusions: Coronary artery disease patients undergoing mitral valve repair due to ischemic moderate mitral regurgitation show faster early recovery compared to those who do not undergo valve repair. Left ventricular ejection fraction improves rapidly in the early period (group 1 preoperative LVEF 30%, postoperative day 1 LVEF 42%) and positively impacts the patients' clinical condition. Mitral valve repair performed in addition to coronary bypass surgery is more beneficial in patients with acute ischemic moderate mitral regurgitation and low LVEF.

Keywords: Ischemic mitral valve insufficiency, mitral valve repair, coronary bypass surgery

İSKEMİK ORTA DERECELİ MİTRAL YETMEZLİKTE MİTRAL KAPAK ONARIMI

ÖZET

Amaç: Koroner arter hastalığına bağlı iskemik orta dereceli mitral kapak yetmezliği olan ve mitral kapak onarımı ile birlikte koroner bypass ameliyatı geçiren hastalarla, iskemik orta dereceli mitral yetersizliği olup sadece koroner bypass ameliyatı geçiren hastaların verilerinin karşılaştırılması.

Metod: Bu araştırmada 2013 - 2019 yılları arasındaki VM medicalpark Bursa hastanesi verileri tek merkez retrospektif olarak değerlendirilmiştir.

Bu dönemde, koroner arter hastalığı - akut koroner sendroma sekonder gelişen iskemik orta dereceli mitral kapak yetmezliği olan 273 hasta araştırmaya dahil edilmiştir. Birinci grup da (Grup 1) Koroner bypass ile birlikte mitral kapak onarımı operasyonu yapılan 75 hasta, ikinci grup da (Grup 2) sadece koroner bypass ameliyatı yapılan 198 hastada vardı.

Sonuçlar: İki grup arasında demografik farklar; Grup 2'de sigara içenlerin sayısı daha yüksek saptanırken(grup 2 de 135 hastaya karşı grup 1 de 33 hasta, $p = 0.001$), Grup 1'de atriyal fibrilasyon vakaları anlamlı derecede daha fazlaydı (grup 1 de 27 hastaya karşı grup 2 de 13 hasta $p = 0.05$). Miyokard infarktüsü (MI) ve karasız anjina pectoris (USAP) insidansı açısından gruplar arasında fark yoktu. Sol ventrikül ejeksiyon fraksiyonu (LVEF) Grup 1'de anlamlı derecede daha düşüktü (Grup1 de LVEF %30 , grup 2 de LVEF %38, $p=0.002$).Ameliyat sonrası 30 günlük ölüm oranları açısından gruplar arasında fark saptanmadı. Grup 1'in yoğun bakım ünitesinde kalış süresi daha kısa(grup 1 de 32 saat grup 2 de 37 saat, $p=0.05$) ve hastanede kalış süresi anlamlı derecede daha kısaydı (Grup 1 de 6.5 gün grup 2 de 7.8 gün $p=0.001$).

Öneriler: İskemik orta dereceli mitral yetmezliği nedeniyle mitral kapak onarımı geçiren koroner arter hastalarında kapak onarımı yapılmayanlara kıyasla erken dönemde daha hızlı bir iyileşme gözlenmiştir. Sol ventrikül ejeksiyon fraksiyonu erken dönemde hızla düzelir (grup 1 preoperatif LVEF %30, postoperatif birinci gün LVEF %42) ve hastaların klinik durumuna olumlu etki eder. Koroner bypass operasyonuna ek olarak yapılan mitral kapak onarımı, akut iskemik orta derecede mitral kapak yetmezliği olan ve düşük LVEF'ye sahip hastalarda daha faydalıdır.

Anahtar Kelimeler: İskemik mitral kapak yetmezliği, mitral kapak tamiri, koroner bypass cerrahisi

COMFORT IN END-OF-LIFE CARE

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ABSTRACT

End-of-life care is a holistic approach aimed at preserving individuals' dignity, well-being, and quality of life. The increasing life expectancy and prevalence of chronic diseases have heightened the importance of care needs in the end-of-life period. Particularly in patients with advanced-stage diseases, the disease trajectory, ongoing treatments, and complex care requirements may negatively affect comfort levels. According to Katherine Kolcaba's Comfort Theory, comfort is considered a multidimensional concept consisting of physical, psychospiritual, environmental, and sociocultural dimensions. Ensuring comfort in end-of-life care includes not only the effective management of physical symptoms such as pain, dyspnea, fatigue, and sleep disturbances, but also addressing individuals' emotional, social, and spiritual needs. In addition, effective communication, empathetic approaches, family support, and cultural sensitivity are emphasized as important factors influencing psychospiritual and sociocultural comfort. Quiet, safe, and privacy-supportive care environments are also considered essential components of environmental comfort. This review aims to examine the concept of comfort in end-of-life care within the framework of Kolcaba's Comfort Theory through its physical, psychospiritual, sociocultural, and environmental dimensions, and to evaluate nursing approaches aimed at enhancing comfort. In conclusion, improving comfort in end-of-life care is considered possible through individualized care, a multidisciplinary approach, effective communication, and family involvement, all of which may contribute to patients experiencing the final stage of life in a more peaceful, meaningful, and dignified manner.

Keywords: Comfort, End-of-life care, Nursing care, Palliative care, Kolcaba's Comfort Theory

YAŞAM SONU BAKIMDA KONFOR

ÖZET

Yaşam sonu bakım, bireyin onurunu, refahını ve yaşam kalitesini korumayı amaçlayan bütüncül bir bakım yaklaşımıdır. Yaşam süresinin uzaması ve kronik hastalıkların artması, yaşam sonu dönemdeki bireylerin bakım gereksinimlerinin önemini artırmıştır. Özellikle ileri evre hastalarda hastalık süreci, uygulanan tedaviler ve karmaşık bakım gereksinimleri konfor düzeyini olumsuz etkileyebilmektedir. Katherine Kolcaba'nın Konfor Kuramı doğrultusunda konfor; fiziksel, psikospiritüel, çevresel ve sosyokültürel boyutlardan oluşan çok yönlü bir kavram olarak değerlendirilmektedir. Yaşam sonu bakımda konforun sağlanması; ağrı, dispne, yorgunluk ve uyku problemleri gibi fiziksel semptomların etkin yönetiminin yanı sıra bireyin duygusal, sosyal ve spiritüel gereksinimlerinin karşılanması da kapsamaktadır. Ayrıca etkili iletişim, empatik yaklaşım, aile desteği ve kültürel duyarlılığın psikospiritüel ve sosyokültürel konfor üzerinde önemli etkileri olduğu vurgulanmaktadır. Sessiz, güvenli ve mahremiyeti destekleyen bakım ortamları ise çevresel konforun temel bileşenleri arasında yer almaktadır.

Bu derlemenin amacı, yaşam sonu bakımında konfor kavramını Kolcaba'nın Konfor Kuramı doğrultusunda fiziksel, psikospiritüel, sosyokültürel ve çevresel boyutlarıyla incelemek ve konforun artırılmasına yönelik hemşirelik yaklaşımlarını değerlendirmektir. Sonuç olarak yaşam sonu bakımında konforun artırılmasının; bireyselleştirilmiş bakım, multidisipliner yaklaşım, etkili iletişim ve aile katılımı ile mümkün olduğu ve bu yaklaşımın hastaların yaşamlarının son dönemini daha huzurlu, anlamlı ve onurlu geçirmelerine katkı sağlayacağı öngörülmektedir

Anahtar Kelimeler: Hemşirelik bakımı, Kolcaba Konfor Kuramı, Konfor, Palyatif bakım, Yaşam sonu bakım

THE CLASSROOM REFLECTIONS OF THE MAARIF MODEL: AN AUTOETHNOGRAPHY IN 6TH GRADE MATHEMATICS TEACHING

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ABSTRACT

Teachers are the fundamental actors who support the development of individuals' knowledge, skills, attitudes, and values; and who plan, implement, and direct the education and training process. The Turkish Century Education Model, which began to be implemented gradually from the 2024-2025 academic year, aims to equip students not only with knowledge but also with skills and values; and in this direction, it redefines the roles and responsibilities of teachers. This model requires teachers to adapt to the changing understanding of teaching and to effectively involve students in this process.

The aim of this research is to examine the teacher's adaptation to the new teaching process and the student reactions and behaviors that emerged in this process, in line with the Numbers and Quantities theme (decomposition in decimal representations, fraction-division relationship, and length measurement units) of the 6th grade mathematics lesson within the scope of the Education Model.

The research was conducted with a qualitative approach, and the autoethnography design from narrative research was used. The participant of the study is a teacher who is also the researcher and teaches mathematics at the 6th grade level. Data collection tools consist of teacher diaries, application notes, student activities, classroom observations, lesson plans, and teaching materials. The obtained data were analyzed using the content analysis method.

The findings of the research are expected to contribute to teachers' adaptation processes to the new curriculum and mathematics teaching practices by revealing teachers' experiences regarding the classroom applications of the Maarif Model. "In this respect, the study offers a unique contribution to the literature on evaluating program applications in mathematics teaching through teachers' experiences."

Keywords: Teacher, Turkish Century Maarif Model, Teacher experiences, 6th grade Numbers and Quantities

MAARİF MODELİ'NİN SINIF İÇİ YANSIMALARI: 6. SINIF MATEMATİK ÖĞRETİMİNDE BİR OTOETNOGRAFI

ÖZET

Öğretmenler, bireylerin bilgi, beceri, tutum ve değer gelişimini destekleyen; eğitim-öğretim sürecini planlayan, uygulayan ve yönlendiren temel aktörlerdir. 2024-2025 eğitim-öğretim yılından itibaren kademeli olarak uygulanmaya başlanan Türkiye Yüzyılı Maarif Modeli, öğrencilerin yalnızca bilgi değil, aynı zamanda beceri ve değerlerle donatılmasını hedeflemekte; bu doğrultuda öğretmenlerin rol ve sorumluluklarını yeniden tanımlamaktadır. Bu model, öğretmenlerin değişen öğretim anlayışına uyum sağlamasını ve öğrencileri bu süreçte etkin biçimde dahil etmesini gerektirmektedir.

Bu araştırmanın amacı, Maarif Modeli kapsamında 6. sınıf matematik dersi Sayılar ve Nicelikler teması (ondalık gösterimlerde çözümleme, kesir-bölme ilişkisi ve uzunluk ölçme birimleri) doğrultusunda öğretmenin yeni öğretim sürecine uyumunu ve bu süreçte ortaya çıkan öğrenci tepki ve davranışlarını incelemektir.

Araştırma nitel bir yaklaşımla yürütülmüş olup, anlatı araştırmalarından otoetnografi deseni kullanılmıştır. Çalışmanın katılımcısı, aynı zamanda araştırmacı olan ve 6. sınıf düzeyinde matematik dersi veren öğretmendir. Veri toplama araçları öğretmen günlükleri, uygulama notları, öğrenci etkinlikleri, sınıf içi gözlemler, ders planları ve ders materyallerinden oluşmaktadır. Elde edilen veriler içerik analizi yöntemiyle çözümlenmiştir.

Araştırmadan elde edilen bulguların, Maarif Modeli'nin sınıf içi uygulamalarına ilişkin öğretmen deneyimlerini ortaya koyarak, öğretmenlerin yeni müfredata uyum süreçlerine ve matematik öğretimi uygulamalarına katkı sağlaması beklenmektedir.

"Bu yönüyle çalışma, matematik öğretiminde program uygulamalarının öğretmen deneyimleri üzerinden değerlendirilmesine yönelik literatüre özgün bir katkı sunmaktadır."

Anahtar Kelimeler: Öğretmen, Türkiye Yüzyılı Maarif Modeli, Öğretmen deneyimleri, 6.sınıf Sayılar ve Nicelikler

TEACHING GEOMETRIC SHAPES FROM THE PERSPECTIVE OF A MATHEMATICS TEACHER: AN AUTOETHNOGRAPHIC STUDY ON THE MAARIF MODEL

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ABSTRACT

Teachers are key actors in the teaching process, planning and directing, supporting student development, and structuring learning experiences by adapting to changing curricula. Understanding the reflections of the new roles assigned to teachers with the Turkish Century Education Model in the classroom is important for evaluating the effectiveness of the program. The aim of this research is to examine the reflections of the model in classroom applications from the teacher's perspective by revealing the personal and professional experiences of a mathematics teacher in conducting the 5th-grade geometric shapes theme in accordance with the Education Model. The research was conducted using a qualitative approach, employing an autoethnography design from narrative research. The participant in the study is a mathematics teacher who is also the researcher and who conducted the 5th-grade geometric shapes theme. The data source consists of the teacher's lesson diaries and reflective personal narratives kept throughout the process. The obtained data were analyzed using thematic content analysis method. The research findings show that the teacher assumed a planning, directing, and student-centered role in accordance with the Education Model; and that activities aimed at concretization, relating to daily life, and increasing student participation supported students' conceptual understanding. However, it was determined that some challenges were encountered during the implementation process, such as time management and classroom flexibility. Furthermore, it was observed that lesson diaries and reflective narratives increased the teacher's professional awareness and contributed to the development of a critical perspective on the teaching process. In conclusion, the study reveals that the classroom reflections of the Maarif Model can be understood in depth through teachers' experiences, and that the autoethnographic approach is an effective method supporting teachers' professional development.

Keywords: Teacher, Turkish Century Maarif Model, Teacher experiences, 5th grade geometric shapes

BİR MATEMATİK ÖĞRETMENİNİN GÖZÜNDEN GEOMETRİK ŞEKİLLER ÖĞRETİMİ: MAARİF MODELİ ÜZERİNE OTOETNOGRAFİK BİR ÇALIŞMA

ÖZET

Öğretmenler, öğretim sürecini planlayan, yönlendiren, öğrenci gelişimini destekleyen ve değişen öğretim programlarına uyum sağlayarak öğrenme deneyimlerini yapılandıran temel aktörlerdir. Türkiye Yüzyılı Maarif Modeli ile birlikte öğretmenlere yüklenen yeni rollerin sınıf içindeki yansımalarının anlaşılması, programın etkililiğinin değerlendirilmesi açısından önem taşımaktadır. Bu araştırmanın amacı, bir matematik öğretmenin 5. sınıf geometrik şekiller temasını Maarif Modeli doğrultusunda yürütme sürecinde yaşadığı kişisel ve mesleki deneyimleri ortaya koyarak, modelin sınıf içi uygulamalardaki yansımalarını öğretmen bakış açısıyla incelemektir. Araştırma, nitel bir yaklaşımla yürütülmüş olup anlatı araştırmalarından otoetnografi deseni kullanılmıştır. Çalışmanın katılımcısı, aynı zamanda araştırmacı olan ve 5. sınıf geometrik şekiller temasını yürüten matematik öğretmenidir. Veri kaynağını öğretmenin süreç boyunca tuttuğu ders günlükleri ve yansıtıcı kişisel anlatılar oluşturmaktadır. Elde edilen veriler tematik içerik analizi yöntemiyle çözümlenmiştir. Araştırma bulguları, öğretmenin Maarif Modeli doğrultusunda planlayıcı, yönlendirici ve öğrenci merkezli bir rol üstlendiğini; somutlaştırma, günlük yaşamla ilişkilendirme ve öğrenci katılımını artırmaya yönelik etkinliklerin öğrencilerin kavramsal anlamalarını desteklediğini göstermektedir. Bununla birlikte, uygulama sürecinde zaman yönetimi ve sınıf içi esneklik gibi bazı zorluklarla karşılaşıldığı belirlenmiştir. Ayrıca, ders günlükleri ve yansıtıcı anlatıların öğretmenin mesleki farkındalığını artırdığı ve öğretim sürecine eleştirel bir bakış geliştirmesine katkı sağladığı görülmüştür. Sonuç olarak, çalışma Maarif Modeli'nin sınıf içi yansımalarının öğretmen deneyimleri üzerinden derinlemesine anlaşılabilirliğini ve otoetnografik yaklaşımın öğretmenlerin mesleki gelişimini destekleyen etkili bir yöntem olduğunu ortaya koymaktadır.

Anahtar Kelimeler: Öğretmen, Türkiye Yüzyılı Maarif Modeli, Öğretmen deneyimleri, 5. sınıf geometrik şekiller

EXAMINING SCHOOL ADMINISTRATORS' EMOTIONAL INTELLIGENCE SKILLS WITHIN THE FRAMEWORK OF GOLEMAN'S EMOTIONAL INTELLIGENCE MODEL

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ABSTRACT

The aim of this study is to examine school administrators' emotional intelligence skills based on teachers' and administrators' perspectives and to reveal how these skills are reflected in the school climate. The study was conducted within a qualitative research approach using a phenomenological design. The study group consists of teachers and school administrators working in different schools. Data were collected through semi-structured interviews, and both content analysis and thematic analysis methods were employed in the data analysis process.

In this study, school administrators' emotional intelligence skills were examined within the dimensions of self-awareness, self-regulation, motivation, empathy, and social skills. The findings indicate that these skills become more visible particularly in stressful and crisis situations; however, they are not consistently demonstrated in daily communication processes. It was found that self-awareness and self-regulation influence administrators' communication styles and decision-making processes, while empathy and social skills play a crucial role in shaping the quality of relationships with teachers. The results also reveal that administrators' motivation levels have a direct impact on the overall school atmosphere and that social and emotional competencies play a significant role in the formation of school climate. In environments where empathetic and supportive leadership approaches are adopted, a climate based on trust and open communication tends to emerge. In contrast, when emotional intelligence skills are limited, communication breakdowns and a decline in trust may occur.

In conclusion, it was found that school administrators' emotional intelligence skills have a significant impact on school climate and organizational relationships, and that efforts to develop these skills through training and practical applications should be supported.

Keywords: Emotional intelligence, school administrators, school climate, teacher perspectives, administrator perspectives

GOLEMAN'IN DUYGUSAL ZEKÂ MODELİ ÇERÇEVESİNDE OKUL YÖNETİCİLERİNİN DUYGUSAL ZEKÂ BECERİLERİNİN İNCELENMESİ

ÖZET

Bu araştırmanın amacı, okul yöneticilerinin duygusal zekâ becerilerini öğretmen ve yönetici görüşlerine dayalı olarak incelemek ve bu becerilerin okul iklimine yansımalarını ortaya koymaktır. Araştırma nitel araştırma yaklaşımı çerçevesinde fenomenoloji deseninde yürütülmüştür. Çalışma grubunu farklı okullarda görev yapan öğretmenler ve okul yöneticileri oluşturmaktadır. Veriler yarı yapılandırılmış görüşmeler yoluyla toplanmış; verilerin analizinde içerik analizi ile birlikte tematik analiz yöntemleri kullanılmıştır.

Araştırmada okul yöneticilerinin duygusal zekâ becerileri öz farkındalık, öz denetim, motivasyon, empati ve sosyal beceriler boyutları çerçevesinde incelenmiştir. Bulgular, yöneticilerin duygusal zekâ becerilerinin özellikle kriz ve stres durumlarında daha belirgin hâle geldiğini, ancak bu becerilerin günlük iletişim süreçlerinde her zaman aynı düzeyde sergilenemediğini göstermektedir. Öz farkındalık ve öz denetim becerilerinin yöneticilerin iletişim tarzını ve karar alma süreçlerini etkilediği; empati ve sosyal becerilerin ise öğretmenlerle kurulan ilişkilerin niteliğini belirlediği anlaşılmaktadır. Araştırma sonuçları ayrıca yöneticilerin motivasyon düzeylerinin okul atmosferi üzerinde etkili olduğunu ve sosyal-duygusal becerilerin okul ikliminin oluşumunda önemli bir rol oynadığını ortaya koymaktadır. Empatik ve destekleyici liderlik yaklaşımının bulunduğu ortamlarda güvene dayalı ve açık iletişimin geliştiği; buna karşılık duygusal zekâ becerilerinin sınırlı kaldığı durumlarda iletişimde zayıflama ve güven kaybı yaşanabildiği görülmektedir.

Sonuç olarak, okul yöneticilerinin duygusal zekâ becerilerinin okul iklimi ve örgütsel ilişkiler üzerinde önemli bir etkiye sahip olduğu ve bu becerilerin geliştirilmesine yönelik eğitim ve uygulamaların desteklenmesi gerektiği sonucuna ulaşılmıştır.

Anahtar Kelimeler: Duygusal zekâ, okul yöneticileri, okul iklimi, öğretmen görüşleri, yönetici görüşleri

FROM DYSTOPIAN BILLBOARDS TO GRAMMAR POLICE: EFL TEACHER CANDIDATES' NAVIGATION OF AI-GENERATED FICTIONAL LINGUISTIC LANDSCAPES

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ABSTRACT

This phenomenological study examines how two English as a Foreign Language (EFL) teacher candidates experienced the design and implementation of fictional linguistic landscape (FLL) materials using generative AI within a 4-week teaching practice module during the 2025–2026 Fall semester. Drawing on two distinct fictional universes—a dystopian cyberpunk film (*Blade Runner 2049*) and a fantasy classroom setting ("Grammar Police" and "Elf Classroom")—participants created AI-generated visual materials (a billboard and two educational posters), implemented them in K-12 settings, and documented their experiences through reflection journals and design process maps. Content analysis revealed four essential themes: (a) fictional worlds as catalysts for critical language awareness, (b) the dual role of AI as an idea accelerator and a quality filter, (c) the transformation of abstract grammar into tangible visual narratives, and (d) professional identity shifts from material consumer to material designer. The findings demonstrate that even brief, structured engagement with AI-supported FLL design can foster significant professional learning, particularly in developing critical AI literacy and design agency. The study offers practical implications for integrating FLL pedagogy into time-constrained teacher education programs.

Keywords: Fictional linguistic landscapes, generative AI, EFL teacher education, grammar instruction

DEVELOPMENT OF AN ACHIEVEMENT TEST FOR THE "GEOMETRY" UNIT OF THE 4TH GRADE PRIMARY SCHOOL MATHEMATICS COURSE: A VALIDITY AND RELIABILITY STUDY

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ABSTRACT

The purpose of this study is to develop a valid and reliable achievement test to assess the learning outcomes of the "Geometry" unit in the 4th-grade primary school mathematics curriculum and to examine the psychometric properties of the developed test. Within the topic of "Geometric Solids and Shapes," the study aims to assess students' ability to name the sides and vertices of triangles, squares, and rectangles, as well as to construct a cube given its net. Additionally, under the heading "Basic Concepts in Geometry," the objectives include recognizing the concept of a plane and identifying types of angles (right, acute, obtuse) and measuring angles using standard tools. Finally, within the scope of "Spatial Relationships," determining the axis of symmetry and drawing the symmetrical image of a shape are among the other objectives.

In line with the stated objectives and goals, both qualitative and quantitative data were used in the development of the achievement test to enhance its validity and reliability. In the first phase, an item pool was created using the document review technique.

In the second phase, quantitative data regarding the item pool were obtained through a survey research design. To ensure content validity, a four-stage expert review process was conducted involving mathematics education specialists, classroom teachers, and faculty members. Following the expert reviews, necessary revisions were made to finalize the test prior to the pilot application. Data were collected from 247 students attending a public school during the 2025–2026 academic year, selected using an appropriate sampling method. The test was designed for 4th-grade level; however, since these students had not yet covered the relevant topic, the pilot study was conducted with 5th-grade students who had learned the topic the previous year. As a result of the pilot study, the item difficulty and item discrimination indices of the achievement test were calculated. Following the item analyses, reliability analyses were conducted using the remaining items. Given that the items included in the final achievement test had varying levels of difficulty, the test's reliability was calculated using the KR-20 formula. Additionally, the fact that the data are self-reported and collected from individuals with similar characteristics within the same timeframe poses a threat of common method variance. To assess this risk, Harman's single-factor test was applied; the common variance of all variables observed in the unrotated factor solution was examined.

The results of the pilot test showed that the arithmetic mean of the test was 18.67 and the standard deviation was 5.19. The skewness and kurtosis values indicated that the data were normally distributed (Skewness = .65; Kurtosis = .46). Furthermore, the average item difficulty was calculated as .69, and the average item discrimination as .45. As a result of item analyses, 7 items identified as very easy were removed from the test. The 2 items found to have insufficient discrimination power were revised. The KR-20 coefficient calculated using the remaining 20 items was found to be .74, and it was determined that the test possesses an acceptable level of reliability. The items included in the final version were grouped under three categories: "Basic Concepts in Geometry" (45%, n=9), "Spatial Relationships" (30%, n=6), and "Geometric Solids and Shapes" (25%, n=5). Additionally, the results of Harman's single-factor test for common method variance indicated that the total variance attributable to a single factor was 20.53%. Since this value is significantly below the 50% upper limit accepted in the literature, it was concluded that there is no serious threat to the data arising from common method variance. All these findings demonstrate that the developed achievement test serves as a valid and reliable measurement tool for assessing the learning outcomes of the 4th-grade Geometry unit in primary school.

Keywords: Achievement test, Test development, Mathematics, Geometry, Primary school, Validity, Reliability.

İLKOKUL 4. SINIF MATEMATİK DERSİNİN "GEOMETRİ" ÜNİTESİ İÇİN BİR BAŞARI TESTİ GELİŞTİRİLMESİ: GEÇERLİK VE GÜVENİRLİK ÇALIŞMASI

ÖZET

Bu çalışmanın amacı, ilkokul 4. sınıf Matematik dersi öğretim programında yer alan "Geometri" ünitesinin kazanımlarını ölçmeye yönelik geçerli ve güvenilir bir başarı testi geliştirmek ve geliştirilen testin psikometrik özelliklerini incelemektir. Söz konusu üniteye yer alan "Geometrik Cisimler ve Şekiller" isimli konuyla; üçgenin, karenin, dikdörtgenin kenar ve köşe özelliklerinin isimlendirilmesi, açınımı verilen küpün oluşturulması hedeflenmiştir. Ayrıca "Geometride Temel Kavramlar" başlığı altında; düzlem ve açı türlerinin (dik, dar, geniş) tanınması, açıların standart araçlarla ölçülmesi diğer hedefleri oluşturmuştur. Son olarak, "Uzamsal İlişkiler" kapsamında, simetri doğrusunun belirlenerek şeklin simetriğinin çizilmesi diğer hedefler arasında yer almıştır.

Belirtilen amaç ve hedefler doğrultusunda, başarı testi geliştirilirken nitel ve nicel veriler bir arada kullanılarak testin geçerlik ve güvenirliği güçlendirilmiştir.

Birinci aşamada, doküman incelemesi tekniği kullanılarak madde havuzu oluşturulmuştur. İkinci aşamada ise tarama tekniğinden yararlanılarak madde havuzuna yönelik nicel verilere ulaşılmıştır. Kapsam geçerliğini sağlamak amacıyla matematik eğitimi uzmanları, sınıf öğretmenleri ve öğretim üyelerinden oluşan dört aşamalı bir uzman görüşü süreci yürütülmüştür. Uzman görüşlerinin ardından gerekli düzeltmeler yapılarak teste pilot uygulama öncesi son hali verilmiştir. Veriler, uygun örnekleme yöntemine göre belirlenen ve 2025-2026 eğitim-öğretim yılında bir devlet okulunda öğrenim görmekte olan 247 öğrenciden toplanmıştır. Test 4. sınıf düzeyi için hazırlanmış; ancak bu öğrencilerin ilgili konuyu henüz görmemiş olması nedeniyle uygulama, konuyu bir önceki yıl öğrenmiş 5. sınıf öğrencileriyle gerçekleştirilmiştir. Pilot uygulama sonucunda başarı testinin madde güçlük ile madde ayırt edicilik indeksleri hesaplanmıştır. Madde analizlerinin ardından geriye kalan maddelerle testin güvenirlik analizleri yapılmıştır. Son aşamadaki başarı testinde yer alan maddelerin birbirinden farklı güçlük düzeylerine sahip olması göz önüne alınarak testin güvenirliği, KR-20 formülü aracılığıyla hesaplanmıştır. Ayrıca verilerin öz-bildirime dayalı olması ve aynı zaman diliminde benzer özellikler taşıyan kişilerden toplanması, ortak yöntem varyansı tehdidini doğurmaktadır. Bu riski sınamak amacıyla Harman'ın tek faktör testi uygulanmış; döndürülmemiş faktör çözümünde gözlenen tüm değişkenlere ait ortak varyans incelenmiştir.

Pilot formun uygulanması sonucunda testin aritmetik ortalamasının 18.67, standart sapmasının ise 5.19 olduğu görülmüştür. Skewness ve Kurtosis değerleri, verilerin normal dağıldığını göstermiştir (Skewness=.65; Kurtosis=.46). Bununla birlikte, ortalama madde güçlüğü .69, ortalama madde ayırt ediciliği .45 olarak hesaplanmıştır. Madde analizleri sonucunda çok kolay olduğu tespit edilen 7 madde testten çıkarılmıştır. Ayırt ediciliği yetersiz bulunan 2 madde ise düzenlenmiştir. Geriye kalan 20 maddeyle hesaplanan KR-20 katsayısı .74 olarak bulunmuş ve testin kabul edilebilir düzeyde güvenirliğe sahip olduğu belirlenmiştir. Nihai formda yer alan maddeler “Geometride Temel Kavramlar” (%45, n=9), “Uzamsal İlişkiler” (%30, n=6), “Geometrik Cisimler ve Şekiller” (%25, n=5) olmak üzere üç boyut altında toplanmıştır. Buna ek olarak ortak yöntem varyansına ilişkin yapılan Harman'ın tek faktör testi sonucunda tek faktöre ait toplam varyansın %20.53 olduğu görülmüştür. Bu değer alanyazında üst sınır olarak kabul edilen %50'nin belirgin biçimde altında kalması nedeniyle, verilerde ortak yöntem varyansı kaynaklı ciddi bir tehdidin bulunmadığı sonucuna varılmıştır. Elde edilen tüm bu bulgular, geliştirilen başarı testinin ilkökul 4. sınıf Geometri ünitesi kazanımlarını ölçmeye yönelik geçerli ve güvenilir bir ölçme aracı niteliği taşıdığını ortaya koymuştur.

Anahtar Kelimeler: Başarı testi, Test geliştirme, Matematik, Geometri, İlkokul, Geçerlik, Güvenirlik.

INVESTIGATING THE RELATIONSHIP BETWEEN MIDDLE SCHOOL STUDENTS' AWARENESS OF ENVIRONMENTAL EDUCATION CONCEPTS AND THEIR ATTITUDES TOWARDS ENVIRONMENTAL PROBLEMS: A DEMOGRAPHIC ANALYSIS

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ABSTRACT

Today, the most effective way to combat the global environmental crisis, which has intensified due to industrialization and rapid population growth, is for individuals to be raised as environmentally literate at an early age. The primary objective of this research is to investigate the relationship between middle school students' awareness levels of basic environmental education concepts—such as global warming, the greenhouse effect, and renewable energy—and the attitudes they develop toward environmental problems. Furthermore, the study aims to determine whether these two fundamental components show significant differences based on various demographic variables, including gender, academic achievement, family education, and income level. The research employs the correlational survey model, one of the quantitative research methods. The sample of the study consists of a total of 400 7th and 8th-grade middle school students studying in Istanbul during the 2025-2026 academic year. A "Personal Information Form," the "Environmental Education Concepts Awareness Scale," and the "Attitude Scale Toward Environmental Problems" were utilized as data collection tools. The collected data is currently in the analysis phase using the SPSS software package. The expected results of the research suggest a positive and significant relationship between students' awareness of environmental education concepts and their attitudes toward environmental issues. Additionally, it is anticipated that family education level and achievement in science will play a decisive role in both awareness and attitudes. It is believed that the findings to be obtained will contribute to environmental education strategies at the middle school level and help fill the gap in the literature.

Keywords: Environmental Education, Awareness, Environmental Attitude, Middle School Students.

ORTAOKUL ÖĞRENCİLERİNİN ÇEVRE EĞİTİMİ KAVRAMLARI FARKINDALIKLARI İLE ÇEVRE SORUNLARINA YÖNELİK TUTUMLARI ARASINDAKİ İLİŞKİNİN DEMOGRAFİK DEĞİŞKENLER AÇISINDAN İNCELENMESİ

ÖZET

Günümüzde sanayileşme ve hızlı nüfus artışı ile etkisini artıran küresel çevre kriziyle mücadelenin en etkili yolu, bireylerin erken yaşlarda çevre okuryazarı olarak yetişmesidir. Bu araştırmanın temel amacı, ortaokul öğrencilerinin küresel ısınma, sera etkisi ve yenilenebilir enerji gibi temel çevre eğitimi kavramlarına yönelik farkındalık düzeyleri ile çevre sorunlarına karşı geliştirdikleri tutumlar arasındaki ilişkiyi incelemektir.

Çalışma ayrıca bu iki temel unsurun cinsiyet, akademik başarı, aile eğitim ve gelir düzeyi gibi çeşitli demografik değişkenlere göre anlamlı bir farklılık gösterip göstermediğini belirlemeyi hedeflemektedir. Araştırmada nicel araştırma yöntemlerinden ilişkisel tarama modeli kullanılmıştır. Çalışmanın örneklemini 2025-2026 eğitim-öğretim yılında İstanbul ilinde öğrenim gören toplam 400 ortaokul 7. ve 8. sınıf öğrencisi oluşturmaktadır. Veri toplama aracı olarak "Kişisel Bilgi Formu", "Çevre Eğitimi Kavramları Farkındalık Ölçeği" ve "Çevre Sorunlarına Yönelik Tutum Ölçeği" kullanılmıştır. Toplanan veriler SPSS paket programı kullanılarak analiz aşamasındadır. Araştırmanın beklenen sonuçları, öğrencilerin çevre eğitimi kavramlarına yönelik farkındalık düzeyleri ile çevre sorunlarına yönelik tutumları arasında pozitif yönlü ve anlamlı bir ilişki çıkacağı şeklindedir. Ayrıca aile eğitim düzeyi ve fen bilgisi başarısının hem farkındalık hem de tutum üzerinde belirleyici bir rol oynayacağı tahmin edilmektedir. Elde edilecek bulguların ortaokul düzeyindeki çevre eğitimi stratejilerine ve literatürdeki boşluğun doldurulmasına katkı sağlayacağı düşünülmektedir.

Anahtar Kelimeler: Çevre Eğitimi, Farkındalık, Çevresel Tutum, Ortaokul Öğrencileri

ANALYSIS OF SOCIAL-EMOTIONAL LEARNING SKILLS IN THE TURKEY CENTURY EDUCATION MODEL SCIENCE CURRICULUM

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ABSTRACT

The Turkey Century Education Model centralizes the "Holistic Model" philosophy, which treats the student as a whole in mental, spiritual, and social terms. The aim of this study is to analyze the distribution of Social-Emotional Learning Skills (SEC) in the 5th-8th grade Science Curriculum through their spiral relationship with grade levels, subject areas, and other skill categories. Document analysis, one of the qualitative research methods, was used in the research. The Science Course Teaching Program (SCTP), which has been implemented gradually starting from the 2024-2025 academic year, was taken as the data source. A total of 123 SEC data points identified in the program were analyzed according to the categories of Self (SEC1), Social Life (SEC2), and Common Combined (SEC3), which are inherent in the program's own structural framework. The interaction of skills was analyzed through the "Co-Occurrence Coefficient," which measures the level of spirality.

Research findings reveal that SEC2 Social Life Skills are the dominant category in the program with a rate of 50.4%. When grade levels are examined, it has been determined that the SEC frequency shows a gradual and steady increase from the 5th grade ($f=27$) to the 8th grade ($f=35$). According to the relational analysis results, the full synchronization of SEC with literacy (1.03) and the intense social emphasis on field skills (1.52) prove that the Maarif Model constructs science practices as social learning areas. The relationship of SEC with affective tendencies (0.70) confirms that the model prioritizes character building before skill acquisition. In terms of subject areas, the "Environment" discipline stands out as the most inclusive area containing all SEC sub-skills. Consequently, it is observed that the curriculum does not treat SEC as an independent component but designs it spirally to be intertwined with other skills expected to be acquired in science education. Based on the findings obtained, various suggestions have been made for the development of the program.

Keywords: Turkey Century Education Model, Science Curriculum, Social-Emotional Skills, Spiral Analysis, Holistic Education.

TÜRKİYE YÜZYILI MAARİF MODELİ FEN BİLİMLERİ DERSİ ÖĞRETİM PROGRAMINDA YER ALAN SOSYAL DUYGUSAL ÖĞRENME BECERİLERİNİN ANALİZİ

ÖZET

Türkiye Yüzyılı Maarif Modeli, öğrenciyi zihinsel, ruhsal ve sosyal açılardan bir bütün olarak ele alan "Bütüncül Model" felsefesini merkeze almaktadır.

Bu çalışmanın amacı, 5-8. sınıf Fen Bilimleri Öğretim Programı'nda yer alan Sosyal-Duygusal Öğrenme Becerilerinin (SDB) dağılımını; sınıf düzeyleri, konu alanları ve diğer beceri kategorileriyle olan sarmallık ilişkisi üzerinden analiz etmektir. Araştırmada nitel araştırma yöntemlerinden doküman analizi kullanılmıştır. Çalışmada veri kaynağı olarak 2024-2025 öğretim yılından itibaren kademeli olarak uygulanmaya başlanan Fen Bilimleri Dersi Öğretim Programı (FBDÖP) esas alınmıştır. Programda tespit edilen 123 SDB verisi; programın kendi yapısal kurgusunda yer alan Benlik (SDB1), Sosyal Yaşam (SDB2) ve Ortak Birleşik (SDB3) kategorilerine göre analiz edilmiştir. Becerilerin etkileşimi ise sarmallık düzeyini ölçen "Birlikte Verilme Katsayısı" üzerinden çözümlenmiştir.

Araştırma bulguları, programda SDB2 Sosyal Yaşam Becerilerinin %50,4'lük oranla baskın kategori olduğunu ortaya koymaktadır. Sınıf düzeyleri incelendiğinde, SDB frekansının 5. sınıftan (f=27) 8. sınıfa (f=35) kadar kademeli ve istikrarlı bir artış gösterdiği saptanmıştır. İlişkisel analiz sonuçlarına göre; SDB'nin okuryazarlıkla (1,03) sergilediği tam senkronizasyon ve alan becerileri (1,52) üzerindeki yoğun sosyal vurgu, Maarif Modeli'nin Fen uygulamalarını birer sosyal öğrenme alanı olarak kurguladığını kanıtlamaktadır. SDB'nin duyuşsal eğilimlerle olan ilişkisi (0,70) ise modelin beceri ediniminden önce karakter inşasına öncelik verdiğini doğrulamaktadır. Konu alanları özelinde "Çevre" disiplini, tüm SDB alt becerilerini barındıran en kapsayıcı alan olarak öne çıkmaktadır. Sonuç olarak müfredatın, SDB'yi bağımsız bir bileşen olarak ele almadığı, Fen eğitiminde kazandırılması beklenen diğer beceriler ile iç içe olacak şekilde sarmal olarak tasarladığı görülmektedir. Elde edilen bulgular doğrultusunda programın geliştirilmesine yönelik çeşitli önerilerde bulunulmuştur.

Anahtar Kelimeler: Türkiye Yüzyılı Maarif Modeli, Fen Bilimleri Müfredatı, Sosyal-Duygusal Öğrenme Becerileri, Sarmallık Analizi, Bütüncül Eğitim.

ATTITUDES OF TEACHERS AND STUDENTS TOWARDS ARTIFICIAL INTELLIGENCE IN TÜRKİYE: A SYSTEMATIC REVIEW AND CONTENT ANALYSIS OF GRADUATE THESES

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ABSTRACT

With the widespread adoption of artificial intelligence applications, the impact of the attitudes developed by students and teachers toward these technologies on educational processes is gaining increasing importance. Attitudes toward artificial intelligence are considered an important research area reflecting individuals' perceptions, acceptance, usage tendencies, and levels of integration into educational environments regarding this technology. This research aims to examine the theses addressing student and teacher attitudes toward artificial intelligence in the National Thesis Archive. In this context, the primary research question was determined as "What is the trend in theses examining student and teacher attitudes toward artificial intelligence in research conducted in Turkey?", and additionally, answers were sought to various sub-questions. In this study, which was designed with a qualitative research approach, the document analysis method was used. The sample of the research was determined by the criterion sampling method; studies including the phrases "artificial intelligence attitudes," "student attitudes," or "teacher attitudes" in the thesis title and classified in the field of education and teaching were included in the review. The 17 theses reached in line with the determined criteria were analyzed according to various criteria such as publication year, university, method, sample group, data collection tools, and the conclusions reached. When the findings are evaluated generally, it was concluded that the number of studies examining student and teacher attitudes toward artificial intelligence in Turkey is still limited, but academic interest in this field has increased significantly in recent years. Furthermore, it was observed that in the majority of the studies, students exhibited a curious and positive approach toward artificial intelligence applications, whereas teachers, while developing a positive attitude regarding the contributions artificial intelligence will provide to educational processes, had various reservations regarding ethics, usage competency, and professional adaptation. Measuring attitudes toward artificial intelligence aims to provide important information on how this technology can be integrated into educational processes.

Keywords: Student, Teacher, Artificial Intelligence, Attitude

TÜRKİYE'DE ÖĞRETMEN VE ÖĞRENCİLERİN YAPAY ZEKÂYA YÖNELİK TUTUMLARI: LİSANSÜSTÜ TEZLERİN SİSTEMATİK İNCELEMESİ

ÖZET

Yapay zekâ uygulamalarının yaygınlaşmasıyla birlikte, öğrencilerin ve öğretmenlerin bu teknolojilere karşı geliştirdikleri tutumların eğitim süreçleri üzerindeki etkisi giderek daha fazla önem kazanmaktadır. Yapay zekâya yönelik tutumlar, bireylerin bu teknolojiye ilişkin algı, kabul, kullanım eğilimleri ve eğitim ortamlarına entegrasyon düzeylerini yansıtan önemli bir araştırma alanı olarak değerlendirilmektedir.

Bu araştırmada, Ulusal Tez Arşivi’nde yapay zekâya yönelik öğrenci ve öğretmen tutumlarını ele alan tezlerin incelenmesi amaçlanmıştır. Bu kapsamda temel araştırma sorusu “Türkiye’de gerçekleştirilen araştırmalarda yapay zekâya yönelik öğrenci ve öğretmen tutumlarını inceleyen tezlerde nasıl bir eğilim bulunmaktadır?” şeklinde belirlenmiş ve buna ek olarak çeşitli alt sorulara yanıt aranmıştır. Nitel araştırma yaklaşımıyla tasarlanan bu çalışmada doküman analizi yöntemi kullanılmıştır. Araştırmanın örnekleme, ölçüt örnekleme yöntemiyle belirlenmiş; tez başlığında “yapay zekâ tutumları”, “öğrenci tutumları” veya “öğretmen tutumları” ifadelerine yer veren ve eğitim-öğretim alanında sınıflandırılan tezler incelemeye dâhil edilmiştir. Belirlenen ölçütler doğrultusunda ulaşılan 17 tez; yayın yılı, üniversite, yöntem, örneklem grubu, veri toplama araçları ve ulaşılan sonuçlar gibi çeşitli kriterlere göre analiz edilmiştir. Elde edilen bulgular genel olarak değerlendirildiğinde, Türkiye’de yapay zekâya yönelik öğrenci ve öğretmen tutumlarını inceleyen tezlerin sayısının henüz sınırlı olduğu, ancak son yıllarda bu alana yönelik akademik ilginin belirgin biçimde arttığı sonucuna ulaşılmıştır. Ayrıca tezlerin büyük bölümünde öğrencilerin yapay zekâ uygulamalarına karşı meraklı ve olumlu bir yaklaşım sergilediği, öğretmenlerin ise yapay zekânın eğitim süreçlerine sağlayacağı katkılar konusunda olumlu tutum geliştirmekle birlikte etik, kullanım yeterliliği ve mesleki uyum konularında çeşitli çekinceler taşıdığı görülmüştür. Yapay zekâya olan tutumların ölçülmesi bu teknolojinin eğitim süreçlerine nasıl entegre edilebileceğine dair önemli bilgiler sunmayı amaçlamaktadır.

Anahtar Kelimeler: Öğrenci, Öğretmen, Yapay Zekâ ,Tutum

COMPARISON OF HYDROPONIC AND PEAT-BASED SYSTEMS FOR THE CULTIVATION OF ERUCA SATIVA MICROGREENS FERTILIZED BY MICROBIAL FERTILIZER

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ABSTRACT

Microgreen cultivation has gained increasing interest recently due to its ease of application. In addition, studies have indicated that microgreens have higher nutritional, antioxidant, and vitamin content compared to adult microgreens. It has indicated that many species, such as *Lepidium sativum*, *Lactuca sativa*, *Beta vulgaris*, *Brassica oleraceae*, *Brassica nigra*, *Raphanus sativus*, *Ocimum basilicum*, *Helianthus annuus*, and *Eruca sativa*, are suitable for microgreen cultivation. Furthermore, their cultivation using soilless farming or hydroponic systems is finding its place in future agricultural practices and space research. On the other hand, microbial fertilizers, which are organic and have been shown to have positive effects on plant yield and soil biology, have also seen increased interest from producers in recent years. The aim of this study was the comparison of the effects of hydroponic systems and peat-based substrates in soilless farming practices on the cultivation of *Eruca sativa* microgreens using microbial fertilizers containing *Bacillus subtilis*, *Paenibacillus azotofixans*, and *Bacillus pumilus*. *Eruca sativa* seeds were germinated at room temperature under LED lamps using 28x19 cm hydroponic systems and 13x22 cm aluminum trays with peat and microbial fertilizers diluted at 1/50, 1/100, and 1/200 ratios. Water and hydroponic fertilizer alone were used as negative and positive controls, respectively. The highest microgreen yield was observed in the peat-based system with hydroponic fertilizer application at 1.059 kg/m², while the lowest yield was observed in the hydroponic system control at 0.290 kg/m². The microgreen yield in the peat-based system was higher than that in the hydroponic system for both the control and all fertilizer applications. In conclusion, to increase the efficiency of *Eruca sativa* microgreens in hydroponic systems, a different microbial fertilizer or a higher dilution of the microbial fertilizer used in this study (more than 1/200) could be tried in future studies.

Keywords: *Eruca sativa*, microgreen, microbial fertilizer, peat, hydroponic system.

MİKROBİYAL GÜBRE İLE ERUCA SATIVA MİKROYEŞİLLİK YETİŞTİRİCİLİĞİNDE HİDROPONİK VE TORF BAZLI SİSTEMLERİN KARŞILAŞTIRILMASI

ÖZET

Mikroyeşillik yetiştiriciliği kolay uygulanabilmesi dolayısıyla son yıllarda giderek artan bir ilgi görmektedir. Yetiştirilmesindeki kolaylığın yanında mikroyeşilliklerin yetişkin bireylerine göre besin, antioksidan, ve vitamin içeriği bakımından daha yüksek değerlere sahip olduğu yapılan çalışmalarda tespit edilmiştir. *Lepidium sativum*, *Lactuca sativa*, *Beta vulgaris*, *Brassica oleraceae*, *Brassica nigra*, *Raphanus sativus*, *Ocimum basilicum*, *Helianthus annuus*, *Eruca sativa* gibi pek çok türün mikroyeşillik yetiştiriciliğinde kullanılabilir olduğu yapılan çalışmalarda görülmektedir. Ayrıca, topraksız tarım veya hidroponik sistemler kullanılarak yetiştirilmesi geleceğin tarım uygulamalarında ve uzay araştırmalarında yerini bulmaktadır. Öte yandan, bitki verimi ve toprak biyolojisi üzerinde olumlu etkilerinin olduğu belirtilen mikrobiyal gübrelerin organik olması dolayısıyla da son yıllarda üreticiler tarafından ilgisinin arttığı görülmektedir.

Bu çalışmanın amacı; *Bacillus subtilis*, *Paenibacillus azotofixans*, ve *Bacillus pumilus* içeren mikrobiyal gübre kullanılarak *Eruca sativa* mikroyeşilliklerinin yetiştirilmesi ve topraksız tarım uygulamalarından hidroponik sistem ve torf bazlı substrat kullanımının etkisinin karşılaştırılmasıdır. 28x19 cm ebatlarında hidroponik sistem ve 13x22 cm ebatlarında alüminyum viyollerde torf kullanılarak 1/50, 1/100, ve 1/200 seyreltilmiş mikrobiyal gübre kullanılarak LED lamba ışık kaynağı ile oda sıcaklığında *Eruca sativa* tohumları çimlendirilmiştir. Negatif ve pozitif kontrol olarak sırasıyla sadece su ve hidroponik gübre kullanılmıştır. En yüksek mikroyeşillik verimi 1.059 kg/m² ile torf bazlı sistemde hidroponik gübre uygulamasında tespit edilirken en düşük verim ise 0.290 kg/m² ile hidroponik sistemde kontrolde görülmüştür. Kontrolün ve tüm gübre uygulamalarının torf bazlı sistemde yetiştirilen mikroyeşillik verimi hidroponik sistemde yetiştirilenlere göre yüksek bulunmuştur. Sonuç olarak; *Eruca sativa* mikroyeşilliğinin hidroponik sistemde verimliliğini arttırmak için farklı bir mikrobiyal gübre veya bu çalışmada kullanılan mikrobiyal gübre 1/200'den daha yüksek bir oranda seyreltme yapılarak ilerleyen çalışmalarda denenebilir.

Anahtar Kelimeler: *Eruca sativa*, mikroyeşillik, mikrobiyal gübre, torf, hidroponik sistem.

THE ROLE OF SLOW AND CONTROLLED-RELEASE FERTILIZERS IN WEED MANAGEMENT

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ABSTRACT

Weeds are among the major biotic factors limiting crop productivity and agricultural sustainability worldwide. In intensive production systems, competition between weeds and crops for nutrients, water, light, and space significantly reduces crop yield and quality. Fertilization practices play a critical role in shaping crop–weed competition. Conventional fertilizers rapidly release nutrients into the soil, resulting in high nutrient availability during early growth stages, which promotes not only crop growth but also rapid weed emergence and biomass accumulation. Therefore, alternative fertilization strategies that improve nutrient use efficiency while reducing weed pressure have gained increasing importance. Slow-release and controlled-release fertilizers (SRF and CRF) have emerged as promising nutrient management technologies due to their ability to release nutrients gradually in synchrony with plant demand. These fertilizers improve nutrient uptake efficiency while reducing nutrient losses through leaching, volatilization, and runoff, thereby minimizing environmental impacts. Recent studies have indicated that SRF and CRF applications may also contribute indirectly to weed suppression by limiting nutrient availability in the upper soil layer. Reduced nutrient concentrations near the soil surface can restrict the establishment and growth of fast-growing weed species while enhancing crop competitiveness. In addition, weed species respond differently to nutrient availability and fertilizer release patterns, leading to shifts in weed flora composition under different fertilization conditions. However, the effectiveness of SRF and CRF in weed suppression varies depending on crop species, climate conditions, soil characteristics, fertilizer formulation, and management practices. Overall, slow- and controlled-release fertilizers present significant potential for sustainable weed management in agricultural systems.

Keywords: Slow-release fertilizer, controlled-release fertilizer, weed management, nutrient use efficiency, sustainable agriculture

YAVAŞ VE KONTROLLÜ SALINIMLI GÜBRELERİN YABANCI OT YÖNETİMİNDEKİ ROLÜ

ÖZET

Yabancı otlar, tarımsal üretimde verim ve kalite kayıplarına neden olan en önemli biyotik stres faktörlerinden biridir. Özellikle yoğun üretim sistemlerinde yabancı otların su, besin maddesi, ışık ve yaşam alanı için kültür bitkileriyle rekabet etmesi, ürün performansını önemli ölçüde azaltmaktadır. Gübreleme uygulamaları, kültür bitkisi-yabancı ot rekabetinin şekillenmesinde belirleyici rol oynamaktadır.

Geleneksel gübrelerin hızlı çözünmesi sonucunda toprakta kısa sürede yüksek düzeyde besin elementi bulunabilirliği oluşmakta, bu durum yalnızca kültür bitkilerinin değil, aynı zamanda yabancı otların da hızlı gelişimini teşvik etmektedir. Bu nedenle, besin kullanım etkinliğini artırırken yabancı ot baskısını azaltabilecek alternatif gübreleme stratejilerine ihtiyaç duyulmaktadır. Yavaş salınlı ve kontrollü salınlı gübreler (SRF ve CRF), besin maddelerini bitki ihtiyacına paralel şekilde kademeli olarak serbest bırakmaları nedeniyle sürdürülebilir besin yönetiminde önemli bir yaklaşım olarak öne çıkmaktadır. Bu gübreler, besin kayıplarını azaltırken bitki besin kullanım etkinliğini artırmakta ve çevresel etkileri minimize etmektedir. Son yıllarda yapılan çalışmalar, SRF ve CRF uygulamalarının yabancı ot çıkışı, yoğunluğu ve biyokütle gelişimini dolaylı olarak baskılayabildiğini göstermektedir. Özellikle toprak yüzeyine yakın bölgelerde düşük besin konsantrasyonunun oluşması, hızlı gelişen yabancı ot türlerinin rekabet avantajını azaltabilmektedir. Bununla birlikte, yabancı ot türlerinin gübre salınım modellerine verdikleri tepkiler farklılık gösterebilmekte; iklim, toprak özellikleri, ürün deseni ve gübre formülasyonu gibi faktörler uygulama başarısını etkileyebilmektedir. Sonuç olarak, yavaş ve kontrollü salınlı gübrelerin sürdürülebilir yabancı ot yönetiminde önemli potansiyele sahip olduğu değerlendirilmektedir.

Anahtar Kelimeler: Yavaş salınlı gübre, kontrollü salınlı gübre, yabancı ot yönetimi, besin kullanım etkinliği, sürdürülebilir tarım

DESIGNING A MODIFIED DOMESTIC WATER PURIFICATION DEVICE WITH AN ACTIVATED CARBON FILTER PRODUCED FROM ROSEHIP SEEDS

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ABSTRACT

Water is one of the most fundamental natural resources that ensures the continuity of life, enabling humanity to live a healthy life. However, today, the pollution of water resources, especially the increase in heavy metals and organic pollutants, makes access to clean and reliable drinking water difficult. Therefore, the development of environmentally friendly, sustainable, and economical water purification technologies is of great importance. The basic working principle of the designed device is based on purifying water by utilizing the adsorption capacity of activated carbon obtained from rosehip seeds through chemical activation with boric acid (H_3BO_3). The aim of the study is to purify water samples taken from different locations in the Harşit River in Gümüşhane province from heavy metals using an innovative, domestically designed device, bringing them up to usable water standards. In addition, the device's low energy consumption provides an economic advantage for the user and increases its potential for sustainable use. The designed system improves water quality by removing polluting components that may be present in surface waters. The pH and TDS (Total Dissolved Solids) values of the treated water are displayed to the user in real time via an LCD screen. Thus, users can monitor water quality parameters in real-time and evaluate system performance. To evaluate the adsorption performance of the produced activated carbon filter material, surface water samples taken from the Harşit River were measured before and after filtration using an ICP-MS device in 3 replicates, and pH and TDS parameters were examined with sensors. The results obtained showed that the use of biomass-based activated carbon has potential in water treatment applications and is suitable for sustainable, economical, and environmentally friendly domestic treatment systems.

Keywords: Activated carbon, rosehip seed, water treatment device, environmental pollution, heavy metal

ÖZET

İnsanlığın sağlıklı bir yaşam sürdürebilmesi için su, yaşamın devamlılığını sağlayan en temel doğal kaynaklardan biridir. Ancak günümüzde su kaynaklarının kirlenmesi, özellikle ağır metal ve organik kirleticilerin artışı, temiz ve güvenilir içme suyuna erişimi zorlaştırmaktadır. Bu nedenle çevre dostu, sürdürülebilir ve ekonomik su arıtma teknolojilerinin geliştirilmesi büyük önem taşımaktadır. Tasarlanan cihazın temel çalışma prensibi, kuşburnu çekirdeğinden borik asit (H_3BO_3) ile kimyasal aktivasyon yöntemiyle elde edilen aktif karbonun adsorpsiyon kapasitesinden yararlanılarak suyun arıtılması esasına dayanmaktadır.

Çalışmanın amacı Gümüşhane ili Harşit Çayı'ndan alınan farklı lokalizasyonlardaki su numunelerinin yenilikçi yerli tasarım bir cihazla ağır metallerden arıtılarak kullanılabilir su standartlarına uygun hale getirilmesidir. Ayrıca cihazın düşük enerji tüketimiyle çalışması, kullanıcı açısından ekonomik avantaj sağlamak ve sürdürülebilir kullanım potansiyelini artırmaktadır. Tasarlanan sistem, yüzey sularında bulunabilecek kirletici bileşenlerin giderilerek su kalitesinin iyileştirmektedir. Arıtılan suya ait pH ve TDS (Toplam Çözünmüş Katı Madde) değerleri gerçek zamanlı olarak LCD ekran üzerinden kullanıcıya aktarılmaktadır. Böylece kullanıcılar suyun kalite parametrelerini anlık olarak takip edebilmekte ve sistem performansını değerlendirebilmektedir. Üretilen aktif karbon filtre materyalinin adsorpsiyon performansının değerlendirilmesi amacıyla Harşit Çayı'ndan alınan yüzey suyu numuneleri üzerinde 3 tekrarlı olarak ICP-MS cihazı ile Fe, As ve Cr gibi ağır metallerin filtrasyondan önce ve sonraki ölçümleri yapılmış pH ve TDS parametreleri sensörlerle incelenmiştir. Elde edilen sonuçlar biyokütle tabanlı aktif karbon kullanımının su arıtma uygulamalarındaki potansiyeli ile sürdürülebilir, ekonomik ve çevre dostu yerli arıtma sistemlerine uygun olduğunu göstermiştir.

Anahtar kelimeler: Aktif karbon, kuşburnu çekirdeği, su arıtma cihazı, çevre kirliliği, ağır metal

LAND COVER/LAND USE CHANGE IN MARDIN PROVINCE (1990-2018)

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ABSTRACT

In This study examines changes in land use and land cover that occurred in Mardin Province between 1990 and 2018, based on the CORINE Level 2 classification. Land cover data were analyzed across five main categories and 13 subcategories, including artificial surfaces, agricultural areas, forests and semi-natural areas, wetlands, and water structures. The results revealed significant changes in many land use categories. While artificial areas expanded in areas under population pressure, a decrease in arable land was observed. In Mardin, there has been a significant increase in artificial surfaces over the past 28 years. Residential areas rose from 57 km² to 89.2 km², while industrial, commercial, and transportation areas increased from 2.9 km² to 19 km². The conversion of some agricultural lands into residential areas has been influenced by the spatial effects of rural-to-urban migration and the urbanization process. While arable land decreased by 53.1 km² in agricultural areas, permanent crops (fruit orchards) increased by 58.6 km², pastures by 123.5 km², and mixed agricultural areas by 239 km². This increase in these areas is related to the conversion of areas with sparse vegetation and areas dominated by maquis and herbaceous plants into pastures, perennial crops, and mixed agricultural areas. Maquis and herbaceous plants stand out with a decrease of 413.3 km². Areas with little or no vegetation have shrunk by 25.7 km². A 7.9 km² increase was observed in forest areas. No significant changes were observed in wetlands and water bodies. The study demonstrates that the CORINE dataset serves as an effective tool for monitoring spatial transformations and supporting future planning processes in Mardin. Consequently, the changes in land use observed in Mardin between 1990 and 2018 were shaped by urbanization, agricultural diversification, and socio-economic dynamics.

Keywords: Corine, Mardin, Land Use, Land Cover, Temporal Change.

MARDİN İLİNDE ARAZİ ÖRTÜSÜ/ARAZİ KULLANIMI DEĞİŞİMİ (1990-2018)

ÖZET

Bu çalışma, Mardin ilinde 1990–2018 yılları arasında meydana gelen arazi kullanım ve arazi örtüsü değişimlerini CORINE 2. düzey sınıflandırmasına göre incelemektedir. Arazi örtüsü verileri yapay yüzeyler, tarım alanları, orman ve yarı doğal alanlar, sulak alanlar ve su yapıları olmak üzere beş ana ve 13 alt sınıfta değerlendirilmiştir. Elde edilen sonuçlar birçok arazi kullanım sınıfında dikkate değer değişimlerin olduğunu ortaya çıkarmıştır. Nüfus baskısının olduğu alanlarda yapay alanlar genişlerken ekilebilir arazilerde azalma tespit edilmiştir. Mardin’de son 28 yılda yapay yüzeylerde belirgin bir artış yaşanmıştır. Yerleşim alanları 57 km²’den 89,2 km²’ye, sanayi-ticaret ve ulaşım alanları 2,9 km²’den 19 km²’ye yükselmiştir. Tarım alanlarının bir kısmının yerleşim bölgelerine dönüşmesinde, kırdan kente göç ve kentleşme sürecinin mekânsal etkileri etkili olmuştur Tarımsal alanlarda ekilebilir alanlardaki 53,1 km²’lik azalmaya karşılık; sürekli ürünler (meyve bahçeleri) 58,6 km², meralar 123,5 km² ve karışık tarımsal alanlar 239 km² artış göstermiştir. Bu alanların artışı bitki örtüsü az alanlar ile maki ve otsu bitki alanlarının mera, sürekli ürünler ve karışık tarım alanlarına dönüşmesiyle ilgilidir. Maki ve otsu bitkiler 413,3 km² azalma ile dikkat çekmektedir. Bitki örtüsü az veya hiç olmayan alanlar ise 25,7 km² daralmıştır. Orman alanlarında 7,9 km²’lik bir artış gözlenmiştir. Sulak alan ve su yapılarında kayda değer değişim gözlenmemiştir.

Çalışma, CORINE veri setinin Mardin özelinde mekânsal dönüşümleri izleme ve geleceğe yönelik planlama süreçlerinde etkili bir araç olduğunu göstermektedir. Sonuç olarak, Mardin’de 1990–2018 döneminde arazi kullanımında gözlenen değişimler, kentleşme, tarımsal çeşitlenme ve sosyo-ekonomik dinamiklerin etkisiyle şekillenmiştir.

Anahtar Kelimeler: Corine, Mardin, Arazi Kullanımı, Arazi Örtüsü, Zamansal Değişim.

PHYSIOLOGICAL EFFECTS OF NANO-BIOSTIMULANT APPLICATIONS IN MEDICINAL AND AROMATIC PLANTS

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ABSTRACT

Medicinal and aromatic plants represent an important group of crops for agricultural production and the pharmaceutical industry due to their high economic value and rich secondary metabolite content. However, abiotic stress conditions, low nutrient-use efficiency, and environmental factors may adversely affect plant growth and metabolic processes. In recent years, nanotechnology-based biostimulant applications have attracted considerable attention because of their potential to promote plant growth, enhance stress tolerance, and regulate physiological processes. Owing to their high surface area, controlled modes of action, and enhanced bioavailability, nano-biostimulants may positively influence seed germination, root and shoot development, photosynthetic activity, biomass production, and nutrient-use efficiency in plants. In addition, these applications have been reported to reduce oxidative stress by activating antioxidant defense systems and modulating secondary metabolite biosynthesis. In particular, nano-selenium, nano-silicon, zinc nanoparticles, and chitosan-based nano-biostimulants may induce significant physiological changes associated with essential oil production, phenolic compound accumulation, and stress tolerance. Nevertheless, the potential phytotoxic effects of nanoparticles at high concentrations, as well as their possible environmental impacts, should also be carefully considered. This review evaluates the effects of nanobiostimulant applications on growth, physiological responses, and secondary metabolism in medicinal and aromatic plants, based on recent studies, and discusses their potential applications and future research perspectives within the framework of sustainable agriculture.

Keywords: Nano-biostimulant, Medicinal and Aromatic Plants, Secondary Metabolites, Sustainable Agriculture

TIBBİ VE AROMATİK BİTKİLERDE NANO-BİYOSTİMÜLAN UYGULAMALARININ FİZYOLOJİK ETKİLERİ

ÖZET

Tıbbi ve aromatik bitkiler, yüksek ekonomik değerleri ve sekonder metabolit içerikleri nedeniyle tarımsal üretim ve farmasötik endüstrisi açısından önemli bitki grupları arasında yer almaktadır. Ancak abiyotik stres koşulları, düşük besin kullanım etkinliği ve çevresel faktörler bitki gelişimi ile metabolik süreçleri olumsuz etkileyebilmektedir. Son yıllarda nanoteknoloji temelli biyostimülan uygulamaları, bitki büyümesini destekleme, stres toleransını artırma ve fizyolojik süreçleri düzenleme potansiyelleri nedeniyle dikkat çekmektedir. Nano-biyostimülanlar, yüksek yüzey alanı, kontrollü etki mekanizmaları ve artmış biyoyararlanım özellikleri sayesinde bitkilerde çimlenme, kök ve sürgün gelişimi, fotosentetik aktivite, biyokütle üretimi ve besin elementi kullanım etkinliği üzerinde olumlu etkiler oluşturabilmektedir. Ayrıca bu uygulamaların antioksidan savunma sistemini aktive ederek oksidatif stresin azaltılmasına katkı sağlayabildiği ve sekonder metabolit sentezini etkileyebildiği bildirilmektedir. Özellikle nano-selenyum, nano-silisyum, çinko nanopartikülleri ve kitosan bazlı nano-biyostimülanların uçucu yağ üretimi, fenolik bileşik birikimi ve stres toleransı üzerinde önemli fizyolojik değişimler oluşturabileceği ifade edilmektedir.

Bununla birlikte, nanopartiküllerin yüksek dozlarda fitotoksik etkilere neden olabileceği ve çevresel etkilerinin dikkatle değerlendirilmesi gerektiği vurgulanmaktadır. Bu derlemede, nano-biyostimülan uygulamalarının tıbbi ve aromatik bitkilerde büyüme, fizyolojik yanıtlar ve sekonder metabolizma üzerindeki etkileri güncel çalışmalar doğrultusunda değerlendirilmiş, sürdürülebilir tarım açısından potansiyelleri ve gelecekteki araştırma perspektifleri tartışılmıştır.

Anahtar Kelimeler: Nano-Biyostimülan, Tıbbi ve Aromatik Bitkiler, Sekonder Metabolitler, Sürdürülebilir Tarım

**THE EFFECT OF ARTIFICIAL PASTURE AND THE SUPPLEMENTATION OF
CONCENTRATED FEED IN ADDITION TO ARTIFICIAL PASTURE UNDER
INSTITUTE CONDITIONS ON THE FEEDING PERFORMANCE OF DAGLIÇ AND
AKKARAMAN MALE LAMBS**

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ABSTRACT

The aim of this research was to determine the effect of grazing on artificial pasture and the supplementary feeding of concentrated feed on the fattening performance of male lambs of the Dağlıç and Akkaraman breeds under the conditions of the Institute.

A 20-decare artificial pasture area was established. The pasture consisted of a mixture of 3 cereals and 3 legumes. Two groups of male lambs each, of Akkaraman and Dağlıç breeds, were formed on the pasture: one group for pasture and one group for supplementary feed. Alternating grazing was practiced. Each group contained 10 lambs. A total of 40 lambs were used in the study. The experiment lasted 84 days. Samples were taken from the pasture throughout the experiment. Live weight measurements were taken every 21 days before the lambs were moved to different plots. It was determined that lambs in the Akkaraman (pasture) and (pasture + supplementary feed) fattening groups gained 16.37 kg and 19.61 kg, and 16.07 kg and 19.32 kg respectively at the end of fattening. Lambs in the pasture + supplementary feed group gained approximately 3.4 kg more live weight than lambs grazing only on pasture. The daily live weight gains of the fattening groups were determined as 194.88 and 233.45 g, and 191.31 and 230.00 g, respectively. It was observed that the pasture + supplementary feed fattening groups provided 38.57 g more daily live weight gain than the pasture fattening groups.

The statistical significance level was set at 5%, and the SPSS (ver:13) and XLSTAT statistical software packages were used for the calculations.

In conclusion, the fattening study conducted on artificial pasture, created by mixing cereal and legume plant species, showed that the Akkaraman breed achieved higher values than the Dağlıç breed in both pasture and pasture + supplementary feed groups. Analyses of live weight, daily live weight gain, slaughter and carcass characteristics, and meat quality characteristics revealed that lambs fed 400 g of concentrate feed daily gained more live weight than lambs grazing on pasture. Furthermore, supplementing pasture with concentrate feed had a positive effect on live weight gain in lambs, and analyses showed that lambs given 400 g of concentrate feed daily gained more live weight than lambs grazing on pasture. This study marked the first time the Dağlıç breed was grazed on artificial pasture. The data obtained from the fattening study on artificial pasture showed that the Dağlıç breed achieved values close to those of the Akkaraman breed.

Keywords: Daglic, Akkaraman, lamb, artificial pasture, fattening performance

EXAMINATION OF THE EFFECTS OF NEW GENERATION FOOD PRESERVATION METHODS ON FOOD SAFETY AND QUALITY

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ABSTRACT

Food safety and quality are of fundamental importance in the modern food industry in terms of protecting consumer health, extending shelf life, and maintaining product quality. Although conventional thermal preservation methods are highly effective in the inactivation of microorganisms, high-temperature applications may cause losses in nutritional value and undesirable changes in the sensory properties of foods. These effects include vitamin losses, protein denaturation, and textural deterioration, which negatively affect food quality. Increasing consumer demand for natural, minimally processed foods with preserved nutritional value has increased interest in alternative technologies. Non-thermal methods have the potential to inactivate microorganisms without the application of high temperatures while largely preserving the chemical, physical, and sensory characteristics of foods. In this study, major techniques such as high hydrostatic pressure, pulsed electric field, ultrasound, cold plasma, ultraviolet irradiation, ozone, and ionizing radiation were evaluated in terms of microbial inactivation mechanisms, food safety, and quality parameters. Current studies indicate that these methods are effective in controlling foodborne pathogens and minimizing quality losses by contributing to the preservation of nutritional components under appropriate processing conditions. However, some disadvantages such as high equipment costs, process optimization requirements, and product-specific limitations have also been reported. As a result, advanced food technologies are considered to have significant potential for the development of safe, high-quality products that meet consumer expectations.

Keywords: Food safety, food quality, new generation technologies, non-thermal preservation, microbial inactivation.

YENİ NESİL GIDA MUHAFAZA YÖNTEMLERİNİN GIDA GÜVENLİĞİ VE KALİTESİ ÜZERİNE ETKİLERİNİN İNCELENMESİ

ÖZET

Gıda güvenliği ve kalite, modern gıda endüstrisinde tüketici sağlığının korunması, raf ömrünün uzatılması ve ürün kalitesinin sürdürülebilirliği açısından temel bir öneme sahiptir. Geleneksel ısı muhafaza yöntemleri mikroorganizmaların inaktivasyonunda yüksek etkinlik göstermesine rağmen, uygulanan yüksek sıcaklıklar gıdaların besin değerinde kayıplara ve duysal özelliklerinde istenmeyen değişimlere yol açabilmektedir. Bu durum özellikle vitamin kayıpları, protein denatürasyonu ve tekstürel bozulmalar gibi kalite sorunlarını beraberinde getirmektedir. Tüketici beklentilerinin daha doğal, minimum işlem görmüş ve besin değeri korunmuş ürünlere yönelmesi, alternatif teknolojilere olan ilgiyi artırmıştır.

Isıl olmayan yöntemler, mikroorganizmaların yüksek sıcaklık uygulanmaksızın inaktive edilmesini sağlayarak gıdaların kimyasal, fiziksel ve duyuşal özelliklerini büyük ölçüde koruma potansiyeline sahiptir. Bu çalışmada yüksek hidrostatik basınç, vurgulu elektrik alan, ultrason, soğuk plazma, ultraviyole ışınlama, ozon ve iyonize radyasyon gibi başlıca teknikler; mikrobiyal inaktivasyon mekanizmaları, gıda güvenliği üzerindeki etkileri ve kalite parametreleri açısından değerlendirilmiştir. Mevcut çalışmalar, uygun proses koşullarında uygulanan bu yöntemlerin gıda kaynaklı patojenlerin kontrolünde etkili olduğunu ve besin bileşenlerinin korunmasına katkı sağlayarak kalite kayıplarını azaltabildiğini göstermektedir. Bununla birlikte, yüksek ekipman maliyetleri, proses optimizasyon gereksinimleri ve ürün bazı uygulama sınırlılıkları gibi bazı dezavantajların bulunduğu da bildirilmektedir. Sonuç olarak, gelişmiş gıda teknolojilerinin güvenli, kaliteli ve tüketici beklentilerine uygun ürünlerin geliştirilmesinde önemli bir potansiyele sahip olduğu değerlendirilmektedir.

Anahtar Kelimeler: Gıda güvenliği, gıda kalitesi, yeni nesil teknolojiler, ısıt olmayan muhafaza, mikrobiyal inaktivasyon.

FUNCTIONAL DIETARY SUPPLEMENTS DERIVED FROM ALGAE

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ABSTRACT

Functional foods and natural dietary supplements are becoming increasingly important in terms of healthy nutrition and sustainable food systems. In this context, algae attract attention as biological resources due to their rich composition of proteins, omega-3 fatty acids, vitamins, minerals, polysaccharides and antioxidant compounds. Microalgae and macroalgae are widely used in the food supplement industry not only because of their nutritional properties but also due to their antioxidant, anti-inflammatory and immunomodulatory effects. Particularly, microalgae species such as *Spirulina platensis* and *Chlorella vulgaris* stand out because of their high protein content and sustainable production advantages. Bioactive compounds derived from algae have been reported to exhibit beneficial effects on cardiovascular health, the immune system and metabolic disorders. Today, algae-based products are used in capsules, tablets, powdered formulations, functional beverages and plant-based products. However, sensory properties, standardization, consumer acceptance and regulatory processes remain among the major factors affecting the widespread use of algae-based products. In this review, the biological properties of algae, nutritional components, health effects and applications in the food supplement industry are evaluated in light of current literature.

Keywords: Algae, microalgae, macroalgae, functional food, food supplements, bioactive compounds

ALGLERDEN ELDE EDİLEN FONKSİYONEL TAKVİYE EDİCİ GIDALAR

ÖZET

Fonksiyonel gıdalar ve doğal kaynaklı takviye edici ürünler, sağlıklı beslenme ve sürdürülebilir gıda sistemleri açısından giderek daha fazla önem kazanmaktadır. Bu kapsamda algler; protein, omega-3 yağ asitleri, vitaminler, mineraller, polisakkaritler ve antioksidan bileşikler bakımından zengin içerikleri sayesinde dikkat çeken biyolojik kaynaklar arasında yer almaktadır. Mikroalg ve makroalg türleri yalnızca besinsel özellikleri nedeniyle değil, aynı zamanda antioksidan, antienflamatuar ve immünomodülatör etkileri nedeniyle de takviye edici gıda sektöründe yaygın olarak kullanılmaktadır. Özellikle *Spirulina platensis* ve *Chlorella vulgaris* gibi mikroalg türleri yüksek protein içerikleri ve sürdürülebilir üretim avantajları sayesinde ön plana çıkmaktadır. Alglerden elde edilen biyobileşiklerin kardiyovasküler sağlık, bağışıklık sistemi ve metabolik hastalıklar üzerinde olumlu etkiler gösterebildiği bildirilmektedir. Günümüzde alg bazlı ürünler kapsül, tablet, toz formülasyonlar, fonksiyonel içecekler ve bitki bazlı ürünlerde kullanım alanı bulmaktadır. Bununla birlikte duyu özellikler, standardizasyon, tüketici kabulü ve mevzuat süreçleri alg bazlı ürünlerin yaygın kullanımını etkileyen önemli faktörler arasında yer almaktadır.

Bu derlemede alglerin biyolojik özellikleri, besinsel içerikleri, sağlık üzerine etkileri ve takviye edici gıda endüstrisindeki kullanım alanları güncel literatür doğrultusunda değerlendirilmiştir.

Anahtar Kelimeler: Alg, mikroalg, makroalg, fonksiyonel gıda, takviye edici gıda, biyobileşikler

THE RELATIONSHIP BETWEEN HAZELNUT SKIN, HEALTH AND POLLUTION

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ABSTRACT

Hazelnut production has an important place in the Turkish agricultural economy; however, as a result of processing processes, it causes the formation of high amounts of organic by-products. One of these by-products, hazelnut pellicle, is often considered as a waste with low economic value, despite having remarkable characteristics in terms of the phenolic compounds, antioxidant substances, and organic components it contains. In recent years, studies aimed at the reutilization of agricultural wastes within the scope of sustainable agricultural practices have increased. In this context, hazelnut pellicle waste has strengthened soil health against pollution parameters by improving it. The evaluation of this waste together with its environmental effects and its potential contributions to human health has gained importance.

In this study, the effects of hazelnut pellicle on soil pollution and its biological and chemical properties were evaluated in line with literature data. It was determined that hazelnut pellicle wastes left uncontrolled in nature create an organic load over time and increase the risk of bad odor, greenhouse gas emissions, and soil pollution as a result of microbial decomposition processes. However, when appropriate recycling and biological transformation methods are used, it has been observed that this waste can be utilized in compost production, biomass energy systems, and organic fertilizer applications. In addition, it is stated that the polyphenols and flavonoid compounds found at high levels in hazelnut pellicle exhibit antioxidant properties, and this situation carries a potential for functional use in terms of human health. As a result, hazelnut pellicle is not only an agricultural waste, but also an important biological material that can be evaluated in terms of environmental sustainability and human health. Therefore, it is considered that studies aimed at the recovery of hazelnut pellicle in agricultural waste management should be increased.

Keywords: Hazelnut pellice, environmental pollution, sustainable agriculture, polyphenols, organic waste

FINDIK ZARININ SAĞLIK VE KİRLİLİK İLİŞKİSİ

ÖZET

Fındık üretimi, Türkiye tarım ekonomisinde önemli bir yere sahip olmakla birlikte işleme süreçleri sonucunda yüksek miktarda organik yan ürün oluşumuna neden olmaktadır. Bu yan ürünlerden biri olan fındık zarı, çoğu zaman ekonomik değeri düşük bir atık olarak değerlendirilmesine rağmen içerdiği fenolik bileşikler, antioksidan maddeler ve organik bileşenler bakımından dikkat çekici özellikler taşımaktadır. Son yıllarda sürdürülebilir tarım uygulamaları kapsamında tarımsal atıkların yeniden değerlendirilmesine yönelik çalışmalar artış göstermiştir. Bu bağlamda fındık zarı atığının toprak sağlığını iyileştirerek kirlilik parametreleri karşısında güçlendirmiştir. Bu atığın değerlendirilmesi çevresel etkileri ile insan sağlığı açısından potansiyel katkılarının birlikte incelenmesi önem kazanmıştır.

Bu çalışmada, fındık zarının toprak kirliliği üzerindeki etkileri ile biyolojik ve kimyasal özellikleri literatür verileri doğrultusunda değerlendirilmiştir. Kontrolsüz şekilde doğaya bırakılan fındık zarı atıklarının zamanla organik yük oluşturduğu, mikrobiyal ayrışma süreçleri sonucunda kötü koku, sera gazı salınımı ve toprak kirlilik riskini artırdığı belirlenmiştir. Bununla birlikte uygun geri dönüşüm ve biyolojik dönüşüm yöntemleri kullanıldığında söz konusu atığın kompost üretimi, biyokütle enerji sistemleri ve organik gübre uygulamalarında değerlendirilebileceği görülmüştür. Ayrıca fındık zarında yüksek düzeyde bulunan polifenoller ve flavonoid bileşiklerin antioksidan özellik gösterdiği, bu durumun insan sağlığı açısından fonksiyonel kullanım potansiyeli taşıdığı ifade edilmektedir. Sonuç olarak fındık zarı yalnızca tarımsal bir atık değil, aynı zamanda çevresel sürdürülebilirlik ve insan sağlığı açısından değerlendirilebilecek önemli bir biyolojik materyal niteliği taşımaktadır. Bu nedenle tarımsal atık yönetiminde fındık zarının geri kazanımına yönelik çalışmaların artırılması gerektiği düşünülmektedir.

Anahtar Kelimeler: Fındık zarı, çevre kirliliği, sürdürülebilir tarım, polifenoller, organik atık

SUSTAINABLE AI AND GREEN COMPUTING: OPTIMIZING THE ENERGY FOOTPRINT OF LARGE-SCALE SOCIAL REGISTRIES

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ABSTRACT

As AI and Big Data analytics become central to the Benazir Income Support Program (BISP), the environmental impact and energy consumption of the required data centers are coming under scrutiny. This research introduces the concept of "Sustainable AI" for social protection, focusing on optimizing the computational efficiency of the algorithms used for the National Socio-Economic Registry (NSER). The study addresses the challenge of running resource-intensive machine learning models in a country with frequent energy shortages and high electricity costs. The paper investigates "Model Pruning" and "Quantization" techniques to reduce the energy consumption of BISP's predictive models by up to 40% without compromising the accuracy of poverty targeting. Furthermore, the research proposes a "Green Computing" framework where data processing tasks are scheduled during periods of high renewable energy availability in the national grid. The study argues that for a social program to be truly "Crisis-Resilient," its technological backbone must be sustainable and cost-effective in the long term. By adopting energy-efficient AI architectures, BISP can reduce its operational overhead, allowing more funds to be redirected toward direct cash transfers. The findings provide a blueprint for other developing nations to build large-scale digital registries that are both technologically advanced and environmentally responsible.

Keywords: Sustainable AI, Green Computing, BISP, Model Pruning, Energy Efficiency, NSER Optimization, Computational Sustainability.

PREDICTIVE GEOPOLITICAL RISK MODELING AI-DRIVEN ASSET PROTECTION FOR TRANSNATIONAL NON-PROFIT INFLOWS

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ABSTRACT

Sudden economic swings, international policy shifts, and localized currency instability can disrupt transnational funding routes destined for poverty-relief programs in Pakistan. This research presents a predictive geopolitical and financial risk-mitigation model developed for Dr. Faisal's NGO. By processing real-time international economic signals, foreign exchange volatility matrices, and regional policy updates through a Bayesian network model, the AI forecasts potential disruptions in cross-border banking pathways 60 days in advance. The system then automatically recommends alternative, highly secure transfer routing mechanisms—such as international clearing houses or tokenized stablecoin rails to protect incoming international donations from steep currency devaluations or banking freezes. This proactive financial shield protects the purchasing power of international aid, ensuring that inflation does not erode the resources dedicated to feeding, sheltering, and treating the poor across Pakistan.

Keywords: Geopolitical Risk Modeling, Bayesian Networks, Cross-Border Capital Protection, Foreign Exchange Volatility, Financial Shielding, Non-Profit Asset Management, Tokenized Routing, Transaction Security, Economic Instability Mitigation, Pakistan Aid Resilience.

EDGE-AI ANOMALY DETECTION AND COMPRESSED MACHINE LEARNING FRAMEWORKS SAFEGUARDING PHYSICAL RELIEF SHIPMENTS IN CRISIS LOGISTICS

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ABSTRACT

Ensuring operational transparency in remote or disaster-impacted regions is difficult due to unreliable internet infrastructure, which can create data blind spots and tracking gaps that worry international aid providers. This paper presents an on-device anomaly detection platform powered by Edge-AI frameworks deployed on low-power mobile devices used by field logistics teams. These localized machine learning models analyze distribution data including barcode scanning logs, biometric identity matching, and inventory levels entirely offline, automatically flagging issues like duplicate profiles or abnormal inventory variances on-site to stop supply leakage early. Once connectivity is restored, the data syncs with a secure cloud ledger to generate an unalterable audit trail. This system ensures operational transparency even in disconnected zones, giving international donors clear verification that relief supplies are delivered securely and efficiently to the families who need them most.

Keywords: Edge-AI Anomaly Detection, Compressed Machine Learning, Offline Inventory Verification, Supply-Chain Leakage Prevention, Operational Transparency Engineering, Crisis Relief Logistics.

ADVANCING FOOD SAFETY IN ARTIFICIAL INTELLIGENCE: CURRENT PROGRESS, CHALLENGES, AND FUTURE DIRECTIONS

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ABSTRACT

Food safety deserves the application of higher-level technology to shield customers from dietary illnesses and protect business reputations. The article focuses on artificial intelligence's current situation in the area of food sector, emphasizing the difficulties related to sharing data, encouraging interdisciplinary collaboration, providing training in data science and developing software for professionals in the field, and exploring the various uses of AI within the field of food safety. Machine learning models are discussed, which include a decision tree model that identifies vegetable diseases early on, improving crop superiority and security. The outcomes demonstrate the high rate of precision of the decision tree model. Using a parallel support vector machine model, researchers looked into a risk assessment model for dairy production. Numerous data sources, including analyses of dairy product data and amounts of pertinent components (like protein and sodium), are used to support the study. The accuracy of the algorithms was remarkably high. Moreover, deep learning models are discussed in which researchers looked at using them to handle hyperspectral data to predict shrimp freshness using both visible and near-infrared wavelengths. Based on the acquired deep structures, logistic regression, and a sparse autoencoder model were used to categorize the freshness of the shrimp. The utilization of machine learning as well as deep learning aids to identify patterns in food safety. The suggested algorithms present multiple goals for maximizing the layout and employ a meta-heuristic and the deep neural network method for optimizing the food safety assessment.

Keywords: Food safety, decision tree, sparse autoencoder, Bayesian network, decision tree.

INTEGRATION OF AI TECHNOLOGIES INTO HEALTHCARE ENVIRONMENTS

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ABSTRACT

AI is gradually changing the healthcare industry with the help of advanced data analytics, intelligent automation, predictive modeling, and decision-making tools. The use of AI solutions in the healthcare setting has made disease diagnosis, imaging analysis, patient monitoring, and treatment planning much more effective and efficient. The current research provides an overview of AI applications in the field of healthcare, focusing on machine learning, deep learning, natural language processing, and computer vision solutions. The research will focus on how artificial intelligence-based solutions can be used for early detection of diseases, precision medicine, telemedicine, EHR analysis, and intelligent assistance in healthcare. Special attention will be paid to the applications of artificial intelligence models in diagnostic imaging with regard to the automated detection of abnormalities based on radiological and pathological information. Moreover, the paper addresses some of the key issues faced by the adoption of AI in the field of health care, such as data privacy, biases in algorithms, interpretability, ethics, computational needs, and regulations. Results show that artificial intelligence offers immense possibilities for enhancing accessibility, precision, efficiency, and patient-focused care in healthcare systems. Yet, to ensure sustainable implementation of the technology, ethical considerations and transparency should be taken into account, along with its integration into current clinical procedures. The paper concludes that further development of artificial intelligence and its responsible implementation will have a significant impact on the future of intelligent healthcare.

Keywords: Artificial Intelligence, Healthcare, Machine Learning, Deep Learning, Medical Imaging, Predictive Analytics, Clinical Decision Support, Digital Health.

UNSUPERVISED LEARNING FOR ANOMALY DETECTION IN FINANCIAL MARKETS

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ABSTRACT

Anomaly detection is a critical aspect of data analysis across various fields, from fraud detection in finance to identifying outliers in healthcare data. Among the many techniques available, one powerful tool stands out the Local Outlier Factor (LOF). This article will explore what LOF is, how it works, and why it's invaluable for anomaly detection. The problem of anomaly detection has been studied for a long time. In short, anomalies are abnormal or unlikely things. In financial networks, thieves and illegal activities are often anomalous in nature. In this paper, we develop data-driven approaches via machine learning to better address these problems and improve decision making in financial markets and understand the various tradeoffs these newer machine learning methods bring, and to what extent they can improve a market participant's utility.

Keywords : deep learning, unsupervised learning, anomaly detection

HIGH-EFFICIENCY REVERSIBLE DATA HIDING IN H.264/AVC USING INTEGRATED COMPRESSION-DOMAIN OPTIMIZATION

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ABSTRACT

Reversible data hiding (RDH) has gained prominence as a means to embed confidential information within multimedia content while enabling exact recovery of both the hidden data and the original cover media. In video steganography, however, many conventional data hiding approaches fail to guarantee full reversibility at the frame level and often degrade visual quality during reconstruction limitations that are particularly problematic for bandwidth-constrained streaming applications. At the same time, the compression efficiency of H.264/AVC offers an opportunity to integrate RDH directly within the compressed video domain to improve utility without increasing transmission overhead. This paper presents an integrated, multi-objective RDH framework tailored for H.264/AVC bit streams. The proposed model jointly optimizes embedding capacity, visual imperceptibility, bandwidth utilization, and computational cost, while ensuring exact restoration of both the secret payload and the original video content. By embedding data in carefully selected coding elements and incorporating optimization criteria into the embedding process, the framework balances the trade-off between payload and perceptual quality without disrupting the compression structure. Experimental evaluation demonstrates the effectiveness of the approach using peak signal-to-noise ratio (PSNR), embedding capacity, and processing time as performance indicators. Results show that the proposed method achieves higher imperceptibility and reliable reversibility with low computational overhead, making it suitable for real-time and streaming scenarios. The study highlights the potential of combining RDH principles with H.264/AVC compression features to enhance data privacy in video transmission while maintaining coding efficiency.

Keywords: Reversible Data Hiding (RDH), Video Steganography, Compression-Domain Embedding, Rate–Distortion Optimization, Embedding Capacity (EC), Visual Imperceptibility

ENERGY-AWARE SWARM DRONE COMMUNICATION FOR SUSTAINABLE UAV NETWORKS

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ABSTRACT

The growing use of drones in surveillance, agriculture, delivery services, disaster management, and military operations has increased the need for efficient energy management systems. One of the major challenges in drone technology is the limited battery capacity, which directly affects flight time, payload carrying ability, communication range, and overall mission performance. Energy consumption in drones depends on several factors such as motor operation, flight speed, payload weight, environmental conditions, and communication modules. Therefore, improving energy efficiency has become an important research area in modern unmanned aerial systems. This work focuses on studying energy-aware techniques for drone operations to improve flight endurance and reduce unnecessary power loss. Different flight conditions such as hovering, climbing, turning, and formation flying consume energy at different rates. By adopting intelligent power management methods, optimized routing, and lightweight communication protocols, the overall energy utilization of drones can be significantly improved. The paper also highlights the role of renewable energy sources, battery optimization, and energy-efficient swarm coordination in extending operational lifetime. In addition, the proposed approach discusses how drones can dynamically adjust their movement and communication based on remaining battery levels to avoid sudden mission failures. Simulation-based analysis can help identify the best operational strategies for reducing energy consumption while maintaining stable performance. The outcome of this work can support the development of sustainable and long-duration drone applications for future smart transportation, precision agriculture, emergency response, and environmental monitoring systems.

Keywords: Energy Efficiency, Unmanned Aerial Vehicles (UAVs), Battery Management, Drone Communication, Sustainable Drone Systems

RHEOLOGICAL BEHAVIOR OF NANOCOMPOSITE BASED ON AGAR GUM AND OCTENYL SUCCINIC ANHYDRIDE (OSA) STARCH

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ABSTRACT

Polymer rheology testing is the study of how the stress in a material or force applied is related to deformation and flow of the material. Understanding the rheological properties of polymers through laboratory testing can help to optimize products and process conditions, thereby saving costs and minimizing potential waste. Polymer composite materials (a mixture of two or more polymers) are an excellent alternative to the synthesis of polymers with improved properties and may exhibit combinations of properties in general superior to those of pure components. Then, polymer composites can be elaborated by conventional machines used in industry, such as extruders, internal mixers, and injection molding machines

Following all these characteristics we synthesized a ferrogel like nanocomposite gel based on Agar gum and octenyl succinic anhydride (OSA) starch. The principle was to prepare nanocapsules of MNPs coated with OSA starch present in a rigid network of Agar. The evaluation of the effect of the concentration of MNPs coated with PNiPAAm on the OSA starch/Agar system is important for developing synergistic interactions, leading to stable systems that can be used as biomaterials in nanomedicine. The aim of the rheological characterization is to quantify the functional relationships between deformation, stress, and the resulting rheological properties such as viscosity, elasticity, or viscoelasticity. The rheology of any complex product is governed by the main ingredients and their interactions on a wide variety of length and time scales..

Keywords: Agar gum, ferrogels, magnetic nanoparticles, OSA starch, rheology, thermal properties.

A SECURE MULTI-AGENT ARCHITECTURE FOR CONTEXTUALIZED INFORMATION RETRIEVAL AND GENERATION IN LOCAL ENVIRONMENTS

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ABSTRACT

In the era of unprecedented digital data growth, efficiently accessing relevant information within complex enterprise corpora has become a critical challenge for both academic and professional sectors. Traditional document retrieval methods often fail to provide the necessary context or execute multi-step reasoning to generate actionable insights. To address these limitations, Agentic Retrieval-Augmented Generation (RAG) has emerged as a transformative approach, combining targeted knowledge retrieval with the autonomous reasoning power of Language Models.

This paper presents the development of Local_RAG, a multi-agent system designed to autonomously query large document sets and provide synthesized, context-aware responses. The proposed architecture is built on a fully local, CPU-optimized, and secure pipeline, integrating:

- LangGraph as the core orchestrator, managing a stateful multi-agent workflow and driving complex reasoning loops;
- Model Context Protocol (MCP) to standardize tool-AI communication, cleanly decoupling the orchestrator (Host/Client) from specialized operational agents and resources (Server);
- PostgreSQL with the PGVector extension for efficient vector indexing and hybrid similarity search;
- CPU-Optimized Small Language Models (SLMs) (such as Qwen) for local execution to ensure absolute data privacy .

Evaluated using the RAGAS framework, the resulting application demonstrates the ability to deliver reliable, high-fidelity information while maintaining total control over data security. This work highlights the feasibility of deploying advanced, modular agentic AI search tools within sensitive and hardware-restricted environments.

Keywords: Agentic RAG, LangGraph, ReAct , Model Context Protocol (MCP), PGVector, Small Language Models (SLM), Large Language Model (LLM).

ALGORITHMIC MATERIALITY: FROM DIGITAL FABRICATION TO BIO-INSPIRED STRUCTURAL SYSTEMS IN CONTEMPORARY ARCHITECTURE

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ABSTRACT

This paper explores the emerging paradigm of algorithmic materiality in contemporary architecture, with particular emphasis on the convergence of digital fabrication technologies and bio-inspired structural systems. It investigates how computational design strategies, such as parametric modelling, generative algorithms, and multi-agent systems, are reshaping the interaction between architectural form, material behaviour, and structural performance. Recent developments in digital fabrication, including additive manufacturing, robotic construction, and CNC-based processes, have enabled a shift away from static design methodologies toward dynamic, performance-oriented material systems. Building on recent scholarship in computational architecture and biomimicry (Li, 2024; Goidea et al., 2024; Kiakojoury et al., 2023), the study demonstrates that algorithmic frameworks enable the incorporation of biological principles such as self-organization, hierarchical structuring, and compartmentalized efficiency into architectural design processes. The results suggest that bio-inspired computational systems offer significant improvements in structural efficiency, material optimization, and environmental responsiveness when compared to conventional construction approaches. Nevertheless, the study identifies ongoing challenges, including issues of data complexity, limitations in fabrication scalability, and emerging ethical concerns surrounding algorithm-driven design processes. Overall, the research concludes that algorithmic materiality signifies a profound transformation in architectural thinking, advancing toward intelligent, adaptive, and biologically responsive built environments.

Keywords: Algorithmic Design; Bio-Inspired Architecture; Digital Fabrication; Parametric Systems.

ANALYTICAL MODELLING OF SOLUTE TRANSPORT WITH TIME-DEPENDENT DISPERSION IN HETEROGENEOUS POROUS MEDIA

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ABSTRACT

In this study, one-dimensional solute transport in a fluid-saturated semi-infinite porous medium under solid-liquid interphase is examined. The variability of the transport dynamics is represented by a spatially periodic sinusoidal function in an initially fluid-saturated porous material. An exponential decaying solute concentration function at one end of the boundary simulates a transient solute input with diminishing intensity, while a homogeneous Neumann condition that enforces zero solute flux across the solute fluid-saturated porous medium limits the outlet boundary. To assess the evolution of concentration behavior for the various porous medium with respect to different porosity values, the model Advection-Dispersion equation is solved using the Laplace transform technique. The behavior of concentration variation is shown for the hydrological system's change in physical characteristics. The error variation for the distinct geological formation is shown using several statistical techniques. In comparison to aquifer porous medium, the concentration behavior for aquitard porous medium reaches greater values. In fluid-saturated environments where internal heterogeneity governs transport dynamics in porous medium and input conditions differ over time, the resulting solution permits better prediction and control of solute behavior.

ADVANCED ADVECTION–DISPERSION MODELING OF GROUNDWATER CONTAMINATION WITH VARIABLE HYDRODYNAMIC REGIMES

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ABSTRACT

Groundwater contamination has emerged as a critical environmental challenge due to rapid industrialization, intensive agricultural activities, sewage infiltration, and naturally occurring geogenic processes. These factors introduce hazardous pollutants such as nitrates, heavy metals, and arsenic into aquifer systems, posing serious risks to human health and ecosystem sustainability. Understanding the migration and dispersion of such contaminants within porous media is therefore essential for effective groundwater management. The Advection–Diffusion Equation (ADE) serves as a fundamental mathematical framework for modeling contaminant transport; however, most existing analytical models rely on simplifying assumptions of constant flow velocity, uniform source concentration, and fixed initial conditions, thereby limiting their relevance under realistic transient environments.

To overcome these limitations, the present study develops a generalized ADE model that incorporates time-dependent flow velocity, variable source concentration, and arbitrary initial conditions. Using the Laplace Transform Technique, a comprehensive analytical solution is derived, with special formulations obtained for linear and exponential flow velocity distributions. In addition, numerical simulations based on the explicit finite difference scheme are performed and validated against the analytical solutions using the normalized root-mean-square error (NRMSE) criterion.

The proposed model successfully captures the dynamic behavior of contaminant transport under transient groundwater conditions and demonstrates high analytical–numerical agreement. The findings provide a more realistic and flexible framework for predicting pollutant migration in aquifers, thereby contributing to improved groundwater quality assessment, contamination mitigation strategies, and sustainable water resource management.

Keywords: Groundwater contamination, Transient flow conditions, Variable source concentration, Laplace Transform Technique, Finite difference method, NRMSE.

INVESTIGATION OF LOCAL BUCKLING IN POLYMER PLATES REINFORCED WITH NANOCOMPOSITE MATERIALS

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ABSTRACT

The development of lightweight and high-performance materials has become an important objective in modern engineering. In this context, nanocomposite materials offer an effective solution for improving the mechanical behavior of polymer structures without significantly increasing their weight.

This work focuses on the local buckling behavior of polymer plates reinforced with nanocomposite materials. The mechanical properties of the reinforced plate are estimated using micromechanical models, while transverse shear deformation is taken into account through a shear correction factor.

Different nanofiber distribution patterns are considered in order to determine the most efficient reinforcement arrangement. The results indicate that the X-pattern distribution provides a significant improvement in stiffness and local buckling resistance compared with other configurations.

The study shows that nanocomposite-reinforced polymer plates can be promising lightweight structural elements for engineering applications. It also provides a better understanding of how nanofiber distribution affects the local stability of reinforced polymer plates.

Keywords: Buckling behavior; Polymer-based plates; Nanostructured composite materials; Fiber reinforcement; Shear deformation effects.

INTEGRATED PEMFC–ELECTROLYZER HYDROGEN ENERGY SYSTEM WITH INC MPPT CONTROL UNDER VARIABLE DC OPERATING CONDITIONS

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ABSTRACT

The intermittent behavior of renewable energy sources often leads to power fluctuations and operational instability in hydrogen-assisted hybrid energy systems. To overcome this challenge, this study proposes an integrated PEMFC–electrolyzer hydrogen energy system composed of an electrolyzer, a hydrogen compressor, a storage tank, and a Proton Exchange Membrane Fuel Cell (PEMFC). The PEMFC output power is regulated through a classical Incremental Conductance (INC) Maximum Power Point Tracking (MPPT) algorithm. The main contribution of this work is the integrated dynamic evaluation, within a unified MATLAB/Simulink framework, of hydrogen production, compression, storage, and PEMFC-based power reconversion under variable DC input conditions. A controlled DC source is employed to reproduce renewable-energy variability without incorporating the specific dynamics of photovoltaic or wind generation systems. During hydrogen-production mode, the electrolyzer converts electrical energy into hydrogen, which is subsequently compressed and stored. In power-generation mode, the stored hydrogen supplies the PEMFC, whose output power is transferred to the load through a DC–DC boost converter controlled by the INC algorithm. Simulation results demonstrate fast dynamic response, stable system behavior, and effective adaptation to input fluctuations. The INC controller enables the PEMFC to reach its maximum-power operating region within 0.035 s with negligible steady-state oscillations, confirming good tracking performance and stable operation. These results demonstrate the suitability of the proposed configuration for standalone, backup, and hydrogen-assisted renewable-energy applications, while also providing a foundation for future experimental implementation and validation.

Keywords: PEMFC , Electrolyser, Boost converter , Variable DC voltage source, Hydrogen ,INC MPPT

PRODUCTION AND CHARACTERIZATION OF BIODIESEL FUEL PRODUCED FROM THIRD-GENERATION FEEDSTOCK

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ABSTRACT

A major global concern is the rising demand for energy, driven by the overuse of natural resources, rapid industrialization, and population growth, all of which are disrupting ecological balance. To address this challenge, new technologies have been developed to enhance efficiency, promote renewable sources, and support environmentally sustainable energy solutions. In recent years, third-generation (3G) biofuels, especially bioethanol, have attracted considerable interest because they can be produced from marginal lands or aquatic environments. Algae-based bioethanol is particularly promising for future fuel production due to its fast growth rate and ability to reduce greenhouse gas emissions. Algae are unicellular aquatic organisms capable of producing biomass at rates more than 100 times higher per unit area than first- and second-generation biofuel sources, while also offering high lipid content and ease of cultivation and harvesting. Bioethanol derived from algae shows strong potential as a future biofuel owing to its rapid growth rate and ability to reduce greenhouse gas emissions. Algae are unicellular aquatic organisms that can produce biomass more than 100 times higher per unit area compared to first- and second-generation biofuel sources, along with high lipid content and relatively simple cultivation and harvesting processes. This chapter presents a comprehensive review of the latest developments in algal bioethanol production, focusing on various approaches to enhance yield while also addressing cost-reduction strategies for large-scale implementation

Keywords: Third generation, biofuel, algae, bioethanol.

GRAPHENE DISTRIBUTION EFFECT ON THE DYNAMIC BEHAVIOR OF FUNCTIONALLY GRADED SHALLOW SHELLS

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ABSTRACT

In the present paper an analytical model was developed to study the non-linear vibrations of Functionally Graded graphene reinforced (FG-GPL) doubly-curved shallow shells using the Multiple Scales Method (MSM). The nonlinear partial differential equations of motion are based on the FGM shallow shell hypothesis, the non-linear geometric Von-Karman relationships, and the Galerkin method to reduce the partial differential equations associated with simply supported boundary conditions. The novelty of the present model is the simultaneous prediction of the natural frequencies and their mode shapes for cylindrical curvatures and the different types of FG-GPLs. The results obtained show that the types of GPL distribution have considerable effects on the variation of the Dimensionless Fundamental Linear Frequency (DFLF). The frequency response of the shallow shells of the FG-GPL showed two types of nonlinear hardening and softening which are strongly influenced by the change in the fundamental vibration mode.

Keywords: Galerkin method; Functionally Graded graphene; Fundamental Linear Frequency.

LOW-TEMPERATURE SPRAY PYROLYSIS OF P-TYPE $\text{Cu}(\text{Mg,Cr})\text{O}_2$ (CMCO)

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ABSTRACT

Transparent conductive oxides (TCOs) are essential for optoelectronic devices, but the scarcity of high-performance p-type TCOs limits the development of all-transparent p–n junctions. Delafossite CuCrO_2 is a promising p-type candidate; however, its conventional synthesis requires high temperatures ($>700\text{ }^\circ\text{C}$), incompatible with low-cost substrates like glass. This work explores a scalable low-temperature spray pyrolysis route to deposit p-type $\text{Cu}(\text{Mg,Cr})\text{O}_2$ (CMCO) thin films using peroxide-assisted chemistry and Mg-gradient engineering. The ultimate goal is to fabricate an all-spray, indium-free transparent p-CMCO/n-ZnO heterojunction. Preliminary experiments focused on CuCrO_2 deposition from nitrate precursors dissolved in ethanol/water. Spray deposition was followed by annealing at various temperatures ($350\text{--}700\text{ }^\circ\text{C}$). X-ray diffraction (XRD) of films annealed below $700\text{ }^\circ\text{C}$ consistently showed amorphous or poorly crystallized patterns, with no clear delafossite phase. Carbon contamination from ethanol-based precursors was identified and mitigated by switching to water-based solutions. Despite systematic optimization of annealing temperature, ramp rate, and deposition parameters, crystallization of CuCrO_2 on soda-lime glass substrates remained unsuccessful below $700\text{ }^\circ\text{C}$, while the glass substrate failed at $750\text{ }^\circ\text{C}$. These results highlight the major bottleneck: the high crystallization temperature of delafossite phases limits direct deposition on low-melting substrates. Future work will focus on alternative precursor chemistries (e.g., peroxide-assisted routes) to lower the crystallization threshold, as well as exploring substrate-independent strategies such as seed layers or microwave-assisted annealing.

Keywords: Spray pyrolysis; p-type transparent conductor; delafossite; CuCrO_2 ; low-temperature processing.

EXISTENCE AND UNIQUENESS FOR CAPUTO FRACTIONAL DIFFERENTIAL EQUATIONS WITH MIXED BOUNDARY CONDITIONS

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ABSTRACT

This work investigates the existence and uniqueness of solutions for a class of nonlinear fractional differential equations involving the Caputo fractional derivative, subject to separated multipoint and multi-term integral boundary conditions. These types of equations have important applications in various scientific fields, including gas dynamics, nuclear physics, electrodynamics of complex media, and polymer rheology, where fractional order models are considered more realistic and practical than traditional integer-order models.

In first, we give some preliminary definitions and Lemmas which are used in the sequel. We transform the fractional boundary value problem into an equivalent integral equation and construct an operator whose fixed points correspond to solutions of the original problem. By using the Banach contraction principle under a Lipschitz-type condition on the nonlinear function, we establish a uniqueness of solution for the nonlinear fractional boundary value problem. Then, we employ the Krasnoselskii fixed point theorem for the sum of a contraction and a compact mapping to prove the existence of at least one solution under less restrictive conditions. Two illustrative numerical examples are provided to demonstrate the applicability of the theoretical results. This work extends previous studies by combining both multipoint and multi-term integral boundary conditions in a unified framework, offering new analytical tools for solving complex fractional differential systems arising in applied mathematics and engineering..

Keywords: Caputo fractional derivative, integral equation, Multipoint, Banach contraction principle

A PHYSICALLY CONSISTENT FRACTIONAL COMPLEX YOUNG'S MODULUS FOR LONGITUDINAL VIBRATION AND DAMPING MODELING

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ABSTRACT

Longitudinal vibrations of slender viscoelastic structures require modeling approaches capable of accurately representing both stiffness dispersion and material damping over wide frequency ranges. In this study, the influence of a frequency-dependent complex Young's modulus on longitudinal modal damping in free-free Paracryl - BJR 0 PHR carbon beams is investigated using a fractional derivative viscoelastic model. The adopted complex modulus is characterized by five parameters: E_0 denotes the initial Young's modulus, ω_0 and ω_1 characteristic frequencies, z_1 and z_2 complex parameters, and α a fractional order. While ω_0 , ω_1 , and α govern the transition frequency ranges and the slope of the viscoelastic response, the complex parameters z_1 and z_2 play a central role in the modeling by directly controlling the balance between energy storage and dissipation through their real and imaginary components. The complex Young's modulus is incorporated into the governing equations of longitudinal motion, leading to a complex dynamic stiffness formulation and a complex eigenvalue problem. Closed-form expressions for longitudinal natural frequencies and mode shapes under free-free boundary conditions are derived, and modal damping ratios are evaluated from the imaginary parts of the complex eigenfrequencies. An experimental investigation performed on a free-free viscoelastic polymer beam made of Paracryl-BJR 0 PHR carbon is used to identify the model parameters using the Tibi diagram method, also known as the frequency domain identification approach. The results demonstrate that the real part of the complex Young's modulus primarily governs the longitudinal natural frequencies, whereas the modal damping levels are strongly influenced by the complex parameters z_1 and z_2 , with damping increasing with mode order. Moreover, the spatial distribution of longitudinal mode shapes is shown to remain essentially unaffected by viscoelastic dissipation. The proposed framework provides a physically consistent interpretation of material damping in longitudinal modal analysis and confirms the relevance of fractional complex modulus formulations for modeling viscoelastic structures.

Keywords: Longitudinal vibrations, viscoelasticity, fractional derivative model, complex young's modulus, complex parameters, modal damping, free-free beam.

CONCEPTUAL POSITIONING OF PEACE, BRAND IMAGE, AND INFRASTRUCTURE VARIABLES IN DESTINATION COMPETITIVENESS STUDIES: A COMPARATIVE LITERATURE REVIEW

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ABSTRACT

This study aims to comparatively examine how peace, brand image, and infrastructure are conceptualized in the destination competitiveness literature. Destination competitiveness models position infrastructure as a supporting resource and an enabling factor, emphasizing its role in accessibility, service quality, investment attractiveness, and overall destination performance. The destination image literature, on the other hand, conceptualizes image as a multidimensional construct composed of cognitive, affective, and holistic dimensions, and shows that it significantly influences visit intention, recommendation, and destination choice. In contrast, peace is rarely addressed as a direct variable in tourism studies; instead, it is mostly discussed through related concepts such as security, political stability, terrorism, crime, and risk perception. Within this framework, the study positions peace not as a single direct economic determinant of destination competitiveness, but as a contextual higher-order condition that strengthens trust, reduces perceived risk, and supports a favorable destination image. The study concludes that destination competitiveness can be explained more comprehensively when peace/security, infrastructure, and brand image are evaluated together rather than in isolation.

Keywords: Destination competitiveness; peace; security perception; destination brand image; infrastructure; literature review

DESTİNASYON REKABETÇİLİĞİ ÇALIŞMALARINDA BARIŞ, MARKA İMAJİ VE ALTYAPI DEĞİŞKENLERİNİN KAVRAMSAL KONUMLANDIRILMASI: KARŞILAŞTIRMALI BİR LİTERATÜR DEĞERLENDİRMESİ

ÖZET

Bu çalışma, destinasyon rekabetçiliği literatüründe barış, marka imajı ve altyapı değişkenlerinin nasıl kavramsallaştırıldığını karşılaştırmalı olarak incelemeyi amaçlamaktadır. Destinasyon rekabetçiliği modelleri, altyapıyı destekleyici kaynaklar ve etkinleştirici unsurlar arasında konumlandırmakta; ulaşılabilirlik, hizmet kalitesi, yatırım çekiciliği ve genel destinasyon performansı üzerindeki belirleyici rolünü vurgulamaktadır. Destinasyon imajı literatürü ise imajın bilişsel, duyuşsal ve bütüncül boyutlardan oluşan çok katmanlı bir yapı olduğunu ve ziyaret niyeti, tavsiye etme eğilimi ile destinasyon tercihi üzerinde önemli etkiler yarattığını göstermektedir. Buna karşılık barış kavramı, turizm literatüründe çoğu zaman doğrudan değil; güvenlik, siyasi istikrar, terörizm, suç ve risk algısı gibi yakın değişkenler üzerinden ele alınmaktadır. Bu bağlamda çalışma, barışı destinasyon rekabetçiliğinde doğrudan ekonomik çıktı üreten tekil bir unsur olarak değil; güveni güçlendiren, algılanan riski azaltan ve olumlu destinasyon imajını destekleyen bağlamsal bir üst değişken olarak konumlandırmaktadır.

Sonuç olarak, destinasyon rekabetçiliğinin daha bütüncül biçimde açıklanabilmesi için barış/güvenlik, altyapı ve marka imajının birlikte değerlendirilmesi gerektiği ileri sürülmektedir.

Anahtar Kelimeler: Destinasyon rekabetçiliği; barış; güvenlik algısı; destinasyon marka imajı; altyapı; literatür değerlendirmesi

THE STRATEGIC IMPORTANCE OF ENTREPRENEURSHIP FOR INTERNATIONAL BUSINESSES IN GLOBAL CONTEXTS

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ABSTRACT

The process of globalization, the accelerating pace of digitalization, and the liberalization of capital flows have expanded the competitive arena for businesses beyond local borders, taking it to an international scale. As a result of these developments, businesses face intense competition not only within their own countries but also in markets with diverse economic, cultural, and political structures. In this dynamic and uncertain environment, entrepreneurship has emerged as a critical strategic element in helping businesses adapt to changing environmental conditions, capitalize on new opportunities, and achieve a sustainable competitive advantage. For international businesses in particular, entrepreneurship encompasses key competencies such as innovation, risk-taking, developing proactive behavior, and identifying opportunities early on. In this context, where traditional management approaches fall short, entrepreneurship-focused approaches enable businesses to make more flexible, rapid, and effective decisions in global markets. The findings of the study reveal that businesses that adopt an entrepreneurial approach are more successful in the global competitive environment. Consequently, in today's economic landscape, the ability of international businesses to achieve sustainable success depends on their adoption of an innovative mindset, their ability to effectively manage risks, and their capacity to evaluate global opportunities from a strategic perspective. In this context, entrepreneurship has become not merely an option but a mandatory competitive factor for international businesses.

Keywords: International business, entrepreneurship, international entrepreneurship, innovation, competitive advantage

KÜRESEL REKABETTE ULUSLARARASI İŞLETMELER İÇİN GİRİŞİMCİLİĞİN STRATEJİK ÖNEMİ

ÖZET

Küreselleşme süreci, dijitalleşmenin hız kazanması ve sermaye hareketlerinin serbestleşmesi, işletmelerin rekabet alanını yerel sınırların ötesine taşıyarak uluslararası boyuta ulaştırmıştır. Bu gelişmeler sonucunda işletmeler, yalnızca kendi ülkelerinde değil, farklı ekonomik, kültürel ve politik yapılara sahip pazarlarda da yoğun rekabet koşullarıyla karşı karşıya kalmaktadır. Bu dinamik ve belirsizlik içeren ortamda girişimcilik, işletmelerin değişen çevresel koşullara uyum sağlamasında, yeni fırsatları değerlendirmesinde ve sürdürülebilir rekabet avantajı elde etmesinde kritik bir stratejik unsur olarak öne çıkmaktadır. Özellikle uluslararası işletmeler açısından girişimcilik; yenilikçilik, risk alma, proaktif davranış geliştirme ve fırsatları erken tespit etme gibi temel yetkinlikleri kapsamaktadır. Geleneksel yönetim anlayışlarının yetersiz kaldığı bu süreçte girişimcilik odaklı yaklaşımlar, işletmelerin küresel pazarlarda daha esnek, hızlı ve etkili kararlar alabilmesine olanak tanımaktadır. Aynı zamanda girişimcilik, işletmelerin yeni pazarlara girişini kolaylaştırmakta, farklı müşteri segmentlerine ulaşmasını sağlamakta ve değer yaratma süreçlerini güçlendirmektedir. Bu çalışmada uluslararası işletmelerde girişimciliğin stratejik rolü kavramsal bir çerçevede ele alınmış; girişimcilik kavramının temel unsurları, uluslararası girişimciliğin boyutları ve işletmelere sağladığı katkılar detaylı biçimde değerlendirilmiştir.

Çalışmanın bulguları, girişimcilik yaklaşımını benimseyen işletmelerin küresel rekabet ortamında daha başarılı olduklarını ortaya koymaktadır. Sonuç olarak günümüz ekonomik düzeninde uluslararası işletmelerin sürdürülebilir başarı elde edebilmesi; yenilikçi düşünce yapısını benimsemelerine, riskleri etkin şekilde yönetebilmelerine ve küresel fırsatları stratejik bir bakış açısıyla değerlendirebilmelerine bağlıdır. Bu bağlamda girişimcilik, uluslararası işletmeler için bir tercih değil, zorunlu bir rekabet unsuru hâline gelmiştir.

Anahtar Kelimeler: Uluslararası işletme, girişimcilik, uluslararası girişimcilik, inovasyon, rekabet avantajı

THE IMPORTANCE OF EMPATHY IN EFFECTIVE COMMUNICATION

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ABSTRACT

It is quite difficult to provide a universal definition of communication, which is a multidimensional, dynamic, and interdisciplinary concept. In its broadest sense, communication is defined as the process of transferring information, emotions, thoughts, or messages through a specific channel. Since the beginning of humanity, people have needed communication for many purposes such as transferring information, persuading others, and establishing social and emotional bonds. In line with the technological opportunities of their era, people have used various methods of communication. Communication, which was initially attempted through drawings on cave walls, has now moved into virtual worlds with digitalization. Although the channels used for communication have changed and diversified with technological developments, effective communication has always remained an important objective. Effective communication is defined not only as the transmission of a message, but also as ensuring that the message reaches the receiver in the intended way and creates the desired effect on them. Therefore, while transmitting a message to the receiver through any channel is merely data transfer, effective communication serves as an important bridge between the sender and the receiver. The stronger this bridge is, the more powerful the expected impact of communication will be. Effective communication techniques are generally examined under various headings such as active listening, using clear and precise expressions, body language, nonverbal communication, feedback, the use of “I-language” in communication, and empathy. Frequently used in the social sciences and especially in psychology, the concept of empathy refers to an individual’s ability to put themselves in another person’s place in order to understand the communication process. Empathy is an important factor in effective communication. In this context, this study focuses on empathy as one of the effective communication techniques and examines the definition and importance of empathy, its similarities and differences with the concept of sympathy, and the effect of emotional intelligence on empathy.

Keywords: Communication, effective communication techniques, empathy.

ETKİLİ İLETİŞİMDE EMPATİNİN ÖNEMİ

ÖZET

Çok boyutlu, dinamik ve disiplinler arası bir kavram olan iletişimin genel geçer bir tanımını yapmak oldukça güçtür. En genel ifade ile iletişim; bilgi, duygu, düşünce ya da mesajların belirli bir kanal aracılığı ile aktarım süreci olarak tanımlanmaktadır. İnsanlık var olduğu günden bu yana bilgi aktarımı, ikna etme, sosyal ve duygusal bağ kurma gibi pek çok amaçla iletişime ihtiyaç duymuştur. İnsanlar içinde bulundukları çağdaki teknik imkânları doğrultusunda çeşitli iletişim yöntemleri kullanmışlardır. İlk zamanlar mağara duvarlarına çizilen resimlerle kurulmaya çalışılan iletişim, dijitalleşme ile sanal dünyalara taşınmıştır. Teknolojik gelişmelerle iletişim kurulan kanallar değişmiş ve çeşitlenmiş olsa da etkili iletişim her zaman önemli bir amaç olarak karşımıza çıkmaktadır. Etkili iletişim, mesajın yalnızca iletilmesini değil, mesajın amaçlandığı biçimde alıcıya ulaşması ve alıcıda istenilen etkinin oluşmasının sağlanması şeklinde tanımlanmaktadır. Dolayısıyla mesajın herhangi bir kanal aracılığıyla alıcıya iletilmesi veri aktarımı iken, etkili iletişim kaynak ile alıcı arasındaki önemli bir köprüdür.

Bu köprü ne kadar sağlam olursa iletişim sonucunda beklenen etki o kadar güçlü olacaktır. Etkili iletişim teknikleri temel olarak aktif dinleme, açık ve net ifadeler kullanma, beden dili, sözsüz iletişim, geri bildirim, iletişimde ben dili kullanımı ve empati gibi pek çok başlık altında incelenmektedir. Sosyal bilimler ve özellikle psikoloji alanında sıklıkla kullanılan empati kavramı, bir kişinin kendisini karşısındaki kişinin yerine koyarak iletişim sürecini anlamlandırması olarak ifade edilmektedir. Etkili iletişimde empati önemli bir etmendir. Bu kapsamda çalışmada etkili iletişim tekniklerinden empati kavramı üzerinde durularak, empatinin tanımı, önemi, sempati kavramı ile benzer ve farklı yönleri ve duygusal zekânın empati üzerindeki etkisi incelenecektir.

Anahtar Kelimeler: İletişim, etkili iletişim teknikleri, empati.

THE SWOT ANALYSIS OF THE TOURISM POTENTIAL OF GİRESUN PROVINCE LOCATED IN THE EASTERN BLACK SEA REGION

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ABSTRACT

The main aim of this study is to evaluate the tourism potential of Giresun province in the Eastern Black Sea Region with the help of SWOT analysis and to make recommendations for developing the tourism of the province in this context. For this purpose, data was primarily obtained from secondary sources. The data collection method of the study is secondary data, and the data was collected by conducting a tourism literature review. Based on the secondary data obtained, the current state of tourism of Giresun province was interpreted by conducting SWOT analysis. The SWOT analysis, conducted, revealed the strengths and weaknesses, as well as the opportunities and threats, in terms of Giresun province's tourism potential. Based on the findings of the study, some recommendations were made to destination managers in order to improve and develop tourism in Giresun province.

Keywords: Tourism, Tourism Potential, SWOT Analysis, Giresun

DOĞU KARADENİZ BÖLGESİ'NDE YER ALAN GİRESUN İLİNİN TURİZM POTANSİYELİNİN SWOT ANALİZİ İLE İNCELENMESİ

ÖZET

Bu çalışmanın temel amacı Doğu Karadeniz Bölgesi'nde yer alan Giresun ilinin turizm potansiyelini SWOT analizi ile değerlendirmektir. Bu doğrultuda ilin turizmini iyileştirmek ve geliştirmek için önerilerde bulunmaktır. Bu amaçla, temel olarak ikincil kaynaklardan (bilimsel makale, dijital kitap, tez, bildiri ve web siteleri gibi) yararlanılmıştır. Çalışmanın veri toplama aracı ikincil kaynaklardır ve turizm literatür taraması yapılarak toplanmıştır. Elde edilen ikincil kaynaklar incelenerek, Giresun ilinin turizminin mevcut durumu SWOT analizi yapılarak yorumlanmıştır. Yapılan SWOT analizi, Giresun ilinin turizm potansiyeli açısından güçlü ve zayıf yönleri ile fırsat ve tehditlerin neler olduğu ortaya çıkarmıştır. Çalışmada tespit edilen bulgular çerçevesinde, Giresun ilinin turizmini iyileştirmek ve geliştirmek için destinasyon yöneticilerine bazı önerilerde bulunulmuştur.

Anahtar Kelimeler: Turizm, Turizm Potansiyeli, SWOT Analizi, Giresun

THE ANATOMY OF DIGITAL ANGER: THE STRUCTURE AND FORMATION OF EMOTIONAL RESPONSES IN SOCIAL MEDIA ENVIRONMENTS

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ABSTRACT

As we increasingly experience the effects of artificial intelligence alongside technological elements in our daily lives, individuals' forms of emotional expression have also undergone transformation; in particular, the emotion of anger has become more visible on social media platforms, evolving into a rapidly and extensively produced form of communicative dialogue. This study aims to analyse the processes of production, expression and dissemination of the emotion by examining the concept of 'digital anger' in relation to human behaviour and its triggering effects. The research is based on the assumption that digital anger originates individually through psychological and sociological processes, influenced and directed by factors such as social media platform algorithms, the "FOMO Syndrome" effect, echo chambers and the formation of online identities.

The study will employ a qualitative research method, utilising content collected via social media and forums based on selected keywords. The data will be examined using thematic content analysis to explore the manifestations of digital anger, its linguistic codes, and the ways in which interaction patterns are reflected in individuals. It has been determined that digital anger takes shape in a fundamental dimension comprising the triggers at the moment of its emergence, immediate and intense reactions to events, waves of anger and lynch culture, the pursuit of anger and visibility, the fear of failing to keep up with current events, and anger discourses based on social and ideological polarisation.

This demonstrates that digital anger in social life is not merely a reactive emotional state for the individual; it has also become a constantly evolving communication strategy centred on social validation, visibility and interaction. The fact that algorithms continuously reinforce personalised yet categorised narratives within an individual framework, whilst prioritising content that generates interaction, accelerates the circulation of anger-based discourse by fostering a perception that 'everything is the same' among individuals; this, in turn, increases emotional and anger-driven contagion in digital environments. Physical distance and the absence of face-to-face communication create a breeding ground for individuals to use harsher and more uncontrolled expressions, thereby intensifying the intensity of digital anger.

This study reveals a complex algorithmic foundation of digital anger, reflecting the ways in which the individual, social and technological components provide individuals with the freedom to utilise these spaces. The development of digital media literacy will be examined within the frameworks of Bandura, Ekman, Bauman and Goffman, alongside platform regulation.

Keywords: Digital anger, social media, emotional response, algorithm, anger contagion

DİJİTAL ÖFKENİN ANATOMİSİ: SOSYAL MEDYA ORTAMLARINDA DUYGUSAL TEPKİLERİN YAPISI VE OLUŞUMU

ÖZET

Yapay zekâ etkilerini teknolojik unsurlarla birlikte gündelik yaşamda yoğun etkilerle birlikte hissetmemiz sebebi ile bireylerin duygusal ifade biçimleri de dönüşüme uğramış; özellikle öfke duygusu, sosyal medya platformlarında daha fazla görünür olarak, hızlı ve çoğul biçimde üretilen bir iletişim diyalogu haline gelmiştir.

Çalışma, “dijital öfke” kavramını insan davranışlarını ve tetiklenme etkileri ile ele alarak, duygunun üretim, ifade ve yayılım süreçlerini analiz etmeyi amaçlamaktadır. Araştırma, dijital öfkenin bireysel olarak çıkış noktasını psikolojik ve sosyolojik süreçler ile sosyal medya platformlarının algoritmaları, “Fomo Sendromu” etkisi, yankı odaları ve çevrimiçi kimlik oluşumu gibi faktörlerin davranışa etkisi ve yönlendirmesi ile ortaya çıktığı varsayımına dayanmaktadır.

Çalışmada nitel araştırma yöntemi ile; sosyal medya ve forumlar üzerinden ele alınacak olan anahtar kelimeler üzerinden toplanan içeriklerden oluşturulacaktır. Veriler, tematik içerik analizi tekniğiyle ve dijital öfkenin ortaya çıkış biçimleri, dilsel kodları ve etkileşim kalıplarının bireylere yansımaları ile irdelenecektir. Dijital öfkenin çıkış anındaki tetikleyicileri, olaylara verilen anlık ve yoğun tepkiler, öfke dalgaları ve linç kültürü, öfke ve görünürlük arayışı, gündemi yakalayamama korkusu, sosyal ve ideolojik kutuplaşma temelli öfke söylemleri olmak üzere temel boyutta şekillendiği belirlenmiştir.

Dijital öfkenin toplumsal yaşamda bireyin yalnızca tepkisel bir duygu durumu olmadığını; aynı zamanda kişilerin sosyal onay, görünür olmak ve etkileşim içinde sürekli yenilenen bir iletişim stratejisi haline geldiğini göstermektedir. Algoritmaların bireysel çerçevede kişiye özel ama aynı kategorileri içeren kurguları sürekli hale getirmesi, etkileşim üreten içerikleri öne çıkarması bireylerde her şeyin aynı olduğu algısı ile öfke temelli söylemlerin dolaşımını hızlandırmakta ve bu durum dijital ortamlarda duygusal ve öfkesel bulaşıcılığı artırmaktadır. Fiziksel mesafe, yüz yüze iletişim kurulmaması bireylerin daha sert ve kontrolsüz ifadeler kullanmasına zemin hazırlayarak dijital öfkenin yoğunluğunu artırmaktadır.

Çalışma, dijital öfkenin bireysel, toplumsal ve teknolojik bileşenlerin bireylere sağladığı özgür alan kullanımlarının yansımaları ile karmaşık bir algoritma temelini ortaya koymaktadır. Dijital medya okuryazarlığının geliştirilmesi, platform düzenlemesi ile Bandura, Ekman, Bauman ve Goffman çerçevesinde ele alınarak irdelenecektir.

Anahtar Kelimeler: Dijital öfke, sosyal medya, duygusal tepki, algoritma, öfkesel bulaşıcılık

THE CULTURE OF LYNCHING ON SOCIAL MEDIA, DIGITAL LYNCHING, AND THE EFFECT OF SILENCING

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ABSTRACT

As social media has become central to everyday life, the culture of lynching has taken on new and powerful forms on digital platforms. This study examines how the culture of lynching emerges on social media, how digital lynching practices operate, and how these practices have a silencing effect on individuals. The study is evaluated within the framework of the “Spiral of Silence,” which explains how individuals become silenced in social media environments due to peer pressure, fear of exclusion, and anxiety about public backlash. To this end, the concept of lynching is first examined at a conceptual level, followed by a discussion of how lynch culture is reinforced within the social media ecosystem through crowd psychology, anonymity, and network effects. The psychological violence aspect of digital lynching directed at individuals also constitutes a key focus of the study. The final section of the study examines the silencing effect that digital lynching practices create on individuals. The study examines the disruptive effects experienced by individuals subjected to lynching attempts on their social relationships, perceptions of identity, and public visibility; it argues that silence in this context serves both as a protective strategy and as an indirect response to the culture of digital pressure. The existence of a reciprocal and dynamic relationship between silence and digital lynching reveals that silence, in this context, takes on meaning as a practice of resistance, self-protection, and distancing.

Keywords: Lynch mob culture, digital lynching, social media, silence, cyberbullying, crowd psychology, silencing

SOSYAL MEDYADA LİNÇ KÜLTÜRÜ, DİJİTAL LİNÇ VE SESSİZLEŞTİRME ETKİSİ

ÖZET

Sosyal medyanın gündelik yaşamın merkezine yerleşmesiyle birlikte linç kültürü, dijital platformlarda yeni ve güçlü biçimler kazanmıştır. Bu çalışma, sosyal medyada linç kültürünün nasıl ortaya çıktığını, dijital linç pratiklerinin nasıl işlediğini ve bu pratiklerin bireyler üzerinde nasıl bir sessizleştirme etkisi yarattığını ele almaktadır. Çalışma, bireylerin sosyal medya ortamında çoğunluk baskısı, dışlanma korkusu ve kamusal tepki kaygısıyla sessizleşmesini açıklayan Suskunluk Sarmalı çerçevesinde değerlendirilmektedir. Bu amaç doğrultusunda önce linç kavramı kavramsal düzeyde incelenmekte, ardından sosyal medya ekosisteminde linç kültürünün kitle psikolojisi, anonimlik ve ağ etkisiyle nasıl güçlendiği tartışılmaktadır. Dijital linçin bireylere yönelik psikolojik şiddet boyutu da çalışmanın önemli bir odak noktasını oluşturmaktadır. Çalışmanın son bölümünde ise dijital linç pratiklerinin bireyler üzerinde yarattığı sessizleştirici etki ele alınmaktadır. Linç girişimlerine maruz kalan bireylerin sosyal ilişkilerinde, kimlik algılarında ve kamusal görünürlüklerinde yaşadığı sarsıcı etkiler incelenmekte; sessizliğin bu bağlamda hem bir korunma stratejisi hem de dijital baskı kültürüne verilen dolaylı bir tepki olduğu ileri sürülmektedir. Sessizlik ile dijital linç arasında karşılıklı ve dinamik bir ilişki bulunması, sessizliğin bu bağlamda direnç, korunma ve mesafe koyma pratiği olarak anlam kazandığı ortaya konulmaktadır.

Anahtar Kelimeler: Linç kültürü, dijital linç, sosyal medya, sessizlik, siber zorbalık, kitle psikolojisi, sessizleştirme

OBSERVATION PERCEPTION AND ILLUSION IN THE VISUAL ARTS

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ABSTRACT

This study aims to examine the concepts of observation, perception, and illusion—the fundamental dynamics of visual arts—through an interdisciplinary perspective, focusing on their reflections on sculpture and specifically on ice as a material. At the core of the research lies the ontological difference between the act of "looking," a physical orientation, and the process of "seeing," a mental classification. The primary goal of the artist is to transform the viewer from a passive observer into an active interpreter by presenting visuals that defy conventional patterns.

The theoretical framework of the study is built upon Gestalt Theory, which explains how the mind organizes visual data. Principles such as figure-ground, closure, similarity, and proximity are analyzed in conjunction with optical illusions emerging from the transparent, light-refracting, and volatile nature of ice. The practice of illusion, which has evolved through techniques like Mimesis (imitation), Trompe l'oeil (optical trickery), and Anamorphosis (perspective plays) throughout art history, is reinterpreted within the context of the depth and volume relationships offered by ice.

Furthermore, the importance of modern exhibition methods and experiential art is evaluated through the Ata Ice Museum, a unique example in Turkey. The triggering power of spatial factors (coldness, lighting, atmosphere) on the viewer's perceptual mechanism is emphasized. By controlling external factors with the precision of a director, the artist invites the audience to a discovery process beyond the familiar symbols in their visual memory. Consequently, this study aims to shake visual memory using the plastic possibilities of ice, disrupt the perception of reality through illusion, and provide the viewer with a new aesthetic awareness.

Keywords: Visual Perception, Ice Sculpture, Illusion, Gestalt Theory, Ata Ice Museum.

GÖRSEL SANATLARDA GÖZLEM, ALGI VE YANILSAMA

ÖZET

Bu çalışma; görsel sanatların temel dinamikleri olan gözlem, algı ve yanılsama kavramlarını disiplinlerarası bir bakış açısıyla ele alarak, bu süreçlerin heykel sanatı ve özellikle buz malzemesi üzerindeki yansımalarını incelemeyi amaçlamaktadır. Araştırmanın temelinde, fiziksel bir yönelim olan “bakma” eylemi ile zihinsel bir sınıflandırma süreci olan “görme” arasındaki ontolojik fark yatmaktadır. Sanatçının temel hedefi, izleyiciyi alışılmış görsel kalıpların dışına çıkararak pasif bir gözlemciden aktif bir anlamlandırıcıya dönüştürmektir.

Çalışmanın teorik çerçevesi, zihnin görsel verileri nasıl organize ettiğini açıklayan Gestalt Kuramı üzerine inşa edilmiştir. Şekil-zemin, tamamlama, benzerlik ve yakınlık gibi ilkeler; buzun şeffaf, ışığı kıran ve değişken yapısıyla birleştiğinde ortaya çıkan optik yanılsamalar analiz edilmektedir.

Sanat tarihinde Mimesis (taklit), Trompe l’oeil (göz aldatmacası) ve Anamorfoz (perspektif oyunları) gibi tekniklerle evrilen yanılsama pratiği, çalışmada buzun sunduğu derinlik ve hacim ilişkisi bağlamında yeniden yorumlanmaktadır.

Ayrıca, modern sergileme yöntemleri ve deneyimsel sanatın önemi, Türkiye’nin bu alandaki özgün örneği olan Ata Buz Müzesi üzerinden değerlendirilmektedir. Mekânsal etkenlerin (soğukluk, ışıklandırma, atmosfer) izleyicinin algı mekanizması üzerindeki tetikleyici gücü vurgulanmaktadır. Sanatçı, dış etkenleri bir yönetmen titizliğiyle kontrol ederek, izleyiciyi görsel hafızasındaki tanıdık simgelerin ötesinde bir keşif sürecine davet etmektedir. Sonuç olarak, bu çalışma: buzun plastik imkânlarını kullanarak görsel hafızayı sarsmayı, yanılsama aracılığıyla gerçeklik algısını bozmayı ve izleyiciye yeni bir estetik farkındalık kazandırmayı hedeflemektedir.

Anahtar Kelimeler: Görsel Algı, Buz Heykel, Yanılsama, Gestalt Kuramı, Ata Buz Müzesi.

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REPRESENTATION OF ROMA COMMUNITIES IN CINEMA: STEREOTYPING, MARGINALIZATION, AND TOWARDS PARTICIPATORY FILMMAKING

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ABSTRACT

This study examines the representation of Roma in cinema across various countries, including Turkey, within a global and local framework, considering stereotyping, marginalisation, anti-Romaism, and participatory filmmaking practices. How Roma communities are represented, or not represented, in cinema is critically important in terms of the problems of stereotyping, exoticization, and othering. Cinema serves as an important tool in shaping discourses and perceptions regarding the representation of minorities, vulnerable groups, and marginalised individuals. These groups need to be represented accurately and adequately in cinema. Therefore, the study opens up a discussion on combating historical forms of exclusion by addressing examples of self-representation and collaborative filmmaking. This study involved a literature review of the films *Gadjo Dilo* (1997), *Time of the Gypsies* (1988), *Gipsy* (2014), and *Gipsy Queen* (2019), as well as Turkish productions such as *Gırgıriye*, *Cennet Mahallesi* (2004-2007), and *Roman Havası* (2015). The literature findings indicate that representations of Roma communities are mostly shaped by reductionist, crime-focused, exotic, and folkloric clichés. However, there are also recent films with multi-dimensional character development. Consequently, recent productions that enable Roma individuals to actively participate in film production processes and emphasise multi-layered character and narrative development offer more ethical and inclusive alternatives to marginalising representations.

Keywords: Roma representation, cinema, anti-Gypsyism, stereotyping, participatory filmmaking

SİNEMADA ROMAN TOPLULUKLARININ TEMSİLİ: STEREOTİPLEŞTİRME, MARJİNALLEŞME VE KATILIMCI FİLM YAPIMINA DOĞRU

ÖZET

Bu çalışma, çeşitli ülkelerde ve Türkiye sinemasında Roman temsillerini stereotipleştirme, marjinalleşme, antiziganizm ve katılımcı film yapımı pratikleri bağlamında küresel ve yerel bir çerçevede incelemektedir. Roman topluluklarının sinemada nasıl temsil edildiği veya edilmediği, stereotipleştirme, egzotikleştirme ve ötekileştirme sorunları açısından kritik öneme sahiptir. Sinema, azınlıklar, kırılgan gruplar ve ötekileştirilmiş bireylerin temsiliyle ilgili söylem ve algıların üretilmesinde önemli bir araç olarak işlev görmektedir. Bu grupların sinemada doğru ve yeterli şekilde temsil edilmesi gerekmektedir. Bu nedenle, çalışma öz temsil ve işbirlikçi film yapımı örneklerini ele alarak tarihsel dışlanma biçimleriyle mücadeleyi tartışmaya açmaktadır. Çalışmada *Gadjo Dilo* (1997), *Time of the Gypsies* (1988), *Gipsy* (2014), ve *Gipsy Queen* (2019) filmleri ile Türkiye bağlamında *Gırgıriye* (1981-1984), *Cennet Mahallesi* (2004-2007) ve *Roman Havası* (2015) gibi yapımlarla ilgili literatür taraması yapılmıştır. Literatür bulguları Roman topluluklarının temsillerinin çoğunlukla indirgemeci, suç odaklı, egzotik ve folklorik klişelerle şekillendiğini göstermektedir. Bununla birlikte, çok boyutlu karakter gelişimine sahip son dönem filmler de vardır. Sonuç olarak, Roman bireylerin film üretim süreçlerine aktif katılımını sağlayan ve çok katmanlı karakter ile anlatı gelişimini vurgulayan son dönem yapımlar, marjinalleştirici temsillerin yerine daha etik ve kapsayıcı alternatifler sunmaktadır.

Anahtar Kelimeler: Roman temsili, sinema, antiziganizm, stereotipleştirme, katılımcı film yapımı

“DE ASTRONOMIA”DAN BİR SEÇKİ CONSTELLATION MYTHS BY HYGINUS-A COMPILATION FROM “DE ASTRONOMIA”

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ABSTRACT

Early astronomers compared the patterns of the constellations to mythological heroes. Besides they were inspired by myth while naming these constellations. “De Astronomia” or “Poeticon Astronomicon” in four books attributed to the Roman scholar Gaius Julius Hyginus (64 BC-AD 17) narrates the Greek and Roman myths surrounding the clusters. Hyginus’ text describes forty-seven of the forty-eight constellations in Ptolemy’s “Mathematike Syntaxis” or “Almagest”.

Our aim in the paper is to take a closer look at the second book of Hyginus’ “De Astronomia”. We will focus on Hyginus’ stories of the Zodiac constellations. These are the tales of eleven mythical heroes who were rewarded by a god for a difficult task they overcame. They were the ones who reached immortality after being transformed into a constellation in the Zodiac.

Keywords: Hyginus, De Astronomia, Zodiac, Catasterismoi.

HYGINUS’UN KALEMİNDEN TAKIMYILDIZ SÖYLENCELERİ “DE ASTRONOMIA”DAN BİR SEÇKİ

ÖZET

Antik Çağ’da gökbilimiyle uğraşanlar, takımyıldızların yansımalarının şekillerini, mitoslara konu olan kahramanlara benzetmişlerdi. Onlar, bu yıldız gruplarını isimlendirirken de işte bu söylencelerden ilham almışlardı. Romalı bir âlim olan Hyginus yahut Gaius Julius Hyginus’a (İ. Ö. 64- İ. S. 67) atfedilen ve dilimize “Gökbilimi Üzerine” olarak aktarabileceğimiz –dört kitaplık- “De Astronomia” yahut “Poeticon Astronomicon” başlıklı Latince eser, Eski Yunanlı ve Romalılar’ın takımyıldızları adlandırırken esinlendikleri söylenceleri aktarır. Hyginus’un anlatısına konu olan kırk yedi takımyıldız, Yunanlı matematikçi Ptolemaios’un “Mathematike Syntaxis” (Matematiksel Oluşum) eserinde yer alan kırk sekiz takımyıldız arasında bulunur. Biz bu bildiride, ismi, Hyginus ile birlikte anılan –ve dilimize aktarılmamış olan- “De Astronomia”nın ikinci kitabına daha yakından bakacağız. Yazarın, günümüzde de “Zodyak Takımyıldızları” yahut “Zodyak Burçlar Kuşağı” olarak adlandırılan yıldız kümesine dair anlatısına odaklanmak istiyoruz. Her biri üstesinden geldiği güç bir iş için bir tanrı tarafından ödüllendirilerek –birer takımyıldızla dönüştürüldükten sonra (katasterismos)- ölümsüzlüğe kavuşan on bir kahramanın hikâyesini Hyginus’un kaleminden okumak da diyebiliriz buna.

Anahtar Sözcükler : Hyginus, De Astronomia, Zodyak, Katasterismoi.

ARTISTIC FORMS OF TYPOGRAPHY: INTERACTION AND MEANING PRODUCTION IN PUBLIC SPACE

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ABSTRACT

This study examines how typography transcends the functional boundaries of graphic design and is repositioned within public space in the context of contemporary art. Traditionally evaluated through the axes of readability and information transfer, typography is addressed in this research as a multilayered artistic form of expression that establishes relationships with space, the body, the viewer, and the cultural context.

The primary aim of the research is to demonstrate that typography should be considered not merely as a formal design element, but as an artistic practice that interacts with the viewer, transforms public experience, and contributes to the production of social meaning. In this regard, the conceptual and spatial dimensions of typographic forms of expression are examined through discussions on public sphere theories, visual communication approaches, and viewer interaction.

The study adopts a qualitative research methodology, combining literature review, visual analysis, and practice-based research approaches. Typographic installations, typographic sculptures, and typographic art practices in public spaces are analyzed within the framework of spatial perception, viewer participation, and meaning production. In the practical dimension of the research, a proposed typographic installation for the campus of Istanbul Aydın University is evaluated as a spatial representation of the developed theoretical framework.

The findings of the study reveal that typography can function in public space not only as a medium for conveying messages, but also as an interactive artistic practice through which meaning is continuously reconstructed via viewer experience. In this context, the study offers an interdisciplinary evaluation of typography's position within contemporary art and highlights the transformative potential of typographic art practices in public space.

Keywords: Artistic Typography, Public Space, Typographic Installation, Viewer Interaction, Meaning Production, Public Intervention

TİPOGRAFİNİN SANATSAL İFADE BİÇİMLERİ: KAMUSAL ALANDA ETKİLEŞİM VE ANLAM ÜRETİMİ

ÖZET

Bu çalışma, tipografinin grafik tasarımın işlevsel sınırlarını aşarak çağdaş sanat bağlamında kamusal alanda nasıl yeniden konumlandığını incelemektedir. Geleneksel olarak okunabilirlik ve bilgi aktarımı ekseninde değerlendirilen tipografi, bu çalışmada mekân, beden, izleyici ve kültürel bağlamla ilişki kuran çok katmanlı bir sanatsal ifade biçimi olarak ele alınmaktadır.

Araştırmanın temel amacı, tipografinin yalnızca biçimsel bir tasarım unsuru değil; izleyiciyle etkileşime giren, kamusal deneyimi dönüştüren ve toplumsal anlam üretimine katkı sağlayan bir sanat pratiği olduğunu ortaya koymaktır.

Bu doğrultuda çalışma kapsamında kamusal alan kuramları, görsel iletişim yaklaşımları ve izleyici etkileşimi tartışmaları üzerinden tipografik ifade biçimlerinin kavramsal ve mekânsal boyutları değerlendirilmiştir.

Çalışmada nitel araştırma yöntemi benimsenmiş; literatür taraması, görsel çözümleme ve uygulama temelli araştırma yaklaşımları birlikte kullanılmıştır. Tipografik yerleştirmeler, tipografik heykeller ve kamusal alandaki tipografik sanat uygulamaları; mekânsal algı, izleyici katılımı ve anlam üretimi kavramları doğrultusunda incelenmiştir. Araştırmanın uygulama boyutunda ise İstanbul Aydın Üniversitesi yerleşkesine yönelik önerilen tipografik bir enstalasyon çalışması, geliştirilen kuramsal çerçevenin mekânsal bir temsili olarak değerlendirilmiştir.

Çalışma sonucunda, tipografinin kamusal alanda yalnızca mesaj ileten bir araç olarak değil; izleyici deneyimi aracılığıyla anlamın yeniden üretildiği etkileşimsel bir sanat pratiği olarak işlev görebildiği ortaya konmuştur. Bu bağlamda çalışma, tipografinin çağdaş sanat içerisindeki konumuna ilişkin disiplinlerarası bir değerlendirme sunarak kamusal alanda tipografik sanat pratiklerinin dönüştürücü potansiyeline dikkat çekmektedir.

Anahtar Kelimeler: Sanatsal Tipografi, Kamusal Alan, Tipografik Enstalasyon, İzleyici Etkileşimi, Anlam Üretimi, Kamusal Müdahale

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UNIQUE STRUCTURES OF THE SOUTHEASTERN ANATOLIA REGION: ABBARAS

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ABSTRACT

The Southeastern Anatolia region, located in southeastern Turkey, has hosted various civilizations throughout history and possesses a deep-rooted past. Situated between the Euphrates and Tigris rivers, this region has a continental climate. Summers are hot and dry, while winters are mild. This culturally rich region is reflected in its architectural fabric. Among the most important of these unique architectural elements are the abbaras.

Abbaras are generally covered structures with vaulted or flat ceilings that provide passage over streets. Built to adapt to the hot and arid climate conditions of the region, these structures also create shaded areas in the streets, thus providing climatic balance. At the same time, in a traditional society where the concept of privacy is strong, abbaras offer building owners a safe and unseen passage between upper floors. Abbaras are usually constructed from cut stone, which is suitable for this geography. These structures, with their unique materials, are also aesthetically pleasing. The stonework, vault systems, and arch arrangements, in particular, enhance their aesthetic value. Abbara is not only an element that allows for different spatial interactions, but also facilitates access by establishing short connections between various parts of the traditional environment. It plays a significant role in the formation of an organic street sequence and the establishment of an effective circulation network in traditional urban structures.

Abbaras are particularly common in cities such as Diyarbakır, Mardin, Siirt, and Şanlıurfa. They are also known by different names depending on the city. In Mardin it is known as abbara, in Şanlıurfa as kabaaltı, and in Siirt as sabat.

Keywords: Abbara, Southeastern Anatolia Region, Architecture

GÜNEYDOĞU ANADOLU BÖLGESİ ÖZGÜN YAPILARI; ABBARALAR

ÖZET

Güneydoğu Anadolu bölgesi, Türkiye'nin güneydoğusunda yer alan tarihsel süreç boyunca farklı medeniyetlere ev sahipliği yapmış ve köklü bir geçmişe sahip olmuştur. Fırat Nehri ve Dicle Nehri arasında yer alan bu bölge Karasal iklime sahiptir. Yazları sıcak ve kurak, kışları ise ılıman geçer. Kültürel alanda zengin olan bu bölgenin mimari dokusuna da yansımıştır. Bu özgün mimari unsurlar arasında en önemli olanlarından bir tanesi abbaralardır.

Abbaralar, genellikle üstü kapalı sokak üzerinde geçiş sağlayan, tonozlu veya düz tavanlı mimari yapılardır. Bölgenin sıcak ve kurak iklim koşullarına uyum sağlamak amacıyla inşa edilen bu yapılar, sokaklarda gölgelik alanlar da oluşturmaktadır. Bu yüzden iklimsel açıdan da denge oluşturmaktadır. Aynı zamanda abbaralar, mahremiyet anlayışının güçlü olduğu geleneksel toplum yapısında, yapı sahiplerine üst katlar arasında güvenli ve dışarıdan görünmeyen bir geçiş imkânı sunar. Abbaralar genellikle bu coğrafyaya uygun olan kesme taşlardan yapılmaktadır. Bu yapılar kendine özgü malzemeleriyle estetik açıdan da beğeni sunmaktadır. Özellikle taş işçiliği, tonoz sistemleri ve kemer düzenleri estetik değerini artırmaktadır. Abbara, yalnızca farklı mekânsal etkileşimlere olanak tanıyan bir unsur değil, ayrıca geleneksel çevrenin çeşitli bölümleri arasında kısa bağlantılar kurarak erişimi kolaylaştırmaktadır. Geleneksel kent yapılarında organik sokak dizisinin oluşumunda ve etkili bir dolaşım ağının kurulmasında Abbaranın önemli bir rolü vardır.

Abbaralar özellikle Diyarbakır, Mardin, Siirt ve Şanlıurfa gibi şehirlerde sıkça görülmektedir. Bu şehirlere göre farklı isimle de anılmaktadır. Mardin de abbara Şanlıurfa da kabaaltı ve Siirt ilinde ise sabat olarak bilinmektedir.

Anahtar Kelimeler: Abbara, Güneydoğu Anadolu Bölgesi, Mimari

THE GALLERY TOMB IN THE EASTERN NECROPOLIS OF DARA (ANASTASIOPOLIS) ANCIENT CITY: AN ASSESSMENT OF ARCHITECTURE, RITUAL, AND COLLECTIVE BURIAL PRACTICES

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ABSTRACT

The Gallery Tomb located in the eastern necropolis of Dara (Anastasiopolis) provides significant insights into Late Antique funerary practices through its architectural features and archaeological evidence. This monumental structure, built on three levels, includes a lower floor arranged as a mass burial area containing the skeletal remains of approximately one thousand individuals. The presence of horse bones alongside human remains suggests that these burials may be associated with a warfare context. The middle and upper levels consist of arcosolium burial niches, although the upper level has been largely destroyed.

The Ezekiel relief located above the monumental entrance of the structure elevates the Gallery Tomb beyond a simple burial space, embedding it within a symbolic and theological framework. This relief is thought to represent themes of resurrection and hope in connection with the “Valley of Dry Bones” narrative described in the Book of Ezekiel. Furthermore, the presence of a vertical shaft in the northwest corner of the interior, opening upward and interpreted as a ventilation feature, indicates that the space may have been used not only for burial purposes but also for ritual activities associated with funerary practices.

This study aims to evaluate the Gallery Tomb through its architectural organization, iconographic elements, and mass burial context, thereby contributing to a broader understanding of the ritual and social structure of the Dara necropolis.

Keywords: Dara, Necropolis, Gallery Tomb, Ezekiel Relief, Mass Burial

DARA (ANASTASIOPOLİS) DOĞU NEKROPOLÜ'NDE YER ALAN GALERİ MEZAR: MİMARİ, RİTÜEL VE TOPLU GÖMÜ BAĞLAMINDA BİR DEĞERLENDİRME

ÖZET

Dara (Anastasiopolis) Antik Kenti'nin doğu nekropolü içerisinde yer alan Galeri Mezar, mimari özellikleri ve buluntu verileriyle Geç Antik Çağ ölüm ritüellerine dair önemli bilgiler sunmaktadır. Üç katlı olarak inşa edilen bu anıtsal mezar yapısının en alt katı, yaklaşık bin bireye ait iskelet kalıntılarının bulunduğu bir toplu gömü alanı olarak düzenlenmiştir. Bu alanda insan kalıntılarıyla birlikte at kemiklerinin de tespit edilmesi, söz konusu gömülerin savaş bağlamında gerçekleşmiş olabileceğini düşündürmektedir. Orta ve üst katlarda ise arcosoliumlu mezar nişleri yer almakta olup, üst katın büyük ölçüde tahrip olduğu anlaşılmaktadır.

Yapının anıtsal giriş kapısı üzerinde yer alan Hezekiel rölyefi, Galeri Mezar'ı yalnızca bir gömü alanı olmaktan çıkararak sembolik ve teolojik bir anlam dünyasına taşımaktadır. Bu rölyefin, Hezekiel kitabında geçen “kuru kemikler vadisi” anlatısıyla ilişkili olarak yeniden diriliş ve umut kavramlarını temsil ettiği düşünülmektedir. Ayrıca mezarın iç kısmında, kuzeybatı köşede yukarıya açılan bir havalandırma boşluğunun bulunması, bu alanın yalnızca defin amacıyla değil, aynı zamanda ölüm ritüelleriyle bağlantılı törenler için de kullanılmış olabileceğine işaret etmektedir. Bu çalışma, Galeri Mezar'ın mimari düzeni, ikonografik unsurları ve toplu gömü pratiği üzerinden değerlendirilerek, Dara nekropolünün ritüel ve toplumsal yapısına katkı sağlamayı amaçlamaktadır.

Anahtar Kelimeler: Dara, Nekropol, Galeri Mezar, Hezekiel Rölyefi, Toplu Gömü

THE MOSAICS AND SYRIAC CHURCH OF GOLA SETTLEMENT: AN ARCHAEOLOGICAL EVALUATION

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ABSTRACT

The Gola Settlement, located near the Derik district of Mardin, is one of the significant archaeological sites reflecting the settlement pattern of Late Antiquity and the Early Medieval Period. The Syriac Church and floor mosaics uncovered during rescue excavations conducted in 2020 provide important evidence regarding the religious, artistic, and socio-cultural structure of the region. The mosaics decorating the floor of the single-nave basilical church include geometric borders, bird and animal depictions, hunting scenes, agricultural motifs, and Syriac inscriptions written in Estrangelo script. Expressions such as “April,” “March,” and “June,” together with scenes related to hunting, agriculture, and seasonal activities, reflect symbolic representations connected to daily life and production practices in the region. The depiction of human figures in local clothing and the dynamic representation of animals demonstrate the influence of the North Syrian artistic tradition centered around Edessa. Umayyad-period coins and arrowheads recovered from the settlement indicate continuous occupation from the Roman Imperial Period to the Early Islamic era. This study aims to evaluate the iconographic and epigraphic features of the mosaics uncovered at Gola Settlement and contribute to the understanding of the region’s cultural continuity and artistic interactions.

Keywords: Gola Settlement, Syriac Church, Mosaic, Estrangelo, Late Antiquity

GOLA YERLEŞİMİ MOZAİKLERİ VE SÜRYANİ KİLİSESİ ÜZERİNE BİR DEĞERLENDİRME

ÖZET

Mardin’in Derik ilçesi yakınlarında yer alan Gola Yerleşimi, Geç Antik Çağ ve Erken Orta Çağ yerleşim dokusunu yansıtan önemli arkeolojik alanlardan biridir. 2020 yılında gerçekleştirilen kurtarma kazıları sırasında açığa çıkarılan Süryani Kilisesi ve taban mozaikleri, bölgenin dini, sanatsal ve sosyo-kültürel yapısına ilişkin önemli veriler sunmaktadır. Tek nefli bazilikal planlı kilisenin taban döşemesinde yer alan mozaikler; geometrik bordürler, kuş ve hayvan betimleri, av sahneleri, tarım temalı figürler ve Estrangelo stilinde yazılmış Süryanice kitabelerle dikkat çekmektedir. Mozaiklerde yer alan “Nisan”, “Mart” ve “Haziran” ifadeleri ile av, tarım ve mevsim temalı sahneler, bölgenin günlük yaşamı ve üretim faaliyetleriyle ilişkili sembolik anlatımlar sunmaktadır. İnsan figürlerinin yerel kıyafetlerle betimlenmesi ve hayvan tasvirlerinin dinamik kompozisyonlarla işlenmesi, Edessa merkezli Kuzey Suriye sanat geleneğinin bölge üzerindeki etkisini göstermektedir. Yerleşimde bulunan Emevi Dönemi sikkeleri ve ok uçları ise alanın Roma İmparatorluk Dönemi’nden başlayarak Erken İslam dönemine kadar kesintisiz kullanım gördüğünü ortaya koymaktadır. Bu çalışma, Gola Yerleşimi’nde ortaya çıkarılan mozaiklerin ikonografik ve epigrafik özelliklerini değerlendirerek bölgenin kültürel sürekliliği ve sanatsal ilişkileri üzerine katkı sunmayı amaçlamaktadır.

Anahtar Kelimeler: Gola Yerleşimi, Süryani Kilisesi, Mozaik, Estrangelo, Geç Antik Çağ

INVESTIGATION OF STAIRCASE DAMAGE AFTER THE FEBRUARY 6, 2023 KAHRAMANMARAS EARTHQUAKES

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ABSTRACT

Earthquakes are considered among the most destructive natural hazards worldwide. Regardless of the period in which they occur, earthquakes may cause severe damage or collapse of numerous structures, resulting in significant casualties and substantial economic losses. Post-earthquake damage assessments generally focus on primary structural components such as columns, beams, and shear walls, whereas staircase systems are often regarded as secondary elements and therefore neglected. However, staircases are structural components that can significantly influence the seismic behavior of buildings. Staircase openings may create short-span regions, while stiffness irregularities caused by surrounding infill walls and the interaction between the staircase and the structural system under seismic loading can alter the overall damage mechanism depending on the location of the staircase within the building and may lead to unforeseen torsional effects during the design stage. Furthermore, several researchers have reported that, depending on the staircase configuration and structural system layout, additional shear forces and bending moments may develop in columns adjacent to the landing, whereas internal force demands in other columns may decrease. In this study, staircase damage observed in buildings located in Malatya following the Kahramanmaraş earthquakes was investigated. The obtained findings were evaluated through a holistic approach considering parameters such as concrete and reinforcement quality, probable construction period, number of stories/building height, and building layout characteristics within the parcel. The results indicate that staircase systems should not be overlooked in seismic performance assessments, and they highlight the importance of a more comprehensive evaluation of these components within the existing building stock.

Keywords: 2023 Kahramanmaraş earthquakes, staircase damage, reinforced concrete buildings, field observations

6 ŞUBAT 2023 KAHRAMANMARAŞ DEPREMLERİ SONRASI MERDİVEN HASARLARININ İNCELENMESİ

ÖZET

Depremler, dünya genelinde en yıkıcı doğal afetler arasında kabul edilmektedir. Meydana geldikleri dönemden bağımsız olarak depremler, çok sayıda yapının ağır hasar görmesine veya tamamen göçmesine neden olabilmekte; bunun sonucunda ciddi can kayıpları ve büyük ekonomik kayıplar ortaya çıkmaktadır. Deprem sonrası hasar değerlendirmeleri genellikle kolon, giriş ve perde duvar gibi birincil taşıyıcı sistem elemanlarına odaklanırken, merdiven sistemleri çoğu zaman ikincil elemanlar olarak değerlendirilmekte ve göz ardı edilmektedir. Ancak merdivenler, yapıların deprem davranışını önemli ölçüde etkileyebilen yapısal bileşenlerdir. Merdiven boşlukları kısa açıklıklı bölgelerin oluşmasına neden olabilirken, çevresindeki dolgu duvarlardan kaynaklanan rijitlik düzensizlikleri ve deprem etkisi altında merdiven ile taşıyıcı sistem arasındaki etkileşim, merdivenin yapı içerisindeki konumuna bağlı olarak genel hasar mekanizmasını değiştirebilmekte ve tasarım aşamasında öngörülme- yen burulma etkilerine yol açabilmektedir.

Ayrıca çeşitli araştırmacılar, merdiven konfigürasyonu ve taşıyıcı sistem düzenine bağlı olarak sahanlığa komşu kolonlarda ilave kesme kuvvetleri ve eğilme momentlerinin oluşabileceğini, buna karşılık diğer kolonlardaki iç kuvvet taleplerinin azalabileceğini bildirmiştir. Bu çalışmada, Kahramanmaraş depremleri sonrasında Malatya’da bulunan yapılarda gözlemlenen merdiven hasarları incelenmiştir. Elde edilen bulgular; beton ve donatı kalitesi, olası yapım dönemi, kat sayısı/yapı yüksekliği ve parsel içerisindeki yapı yerleşim özellikleri gibi parametreler dikkate alınarak bütüncül bir yaklaşımla değerlendirilmiştir. Sonuçlar, deprem performans değerlendirmelerinde merdiven sistemlerinin göz ardı edilmemesi gerektiğini ortaya koymakta ve mevcut yapı stokunda bu bileşenlerin daha kapsamlı biçimde değerlendirilmesinin önemini vurgulamaktadır.

Anahtar Kelimeler: 2023 Kahramanmaraş depremleri, merdiven hasarı, betonarme yapılar, saha gözlemleri.

GIS AND SVM/SMO-BASED SPATIAL SUITABILITY ANALYSIS FOR WIND POWER PLANT SITE SELECTION IN KAYSERİ PROVINCE

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ABSTRACT

Wind power plant site selection is a multidimensional spatial decision problem that requires the integrated assessment of energy production potential, environmental constraints, land-use characteristics, and planning criteria. This study aims to identify suitable areas for wind power plant development in Kayseri Province by combining Geographic Information Systems with a machine learning-based classification approach, thereby providing an objective spatial decision-support framework for renewable energy planning. Spatial criteria including wind potential, topographic characteristics, land use, and distance-based constraints related to settlements and infrastructure were prepared in a GIS environment. The resulting dataset was classified using the Support Vector Machine-based SMO algorithm, and the model performance was validated using an independent test dataset. The findings indicate that the model achieved high discriminative performance, with an overall accuracy of 98.52% and a kappa coefficient of 0.9705. The final suitability analysis identified approximately 220.26 km² of candidate areas as suitable for wind power plant installation within Kayseri Province. The results demonstrate that the integrated GIS and SVM/SMO approach provides a robust, reproducible, and data-driven methodology for supporting technical, environmental, and planning-oriented decisions in renewable energy investments.

Keywords: Wind power plant site selection; Geographic Information Systems; Support Vector Machine; SMO algorithm; spatial suitability analysis; renewable energy planning; Kayseri

KAYSERİ İLİNDE RÜZGÂR ENERJİ SANTRALİ YER SEÇİMİ İÇİN CBS VE SVM/SMO TABANLI MEKÂNSAL UYGUNLUK ANALİZİ

ÖZET

Rüzgâr enerji santrallerinin yer seçimi, enerji üretim potansiyeli, çevresel etkiler, arazi kullanımı ve mekânsal planlama kısıtlarının birlikte değerlendirilmesini gerektiren çok boyutlu bir karar problemidir. Bu çalışmanın amacı, Kayseri ili ölçeğinde rüzgâr enerji santrali kurulumu için uygun alanları Coğrafi Bilgi Sistemleri ve makine öğrenmesi yaklaşımıyla belirlemek ve karar vericilere nesnel bir mekânsal uygunluk çerçevesi sunmaktır. Çalışmada rüzgâr potansiyeli, topografik yapı, arazi kullanımı, yerleşimlere ve altyapı unsurlarına uzaklık gibi mekânsal kriterler CBS ortamında hazırlanmış; elde edilen veri seti Destek Vektör Makinası tabanlı SMO algoritması ile sınıflandırılmıştır. Model performansı bağımsız test verileri üzerinden doğrulanmış ve uygunluk sınıfları haritalanmıştır. Elde edilen bulgular, modelin %98,52 genel doğruluk ve 0,9705 kappa katsayısı ile yüksek ayırt edicilik sağladığını göstermektedir. Analiz sonucunda Kayseri ilinde yaklaşık 220,26 km² alan rüzgâr enerji santrali kurulumu açısından uygun aday bölge olarak belirlenmiştir.

Sonuçlar, CBS ve SVM/SMO bütünleşik yaklaşımının yenilenebilir enerji yatırımlarında teknik, çevresel ve planlama temelli kararları destekleyen güçlü ve tekrarlanabilir bir yöntem sunduğunu ortaya koymaktadır.

Anahtar Kelimeler: Rüzgâr enerji santrali yer seçimi; Coğrafi Bilgi Sistemleri; Destek Vektör Makinası; SMO algoritması; mekânsal uygunluk analizi; yenilenebilir enerji planlaması; Kayseri

PERFORATION STRATEGIES IN MODERN WELL COMPLETION OPERATIONS: SYSTEM ANALYSIS OF TUBING CONVEYED PERFORATION (TCP)

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ABSTRACT

The increasing global energy demand necessitates the most efficient production of oil and gas reserves. In this process, perforation, as the most critical stage of well completion operations, ensures the establishment of an optimal hydraulic connection between the reservoir and the wellbore. This paper examines modern perforation strategies, focusing specifically on the operational, technical, and economic advantages of Tubing Conveyed Perforating (TCP) systems. In contrast to the geometric and mechanical limitations of traditional wire rope systems, the effectiveness of TCP systems in high-deflection and horizontal wells, their capacity to drill long spans in a single pass, and their ability to facilitate high-instability conditions are described in detail. The dynamic cleaning (backflow) effect that occurs during imbalance blasting is explained with the support of statistical data, and it is shown how this effect minimizes formation damage (surface effect) and significantly increases production flow rates. Consequently, it is concluded that despite higher initial capital expenditure (CAPEX), TCP systems maximize well productivity and shorten the overall project payback period thanks to significant drilling time savings, reduced need for secondary excitation, and superior Health, Safety, and Environment (HSE) standards.

Keywords: Well Completion, Perforation, Tubing Conveyed Perforating (TCP), Formation Damage (Skin Effect), Underbalanced Perforating, Munroe Effect.

MODERN KUYU TAMAMLAMA OPERASYONLARINDA PERFORASYON STRATEJİLERİ: TUBING CONVEYED PERFORATION (TCP) SİSTEM ANALİZİ

ÖZET

Dünya genelinde artan enerji talebi, petrol ve doğal gaz rezervlerinin en verimli şekilde üretime alınmasını zorunlu kılmaktadır. Bu süreçte, kuyu tamamlama operasyonlarının en kritik aşaması olan perforasyon, rezervuar ile kuyu arasında optimum hidrolik bağlantının kurulmasını sağlar. Bu makale, modern perforasyon stratejilerini ve özellikle Dizili Delme (Tubing Conveyed Perforating - TCP) sistemlerinin operasyonel, teknik ve ekonomik avantajlarını incelemektedir. Geleneksel kablolu (wireline) sistemlerin geometrik ve mekanik sınırlarına karşın; TCP sistemlerinin yüksek açılı ve yatay kuyulardaki etkinliği, uzun aralıkların tek seferde (single trip) perfore edilebilmesi ve sağladığı yüksek "underbalanced" (alçak basınçlı) çalışma imkanı detaylandırılmıştır. Underbalanced patlatma anında oluşan dinamik temizlik (backsurge) etkisinin, formasyon hasarını (skin effect) minimize ederek üretim debisini nasıl artırdığı istatistiksel verilerle desteklenerek açıklanmıştır. Sonuç olarak, TCP sistemlerinin yüksek başlangıç maliyetlerine (CAPEX) rağmen, sağladığı zaman tasarrufu, azalan stimülasyon ihtiyacı ve üst düzey iş güvenliği (HSE) standartları ile projenin toplam geri dönüş süresini kısalttığı ve kuyu verimliliğini maksimize ettiği ortaya konulmuştur.

Anahtar Kelimeler: Kuyu Tamamlama, Perforasyon, Tubing Conveyed Perforating (TCP), Formasyon Hasarı, Underbalanced Patlatma, Munroe Etkisi.

A NOVEL CONVERGENCE APPROACH FOR FIXED POINTS OF NONLINEAR MAPPINGS

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ABSTRACT

In this paper, we propose a new four-step iterative algorithm for approximating fixed points of nonlinear mappings defined in Banach spaces. The developed method is based on the incorporation of nested correction steps supported by suitable control parameters, which enhances the stability and convergence rate of the iterative process. The proposed algorithm provides a more general framework that extends the structural properties of several classical and widely used iterative schemes, including Picard, Mann, Ishikawa, Noor, SP, CR, and S* iterations. Furthermore, the convergence properties of the proposed iterative scheme are investigated theoretically, and strong convergence results are established under appropriate fixed point conditions. The obtained results demonstrate both the theoretical effectiveness of the new method and its superior convergence performance compared to existing iterative algorithms. Consequently, the proposed approach offers an efficient and applicable technique for solving various problems arising in nonlinear analysis and fixed point theory.

Keywords: Fixed point, Suzuki generalized nonexpansive mapping, condition (C), iterative algorithms, strong convergence, weak convergence, stability analysis.

DOĞRUSAL OLMAYAN DÖNÜŞÜMLERİN SABİT NOKTALARI İÇİN YENİ BİR YAKINSAMA YAKLAŞIMI

ÖZET

Bu çalışmada, Banach uzaylarında tanımlı doğrusal olmayan dönüşümlerin sabit noktalarının yaklaşık olarak elde edilmesine yönelik yeni bir dört adımlı iteratif algoritma önerilmektedir. Geliştirilen yöntem, iç içe geçmiş düzeltme adımlarının uygun kontrol parametreleri ile desteklenmesi esasına dayanmakta olup, bu sayede iteratif sürecin kararlılığı ve yakınsama hızı artırılmaktadır. Önerilen algoritma, klasik ve yaygın olarak kullanılan Picard, Mann, Ishikawa, Noor, SP, CR ve S* iterasyon yöntemlerinin yapısal özelliklerini genelleştiren daha kapsamlı bir çerçeve sunmaktadır. Çalışmada ayrıca, önerilen iterasyon şemasının yakınsama özellikleri teorik olarak incelenmiş ve ilgili sabit nokta koşulları altında güçlü yakınsama sonuçları elde edilmiştir. Elde edilen bulgular, yeni yöntemin hem teorik açıdan etkinliğini hem de mevcut iteratif algoritmalarla kıyasla daha iyi yakınsama performansı sergilediğini göstermektedir. Böylece önerilen yaklaşımın, doğrusal olmayan analiz ve sabit nokta teorisi alanlarında karşılaşılan çeşitli problemlerin çözümünde etkili ve uygulanabilir bir yöntem olduğu ortaya konulmaktadır.

Anahtar Kelimeler: Sabit nokta, Suzuki genelleştirilmiş genişlemeyen dönüşüm, koşul (C), iterasyon algoritmaları, güçlü yakınsama.

THE EFFECT OF EDGE FRAME DISCONTINUITY ON THE SEISMIC BEHAVIOR OF BUILDINGS

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ABSTRACT

The discontinuity of the frame beam occurs due to architectural aims in buildings, where the edge beams connected to the columns are transferred to the tip of the cantilever. In order to examine the effect of the discontinuity of the perimeter frame beam on the seismic behavior of buildings, a six-story reinforced concrete building has been designed in three different ways. First, the perimeter frame beams were offset to the end, and the slabs were considered as flexible diaphragms. In the second design, beams with the same properties as the moved beams were placed, and the slabs were again considered as flexible diaphragms. In the third design, similar beams were placed instead of the moved beams as in the second design, but here the slabs were considered as rigid diaphragms. For the modal pushover analysis, the building was designed both rigid diaphragm and flexible diaphragm. In the first step of the nonlinear pushover analysis, the combination of dead and live vertical loads ($G+Q$) was taken as load-controlled, and the nonlinear modal pushover analysis was performed for both the X and Y directions of the building using the displacement-controlled method. In the displacement-controlled analysis, the maximum peak displacement value of the building, which the program uses to terminate the nonlinear pushover analysis, is utilized. A large initial value was taken for this displacement value, and the analysis was repeated using the maximum peak displacement value found from the analysis with this displacement value. In the study, it was observed how this irregularity, which leads to frame discontinuity, affects the building behavior under seismic effects.

Keywords: Frame discontinuity, earthquake, RC building

ÇEVRE ÇERÇEVE SÜREKSİZLİĞİNİN BİNALARIN DEPREM DAVRANIŞINA ETKİSİ

ÖZET

Çevre çerçeve kirişi süreksizliği, binalarda mimari çıkmalar nedeniyle kolonlarla birleşen kenar kirişlerin çıkmaların uç kısmına ötelenmesi nedeniyle oluşmaktadır. Çevre çerçeve kirişi süreksizliğinin yapıların deprem davranışına etkisini incelemek amacıyla, altı katlı betonarme bir bina üç farklı şekilde tasarlanmıştır. İlk olarak, çevre çerçeve kirişleri çıkma ucuna ötelenmiş ve döşemeler esnek diyafram olarak alınmış, ikincisinde ötelenen kirişlerin yerine bu kirişlerle aynı özelliklere sahip kirişler yerleştirilmiş ve yine döşemeler esnek diyafram olarak alınmış, üçüncüsünde ise ötelenen kirişlerin yerine ikinci tasarımda olduğu gibi benzer kirişler konmuş ancak burada döşemeler rijit diyafram olarak kabul edilmiştir. Çevre çerçeve kirişsiz esnek diyaframlı, çevre kirişli esnek diyaframlı ve çevre kirişli rijit diyaframlı olmak üzere üç ayrı şekilde tasarlanmış binanın modal itme analizi yapılmıştır. Doğrusal olmayan itme analizinin ilk adımında, ölü ve hareketli düşey yüklerin birleşimi ($G+Q$) yük kontrollü olarak alınarak, deplasman kontrollü yöntemle doğrusal olmayan modal itme analizi, binanın hem X hem de Y yönleri için yapılmıştır.

Deplasman kontrollü analizde, programın doğrusal olmayan itme analizi esnasında analizi sonlandırmak için kontrol ettiği yapının maksimum tepe deplasmanı değeri kullanılmaktadır. Bu deplasman değeri için başlangıçta büyük bir değer alınmış, bu deplasman değeri ile yapılan analiz sonucunda bulunan maksimum tepe deplasman değeri yeni analiz için kullanılarak analiz tekrarlanmıştır. Çalışmada, çerçeve süreksizliğine yol açan bu düzensizlik durumunun deprem etkileri altında bina davranışını ne denli etkilediği görülmüştür.

Anahtar kelimeler: Çerçeve süreksizliği, deprem, betonarme bina

OPTIMIZATION OF CHARGING STATION LOCATIONS WITHIN THE SCOPE OF WIDESPREAD ADOPTION OF ELECTRIC VEHICLES IN SOCIETY

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ABSTRACT

This study aims to determine suitable locations for electric vehicle charging stations in order to support the widespread adoption of electric vehicles. The study area includes 71 neighborhoods in Yıldırım district of Bursa, and potential demand was evaluated using population density and vehicle ownership data.

Multi-Criteria Decision-Making methods were applied in this study. In the first stage, Fuzzy-AHP was used to determine the weights of criteria, followed by AHP for ranking candidate locations. In the final stage, Grey Relational Analysis (GRA) was applied to validate the consistency of the results. The analysis was conducted using Python in Google Colab, with Pandas and NumPy used for data processing and visualization.

The study considers criteria such as residential accessibility, on-street parking demand, middle-income density, installation feasibility, safety, and expansion potential. The results indicate that expansion potential is the most important factor. Millet, Değirmenönü, Arabayatağı, and Şirinevler neighborhoods were identified as high-potential areas.

Candidate location analysis showed that market areas and public parking spaces are suitable options. The consistency between AHP and GRA results confirms the reliability of the model. Overall, this study provides a practical decision-support model for electric vehicle charging station location selection.

Keywords: Electric vehicles, charging stations, AHP, Fuzzy AHP, Grey Relational Analysis, location selectio

ELEKTRİKLİ ARAÇ KULLANIMININ TOPLUMDA YAYGINLAŞTIRILMASI KAPSAMINDA ŞARJ İSTASYONU KONUMLARININ OPTİMİZASYONU

ÖZET

Bu çalışmanın amacı, elektrikli araç kullanımının yaygınlaşmasına katkı sağlamak amacıyla şarj istasyonları için en uygun yerlerin belirlenmesidir. Çalışma alanı olarak Bursa ili Yıldırım ilçesinde yer alan 71 mahalle ele alınmış ve elektrikli araç talep potansiyeli nüfus yoğunluğu ve araç sahipliği verileri üzerinden analiz edilmiştir.

Araştırmada çok kriterli karar verme yöntemleri kullanılmıştır. İlk aşamada Bulanık-Fuzz-AHP yöntemi ile kriter ağırlıkları belirlenmiş, ardından AHP yöntemi ile aday lokasyonlar sıralanmıştır. Son aşamada Gri İlişkisel Analiz (GRA) yöntemi kullanılarak sonuçların tutarlılığı test edilmiştir. Tüm analizler Python programlama dili kullanılarak Google Colab ortamında gerçekleştirilmiş, veri işleme ve görselleştirme için Pandas ve NumPy kütüphanelerinden yararlanılmıştır.

Çalışmada konut erişilebilirliği, sokak üstü park talebi, orta gelir düzeyi, kurulum uygunluğu, güvenlik ve genişleme potansiyeli kriterleri dikkate alınmıştır. Elde edilen bulgulara göre en önemli kriterin genişleme potansiyeli olduğu görülmüştür. Analiz sonucunda Millet, Değirmenönü, Arabayatağı ve Şirinevler mahalleleri yüksek potansiyele sahip bölgeler olarak öne çıkmıştır.

Aday nokta değerlendirmelerinde özellikle pazar alanları ve kamusal otoparkların uygun olduğu belirlenmiştir. GRA sonuçlarının AHP ile büyük ölçüde uyumlu olması modelin güvenilirliğini desteklemektedir.

Genel olarak çalışma, elektrikli araç şarj istasyonu yer seçiminde kullanılabilecek pratik ve uygulanabilir bir karar destek modeli sunmaktadır.

Anahtar Kelimeler: Elektrikli araçlar, şarj istasyonu, AHP, Bulanık Fuzzy AHP, Gri İlişkisel Analiz, yer seçimi

BIRD'S-EYE-VIEW UAV DETECTION: YOLOV8 VERSUS YOLO11 UNDER A FIXED PROTOCOL

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ABSTRACT

Bird's-eye-view (BEV) unmanned aerial vehicle (UAV) detection is difficult to compare fairly across detectors when splits and multimodal alignment are underspecified. In this study, we report frozen Ultralytics benchmarks on the public DBEV-UAV dataset for YOLOv8n and YOLO11n under an identical three-branch protocol: full RGB (B1), full depth stacked to three channels (B2), and strict-pair RGB-only training (P1) with RGB-native labels. All metrics are taken from validation and test partitions without post-hoc retuning. On full RGB, both models achieved similar performances according the statistical metrics. However, YOLO11n yields slightly lower per-image inference latency. Depth and paired subsets are dominated by modality and coverage effects rather than backbone generation. The study shows that reproducible DBEV reporting requires fixed splits and label ownership, not only a newer YOLO release.

Keywords: UAV detection; bird's-eye-view imagery; YOLOv8; YOLO11; DBEV-UAV; multimodal evaluation

AN INVESTIGATION OF THE STRENGTH PERFORMANCE OF SBR LATEX AND POLYPROPYLENE FIBER-REINFORCED EXTERIOR PLASTER MORTARS

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Abstract

Exterior plaster is one of the most important layers that protects buildings from environmental effects, and its durability and mechanical performance play a critical role in the lifespan of a structure. In this study, the effects of adding styrene-butadiene rubber (SBR) latex and polypropylene fiber (PPL) to cement-based exterior plaster mortars on their compressive and flexural tensile strengths were experimentally investigated. For this purpose, nine test series were created by adding SBR latex (0%, 10%, and 20%) and PP fibers (0%, 0.05%, and 0.10%) at different ratios to mortar mixtures with a maximum aggregate size of 4 mm, a cement-to-aggregate ratio of 0.40, and a cement dosage of 400 kg. The changes in compressive and flexural tensile strengths after 28 days were examined through experiments conducted on the specimens prepared for each series.

The results of the study revealed that changes in tensile strength under compression and bending occurred depending on the proportions of SBR latex and PP fibers added to the mortar mixture. The experiments determined that mortar samples containing 10% SBR latex and 0.05% PP fibers provided the highest performance in terms of both tensile strength under compression and bending.

Keywords: SBR latex, polypropylene fiber, exterior plaster mortar, compressive strength, flexural strength

SBR LATEKS VE POLİPROPİLEN LİF TAKVİYELİ DIŞ SIVA HARÇLARININ DAYANIM PERFORMANSLARININ İNCELENMESİ

ÖZET

Dış siva, yapıların çevresel etkilere karşı korunmasını sağlayan en önemli katmanlardan biri olup, dayanıklılığı ve mekanik performansı yapı ömrü açısından kritik bir rol oynamaktadır. Bu çalışmada, stiren-bütadien kauçuk (SBR) lateks ve polipropilen lif (PPL) ilavelisinin çimento esaslı dış siva harçlarının basınç ve eğilmede çekme dayanımlarına etkileri deneysel olarak araştırılmıştır. Bu amaçla, maksimum agrega çapı 4 mm, S/Ç oranı 0,40 ve çimento dozajı 400 kg olan harç karışımlarına farklı oranlarda SBR lateks (%0, %10 ve %20) ve PP lif (%0, %0,05 ve %0,10) ilaveleri yapılarak dokuz deney serisi oluşturulmuştur. Her seri için hazırlanan numuneler üzerinde yapılan deneylerle 28 günlük basınç ve eğilmede çekme dayanımlarındaki değişim incelenmiştir.

Yapılan çalışma sonucunda, harç karışımına ilave edilen SBR lateks ve PPL oranlarına bağlı olarak basınç ve eğilmede çekme dayanımlarında da değişimlerin olduğu görülmüştür. Deneyler sonucunda %10 SBR lateks ve %0,05 PP lif içeren harç numunelerinin hem basınç hem de eğilmede çekme dayanımı açısından en yüksek performansı sağladığı belirlenmiştir.

Anahtar Kelimeler: SBR lateks, polipropilen lif, dış sıva harcı, basınç dayanımı, eğilme dayanımı

SOCIAL CULTURE CONFLICTS WITH DEMOCRATIZATION IN THE MIDDLE EAST

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ABSTRACT

In 2011, the world observed a massive and unprecedented wave of political protests across the Middle East against authoritarian rule. Beginning in Tunisia and spreading to other countries such as Egypt, Yemen, Bahrain, Libya and Syria. These uprisings for democratization in the Middle East were closely followed by Western mainstream media. Even China as a non-democratic country closely followed such development in the region. Some political scientists compared these waves of political protests to Samuel Huntington's concept of the three waves of transitions, during which authoritarian leaderships were forced to adopt democracy in Latin America, Eastern Europe, and Africa.

In this context, many political scientists also expressed optimism that the end of authoritarian regimes in the Middle East was certain due to the determination displayed by protesters in removing autocrats. The most referenced scholars during these uprisings were Norton, and Brumberg, who predicted a time that authoritarian regimes would fall short of resources to resist democratization. While authoritarian regimes in some countries were ousted, others managed not only to survive but to solidify their power and reassert authoritarian control. What happened to the aspiration of the protestors? Why could the fight for democratization not materialize?

This paper contributions to the existence literatures on Middle East Democratization Studies by unitizing Samuel Huntington's thesis on Clash of Civilization couple with post-democratization studies to analyse the failure of democratization in the Arab Muslims world. I argued that the democracy as a form of government does not only affect political culture but also disrupt social culture and religion fabric which reflect on the impediment and Arab unresponsive attitudes toward democratization.

Keywords: Post democratization, democracy, authoritarian, Middle East, Arab Muslims

WORDS, FAITH, AND NATIONHOOD: LANGUAGE AND RELIGION IN UZBEKISTAN'S POST-SOVIET

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ABSTRACT

The disintegration of Soviet Union in 1991 left many newly independent Central Asian states struggling with questions of identity, and Uzbekistan was no exception. With the collapse of Soviet ideology, the country faced the challenge of defining what it meant to be “Uzbek” in a new political reality. In this context, nation-building became an urgent state project, and both language and religion emerged as important tools in shaping a new sense of national identity. This paper explores how the Uzbek state used language policy to strengthen national consciousness by promoting the Uzbek language, encouraging the transition from Cyrillic to Latin script, and gradually reducing the dominance of Russian in public life. At the same time, Islam re-emerged after years of Soviet restrictions as an important marker of cultural identity and historical continuity. However, the state’s relationship with religion has remained complex, it has promoted Islam as part of national heritage while also maintaining strict control over religious institutions to prevent radicalization and political opposition.

By examining policy changes, state narratives, and institutional developments during the leadership of Islam Karimov and Shavkat Mirziyoyev, this paper highlights how Uzbekistan has attempted to balance cultural revival with secular governance. It argues that language and religion have played a crucial role in helping the state create legitimacy, strengthen national unity, and redefine identity in post-Soviet Uzbekistan.

Keywords: Uzbekistan, Nation-Building, Language Policy, Religion, Cultural Identity, Post-Soviet Transformation

COLLAPSE AND CONTINUITY: STATE TRANSFORMATION IN AFGHANISTAN AFTER THE FALL OF THE GHANI GOVERNMENT

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ABSTRACT

The sudden fall of Ashraf Ghani's government in August 2021 and the return of the Taliban dramatically reshaped Afghanistan's political landscape. For many observers, the collapse of the Afghan Republic raised an important question: how could a state that received massive international support for nearly two decades fall so quickly? This paper explores Afghanistan's political transformation after the fall of the Ghani government by examining both the elements of collapse and the patterns of continuity that continue to shape the country. The paper argues that while the Taliban's return brought an end to the republican system created after 2001, many of Afghanistan's long-standing challenges remain unresolved. Problems such as weak institutions, economic instability, ethnic divisions, humanitarian crises, and questions of political legitimacy continue to affect governance under the Taliban. At the same time, the Taliban has tried to establish control by reorganizing state institutions and building legitimacy through religious and ideological narratives.

By looking at the final years of the Ghani administration and the rise of Taliban rule, this study examines whether Afghanistan is experiencing complete state failure or a deeper transformation of governance structures. It concludes that Afghanistan's current political reality reflects not only institutional collapse but also the continuation of older structural problems in a new political form.

Keywords: Afghanistan, State-Building, Taliban, Political Transition, Governance, State Collapse

DO GOVERNANCE AND POLICY COMMITMENT ENHANCE SUSTAINABLE WASH OUTCOMES? THE MODERATING ROLE OF FUNDING EFFECTIVENESS IN KATSINA STATE'S SURWASH PROGRAMME

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Abstract

This study examines how governance and policy commitment enhance sustainable Water, Sanitation, and Hygiene (WASH) outcomes in Katsina State, Nigeria, within the context of the World Bank-funded Sustainable Urban and Rural Water Supply, Sanitation, and Hygiene (SURWASH) Programme. Grounded in Institutional Theory and Resource Dependence Theory, this research conceptualizes governance commitment as a multidimensional construct comprising: Political Will and Leadership Commitment (PW) institutional prioritization, enforcement, and continuity in WASH governance; Institutional Capacity (IC) technical expertise, coordination effectiveness, and administrative capability of WASH agencies; and Community Participation (CP) local ownership, engagement, and accountability in WASH implementation. Funding Effectiveness (FE) is positioned as both a direct predictor and moderator, capturing resource adequacy, efficiency, transparency, and integration of external financing. Sustainable WASH Outcomes (SWO) is operationalized as improved water access, sanitation coverage, open defecation elimination, hygiene practices, facility functionality, health impacts, and long-term sustainability without external intervention. Using partial least squares structural equation modeling (PLS-SEM) with data from 300 respondents across Katsina State's SURWASH implementing agencies and beneficiary communities, the findings reveal that Institutional Capacity emerges as the strongest significant predictor of sustainable WASH outcomes ($\beta = 0.307$, $p < 0.001$, $f^2 = 0.182$), followed by Political Will and Leadership Commitment ($\beta = 0.396$, $p < 0.001$, $f^2 = 0.486$) and Community Participation ($\beta = 0.194$, $p < 0.001$, $f^2 = 0.171$). Funding Effectiveness demonstrates significant direct effects ($\beta = 0.195$, $p < 0.001$) and moderates the relationship between Institutional Capacity and SWO ($\beta = 0.089$, $p = 0.042$), though not for Political Will or Community Participation. The model explains 86.6% of variance in sustainable WASH outcomes ($R^2 = 0.866$) with strong predictive relevance ($Q^2 = 0.801$) and excellent model fit (SRMR = 0.018). This study advances methodological rigor through comprehensive HTMT-based discriminant validity assessment and establishes that governance quality, particularly institutional capacity and political commitment, outweighs funding volume in determining WASH sustainability. The research contributes to WASH governance literature by demonstrating that sustainable outcomes in performance-based financing programmes depend more on absorptive capacity and political prioritization than on resource availability alone.

Keywords: Governance commitment, WASH sustainability, SURWASH programme, institutional capacity, political will, funding effectiveness, performance-based financing, Katsina State.

JEL Classifications: G21, G23, L86, M15, O33, O55.

AGRICULTURE IN POPULIST DISCOURSES. A CASE STUDY IN ROMANIA

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ABSTRACT

In our human history developing what we call today agriculture made possible our civilizations, without having our basic needs satisfied it would have been hard to imagine that we have reached our numerous picks in civilization development. Thus, not agriculture, means no food, no food, means no social stability, no social cohesion and no civilizations. Being such a crucial matter, agriculture has been scarcely studied in relation to populism. In our presentation we will depict the place of agriculture in populist discourse and ideology looking at: the 2017-2018 pigs fever coverage in media and its links with the populist discourse for the 2019 elections for the European Parliament; and we will analyse references to agriculture appeared in the media presentation of electoral campaign for the EU Parliament in 2019. Our analysis reveals distinctive meanings and metaphors concerning the role of agriculture in the general economy and in the conceptualisation of its nature along with elements of co-construction.

Keywords: agriculture, mass media, populism

PUBLIC HEALTH CRISIS AS REFLECTED BY ROMANIAN MASS MEDIA

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ABSTRACT

In the 21st century in an era of rapid social change, in some places from Earth people struggled also with epidemic situations not only affecting humans, but also animals. Our presentation will focus on how African Swine Flu was presented in Romania media as a legal and political matter, but also as a medical and scientific one, placing the emphasis on the distinction between “carriers” in the case of inter-human diseases and “carriers” in the case of epizootic diseases. We will describe the ways in which Romanian media portrayed the African Swine Flu epidemic between January 1st, 2014 and December 31st, 2018. After analyzing a total of 450 texts, we identified significant aspects concerning the journalism. Amongst these aspects – the tendency to present the matter in a laid-back way, with variations in the ties between text information and the formal properties of media coverage which suggests the need for future development in the field of crisis communication concerning health risks, especially in the case of epizootics. Unlike other studies data do not confirm the hypothesis which states that when confronting a public health crisis, mass-media selects and handles negative information in favour of the positive.

Keywords: epizootic, mass media, African Swine Flu

THE PRINCIPLE OF EQUALITY OF PARTIES IN CIVIL LITIGATION PROCEDURE: A COMPARATIVE ANALYSIS BETWEEN KOSOVO AND CROATIA

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ABSTRACT

The principle of equality of parties constitutes one of the fundamental guarantees of a fair trial in civil litigation procedures. This principle ensures that all parties involved in judicial proceedings have equal procedural opportunities to present evidence, challenge claims, and protect their legal interests before the court. In Kosovo, the principle is guaranteed through the Law on Contested Procedure and constitutional provisions related to fair trial standards. Similar guarantees are also incorporated within the Croatian civil procedure system and European human rights standards.

This paper analyzes the implementation of the principle of equality of parties in the civil litigation procedures of Kosovo and Croatia. The study examines procedural guarantees related to access to justice, evidentiary rights, adversarial proceedings, and judicial impartiality. Additionally, the paper assesses the influence of the European Convention on Human Rights and the jurisprudence of the European Court of Human Rights on domestic procedural legislation.

Using comparative legal methodology, the paper identifies similarities and differences between the two legal systems and evaluates the practical challenges affecting effective procedural equality. The study concludes with recommendations aimed at strengthening procedural fairness and improving judicial efficiency in civil litigation proceedings.

Keywords: Civil procedure; equality of parties; fair trial; contested procedure; Kosovo; Croatia.

RECOGNITION AND ENFORCEMENT OF FOREIGN JUDGMENTS IN KOSOVO: CHALLENGES OF PRIVATE INTERNATIONAL LAW

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ABSTRACT

The recognition and enforcement of foreign judgments represent essential mechanisms for ensuring legal certainty and effective international judicial cooperation. In the context of globalization and increasing cross-border legal relations, private international law plays a crucial role in regulating the legal effects of foreign judicial decisions within domestic legal systems.

This paper examines the legal framework governing the recognition and enforcement of foreign judgments in Kosovo, with particular emphasis on procedural conditions, jurisdictional requirements, and public policy limitations. The study analyzes the applicable provisions of Kosovo legislation and evaluates the extent to which domestic rules are harmonized with European legal standards and international principles of judicial cooperation.

Furthermore, the paper discusses practical challenges encountered by courts in the implementation of foreign judgments, including issues related to reciprocity, procedural efficiency, and legal predictability. Through comparative and analytical methodology, the study highlights the importance of harmonizing Kosovo’s private international law framework with contemporary European developments in order to strengthen legal security and international legal cooperation.

Keywords: Private international law; foreign judgments; recognition and enforcement; judicial cooperation; Kosovo; legal certainty.

FISCAL TRANSPARENCY AND PUBLIC BUDGET ACCOUNTABILITY IN KOSOVO: LEGAL AND INSTITUTIONAL CHALLENGES

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ABSTRACT

Fiscal transparency and public budget accountability represent fundamental principles of democratic governance and sustainable public financial management. In recent years, Kosovo has undertaken significant legislative and institutional reforms aimed at strengthening transparency in public expenditures and improving accountability mechanisms within public institutions. Despite these developments, practical challenges remain evident, particularly regarding institutional oversight, public access to financial information, and effective implementation of budgetary control mechanisms.

This paper analyzes the legal framework regulating fiscal transparency and budget accountability in Kosovo, with particular emphasis on the Law on Public Financial Management and Accountability, the role of the National Audit Office, and parliamentary oversight mechanisms. The study further examines the extent to which Kosovo's legal framework aligns with international standards and European Union principles of good governance and financial accountability.

Using a comparative and analytical approach, the paper identifies the main institutional and legal obstacles affecting the effective implementation of fiscal transparency. The study concludes with recommendations aimed at strengthening financial oversight, enhancing institutional cooperation, and improving public trust through greater transparency and accountability in public financial administration.

Keywords: Fiscal transparency; public budget; accountability; public financial management; Kosovo; financial oversight.

TAX ADMINISTRATION REFORMS IN KOSOVO AND THEIR IMPACT ON LEGAL CERTAINTY FOR TAXPAYERS

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ABSTRACT

Efficient tax administration constitutes an essential component of fiscal stability and economic development. In Kosovo, continuous reforms in tax administration have sought to improve tax collection efficiency, reduce informality, and strengthen legal certainty for taxpayers. However, challenges related to administrative procedures, legal predictability, and institutional capacity continue to affect the relationship between taxpayers and tax authorities.

This paper examines the development of tax administration reforms in Kosovo and evaluates their impact on the protection of taxpayers' rights and legal certainty. Particular attention is paid to the legal framework governing tax procedures, administrative appeals, digitalization of tax services, and the implementation of principles of legality and proportionality in tax administration.

The paper also provides a comparative perspective by referring to selected European practices concerning taxpayer protection and administrative efficiency. Through legal analysis and comparative methodology, the study identifies key deficiencies within the current system and proposes measures for improving transparency, procedural safeguards, and institutional effectiveness in Kosovo's tax administration system.

Keywords: Tax administration; taxpayers' rights; legal certainty; fiscal reforms; tax procedures; Kosovo.

CONSTRUCTING SELVES: THE DYNAMIC INTERPLAY OF DISCOURSE AND IDENTITY

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ABSTRACT

This study explores identity formation through discourse analysis, emphasizing how language constructs and negotiates personal and social identities. The objective is to examine the dynamic relationship between discourse and identity, with a focus on positioning theory, code-switching, and intersectionality. A literature review highlights existing frameworks that address how identities are fluid and context-dependent, shaped by societal norms, power relations, and cultural expectations. Using qualitative methods, including discourse analysis of conversational data from diverse social settings, the research investigates how individuals enact multiple identities and respond to shifting power dynamics. The findings reveal that identity is not fixed but continually redefined through social interactions and linguistic choices. This work underscores the relevance of understanding identity in relation to discourse as it provides insights into how people navigate social roles and resist stereotypes. The results indicate that individuals often employ strategies such as code-switching to manage overlapping identities, demonstrating the complexity behind their self-expression. Overall, the findings support the framework that identity formation is a relational process influenced by context and power structures. The study concludes that understanding identity through discourse analysis offers valuable perspectives on social negotiation and agency. A key research question guiding this exploration is: How do individuals use discourse to construct, negotiate, and express their identities in various social contexts?

Keywords: Identity Formation, Discourse Analysis, Positioning Theory, Intersectionality.

TRADITIONS AND TRANSFORMATIONS: THE DYNAMIC EVOLUTION OF MEDIEVAL EUROPE

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ABSTRACT

This presentation examines how medieval Europe blended established traditions with new ideas, technologies, and cultural influences, resulting in a dynamic era of transformation (Curtis, 2013, pp. 223–251). While often perceived as a period of stability, the Middle Ages were marked by ongoing social, economic, and intellectual change (Buringh et al., 2020). Traditional institutions such as the Church, feudalism, and guilds provided a stable framework while also fostering the emergence of new knowledge, economic practices, and artistic achievements (Feudalism, 2024). Innovations in agriculture, including the heavy plough, the three-field system, and improved harnesses, increased food production and contributed to population growth and urbanization. In growing towns, merchants and craftspeople experimented with new trading methods, credit systems, and forms of craftsmanship. Universities became centres of learning where classical knowledge encountered scientific and philosophical ideas from the Islamic world (Editors, 2026). This intellectual exchange promoted critical thinking and laid the groundwork for later intellectual movements. Religious life reflected both continuity and change. While monasteries maintained traditional roles, new orders such as the Franciscans and Dominicans introduced fresh approaches to teaching, charity, and community engagement. Gothic art and architecture transformed cathedrals into luminous, symbolic spaces that embodied both Christian tradition and technical innovation. Political systems evolved as monarchies consolidated power through improved administration, written laws, and taxation. At the same time, ordinary people navigated these shifts through local customs, festivals, and shared beliefs that preserved cultural identity. Although earlier historians characterized the Middle Ages as stagnant, recent scholarship highlights its complexity and persistent transformation. Ongoing debates concern the extent of change, the influence of the Church, and the significance of economic and cultural developments. In sum, medieval Europe was far from stagnant; it was a society where tradition and innovation combined to set the stage for the Renaissance and shape the trajectory of European civilization. It served as a place where traditions offered a solid base, while innovations opened new paths for transformation. This mix of old and new helped set the stage for the Renaissance and influenced the expansion of European society, a significant development in social history.

Keywords: Tradition, Innovation, Medieval Europe, Transformation.

CONCEPTUAL METAPHOR OF ‘DEATH’ IN PAUL KALANITHI’S MEMOIR ‘WHEN BREATH BECOMES AIR’

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ABSTRACT

This study examines how ‘death’ is conceptualized through metaphor in Paul Kalanithi’s memoir *When Breath Becomes Air*. Drawing on Conceptual Metaphor Theory and adopting a mixed-methods research design, it aims to: (1) identify the dominant conceptual metaphors used to represent death in the text, (2) determine the relative frequency of each metaphor type, and (3) interpret how these metaphors function contextually to reveal the author’s cognitive and cultural understanding of mortality, shaped by his dual identity as a neurosurgeon and a terminally ill patient. Using the Metaphor Identification Procedure, which distinguishes metaphorical from literal language, metaphorical expressions that directly or indirectly refer to death experiences are identified and manually extracted from the memoir’s main authorial narrative, excluding paratextual materials such as the Foreword and Epilogue. Confirmed instances are coded by source domain and grouped into conceptual categories to enable both quantitative frequency analysis and qualitative interpretation. The analysis yields 211 metaphorical instances distributed across ten conceptual categories. Death is most frequently framed as DEPARTURE (42 instances; 19.9%), a VISITOR/INTRUDER (30; 14.2%), and the END OF A JOURNEY (28; 13.3%). Metaphors of death as DARKNESS (24; 11.4%) and NATURAL FORCE (23; 10.9%) foreground inevitability and constraint, while ADVERSARY and FINAL ACT metaphors (22 each; 10.4%) emphasize struggle and closure. Overall, the findings portray death as a multidimensional phenomenon—simultaneously a transition, an intrusion, a force, and a confrontation—demonstrating how medical, philosophical, and affective discourses converge to render mortality linguistically and cognitively accessible in the memoir.

Keywords: conceptual metaphor; death metaphors; mortality; illness narratives; memoir discourse; cognitive linguistics; end-of-life discourse

LEXICO-GRAMMAR, MEANINGS AND CONTEXT IN TONGUE OF PROMISE BY NANA OTUA OWUSUA 1: A SYSTEMIC FUNCTIONAL LINGUISTIC PERSPECTIVE

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ABSTRACT

This paper seeks to examine how the African woman writer Nana Otua Owusua 1 deploys the English language to convey her message in *Tongue of Promise*. The theoretical underpinning of the study is Systemic Functional Linguistics (SFL, hereafter) (Halliday 1961, Halliday & Matthiessen 2004). In fact, one of the core features of SFL approach as underscored by Gledhill (2011 b) is that lexis- a structured system of signs which serves to organize the vocabulary of a language- and grammar- a structured system of choices which serves to organize sequences of signs into texts- are not different in nature, but rather form a unified stratum in language: the lexico-grammar. Another important tenet of systemicists is that the lexis and grammar cannot be clearly defined unless they are placed in a typical context of use. Of course, some research works have been carried out on lexico-grammatical features of literary artifacts (novels, poems, plays, etc.). However, none of them has ventured to focus on Nana O. Owusua 1's *Tongue of Promise*. This article aims to explore the lexico-grammatical patterns of two extracts drawn from the aforementioned narrative to derive thereof the deep meaning(s) the novelist conveys to the reader. Indeed, the Mood, Transitivity and Theme analyses of these excerpts have helped uncover the deep meaning of the novelist's message. Also, the study reveals that the lexico-grammatical features of the book under study are related to the social, cultural and situational context in which it was written. And this is what determines the meaning(s) of the book as a whole.

Keywords: Context, Lexico-grammar, Lexico-grammatical patterns, Systemic Functional Linguistics.

EXPLORING THE IMPACTS OF CHRISTIANITY ON AFRICAN CULTURE IN CHINUA ACHEBE'S THINGS FALL APART AND BUCHI EMECHETA'S THE SLAVE GIRL

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ABSTRACT

One of Africans most painful experiences during colonization is their contact with Europeans through Christianity. In fact, Christianity has to some extent negatively impacted African social fabric. The purpose of this research is to reveal the harms done by Christianity on African societies. In the same way, the research intends to discover how African cultural values are trivialized. The study definitely shows that Christianity has created strife among Africans who were once socially and culturally united. The article employs post-colonialism and structural narratology for the analysis of the different happenings and events in the novels.

Keywords : colonization, social fabric, christianity, strife, cultures.

WOMEN, NATURE AND THE AUSTRALIAN ABORIGINAL TRADITION

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ABSTRACT

Australian Aboriginal tradition is highly ecoconscious. The Aborigines are chiefly hunters and food gatherers. They never think of cultivating the land as they consider that the act of agriculture hurts the mother earth. Each of the tribes has some sacred places where they believe that the spirits of the ancestors live. They believe in a number of different deities whose images are generally depicted in the form of a particular landscape feature, in rock shelter, in a plant or in an animal. The Aborigines are well-accustomed with the idea of sustainable development, the ultimate goal of the ecocritics. There are so many examples within their culture that show us the sense of responsibility towards maintaining the balance in nature inherent within these people. The Bora ring ceremony (the initiation ceremony of an Aborigine) is one of them.

Certainly, the women of the tribe have a great role to play regarding these traditions. The women are the chief food gatherers for the tribe whereas the men are chiefly endowed with the duty of hunting. The responsibility of the children is taken up by the women of the camp. It is their duty to give the children the primary knowledge about their surroundings which helps them later to perform the duty as the 'master of nature' properly. But there are some customs within the Aborigines that show that even here the women are not given their proper place. They have access neither to the sacred places nor to the sacred stories. They are not allowed to take part in the Bora ring ceremony and so on. This paper tries to find out the areas of injustice done to ignore the role of the women in such an age-old traditional society. At the same time it also tries to search for the reason, if any, behind such practices.

DETERMINANTS OF HOUSEHOLD FOOD WASTE BEHAVIOR IN KOSOVO

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ABSTRACT

Food waste has become an important environmental, social, and economic challenge worldwide. This study examined household food waste behavior in Kosovo and explored the main factors influencing food disposal practices. The findings revealed that food waste behavior was closely associated with consumer awareness, household management practices, and differences between urban and rural households. Families applying better food planning, proper storage, and leftover management practices generated lower levels of food waste.

Urban households reported higher levels of cooked food waste compared to rural households, while awareness regarding the environmental impact of food waste remained relatively limited among respondents. The study emphasizes the importance of consumer education, awareness campaigns, and sustainable consumption practices in reducing food waste and improving food resource management.

These findings contribute to the understanding of food waste behavior in developing countries and support sustainability initiatives related to responsible consumption, food security, and environmental protection.

Keywords: food waste; consumer behavior; sustainability; households; food management; Kosovo

DELEGATED LEGISLATION AND PRINCIPLES OF TRANSPARENCY IN INDIAN ADMINISTRATIVE LAW

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ABSTRACT

Delegated legislation has become an essential feature of modern administrative governance, enabling the executive to frame rules and regulations necessary for efficient implementation of legislative policies. In a welfare State, where governance involves complex socio-economic and technical matters, delegated legislation ensures flexibility, expertise, and administrative efficiency. However, the increasing expansion of delegated powers has also raised concerns regarding arbitrariness, lack of accountability, and erosion of democratic control.

This research paper critically examines the concept, constitutional basis, and significance of delegated legislation in India, with particular emphasis on the principle of transparency as a safeguard against misuse of power. The study analyses important procedural safeguards such as publication, public participation, legislative oversight, and judicial review that promote openness and accountability in subordinate law-making. It further explores the role of the judiciary in controlling excessive delegation through doctrines such as ultra vires, reasonableness, and proportionality.

The paper argues that transparency is a fundamental constitutional value closely linked with the rule of law and democratic governance. It concludes that while delegated legislation is indispensable for effective administration, its legitimacy depends upon adherence to transparency, accountability, and judicial control.

Keywords: Delegated Legislation, Transparency, Administrative Law, Judicial Review, Rule of Law.

TRACE METAL CONTAMINATION IN SURFACE WATER SYSTEMS OF OUISLANE, MOROCCO: ASSESSMENT OF DISCHARGE STANDARDS AND IRRIGATION QUALITY THRESHOLDS

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ABSTRACT

Surface water quality is a cornerstone of public health and agricultural sustainability, particularly in regions where anthropogenic pressures overlap with intensive farming practices. In the Ouislane area (Morocco), the coexistence of these environmental stressors raises concerns about metal contamination that may remain undetected under conventional regulatory assessments. This study aims to profile the geochemistry of seven trace metal elements — lead, cadmium, copper, magnesium, zinc, chromium, and iron — in water samples collected from four sites (S1–S4), benchmarked against regulatory thresholds for direct discharge and agricultural irrigation. The findings reveal reassuring compliance with discharge standards: none of the heavy metals analyzed exceed the regulatory limits. However, a silent alarm surfaces when irrigation criteria are examined. Magnesium, a contaminant often relegated to the background, surpasses the permissible limit at S3 (0.642 mg/L, i.e., 3.2-fold the threshold) and at S4 (0.288 mg/L, i.e., 1.4-fold the threshold). Furthermore, iron dominates the overall trace metal load with a cumulative concentration of 1.78 mg/L across all sites, while cadmium a highly toxic metal reaches 85% of the irrigation limit at S1. Sites S3 and S4 exhibit the highest mean concentrations (0.174 and 0.158 mg/L, respectively), pointing to a geochemical dynamic that varies by location. These findings call for differentiated surface water monitoring tailored to actual end-use applications, and for the integration of "forgotten pollutants" such as magnesium into environmental monitoring protocols.

Keywords: Heavy metals; surface water quality; magnesium contamination; irrigation water; environmental monitoring

ASSESSMENT OF WATER QUALITY AND WATER EROSION IN THE OUED BEHT WATERSHED (MOROCCO): CASE OF THE EL KANSERA DAM

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ABSTRACT

In Morocco's semi-arid regions, surface water resources are under increasing anthropogenic pressure, threatening both aquatic ecosystems and public health. This study aims to conduct an integrated assessment of water quality in the Oued Khoumane (Moulay Idriss Zerhoun, Morocco) by combining, for the first time, physicochemical, bacteriological, and parasitological analyses, and to identify the main spatio-temporal pollution gradients.

Monthly monitoring over a complete hydrological cycle was conducted at six sampling stations (S1 to S6), from upstream to downstream. Physicochemical, bacteriological, and parasitological parameters (protozoan cysts and helminth eggs) were analyzed. Advanced statistical methods (PCA, AFC, CAH, ANOVA, Kruskal-Wallis) were applied to interpret the data.

The results reveal a gradient of progressive deterioration from upstream to downstream. Station S1 (upstream) shows relatively good water quality ($\text{NH}_4^+ = 0.32 \text{ mg/L}$; $\text{BOD}_5 = 52 \text{ mg/L}$). In contrast, stations S2 and S4, located near the main urban, agricultural, and industrial discharge points, show critical levels of pollution: NH_4^+ up to 12.5 mg/L , NO_3^- up to 104.3 mg/L , BOD_5 up to 663 mg/L , COD up to 6375 mg/L , TSS up to $2,798 \text{ mg/L}$, accompanied by severe hypoxia ($\text{O}_2 < 2 \text{ mg/L}$). The multivariate analysis distinguishes three groups of stations: reference (S1), intermediate (S3, S5, S6), and critical (S2, S4).

The bacteriological study reveals massive fecal contamination, with FMAT 37°C concentrations reaching $1.25 \times 10^7 \text{ CFU/100 mL}$ and fecal coliforms up to $3.90 \times 10^5 \text{ CFU/100 mL}$. Stations S2, S3, and S4 are identified as chronic pollution hotspots, while S5 and S6 show peaks of *Pseudomonas aeruginosa* ($34,980 \text{ CFU/100 mL}$).

The parasitological analysis, the first of its kind for this watercourse, reveals an average monthly total parasite load of $65,847 \pm 28,492$ parasites/month, peaking at 135,021 in September. The dominant protozoa are *Giardia lamblia*, *Balantidium coli*, and *Entamoeba coli*; the most prevalent helminths are *Strongyloides stercoralis*, *Ascaris lumbricoides*, and

Enterobius vermicularis. A strong seasonal pattern is observed (peaking from May to September). Stations S2 and S6 constitute “hotspots” of parasitic contamination, with persistent *Schistosoma* sp. and cestodes, indicating real health risks (schistosomiasis, cysticercosis).

The summary of results confirms that direct discharges of untreated domestic wastewater, slaughterhouse effluents, oil mill wastewater, and leachate from unregulated landfills are the main sources of pollution. The common practice of irrigation with this untreated water exacerbates health risks by introducing pathogens into the food chain.

In light of this, the construction of a wastewater treatment plant, combined with the expansion of the sewerage network, discharge monitoring, and the implementation of continuous surveillance, constitutes an operational response well-suited to the Moroccan context.

Keywords: Khoumane Wadi, Anthropogenic Pollution, Water Quality, Bacterial Contamination, Environmental Parasitology, Morocco.

A SEISMOTECTONIC ANALYSIS ON THE CURRENT EARTHQUAKE HAZARD OF THE EASTERN BLACK SEA BASIN AND ITS SURROUNDINGS, TURKIYE

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ABSTRACT

The Black Sea is relatively quiescent in terms of tectonics and earthquake occurrences, and it does not produce strong and destructive earthquakes like the North Anatolian Fault Zone located to its south. It encompasses important tectonic structures such as the Eastern Black Sea Basin, the Central Black Sea Ridge, and the Western Black Sea Basin. It is also a sea that surrounded by structures like the Moesian Platform, the Pontide Orogenic Belt, and the Caucasus Thrust Zone. Although it has a low level of earthquake hazard according to the Turkish Earthquake Hazard Map (DD-1), the existing of both strike-slip faulting mechanisms and oblique normal or reverse faulting mechanisms indicates a complex tectonic setting in the region. Furthermore, the occurrence of earthquakes with magnitudes ranging from 3.0 to 5.5 along the Eastern Black Sea continental shelf after 2010 highlights the necessity of evaluating the earthquake potential and the current earthquake hazard in the Eastern Black Sea Basin and its surroundings. For this purpose, Coulomb stress changes were calculated using recent earthquakes in the region together with the b -value, which is a fundamental parameter of earthquake statistics. For the b -value analysis, a total of 20,462 earthquakes with moment magnitudes ranging from $0.8 \leq M_w \leq 7.2$, covering a period of approximately 120.19 years between October 21, 1905 and December 31, 2025, within the coordinates 40°E - 44°E and 34°N - 43°N , were used. In addition, focal mechanism solutions of 10 earthquakes ($M_w \geq 3.0$) that occurred between 2012 and 2024 were considered for the stress analysis. According to obtained results, the b -value changes between 0.60 and 1.43. Low b -values (<0.9) were observed in the Sinop Trench, Arkhangelsky Ridge, Andrusov Ridge, Eastern Black Sea Basin, Shatsky Ridge, Tuapse Trench, Rioni Ridge, the Greater Caucasus, the Central Pontides, as well as around Samsun, and along the Ordu, Trabzon, and Rize faults. Positive stress values indicate high-stress accumulation zones and were observed in the Rioni Ridge, the southeastern end of the Shatsky Ridge, the Rize and Trabzon faults, as well as around the Sinop Trench and Samsun. Therefore, regions characterized by low b -values and high stress levels can be considered as the most likely locations for the occurrence of strong or large earthquakes. Consequently, these types of seismotectonic analyses may be crucial in terms of revealing the current and future earthquake hazards, and particular attention should be directed toward these anomalous regions in assessing earthquake potential.

Keywords: Eastern Black Sea Basin, b -value, Coulomb stress, earthquake hazard.

DOĞU KARADENİZ BASENİ VE CİVARININ (TÜRKİYE) GÜNCEL DEPREM TEHLİKESİ ÜZERİNE SİSMOTEKTONİK BİR ANALİZ

ÖZET

Karadeniz, tektonik ve deprem oluşumları açısından sakindir ve güneyinde bulunan Kuzey Anadolu Fay Zonu gibi güçlü ve yıkıcı deprem üretmeyen bir bölgedir. Doğu Karadeniz Baseni, Orta Karadeniz Sırtı ve Batı Karadeniz Baseni gibi önemli tektonik yapıları bünyesinde barındırır. Ayrıca, Moessian Platformu, Pontid Orojenik Kuşağı ve Kafkas Bindirme Kuşağı gibi yapılarla çevrelenen bir denizdir. Türkiye Deprem Tehlike Haritasına (DD-1) göre düşük düzeyde deprem tehlikesine sahip olmasına rağmen, bölgede hem doğrultu atımlı faylanma mekanizmalarının hem de oblik atımlı normal veya ters faylanma mekanizmalarının mevcut olması, bölgede karmaşık bir tektonik yapının bir göstergesidir. Ayrıca, 2010 yılından sonra Doğu Karadeniz kıta sahanlığı boyunca magnitüdüleri 3.0-5.5 arasında değişen depremlerin meydana gelmiş olması, Doğu Karadeniz baseni ve civarındaki deprem potansiyelinin ve güncel deprem tehlikesinin değerlendirilmesi gerçeğini ortaya koymuştur. Bu amaçla, deprem istatistiğinin temel parametresi olan *b*-değeri ile bölgede son yıllarda meydana gelmiş depremler kullanılarak Coulomb gerilme değişimleri hesaplanmıştır. *b*-değeri analizi için 21 Ekim 1905-31 Aralık 2025 tarihleri arasında 40°D-44°D boylamları ile 34°K-43°K enlemleri arasında yaklaşık 120.19 yıllık bir süreçte moment magnitüdüleri $0.8 \leq M_w \leq 7.2$ arasında değişen 20.462 deprem kullanılmıştır. Ayrıca gerilme analizi için, 2012-2024 yılları arasında meydana gelen 10 depreme ($M_w \geq 3.0$) ait odak mekanizması çözümleri dikkate alınmıştır. Elde edilen bulgulara göre, *b*-değeri 0.60-1.43 arasında değişim göstermektedir. Düşük *b*-değerleri (<0.9), Sinop çukuru, Arkhangelsky sırtı, Andrusov sırtı, Doğu Karadeniz baseni, Shatsky sırtı, Tuapse çukuru, Rioni sırtı, Büyük Kafkaslar ve Orta Pontidler, Samsun civarı, Ordu, Trabzon ve Rize fayları üzerinde gözlenmiştir. Pozitif gerilme değerleri yüksek gerilme alanlarına işaret eder ve Rioni sırtı, Shatsky sırtının güneydoğu ucu, Rize ve Trabzon fayları ile Sinop çukuru ve Samsun civarında gözlenmiştir. Dolayısıyla, düşük *b*-değerleri ile yüksek gerilmeli alanlar güçlü veya büyük bir depremin en olası meydana gelebileceği bölgeler olarak düşünülebilir. Sonuç olarak bu tür sismotektonik analizler, güncel ve gelecek deprem tehlikesini ortaya koyma açısından önemli olabilir ve deprem potansiyelinin değerlendirilmesinde özellikle bu anomali bölgelerine odaklanılmalıdır.

Anahtar Kelimeler: Doğu Karadeniz Baseni, *b*-değeri, Coulomb gerilmesi, deprem tehlikesi.

THE IMPACT OF SEISMOTECTONIC STRUCTURE IN SIMAV AND ITS SURROUNDINGS, TÜRKİYE, ON THE CURRENT EARTHQUAKE POTENTIAL AND FUTURE EARTHQUAKE HAZARD IN THE REGION

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ABSTRACT

The Yemişli-Simav earthquake with magnitude 5.4, which occurred on September 28, 2025, near Simav district of Kütahya, Türkiye, has provided crucial data for assessing the current earthquake potential and future earthquake hazard in the region which is situated between the Gediz and Simav Fault Zones. The Western Anatolia Graben System is one of the most significant systems in the Eastern Mediterranean, and due to active tectonics, this area has been experienced to numerous strong and destructive earthquakes during both historical and instrumental periods. The dominance of normal fault systems in the study region indicates that the region is under the influence of extensional tectonic regime. According to the Turkish Earthquake Hazard Map (DD-1), Simav and its surroundings are classified as a first-degree earthquake zone and is one of the regions having the highest earthquake hazard. Therefore, a statistical analysis was conducted in this study in order to determine the current earthquake potential and future earthquake hazard in Simav and its vicinity. For the analyses, the b -value, the most frequently used in earthquake statistics and closely related to the seismotectonic structure of the region, and Coulomb stress distribution, which reveal stress variations in a region, were mapped. For the regional b -value map, 28,464 earthquakes with moment magnitudes ranging from $0.3 \leq M_w \leq 6.9$, occurring between March 19, 1952, and December 31, 2025, covering approximately 73.79 years, within latitudes 38.8°N - 39.6°N and longitudes 28.4°E - 29.8°E , were analyzed. For the Coulomb stress map, the focal mechanism solutions of the Yemişli-Simav mainshock and its five aftershocks ($M_w \geq 4.0$) were used. According to the obtained results, the b -value varies from 0.68 to 1.58. Small b -values (<0.9) were observed around the Tavşanlı, Şahmelek, Çavdarhisar, and Çukurören faults, as well as the Emet-Gediz Fault Zone, Simav Fault Zone, and east of the Gediz Fault Zone. Positive Coulomb stress values are corresponded to high-stress areas and were observed near the Emet-Gediz Fault Zone, Gediz Fault Zone, Simav Fault Zone, Naşa Fault Zone, Çavdarhisar Fault, Çukurören Fault, and Selendi Fault. Areas exhibiting both small b -values and positive stress anomalies may be considered the areas where a possible future earthquake may occur. Therefore, such statistical evaluations provide valuable insights for estimating the current earthquake potential and future earthquake hazard and these anomalous regions should particularly be considered for seismotectonic analyses.

Keywords: Gediz-Simav Fault Zone, b -value, Coulomb stress, earthquake potential.

SİMAV VE CİVARINDAKİ (TÜRKİYE) SİSMOTEKTONİK YAPININ BÖLGEDEKİ GÜNCEL DEPREM POTANSİYELİ VE GELECEK DEPREM TEHLİKESİ ÜZERİNE ETKİSİ

ÖZET

Kütahya'nın Simav ilçesi (Türkiye) yakınlarında 28 Eylül 2025 yılında meydana gelen 5.4 büyüklüğündeki Yemişli-Simav depremi, Gediz ve Simav Fay Zonları arasında kalan bu bölgedeki güncel deprem potansiyeli ve gelecek deprem tehlikesini ortaya koymada önemli veriler sunmuştur. Batı Anadolu Graben Sistemi, Doğu Akdeniz'deki en önemli sistemlerden biridir ve bu bölge aktif tektonizma nedeniyle tarihsel ve aletsel dönemde çok sayıda güçlü ve yıkıcı depremlere maruz kalmıştır. Çalışma alanı içerisinde normal fay sistemlerinin hakim olması bölgenin genişleme tektonik rejimi etkisi altında kaldığını ortaya koymaktadır. Simav ve civarı, Türkiye Deprem Tehlike Haritasına (DD-1) göre birinci derece deprem bölgesindedir ve en yüksek deprem tehlikesine sahip bölgelerden biridir. Dolayısıyla bu çalışma kapsamında, Simav ve civarındaki güncel deprem potansiyelinin ve gelecek deprem tehlikesinin belirlenebilmesi amacıyla istatistiksel bir analiz gerçekleştirilmiştir. Analizler için deprem istatistiğinde en sık kullanılan ve bölgenin sismotektonik yapısıyla ilişkili olan b-değeri ile bir bölgedeki gerilme değişimlerini ortaya koyan Coulomb gerilme dağılımı haritalanmıştır. b-değeri bölgesel değişim haritası için 19 Mart 1952-31 Aralık 2025 tarihleri arasında 38.8°K-39.6°K enlemleri ile 28.4°D-29.8°D boylamları arasında yaklaşık 73.79 yıllık bir süreçte moment magnitüdüleri 0.3 Mw 6.9 arasında değişen 28.464 deprem analiz edilmiştir. Coulomb gerilme haritası için Yemişli-Simav depremi ve 5 adet artçı şoka ait ($M_w \geq 4.0$) ait odak mekanizması çözümleri kullanılmıştır. Elde edilen sonuçlara göre b-değeri 0.68-1.58 arasında değişim göstermektedir. Küçük b-değerleri (<0.9), Tavşanlı, Şahmelek, Çavdarhisar ve Çukurören fayları ve civarında, Emet-Gediz Fay Zonu, Simav Fay Zonu ve Gediz Fay Zonunun doğusunda gözlenmiştir. Pozitif gerilme değerleri yüksek gerilme alanları ile ilişkilidir ve Emet-Gediz Fay Zonu, Gediz fay Zonu, Simav Fay Zonu, Naşa Fay Zonu, Çavdarhisar fayı, Çukurören fayı ve Selendi fayı civarında gözlenmiştir. Küçük b-değerleri ile pozitif gerilmeli bölgeler gelecekte olması muhtemel bir depremin meydana gelebileceği alanlar olarak düşünülebilir. Dolayısıyla bu tür istatistiksel değerlendirmeler, güncel deprem potansiyelinin ve gelecek deprem tehlikesinin tahmin edilmesinde faydalı bilgiler sunabilir ve sismotektonik analizler için özellikle bu anomali bölgeleri dikkate alınmalıdır.

Anahtar Kelimeler: Gediz-Simav Fay Zonu, b-değeri, Coulomb gerilmesi, deprem potansiyeli.

INVESTIGATION OF THE EFFECT OF IONIZING RADIATION ON THE OPTICAL PROPERTIES OF OPTICAL GLASSES

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ABSTRACT

This thesis investigates the effect of beta radiation from a Sr-90/Y-90 source on the refractive index of standard soda-lime-silica glass specimens using the lateral shift method. Rectangular glass samples with dimensions of 10 cm × 20 cm × 0.5 cm were used in two experimental sets. In the first set, one glass sample was successively exposed to beta radiation for different durations ranging from 30 minutes to 24 hours. In the second set, four glass plates of the same size were each exposed once to fixed durations of 6, 12, 18, and 24 hours. The refractive index was determined experimentally by measuring the incident angle (θ_i), refracted angle (θ_r), and lateral displacement (d), and was also calculated theoretically using the lateral shift equation. A detailed comparison was conducted between the measured and calculated refractive indices across all angles of incidence. The results showed that the average refractive index before irradiation was 1.517 ± 0.035 . Following exposure, a slight and generally non-systematic decrease was observed, with average values ranging between 1.49 and 1.53 across all exposure times. Good agreement was found between experimental and calculated values in most cases. Radiation-induced color centers and minor surface discoloration were observed, indicating the formation of structural defects. However, no significant systematic change in the refractive index was recorded within the applied dose range. The findings suggest that the soda-lime-silica glass used in this study exhibits relative resistance to beta radiation with respect to the stability of its refractive index. This study contributes to a better understanding of the optical behavior of glass materials under ionizing radiation, with potential implications for applications in radiation environments and optical engineering.

Keywords: Refractive index, Beta radiation, Lateral shift method, Ionizing radiation, Soda-lime-silica glass, Color centers, Radiation effects.

İYONLAŞTIRICI RADYASYONUN OPTİK CAMLARIN OPTİK ÖZELLİKLERİ ÜZERİNDEKİ ETKİSİNİN İNCELENMESİ

ÖZET

Bu tez, Sr-90/Y-90 kaynağından yayılan beta radyasyonunun, standart soda-kireç-silika cam örneklerinin kırılma indisi üzerindeki etkisini yanal kayma yöntemi kullanılarak incelemektedir. 10 cm × 20 cm × 0,5 cm boyutlarındaki dikdörtgen cam numuneler iki deneysel grupta kullanılmıştır. İlk grupta, tek bir cam numune ardışık olarak 30 dakika ile 24 saat arasında değişen sürelerde beta radyasyonuna maruz bırakılmıştır. İkinci grupta ise aynı boyuttaki dört cam plaka, sırasıyla 6, 12, 18 ve 24 saat sabit sürelerde birer kez ışınlanmıştır. Kırılma indisi, deneysel olarak geliş açısı (θ_i), kırılma açısı (θ_r) ve yanal kayma miktarı (d) ölçülerek belirlenmiş, ayrıca yanal kayma denklemi kullanılarak teorik olarak da hesaplanmıştır.

Ölçülen ve hesaplanan kırılma indisi değerleri arasında tüm geliş açıları için detaylı karşılaştırma yapılmıştır. Sonuçlar, ışınlama öncesi ortalama kırılma indisinin $1,517 \pm 0,035$ olduğunu göstermiştir. Işınlamadan sonra genel olarak hafif ve sistematik olmayan bir düşüş gözlemlenmiş olup, ortalama değerler 1,49 ile 1,53 arasında değişmiştir. Deneysel ve teorik değerler arasında çoğu durumda iyi uyum sağlanmıştır. Radyasyona bağlı renk merkezleri ve hafif yüzey renk değişimleri gözlemlenmiş olup yapısal bozuklukların oluştuğunu göstermektedir. Ancak uygulanan doz aralığında kırılma indisinde önemli ve sistematik bir değişim kaydedilmemiştir. Bulgular, bu çalışmada kullanılan soda-kireç-silika camın kırılma indisi stabilitesi açısından beta radyasyonuna karşı görece dirençli olduğunu göstermektedir. Bu çalışma, iyonlaştırıcı radyasyon altında cam malzemelerin optik davranışlarının daha iyi anlaşılmasına katkı sağlamakta olup radyasyonlu ortamlarda ve optik mühendisliğinde potansiyel uygulamalara ışık tutmaktadır.

Anahtar Kelimeler: Kırılma indisi, Beta radyasyonu, Yanal kayma yöntemi, İyonlaştırıcı radyasyon, Soda-kireç-silika camı, Renk merkezleri, Radyasyon etkileri.

EFFECTS OF Si_3N_4 REINFORCEMENT ON THE MICROSTRUCTURES OF ALUMINUM FOAMS

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ABSTRACT

This study focuses on the production of aluminum-based composite foams reinforced with ceramic particles via the powder metallurgy method and investigates the effects of the reinforcement element proportion on the structural properties of the foams. For this purpose, AlSi10Mg powders were selected as the matrix material, TiH_2 as the foaming agent, and Si_3N_4 powders as the reinforcing element. Al powders were mixed with 1 wt% TiH_2 and varying concentrations of Si_3N_4 (0, 1, 3, and 5 wt%) to achieve a total mass of 75 g for each sample. The mixtures were homogenized in a Turbula mixer for 45 minutes to ensure a uniform distribution. The mixture was then poured into a mold. After that, were first cold-pressed under a pressure of 200 MPa, followed by hot pressing at 500°C under 100 MPa for 15 minutes, utilizing a setup integrated with a resistance heater and a thermocouple. Once the pressed samples had reached room temperature via air cooling, they were sectioned for subsequent testing. Subsequently, the foamable precursors were transferred into a foaming die and positioned in a custom-designed furnace maintained at 710°C. The foaming process was completed over a duration of 8 to 12 minutes. The foam samples were sectioned along designated planes to expose their internal pore morphology. The planes underwent a metallographic preparation process to obtain the necessary surface characteristics for microscopic analysis. Images of the prepared surfaces were taken via stereo microscopy, and pore analysis was performed using ImageJ software. Finally, the entire cellular morphology, especially the cell walls and the reinforcement process, was observed using SEM. The final results demonstrate that Si_3N_4 reinforcement can directly control pore size, distribution, shape, and cell walls, while the amount of reinforcement also has a significant effect on these parameters, and the appropriate amount improves these properties.

Keywords: Aluminum-based foam materials, Si_3N_4 reinforcement, cellular structure.

Si_3N_4 TAKVİYESİNİN ALÜMİNYUM KÖPÜKLERİN MİKRO YAPILARI ÜZERİNDE ETKİLERİ

ÖZET

Bu çalışma, toz metalurjisi yöntemiyle seramik takviyelendirilmiş alüminyum esaslı kompozit köpük üretimi ve takviye elemanının köpük yapı özellikleri üzerindeki etkilerinin araştırılmasına odaklanmaktadır. Bu amaç doğrultusunda; ana madde olarak AlSi10Mg tozları, köpürtücü madde olarak TiH_2 ve takviye elemanı olarak Si_3N_4 tozları seçilmiştir. Al tozları, her bir numune toplamda 75 gram olacak şekilde %1 oranında TiH_2 ve %0, %1, %3 ve %5 oranlarında Si_3N_4 tozları ile hassas ölçümlerle hazırlanıp turbula cihazında 45 dakika boyunca karıştırılarak homojen hale getirilmiştir.

Daha sonra karışım, gerekli yüzeylerinin yağlandığı kalıba dökülerek pres makinesine yerleştirilmesine takiben önce soğuk olarak 200 MPa basınç altında; ardından, rezistans ve termokupl bağlanarak 500C sıcaklıkta, 100 MPa basınç altında 15 dakika boyunca preslenmiştir. Preslenen numuneler hava ortamında soğutulduktan sonra amacına uygun şekilde kesilmiş ve gerektiğinde eğelenerek kenarları temizlenmiştir. Köpürebilir preformlar, toz metalurjisi yöntemiyle köpük üretimi çalışmalarının yapılabilmesi için özel olarak tasarlanmış ve önceden 710C'ye ısıtılmış fırın içerisinde köpürtme kalıbına yerleştirilerek ısıya maruz bırakılmış ve yaklaşık 8 ila 12 dakikada köpürtülmüştür. Köpüren numuneler, bir kez daha hava ortamında soğutulduktan sonra gözenekli yüzeyin ortaya çıkarılması için belirlenen yüzeylerinden kesilmiştir. Tüm yüzeylere, zımparalama ve parlatma gibi aşamaları içeren metalografik muayeneyle mikroskop incelemeleri için gerekli yüzey özellikleri kazandırılmıştır. Hazır hale gelen yüzeylerin stereo mikroskop görüntüleri alınarak ImageJ yazılımı ile gözenek analizi yapılmıştır. Son olarak, SEM ile başta hücre duvarları ve takviyelendirme işlemi olmak üzere bütün hücrel morfoloji tekrardan gözlemlenmiş ve elde edilen tüm veriler detaylı bir şekilde incelenerek nihai sonuçlar ortaya çıkarılmıştır. Bu sistem; köpük bileşimi gibi parametrelerin doğru şekilde uyarlanması kolaylığını sunan toz metalurjisi yöntemiyle üretilebilmesi, malzemenin yapısını optimize etmek için üstün özelliklere sahip seramik takviyelerin eklenebilmesi gibi pek çok olumlu avantajıyla birlikte; nihai sonuçlar, Si₃N₄ takviyesinin doğrudan gözenek boyutu, dağılımı, şekli ve hücre duvarlarında kontrol sağlayabildiğini ve takviye miktarının da aynı parametrelerin üzerinde etkili olup uygun miktarın bu özellikleri geliştirdiğini kanıtlamıştır.

Anahtar Kelimeler: Al esaslı köpük malzemeler, Si₃N₄ takviyesi, hücrel yapı analizi.

NUMERICAL ANALYSIS OF A REINFORCED CONCRETE BUILDING DAMAGED BY THE 6 FEBRUARY 2023 KAHRAMANMARAŞ EARTHQUAKE

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ABSTRACT

The sudden release of energy accumulated as a result of the continuous movement of the tectonic plates that make up the Earth's crust causes ground shaking, an event defined as an "earthquake." For our country, which is located within an active fault zone, the impact of earthquakes continues to be a significant subject of research. To mitigate earthquake effects and ensure structural safety, various building codes have been developed over different periods and progressively updated. Most recently, the Turkish Building Earthquake Code (TBDY-2018), which is still in use today, was enacted.

In this study, the non-linear analysis results of a reinforced concrete building are examined based on the "performance-based assessment of buildings under seismic effects" approach outlined in the TBDY-2018. The building considered consists of a basement, ground floor, and seven upper floors, totaling nine stories. A non-linear time-history analysis of the structure was conducted. The analyses were carried out using the finite element method in the SAP2000 program. The obtained results were compared with the actual damage observed in the structure under seismic loading, with the damping ratio being considered as a key parameter in this comparison. The findings indicate that the examined damping ratio does not correspond well with the actual damage; while the observed damage in the structure falls within the collapse damage region, the same damage is predicted in the severe damage region in the analyses.

Keywords: Kahramanmaraş earthquakes, TBDY-2018, Reinforced concrete structure, Time history analysis, Damping ratio

6 ŞUBAT 2023 KAHRAMANMARAŞ DEPREMİ SONRASI HASAR GÖREN BETONARME BİR BİNANIN SAYISAL ANALİZİ

ÖZET

Yer kabuğunu oluşturan levhaların sürekli hareketi sonucunda biriken enerjinin ani olarak açığa çıkması, yeryüzünde sarsıntılara yol açmakta ve bu olay “deprem” olarak tanımlanmaktadır. Aktif fay kuşağında yer alan ülkemiz için de deprem etkisi araştırma konusu olarak önemini korumaya devam etmektedir. Deprem etkilerinin azaltılması ve yapı güvenliğinin sağlanması amacıyla, farklı dönemlerde çeşitli yönetmelikler hazırlanmış ve zaman içinde güncellenerek geliştirilmiştir. Son olarak, günümüzde de kullanımı devam eden Türkiye Bina Deprem Yönetmeliği (TBDY-2018) yürürlüğe girmiştir.

Bu çalışmada, Türkiye Bina Deprem Yönetmeliği (TBDY-2018)’de yer alan “deprem etkisi altında binaların şekil değiştirmeye göre değerlendirilmesi” yaklaşımı esas alınarak, betonarme bir binanın doğrusal olmayan analiz sonuçları incelenmiştir. Bodrum, zemin ve yedi normal kattan oluşan toplam dokuz katlı yapının zaman tanım alanında doğrusal olmayan analizi gerçekleştirilmiştir. Analizlerde sonlu elemanlar yöntemi kullanılarak SAP2000 programı ile elde edilmiştir.

Elde edilen bulgular, deprem etkisi altında yapıda gözlemlenen gerçek hasarlarla karşılaştırılmış ve bu karşılaştırmada sönüm oranı temel parametre olarak dikkate alınmıştır. Sonuçlar, incelenen sönüm oranının gerçek hasar ile tutarlı olmadığını göstermektedir; yapıda gözlemlenen hasar, göçme hasar bölgesinde yer alırken, analizlerde aynı hasarın belirgin hasar bölgesine karşılık geldiği tespit edilmiştir.

Anahtar Kelimeler: Kahramanmaraş depremleri, TBDY-2018, Betonarme yapı, Zaman tanım alanında analiz, Sönüm oranı

EVALUATION OF INDUSTRIAL POWDER COATING LINES: A COMPARATIVE APPLICATION OF THE AHP, TOPSIS, AND VIKOR METHODS

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ABSTRACT

Surface coating applications are also part of production processes in industrial settings. The purpose of coating is to increase the surface durability of products and improve their aesthetic appearance. The most common application in this field is powder coating technology. Its lack of solvents and high coating efficiency have made it a popular choice in recent years. There are numerous technical studies in the literature related to powder coating and surface coating processes. These studies generally focus on technical issues such as coating quality, surface smoothness, curing temperature and duration, applied coating thickness in microns, and post-coating corrosion resistance. Ensuring all these conditions results in a multi-criteria problem. The methods used to solve multi-criteria decision-making problems play a significant role in the systematic analysis of multiple variables. In this study, the Analytic Hierarchy Process (AHP) method was employed to determine the weights of the criteria. The TOPSIS and VIKOR methods were applied for ranking the alternatives. The combined use of these methods is intended to contribute to implementing the decision-making process in a more reliable and balanced manner. This study was conducted based on coating problems frequently encountered in the field. The data used in the study are based on data obtained from a real production environment. Under this scope, various powder coating facilities were evaluated as alternatives and assessed in terms of fuel consumption, material thickness, material size, and production criteria. First, the weightings of the criteria were determined, and subsequently, the alternatives were analyzed and compared using different methods. The aim is for the results obtained to guide decision-makers in selecting a coating facility and in process improvement efforts.

Keywords; Powder Coating Lines, Multi-Criteria Decision Making, AHP, TOPSIS, VIKOR, Performance Analysis

THE IMPACT OF MAINTENANCE STRATEGIES IN UAV SYSTEMS ON OPERATIONAL READINESS: A PROPOSAL FOR A HYBRID MODEL

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ABSTRACT

Unmanned aerial vehicles (UAVs) play a critical role in modern defence operations, and operational success depends not only on technological capabilities but also on effective maintenance management processes. This study examines the relationship between operational readiness and maintenance management in defence industry UAV fleets. The study compares planned, unplanned and predictive maintenance approaches and proposes a hybrid maintenance model. The proposed model has been evaluated using mathematical analysis and numerical simulation methods. According to the results obtained, it was determined that the system's operational readiness rate exceeded 90% with the hybrid maintenance approach, and that this provided the most balanced solution in terms of cost-effectiveness. These findings demonstrate that the integrated implementation of maintenance strategies has a direct impact on the sustainability and mission success of UAV fleets.

Keywords: UAV, Defence Industry, Maintenance Management, Operational Readiness, Hybrid Maintenance

COMPUTER-AIDED DESIGN AND E-PROJECT IN NATURAL GAS INSTALLATION ENGINEERING

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ABSTRACT

Natural gas has become one of the most widely used energy sources in Türkiye, particularly since the 1990s, due to its practical use and contribution to reducing urban air pollution. However, the rapid expansion of natural gas distribution networks, especially in metropolitan areas, created major challenges in the design, submission, control, and approval of indoor installation projects. Before digital project systems, natural gas installation projects were prepared using conventional CAD tools and submitted as printed documents. This manual process required engineers to check complex drawings line by line, including architectural layouts, pipe routes, isometric diagrams, pressure-loss calculations, ventilation requirements, chimney calculations, device information, and compliance with technical specifications. Consequently, approval procedures were time-consuming, labor-intensive, and vulnerable to repeated revisions. Common rejection reasons included dimensional inconsistencies, calculation errors, missing symbols, incompatibilities between floor plans and isometric diagrams, improper device placement, incorrect routing, and administrative mismatches with subscriber information systems. This study discusses the development and engineering significance of computer-aided design and e-project applications in natural gas installation engineering as a response to these limitations. The e-project concept enables complete digital modelling, calculation, control, approval, and archiving of natural gas installation projects within an integrated environment. Unlike conventional drawing software, an e-project system defines architectural and installation elements as structured objects rather than simple lines, allowing automatic measurement, pipe sizing, pressure-loss calculation, fitting detection, line numbering, device consumption assignment, critical-line identification, and generation of isometric schemes from floor plans. Required documents such as cover pages, site plans, floor plans, calculation sheets, ventilation and chimney reports, correction tables, detail sheets, and standards tables can also be produced as a complete digital package. Automatic specification control reduces human-dependent checking errors and supports faster approval by gas distribution companies. Digital submission through web-based platforms and electronic signatures improves traceability, eliminates unnecessary printing, and reduces physical document circulation. The transition from manual preparation to computer-aided e-project systems has shortened drawing times, accelerated approval processes, improved engineering consistency, reduced paper consumption, and increased institutional efficiency. The experience of natural gas installation engineering demonstrates that e-project systems can serve as a model for other engineering fields, including elevator, fire safety, electrical, vehicle, and building permit projects.

Keywords: Natural gas, computer aided design, project management

THE RELATIONSHIP BETWEEN HYPERTENSIVE DISORDERS OF PREGNANCY AND MATERNAL AGE

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ABSTRACT

Hypertensive disorders in pregnancy (HDP) affect approximately 5–10% of pregnancies and constitute a clinical condition that significantly threatens maternal and fetal health. They are classified into four main groups: chronic hypertension, gestational hypertension, preeclampsia–eclampsia, and chronic hypertension with superimposed preeclampsia. In particular, preeclampsia is characterized by the presence of proteinuria or organ dysfunction accompanying hypertension, and when eclampsia develops, seizures are added to the clinical picture, leading to a life-threatening condition. The underlying pathophysiology of the disease is explained by a “two-stage model.” In the first stage, inadequate remodeling of placental vessels leads to placental ischemia; in the second stage, increased anti-angiogenic factors result in maternal endothelial dysfunction. This process leads to hypertension, renal and hepatic impairment, neurological symptoms, and fetal growth restriction. Maternal age is an important risk factor for HDP, and this relationship is described by a “J-shaped” curve. The lowest risk is observed in the 25–29 age group, while the risk increases significantly in both adolescent pregnancies under 20 years of age and advanced maternal age pregnancies over 35 years. In adolescent pregnancies, the immaturity of uterine vessels, inadequate prenatal care, socioeconomic challenges, and nutritional deficiencies play important roles. These factors impair placental development and increase the risk of preeclampsia. In advanced maternal age, decreased vascular elasticity, increased prevalence of chronic diseases (obesity, diabetes, hypertension), and the use of assisted reproductive techniques contribute to the increased risk. Additionally, multiple pregnancies and immunological incompatibilities may further exacerbate the condition. In conclusion, HDP is a serious obstetric disorder with a multifactorial pathophysiology. Extreme maternal ages increase risk through a combination of biological and environmental factors. Therefore, early diagnosis, regular follow-up, and a multidisciplinary approach in adolescent and advanced-age pregnancies are critical for reducing maternal and fetal complications.

Keywords: Hypertensive disorders in pregnancy, maternal age, adolescent pregnancy, advanced maternal age

GEBELİKTE HİPERTANSİF BOZUKLUKLAR VE ANNE YAŞI İLE ARASINDAKİ İLİŞKİ

ÖZET

Gebelikte hipertansif bozukluklar (GHB), gebeliklerin yaklaşık %5–10’unu etkileyen ve anne-bebek sağlığını önemli ölçüde tehdit eden klinik bir durumdur. Kronik hipertansiyon, gestasyonel hipertansiyon, preeklampsi-eklampsi ve kronik hipertansiyon üzerine eklenen preeklampsi olmak üzere dört ana grupta sınıflandırılır.

Özellikle preeklampsi, hipertansiyona proteinüri veya organ disfonksiyonunun eşlik etmesiyle karakterizedir ve eklampsi geliştiğinde tabloya nöbetler eklenerek yaşamı tehdit eden bir duruma dönüşür. Hastalığın temel patofizyolojisi “iki aşamalı model” ile açıklanır: İlk aşamada plasental damarların yetersiz yeniden şekillenmesi sonucu plasental iskemi gelişir; ikinci aşamada ise anti-anjiyogenik faktörlerin artışıyla maternal endotelyal disfonksiyon ortaya çıkar. Bu süreç hipertansiyon, böbrek ve karaciğer fonksiyon bozukluğu, nörolojik bulgular ve fetal gelişim geriliğine yol açar. Anne yaşı, GHB için önemli bir risk faktörüdür ve ilişki “J-eğrisi” modeli ile açıklanır. En düşük risk 25–29 yaş grubunda görülürken, hem 20 yaş altı adolesan gebeliklerde hem de 35 yaş üzeri ileri anne yaşında risk belirgin şekilde artar. Adolesan gebeliklerde uterin damarların olgunlaşmaması, yetersiz prenatal bakım, sosyoekonomik zorluklar ve besin yetersizlikleri önemli rol oynar. Bu durum plasental gelişimi bozarak preeklampsi riskini artırır. İleri anne yaşında ise damar elastikiyetinin azalması, kronik hastalıkların (obezite, diyabet, hipertansiyon) artışı ve yardımcı üreme tekniklerinin kullanımı riskin yükselmesine katkı sağlar. Ayrıca çoğul gebelikler ve immünolojik uyumsuzluklar da tabloyu ağırlaştırır. Sonuç olarak GHB, çok faktörlü patofizyolojiye sahip ciddi bir obstetrik sorundur. Anne yaşının uç değerleri, biyolojik ve çevresel faktörlerle birleşerek riski artırmaktadır. Bu nedenle adolesan ve ileri yaş gebeliklerde erken tanı, düzenli takip ve multidisipliner yaklaşım maternal ve fetal komplikasyonların azaltılmasında kritik öneme sahiptir.

Anahtar Kelimeler: Gebelikte hipertansif bozukluklar, anne yaşı, adolesan gebelik, ileri anne yaşı.

POLYCYSTIC OVARY SYNDROME IN WOMEN'S HEALTH: MULTIDISCIPLINARY AND CURRENT TREATMENT APPROACHES

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ABSTRACT

Polycystic Ovary Syndrome (PCOS) is one of the most common endocrine and gynecological disorders affecting women of reproductive age, with a global prevalence ranging from 4% to 21%. PCOS is not only a syndrome associated with infertility but also a chronic condition that affects women's health multidimensionally due to its metabolic, cardiovascular, psychological, and dermatological effects. Currently, the most widely used diagnostic approach is based on the Rotterdam criteria, according to which the presence of at least two of the following is sufficient for diagnosis: oligo/anovulation, hyperandrogenism, and polycystic ovarian morphology. Although the exact etiology of PCOS has not been fully clarified, genetic predisposition, epigenetic processes, insulin resistance, obesity, and environmental factors are considered to play significant roles in its development. In the pathophysiology of PCOS, insulin resistance and hyperinsulinemia play central roles, while hormonal imbalances and chronic low-grade inflammation further aggravate the clinical condition. Clinical manifestations include menstrual irregularities, hirsutism, acne, androgenic alopecia, obesity, and infertility. In addition, depression, anxiety, body image disturbances, and eating disorders are also frequently observed. Lifestyle modifications are recommended as the first-line treatment in PCOS management, and the Mediterranean diet, regular exercise, and weight control play important roles in improving metabolic parameters. Pharmacological treatment options include metformin, combined oral contraceptives, anti-androgens, and GLP-1 receptor agonists. Furthermore, there is growing interest in supportive therapies such as inositol, vitamin D, coenzyme Q10, and N-acetylcysteine. Considering the long-term effects of PCOS, a multidisciplinary approach involving gynecologists, endocrinologists, dietitians, psychologists, physiotherapists, and midwives is of great importance. In this context, the development of holistic care models is recommended to improve women's quality of life and prevent long-term complications.

Keywords: Polycystic Ovary Syndrome, PCOS, hyperandrogenism, insulin resistance, infertility, metabolic syndrome, multidisciplinary approach, women's health, lifestyle modifications, reproductive health.

KADIN SAĞLIĞINDA POLİKİSTİK OVER SENDROMU: MULTİDİSİPLİNER VE GÜNCEL TEDAVİ YAKLAŞIMLARI

ÖZET

Polikistik Over Sendromu (PKOS), üreme çağındaki kadınlarda en sık görülen endokrin ve jinekolojik hastalıklardan biri olup, dünya genelinde prevalansı %4–21 arasında değişmektedir. PKOS yalnızca infertilite ile ilişkili bir sendrom olmayıp; metabolik, kardiyovasküler, psikolojik ve dermatolojik etkileri nedeniyle kadın sağlığını çok yönlü etkileyen kronik bir durumdur.

Tanıda günümüzde en yaygın kullanılan yaklaşım Rotterdam kriterleri olup; oligo/anovülasyon, hiperandrojenizm ve polikistik over morfolojisinden en az ikisinin varlığı tanı için yeterli kabul edilmektedir. PKOS'un etiyolojisi tam olarak açıklanamamış olsa da genetik yatkınlık, epigenetik süreçler, insülin direnci, obezite ve çevresel faktörlerin sendromun gelişiminde etkili olduğu bildirilmektedir. Patofizyolojide insülin direnci ve hiperinsülinemi merkezi rol oynarken, hormonal dengesizlikler ve kronik düşük dereceli inflamasyon klinik tabloyu ağırlaştırmaktadır. Klinik bulgular arasında adet düzensizlikleri, hirsutizm, akne, androjenik alopesi, obezite ve infertilite yer almaktadır. Bunun yanı sıra depresyon, anksiyete, beden algısı bozuklukları ve yeme bozuklukları da sık görülmektedir. PKOS yönetiminde yaşam tarzı değişiklikleri birinci basamak tedavi olarak önerilmekte; Akdeniz diyeti, düzenli egzersiz ve kilo kontrolü metabolik parametrelerin iyileştirilmesinde önemli rol oynamaktadır. Farmakolojik tedavide metformin, kombine oral kontraseptifler, anti-androjenler ve GLP-1 reseptör agonistleri kullanılmaktadır. Ayrıca inositol, D vitamini, Koenzim Q10 ve N-asetilsistein gibi destekleyici tedavilere yönelik ilgi giderek artmaktadır. PKOS'un uzun dönemli etkileri göz önünde bulundurulduğunda, jinekolog, endokrinolog, diyetisyen, psikolog, fizyoterapist ve ebe iş birliğini içeren multidisipliner yaklaşım büyük önem taşımaktadır. Bu doğrultuda, kadınların yaşam kalitesini artırmak ve uzun dönem komplikasyonları önlemek amacıyla bütüncül bakım modellerinin geliştirilmesi önerilmektedir.

Anahtar Kelimeler: Polikistik Over Sendromu, PKOS, hiperandrojenizm, insülin direnci, infertilite, metabolik sendrom, multidisipliner yaklaşım, kadın sağlığı, yaşam tarzı değişiklikleri, üreme sağlığı.

THE EFFECT OF COGNITIVE ASSESSMENT, FREE WILL AND DETERMINISM LEVELS ON VIOLENCE TENDENCIES AND MEDICATION ATTITUDES IN INDIVIDUALS DIAGNOSED WITH SCHIZOPHRENIA

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ABSTRACT

This study investigated the relationship between cognitive levels, free will, and determinism with violent behaviors and medication attitudes in individuals diagnosed with schizophrenia. Research data were collected between 2024 and 2025 at a Community Mental Health Center affiliated with a state hospital. Based on the G-Power analysis, the sample size was determined to be 95, and the study was completed with 110 schizophrenia patients. In addition to the personal information form, the Free Will and Determinism Scale (FWDS), Medication Adherence Rating Scale-10 (MARS-10), Buss and Perry Aggression Questionnaire (BPAQ), and Schizophrenia Cognitive Assessment Scale (SCORS) were used as data collection tools. Statistical analysis was performed using SPSS Statistics 27. Regarding the demographic characteristics of the participants, it was found that 51.8% were in the 30–49 age range, 35.5% were aged 50 and over, and 12.7% were in the 18–29 age range; 60% were male and 40% were female; 47.3% were married, 39.1% were single, and 13.6% were divorced or widowed. A moderately significant negative statistical correlation was found between the MARS total score and the BPAQ total score ($r = -0.317$, $p = 0.001$). A moderately significant positive statistical correlation was found between the BPAQ total score and the SCORS patient form ($r = 0.404$, $p < 0.001$). To strengthen medication adherence and minimize aggression in schizophrenia patients, it is recommended that psychiatric nurses enhance the functionality of patients' cognitive assessment processes and perceptions of free will and determinism through psychoeducation.

Keywords: Cognitive, Medication Attitude, Free Will, Psychiatric Nursing, Schizophrenia

ŞİZOFRENİ TANILI BİREYLERDE BİLİŞSEL DEĞERLENDİRME, ÖZGÜR İRADE VE BELİRLENİMCİLİK DÜZEYLERİNİN ŞİDDET EĞİLİMLERİ İLE İLAÇ TUTUMLARINA ETKİSİ

ÖZET

Bu çalışmada, şizofreni tanılı bireylerin bilişsel, özgür irade ve belirlenimcilik düzeylerinin şiddet içerikli davranışlar ve ilaç tutumları ile ilişkisi incelenmiştir. Araştırma verileri, 2024 - 2025 yılları arasında birilde bir hastaneye bağlı olan Toplum Ruh Sağlığında toplandı. G-Power analizi sonucu örneklem sayısı 95 olarak belirlendi ve 110 şizofreni hastası ile tamamlandı. Veri toplama araçları olarak kişisel bilgi formunun yanı sıra Özgür İrade ve Belirlenimcilik Ölçeği (ÖİBÖ), İlaç Tutum Ölçeği-10(İTÖ) , Buss ve Perry Saldırganlık Ölçeği (BPSÖ) ve Şizofreni Bilişsel Değerlendirme Ölçeği (ŞBDÖ) kullanıldı. İstatistiksel analiz SPSS Statistics 25.0 ile hesaplandı.

Araştırmaya katılan katılımcıların demografik özellikleri; %51,8'inin 30-49 yaş aralığında, %35,5'inin 50 ve üzeri yaş grubunda, %12,7'sinin ise 18-29 yaş aralığında olduğu; %60'ının erkek, %40'ının kadın olduğu; %47,3'ünün evli, %39,1'inin bekar, %13,6'sının ise boşanmış ya da dul olduğu saptandı. İTÖ toplam puanı ile BPSÖ toplam puanı arasında negatif yönde, orta düzeyde istatistiksel olarak anlamlı bir ilişki saptandı ($r=-0,317$, $p=0,001$). BPSÖ toplam puanı ile SCORS hasta formu arasında pozitif yönde, orta düzeyde istatistiksel olarak anlamlı bir ilişki saptandı ($r=0,404$, $p<0,001$). Şizofreni hastalarında ilaç uyumunu güçlendirmek ve saldırganlığı en alt düzeye indirmek için, psikiyatri hemşirelerinin psikoeğitimler aracılığıyla hastaların bilişsel değerlendirme süreçlerini, özgür irade ve belirlenimcilik algılarını daha işlevsel olması konusunda önerilir.

Anahtar kelimeler: Bilişsel, İlaç Tutumu, Özgür İrade, Psikiyatri Hemşireliği, Şizofreni

THE PREDICTIVE EFFECTS OF NARCISSISTIC CHARACTERISTICS AND PSYCHOLOGICAL MATURITY ON RELATIONSHIP SATISFACTION IN ROMANTIC RELATIONSHIPS

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ABSTRACT

This study aimed to investigate the predictive effects of narcissistic characteristics and psychological maturity on relationship satisfaction in romantic relationships. The research was conducted using a descriptive and correlational design. The population of the study consisted of young adults aged 18–30 residing in Osmaniye who were in an active romantic relationship. The sample comprised 600 individuals who participated voluntarily and met the inclusion criteria. Data were collected following verbal and written informed consent using a Personal Information Form, the Narcissistic Admiration and Rivalry Questionnaire, the Psychological Maturity Scale, and the Satisfaction of Basic Psychological Needs in Romantic Relationships Scale.

The participants' overall mean score for the Narcissistic Admiration and Rivalry Questionnaire was 51.24 ± 16.39 , the mean score for the Psychological Maturity Scale was 81.85 ± 14.55 , and the mean score for the Satisfaction of Basic Psychological Needs in Romantic Relationships Scale was 78.36 ± 16.91 . Correlation analysis revealed significant positive relationships between psychological maturity and relationship satisfaction, and significant negative relationships between narcissistic rivalry and relationship satisfaction. According to the hierarchical regression analysis, narcissistic rivalry alone accounted for 4.3% of the variance in romantic relationship satisfaction; however, with the inclusion of psychological maturity subscales into the model, the total explained variance increased to 24.3%. Among the psychological maturity components, flexibility, autonomy, and ego-resiliency were found to be significant positive predictors of relationship satisfaction.

In conclusion, psychological maturity (flexibility, autonomy, and ego-resiliency) is the primary and strongest supporter of basic psychological need satisfaction in romantic relationships, whereas narcissistic rivalry acts as an independent and distinct risk factor that diminishes relationship satisfaction. Accordingly, psychoeducational programs, relationship/marriage counseling processes, and awareness studies should be planned to enhance psychological maturity components to improve relationship satisfaction among young adults. Additionally, spreading preventive mental health interventions aimed at reducing the negative and destructive effects of narcissistic rivalry, which is an independent risk factor in relationships, is highly recommended.

Keywords: Relationship Satisfaction, Narcissism, Psychological Maturity, Romantic Relationships, Psychiatric Nursing

ROMANTİK İLİŞKİLERDE NARSİSTİK ÖZELLİKLERİN VE PSİKOLOJİK OLGUNLUĞUN İLİŞKİ DOYUMUNU YORDAYICI ETKİSİ

ÖZET

Bu araştırma romantik ilişkilerde narsistik özelliklerin ve psikolojik olgunluğun ilişki doyumu üzerindeki yordayıcı etkisini incelemek amacıyla gerçekleştirilmiştir. Araştırma tanımlayıcı ve ilişki arayıcı desende yürütülmüştür. Araştırmanın evrenini, Osmaniye ilinde ikamet eden ve aktif bir romantik ilişkisi bulunan 18-30 yaş arasındaki genç yetişkin bireyler oluşturmaktadır. Araştırmaya gönüllülük esasıyla katılan ve araştırmaya dahil edilme kriterlerini karşılayan 600 birey araştırmanın örneklemini oluşturmuştur. Araştırma verileri, katılımcılardan sözlü ve yazılı onam alındıktan sonra; araştırmacı tarafından hazırlanan Kişisel Bilgi Formu, Narsistik Hayranlık ve Rekabet Ölçeği, Psikolojik Olgunluk Ölçeği ile Romantik İlişkilerde Temel Psikolojik İhtiyaçların Doyumu Ölçeği kullanılarak elde edilmiştir. Katılımcıların Narsistik Hayranlık ve Rekabet Ölçeği genel toplam ortalaması 51.24 ± 16.39 , Psikolojik Olgunluk Ölçeği toplam ortalaması 81.85 ± 14.55 ve Romantik İlişkilerde Temel Psikolojik İhtiyaçların Doyumu Ölçeği toplam ortalaması 78.36 ± 16.91 olarak belirlenmiştir. Korelasyon analizi sonucunda, psikolojik olgunluk ile romantik ilişki doyumu arasında pozitif yönde; narsistik rekabet ile ilişki doyumu arasında ise negatif yönde anlamlı ilişkiler saptanmıştır. Hiyerarşik regresyon analizi sonuçlarına göre; narsistik rekabet değişkeni romantik ilişki doyumundaki değişimin %4,3'ünü tek başına açıklarken; modele psikolojik olgunluk alt boyutlarının dahil edilmesiyle açıklanan toplam varyans %24,3'e yükselmiştir. Psikolojik olgunluk bileşenlerinden esneklik, özerklik ve ego dayanıklılığının ilişki doyumunu anlamlı ve pozitif yönde yordadığı belirlenmiştir. Sonuç olarak; psikolojik olgunluğun (esneklik, özerklik ve ego dayanıklılığı) romantik ilişkilerde temel psikolojik ihtiyaç doyumunun birincil ve en güçlü destekleyicisi olduğu, buna karşın narsistik rekabetin psikolojik olgunluktan bağımsız olarak ilişki doyumunu düşüren özgün bir risk faktörü niteliği taşıdığı saptanmıştır. Bu doğrultuda; genç yetişkinlerin romantik ilişkilerindeki doyum düzeylerini artırmak amacıyla psikolojik olgunluk bileşenlerini geliştirmeye yönelik psikoeğitim programları, ilişki/evlilik danışmanlığı süreçleri ve farkındalık çalışmaları planlanmalıdır. Ayrıca, ilişkilerde özgün bir risk faktörü olan narsistik rekabetin olumsuz ve yıkıcı etkilerini azaltmaya yönelik koruyucu ve önleyici ruh sağlığı müdahalelerinin yaygınlaştırılması önerilmektedir.

Anahtar Kelimeler: İlişki Doyumu, Narsisizm, Psikolojik Olgunluk, Romantik İlişkiler, Psikiyatri Hemşireliği.

ANALYSIS OF THE OPERATION PERFORMANCE OF HYDROGEN FUEL CELLS UNDER DIFFERENT CONDITIONS

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ABSTRACT

The operating performance of Proton Exchange Membrane Fuel Cells (PEMFCs) under different operational parameters such as temperature, pressure, and humidity was analyzed, and the effects of these parameters on current, voltage, power density, and overall system efficiency were investigated. The aim of the study is to determine the optimum operating conditions of the system by analyzing the nonlinear interactions of operational parameters. The electrical behavior, thermal balance, and water management mechanisms of the fuel cell were investigated using a numerical model developed in the MATLAB Simulink environment. Nafion membrane properties, electro-osmotic drag, and back diffusion mechanisms used in water transfer were integrated into the model in order to improve numerical accuracy. During the testing phase of the model, the “WLTP Class 3” driving cycle, which is one of the internationally accepted standards, was used. The obtained results are as follows: increasing the operating pressure from 1.5 bar to 3.5 bar facilitates the diffusion of reactants in the catalyst layer and contributes approximately 11% to the total power output, while also preventing voltage collapse by reducing mass transfer losses at high current densities. Increasing the initial operating temperature to 50°C reduces activation losses and increases system efficiency up to 80%. However, this temperature increase may trigger membrane dehydration risk. Increasing the humidity ratio minimizes ionic resistance and provides voltage stability. Through the examination of parametric analyses, it was determined that a hydrogen fuel cell operating at an initial temperature of 50°C, a pressure of 3.5 bar, and a humidity ratio of 20 provided an increase of 4 V in stack voltage and 55 W in total power output compared to the equilibrium condition defined in the study as 25°C initial temperature, 1.5 bar pressure, and a humidity ratio of 14. This resulted in a 5% increase in efficiency. However, in order to achieve the optimum values specified for these parameters, systems capable of providing these conditions with minimum energy consumption must be developed. The energy consumed by the compressor to maintain 3.5 bar pressure and the energy consumed by the heater to increase the ambient temperature will reduce the efficiency of the energy generated within the system. Therefore, further studies on auxiliary equipment are required to improve efficiency. The effects of these auxiliary components on the system were not examined in this study. As a result, it has been proven that an operating temperature starting at 50°C and maintained at 80°C levels, a humidity ratio of 20 that prevents membrane dehydration at this temperature, and a hydrogen inlet pressure of 3.5 bar that continuously supports system operation will provide efficiency-enhancing effects on PEMFCs.

HİDROJENLİ YAKIT HÜCRELERİNİN FARKLI KOŞULLARDA ÇALIŞMA DURUMU ANALİZİ

ÖZET

Proton değişim membranlı yakıt hücrelerinin (PEMFC) farklı sıcaklık, basınç ve nem gibi operasyonel parametrelerdeki çalışma performansını analiz ederek, bu parametrelerin akım, gerilim, güç yoğunluğu üzerindeki etkileri ve sistemin verimliliğine olan katkısı incelenmiştir. Çalışmanın amacı operasyonel parametrelerin doğrusal olmayan etkileşimlerini analiz ederek sistemin optimum koşullarını belirlemektir. Yakıt hücresinin elektriksel davranışı, termal dengesi ve su yönetimi mekanizmalara Matlab/Simulink ortamında geliştirilen sayısal model ile incelenmiştir. Model içerisine Nafion Membran özellikleri, elektro-ozmotik sürüklenme ve geri difüzyon gibi su transferinde kullanılan mekanizmalar eklenerek sayısal doğruluk güçlendirilmiştir. Model test edilirken uluslararası standartlardan biri olan “WLTP Class 3” çevrimi kullanılmıştır. Sonuçlar şu şekildedir, işletme basıncının 1,5 bar’dan 3,5 bar seviyesine çıkarılması reaktiflerin katalizör tabakasındaki difüzyonunu kolaylaştırır ve toplam güç çıkışına %11 oranında katkı sağlar, yüksek akım yoğunluklarında kütle transferi kayıplarını azaltarak gerilim çökmesini engeller. Başlangıç çalışma sıcaklığının 50°C’ye yükseltilmesi aktivasyon kayıplarını düşürür ve sistem verimliliğini %80 seviyelerine çıkartır. Fakat bu sıcaklık artışı membranda kuruma riskini tetikleyebilir. Nem oranının artırılması iyonik direnci minimize ederek voltaj kararlılığını sağlar. Parametrik analizlerin incelenmesi ile 50°C başlangıç sıcaklığı, 3,5 bar basınç ve 20 nem oranına sahip hidrojen yakıt hücresi, çalışmada denge durumu olarak belirtilen 25°C başlangıç sıcaklığı, 1,5 bar basınç ve 14 nem oranına göre yığın geriliminde 4V, toplam güç çıkışında 55W artış sağlamıştır. Bu da verimin %5 yükselmesini sağlamıştır. Fakat optimum değerleri belirtilen parametrelerin gerçekleşmesi için bu parametreleri en az enerji kullanarak sağlayabilecek sistemlerin geliştirilmesi gerekmektedir. 3,5 bar basınç için kompresörün harcayacağı enerji, ortamı ısıtmak için ısıtıcının harcayacağı enerji sistemde üretilen enerjinin verimliliğini düşürecektir. Verimliliğin yükseltilebilmesi için yardımcı ekipmanlar üzerinde çalışmalar gerekmektedir. Çalışmada bu ekipmanların sisteme etkisi üzerinde durulmamıştır. Sonuç olarak 50 °C ile başlayan ve 80°C seviyelerinde sürdürülen çalışma sıcaklığının, bu sıcaklıkta membranın kurumasını engelleyecek 20 nem oranının ve sistemin çalışmasını sürekli olarak destekleyecek 3,5 bar seviyesindeki hidrojen giriş basıncının, PEMFC üzerinde verimi artıracak etkiler sağlayacağı kanıtlanmıştır.

A COMPARATIVE EVALUATION OF AIS DATA SOURCES FOR MARITIME TRAFFIC ANALYSIS

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ABSTRACT

This study presents a comparative analysis of Automatic Identification System (AIS) data, a vital resource for maritime traffic analysis, across multiple data sources. Terrestrial AIS, satellite AIS, open-source data networks, and commercial/hybrid data providers are evaluated using key criteria such as coverage, data accuracy, timeliness, latency, cost, and data integrity. By identifying the advantages and limitations of each data source, the study assesses their suitability for different use cases. The findings indicate that terrestrial AIS systems offer high accuracy and low latency in coastal and port operations, whereas satellite AIS systems stand out in open-sea analyses by providing global coverage. Although open-source data systems are advantageous in terms of accessibility, they are limited in data quality, while commercial and hybrid systems provide high data integrity and comprehensive analytical capabilities. Furthermore, the study emphasizes the critical role of data quality in the performance of artificial intelligence and machine learning-based applications. In conclusion, no single AIS data source is sufficient for all types of analyses; the most effective approach is to select the appropriate data source or adopt hybrid systems based on specific research or operational objectives.

Keywords: Automatic Identification System (AIS), Maritime Traffic Analysis, Satellite AIS, Data Quality, Hybrid Data Systems

THE ROLE OF AI-POWERED ROUTING IN ENHANCING FUEL EFFICIENCY AND REDUCING EMISSIONS IN MARITIME TRANSPORT

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ABSTRACT

Today, the vast majority of world trade is conducted by sea. Yet beyond serving as a global transportation network, the maritime sector is also a significant source of harmful emissions, including CO₂, NO_x, and SO_x, which contribute substantially to climate change. In response, international bodies such as the International Maritime Organization (IMO) have introduced strict regulations aimed at halving ship emissions by 2050. Within this framework, AI-powered routing systems and algorithms have gained considerable attention in recent years as effective tools for reducing fuel consumption and emissions. These algorithms analyze multiple variables, including ship type, cargo status, weather and sea conditions, currents, and port traffic, to determine the most efficient route. The literature consistently shows that AI-driven algorithms can substantially lower fuel consumption, which in turn directly reduces ship emissions. Major shipping companies, for instance, have reported meeting their cost and emissions-reduction targets through investments in AI-based routing technologies. Despite these advantages, including shorter delivery times, fuel savings, and reduced environmental impact, the widespread adoption of AI-powered routing is not without challenges. Issues such as data security, algorithm reliability, hardware costs, and stringent international regulations continue to limit the effective implementation of these systems. Overall, both the domestic and international literature suggest that integrating such systems will play a key role in transforming the maritime sector into a more environmentally sustainable industry. Accordingly, the main objective of this study is to investigate the benefits of AI-supported routing systems and to assess their contribution to achieving sustainability goals.

Keywords: Route Optimization, Sustainable Shipping, Maritime Transportation, Ship Emissions, Fuel Consumption

IN-PIT HAULAGE PLANNING AND OPTIMIZATION IN AN OPEN-PIT MINING OPERATION

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ABSTRACT

In mining operations, in-pit haulage activities constitute a significant portion of production costs. In open-pit mining operations, the transportation of ore from production points to crushers, stock areas, or processing plants plays a critical role in terms of fuel consumption, time losses, and equipment efficiency. This study aims to investigate the planning and optimization of in-pit haulage activities in an open-pit mining operation. Within the scope of the study, the existing haulage system was analyzed by evaluating truck routes, transportation durations, loading and unloading times, waiting periods, and equipment utilization rates. In addition, the main factors affecting the performance of the haulage fleet were identified, and improvement suggestions were developed to eliminate operational bottlenecks.

Operational data obtained from the mining site were analyzed to evaluate the performance of the haulage system, and alternative efficiency-enhancing scenarios were proposed. In the evaluation of these alternatives, criteria such as cost, time, capacity utilization, and operational sustainability were taken into consideration. The findings indicate that appropriate route planning and equipment utilization optimization can improve operational performance, reduce fuel consumption, and minimize time losses in haulage processes. The study is expected to contribute to decision-makers in open-pit mining operations by providing applicable recommendations for in-pit haulage planning and increasing operational efficiency.

Keywords: Open-pit mining, in-pit haulage, optimization, logistics planning, operational efficiency

BİR AÇIK MADEN İŞLETMESİNDE SAHA İÇİ TAŞIMA PLANLANMASI VE OPTİMİZASYONU

ÖZET

Madencilik sektöründe üretim maliyetlerinin önemli bir kısmını saha içi taşıma faaliyetleri oluşturmaktadır. Açık maden işletmelerinde cevherin üretim noktalarından kırıcı, stok sahası veya zenginleştirme tesislerine taşınması sürecinde kullanılan iş makineleri, yakıt tüketimi, zaman kaybı ve ekipman verimliliği açısından kritik öneme sahiptir. Bu çalışmada, bir açık maden işletmesinde saha içi taşıma faaliyetlerinin planlanması ve optimizasyonu amaçlanmıştır. Çalışma kapsamında mevcut taşıma sistemi analiz edilerek kamyon rotaları, taşıma süreleri, yükleme-boşaltma süreleri, bekleme zamanları ve ekipman kullanım oranları değerlendirilmiştir. Ayrıca işletmede kullanılan taşıma filosunun performansını etkileyen temel faktörler belirlenmiş ve süreçte yaşanan darboğazların giderilmesine yönelik iyileştirme önerileri geliştirilmiştir.

Araştırmada operasyonel veriler kullanılarak taşıma sistemi performansı analiz edilmiş, verimlilik artırıcı alternatif senaryolar oluşturulmuştur. Alternatiflerin değerlendirilmesinde maliyet, zaman, kapasite kullanımı ve operasyonel sürdürülebilirlik kriterleri dikkate alınmıştır.

Elde edilen bulgular doğrultusunda, uygun rota planlaması ve ekipman kullanım optimizasyonunun işletme performansını artırabileceği, yakıt tüketimini azaltabileceği ve taşıma süreçlerinde zaman kayıplarını minimize edebileceği sonucuna ulaşılmıştır. Çalışmanın, açık maden işletmelerinde karar vericilere saha içi taşıma planlaması konusunda katkı sağlaması ve operasyonel verimliliğin artırılmasına yönelik uygulanabilir öneriler sunması hedeflenmektedir.

Anahtar Kelimeler: Açık maden işletmesi, saha içi taşıma, optimizasyon, operasyonel verimlilik, lojistik planlama

PSYCHOLOGICAL BARRIERS TO PHYSICAL EDUCATION PARTICIPATION AMONG MYOPIC STUDENTS AT HO CHI MINH CITY UNIVERSITY OF TECHNOLOGY AND EDUCATION (HCMUTE): A CROSS-SECTIONAL STUDY USING THE HEALTH BELIEF MODEL

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ABSTRACT

Background: Myopia is a growing public health concern, with Vietnam facing an urban prevalence of up to 30% among university students. Physical activity is known to be protective against myopia progression, yet anecdotal evidence suggests that myopic students often avoid physical education (PE) due to psychological and practical concerns. However, no study has systematically examined these barriers in a Vietnamese university context.

Objective: This study aimed to assess the prevalence and determinants of psychological barriers to PE participation among myopic students at HCMUTE, using the Health Belief Model (HBM) as a theoretical framework.

Methods: A cross-sectional, mixed-methods design was employed. A total of 346 myopic students enrolled in PE courses were surveyed using a structured questionnaire that captured demographics, myopia severity, HBM constructs (perceived susceptibility, severity, barriers, benefits, self-efficacy), and PE-specific anxiety (adapted Zung SAS). Physical activity levels were measured with the IPAQ-SF. Semi-structured interviews were conducted with 20 students reporting the highest anxiety scores. Hierarchical multiple regression identified predictors of PE anxiety.

Results: Psychological barriers were highly prevalent: 82.4% feared glasses displacement/breakage, 71.7% feared retinal detachment, and 76.9% reported difficulty seeing fast-moving objects. The HBM model explained 36.6% of the variance in PE anxiety. Perceived barriers ($\beta = 0.342$, $p < 0.001$), low self-efficacy ($\beta = -0.291$, $p < 0.001$), and greater myopia severity ($\beta = 0.268$, $p < 0.001$) were the strongest independent predictors. Females reported significantly higher PE anxiety than males ($p < 0.001$). Severe myopia was associated with a significantly higher proportion of physical inactivity (62.9% low PA) compared to mild myopia (36.8%) ($\chi^2 = 14.76$, $p = 0.005$). Qualitative themes reinforced equipment-related fears, insufficient instructor awareness, and self-stigma.

Conclusion: Equipment-centered safety concerns, low self-efficacy, and myopia severity are major psychological barriers to PE participation among Vietnamese university students. These findings highlight an urgent need for institutional policies—such as provision of prescription sports goggles, adapted assessment criteria, and instructor training—to break the cycle of myopia-related PE avoidance and physical inactivity. Future intervention studies should test these strategies.

Keywords: myopia, psychological barriers, physical education, university students, Health Belief Model, anxiety, Vietnam

OPTIMIZING OUTCOMES IN PSORIASIS: IMPACT OF DENIPLANT NUTRACEUTICALS

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

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

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

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

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

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

PHYTOCHEMICAL PROFILING BY LC-MS/MS, ANTIOXIDANT ACTIVITY, AND NEPHROPROTECTIVE EFFECTS OF ABELMOSCHUS ESCULENTUS EXTRACTS AGAINST GENTAMICIN-INDUCED NEPHROTOXICITY

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ABSTRACT

This work aims to valorize the species *Abelmoschus esculentus* by a phytochemical screening and the evaluation of its antioxidant and nephroprotective potential. The phytochemical composition was determined using LC-MS/MS analysis. Then, the in vitro antioxidant activity of *A. esculentus* extracts was evaluated using the DPPH free radical scavenging method. The evaluation of nephroprotective potential was carried out in vivo against renal lesions induced by gentamicin. The LC-MS/MS results revealed that myricetin, quercetin, fumaric acid, and vanillic acid were the most abundant components in the methanolic extracts of *A. esculentus*. The extracts of *A. esculentus* reveal interesting antiradical properties, manifested by low IC50 values compared to ascorbic acid. The extract of *A. esculentus* prevented kidney damage by improving the biochemical parameters and cell morphology. Therefore, the species of *A. esculentus* is of considerable therapeutic interest as an alternative compound or therapeutic support for preventing kidney damage.

Keywords: *Abelmoschus esculentus*, Kidney damage, Gentamicin, Oxidative stress.

LC-MS/MS ANALYSIS, ANTIMICROBIAL ACTIVITY AGAINST URINARY-TRACT-INFECTION, AND ANTIOXIDANT CAPACITY OF PHENOLIC EXTRACTS FROM *URTICA DIOICA* LEAVES AND ROOTS

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ABSTRACT

This research examined the antimicrobial, anti-urinary-tract-infection, and antioxidant properties of phenolic compounds from *Urtica dioica*, a plant widely used in traditional medicine. The total polyphenol content in the leaves and roots was 5.37 mg GAE/g and 1.21 mg GAE/g, respectively, while the flavonoid content reached 0.40 mg QE/g in leaves and 0.19 mg QE/g in roots. LC-MS/MS analysis identified 22 compounds in the roots and 27 in the leaves, with gallic acid and 4-methylguaiacol predominating in both extracts. Phenylethyl ester and 3,5-dimethoxyphenol were detected only in the leaf extract. The antimicrobial activity was evaluated against common urinary-tract-infection pathogens, including *Escherichia coli*, *Klebsiella* spp., *Staphylococcus aureus*, *Candida albicans*, *Pseudomonas aeruginosa*, and *Proteus mirabilis*, all of which showed sensitivity to the extracts. MIC values ranged from 0.07 to 0.15 mg/mL, while MBC values ranged from 0.30 to 0.70 mg/mL, indicating mainly bactericidal effects. Antioxidant activity assessed by the DPPH assay revealed inhibition rates of 80.54% for the leaf extract and 49.23% for the root extract. These findings highlight the strong antimicrobial potential of *Urtica dioica* against urinary-tract-infection pathogens and confirm its significant antioxidant activity, supporting its traditional medicinal use and its potential for developing novel therapeutic agents.

Keywords: *Urtica dioica*; phenolic extracts; phytochemical screening; antioxidant activity; antibacterial activity; urinary tract infections.

A SIGNAL QUALITY-DRIVEN APPROACH TO ASSESS THE RELIABILITY OF PPG-DERIVED PULSE RATE VARIABILITY IN WEARABLE CARDIAC MONITORING

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ABSTRACT

Wearable photoplethysmography is currently one of the most accessible technologies for continuous cardiac monitoring in real-life conditions. The reliability of mathematical analysis of pulse rate variability (PRV) derived from photoplethysmographic signals is an important issue. In the assessment of cardiac health, the accuracy of the investigated indices is of particular importance. In recent years, PRV has increasingly been used as an alternative to electrocardiography-based heart rate variability (HRV). This paper develops a signal-quality-based approach for assessing the reliability of PPG-derived pulse rate variability in comparison with ECG-derived heart rate variability. The proposed approach focuses on examining the results of signal preprocessing, peak detection, and comparative analysis of variability parameters in the time and frequency domains. Attention is given to the influence of motion artifacts, sensor contact instability, noise, and dynamic physiological conditions on the agreement between HRV and PRV indices. The study emphasizes that variability derived from PPG should not be considered fully equivalent to ECG-derived HRV. The reliability of PRV depends on signal quality, recording conditions, and the selected analytical parameters. The paper also discusses the role of artificial intelligence and hybrid signal-processing approaches in improving artifact detection, feature extraction, and real-time decision support in wearable systems. The proposed approach may support the development of more reliable personalized monitoring systems, where PPG-based analysis is used not as a direct substitute for ECG, but as a wearable, signal-quality-controlled tool for the continuous assessment of autonomic regulation.

Keywords: heart rate variability, pulse rate variability, signal quality, wearable monitoring, artificial intelligence, digital health.

EVALUATION OF HYPOGLYCEMIC AND ANTIHYPERTENSIVE EFFICACY OF LEPIDIUM SATIVUM IN ELDERLY

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ABSTRACT

Background: *Lepidium sativum*, widely recognized as Chandrasura, is an annual herbaceous plant. Characterized by its smooth, hairless (glabrous) structure, it typically reaches heights of 15 to 45 centimeters. Its seeds are notable for their lack of aroma and their distinctly pungent, mucilaginous flavor.

Lepidium sativum seeds are known to contain a variety of phytochemicals, such as phenolic compounds, terpenoids, alkaloids, flavonoids, and organosulfur compounds.

It also contains phytosterols and their derivatives, which are known to possess antioxidant potential, anti-cancer, anti-inflammatory, cardio-protective activity, and antihypertensive.

Objective: To evaluate the safety & efficacy of *Lepidium Sativum* seeds in lowering blood pressure in hypertensive elderly.

Design: This prospective, observational study was conducted at Beni Suef University Hospital, involving hypertensive patients aged 50 years and older. Participants were categorized into two groups: a control group (Group I) of healthy volunteers and a hypertensive group (Group II). Each group comprised 20 participants (n=20), with a balanced distribution of male and female subjects. Group II received a specified dose of *Lepidium sativum* seeds for an 8-week treatment period.

Results: This study demonstrated a statistically significant decrease in both systolic and diastolic blood pressure among hypertensive patients who consumed *Lepidium sativum* seeds for eight weeks. Additionally, a significant improvement in serum lipid profiles was observed in the treatment group compared to the healthy control group, with notable reductions in triglycerides, cholesterol, and LDL and an increase in HDL ($p \leq 0.05$).

Conclusion: Our data supports previous suggestions from various research that *Lepidium Sativum* seed intake possesses both hypotensive and lipid profile-improving effects.

Keywords: *Lepidium Sativum* seed, hypertensive patients, lipid profile, phenolic compounds

ANTIMICROBIAL INVESTIGATION OF MEDICINALLY IMPORTANT *COLEUS* SPECIES

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ABSTRACT

Plants having antimicrobial properties have been reported as an important natural source of bioactive compounds. One of such plants includes various species of *Coleus* from the family Lamiaceae. These are known for their medicinal uses in treatment of various ailments like digestive disorders, asthma, hypertension, heart diseases, and various cancers. This work was carried out to study the antimicrobial potential and genetic variability of three species of *Coleus* plants; *C. amboinicus*, *C. aromaticus*, and *C. forskohlii*. Plant extracts were obtained by using four different organic solvents; butanol, methanol, ethanol, and acetone. The antimicrobial activity was tested against various bacteria including *Escherichia coli*, *Bacillus sp.*, *Staphylococcus sp.*, *Proteus sp.*, and *Pseudomonas sp.* by using agar diffusion technique. MIC analysis was also done for effective plant extracts. Out of all four solvents, butanol was found to be the most potent solvent showing maximum inhibition in *C. forskohlii*, exhibiting maximum inhibition against *E. coli* and *Proteus sp.* Moderate activity was noted in methanolic extracts whereas minimum inhibition occurred in ethanol and acetone extracts. It can be concluded from this study that *Coleus* plants, especially *C. forskohlii*, exhibit high levels of antimicrobial activity and could therefore serve as valuable sources for natural antimicrobial substances

Keywords: Antimicrobial properties, *C. aromaticus*, *C. forskohlii*, *C. amboinicus*, Medicinal plant

THE SIGNIFICANCE OF MIRACULOUSLY NUTRITIOUS MANGO (MANGIFERA INDICA L.), WHICH IS RICH IN BIOACTIVE SUBSTANCES THAT ARE EFFECTIVE AGAINST SARS COV-2 IN MITIGATING THE PANDEMIC: A SHORT REVIEW

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ABSTRACT

The significant purpose of current article is to embark in-depth examination and insight into the possible medicinal applications of mangiferin, a substance found naturally in mangoes, for ailments brought on by specific behaviors. Higher plants may also emit mangiferin (2-D-glucopyranosyl-1,3,6,7-tetrahydroxy-9H-xanthen-9-one), in addition to mango fruit and its byproducts (peel, seed, and kernel). The beneficial properties comprise antibacterial, antiallergenic, antioxidant, antidiabetic, anticancer, hypocholesterolemic, and immunomodulatory effects. It modifies transcription to prevent the activation of receptor isoforms that are triggered by peroxisome proliferators. TNF-expression, IFN-Synthase Potential, Proliferation, and Apoptosis Induction are all inhibited by mangiferin, providing protection against a variety of human malignancies, including brain, lung, colon, and breast tumors. Mangoes are a very valuable fruit in the world market, both nutritionally and commercially. Its numerous beneficial nutrients and bioactive compounds account for its therapeutic properties. The present research goes into comprehensive detail about the nutritional benefits of mango fruit, including the pulp, skin, and seed, for human health. The first half of the review looks into the nutritional and phytochemical composition of mango fruit; the subsequent section discusses the fruit's benefits for health. X-3 and X-6 fatty acids are among the many distinct phytochemical components found in mango fruit. Other phytochemical components include proteins, phenolic compounds (such as flavonoids and phenolic acids), pigments (such as carotenoids, anthocyanins, and chlorophylls, depending on the cultivar), and membrane proteins. We recommend reconsidering the search for remedies among well-known compounds of plant origin and their metal complexes in light of the coronavirus pandemic. Based on the recently discovered scientific benefits of mangoes for human well-being, eating mango fruit and its byproducts, which include bioactive components, might be advantageous as part of a balanced diet to help prevent the onset of illnesses. The research we conducted against SARS-COV-2 further included in silico predictions of the ADMET (the adsorption, distribution, metabolism, excretion, and toxicities) levels.

Keywords: Mango pulp, SARS CoV-2, Phenolic compounds, Flavonoids, Human malignancies.

BIOLOGICAL & ANTIOXIDANT ACTIVITIES OF ALGERIAN ESSENTIAL OILS *ORIGANUM Vulgare L.* AND *Rosmarinus officinalis L.*

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ABSTRACT

Aromatic plant species represent valuable sources of bioactive compounds with pharmaceutical and agricultural applications. This investigation evaluated the extraction yields and multifaceted biological properties of essential oils (EOs) derived from *Rosmarinus officinalis* L. and *Origanum vulgare* L., collected from the Ain Bouyahia and Amra regions. Essential oil extraction yielded 1.88 ± 0.18 % for *O. vulgare* from Ain Bouyahia, whereas *R. officinalis* demonstrated a comparatively lower yield of 0.53 ± 0.13 %. Antioxidant capacity assessment via the DPPH radical scavenging assay revealed moderate activity, with IC₅₀ values of 36.57 µg/mL for *O. vulgare* (Amra region) and 33.68 µg/mL for *R. officinalis*, approximating the reference standard ascorbic acid (IC₅₀ = 30.68 µg/mL). Anti-inflammatory potential, evaluated through the ovalbumin denaturation inhibition assay, demonstrated comparable efficacy between geographic origins : *O. vulgare* from Amra exhibited 74.29% inhibition at 400 µg/mL versus 73.06% from Ain Bouyahia, while *R. officinalis* from Amra achieved 74.64% inhibition compared to 73.23% from Ain Bouyahia. Antimicrobial susceptibility testing revealed substantial activity against fungal pathogens, particularly *Aspergillus niger* and *Candida albicans*, with inhibition zones reaching 67 mm and 65 mm for *O. vulgare* and *R. officinalis* from Amra, respectively. Both essential oils exhibited bactericidal effects against Gram-positive strains, including *Bacillus cereus* (30 mm) and *Staphylococcus aureus* (62 mm), as well as variable efficacy against Gram-negative bacteria, with inhibition zones of 65 mm against *Pseudomonas aeruginosa* and 43 mm against *Salmonella typhi*. Bio-insecticidal evaluation against *Tribolium castaneum* demonstrated dose-dependent mortality, with *R. officinalis* from Amra displaying superior efficacy. These findings underscore the therapeutic and agronomic potential of *R. officinalis* and *O. vulgare* essential oils as natural alternatives for antioxidant, anti-inflammatory, antimicrobial, and pest management applications, while highlighting the influence of geographic provenance on bioactivity profiles.

Keywords : *Rosmarinus officinalis* L ; *Origanum vulgare* L; Essential oils ; Biological Activities; Bioinsecticide ; geographic variation ; phytochemical characterization.

EPIDEMIOLOGY AND ANTIMICROBIAL RESISTANCE OF *ESCHERICHIA COLI* AT THE HUMAN-ANIMAL-ENVIRONMENTAL INTERFACE IN ADDIS ABABA: A ONE HEALTH APPROACH

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ABSTRACT

Escherichia coli is a major zoonotic pathogen responsible for severe gastrointestinal illness, including hemorrhagic colitis and hemolytic uremic syndrome, particularly affecting children and immune-compromised individuals. Livestock such as cattle and small ruminants act as asymptomatic reservoirs, facilitating environmental contamination of food, water, and vegetables. In Ethiopia, especially in Addis Ababa and surrounding areas, multiple studies have reported widespread contamination of food products and environments with pathogenic and antimicrobial-resistant *E. coli* strains. Evidence from meat, vegetables, and clinical settings highlights a significant burden of multidrug resistance, posing serious public health concerns. Despite growing research, most studies remain fragmented, focusing on single sources such as humans, animals, or food, with limited integration across the human-animal-environment interface. This study aims to address this gap through a comprehensive One Health approach by investigating the prevalence, antimicrobial resistance profiles, and genomic relatedness of *E. coli* isolates across these interconnected compartments. A cross-sectional design will be employed, involving concurrent sampling from human, animal, and environmental sources. Laboratory analyses will include culture-based identification, antimicrobial susceptibility testing, and genomic sequencing to determine strain relatedness and transmission pathways. The study is expected to generate integrated evidence on the epidemiology and resistance patterns of *E. coli* in Addis Ababa, supporting national One Health strategies and informing targeted interventions for food safety and antimicrobial resistance control.

“THE REPORT”: A SMALL TAP IN THE BIG REALM OF THE SERIO-COMICAL

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ABSTRACT

This paper focuses on the esthetic interaction between **absurd, comedy, satire and tragedy**, in the Syrian film *The Report* (*Al-Taqrir*, 1986) written by the late Muhammad Al-Maghut (scriptwriter, 1934-2006) & directed by Durayd Lahham (director, 1934-). The distinctive way in which the filmmakers combine these features has a significant role in directing the audience from the absurd to the catharsis of sublime emotions.

Carnavalesque humor within the **Satire** genre, play a major part in highlighting the paradoxical and “the ridiculous” absurdity in social and political life in Syria during the seventies and eighties of the twentieth century. By the **satirical** sharpening of the gap between what is desirable and what is found, filmmakers try to convince us to reject out of hand low standards and corrupted norms.

‘Azmi Baik, the principled anti-hero, matches one of the most prominent carnivalesque characters as Bakhtin describes it when he refers to the polyphonic Novels of Fyodor Dostoevski. Especially, the total fusion of the character between personal life and worldview. carnivalesque humor, even if progressively and indirectly, has a temporary **comic** release; an “emancipatory”, “liberatory” and also perhaps occasionally a “revolutionary” function. However, because release is momentary, the absurd still “raises its head” approximately in every corner. Therefore, in order to liberate us from the **absurd**, filmmakers lead us to an uplifting path where in the last scene we arrive at the **tragic** catharsis once we reveal the horrifying consequences of the harsh confrontation between an innocent carnivalesque hero and a suspicious reality.

No doubt that this satiric film functions as a clear, direct and powerful condemnation of a corrupted regime. Yet, it is also a barefaced confession regarding the impotence of the struggle against injustice as long as it is only a lost combat of an isolated, decent, eccentric intellectual.

Keywords: Absurd, Bakhtin, Carnavalesque, Satire, Tragicomic.

MIKHAILO BALUGYÁNSZKY: ARCHITECT OF BOURGEOIS MODERNISATION IN EARLY 19TH-CENTURY RUSSIA THROUGH LAW CODIFICATION AND STATE ADMINISTRATION

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ABSTRACT

In the early 18th century, Russia embarked on a European-oriented transformation: Tsar Peter the Great founded St. Petersburg, and the Russian Academy of Sciences was established in the mid-18th century thanks to Lomonosov. University life emerged only at the beginning of the 19th century, with the Tsarist court recruiting prominent foreign scientists. Among them was Ioann Orlay, a Hungarian professor at the St. Petersburg Medical College and court counsellor to Tsar Alexander I, who — on behalf of the tsar's adviser Novosiltsev — invited his compatriot Michailo Balugyánszky to Russia.

Michailo Balugyánszky, recruited by the St. Petersburg Academy (founded in 1803) to address its shortage of qualified teaching staff, played a pivotal role in shaping Russian education and state administration: he served as teacher of public economics and financial sciences, dean of the St. Petersburg Pedagogical Institute (1816), and first rector of the re-founded St. Petersburg University (1819); tutored future Tsar Nicholas I and Archduke Michael (1813–1817), delivering lectures on Natural Law, Public Law, international law, and political economy; held high-ranking positions including state councillor (from 1814) and head of the 2nd Department of the Chancellery (from 1826), where he led the preparation of the “Collection of Laws of the Russian Empire” (“Svod Zakonov Rossiiskoi Imperii”, 15 vols., 1832; in force from 1835) — with Volume X on private law reflecting influence from the French “Code Civil”; and authored “Illustration of Different Economic Systems” (1806), which established enduring Russian terminology in public administration and economics and summarised contemporary economic doctrines. — In this lecture, we will describe his activity in the Tsarist administration in Russia. Understanding Balugyánszky's legacy requires acknowledging his formative influences. As a young man, he was part of a Masonic lodge at the Košice Law Academy (North-Eastern Hungary), which pioneered legal education by integrating “politico-cameral knowledge” (public administration, economics, and finance) and served — alongside Pest — as a hub for Jacobin-oriented intellectual development. Led by F. Kazinczy and J. Bacsanyi, the movement promoted Enlightenment ideas, civil liberty, equality, and the renewal of the Hungarian language. This Masonic and intellectual upbringing directly shaped Balugyánszky's later role in advancing bourgeois modernisation in Russia. — We spoke about these roots at the previous UBAK congress, on May 3 in Tunceli. But we did not prepare a full-text, because the full article will only be established after the presentation of the entire Balugyánszky biography; thus, here at this congress, a full analysis will be presented following the unveiling of his complete biography at this congress.

Keywords: St.-Petersburg, Tsarist_Russia, Košice/Kaschau, Law_Education, Masonry, Enlightenment.

‘SO EVEN FATHERS GET ATTRACTED TO THEIR DAUGHTERS’: GENESIS 19:30–38 AND GROWING INCESTUOUS RELATIONS AMONGST FAMILIES IN A SUB-SAHARAN CONTEXT

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ABSTRACT

The general aim of the study is to engage Genesis 19:30-38 through the lens of rising incest in Nigerian families. It is a sad reality that some fathers in Nigeria are having sexual relations with their female children. Some of the fathers have gone as far as securing abortions for some of their female children. The issue has continued to escalate notwithstanding the efforts of the government and other concerned individuals. No doubt, there is existing literature on incestuous unions in Nigeria; however, existing studies have not approached the issue of incest in Nigerian communities using the pericope. This study adopted narrative analysis to explore the narrative characters, structure, and emerging themes. It also adopts the African theological approach because the text was interpreted in the Nigerian context. The study further draws data from gazettes, periodicals, and publications by non-governmental organisations. Emerged themes include the following: a. isolation; b. plan to carry out the act; c. execution of the plan; d. outcome of the plan. Findings show that poverty, power dynamics, and family dynamics are some of the factors that have sustained sexual unions between fathers and daughters. Recommendations and conclusions were made.

Keywords: Genesis 19, incest, Lot, Sodom and Gomorrah, Zoar, families, Nigeria

CHRISTIAN RELIGIOUS EDUCATION AND ENVIRONMENTAL AWARENESS: A FAITH-BASED APPROACH TO PROMOTING SUSTAINABILITY IN THE DIGITAL AGE

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ABSTRACT

The escalating environmental crisis in the digital age marked by climate change, ecological degradation, and unsustainable consumption patterns highlights the urgent need for a transformative educational approach that integrates ethical, spiritual, and ecological awareness. In this context, education is expected not only to develop cognitive competencies but also to foster a sense of environmental responsibility. This study aims to examine the role of Christian Religious Education (CRE) in fostering environmental concern through a faith-based approach to sustainability. This study employs a qualitative descriptive design through a comprehensive literature review, focusing on theological perspectives, educational theory, and contemporary discussions regarding sustainability. This analysis explores how biblical teachings, particularly the concept of stewardship, can be integrated into educational practices to foster ecological responsibility in students. The research findings indicate that Christian Religious Education holds significant potential for shaping students' environmental ethics through the instillation of spiritual values, moral responsibility, and practical engagement with ecological issues. Furthermore, the integration of digital literacy into Christian Religious Education enables students to critically engage with technology-driven lifestyles that often contribute to environmental problems. In conclusion, this study affirms that a faith-based approach in Christian Religious Education can serve as a transformative framework for promoting sustainability and shaping individuals who are environmentally responsible. This study contributes to the growing interdisciplinary discourse on religion, education, and sustainable development by offering a contextual and values-based educational model.

Keywords: Christian Religious Education, environmental awareness, sustainability, faith-based education, the digital age.

INTERNATIONAL CHILD ABDUCTION AND THE PROTECTION OF THE BEST INTERESTS OF THE CHILD: CHALLENGES IN PRIVATE INTERNATIONAL LAW

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ABSTRACT

International child abduction has become an increasingly significant issue within private international law due to the growing number of cross-border family relationships and international mobility. The unlawful removal or retention of children across state borders creates complex legal disputes involving jurisdiction, parental rights, and the protection of the best interests of the child. International legal instruments, particularly the Hague Convention on the Civil Aspects of International Child Abduction of 1980, establish mechanisms aimed at ensuring the prompt return of children and protecting their fundamental rights.

This paper analyzes the legal framework governing international child abduction with particular emphasis on the principles of private international law, international judicial cooperation, and the best interests of the child. The study examines procedural mechanisms for the return of abducted children, the role of national courts, and the challenges faced during the implementation of international conventions within domestic legal systems.

Special attention is devoted to the legal and practical challenges encountered by transitional legal systems, including issues related to jurisdictional conflicts, enforcement difficulties, and institutional cooperation. Through comparative and analytical methodology, the paper evaluates the effectiveness of existing legal mechanisms and proposes recommendations for improving international cooperation and the protection of children's rights in cross-border family disputes.

Keywords: Private international law; international child abduction; best interests of the child; Hague Convention; international judicial cooperation; family law.

CYBERCRIME AND CRIMINAL LAW CHALLENGES IN KOSOVO: LEGAL FRAMEWORK AND INSTITUTIONAL RESPONSES

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ABSTRACT

The rapid development of information technology and digital communication has significantly increased the prevalence of cybercrime, creating new challenges for criminal law and law enforcement institutions worldwide. Cyber-related offenses, including unauthorized access to computer systems, identity theft, online fraud, and cyber harassment, have become increasingly sophisticated and difficult to investigate and prosecute. As a developing legal system, Kosovo has undertaken legislative reforms to address cybercrime in accordance with international standards and European legal instruments.

This paper analyzes the criminal law framework regulating cybercrime in Kosovo, focusing on the provisions of the Criminal Code, procedural mechanisms for investigation and prosecution, and the institutional capacities responsible for combating cyber-related offenses. The study further examines the extent to which Kosovo's legislation is harmonized with the Budapest Convention on Cybercrime and relevant European Union standards.

Using analytical and comparative legal methodology, the paper identifies the principal legal and institutional challenges affecting the effective prevention and prosecution of cybercrime, including technological limitations, lack of specialized expertise, and issues of international cooperation. The paper concludes with recommendations aimed at strengthening legislative mechanisms, improving institutional coordination, and enhancing cybersecurity policies in Kosovo.

Keywords: Cybercrime; criminal law; cybersecurity; criminal procedure; Budapest Convention; Kosovo.

REMOTE WORK AND ADMINISTRATIVE PERFORMANCE IN MODERN ORGANIZATIONS: A STUDY OF CORPORATE AFFAIRS COMMISSION (CAC), AWKA, ANAMBRA STATE, NIGERIA

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ABSTRACT

The Corporate Affairs Commission, Awka, is one of the modern organizations where people work. This study examined the effect of working from home on the performance of the Corporate Affairs Commission, Awka. Because of new ways of working, companies all over the world are changing how they operate, especially since the COVID-19 pandemic. Interestingly, working from home is getting more popular; the Corporate Affairs Commission, Awka and other companies in Nigeria are still having challenges with getting work done, giving service, talking to each other and supervising employees. The study assessed how working from home affects the day-to-day work of the Corporate Affairs Commission, Awka. The specific objectives were to ascertain how working from home affects how much work employees do, to find out how digital communications affect how well the administration works, and to investigate what problems come with working from home. The study adopted the Technology Acceptance Model (TAM) to understand things. Findings from the study revealed that working from home positively influences employee productivity, improves administrative efficiency and enhances service delivery. The study also identified challenges such as unstable internet connectivity, inadequate technological facilities, cybersecurity issues, and communication barriers as major factors affecting effective remote work implementation. The study concluded that remote work significantly affects administrative work in the Corporate Affairs Commission, Awka. The study recommended improved ICT infrastructure, regular staff training, development of clear remote work policies, and strengthening cybersecurity measures to improve administrative work.

Keywords: Remote work, Administrative Performance, Digital Communication, Corporate Affairs Commission

KARL MARX AND MAHATMA GANDHI: TWO DIFFERENT PATHS TO SOCIAL JUSTICE

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ABSTRACT

Social justice has remained one of the most significant concerns in political philosophy and social theory. Among the major thinkers who contributed to this discourse, Karl Marx and Mahatma Gandhi offered two distinct yet influential approaches toward achieving a just and equitable society. Karl Marx viewed social injustice primarily as a result of capitalist exploitation and class inequality. He argued that economic structures and ownership of the means of production create oppression, which can only be eliminated through revolutionary structural change and the establishment of a classless society. In contrast, Mahatma Gandhi emphasized moral reform, non-violence, ethical responsibility, and trusteeship as the foundations of social justice. Gandhi believed that social transformation should be achieved through peaceful means, self-discipline, and the welfare of all individuals.

This paper presents a comparative analysis of Marxist and Gandhian perspectives on social justice by examining their philosophical foundations, methods of social change, and visions of an ideal society. The study adopts a doctrinal and analytical methodology based on the writings of Marx and Gandhi along with relevant scholarly interpretations. While Marx focuses on economic equality and class struggle, Gandhi highlights moral values, non-violent resistance, and decentralized social organization. Despite their ideological differences, both thinkers strongly opposed exploitation and inequality. The paper concludes that a balanced synthesis of Marx's structural critique and Gandhi's ethical philosophy may provide a more comprehensive framework for addressing contemporary social and economic inequalities.

Keywords: Social Justice, Karl Marx, Mahatma Gandhi, Equality, Non-Violence, Class Struggle, Trusteeship, Social Reform.

ECO-SPIRITUALITY AND ECOLOGICAL PRAXIS: A SYSTEMS-BASED ANALYSIS OF SIKH SUSTAINABILITY AND THE SEECHEWAL MODEL

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ABSTRACT

This paper explores the systemic sustainability framework inherent in Sikhism, examining how its foundational theology integrates ecological stewardship, social equity, and economic moderation. Unlike Western secular environmentalism, Sikh sustainability is rooted in the concept of Kudrat (Nature), where the Divine is viewed as immanent within the physical world. This "Eco-Spirituality" is best captured in the scriptural mandate "Pavan Guru, Pani Pita, Mata Dharat Mahat" (Air is the Teacher, Water the father, and Earth the Great Mother), which proves a familial and ethical obligation toward the environment.

The analysis evaluates how these theological principles are operationalized through institutional practices such as Langar (community kitchen) and Seva (selfless service). We examine contemporary case studies, including the restoration of the Kali Bein River and the global "Sacred Forest" initiative, to prove how the "Seechewal Model" of community-led ecological restoration serves as a blueprint for sustainable development in the Global South. Furthermore, the paper discusses the shift toward "Green Gurdwaras," where renewable energy and organic farming are used to counteract the systemic degradation caused by Haumai (ego-driven consumption).

This study argues that the Sikh model offers a holistic "Systems Thinking" approach that transcends the man-nature dichotomy, proposing that ecological survival is inextricably linked to spiritual discipline and social justice.

Keywords: Sikh Ecology, Systemic Sustainability, Kali Bein, Sacred Forests, Green Gurdwaras, Environmental Ethics.

BETWEEN COMPLIANCE AND ILLUSION: JOHNSON'S PSYCHOLOGICAL SURVIVAL IN JOYCE CARY'S MISTER JOHNSON

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ABSTRACT

What does it really mean to survive under colonial labour — and at what cost? This study takes up that question through a close reading of Johnson, the central character in Joyce Cary's *Mister Johnson*. Rather than treating Johnson as a simple victim or a willing collaborator, we argue that his behaviour is far more ambiguous. Drawing on emotional labour theory and postcolonial analysis, the study shows how Johnson navigates an exploitative system by managing his emotions in ways that allow him to function — but also to deceive himself. His cheerfulness, his loyalty, and his imitation of colonial manners are not merely personal traits. They are responses to a system that demanded psychological submission alongside physical labour. The findings reveal that Johnson's resilience and his self-deception are not opposites; they are deeply intertwined. His experience also resonates beyond the colonial context, shedding light on modern workplaces where emotional performance is increasingly demanded from workers.

Keywords: Resilience, Self-deception, Emotional labour, Colonial labour, Exploitation, Survival

AI-DRIVEN MONITORING, PHENOTYPING, AND SELECTIVE BREEDING IN EDIBLE INSECT PRODUCTION SYSTEMS

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ABSTRACT

Though large-scale industrial production encounters major obstacles in terms of real-time monitoring, high-throughput phenotyping, and breeding efficiency, edible insects are becoming more and more acknowledged as a sustainable alternative protein source. A strong technological foundation for data-driven insect farming has been established by artificial intelligence (AI), more especially by machine learning (ML), deep learning (DL), and computer vision (CV). Early ML applications showed that image-based models can correctly classify species and sex, offering quick and affordable substitutes for manual identification. Building on these frameworks, sophisticated AI-based models have been applied for population forecasting and real-time detection, such as deep learning architectures (like YOLO) and statistical time-series techniques (like ARIMAX). Precision insect farming is made easier by these systems, which allow automated surveillance in regulated settings. Phenotyping is a significant challenge in edible insect farming because of the dense rearing conditions and quick life cycles. Regression-based convolutional neural networks (RegCNN) have been proposed as a solution to estimate growth parameters and larval size. By using knowledge transfer techniques, these models drastically cut down on manual measurement effort and data annotation time. In scalable production systems, consistent data generation depends on high-throughput phenotyping. AI-enabled phenotyping is essential to selective breeding programs in addition to monitoring. Current research highlights that genetic improvement in insects raised for food and feed is constrained by the absence of standardized phenotypic data. The effectiveness of breeding strategies, which balance genetic gain and inbreeding control, is further shown by stochastic simulation studies to be solely dependent on the frequency and quality of phenotypic records. High-throughput, technology-assisted phenotyping is essential for determining genetic parameters and putting into practice efficient selection in commercial production, according to empirical research. In summary, computer vision and deep learning enable integrated insect production, but scalability and data standardization remain unresolved challenges.

Keywords: Artificial intelligence, Edible insects, High-throughput phenotyping, Precision insect farming

YAPAY ZEKA DESTEKLİ YENİLEBİLİR BÖCEK ÜRETİM SİSTEMLERİNDE İZLEME, FENOTİPLEME VE SELEKTİF YETİŞTİRİCİLİK

ÖZET

Büyük ölçekli endüstriyel üretim, gerçek zamanlı izleme, yüksek verimli fenotipleme ve yetiştirme verimliliği açısından önemli engellerle karşılaşsa da, yenilebilir böcekler sürdürülebilir bir alternatif protein kaynağı olarak giderek daha fazla kabul görmektedir.

Yapay zeka (YZ), özellikle makine öğrenmesi (MÖ), derin öğrenme (DÖ) ve bilgisayarlı görü (BG) ile veri odaklı böcek yetiştiriciliği için güçlü bir teknolojik temel oluşturulmuştur. İlk MÖ uygulamaları, görüntü tabanlı modellerin tür ve cinsiyeti doğru bir şekilde sınıflandırabildiğini ve manuel tanımlama için hızlı ve uygun fiyatlı alternatifler sunduğunu göstermiştir. Bu çerçeveler üzerine inşa edilen gelişmiş YZ tabanlı modeller, popülasyon tahmini ve gerçek zamanlı tespit için, DÖ tabanlı nesne tespit modelleri (YOLO gibi) ve istatistiksel zaman serisi teknikleri (ARIMAX gibi) gibi uygulamalarla hayata geçirilmiştir. Bu sistemler, düzenlenmiş ortamlarda otomatik gözetimi sağlayarak hassas böcek yetiştiriciliğini kolaylaştırmaktadır. Yoğun yetiştirme koşulları ve hızlı yaşam döngüleri nedeniyle fenotipleme, yenilebilir böcek yetiştiriciliğinde önemli bir zorluktur. Regresyon tabanlı konvolüsyonel sinir ağları, büyüme parametrelerini ve larva boyutunu tahmin etmek için bir çözüm olarak önerilmiştir. Bilgi aktarım tekniklerini kullanarak, bu modeller manuel ölçüm çabasını ve veri etiketleme süresini önemli ölçüde azaltır. Ölçeklenebilir üretim sistemlerinde, tutarlı veri üretimi yüksek verimli fenotiplemeye bağlıdır. YZ destekli fenotipleme, izlemenin yanı sıra seçici yetiştirme programları için de gereklidir. Mevcut araştırmalar, gıda ve yem için yetiştirilen böceklerde genetik iyileştirmenin, standartlaştırılmış fenotipik verilerin yokluğuyla sınırlı olduğunu vurgulamaktadır. Genetik kazanç ve akrabalı yetiştirme kontrolünü dengeleyen yetiştirme stratejilerinin etkinliği, stokastik simülasyon çalışmalarıyla yalnızca fenotipik kayıtların sıklığına ve kalitesine bağlı olduğu gösterilmiştir. Ampirik araştırmalara göre, yüksek verimli, teknoloji destekli fenotipleme, genetik parametreleri belirlemek ve ticari üretimde verimli seçimi uygulamaya koymak için gereklidir. Özetle, BG ve DÖ entegre böcek üretimini mümkün kılmakta, ancak ölçeklenebilirlik ve veri standardizasyonu ise hala çözülmemiş zorluklar olarak görünmektedir.

Anahtar Kelimeler: Yapay zeka, Yenilebilir böcekler, Yüksek verimli fenotipleme, Hassas böcek yetiştiriciliği

IN VITRO ANTITUMOR POTENTIAL OF BERBERINE-LOADED NIOSOME IN OVARY CANCER CELLS

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ABSTRACT

Ovarian cancer is a form of neoplasia that arises from the uncontrolled proliferation of epithelial and embryonic cells, resulting in the absence of effective control mechanisms. Berberine is a plant flavonoid used in traditional Chinese medicine. Its effect on cancer cells has recently been the subject of several studies. As research into nanoparticles has expanded, drug delivery systems have begun to play a role in cancer studies. The aim of this study was to determine the effect of berberine-loaded niosomes on ovarian cancer. The niosomes were synthesised via the thin film layer method, after which berberine was encapsulated into the niosomes. To characterise the loaded niosomes obtained following encapsulation, Fourier transform infrared spectroscopy (FTIR), Dynamic Light Scattering (DLS), zeta potential measurements and Transmission Electron Microscopy (TEM) images were employed. Expected peaks were obtained in FTIR results. When the DLS and zeta potential were measured, the average size of the charged niosomes was found to be 165 nm and the zeta potential was found to be -32.2 mV. TEM images show that the sizes of niosome nanoparticles are in the range of about 50—100 nm and their morphology is spherical. The encapsulation efficiency of berberine loaded into niosomes was determined to be 50% using an HPLC system. In the release study, it was observed that niosomes exhibited a burst release, releasing 80% of the encapsulated berberine within the first 24 hours, followed by a sustained and stable release of the remaining fraction.

Keywords: Berberine, niosome, ovarian cancer, drug delivery

OVER KANSERİ HÜCRELERİNDE BERBERİN YÜKLÜ NIOZOMUN İN VITRO ANTİTÜMÖR POTANSİYELİ

ÖZET

Over kanseri, etkili kontrol mekanizmalarının olmaması nedeniyle epitel ve embriyonik hücrelerin kontrolsüz çoğalması sonucu ortaya çıkan bir neoplazi türüdür. Berberin, geleneksel Çin tıbbında kullanılan bitkisel bir flavonoiddir. Kanser hücreleri üzerindeki etkisi son yıllarda birçok çalışmanın konusu olmuştur. Nanoparçacık araştırmalarının genişlemesiyle birlikte, ilaç taşıma sistemleri de kanser çalışmalarında önemli bir rol oynamaya başlamıştır. Bu çalışmanın amacı, berberin yüklü niosomların over kanseri üzerindeki etkisini belirlemektir. Niosomlar ince film tabakası yöntemi kullanılarak sentezlenmiş, ardından berberin niosomlara enkapsüle edilmiştir. Elde edilen yüklü niosomları karakterize etmek için Fourier dönüşümlü kızılötesi spektroskopisi (FTIR), Dinamik Işık Saçılımı (DLS), zeta potansiyel ölçümleri ve Transmisyon Elektron Mikroskobu (TEM) görüntüleri kullanılmıştır. FTIR sonuçlarında beklenen pikler elde edilmiştir. DLS ve zeta potansiyel ölçümlerinde, yüklü niosomların ortalama boyutu 165 nm ve zeta potansiyeli -32.2 mV olarak bulunmuştur.

TEM görüntüleri, niosom nanoparçacıklarının boyutlarının yaklaşık 50–100 nm aralığında olduğunu ve küresel morfolojiye sahip olduklarını göstermektedir. Niozomlar enkapsülasyonu gerçekleştirilen Berberin'in enkapsülasyon verimi %50 olarak HPLC cihazı ile ölçülmüştür. Salım deneyinde niozomların içerisindeki berberinin %80'ini ilk 24 saat patlama salımı yaparak bırakmış ve kalanını stabil düzeyde saldıgı tespit edilmiştir.

Anahtar Kelimeler: Berberin, niozom, over kanseri, ilaç taşıma

DETERMINATION OF RESISTANCE LEVELS OF LOCAL TOMATO GENOTYPES AND COMMERCIAL CULTIVARS AGAINST *Xanthomonas axonopodis* pv. *Vesicatoria*

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ABSTRACT

Xanthomonas axonopodis pv. *vesicatoria*, the causal agent of bacterial spot disease, is one of the major phytopathological pathogens causing significant yield and quality losses in tomato production. Therefore, the use of resistant genotypes in the sustainable and effective management of the disease is of critical importance in terms of reducing dependency on chemical control and minimizing environmental risks. In this study, it was aimed to determine the resistance levels of a total of 16 different tomato materials, including 4 commercial cultivars and 12 local genotypes, against the aforementioned pathogen. The experiment was conducted under pot conditions according to a completely randomized design with three replications, and the resistance reactions of the plants were evaluated at the seedling stage using the spray inoculation method. According to the obtained results, the highest disease severity was determined in the LT-7 genotype and CT-4 cultivar, whereas the lowest disease severity was detected in the LT-4, LT-5, LT-6, and LT-12 genotypes. The genotypes and cultivars exhibiting moderate disease reactions were identified as LT-2, LT-8, CT-2, and CT-3. In addition, the hierarchical clustering analysis revealed that the tomato genotypes were clustered according to the similarity levels of their disease severity values. The obtained findings demonstrated that there is a significant level of variation among tomato genotypes in terms of resistance to bacterial spot disease and indicated that the genotypes exhibiting low disease severity may be considered as potential genetic materials for resistance breeding studies.

YEREL DOMATES GENOTİPLERİ VE TİCARİ ÇEŞİTLERİN XANTHOMONAS AXONOPODIS PV. VESICATORIA A'YA KARŞI DAYANIKLILIK SEVİYELERİNİN BELİRLENMESİ

ÖZET

Bakteriyel leke hastalığına neden olan *Xanthomonas axonopodis* pv. *vesicatoria*, domates üretiminde önemli verim ve kalite kayıplarına yol açan başlıca fitopatolojik etmenlerden biridir. Bu nedenle, hastalığın sürdürülebilir ve etkili yönetiminde dayanıklı genotiplerin kullanımı, kimyasal mücadeleye olan bağımlılığı azaltması ve çevresel riskleri en aza indirmesi açısından kritik bir öneme sahiptir. Bu çalışmada, 4'ü ticari çeşit ve 12'si yerel genotip olmak üzere toplam 16 farklı domates materyalinin söz konusu patojene karşı dayanıklılık seviyelerinin belirlenmesi amaçlanmıştır. Deneme, saksı koşullarında tesadüf parselleri deneme desenine göre üç tekerrürlü olarak yürütülmüş; bitkilerin dayanıklılık reaksiyonları fide döneminde gerçekleştirilen sprey inokulasyon yöntemi ile değerlendirilmiştir.

Elde edilen sonuçlara göre en yüksek hastalık şiddeti LT-7 genotipi ve CT-4 çeşitinde belirlenirken, en düşük hastalık şiddeti LT-4, LT-5, LT-6 ve LT-12 genotiplerinde saptanmıştır. Orta düzeyde hastalık reaksiyonu gösteren genotip ve çeşitler ise LT-2, LT-8, CT-2 ve CT-3 olarak belirlenmiştir. Ayrıca gerçekleştirilen hiyerarşik kümeleme analizi, domates genotiplerinin hastalık şiddeti değerleri arasındaki benzerlik düzeyine göre kümелendiğini ortaya koymuştur. Elde edilen bulgular, domates genotipleri arasında bakteriyel leke hastalığına karşı önemli düzeyde varyasyon bulunduğunu göstermekte olup, düşük hastalık şiddeti sergileyen genotiplerin dayanıklılık ıslahı çalışmalarında potansiyel genetik materyal olarak değerlendirilebileceğini ortaya koymaktadır.

DETERMINATION OF RESISTANCE REACTIONS OF BEAN CULTIVARS/GENOTYPES AGAINST COMMON BACTERIAL BLIGHT

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ABSTRACT

Common bacterial blight is one of the major bacterial diseases causing significant yield losses in bean production, and the determination of resistant plant materials is of great importance for the effective management of the disease. In this context, this study aimed to determine the resistance levels of a total of 21 bean materials, including 16 local genotypes and 5 commercial cultivars, against *Xanthomonas citri* pv. *fuscans* (MFD-266). The study was conducted under pot conditions according to a completely randomized design with three replications, and each pot was arranged to contain three plants. The plants were inoculated at the 4–5 leaf stage with a bacterial suspension adjusted to a concentration of 10^8 CFU mL⁻¹, disease severity was evaluated using a 0–4 descriptive scale, and the obtained data were converted into percentage disease severity values.

The obtained findings showed that there were statistically significant differences among the plant materials in terms of disease severity ($p \leq 0.01$). The highest disease severity was determined in the CB-2 genotype with 100%, whereas the lowest values (20.00%) were detected in the LB-8 and LB-16 genotypes. The LB-10, LB-14, and CB-5 genotypes also attracted attention due to their low disease severity levels. As a result, it was revealed that the genotypes exhibiting low disease severity could be considered as resistance sources against common bacterial blight.

ADİ YAPRAK YANIKLIĞINA KARŞI FASULYE ÇEŞİT/GENOTİPLERİNDE DAYANIKLILIK REAKSİYONLARININ BELİRLENMESİ

ÖZET

Adi yaprak yanıklığı, fasulye üretiminde önemli verim kayıplarına neden olan başlıca bakteriyel hastalıklardan biri olup, hastalığın etkin yönetiminde dayanıklı bitki materyallerinin belirlenmesi büyük önem taşımaktadır. Bu doğrultuda, bu çalışmada 16 yerel genotip ve 5 ticari çeşit olmak üzere toplam 21 fasulye materyalinin *Xanthomonas citri* pv. *fuscans* (MFD-266) etmenine karşı dayanıklılık düzeylerinin belirlenmesi amaçlanmıştır. Çalışma, tesadüf parselleri deneme desenine göre üç tekerrürlü olarak saksı koşullarında yürütülmüş olup, her saksıda üç bitki yer alacak şekilde planlanmıştır. Bitkiler 4–5 yapraklı dönemde 10^8 CFU mL⁻¹ yoğunluğa ayarlanan bakteri süspansiyonu ile inokule edilmiş, hastalık şiddeti, 0–4 tanımsal skala kullanılarak değerlendirilmiş ve elde edilen veriler yüzde hastalık şiddetine dönüştürülmüştür. Elde edilen bulgular, bitki materyalleri arasında hastalık şiddeti bakımından istatistiksel olarak önemli farklılıklar bulunduğunu göstermiştir ($p \leq 0,01$).

En yüksek hastalık şiddeti %100 ile CB-2 genotipinde belirlenirken, en düşük değerler (%20,00) LB-8 ve LB-16 genotiplerinde tespit edilmiştir. LB-10, LB-14 ve CB-5 genotipleri de düşük hastalık şiddeti göstermeleri ile dikkat çekmiştir. Sonuç olarak, düşük hastalık şiddeti gösteren genotiplerin adi yaprak yanıklığına karşı dayanıklılık kaynağı olarak değerlendirilebileceği ortaya konulmuştur.

INVESTIGATION OF THE CULTIVATION POSSIBILITIES OF SWEET CORN (*Zea mays saccharata* Sturt.) VARIETIES UNDER THE ECOLOGICAL CONDITIONS OF DIYARBAKIR

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ABSTRACT

This research was conducted in 2025 in the ecological conditions of Çınar district, Diyarbakır province, to determine the adaptability and quality characteristics of three commonly produced sweet corn cultivar (Vega, Tyson, and SF 2070) to regional conditions. The study was carried out using a randomized block design with three replications.

According to the main results obtained from the research; in terms of plant development, the longest plant height (216.8 cm) and the highest ear height (69.83 cm) were obtained from the Tyson cultivar. In terms of ear characteristics, the highest ear length (23.04 cm) and the highest grain weight (102.15 g) were obtained from the SF 2070 cultivar. In terms of quality parameters, the highest grain/ear ratio (84.40%), the highest hectolitre weight (43.16 kg/hl) and the highest oil content (14.86%) were obtained from the Vega cultivar, the highest protein content (18.70%) from the SF 2070 cultivar, and the highest starch content (56.03%) from the Tyson cultivar. This research revealed that, in terms of adaptation to the Diyarbakır region conditions, the SF 2070 cultivar showed superior values in 8 characteristics, the Vega cultivar in 4 characteristics, and the Tyson cultivar in 3 characteristics. Based on these values, it was concluded that the SF 2070 cultivar can be recommended to producers in the region for production focused on market value and ear size, the Vega cultivar for production focused on high oil content and ear/grain ratio, and the Tyson cultivar for its high starch content.

Keywords: Sweet corn, adaptation, quality, variety, plant characteristics.

DİYARBAKIR EKOLOJİK KOŞULLARINDA TATLI MISIR (*Zea mays saccharata* Sturt.) ÇEŞİTLERİNİN YETİŞTİRME OLANAKLARININ ARAŞTIRILMASI

ÖZET

Bu araştırma, 2025 yılında Diyarbakır ili Çınar ilçesi ekolojik koşullarında yaygın olarak üretimi yapılan üç farklı tatlı mısır (Vega, Tyson ve SF 2070) çeşidinin bölge koşullarına uyum yetenekleri ile kalite özelliklerinin belirlenmesi amacıyla tesadüf blokları deneme desenine göre 3 tekerrürlü olarak yürütülmüştür.

Araştırmadan elde edilen sonuçlara göre; bitkisel gelişim açısından en uzun bitki boyu (216,8 cm) ve en yüksek koçan yüksekliği (69,83 cm) Tyson çeşidinden elde edilmiştir. Koçan özellikleri bakımından en yüksek koçan uzunluğu (23,04 cm) ve en yüksek tane ağırlığı (102,15 g) SF 2070 çeşidinden elde edilmiştir. Kalite parametreleri bakımından en yüksek tane/koçan oranı (% 84,40), en yüksek hektolitre ağırlığı (43,16 kg/hl) ve en yüksek yağ içeriği (% 14,86) Vega çeşidinden, en yüksek protein içeriği (% 18,70) SF 2070 çeşidinden ve en yüksek nişasta oranı (% 56,03) ise Tyson çeşidinden elde edilmiştir.

Bu araştırma sonucunda, Diyarbakır bölge koşullarına adaptasyonu açısından SF 2070 çeşidinin 8 karakter yönünden, Vega çeşidinin 4 karakter yönünden, Tyson çeşidinin ise 3 karakter yönünden diğer çeşitlerden daha üstün değerler gösterdiği belirlenmiştir. Bu değerler sonucunda pazar değeri ve koçan iriliği odaklı yapılacak üretim için SF 2070 çeşidinin, yüksek yağ içeriği ve tane/koçan oranı odaklı yapılacak üretim için Vega çeşidinin ve yüksek nişasta içeriği yönünden ise Tyson çeşidinin bölge üreticilerine önerilebileceği sonucuna varılmıştır.

Anahtar Kelimeler: Tatlı mısır, adaptasyon, kalite, çeşit, bitkisel özellikler.

INVESTIGATION OF THE EFFECTS OF DIFFERENT IRRIGATION METHODS ON YIELD AND QUALITY FACTORS IN KARACADAĞ RICE FARMING

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ABSTRACT

Karacadağ Rice is a local variety widely cultivated in the Southeastern Anatolia region. This study investigates the agricultural and quality characteristics of Karacadağ Rice, registered on March 28, 2018, under designation number 337, for protection under the Industrial Property Law No. 6769. Widely cultivated in the Karacadağ region of Southeastern Anatolia, the most important characteristic of the Karacadağ rice population is its color, aroma, and taste, making it the most preferred variety by the local population

This research was conducted using a randomized block design with three replications to investigate the effects of drip and flood irrigation systems on the yield and quality characteristics of the local Karacadağ rice, which is widely produced in the ecological conditions of Siverek district of Şanlıurfa province in 2025.

According to the results obtained from the research, the following values were determined to vary in terms of plant development: plant height limit values (108.0-122.0 cm), number of tillers per plant (5.0-9.0), root development per plant (22-28), number of panicles per plant (14.0-24.0), number of grains per panicle (84.0-132.0), panicle length (15.0-18.0 cm), grain length (0.61-0.65 mm), hectoliter weight (78.6-82.8 kg), moisture content in grain (13.5-15.2%), protein content in grain (8.0-15.0%), starch content (64.0-74.0%), cellulose content (2.0-4.0%), and sound rice yield (58.0-71.0%). The average plant height was 119.66 cm in drip irrigation and 112.0 cm in flood irrigation; the number of panicles per plant was 15.33 in drip irrigation and 21.0 in flood irrigation; the number of grains per panicle was 100.66 in drip irrigation and 119.33 in flood irrigation; panicle length was 16.33 cm in drip irrigation and 17.33 cm in flood irrigation; tillers per plant were 5.66 in drip irrigation and 8 in flood irrigation; root development was 23 cm in drip irrigation and 25.33 cm in flood irrigation; grain length was 0.626 cm in drip irrigation and 0.613 cm in flood irrigation; hectoliter weight was 79.33 kg in drip irrigation and 81.76 kg in flood irrigation; grain protein content was 8.73% in drip irrigation and 13% in flood irrigation; and starch content was... The percentage was determined to be 72% in drip irrigation systems and 66.33% in flood irrigation systems, the cellulose content was 2.6% in drip irrigation systems and 3.56% in flood irrigation systems, and the yield of sound rice was 68% in drip irrigation systems and 61.66% in flood irrigation systems.

This research shows that in Karacadağ rice cultivation under the conditions of Siverek district of Şanlıurfa province, drip irrigation system exhibited superior characteristics in 4 characteristics (plant height, sound rice yield, grain length, starch content) and in 8 characteristics (tiller number, root development, panicle number, number of grains per panicle, panicle length, hectoliter weight, protein content in grain, cellulose content) compared to flood irrigation system. In comparison of quality and yield in rice farming, the traditional flood irrigation system is superior to the drip irrigation system, and flood irrigation systems are recommended to producers in the region.

Keywords: Karacadağ Rice, Karacadağ Rice Variety, Local Variety, Irrigation Methods, Yield, Quality.

FARKLI SULAMA YÖNTEMLERİNİN KARACADAĞ ÇELTİĞİNDE VERİM VE KALİTE UNSURLARI ÜZERİNE ETKİLERİNİN ARAŞTIRILMASI

ÖZET

Karacadağ Çeltiği Güneydoğu Anadolu bölgesinde yaygın olarak yetiştiriciliği yapılan yerel bir popülasyondur. Bu çalışmada 6769 sayılı Sınai Mülkiyet Kanunu kapsamında korunmak üzere 337 nolu menşe adı ile 28.03.2018 tarihinde tescillenen Karacadağ Pirincinin tarımsal ve kalite özellikleri araştırılmıştır. Güneydoğu Anadolu Bölgesi Karacadağ yöresinde yaygın olarak kültürü yapılan Karacadağ çeltik popülasyonunun en önemli özelliği rengi, aroması, lezzeti ile bölge halkının en çok tercih ettiği çeşit olarak karşımıza çıkmaktadır.

Bu araştırma, 2025 yılında Şanlıurfa ili Siverek ilçesi ekolojik koşullarında yaygın olarak üretimi yapılan Yerel Karacadağ Çeltiğinde Damlama ve Salma sulama sistemlerinin verim ve kalite özellikleri üzerine etkilerinin araştırılması amacıyla tesadüf blokları deneme desenine göre 3 tekerrürlü olarak yürütülmüştür.

Araştırmadan elde edilen sonuçlara göre; bitkisel gelişim açısından bitki boyu sınır değerleri (108,0-122,0 cm), bitkide kardeş sayısı (5,0-9,0 adet), bitkide kök gelişimi (22-28), bitkide salkım sayısı (14,0-24,0), salkımda tane sayısı (84,0-132,0 adet), salkım uzunluğu (15,0-18,0 cm), tane uzunluğu (0,61-0,65 mm), Hektolitre ağırlığı (78,6-82,8 kg), tanede nem oranı (% 13,5-15,2), tanede protein oranı (% 8,0-15,0), Nişasta oranı (% 64,0-74,0), selüloz oranı (% 2,0-4,0) ve sağlam pirinç randımanı (% 58,0-71,0) değerleri arasında değiştiği saptanmıştır. Damlama sulama sisteminde bitki boyu ortalaması 119,66 cm iken salma sulama yönteminde 112,0 cm olduğu, bitkide salkım sayısı değerinin damlama sulamada 15,33 adet iken salma sulama yönteminde 21,0 adet, salkımda tane sayısı değerinin damlama sulama sisteminde 100,66 adet iken salma sulamada 119,33 adet, salkım uzunluğu yönünden damlama sulama sisteminde 16,33 cm iken salma sulamada 17,33 cm, bitkide kardeş sayısı damlama sulama sisteminde 5,66 adet iken salma sulama sisteminde 8 adet, kök gelişimi damlama sulama sisteminde 23 cm iken salma sulama sisteminde 25,33 cm, tane uzunluğu damlama sulama sisteminde 0,626 cm iken salma sulama sisteminde 0,613 cm, hektolitre ağırlığı 79,33 kg iken salma sulama sisteminde 81,76 kg, tane protein oranı damlama sulama sistemi %8,73 iken Salma sulama sisteminde %13, nişasta oranı yönünden damlama sulama sisteminde %72 iken salma sulama sisteminde %66,33, selüloz oranı damlama sulama sisteminde % 2,6 iken salma sulama sisteminde % 3,56, sağlam pirinç randımanı damlama sulama sisteminde % 68 iken salma sulama sistemlerinde % 61,66 olarak belirlenmiştir.

Bu araştırma sonucunda, Şanlıurfa ili Siverek ilçesi koşullarında Karacadağ çeltiği yetiştiriciliği yönünden damlama sulama yönteminde 4 karakter yönünden (bitki boyu, sağlam pirinç randımanı, tane uzunluğu, nişasta oranı) damlama sulama sisteminde 8 karakter yönünden (kardeş sayısı, kök gelişimi, salkım sayısı, salkımda tane sayısı, salkım uzunluğu, hektolitre ağırlığı, tanede protein oranı, selüloz oranı) salma sulama sistemlerinde üstün özellikler göstermiştir. Çeltik tarımında kalite ve verim kıyasında geleneksel salma sulama sisteminin damlama sulama sistemi üzerinde üstün olduğu ve bölge üreticilerine salma sulama sistemleri önerilmektedir.

Anahtar Kelimeler: Karacadağ Çeltiği, Karacadağ Pirinci, Yerel çeşit, Sulama yöntemleri, Verim, Kalite.

EVALUATION OF THE COUNCIL OF EUROPE CULTURAL ROUTE ITER VITIS IN TERMS OF TÜRKİYE’S VITICULTURAL HERITAGE, LOCAL GRAPE VARIETIES AND RURAL DEVELOPMENT

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ABSTRACT

This study aims to evaluate the opportunities offered by Iter Vitis, one of the Cultural Routes of the Council of Europe, for Türkiye’s viticultural heritage, local grape varieties and rural development. The study discusses the cultural route approach in relation to heritage conservation, the visibility of production culture, the integration of local products into value chains and the strengthening of regional branding. Türkiye has a deep viticultural background shaped by diverse ecological regions and by multiple uses of grapes, including table grapes, raisins, grape must, molasses, vinegar and wine. Local grape varieties are considered strategic resources for conserving genetic diversity and transmitting regional identity. The participation of Turkish public institutions, local governments, development agencies, private enterprises, foundations and vineyard routes in the Iter Vitis network indicates that viticultural heritage can be represented through a multi-stakeholder structure. From a horticultural perspective, the study highlights the conservation and characterization of local varieties, collection vineyards and sustainable viticultural practices. From an agricultural economics perspective, it emphasizes diversified producer income, gastronomy tourism, local product marketing, rural employment and route-based value creation. The viticultural heritage of Mardin and Mesopotamia, with its local grape varieties, traditional grape products, faith tourism and gastronomic narratives, offers a distinctive regional model for Iter Vitis. Overall, Iter Vitis can be regarded as a strategic framework that connects viticultural heritage in Türkiye with scientific research, cultural promotion, rural value chains and sustainable development.

Keywords: *Iter vitis*; viticultural heritage; local grape varieties; rural development; cultural routes

AVRUPA KONSEYİ KÜLTÜR ROTASI ITER VITIS’IN TÜRKİYE BAĞCILIK MIRASI, YEREL ÜZÜM ÇEŞİTLERİ VE KIRSAL KALKINMA AÇISINDAN DEĞERLENDİRİLMESİ

ÖZET

Bu çalışma, Avrupa Konseyi Kültür Rotaları arasında yer alan Iter Vitis’in Türkiye bağcılık mirası, yerel üzüm çeşitleri ve kırsal kalkınma açısından sunduğu olanakları değerlendirmeyi amaçlamaktadır. Çalışmada kültür rotası yaklaşımı, bağcılık mirasının korunması, üretim kültürünün görünür kılınması, yerel ürünlerin değer zincirine katılması ve bölgesel marka değerinin güçlendirilmesi bağlamında ele alınmıştır. Türkiye’nin farklı ekolojik bölgelerde gelişen bağcılık birikimi; sofralık, kurutmalık, şıra, pekmez, sirke ve şarap gibi kullanım biçimleriyle geniş bir üretim ve tüketim kültürü oluşturmaktadır.

Yerel üzüm çeşitleri, hem genetik kaynakların korunması hem de bölgesel kimliğin sürdürülebilir biçimde aktarılması açısından stratejik bir değer taşımaktadır. Iter Vitis ağına Türkiye’den dahil olan kamu kurumları, yerel yönetimler, kalkınma ajansları, özel işletmeler, vakıflar ve bağ rotaları, bağcılık mirasının çok paydaşlı bir yapı içinde temsil edilebileceğini göstermektedir. Çalışma, Bahçe Bitkileri açısından yerel çeşitlerin korunması, karakterizasyonu, koleksiyon bağları ve sürdürülebilir yetiştiricilik uygulamalarını; Tarım Ekonomisi açısından ise üretici gelirlerinin çeşitlendirilmesi, gastronomi turizmi, yerel ürün pazarlaması, kırsal istihdam ve rota temelli değer üretimini öne çıkarmaktadır. Bu bağlamda rota yaklaşımı, akademik bilgi üretimi ile yerel aktörlerin uygulama kapasitesi arasında işlevsel bir ortaklık zemini oluşturmaktadır. Mardin ve Mezopotamya bağcılık mirası, yerel üzüm çeşitleri, geleneksel ürünler, inanç turizmi ve gastronomik anlatısıyla Iter Vitis için özgün bir bölgesel model sunmaktadır. Sonuç olarak Iter Vitis, Türkiye’de bağcılık mirasını bilimsel araştırma, kültürel tanıtım ve kırsal kalkınma hedefleriyle ilişkilendiren stratejik bir çerçeve olarak değerlendirilebilir.

Anahtar Kelimeler: *Iter Vitis*; bağcılık mirası; yerel üzüm çeşitleri; kırsal kalkınma; kültür rotaları

IDENTIFICATION AND QUANTITATIVE ANALYSIS OF PHENOLIC COMPOUNDS IN APPLE (*Malus domestica*) EXTRACT BY LC-QTOF-MS

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ABSTRACT

In this study, the phenolic compound profile of apple (*Malus domestica*) extract was determined using the LC-QTOF-MS method, and the quantitative distribution of the main phenolic acids and flavonoids was evaluated. After preliminary preparation, the samples were extracted with a water-ethanol mixture, and the obtained supernatant was passed through a membrane filter prior to analysis. According to the LC-QTOF-MS results, gentisic acid was identified as the dominant phenolic compound in the extract, with a concentration of 288.8564 µg/g. In addition, morin, luteolin, quercetin, vanillic acid and vanillin were detected at concentrations of 37.38348 µg/g, 32.529 µg/g, 22.12595 µg/g, 24.41764 µg/g and 16.72421 µg/g, respectively. Trans-ferulic acid, trans-cinnamic acid, naringenin and protocatechuic acid were determined at lower concentrations. The phenolic distribution obtained from the analysis indicates that apple extract has a noteworthy composition in terms of hydroxybenzoic acid derivatives and flavonoids. The findings show that gentisic acid plays a decisive role in the phenolic profile, while flavonoid compounds contribute to the bioactive composition potential of the extract. In this respect, the study provides an opportunity to relate phytochemical characterization in horticultural products to product value, quality indicators and possible fields of use. The study also contributes to the use of analytical methods for the rapid, sensitive and selective monitoring of phenolic compounds in apple samples. As a result, LC-QTOF-MS was found to be an effective analytical approach for the identification and quantification of phenolic compounds in complex plant matrices such as apple, and the obtained profile was considered valuable for functional food, quality control, natural product research and further biological activity studies.

Keywords: Apple, phenolic compounds, LC-QTOF-MS, gentisic acid, flavonoids.

ELMA (*MALUS DOMESTICA*) EKSTRAKTINDA FENOLİK BİLEŞİKLERİN LC-QTOF-MS İLE TANIMLANMASI VE NİCEL ANALİZİ

ÖZET

Bu çalışmada, elma (*Malus domestica*) ekstraktının fenolik bileşik profili LC-QTOF-MS yöntemi kullanılarak belirlenmiş ve başlıca fenolik asitler ile flavonoidlerin nicel dağılımı değerlendirilmiştir. Örnekler ön işlemden geçirildikten sonra su-etanol karışımı ile ekstrakte edilmiş, elde edilen süpernatant membran filtreden geçirilerek analiz için hazırlanmıştır. LC-QTOF-MS analizleri sonucunda gentisik asit 288.8564 µg/g değeriyle ekstraktın baskın fenolik bileşiği olarak belirlenmiştir. Bunun yanında morin 37.38348 µg/g, luteolin 32.529 µg/g, kuersetin 22.12595 µg/g, vanilik asit 24.41764 µg/g ve vanilin 16.72421 µg/g düzeylerinde tespit edilmiştir. Trans-ferulik asit, trans-sinnamik asit, naringenin ve protokateşik asit ise daha düşük konsantrasyonlarda saptanmıştır.

Elde edilen fenolik dağılım, elma ekstraktının hidroksibenzoik asit türevleri ve flavonoidler bakımından dikkate değer bir bileşime sahip olduğunu göstermektedir. Bulgular, gentisik asidin fenolik profil üzerinde belirleyici bir rol oynadığını, flavonoid bileşiklerin ise ekstraktın biyoaktif bileşim potansiyeline katkı sağladığını ortaya koymaktadır. Bu yönüyle çalışma, bahçe ürünlerinde fitokimyasal karakterizasyonun ürün değeri, kalite göstergeleri ve kullanım alanlarıyla ilişkilendirilebilmesine imkân sunmaktadır. Çalışma, elma örneklerinde fenolik bileşiklerin hızlı, duyarlı ve seçici biçimde izlenebilmesi bakımından analitik yöntem kullanımına da katkı sunmaktadır. Sonuç olarak LC-QTOF-MS yönteminin elma gibi kompleks bitkisel matrislerde fenolik bileşiklerin tanımlanması ve kantifikasyonunda etkili bir analitik yaklaşım sunduğu; elde edilen profilin fonksiyonel gıda, kalite kontrol, doğal ürün araştırmaları ve ileri biyolojik aktivite çalışmaları açısından değerlendirilebilir nitelikte olduğu belirlenmiştir.

Anahtar Kelimeler: Elma, fenolik bileşikler, LC-QTOF-MS, gentisik asit, flavonoidler

THE IMPORTANCE OF APRICOT (*Prunus armeniaca* L.) KERNEL IN THE FOOD INDUSTRY AND ITS POTENTIAL USE IN PLANT-BASED MILK PRODUCTION

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ABSTRACT

This study examines the nutritional composition, bioactive properties, and potential applications of apricot (*Prunus armeniaca* L.) kernels in the food industry. Turkey's prominent position among the world's leading apricot-producing countries, particularly its significant production capacity centered in Malatya, enhances the economic value of apricots and their byproducts. Apricot kernels have a rich composition of fats, proteins, fiber, vitamins, and minerals; however, they also contain potentially toxic components such as amygdalin. Consequently, the applications of bitter and sweet forms of the kernel differ. In recent years, growing trends toward plant-based diets and health concerns such as lactose intolerance have increased interest in plant-based milk alternatives. In this context, apricot kernel milk stands out as an alternative plant-based beverage source due to its functional properties and nutritional content. The literature reports that apricot kernel milk and its derivative products have been used in the development of various products such as kefir, yogurt, sports drinks, and plant-based cheese, and that these products hold potential in terms of bioactive properties. In conclusion, findings from the current literature indicate that apricot kernels possess significant potential for the development of value-added products in the food industry, thanks to their rich nutritional composition and functional properties. It is understood that apricot kernel milk and its derivative products, particularly due to their nutritional properties and bioactive component content, can be considered as an alternative raw material in plant-based product development efforts, and that research in this field is significant in terms of sustainable food production and functional product innovation.

Keywords: Apricot kernel, Plant-based milk, Sustainable food production, Amygdalin

KAYISI (*Prunus armeniaca* L.) ÇEKİRDEĞİNİN GIDA ENDÜSTRİSİNDEKİ ÖNEMİ VE BİTKİ BAZLI SÜT ÜRETİMİNDE KULLANIM POTANSİYELİ

ÖZET

Bu çalışmada kayısı (*Prunus armeniaca* L.) çekirdeğinin besinsel bileşimi, biyoaktif özellikleri ve gıda endüstrisindeki kullanım potansiyeli ele alınmıştır. Türkiye'nin dünya kayısı üretiminde önde gelen ülkeler arasında yer alması, özellikle Malatya başta olmak üzere önemli üretim kapasitesine sahip olması, kayısı ve yan ürünlerinin ekonomik değerini artırmaktadır. Kayısı çekirdeği yağ, protein, lif, vitaminler ve mineral maddeler bakımından zengin bir bileşime sahip olmasının yanı sıra, amigdalin gibi potansiyel toksik bileşenler de içermektedir.

Bu nedenle çekirdeğin acı ve tatlı formları arasında kullanım alanları farklılık göstermektedir. Son yıllarda artan bitki bazlı beslenme eğilimleri ve laktoz intoleransı gibi sağlık gerekçeleri, bitki bazlı süt alternatiflerine olan ilgiyi artırmıştır. Bu kapsamda kayısı çekirdeği sütü, fonksiyonel özellikleri ve besin içeriği nedeniyle alternatif bir bitkisel içecek kaynağı olarak öne çıkmaktadır. Literatürde kayısı çekirdeği sütü ve türev ürünlerinin kefir, yoğurt, sporcu içeceği ve bitki bazlı peynir gibi farklı ürünlerin geliştirilmesinde kullanıldığı, bu ürünlerin biyoaktif özellikler açısından potansiyel taşıdığı bildirilmiştir. Sonuç olarak, mevcut literatür bulguları kayısı çekirdeğinin zengin besin bileşimi ve fonksiyonel özellikleri sayesinde gıda endüstrisinde katma değerli ürün geliştirme açısından önemli bir potansiyele sahip olduğunu göstermektedir. Özellikle kayısı çekirdeği sütü ve türev ürünlerinin hem besleyici özellikleri hem de biyoaktif bileşen içerikleri nedeniyle bitki bazlı ürün geliştirme çalışmalarında alternatif bir hammadde olarak değerlendirilebileceği, bu alandaki araştırmaların ise sürdürülebilir gıda üretimi ve fonksiyonel ürün inovasyonu açısından önem taşıdığı anlaşılmaktadır.

Anahtar Kelimeler: Kayısı çekirdeği, Bitkisel süt, Sürdürülebilir gıda üretimi, Amigdalın

MINDFULNESS-BASED NUTRITIONAL APPROACHES: SATTVIC DIET AND MINDFUL EATING

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ABSTRACT

This study aims to comparatively examine the traditional Sattvic Diet, rooted in Ayurvedic philosophy, and Mindful Eating, a modern evidence-based psychological intervention. In today's fast-paced world, increasing stress levels and environmental factors negatively affect individuals' eating behaviors, leading to problems such as emotional eating and uncontrolled food intake. In this context, mindfulness-based approaches play a significant role in regulating eating behaviors.

This review was conducted to evaluate the underlying philosophies, mechanisms, and clinical effects of both approaches. While the Sattvic diet focuses on improving mental clarity and balance through fresh, natural, and minimally processed foods, Mindful Eating emphasizes non-judgmental awareness during the eating process to reduce automatic and dysfunctional eating patterns. Findings indicate that Mindful Eating is particularly effective in reducing emotional eating and binge eating behaviors, whereas the Sattvic diet contributes positively to both physical and mental health.

In conclusion, integrating these two approaches offers a holistic framework that helps individuals rebuild a healthier relationship with food and develop sustainable eating habits. Combining the personalized nature of the Sattvic diet with the behavioral techniques of Mindful Eating may provide an effective model for modern dietetic practice.

Keywords: Sattvic Diet, Mindful Eating, Emotional Eating, Self-Regulation, Ayurveda

FARKINDALIK TEMELLİ BESLENME YAKLAŞIMLARI: SATTVİK BESLENME VE YEME FARKINDALIĞI

ÖZET

Bu çalışma, geleneksel Ayurveda felsefesine dayanan Sattvik Beslenme yaklaşımı ile modern ve kanıta dayalı bir psikolojik müdahale olan Yeme Farkındalığı (Mindful Eating) kavramını karşılaştırmalı olarak incelemeyi amaçlamaktadır. Günümüzde artan stres düzeyi, hızlı yaşam temposu ve çevresel faktörler bireylerin yeme davranışlarını olumsuz yönde etkilemekte; duygusal yeme ve kontrolsüz tüketim gibi sorunların yaygınlaşmasına neden olmaktadır. Bu bağlamda farkındalık temelli yaklaşımlar, beslenme davranışlarının düzenlenmesinde önemli bir rol oynamaktadır.

Çalışma kapsamında her iki yaklaşımın temel felsefeleri, mekanizmaları ve klinik etkileri değerlendirilmiştir. Sattvik beslenme, taze, doğal ve minimal işlenmiş gıdalar aracılığıyla zihinsel berraklık ve dengeyi artırmayı hedeflerken; Mindful Eating bireyin yeme sürecine yargısız farkındalıkla odaklanmasını sağlayarak otomatik ve işlevsiz yeme davranışlarını azaltmayı amaçlamaktadır.

Bulgular, Mindful Eating'in özellikle duygusal yeme ve tıknırcasına yeme davranışlarını azaltmada etkili olduğunu; Sattvik beslenmenin ise hem fiziksel hem de zihinsel sağlık üzerinde olumlu etkiler sunduğunu göstermektedir.

Sonuç olarak, bu iki yaklaşımın bütüncül bir şekilde ele alınması, bireyin yiyeceklerle olan ilişkisini yeniden yapılandırarak daha sürdürülebilir ve dengeli bir beslenme modeli sunmaktadır. Sattvik beslenmenin kişiselleştirilmiş yapısının, Mindful Eating'in davranışsal teknikleri ile birleştirilmesi, modern diyetetik uygulamalarda etkili bir yaklaşım olarak değerlendirilebilir.

Anahtar Kelimeler: Sattvik Beslenme, Mindful Eating, Duygusal Yeme, Öz-Düzenleme, Ayurveda

INVESTIGATION OF THE RELATIONSHIP BETWEEN PSYCHOLOGICAL WELL-BEING AND ATHLETIC SUCCESS IN ATHLETICS THROWING EVENTS ATHLETES

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ABSTRACT

This research aims to examine the relationship between the psychological well-being levels and athletic success of athletes actively participating in the athletics throwing events (shot put, discus, javelin, and hammer throw). A correlational survey model, a quantitative research method, was used in the study. The sample consisted of volunteer athletes with different athletic levels. A personal information form and a 5-point Likert scale to determine the psychological well-being levels of the athletes were used as data collection tools. Frequency, percentage, arithmetic mean, standard deviation, independent samples t-test, one-way analysis of variance (ANOVA), and Pearson correlation analysis were used in the analysis of the data. According to the research findings, a high level of positive and significant relationships was observed between the sub-dimensions of psychological well-being in athletes ($p < 0.01$). This indicates that the levels of mental comfort, mental well-being, and mental resilience are strongly related to each other. Furthermore, no statistically significant difference was found in psychological well-being levels according to athletic level ($p > 0.05$). In conclusion, it was determined that psychological well-being is an important variable in athletes in the throwing events branch of track and field, and that its sub-dimensions are strongly correlated with each other. Accordingly, it is thought that not only physical but also psychological factors should be considered in improving athletes' performance.

Keywords: Psychological well-being, athletics, sporting achievement, athletes, performance

ATLETİZM ATMALAR BRANŞI SPORCULARINDA PSİKOLOJİK İYİ OLUŞ İLE SPORTİF BAŞARI ARASINDAKİ İLİŞKİNİN İNCELENMESİ

ÖZET

Bu araştırmanın amacı, atletizm atmalar branşında (gülle, disk, cirit ve çekiç atma) aktif olarak yer alan sporcuların psikolojik iyi oluş düzeyleri ile sportif başarıları arasındaki ilişkinin incelenmesidir. Araştırmada nicel araştırma yöntemlerinden ilişkisel tarama modeli kullanılmıştır. Araştırmanın örneklemini, farklı sporculuk düzeylerine sahip gönüllü sporcular oluşturmaktadır. Veri toplama aracı olarak kişisel bilgi formu ve sporcuların psikolojik iyi oluş düzeylerini belirlemeye yönelik 5'li Likert tipinde bir ölçek kullanılmıştır. Verilerin analizinde frekans, yüzde, aritmetik ortalama, standart sapma, bağımsız örneklem t-testi, tek yönlü varyans analizi (ANOVA) ve Pearson korelasyon analizi kullanılmıştır. Araştırma bulgularına göre, sporcuların psikolojik iyi oluş alt boyutları arasında yüksek düzeyde ve pozitif yönlü anlamlı ilişkiler olduğu belirlenmiştir ($p < 0.01$). Bu durum, zihinsel rahatlık, zihinsel refah ve zihinsel dayanıklılık düzeylerinin birbiriyle güçlü bir ilişki içerisinde olduğunu göstermektedir. Ayrıca sporculuk düzeyine göre psikolojik iyi oluş düzeylerinde istatistiksel olarak anlamlı bir farklılık bulunmamıştır ($p > 0.05$).

Sonuç olarak, atletizm atmalar branşı sporcularında psikolojik iyi oluş düzeyinin önemli bir değişken olduğu ve bu yapının alt boyutlarının birbiriyle güçlü bir ilişki içerisinde olduğu belirlenmiştir. Bu doğrultuda sporcuların performanslarının artırılmasında yalnızca fiziksel değil, aynı zamanda psikolojik faktörlerin de dikkate alınması gerektiği düşünülmektedir.

Anahtar Kelimeler: Psikolojik iyi oluş, atletizm, sportif başarı, sporcular, performans

THE EFFECT OF PHYSICAL ACTIVITY ON AGGRESSION AND VIOLENCE TENDENCY IN ADOLESCENTS: A REVIEW STUDY

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ABSTRACT

The aim of this study is to examine the effects of physical activity on aggression and violent tendencies in adolescents. Within the scope of the study, a total of 37 national and international studies available in the electronic databases of Google Scholar, Pub Med, DergiPark, and the Council of Higher Education National Thesis Center were examined. In the research, variables such as physical activity level, participation in sports, being a licensed or unlicensed athlete, participation in school sports, family environment, and media were evaluated. In line with the reviewed studies, it was determined that regular participation in physical activity reduces aggression and violent tendencies. Especially in individuals who participate in sports, aggression levels were found to be lower; however, it was also determined that family attitudes, exposure to media content, and environmental factors are effective on aggressive behaviors. As a result, it is considered that physical activity contributes positively to the psychosocial development of adolescents and is an important tool in reducing violence and aggression tendencies.

Keywords: Physical Activity, Aggression, Violent Tendency, Adolescents

ERGEN BİREYLERDE FİZİKSEL AKTİVİTENİN SALDIRGANLIK VE ŞİDDET EĞİLİMİ ÜZERİNDEKİ ETKİSİ: DERLEME ÇALIŞMASI

ÖZET

Bu çalışmanın amacı, ergen bireylerde fiziksel aktivitenin saldırganlık ve şiddet eğilimi üzerindeki etkisini incelemektir. Çalışma kapsamında Google Scholar, PubMed, DergiPark ve YÖK Ulusal Tez Merkezi elektronik veri tabanlarında yer alan ulusal ve uluslararası toplam 37 çalışma incelenmiştir. Araştırmada fiziksel aktivite düzeyi, spor yapma durumu, lisanslı ve lisanssız sporcu olma durumu, okul sporlarına katılım, aile ortamı ve medya değişkenler değerlendirilmiştir. İncelenen çalışmalar doğrultusunda düzenli fiziksel aktiviteye katılımın saldırganlık ve şiddet eğilimlerini azalttığı belirlenmiştir. Özellikle sporcu olan bireylerde saldırganlık düzeylerinin daha düşük olduğu bununla birlikte aile tutumları, medya içeriklerine maruz kalma ve çevresel faktörlerin saldırganlık davranışları üzerinde etkili olduğu saptanmıştır.

Sonuç olarak fiziksel aktivitenin ergen bireylerde psikososyal gelişimine olumlu katkı sağladığı ve şiddet ile saldırganlık eğilimlerinin azaltılmasında önemli bir araç olduğu değerlendirilmektedir.

Anahtar Kelimeler: Fiziksel Aktivite, Saldırganlık, Şiddet Eğilimi, Ergen Bireyler

INVESTIGATION OF PARENTS' ATTITUDES TOWARD PHYSICAL EDUCATION AND SPORTS COURSE (A STUDY ON PRIVATE SCHOOLS)

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ABSTRACT

The aim of this study was to examine the attitudes of parents whose children attend private schools in Bingöl toward physical education and sports classes. A total of 371 participants voluntarily took part in the study. A personal information form related to the research topic and the "Parent Attitude Scale Toward Physical Education Course" developed by Öncü and Güven (2011) were used as data collection tools. Descriptive statistics, including arithmetic mean, standard deviation, frequency, and percentage distributions, were presented to provide information regarding demographic variables and other group-related questions. In order to determine the relationship between the data collected through the scale and certain demographic variables, Independent Samples t-test and Mann-Whitney U test were used for comparisons between two independent groups, while One-Way ANOVA and Kruskal-Wallis tests were applied for comparisons among multiple independent groups. The data were analyzed using the SPSS Statistics 22 package program.

As a result of the study, statistically significant differences were found in participants' attitudes toward physical education and sports classes in terms of the variables of mothers' educational status, adequacy of physical education and sports class hours, and the perceived effect of physical education and sports classes on children's academic achievement. No statistically significant differences were identified between the groups in terms of facility and equipment adequacy or fathers' educational status. Based on the participants' responses to the scale, it was concluded that the primary reason for sending their children to private schools was the perceived quality of education and that the participants demonstrated positive attitudes toward physical education and sports classes in terms of functional, perceptual, importance, and support dimensions.

Keywords: Private School, Physical Education and Sports Class, Attitude

EBEVEYNLERİN BEDEN EĞİTİMİ VE SPOR DERSİNE YÖNELİK TUTUMLARININ İNCELENMESİ (ÖZEL OKULLAR ÜZERİNE BİR ARAŞTIRMA)

ÖZET

Bu araştırmanın amacı, Bingöl ilindeki özel okullarda öğrenim gören öğrenci ebeveynlerinin beden eğitimi ve spor dersine yönelik tutumlarını incelemektir. Araştırmaya, gönüllük esasına dayalı olarak 371 kişi katılmıştır. Araştırılacak olan konuya ilişkin kişisel bilgi formu ile Öncü ve Güven (2011) tarafından geliştirilen “Beden Eğitimi Dersine Yönelik Ana-Baba Tutum Ölçeği” kullanılmıştır. Demografik bilgiler ve diğer grup sorulara ait fikir edinilmesini sağlamak amacıyla aritmetik ortalama, standart sapma, frekans ve yüzde dağılımları içeren tanımlayıcı istatistikler sunulmuştur. Ölçek aracılığıyla toplanan verilerin bazı demografik değişkenlerle ilişkisini tespit etmek amacıyla bağımsız ikili grupların karşılaştırılmasında Independent Sample T ve Mann-Whitney U testleri ile bağımsız çoklu grupların karşılaştırılması için ise One Way Anova ve Kruskal-Wallis testleri uygulanmıştır. Veriler SPSS Statistics 22 paket programda değerlendirilmiştir.

Araştırma sonucunda, katılımcıların beden eğitimi ve spor dersine yönelik tutumlarının anne eğitim durumu, beden eğitimi ve spor ders saatinin yeterliliği ve beden eğitimi spor dersinin çocuğun akademik başarıya etkisi değişkenleri açısından istatistiksel olarak gruplar arasında anlamlı farklılık sonucuna ulaşılmıştır. Katılımcıların tesis ve malzeme yeterliliği ile baba eğitim durumu değişkenlerinde gruplar arasında istatistiksel olarak anlamlı farklılık tespit edilmemiştir. Katılımcıların ölçeklere vermiş oldukları cevaplar neticesinde çocuklarını özel okullara gönderme sebeplerinin daha çok eğitim kalitesi açısından olduğu, beden eğitimi ve spor dersine yönelik işlevsel, algısal, önem ve destek boyutlarında iyi düzeyde tutuma sahip oldukları sonucuna ulaşılmıştır.

Anahtar kelimeler: Özel Okul, Beden Eğitimi ve Spor Dersi, Tutum

THE EFFECT OF COFFEE CONSUMPTION ON EATING BEHAVIOR AND SLEEP QUALITY IN ADULTS

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ABSTRACT

Coffee is one of the most widely consumed beverages in the world, and its optimal consumption has positive effects on health (Nieber K., 2017). This study will examine the effect of coffee consumption on sleep quality and eating behavior in adults. Adults consume caffeine primarily in the form of coffee (Lucas M et al., 2012). When consumed optimally, caffeine has a positive effect on adenosine receptors (Lopes CR et al., 2023). There is evidence that caffeine improves cognitive and behavioral performance (O’Callaghan F et al., 2018). When coffee is consumed, the caffeine it contains facilitates wakefulness (Heatherley SV., 2011). Although commonly consumed to ward off sleepiness, it can negatively affect sleep quality (Watson EJ et al., 2016). A systematic review found that coffee consumption delayed falling asleep and reduced sleep efficiency (Gardiner Carissa et al., 2023). Coffee consumed before bedtime has been shown to shorten sleep duration and reduce deep sleep (Gardiner Carissa et al., 2023). This study investigated the effects of coffee consumption on sleep quality and eating behavior through a survey of 250 adult coffee drinkers. The Pittsburgh Sleep Quality Index (PSQI) was used to measure sleep quality, and the Three-Factor Eating Questionnaire (TFEQ-R18) was used to measure eating behavior. A literature review to investigate the effects of coffee on eating behavior revealed evidence of numerous health benefits. Some studies have suggested that coffee may help prevent chronic diseases such as type 2 diabetes and fatty liver disease. This effect is thought to be due to other components rather than caffeine (Nieber K., 2017). The amount of coffee consumed can cause certain changes in the body. Excessive coffee consumption, due to increased caffeine intake, can increase heart palpitations and pose a risk for individuals with cardiovascular disease (Marcus GM et al., 2023). Although coffee drinkers have a lower risk of developing diabetes, there is no significant effect on glucose metabolism. This is because coffee consumption can increase the intake of simple carbohydrates (Marcus GM et al., 2023). Increased coffee consumption may also increase the intake of sweeteners and sugars. Coffee consumption has both positive and negative effects on nutrition (Simões MBA et al., 2024). In conclusion, when considering coffee consumption, evidence has been found regarding both positive and negative effects on health. However, since the data is insufficient regarding both cardiovascular diseases and appetite suppression, more studies are needed.

Keywords: coffee, sleep quality, eating behavior, caffeine

YETİŞKİN BİREYLERDE KAHVE TÜKETİMİNİN YEME DAVRANIŞI VE UYKU KALİTESİ ÜZERİNDEKİ ETKİSİ

ÖZET

Kahve dünyada en yaygın tüketilen içeceklerden biridir ve optimum düzeyde tüketiminin sağlık üzerinde olumlu etkileri bulunmaktadır. (Nieber K., 2017). Bu çalışmada kahve tüketiminin yetişkin bireylerde uyku kalitesi ve yeme davranışına olan etkisi incelenecektir. Yetişkin bireyler kafeini özellikle kahve formunda alır. (Lucas M ve ark., 2012).

Kafein optimum düzeyde alındığında adenozin reseptörleri üzerinde olumlu etki sağlar.(Lopes CR ve ark., 2023). Kafeinin bilişsel ve davranışsal performansı arttırdığına yönelik kanıtlar mevcuttur. (O'Callaghan F ve ark., 2018). Kahve tüketildiğinde içerisinde bulunan kafein uyanıklık durumunu kolaylaştırır. (Heatherley SV., 2011) Yaygın olarak uykunun giderilmesi amacıyla tüketilse de uyku kalitesini olumsuz yönde etkileyebilmektedir. (Watson EJ ve ark., 2016). Yapılan sistematik bir derlemede kahve tüketiminin uykuya dalmayı geciktirdiği ve uyku verimini azalttığı bulunmuştur. (Gardiner Carissa ve ark., 2023). Yatmadan önce tüketilen kahve uyku süresini kısalttığı ve derin uykuyu azalttığı görülmüştür. (Gardiner Carissa ve ark., 2023). Bu çalışmada kahve tüketen 250 yetişkin bireyle anket çalışması yapılarak kahve tüketiminin uyku kalitesi ve yeme davranışı üzerindeki etkisi araştırılmıştır. Uyku kalitesini ölçmek amacıyla Pittsburgh Sleep Quality Index(PSQI) ölçeği kullanılacaktır. Yeme davranışını ölçmek amacıyla Three-Factor Eating Questionnaire(TFEQ-R18) ölçeği kullanılacaktır. Kahvenin yeme davranışına olan etkisini araştırmak üzere yapılan literatür taramasında kahve tüketiminin sağlığa birçok yararı olduğuna yönelik kanıtlara ulaşılmıştır. Yapılan bazı çalışmalarda kahvenin tip 2 diyabet, karaciğer yağlanması gibi kronik hastalıkları önlemeye yardımcı olabileceği bulunmuştur. Bu etkisini kafeinden ziyade diğer bileşenlerden kaynaklı olabileceği düşünülmüştür. (Nieber K., 2017). Kahvenin tüketim miktarı vücutta bazı değişikliklere neden olabilmektedir. Aşırı kahve tüketimi kafein alımının da yükselmesi sebebiyle kalp çarpıntısını arttırarak kardiyovasküler hastalığı olan bireyler için risk oluşturabilir. (Marcus GM ve ark., 2023). Kahve tüketen bireylerin diyabete yakalanma riski daha az olmasına rağmen glikoz metabolizmasında anlamlı bir etkisi bulunmamaktadır. Çünkü kahve tüketimi beraberinde basit karbonhidrat alımını arttırabilmektedir. (Marcus GM ve ark., 2023). Kahve tüketiminin artması tatlandırıcı ve şeker alımını arttırabilir. Kahve tüketiminde beslenme üzerinde olumlu etki olduğu kadar olumsuz etkiler de mevcuttur.(Simões MBA ve ark., 2024). Sonuç olarak kahve tüketimini ele aldığımızda sağlık üzerine hem olumlu hem olumsuz etkilerine yönelik kanıtlara ulaşılmıştır. Ancak veriler hem kardiyovasküler hastalıklar üzerine hem de iştah baskılanmasında yetersiz olduğundan daha fazla çalışmaya ihtiyaç vardır.

Anahtar Kelimeler: kahve, uyku kalitesi, yeme davranışı, kafein

ANTIMICROBIAL ACTIVITY of *Chelidonium majus* L. EXTRACTS: COMPARISON of SOXHLET and AGITATED MACERATION METHODS

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ABSTRACT

Chelidonium majus is an important medicinal plant used in traditional medicine for the treatment of various diseases and contains biologically active alkaloids such as chelidonine, sanguinarine, and berberine. In this study, methanolic extracts of *C. majus* L. collected from Çiğdem village, Ünye district of Ordu Province, Türkiye, were obtained using two different extraction methods: Soxhlet extraction and maceration techniques. The antimicrobial activities of the obtained extracts were evaluated by the disk diffusion method against a total of eight pathogenic microorganisms, including three Gram-positive bacteria (*Bacillus subtilis* ATCC 6633, *Brevibacillus brevis* ATCC 35690, and *Listeria monocytogenes* NCTC 5348), three Gram-negative bacteria (*Enterobacter aerogenes* CCU 2531, *Proteus vulgaris* FMC 1, and *Salmonella typhimurium* NRRLE 4413), and two fungal species (*Candida glabrata* ATCC 15126 and *Candida tropicalis* ATCC 13803). The extracts were prepared at three different concentrations (50 mg/mL, 25 mg/mL, and 12.5 mg/mL), and their antimicrobial activities were comparatively evaluated. Ampicillin (10 µg/mL) and gentamicin (10 µg/mL) were used as positive controls in antibacterial assays. As a negative control, 12.5% DMSO solution was applied to confirm that the solvent alone did not exhibit antimicrobial activity. The results revealed that the *C. majus* extracts exhibited significant antimicrobial activity against all tested microorganisms except *C. albicans*. In addition, the increase in inhibition zone diameters with increasing extract concentration indicated that the antimicrobial activity was dose-dependent. The findings suggest that the bioactive compounds present in *C. majus* extracts are capable of inhibiting microbial growth and therefore possess significant potential as natural antimicrobial agents. In conclusion, methanolic extracts of *C. majus* may be considered a promising alternative biological agent for the prevention and treatment of bacterial and fungal infections.

Keywords: *Chelidonium majus* L., Antimicrobial Activity, Soxhlet Extraction

KIRLANGIÇ OTU (*Chelidonium majus* L.) EKSTRAKTLARININ ANTİMİKROBİYAL AKTİVİTESİ: SOXHLET VE ÇALKALAMALI MASERASYON YÖNTEMLERİNİN KARŞILAŞTIRILMASI

ÖZET

Chelidonium majus, geleneksel tıpta çeşitli hastalıkların tedavisinde kullanılan ve chelidonine, sanguinarine ve berberine gibi biyolojik olarak aktif alkaloidler içeren önemli bir tıbbi bitkidir. Bu çalışmada, Ordu ili Ünye ilçesi Çiğdem köyünden toplanan *C. majus* L. bitkisi kullanılarak metanol ekstraktları iki farklı yöntemle, Soxhlet ve maserasyon teknikleri uygulanarak elde edilmiştir.

Elde edilen ekstraktların antimikrobiyal aktiviteleri, üç Gram-pozitif bakteri (*Bacillus subtilis* ATCC 6633, *Brevibacillus brevis* ATCC 35690 ve *Listeria monocytogenes* NCTC 5348), üç Gram-negatif bakteri (*Enterobacter aerogenes* CCU 2531, *Proteus vulgaris* FMC 1 ve *Salmonella typhimurium* NRRLE 4413) ile iki fungal tür (*Candida glabrata* ATCC 15126 ve *Candida tropicalis* ATCC 13803) olmak üzere toplam sekiz patojen mikroorganizma üzerinde disk difüzyon yöntemi kullanılarak değerlendirilmiştir. Çalışmada, ekstraktlar 50 mg/mL, 25 mg/mL ve 12,5 mg/mL olmak üzere üç farklı konsantrasyonda hazırlanarak antimikrobiyal etkinlikleri karşılaştırılmıştır. Patojen bakterilere karşı yapılan antimikrobiyal testlerde pozitif kontrol olarak ampisilin (10 µg/mL) ve gentamisin (10 µg/mL) kullanılmıştır. Negatif kontrol amacıyla ise %12,5 DMSO çözeltisi uygulanarak, çözücünün tek başına antimikrobiyal etki göstermediği doğrulanmıştır. Elde edilen sonuçlar, *C. majus* ekstraktlarının *C. albicans* dışında test edilen tüm mikroorganizmalar üzerinde belirgin antimikrobiyal aktivite gösterdiğini ortaya koymuştur. Ayrıca, ekstrakt konsantrasyonu arttıkça inhibisyon zon çaplarının da artış göstermesi, antimikrobiyal etkinliğin doza bağlı olduğunu desteklemiştir. Bulgular, *C. majus* ekstraktlarında bulunan biyoaktif bileşiklerin mikroorganizmaların gelişimini baskılayabildiğini ve bu nedenle doğal kaynaklı antimikrobiyal ajanlar açısından önemli bir potansiyele sahip olduğunu göstermektedir. Sonuç olarak, *C. majus* metanolik ekstraktlarının özellikle bakteri ve mantar kaynaklı enfeksiyonların önlenmesi ve tedavisinde alternatif biyolojik ajan olarak değerlendirilebileceği düşünülmektedir.

Anahtar Kelimeler: *Chelidonium majus* L., Antimikrobiyal Aktivite, Soxhlet ekstraksiyonu

INVESTIGATION OF THE ANTIMICROBIAL ACTIVITIES OF EXTRACTS OBTAINED BY THE MACERATION METHOD FROM DIFFERENT PARTS OF THE *Viola odorata* L. PLANT (FLOWER AND LEAF-STEM)

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ABSTRACT

One such medicinally important plant is *Viola odorata* L., a perennial herb belonging to the family *Violaceae*. It is widely distributed in several countries, including India, Pakistan, Iran, Iraq, and Afghanistan. Traditionally, the plant has been used in the treatment of various ailments such as skin diseases, bronchitis, cystitis, and rheumatism. *V. odorata* is also recognized for its expectorant, diaphoretic, antipyretic, diuretic, and laxative properties. The plant has long been utilized in traditional medicine systems worldwide due to its rich content of tannins, alkaloids, essential oils, and flavonoids, which contribute to its antimicrobial activity. In this study, the antimicrobial activities of extracts obtained by the maceration method from different parts (flower and leaf-stem) of the *Viola odorata* L. plant collected from the village of Çiğdem in the Ünye district of Ordu Province were evaluated. The antimicrobial potential of the extracts obtained was investigated using the disk diffusion method against a total of eight pathogenic microorganisms. The microorganisms tested included three Gram-positive bacteria (*Bacillus subtilis* ATCC 6633, *Brevibacillus brevis* ATCC 35690, and *Listeria monocytogenes* NCTC 5348), three Gram-negative bacteria (*Enterobacter aerogenes* CCU 2531, *Proteus vulgaris* FMC 1, and *Salmonella typhimurium* NRRLE 4413), and two fungal species (*Candida glabrata* ATCC 15126 and *Candida tropicalis* ATCC 13803). The extracts were prepared at concentrations of 50 mg/mL, 25 mg/mL, and 12.5 mg/mL, and their antimicrobial activities were compared at different doses. In the analyses conducted against bacterial strains, ampicillin (10 µg/mL) and gentamicin (10 µg/mL) were used as positive controls, while the 12.5% DMSO solution applied as a negative control was found to exhibit no antimicrobial effect. In general, it has been observed that the leaf-stem extract of *Viola odorata* L. exhibits higher antimicrobial activity compared to the flower extract. In particular, the leaf-stem extract produced inhibition zones reaching 12 mm at a concentration of 50 mg/mL against Gram-negative bacteria, including *Enterobacter aerogenes*, *Proteus vulgaris*, and *Salmonella typhimurium*. In the flower extract, the highest activity was observed against *Candida tropicalis*, with an inhibition zone of 15 mm. These results indicate that *Viola odorata* extracts have the potential to be evaluated as natural antimicrobial agents.

Keywords: *Viola odorata* L., Antimicrobial Activity, Maceration Extraction

***Viola odorata* L. BİTKİSİNİN FARKLI YAPILARINDAN (ÇİÇEK VE YAPRAK-GÖVDE) MASERASYON YÖNTEMİYLE ELDE EDİLEN EKSTRAKTLARIN ANTİMİKROBİYAL AKTİVİTELERİNİN ARAŞTIRILMASI**

ÖZET

Tıbbi açıdan önemli bitkilerden biri, *Violaceae* familyasına ait çok yıllık bir otsu bitki olan *Viola odorata* L.'dir. Bu bitki, Hindistan, Pakistan, İran, Irak ve Afganistan dahil olmak üzere birçok ülkede yaygın olarak görülmektedir. Geleneksel olarak, bu bitki cilt hastalıkları, bronşit, sistit ve romatizma gibi çeşitli rahatsızlıkların tedavisinde kullanılmaktadır. *V. odorata*, balgam söktürücü, terletici, ateş düşürücü, idrar söktürücü ve müshil özellikleriyle de bilinir. Bitki, antimikrobiyal aktivitesine katkıda bulunan zengin tanen, alkaloid, uçucu yağ ve flavonoid içeriği nedeniyle dünya çapında geleneksel tıp sistemlerinde uzun süredir kullanılmaktadır. Bu çalışmada, Ordu ili Ünye ilçesi Çiğdem köyünden toplanan *Viola odorata* L bitkisinin farklı yapılarından (Çiçek, yaprak-gövde) maserasyon yöntemiyle elde edilen ekstraktların antimikrobiyal aktiviteleri gerçekleştirilmiştir. Elde edilen ekstraktların antimikrobiyal potansiyeli, disk difüzyon yöntemi kullanılarak toplam sekiz patojen mikroorganizma üzerinde araştırılmıştır. Test edilen mikroorganizmalar, üç Gram-pozitif bakteri (*Bacillus subtilis* ATCC 6633, *Brevibacillus brevis* ATCC 35690 ve *Listeria monocytogenes* NCTC 5348), üç Gram-negatif bakteri (*Enterobacter aerogenes* CCU 2531, *Proteus vulgaris* FMC 1 ve *Salmonella typhimurium* NRRLE 4413) ile iki fungal türden (*Candida glabrata* ATCC 15126 ve *Candida tropicalis* ATCC 13803) oluşmaktadır. Ekstraktlar, 50 mg/mL, 25 mg/mL ve 12,5 mg/mL konsantrasyonlarında hazırlanmış ve farklı dozlarda antimikrobiyal etkinlikleri karşılaştırılmıştır. Bakteriyel suşlara karşı gerçekleştirilen analizlerde pozitif kontrol olarak ampicilin (10 µg/mL) ve gentamisin (10 µg/mL) kullanılırken, negatif kontrol amacıyla uygulanan %12,5 DMSO çözeltisinin herhangi bir antimikrobiyal etki göstermediği belirlenmiştir. Genel olarak *Viola odorata* L bitkisinin yaprak-gövde ekstraktının çiçek ekstraktına kıyasla daha yüksek antimikrobiyal aktivite sergilediği gözlenmiştir. Özellikle yaprak- gövde ekstraktı, Gram-negatif bakteriler arasında *Enterobacter aerogenes*, *Proteus vulgaris* ve *Salmonella typhimurium*'a karşı 50 mg/mL konsantrasyonda 12 mm'ye ulaşan inhibisyon zonları oluşturmuştur. Çiçek ekstraktında ise en yüksek aktivite *Candida tropicalis* üzerinde 15 mm inhibisyon zonu ile belirlenmiştir. Bu sonuçlar, *Viola odorata* ekstraktlarının doğal antimikrobiyal ajan olarak değerlendirilme potansiyeline sahip olduğunu göstermektedir.

Anahtar Kelimeler: *Viola odorata* L., Antimikrobiyal Aktivite, Maserasyon ekstraksiyonu

AN EXAMINATION OF BITLIS POEMS PUBLISHED IN DİDEBAN NEWSPAPER

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ABSTRACT

This study examines the poems published in the Dideban newspaper in Bitlis between 1957 and 1961 in terms of form, language-style, and content. A total of 30 poems written by 16 different poets are evaluated as significant examples reflecting the transition between the tradition of folk poetry and modern poetic tendencies. The formal analysis reveals that the poems are predominantly structured with syllabic meter and quatrain form, and various verse types such as koşma, destan, mani/folk song, nazire, and free verse are employed. In terms of language and style, a generally plain and comprehensible expression is dominant, with frequent use of folk sayings and proverbs. The content analysis shows that the poems are shaped around themes such as historical consciousness, geography and nature, urban space and architecture, cultural and social life, national sentiments, and love and longing. In this respect, the poems published in the Dideban newspaper are evaluated not only as literary texts but also as valuable folklore data reflecting the social and cultural structure of the period. The study highlights the importance of local newspapers as sources for cultural research and provides a model for similar studies.

Keywords: Dideban newspaper, Bitlis, folk poetry, cultural memory, folklore

DİDEBAN GAZETESİNDE YAYIMLANAN BİTLİS ŞİİRLERİ ÜZERİNE BİR İNCELEME*

ÖZET

Bu çalışmada, 1957–1961 yılları arasında Bitlis’te yayımlanan Dideban gazetesinde yer alan şiirler; şekil, dil-üslup ve içerik bakımından incelenmiştir. 16 farklı şair tarafından kaleme alınan toplam 30 şiir, halk edebiyatı geleneği ile modern şiir anlayışı arasındaki geçişi yansıtan önemli örnekler olarak değerlendirilmiştir. Şekil incelemesinde şiirlerin büyük ölçüde hece ölçüsü ve dördlük yapısı üzerine kurulduğu; koşma, destan, mani/türkü, nazire ve serbest nazım gibi farklı nazım biçimlerinin bir arada kullanıldığı tespit edilmiştir. Dil ve üslup bakımından şiirlerde genel olarak sade ve anlaşılır bir söyleyişin hâkim olduğu, halk deyişleri ve atasözlerinin yaygın biçimde kullanıldığı görülmüştür. İçerik çözümlemesinde ise şiirlerin tarihî bilinç, coğrafya ve doğa, mekân ve kentsel yapı, kültürel ve sosyal hayat, millî duygular ile aşk ve hasret temaları etrafında şekillendiği belirlenmiştir. Bu yönüyle Dideban gazetesinde yer alan şiirler, yalnızca edebî metinler olarak değil, aynı zamanda dönemin sosyal ve kültürel yapısını yansıtan birer halk bilimi verisi olarak değerlendirilmiştir. Çalışma, yerel basında yayımlanan şiirlerin kültürel araştırmalar açısından taşıdığı değeri ortaya koymakta ve benzer çalışmalar için bir model sunmaktadır.

Anahtar Kelimeler: Dideban gazetesi, Bitlis, halk şiiri, kültürel bellek, halk bilimi

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MONGOL INVASION IN HAMADAN: SIEGE, DESTRUCTION, AND ECONOMIC COLLAPSE

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ABSTRACT

In the thirteenth century, Hemedan was caught between Mongol invasions and Khwarazmian struggles, undergoing a profound process of political, social, and economic devastation. With a history dating back to antiquity and a central position gained during the Iraqi Seljuk period, the city came under Khwarazmian rule after the collapse of Seljuk authority in 1194. However, this phase was soon disrupted by the rapid westward expansion of the Mongols.

Initially, diplomatic relations between the two powers deteriorated following the Otrar incident, leading to the Mongol campaigns that began in 1219 and reached Hamadan. During their first arrival, the Mongols refrained from destruction after the city authorities sought submission; nevertheless, they imposed continuous demands for goods and wealth through their representatives, weakening the local economy. The subsequent uprising of the inhabitants resulted in harsher consequences, as Mongol forces under Jebe Noyan besieged the city and captured it without granting amnesty.

The siege reveals the desperation and survival struggle of the population. Despite resistance led by Cemaleddin Ay Abe, the city fell and was subjected to large-scale massacres. A second invasion shortly thereafter further demonstrates that Hamadan had become a recurring میدان of conflict. Frequent changes in political control deepened instability, while the economic structure collapsed significantly.

Following the consolidation of Mongol rule, direct violence was largely replaced by heavy taxation and economic burdens imposed on the population. This period marks not only a political transformation but also a lasting social and economic decline in the urban fabric of Hamadan. This study examines the political, economic, and cultural impacts experienced by Hamadan during the Mongol invasion period.

Keywords: Invasion, Hamadan, Khwarazmians, Mongol Invasions, Siege.

MOĞOL İSTİLASI SÜRECİNDE HEMEDAN: KUŞATMA, YIKIM VE EKONOMİK ÇÖKÜŞ*

ÖZET

XIII. yüzyılda Hemedan, Moğol istilaları ve Hârizmşah mücadeleleri arasında kalarak derin bir siyasi, toplumsal ve ekonomik yıkım süreci yaşamıştır. Antik dönemlere uzanan geçmişi ve Irak Selçukluları döneminde kazandığı merkezî konum sayesinde öne çıkan şehir, 1194 yılında Selçuklu hâkimiyetinin sona ermesiyle Hârizmşah idaresine girmiş; ancak bu dönem, doğuda yükselen Moğol gücünün bölgeye yönelmesiyle kısa sürede kesintiye uğramıştır.

Başlangıçta taraflar arasında kurulan diplomatik ilişkiler Otrar hadisesiyle bozulmuş ve 1219'da başlayan Moğol seferleri Hemedan'a kadar ulaşmıştır. İlk gelişlerinde şehir yöneticilerinin eman dilemesi üzerine tahribata girişmeyen Moğollar, geride bıraktıkları temsilciler aracılığıyla sürekli mal ve para talep ederek şehir ekonomisini zayıflatmıştır. Bu baskılar karşısında halkın isyan etmesi ise daha ağır sonuçlar doğurmuş; Cebe Noyan komutasındaki Moğol kuvvetleri şehri kuşatarak eman vermeksizin ele geçirmiştir.

Kuşatma sürecinde halkın yaşadığı çaresizlik ve hayatta kalma mücadelesi dikkat çekmektedir. Cemaleddin Ay Abe önderliğinde sürdürülen direnişe rağmen şehir düşmüş, ardından geniş çaplı katliamlar gerçekleştirilmiştir.

Kısa süre sonra Hemedan'ın ikinci kez istilaya uğraması, şehrin bir savaş sahasına dönüştüğünü göstermektedir. Sürekli el değiştiren şehirde siyasi istikrar sağlanamamış, ekonomik yapı büyük ölçüde çökmüştür.

Moğol hâkimiyetinin kesinleşmesiyle birlikte doğrudan şiddetin yerini ağır vergi yükümlülükleri ve ekonomik baskılar almış; şehir halkı uzun süre bu yük altında yaşamıştır. Bu süreç, Hemedan'ın sadece siyasi açıdan değil, toplumsal ve iktisadî bakımdan da kalıcı bir dönüşüm geçirdiğini ortaya koymaktadır. Bu çalışma Hemedan'ın Moğol istilasını sürecinde yaşadığı siyasi, ekonomik ve kültürel etkileri incelenmektedir.

Anahtar Kelimeler: İstila, Hârizmşahlar, Hemedan, Kuşatma, Moğol İstilasısı.

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ACCORDING TO THE LAND REGISTRY BOOK NUMBER 47 DATED 1571, THE EGRIGÖZ DISTRICT WAS SUBJECT TO THE KUTAHYA PROVINCE

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ABSTRACT

Local history research and studies are an interdisciplinary subject. Tahrîr registers contain important numerical data about the historical, administrative, social, and economic structure of a settlement. Forming the basis of the timar system, tahrîr was implemented for the first time in newly conquered territories or at regular intervals in existing sancaks (districts). With this tahrîr, all sources of income were identified and recorded in a detailed register. One of these tahrîr records is the 47th land registry register belonging to the Kütahya Livâ (Sancak), the center of the Anatolian province of the Ottoman Empire during the reign of Sultan Selim II (1566-1574). This tahrîr register (Land Registry and Cadastre Archives - Old No: 70) was obtained from the Land Registry and Cadastre Archives. This register, dated 978 AH / 1571 AD, contains 408 pages. This research aims to present the cadastral records of the region in the second half of the 16th century within a comprehensive system. Based on register number 47, the study will determine the administrative structure of the Eğrigöz district, which was part of the Kütahya province in the second half of the 16th century. Following this, the population structure, one of the most important sociological factors, will be examined, and then the contribution of the local population to economic life, the types and amounts of taxes paid, will be determined. Thus, the position of the Eğrigöz district (known today as Emet) in the provincial administration during the second half of the 16th century will be established. Furthermore, the statistical data obtained from this study will offer a unique contribution to the literature in understanding the historical development of the region and defining the socio-economic legacy of the Ottoman Empire in Western Anatolia.

Keywords: Eğrigöz, Administrative, Economic, Kütahya, Population, Ottoman, Tahrîr.

1571 TARİHLİ 47 NUMARALI TAHRİR DEFTERİ'NE GÖRE KÜTAHYA LİVÂSINA TÂBİ EĞRİGÖZ NÂHİYESİ*

ÖZET

Yerel tarih araştırma ve çalışmaları disiplinler arası bir konudur. Tahrîr defterleri, bir yerleşimin târihi, idâri, ictimâî ve iktisâdî yapısı hakkında önemli sayısal veriler barındırır. Timar sisteminin temelini oluşturan tahrîr, yeni fethedilen bir yerde ilk defa veya mevcut sancaklarda belli aralıklarla yapılarak uygulanmaya başlanırdı. Yapılan tahrîrle birlikte her türlü gelir kaynağı saptanır ve mufassal deftere kaydedilirdi. Bu tahrîr kayıtlarından birisi de Sultan II. Selim Hân (1566-1574) devrinde Osmanlı Devleti'nin Anadolu eyâletinin merkezi olan Kütahya Livâsı (Sancağı)'na ait 47 numaralı tapu tahrîr defteridir. Bu tahrîr defteri (Tapu Kadastro Kuyûd-ı Kadîme Arşivi-Eski No:70), Tapu Kadastro Kuyûd-ı Kadîme Arşivi'nden temin edilmiştir. Hicrî 978 / milâdî 1571 yılında kayda geçmiş bir defter olup varak sayısı ise 408'dir. Bu araştırma, XVI. yüzyılın ikinci yarısında bölge hakkındaki tahrîr kayıtlarını bütüncül bir sistem dâhilinde sunmayı hedeflemektedir.

Çalışmada 47 numaralı tahrîr defteri esâs alınarak XVI. yüzyılın ikinci yarısında Kütahya Livâsı'na tâbi Eğrigöz Nâhiyesi'nin idâri yapısı tespit edilecektir. Ardından sosyolojik açıdan en önemli faktörlerden birisi olan nüfus yapısı ele alınacak, sonrasında yöre halkının ekonomik hayata katkısı, vergi türleri ve miktarları tespit edilecektir. Böylelikle XVI. yüzyılın ikinci yarısında günümüzde Emet olarak bilinen Eğrigöz Nâhiyesi'nin taşra idâresindeki konumu saptanmış olacaktır. Ayrıca bu çalışmayla elde edilen istatistiksel veriler, bölgenin tarihsel süreçteki gelişimini anlamak ve Osmanlı'nın Batı Anadolu'daki sosyo-ekonomik mirasını tanımlamak adına literatüre özgün bir katkı sunacaktır.

Anahtar kelimeler: Eğrigöz, İdârî, İktisâdi, Kütahya, Nüfus, Osmanlı, Tahrîr.

* Bu çalışma, Prof. Dr. Hasan Basri KARADENİZ'in danışmanlığında Rıdvan AYDIN'ın yazmış olduğu "1571 Tarihli 47 Numaralı Tahrîr Defteri'ne Göre Kütahya Livâsı'na Tâbi Eğrigöz Nâhiyesi" adlı yüksek lisans tezi esâs alınarak hazırlanmıştır.

MULTIDIMENSIONAL STRUCTURE OF STEREOTYPES TOWARD ROMANI INDIVIDUALS: A QUALITATIVE STUDY IN THE CONTEXT OF THE STEREOTYPE CONTENT MODEL

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ABSTRACT

Romani individuals are among the groups that have been exposed to prejudice, social exclusion, and discriminatory practices throughout historical and social processes; stereotypes directed toward this group shape mechanisms of social exclusion. This study aims to examine, from a qualitative perspective, how prejudices and stereotypes toward Romani individuals are structured within the framework of the Stereotype Content Model. The model proposes that evaluations of social groups are shaped through the dimensions of warmth and competence, while recent literature emphasizes that the morality dimension also plays a significant role in social evaluations. Accordingly, this study investigates how evaluations of Romani individuals are constructed in terms of warmth, competence, and morality dimensions.

The study was conducted within the framework of a qualitative research design. Semi-structured interviews were carried out with nine participants reached through snowball sampling. The data were analyzed using content analysis. The findings indicate that Romani individuals were generally evaluated with positive characteristics on the warmth dimension; however, perceptions of low socioeconomic status and limited competence attributions became prominent on the competence dimension. Regarding the morality dimension, negative evaluations such as distrust, nonconformity to social norms, and associations with crime were particularly evident. The study suggests that the morality dimension has an important explanatory function in understanding processes of social exclusion.

Keywords: Romani individuals, stereotype, Stereotype Content Model, morality

ROMAN BİREYLERE YÖNELİK KALİPYARGILARIN ÇOK BOYUTLU YAPISI: KALİPYARGI İÇERİK MODELİ BAĞLAMINDA NİTEL BİR ARAŞTIRMA

ÖZET

Roman bireyler, tarihsel ve toplumsal süreçler içerisinde önyargı, sosyal dışlanma ve ayrımcı uygulamalara maruz kalan gruplar arasında yer almakta; bu gruba yönelik kalıpyargılar toplumsal dışlanma süreçlerini şekillendirmektedir. Bu çalışma, Roman bireylere yönelik önyargı ve kalıpyargıların Kalıpyargı İçerik Modeli çerçevesinde nasıl yapılandığını nitel bir perspektifle incelemeyi amaçlamaktadır. Model, sosyal gruplara yönelik değerlendirmelerin sıcaklık ve yetkinlik boyutları üzerinden şekillendiğini ileri sürmekle birlikte, güncel literatür ahlak boyutunun da sosyal değerlendirmelerde belirleyici bir role sahip olduğunu vurgulamaktadır. Bu doğrultuda çalışmada, Roman bireylere yönelik değerlendirmelerin sıcaklık, yetkinlik ve ahlak boyutlarında nasıl anlamlandırıldığı incelenmiştir.

Araştırma nitel araştırma deseni kapsamında yürütülmüş; kartopu örnekleme yöntemiyle ulaşılan dokuz katılımcıyla yarı yapılandırılmış görüşmeler gerçekleştirilmiştir. Veriler içerik analizi yöntemiyle çözümlenmiştir.

Bulgular, Roman bireylerin sıcaklık boyutunda çoğunlukla olumlu özelliklerle değerlendirildiğini; yetkinlik boyutunda düşük sosyoekonomik statü algısı ve sınırlı yeterlik atıflarının öne çıktığını göstermektedir. Ahlak boyutunda ise güvensizlik, toplumsal normlara uyumsuzluk ve suçla ilişkilendirme gibi olumsuz değerlendirmeler belirginleşmiştir. Çalışma, ahlak boyutunun sosyal dışlanma süreçlerini anlamada önemli bir açıklayıcı işleve sahip olduğuna işaret etmektedir.

Anahtar Kelimeler: Roman bireyler, kalıpyargı, Kalıp Yargı İçerik Modeli, ahlak

COMPARISON OF THE EFFECTS OF MISINFORMATION ATTRIBUTED TO HUMANS AND ARTIFICIAL INTELLIGENCE TECHNOLOGIES ON MEMORY

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ABSTRACT

The growing influence of artificial intelligence systems on information production and dissemination processes has made it increasingly important to systematically evaluate the effects of these technologies on memory processes as potential sources of misinformation. In this regard, the present study aimed to compare the differential effects of misinformation attributed to a human versus an artificial intelligence (AI) source on memory distortions within the framework of the post-event misinformation paradigm (Loftus et al., 1989), and to experimentally examine the predictive roles of need for cognition, attitudes and anxiety toward AI technologies, response confidence, and source monitoring performance on misinformation susceptibility. The study was structured within a 2x2 factorial between-subjects design (Information Source: Human, AI; Warning Condition: Warning Present, Warning Absent) and was conducted with a sample of undergraduate students from İzmir Bakırçay University (N = 71). A three-phase experimental procedure consisting of an event phase, a post-event information phase, and a recognition test was administered using materials developed by Okado and Stark (2005). Data were analyzed using Mann-Whitney U, Wilcoxon Signed Ranks, Friedman, and hierarchical regression analyses. The findings can be summarized along several key dimensions. First, participants demonstrated significantly higher error rates on misinformation items compared to control items ($p < .001$), reported greater response confidence ($p < .001$), and more frequently attributed the misinformation to the original event source ($p < .001$). Second, the effect of information source on false recall showed marginal significance ($p = .069$), with participants in the human condition exhibiting a higher tendency toward false recall compared to those in the AI condition ($M = 4.19$, $SD = 1.93$ vs. $M = 3.43$, $SD = 2.06$). Third, hierarchical regression analyses revealed that when all variables were simultaneously controlled, only source monitoring significantly predicted false recall ($p < .001$), with the overall model also reaching statistical significance ($p < .001$). The findings are considered to provide confirmatory evidence for the central role of source monitoring mechanisms in the misinformation effect, to contribute to the international literature on the impact of AI systems on misinformation formation, and to inform the development of awareness and intervention strategies targeting AI-generated misinformation.

Keywords: Post-event misinformation paradigm, misinformation effect, artificial intelligence, source monitoring, response confidence

İNSAN VE YAPAY ZEKA TEKNOLOJİLERİNE ATFEDİLEN YANLIŞ BİLGİLENDİRMEİN BELLEK ÜZERİNDEKİ ETKİLERİNİN KARŞILAŞTIRILMASI

ÖZET

Yapay zeka sistemlerinin bilgi üretim ve dolaşım süreçlerindeki etkisi giderek artmakta, bu durum bu teknolojilerin olası yanlış bilgi kaynakları olarak bellek süreçleri üzerindeki etkilerinin sistematik bir biçimde değerlendirilmesini oldukça önemli hale getirmektedir. Bu doğrultuda mevcut çalışma; olay sonrası yanlış bilgi paradigması (Loftus ve diğerleri, 1989) çerçevesinde yanlış bilgi kaynağının bir insan veya yapay zeka sistemine atfedilmesi durumlarının bellek bozulmaları üzerindeki etkilerini karşılaştırmayı, bununla birlikte düşünme ihtiyacı, yapay zeka teknolojilerine yönelik tutum ve kaygı düzeyi ile yanıt güveni ve kaynak izleme performansı değişkenlerinin yanlış bilgi oluşumu üzerindeki yordayıcı etkilerini deneysel olarak sınamayı amaçlamıştır. Bu doğrultuda yürütülen araştırma; 2x2 faktöriyel desenli (Bilgi Kaynağı: İnsan, Yapay Zeka; Uyarı Durumu: Var, Yok) denekler arası bir model çerçevesinde yapılandırılmış ve İzmir Bakırçay Üniversitesi lisans öğrencilerini içeren örneklem (N=71) üzerinde uygulanmıştır. Okado ve Stark (2005) tarafından geliştirilen deney materyalleri kullanılarak olay, olay sonrası bilgilendirme ve tanıma testi olacak biçimde üç aşamalı bir deneysel prosedür kullanılan çalışmada elde edilen veriler; Mann-Whitney U, Wilcoxon İşaretli Sıralar, Friedman ve hiyerarşik regresyon analizleri ile incelenmiştir. Bulgular; birkaç eksen üzerinde ele alınabilir. Öncelikle; katılımcıların kendilerine yanlış bilgilendirme yapılan bilgilere ilişkin olarak sunulan sorularda kontrol sorularına kıyasla istatistiksel olarak anlamlı düzeyde daha yüksek hata oranı ($p < .001$) ortaya koydukları, daha yüksek yanıt güveni bildirdikleri ($p < .001$) ve söz konusu bilgileri, belirgin bir biçimde, karşılaştıkları olaya atfettikleri ($p < .001$) bulgulanmıştır. Bununla birlikte; bilgi kaynağının yanlış hatırlama üzerindeki etkisi marjinal düzeyde anlamlılık ortaya koymuş, ($p = .069$); insan koşulundaki katılımcıların yapay zeka koşulundaki katılımcılara kıyasla daha yüksek yanlış hatırlama eğilimi gösterdikleri tespit edilmiştir (Ort. = 4.19, SS = 1.93 ve Ort. = 3.43, SS = 2.06). Ayrıca; gerçekleştirilen hiyerarşik regresyon analizleri tüm değişkenlerin eş zamanlı olarak kontrol edildiğinde; yalnızca kaynak izleme değişkeninin yanlış hatırlamayı anlamlı bir biçimde yordadığını ortaya koymuş ($p < .001$), bununla birlikte bu model toplam varyansın %56.5'ini açıklamıştır ($p < .001$). Elde edilen bulguların, kaynak izleme mekanizmalarının yanlış bilgi etkisi üzerindeki belirgin rolünü doğrulayıcı nitelikte sonuçlar ortaya koyduğu, yapay zeka sistemlerinin yanlış bilgi oluşumu üzerindeki etkisine ilişkin uluslararası alanyazın ile yapay zeka kaynaklı yanlış bilgilere yönelik farkındalık ve müdahale stratejilerinin geliştirilmesine katkı sunacağı düşünülmektedir.

Anahtar Kelimeler: Olay sonrası yanlış bilgi paradigması, yanlış bilgi etkisi, yapay zeka, kaynak izleme, yanıt güveni

SELECTION OF COORDINATED DEFENSIVE DRILLS TO IMPROVE COMPETITIVE PERFORMANCE FOR MALE STUDENTS MAJORING IN BASKETBALL AT THE UNIVERSITY OF EDUCATION – THE UNIVERSITY OF DANANG

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ABSTRACT

Coordinated defensive tactics are an essential component of modern basketball, significantly influencing the ability to prevent opponents from scoring, create defensive stability, and improve competitive performance. For university students majoring in basketball, the development of coordinated defensive ability requires a systematic and scientifically designed training program suitable for their technical characteristics and learning conditions. Therefore, this study aimed to select and evaluate the effectiveness of coordinated defensive drills for male students majoring in basketball at The University of Education – The University of Danang.

The study applied a combination of research methods, including document analysis and synthesis, expert interviews, pedagogical observation, pedagogical experiment, and mathematical statistics. Thirty experts, lecturers, and basketball coaches participated in the interview process to determine the necessity and suitability of the selected drills. Based on the interview results, eight coordinated defensive drills with an agreement rate of 85% or higher were selected for experimental application. The pedagogical experiment was conducted over six months, with a training frequency of three sessions per week, each lasting 45–50 minutes.

The results showed that after four months of training, the experimental group achieved a coordinated defensive success rate of 64.0%, significantly higher than the control group (47.1%) ($t = 2.045$; $p < 0.05$). After six months, the success rate of the experimental group increased to 69.7%, compared with 51.9% in the control group ($t = 2.343$; $p < 0.05$).

The findings confirm that the selected coordinated defensive drills were effective in improving defensive tactical performance in competition for male university basketball students and can be applied in university basketball training programs.

Keywords: Basketball; Coordinated defense; Defensive drills; University students; Tactical performance; Sports training; The University of Danang – University of Education.

AFFLUENZA AND PSYCHOLOGICAL WELL-BEING: A STUDY ON YOUTH LIFE SATISFACTION

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ABSTRACT

The present study explores the relationship between affluenza and life satisfaction among youth. In today's consumer-driven society, young individuals are increasingly influenced by materialistic values, social comparison, and the desire for wealth, status, and luxury. Affluenza, characterized by excessive materialism, compulsive consumption, and a constant pursuit of external success, has emerged as an important psychological and social concern among youth. The study aims to examine the impact of affluenza on the life satisfaction of young individuals and to understand the psychological consequences associated with materialistic lifestyles. Data were collected from 200 youth participants from Uttar Pradesh using a systematic sampling method. The Affluenza Scale, developed by Radhey Shyam and Pooja Tyagi, and the Satisfaction with Life Scale developed by Diener et al. were used for data collection. The findings revealed a significant negative relationship between affluenza and life satisfaction, indicating that higher levels of affluenza were associated with lower levels of life satisfaction among youth. Excessive focus on material possessions, consumerism, and external success was found to negatively influence psychological well-being and overall satisfaction with life. The study highlights that dependence on external validation and materialistic values may reduce feelings of happiness, contentment, and emotional fulfillment among young individuals. These findings contribute to the growing literature on affluenza and youth mental health and emphasize the importance of promoting healthy value systems and psychological well-being in an increasingly materialistic society.

Keywords. Affluenza, life satisfaction, consumerism.

SUSTAINABLE APPROACHES TO THE CONCEPT OF INTEGRATED CONTROL OF HELMINTH PARASITES IN PASTURE

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ABSTRACT

Parasitic infections are a significant health problem in livestock farming. Management of animals, pastures and all grazing areas is very important in reducing the amount of internal parasite problems in livestock. Understanding the life cycles of the various parasites in the entire soil-plant-animal system will help to show the interrelationships between these three components. Most of the life cycle of parasites is outside the animal. Contamination of pastures with infective larvae is the primary factor to be dealt with. By understanding the interrelationship between the animal, the plants it eats and the soil on which those plants grow, it then becomes clearer how parasites infect the animal and how they can be managed so that they do not cause as many problems. The way livestock are kept, including grazing management, affects the manure, which affects the animal's environment. By using controlled grazing methods that allow pastures to rest and soil life to function well, contamination can be reduced. This reduction occurs because soil organisms, including earthworms, dung beetles, and nematophagous fungi will destroy or keep a lot of the parasite eggs and larvae from developing. Keeping the grass in a more vegetative stage, and tall enough to provide the animal with adequate forage, will provide better nutrition to keep the animal healthier, strengthening the immune system to prevent the adult worms from producing eggs. Good grazing management includes the use of clean pasture to minimize re-infection. Clean pasture is pasture that has not been grazed by the host animal (usually sheep and goats) for 12 months, and therefore is not contaminated with worm larvae. It may be new pasture, pasture grazed by livestock such as cattle or horses which do not share parasites with sheep (goats do share parasites with sheep), or pasture that has been hayed, renovated, or rotated with row crops.

Keywords: integral control of helminth, pasture, ruminant

OXYGENATED APATITES FOR BONE AND DENTAL APPLICATIONS: FROM SYNTHESIS TO TRANSLATIONAL CHALLENGES

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ABSTRACT

Oxygenated apatites are emerging calcium phosphate biomaterials containing molecular oxygen incorporated within their structure. These materials combine intrinsic antibacterial activity with regenerative properties for calcified tissues, including bone and dental applications, without the systematic use of external antibiotics.

This study critically analyzes the synthesis strategies developed for oxygen-rich apatites, ranging from the pioneering studies to more recent approaches. Particular emphasis is placed on the mechanisms governing oxygen incorporation, stabilization, and release within the apatite lattice. The influence of synthesis parameters, on crystallinity and composition is systematically discussed.

Particular emphasis is devoted to the thermal behavior of these materials because of the high sensitivity of reactive oxygen species to heat exposure. Their biological performance is also critically examined.

Oxygenated apatites exhibit a promising functional synergy combining biocompatibility, osteoconductivity, and intrinsic antibacterial activity, positioning them as attractive candidates for emerging biomaterials aimed at addressing antibiotic resistance in regenerative medicine. However, their clinical translation still requires standardized synthesis protocols, robust in vivo validation, and rational integration into composite and nanostructured systems.

Keywords: Oxygenated apatites; Calcium phosphate biomaterials; Antibacterial property; Reactive oxygen species; Bone regeneration; Dental regeneration.

AN OVERVIEW OF MEDICAL WASTE MANAGEMENT (A CASE STUDY OF ILARO TOWNSHIP OGUN STATE NIGERIA)

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ABSTRACT

Medical waste management has become an important public health and environmental concern, especially in developing countries where poor waste handling practices can expose people and the environment to serious risks. This study examined medical waste management practices in selected hospitals within Ilaro Township, Ogun State, Nigeria, with the aim of assessing how medical waste is handled, segregated, and disposed of by healthcare workers. A random sampling technique was adopted, and structured questionnaires were distributed to hospital staff involved in waste management activities. The collected data were analyzed using descriptive statistical methods.

The findings showed that about 90% of the respondents were aware of waste segregation practices and carried out segregation at the point of generation, while 80% reported using personal protective equipment during waste handling. Despite this encouraging level of awareness, the study revealed shortcomings in waste storage, treatment, and disposal practices across some of the hospitals surveyed. Factors such as inadequate training, weak monitoring systems, and insufficient waste management facilities were identified as major challenges affecting effective medical waste management.

The study concludes that although healthcare workers in the study area demonstrate a good level of awareness regarding medical waste management, there is still a need for improvement in the overall waste handling system. The study therefore recommends regular training programs for healthcare personnel, provision of adequate waste disposal facilities, and stricter enforcement of waste management policies by relevant authorities. Improving these practices will help reduce environmental pollution, protect public health, and promote safer healthcare environments.

Keywords: Medical waste management, healthcare waste, waste segregation, waste disposal.

MACROALGAE-DERIVED BIOPOLYMERS: GREEN EXTRACTION STRATEGIES, PROPERTIES AND SUSTAINABLE APPLICATIONS

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ABSTRACT

Macroalgae represent a promising and renewable source of structurally diverse biopolymers, attracting growing interest as sustainable alternatives to petroleum-based polymers. This study provides a comprehensive overview of the main biopolymers extracted from the three major macroalgal groups red algae (carrageenans, agar), brown algae (alginate, fucoidan) and green algae (ulvan, cellulose) with a focus on their extraction methods, physicochemical properties, and valorization potential.

Conventional extraction approaches, including alkaline and acid-based treatments, are discussed alongside emerging green technologies such as microwave-assisted extraction, ultrasound-assisted extraction, and enzyme-mediated processes, which offer improved yield, selectivity, and reduced environmental impact. The structural and functional properties of these biopolymers including gelation, viscosity, biocompatibility, and bioactivity are examined in relation to their molecular composition and extraction conditions. Their applications across key sectors such as food packaging, biomedical engineering, agriculture, and cosmetics are critically reviewed, highlighting the role of macroalgae-derived biopolymers in driving the transition toward a circular and bio-based economy.

Keywords: Macroalgae, Biopolymers Extraction Methods, Carrageenans, Alginate, Ulvan, Sustainable Applications.

IMPLEMENTATION OF EMPLOYMENT QUOTA SYSTEM FOR PERSONS WITH DISABILITIES IN PUBLIC INSTITUTIONS IN ALBANIA: ALIGNMENT WITH EU DIRECTIVES AND NATIONAL LEGISLATION

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ABSTRACT

This study examines the implementation of the employment quota system for persons with disabilities in public institutions in Albania, in the light of European Union directives and recent national legislative developments. The Albanian legal framework requires employers to apply a quota to hire persons with disabilities. This obligation reflects key principles of the EU Directive 2000/78/EC establishing a general framework for equal treatment in employment and occupation, as well as the European Pillar of Social Rights.

The research adopts a mixed-method approach, combining quantitative and qualitative data collected from public institutions at both central and local levels (n=72). The analysis focuses on institutional awareness, compliance with quota obligations, and structural barriers affecting implementation.

The results reveal a significant gap between legal provisions and their practical enforcement. Albanian institutions fail to meet the required quota, while the number of employed persons with disabilities remains considerably below the level required for full compliance. Key challenges include limited enforcement mechanisms, insufficient workplace accessibility, lack of financial support for reasonable accommodation, and constraints in recruitment systems.

The findings indicate partial alignment with EU acquis but limited effectiveness in implementation. Strengthening monitoring mechanisms, improving institutional accountability, and ensuring the effective application of anti-discrimination principles are essential to advance inclusive employment policies in Albania.

Keywords: employment quota, disability inclusion, labor law.

ANTHROPOGENIC PRESSURES AND WATER QUALITY DEGRADATION IN OUED KHOUMANE (MOULAY IDRIS ZERHOUN, MOROCCO)

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ABSTRACT

In Morocco's semi-arid regions, surface water resources are under increasing anthropogenic pressure, threatening both aquatic ecosystems and public health. This study aims to conduct an integrated assessment of water quality in the Oued Khoumane (Moulay Idriss Zerhoun, Morocco) by combining, for the first time, physicochemical, bacteriological, and parasitological analyses, and to identify the main spatio-temporal pollution gradients.

Monthly monitoring over a complete hydrological cycle was conducted at six sampling stations (S1 to S6), from upstream to downstream. Physicochemical, bacteriological, and parasitological parameters (protozoan cysts and helminth eggs) were analyzed. Advanced statistical methods (PCA, AFC, CAH, ANOVA, Kruskal-Wallis) were applied to interpret the data.

The results reveal a gradient of progressive deterioration from upstream to downstream. Station S1 (upstream) shows relatively good water quality ($\text{NH}_4^+ = 0.32 \text{ mg/L}$; $\text{BOD}_5 = 52 \text{ mg/L}$). In contrast, stations S2 and S4, located near the main urban, agricultural, and industrial discharge points, show critical levels of pollution: NH_4^+ up to 12.5 mg/L , NO_3^- up to 104.3 mg/L , BOD_5 up to 663 mg/L , COD up to 6375 mg/L , TSS up to $2,798 \text{ mg/L}$, accompanied by severe hypoxia ($\text{O}_2 < 2 \text{ mg/L}$). The multivariate analysis distinguishes three groups of stations: reference (S1), intermediate (S3, S5, S6), and critical (S2, S4).

The bacteriological study reveals massive fecal contamination, with FMAT 37°C concentrations reaching $1.25 \times 10^7 \text{ CFU/100 mL}$ and fecal coliforms up to $3.90 \times 10^5 \text{ CFU/100 mL}$. Stations S2, S3, and S4 are identified as chronic pollution hotspots, while S5 and S6 show peaks of *Pseudomonas aeruginosa* ($34,980 \text{ CFU/100 mL}$).

The parasitological analysis, the first of its kind for this watercourse, reveals an average monthly total parasite load of $65,847 \pm 28,492$ parasites/month, peaking at 135,021 in September. The dominant protozoa are *Giardia lamblia*, *Balantidium coli*, and *Entamoeba coli*; the most prevalent helminths are *Strongyloides stercoralis*, *Ascaris lumbricoides*, and *Enterobius vermicularis*.

A strong seasonal pattern is observed (peaking from May to September). Stations S2 and S6 constitute “hotspots” of parasitic contamination, with persistent *Schistosoma* sp. and cestodes, indicating real health risks (schistosomiasis, cysticercosis).

The summary of results confirms that direct discharges of untreated domestic wastewater, slaughterhouse effluents, oil mill wastewater, and leachate from unregulated landfills are the main sources of pollution. The common practice of irrigation with this untreated water exacerbates health risks by introducing pathogens into the food chain.

In light of this, the construction of a wastewater treatment plant, combined with the expansion of the sewerage network, discharge monitoring, and the implementation of continuous surveillance, constitutes an operational response well-suited to the Moroccan context.

Keywords: Khoumane Wadi, Anthropogenic Pollution, Water Quality, Bacterial Contamination, Environmental Parasitology, Morocco.

HARMONIC ANALYSIS ON HILBERT SPACES UNDER UNCERTAINTY: AN INFORMATION-GEOMETRIC FRAMEWORK FOR MULTI-CRITERIA DECISION MAKING IN COMPLEX SYSTEMS

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ABSTRACT

This paper presents a generic framework integrating harmonic analysis on Hilbert spaces with uncertainty modeling for multi-criteria decision making (MCDM) in complex systems. Unlike conventional approaches that treat decision criteria as independent or linearly weighted, we model decision spaces as infinite-dimensional Hilbert spaces equipped with inner product structures that capture interactions among criteria through orthogonal projections and harmonic decompositions. We introduce three key theoretical contributions. First, we define a harmonic representation of decision alternatives using Fourier-like expansions on a Hilbert basis, where each basis function corresponds to an independent decision dimension. This representation enables the decomposition of complex preferences into orthogonal components that can be analyzed separately. Second, we develop a distance metric based on the Hilbert space norm that generalizes traditional Euclidean distances while preserving uncertainty quantification through probabilistic embeddings. Third, we propose a harmonic aggregation operator that combines expert judgments by projecting individual preference vectors onto a consensus subspace, effectively filtering out contradictory information. The framework is applied to three generic decision domains: sustainable supplier selection under environmental uncertainty, healthcare resource allocation with conflicting objectives, and infrastructure project prioritization under budgetary constraints. Validation is performed using synthetic and real-world datasets, with comparative analysis against TOPSIS, VIKOR, and PROMETHEE methods. Results demonstrate that the harmonic approach achieves higher ranking stability (average 94% correlation across perturbation levels) and better handles high-dimensional criteria spaces (up to 50 criteria without dimensionality reduction). Sensitivity analysis confirms robustness to missing data and expert bias. The proposed framework offers a mathematically unified and computationally tractable foundation for complex decision making under uncertainty.

Keywords: Harmonic analysis; Hilbert space; Multi-criteria decision making; Uncertainty modeling; Information geometry; Aggregation operators

STUDY OF LIPOPHILICITY AND TOXICITY OF SELECTED BIS-THIOCARBOHYDRAZONE DERIVATIVES USING LIQUID CHROMATOGRAPHY

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ABSTRACT

Thiocarbohydrazone derivatives represent a notable class of azomethine compounds containing nitrogen and sulfur atoms, which are key to their coordination ability and diverse biological activity. Considerable scientific attention has been devoted to these compounds due to their broad spectrum of biological properties, including antimicrobial, antioxidant, antifungal, antibacterial, and antitumor activities. The present study investigates newly synthesized bis-thiocarbohydrazone derivatives using both experimental and computational approaches to better understand their physicochemical and ecotoxicological behavior. Their lipophilicity was determined experimentally using reversed-phase thin-layer chromatography (RPTLC18F254s) in the presence of both protic and aprotic modifiers, enabling a more detailed evaluation of their chromatographic behavior under different polarity conditions. In parallel, in silico methods were used to predict lipophilicity as well as selected ecotoxicity parameters, allowing a comprehensive comparison between experimental and computational results. The relationships between chromatographic parameters (R_M and m), calculated partition coefficients ($\log P$), and ecotoxicity parameters were analyzed using linear regression analysis. This statistical approach enabled the assessment of the strength and significance of correlations among the investigated parameters. The obtained results revealed strong correlations between chromatographic behavior, calculated $\log P$ values, and ecotoxicity parameters, indicating good agreement between experimental and theoretical approaches. These findings confirm the suitability of RP-TLC as a reliable and efficient method for the estimation of lipophilicity and ecotoxicity of the investigated bis-thiocarbohydrazone derivatives.

Keywords: Bis-thiocarbohydrazone, TLC, Lipophilicity, Ecotoxicity.

PORPHYRIN-BASED SENSITIZERS FOR SOLAR ENERGY HARVESTING: QUANTUM MODELLING AND IMPEDANCE SPECTROSCOPY INSIGHTS INTO DSSC PERFORMANCE

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ABSTRACT

This work investigates the photovoltaic potential of ten modified porphyrin-based dye-sensitized solar cell (DSSC) structures developed to improve solar energy conversion efficiency. The proposed modifications involve the incorporation of electron-donor and electron-acceptor groups into the porphyrin framework to enhance the electronic and optical properties of the sensitizers. The study aims to evaluate the geometric, electronic, optical, and photovoltaic characteristics of the designed compounds, with particular emphasis on key parameters such as the open-circuit voltage (V_{oc}), energy band gap (E_g), and maximum absorption wavelength (λ_{max}).

The geometric, electronic, optical, and photovoltaic properties of the investigated structures were analyzed using Density Functional Theory (DFT) and Time-Dependent Density Functional Theory (TD-DFT). More specifically, electronic transitions and optical properties were calculated using the TD-DFT-B3LYP/6-31G(d,p) and TD-CAM-B3LYP/6-31G(d,p) methods. In addition, impedance spectroscopy (IS) was employed as an important characterization and diagnostic technique to investigate the charge-transfer behavior and interfacial properties of the studied DSSC systems. Ultimately, this work aims to identify promising porphyrin-based sensitizers with enhanced photovoltaic performance for efficient solar energy applications.

Keywords: Porphyrin DFT, TD-DFT, Solarcells, Impedances petroscopy, Gap energy Donor-Acceptor

MATHEMATICAL INVESTIGATION OF THE NON-LINEAR BOUNDARY VALUE SYSTEM FOR JEFFREY FLUID FLOW

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ABSTRACT

The gravity-driven unsteady Magnetohydrodynamic transport of Jeffrey fluid via the elongating sheet is assessed analytically. Semi-analytical results for velocity, concentration and temperature can be retrieved by shifting the governing equations into a dimensionless form and tackling them via the Modified Homotopy analysis methodology. The precision of these responses is confirmed by contrasting them to the numerical results, which confirms a high consistency. Graphical illustrations are utilized to show how numerous parameters influence flow and heat transmission. To further demonstrate the implications of different physical factors, including the skin friction factor, Sherwood and Nusselt number are estimated and disclosed in a data table.

Keywords: Magnetohydrodynamic, Jeffrey fluid, Stretching sheet, Modified Homotopy analysis method (MHAM), Numerical solution.

SEMI-ANALYTICAL STUDY OF NON-LINEAR INITIAL VALUE PROBLEMS IN EPIDEMIC DYNAMICS

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ABSTRACT

Lassa fever is a serious viral disease spread mainly through contact with food or objects contaminated by infected rat urine or droppings, and sometimes through infected body fluids. It causes symptoms like fever, weakness, vomiting, and bleeding, and can be prevented by good hygiene, proper food storage, avoiding contact with infected persons, and using protective equipment. The Homotopy Analysis Method (HAM) is employed to address the system of nonlinear differential equations and generate a semi-analytical solution for the Lassa disease Susceptible-Exposed-Infected-Recovered (SEIR) model. These Methods results were compared with the MATLAB numerical simulation. There is a good agreement between the numerical simulation and the approximate analytical results. In addition, each parameter was varied to examine its impact on the behaviour of individuals in the model. The findings of this study provide useful guidance for researchers on the use of semi-analytical methods in infectious disease epidemiological modelling.

Keywords: Epidemic model, Lassa fever, non-linear initial value problem, Homotopy analysis method (HAM), numerical simulation.

A MATHEMATICAL ANALYSIS OF AN INITIAL VALUE PROBLEM IN A BIOCHEMICAL REACTION FRAMEWORK

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ABSTRACT

The current study examines an earlier mathematical description of the complex model of enzyme inhibitor reaction where reaction memory is taken into account. The approximate analytical expressions of the concentrations of enzyme, substrate, inhibitor, product, and other complex intermediate species are derived using Sumudu adomian decomposition method (SADM) and Taylors series method (TSM). A contrast between the numerical simulation and the approximate analytical approach is also given. The approximate analytical outcomes and the numerical findings show a strong correlation.

Keywords: Mathematical modelling, enzyme inhibitor, biochemical reaction, Non-linear initial value problem, Sumudu Adomian Decomposition method (SADM), Taylor's series method (TSM), Numerical simulation.

Mathematical Subject Classification: 34A05, 34A12, 34A25, 34A34, 34E05

COMPUTATIONAL DESIGN OF CHROMIUM HALF-SANDWICH DSSC SENSITIZERS

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ABSTRACT

This study explores how changes to the arene ligands in the half-sandwich chromium complex ($\eta^6\text{-C}_6\text{H}_5\text{X})\text{Cr}(\text{CO})_3$ influence its performance. A theoretical study was conducted on a series of modified chromium half-sandwich complexes to evaluate their potential as sensitizers in Dye-Sensitized Solar Cells (DSSCs), utilizing density functional theory (DFT) and time-dependent DFT (TD-DFT). The research examined seven arene derivatives, evaluating the photoelectrical properties of the corresponding complexes. Calculations were performed at the B3LYP/6-31g/SDD level to determine the ground and excited state properties of the isolated dyes. Essential parameters, such as light harvesting efficiency (LHE), electron injection driving force (ΔG_{inj}), regeneration driving force (ΔG_{reg}), open-circuit voltage (V_{oc}), and wavelength of maximum absorption (λ_{max}), were carefully analyzed. The findings suggest that the D_A , D_B , D_D , D_F , and D_G complexes have strong potential as sensitizers in DSSCs. This study highlights the valuable role of theoretical methods in predicting and guiding the design of new dyes for solar cell applications.

Keywords: half sandwich chromium; DSSCs; optoelectronic; photovoltaic characteristics and DFT/ TD-DFT.

SOURCE IDENTIFICATION AND CONTROL OF LEAD IMPURITIES IN RAW MATERIALS USED IN SOLVENT BASED PAINTS

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ABSTRACT

Lead impurities in solvent-based paints are a major concern due to their toxic effects on human health and the environment. Although the use of lead-based pigments has been restricted, trace contamination can still occur through various raw materials such as pigments, fillers (e.g., calcium carbonate, talc), solvents, additives, and even from processing equipment or storage containers. The study addresses the on-going issue of lead contamination in solvent based paint, despite global efforts to eliminate lead –containing formulations. The research investigates how lead enters the production chain, particularly through mineral fillers and solvent-based additives and aims to identify the key raw materials ranging from pigments and binders to solvents and drying agents which contribute most significantly to overall lead content. The identification of lead sources involves systematic screening of all incoming raw materials using sensitive analytical techniques such as ICP-OES or by wet analysis. Proper sample preparation, typically through acid digestion, ensures accurate detection of trace levels of lead. Comparative analysis helps in pinpointing high-risk materials contributing to contamination. To control lead impurities, manufacturers must adopt strict raw material specifications, procure materials from certified suppliers, and implement routine quality testing. Process controls such as equipment maintenance, cleaning validation, and prevention of cross-contamination are also essential. Additionally, replacing traditional materials with lead-free alternatives significantly reduces risk. Overall, effective source identification combined with robust control strategies ensures compliance with regulatory standards, enhances product safety, and supports sustainable paint manufacturing practices. The study highlights a link between lower cost materials and higher impurity levels. It also includes that achieving true lead free status requires more than eliminating lead pigments and emphasizes the need for a strong quality management system focused on raw material traceability, including strict supplier auditing and mandatory lead safe certification for mineral-based vendors.

Keywords: ICP, ICP-OES, Lead, Paint

A FOURIER-INTERPOLATED SECOND-ORDER TOTAL GENERALIZED VARIATION MODEL FOR ARTIFACT-RESISTANT IMAGE RECONSTRUCTION

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ABSTRACT

Variational regularization remains a cornerstone of modern image reconstruction, where the choice of regularizer plays a decisive role in balancing noise suppression and structure preservation. While total variation is effective in edge retention, it typically produces staircasing artifacts, motivating the development of higher-order models such as total generalized variation (TGV). In parallel, interpolation-based discretizations—particularly those derived from Shannon sampling theory—have shown improved isotropy and reduced aliasing effects. In this work, we introduce a novel second-order variational model that integrates Shannon interpolation into the TGV framework. New first- and second-order operators are formulated in the Shannon sense, and their adjoint counterparts are derived to construct a well-posed optimization problem. The associated dual formulation is obtained and employed for solving inverse imaging tasks, including denoising and deconvolution. Numerical experiments demonstrate that the proposed approach combines the strengths of classical TGV and Shannon-based regularization, leading to enhanced suppression of staircasing, aliasing, and other reconstruction artifacts. Comparative results indicate that the method delivers improved restoration quality over standard TV, Shannon TV, and second-order TGV models.

Keywords: Total variation, Total generalized variation, Shannon TV, Shannon TGV

A GEOMETRY-AWARE TRIANGULAR MESH APPROACH TO TOTAL VARIATION FOR IMAGE RESTORATION

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ABSTRACT

Restoring images degraded by noise and missing regions remains a central problem in computational imaging. Although classical first-order variational techniques are widely used due to their simplicity and efficiency, they often introduce undesirable artifacts such as blockiness and directional bias. This work presents a new total variation framework that incorporates geometric structure through a two-step strategy. The input image is first enlarged via bilinear interpolation, after which two complementary triangular discretizations are defined over the refined grid. A discrete total variation functional is then constructed by combining the contributions from these triangulations, yielding a more isotropic and geometry-sensitive regularization. The proposed model is applied to both denoising and inpainting tasks within a variational setting. Experimental results indicate that the method significantly suppresses block artifacts and achieves improved visual fidelity compared to standard TV, second-order TGV, Shannon-based TGV variants, and several learning-based approaches.

Keywords: Image processing · Total variation · Image interpolation · Block artifact · Primal-dual algorithm · Shannon TGV.

SELECTION OF TOP-PERFORMING WINTER BARLEY GENOTYPES USING THE FAI-BLUP INDEX

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ABSTRACT

This study aimed to assess the effectiveness of the ideotype-design index (FAI-BLUP) for ranking winter barley genotypes. Nineteen barley genotypes from ICARDA, along with four local check varieties, were evaluated using a randomized complete block design with four replications at the Institute of Agriculture – Karnobat, Bulgaria, over three growing seasons (2021/2022 to 2022/2024). The traits assessed included plant height, lodging resistance, spike length, spikelet number per spike, grain number per spike, grain weight per spike, 1000-grain weight, and grain yield. Traits such as spikelet number per spike, grain number per spike, and grain weight per spike exhibited high broad-sense heritability, while plant height showed low heritability. The remaining traits, including grain yield, demonstrated moderate heritability. The FAI-BLUP index achieved the desired selection gains for plant height, lodging resistance, 1000-grain weight, and grain yield. However, undesirable selection gains were observed for spike productivity traits - spike length, spikelet and grain number per spike, and grain weight per spike, suggesting a potential negative relationship between these traits and grain yield. Check varieties Obzor and Emon, along with the breeding lines IBON-W-14-63, IBYT-W-19-40, and IBON-W-14-62, were identified as the most promising based on the FAI-BLUP index. The selected ICARDA breeding lines should be advanced to the next stages of the winter barley breeding program for the development of high-yielding varieties suitable for the conditions in Southeast Bulgaria.

Keywords: multi-trait selection, FAI-BLUP index, genetic gain, grain yield

THE IMPACT OF AGRICULTURAL DYNAMICS ON GROUNDWATER RESOURCES IN THE OUED SOUF REGION

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ABSTRACT

The Oued Souf region has experienced significant agricultural expansion during recent decades, particularly through the development of irrigated farming systems and intensive groundwater exploitation. This agricultural dynamic has contributed to improving local economic activity and increasing agricultural productivity. However, the excessive use of groundwater resources has generated growing environmental concerns, especially regarding the depletion and degradation of aquifers.

This study aims to analyze the impact of agricultural dynamics on groundwater resources in the Oued Souf region by examining the relationship between agricultural expansion, water consumption, and groundwater sustainability. The research adopts a descriptive and analytical approach based on available statistical data, previous studies, and field observations related to irrigation practices and water management in the region.

The findings indicate that the continuous increase in agricultural activities has led to a considerable decline in groundwater levels and has intensified problems related to salinity and environmental imbalance. The study emphasizes the necessity of adopting sustainable agricultural and water management strategies to ensure the preservation of groundwater resources and to support long-term agricultural development in arid regions.

Keywords: Groundwater Resources, Agricultural Dynamics, Irrigation, Sustainable Agriculture, Aquifer Depletion, Oued Souf, Algeria

PRODUCTION OF ORANGE FLESHED SWEET POTATO AMONG SMALLHOLDER FARMERS IN OSUN STATE, NIGERIA

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ABSTRACT

Nigeria produces 3.9 million metric tonnes of sweet potato per year and despite these, the potential benefits has not been exploited. However Orange Flesh sweet potato is being promoted under the Reaching Agents for Change (RAC) Project of the International Centre for Potato (CIP) in order to increase the level of its awareness in the country. This study assessed the production of OFSP among farmers in Osun States. Multi-stage sampling technique was used to select 142 OFSP farmers in Osun state. A structured interview guide was used to elicit information on sweet potato varieties cultivated, awareness of perceived nutritional benefits of OFSP, frequency of production and constraints affecting OFSP production. Data obtained were analyzed using frequency counts, percentages, means, standard deviation, Linear Regression and Pearson Product Moment Correlation (PPMC). Results revealed that 88.0% of the respondents were married, 78.0% were male and 41.6% had secondary education with mean age, revenue and farming experience of 45 years, ₦155, 901/ha/farming season and 21years respectively. Majority (98.5%) of the respondents had no access to credit facilities, 63.3% sold their products on market days. Perceived nutritional benefits of OFSP were; high nutritive value ($\bar{x} = 2.02$), boost immune system ($\bar{x} = 1.96$), good diet for pregnant women ($\bar{x} = 1.85$), improved vision ($\bar{x} = 1.84$) and reduced vitamin A deficiency among children ($\bar{x} = 1.80$). Constraints faced in the production of OFSP were high cost of inorganic fertilizers ($\bar{x} = 2.52$), low consumer preference ($\bar{x} = 2.25$), high perishable nature of the crop ($\bar{x} = 2.23$), unattractive appearance ($\bar{x} = 2.20$), and lack of market ($\bar{x} = 2.20$). Linear Regression revealed that marital status ($\beta = 5.24$, $p > 0.01$), householdsize ($\beta = 2.13$, $p > 0.01$), years of sweet potato farming ($\beta = 1.39$, $p > 0.01$) and farm size ($\beta = 0.89$, $p > 0.05$) had significant association with frequency of production of OFSP. The study concluded that OFSP was mainly cultivated for income generation and consumption because of its perceived nutritional benefits to farmers. The study recommended that the production and use of orange flesh sweet potato should be encouraged among farmers based on its nutritional benefits to enhance household food and nutrition security.

SUSTAINABILITY EVALUATION OF THE HALOPHYTES' DEVELOPMENT BASED ON SOCIAL, ECONOMIC, AND ENVIRONMENTAL DIMENSIONS

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ABSTRACT

This study aimed to identify the development capacities of halophyte plants and assess the sustainability of these plants based on social, economic, and environmental criteria in Yazd province. In order to plan and forecast for the sustainable development of halophyte plants, the multi-criteria decision analysis technique based on fuzzy analytic hierarchy process was used. Based on the proposed method, social, economic, and environmental criteria were used to evaluate and prioritize halophyte plants. The required data was collected through face-to-face interviews with specialists, expert experts, and experienced farmers. In this context, six halophyte plant species, namely Quinoa, Salicornia, Panicum, Kochia, Rubia, and Atriplex, were selected. The results of the social, economic, and environmental multi-criteria evaluation of halophyte plants showed that these criteria have an importance coefficient of 36, 36, and 28 percent, respectively. Thus, considering social, economic, and environmental criteria, the sustainability index of halophyte plant development for the three plants, Rubia, Quinoa, and Salicornia, was calculated to be 27.04, 25.32, and 25.08, respectively, which was higher than the other plants studied. In other words, the production of Rubia in Yazd province is in a more sustainable condition compared to other halophyte plants based on the multi-criteria evaluation of social status, economic profitability, and environmental quality. According to the findings of this study, the most important factor in the sustainability of halophyte plants is the social and economic status of their production. Therefore, implementing policies that lead to cost savings or strategies that provide more income opportunities for farmers can lead to the sustainable development of these plants.

JEL Classification: Q1, Q56

Keywords: Halophyte Plants, Multi-Criteria Decision-Making Analysis, Sustainable Agriculture

ADAPTATION OF CEREAL CROP TO SALT WATER

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ABSTRACT

This research presents findings from an experiment investigating the contrasting impacts of irrigating with two water sources differing in salinity. effects of using two water sources with varying salinity for irrigation. It delves into changes observed in both soil solution salinity concentration and chemical composition, shedding their influence on water and mineral nutrition.

The findings reveal that the various varieties of crops consume significantly more water (almost double) from the dam (electrical conductivity = 2.20 dS/m) compared to the borehole (electrical conductivity = 4.7 dS/m). The yields of dry matter produced vary in direct proportion. Furthermore, when considering salinity, the response of different varieties varies. Under low salt conditions, the local variety exhibits the highest efficiency, trailed by the S variety and then the T variety. Conversely, under higher salinity conditions, the T variety outperforms, followed by B and S.

Keywords: salinity, cereal, salt water.

EFFECTS OF ELEVATED CO₂ AND TEMPERATURE ON HOST–PATHOGEN INTERACTIONS

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ABSTRACT

Climate change has emerged as a major challenge to global agriculture, significantly influencing the interaction between plants and their pathogens. Elevated atmospheric carbon dioxide (CO₂) concentrations and increasing temperatures alter plant physiology, pathogen virulence, and environmental conditions, thereby affecting the development and severity of plant diseases. Understanding the effects of elevated CO₂ and temperature on host–pathogen interactions is essential for predicting future disease outbreaks and developing climate-resilient disease management strategies.

This study investigates the impact of elevated CO₂ and temperature on the physiological, biochemical, and molecular responses of plants during pathogen infection. Elevated CO₂ can enhance photosynthesis, biomass accumulation, and carbon allocation in plants; however, it may also modify plant defense mechanisms, stomatal behavior, and nutrient composition, thereby influencing susceptibility or resistance to pathogens. Simultaneously, rising temperatures can accelerate pathogen reproduction, survival, sporulation, and dissemination, leading to increased disease incidence and altered epidemiological patterns.

The research focuses on analyzing how changing climatic factors affect the interaction between host plants and major fungal, bacterial, and viral pathogens under controlled and field conditions. Advanced techniques such as transcriptomics, metabolomics, proteomics, and climate simulation studies are employed to evaluate changes in defense-related genes, phytohormone signaling, reactive oxygen species production, and pathogen aggressiveness. The study also examines shifts in plant-associated microbiomes and their contribution to disease suppression under climate stress conditions.

Special emphasis is given to the combined effects of elevated CO₂ and temperature on disease severity, pathogen evolution, host adaptation, and resistance durability. Predictive modeling and epidemiological studies are utilized to assess future disease risks under different climate scenarios. The findings of this research will contribute to a better understanding of climate-driven host–pathogen dynamics and support the development of sustainable crop protection strategies, climate-resilient cultivars, and adaptive integrated disease management practices for future agriculture.

Keywords: Elevated CO₂, Climate change, Host–pathogen interaction, Plant disease epidemiology, Temperature stress, Plant defense mechanisms, Climate-resilient agriculture

CLIMATE CHANGE AND ITS IMPACT ON WATER RESOURCES. CHALLENGES, INTERDISCIPLINARITY AND FUNDAMENTAL RIGHTS

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ABSTRACT

Climate change is the issue of greatest global concern. The world's States are making excessive efforts to halt or counteract its serious consequences. In this paper, we specifically develop the issue of climate change and its impact on water resources, while addressing the challenges that need to be faced. finally, it is given a look from the interdisciplinary and fundamental rights. The water resource is one of the most precious goods for humanity. The eventual contamination or depletion of this resource, due to climate change, would imply an extremely serious attack on the right to life of all people. In short, it is not only a threat to sustainability, but also to the extinction of the human species. The challenges involved in combating the impact on water resources as a consequence of global warming are neither simple nor passing. It is not enough for the guardianship institutions and international global headquarters to deal with the prevention and fight against the impact on water resources as a consequence of global warming. It is important to assume that the impact on water resources, as a consequence of global warming, also implies scenarios of interdisciplinarity and fundamental rights, since they are triggered by the effects on water resources. In view of this, it is suggested to urgently raise awareness and train societies on the impact of climate change on water resources and the importance of sustainability. The political will of the States is essential in order to have effective public policies in favor of the fight against the impact of global warming on water resources. A global alliance of countries is required for the commitment of State policies in favor of the fight against global warming and its impact on water resources. Public policies must be understood and implemented in a holistic manner. That is, not only from the impact on water resources, but also from the point of view of fundamental rights.

Keywords: Effects of climate change. Water resources. Challenges. Interdisciplinarity. Fundamental rights.

ASSESSMENT OF URBAN GREEN SPACES AND CLIMATE ADAPTATION POTENTIAL IN LOKOJA, NORTH CENTRAL NIGERIA

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ABSTRACT

Rising urbanisation in tropical African cities is progressively upsetting natural ecosystems, hastening land-cover change, and worsening urban heat island (UHI) effects and flood risks. Situated at the convergence of the Niger and Benue rivers in North Central Nigeria, Lokoja shows these obstacles in its intricate topography, uncontrolled development, and lack of climate-resilient infrastructure integration. By evaluating their ability to lower land surface temperature (LST) and direct sustainable urban planning in Lokoja from 2015 to 2025, this research examines the role urban green areas (UGS) play in climate adaptation. Employing multi-temporal Sentinel-2 (10 m) and MODIS satellite imagery, NDVI and LST were calculated and interpreted in Google Earth Engine. Using a supervised approach based on the Anderson scheme, changes in land use/land cover (LULC) were classified. Results indicate a 31% fall in thick vegetation whereas constructed and bare surfaces grew by 30% and 100%, respectively. Maximum LST also increased from 35.5 °C to 36. 2 °C. With green areas (>0. 5 NDVI) registering 2–4 °C lower temperatures than adjacent impermeable surfaces, a strong negative NDVI–LST correlation developed ($r = -0.70$, $R^2 = 0.90$, $p < 0.05$). Using an Analytic Hierarchy Process (AHP), a GIS-based suitability analysis fusing slope, elevation, soil type, NDVI, population density, and proximity to waterways and highways discovered 18% of Lokoja mostly riverine lowlands and peri-urban hills as perfect for future UGS projects. The study emphasizes the critical function of UGS in controlling urban microclimates and improving resilience, and it calls for the deliberate integrating of nature-based solutions.

Keywords: Urban Green Spaces (UGS), Climate Adaptation, Land Surface Temperature (LST), Urban Heat Island (UHI), Remote Sensing, GIS, NDVI, Land Use Land Cover (LULC), Analytic Hierarchy Process (AHP), Lokoja, Sustainable Urban Planning

THE USE OF *Pseudomonas parafulva* TO CONTROL THE INFESTATION OF APHIDS IN PLANTS

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ABSTRACT

In this study the effectiveness of colonization of bacterial endophytes as a way of controlling the attack of aphids in tobacco, following inoculation of the cells in plants was unraveled. *Pseudomonas parafulva* Ros-1 were inoculated using foliar spraying and the treated was studied against the un-inoculated control in *Nicotiana tabacum* for 60 days. This was to ascertain whether *P. parafulva* can inhibit the infestation of aphids on the plant. The foliar parts of the plants were assessed post inoculation for their colonization by the pest. Significant differences at $P < 0.05$ of colonization were established between the inoculated and the control. Un-inoculated control demonstrated the highest infestation in the tobacco plant for the period of the test. Leaf inoculation of an endophytic strain of *P. parafulva* provides succor to the treat of aphids on tobacco plants. Growth index measured demonstrated a positive relationship between the inoculation of the endophyte and the growth parameters which included stem length and germination rate. This study, therefore, showed that the bacteria strain *P. Parafulva* Ros-1 as an endophyte of tobacco could be used to curb the infestation of aphids.

Keywords: Bacteria endophytes, *Pseudomonas parafulva*, Tobacco, Endophyte colonization, plants, White aphid, Pests

BIOCHEMICAL AND MOLECULAR IDENTIFICATION OF *DICKEYA SOLANI* INFECTING POTATO AND SOLANACEOUS CROPS IN ALGERIA

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ABSTRACT

Blackleg and soft rot of potato, caused by members of the *Pectobacteriaceae* family, represent a growing threat to potato production worldwide. In Algeria, the causal agents of these diseases remain poorly characterized. Between 2016 and 2018, symptomatic potato plants and tubers were collected from fields and storage facilities in Ain Defla province, and pectinolytic bacteria were isolated on crystal violet pectate (CVP) medium. Twelve Gram-negative isolates produced soft rot symptoms on potato tuber slices and triggered a hypersensitive response in tobacco leaves. Biochemical characterization distinguished two phenotypic profiles. Molecular identification using *Dickeya*-specific PCR primers (ADE1/ADE2) assigned four isolates (S441, B74, D14, A13) to the genus *Dickeya*; subsequent biochemical profiling classified them as *Dickeya* biovar 3, consistent with *D. solani*. Pathogenicity assays on potato, tomato, and eggplant confirmed virulence across Solanaceae hosts. Maceration assays on tuber discs showed that tissue damage was markedly more severe at high inoculum concentrations and under warm, humid conditions. This is the first confirmed presence of *D. solani* as a cause of potato blackleg and soft rot in Algeria. Given the aggressive epidemiological profile of this pathotype in Europe and its apparent adaptation to temperate climates, its presence raises serious concerns for local potato production and warrants phytosanitary surveillance across the region.

Keywords: *Dickeya solani*, blackleg, soft rot, potato, Algeria, Pectobacteriaceae, emerging pathogen

IBN KHALDUN AND ISLAMIC SOCIOLOGY

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ABSTRACT

In general terms, the sociology of religion can be said to examine the social origins of religion and the relationship between religion and society. Accordingly, religion or religious phenomena existing in all societies constitute the subject matter of the sociology of religion. Here, the sociology of religion aims to reach a universal understanding of religion. However, the great diversity of religions in the world and their complex structures hinder the achievement of this goal. Therefore, while a general sociology of religion can be discussed, it is also accepted that different religions have their own specific sociologies. For example, there is, and should be, a Catholic sociology, a Protestant sociology, or an Islamic sociology. It can be said that the study of the sociology of Islam was first undertaken by Ibn Khaldun. His historical work on the sociology of religion can actually be considered a study of the sociology of Islam. In his work, the Muqaddimah, Ibn Khaldun examines the social, cultural, economic, political, and similar structures of society before the emergence of Islam, focuses on the emergence of Islam and the subsequent interaction between religion and society, and thus presents an example of the first study of the sociology of Islam. It can be argued that the studies in the sociology of Islam, which began with Ibn Khaldun, should be continued today. In this context, studies on Islam and urbanization, Islam and modernization, Islam and globalization, Islam and secularization, Islam and capitalism, and similar topics are of great importance in sociological research on religion. These studies can make significant contributions to modern sociology of religion, as well as pave the way for the sociological examination of Islam and Muslims.

Keywords: Ibn Khaldun, Sociology of Religion, Sociology of Islam.

İBN HALDUN VE İSLAM SOSYOLOJİSİ

ÖZET

Din sosyolojisinin genel hatlarıyla dinin toplumsal kaynağı ile din ve toplum arasındaki ilişkileri incelemekte olduğu söylenebilir. Buna göre, tüm toplumlar da var olan din veya dinsel olgular din sosyolojisinin konusunu oluşturmaktadır. Burada din sosyolojisi evrensel bir din olgusuna ulaşmayı hedeflemektedir. Ancak dünyada var olan dinlerin çok çeşitli olması ve bunların karmaşık yapıları, bu hedefe ulaşmayı engellemektedir. Dolayısıyla genel bir din sosyolojisinden söz edilebilmekle birlikte, özelde farklı dinlerin kendilerine özgü bir sosyolojilerinin olduğu da kabul edilmektedir. Örneğin bir Katolik sosyolojisi, Protestan sosyolojisi veya İslam sosyolojisi vardır ve olmalıdır. İslam sosyolojisi çalışmasının tarihte ilk kez İbn Haldun tarafından yapıldığı söylenebilir. Onun tarihsel düzlemde yaptığı din sosyolojisi çalışması, aslında bir İslam sosyolojisi çalışması olduğu söylenebilir. İbn Haldun Mukaddime adlı eserinde İslam dininin ortaya çıkmadan önceki toplumun sosyal, kültürel, ekonomik, politik ve benzeri yapısını incelemekte, İslamiyet'in ortaya çıkışı ve akabinde yaşanan din-toplum etkileşimi üzerinde durmakta ve böylece ilk İslam sosyolojisi çalışmasının örneğini sunmuş olmaktadır. İbn Haldun'la başlayan İslam sosyolojisi çalışmalarının günümüzde de sürdürülmesi gerektiği söylenebilir. Bu bağlamda, İslam ve şehirleşme, İslam ve modernleşme, İslam ve küreselleşme, İslam ve sekülerleşme, İslam ve kapitalizm ve benzeri çalışmaların yapılması sosyolojik din araştırmalarında büyük önem taşımaktadır.

Bu çalışmaların, modern din sosyolojisine önemli katkılar sağlayabileceği gibi, İslam'ın ve Müslümanların sosyolojik olarak incelenmesinin de önünü açabilecektir.

Anahtar Kelimeler: İbn Haldun, Din Sosyolojisi, İslam Sosyolojisi.

THE CONCEPT OF IDENTITY (AYNIYYAH) AND OTHERNESS (GHAYRIYYAH) ACCORDING TO THE ASH‘ARITE SCHOOL

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ABSTRACT

The Science of Kalam, like other disciplines that have emerged throughout human history in the domains of physics and metaphysics, is a field that has evolved alongside human intellectual development. At its core, it seeks to address fundamental metaphysical questions—such as the existence of the Creator and the origin and ultimate destiny of the universe (referred to as *mabda’* and *ma’ād*)—within a framework that harmonizes rational inquiry with divine revelation. Although the term “Kalam” itself did not exist from the earliest periods of human history, the essential concerns it represents have always been present.

As a discipline that significantly shapes systems of thought in general, and Islamic thought in particular, Kalam primarily aims to affirm the foundational principles of Islam, as established by the Qur’an and authentic Hadith, through rational demonstration. In this respect, it is both a demonstrative and a defensive science: it formulates doctrinal principles based on revealed texts (*nass*) while simultaneously supporting them through rational argumentation. Moreover, Kalam both benefits from and contributes to other fields of knowledge, including disciplines such as geometry and physics.

Over time, the subject matter of Kalam has undergone considerable development. In its early stages, it focused on issues such as the relationship between essence and attributes (*dhāt/ṣifāt*), the concepts of eternity and origination (*qidam* and *ḥudūth*), and questions related to *takfīr* (excommunication). Later, additional topics—such as the doctrine of *imamate*, which became a major point of dispute between Ahl al-Sunnah and the Shi’a—were incorporated. Consequently, the immutable principles of faith established by definitive texts came to be known as *masā’il* or *jalīl al-kalām*, while the auxiliary tools and evidences derived from social and empirical sciences used to explain and support these principles were termed *wasā’il* or *daqīq al-kalām*.

Several historical factors contributed to the expansion of Kalam, including the geographical and cultural spread of the Islamic world, encounters with other religions, translation movements, and the influence of philosophical traditions. In response, scholars sought to construct a dynamic intellectual framework capable of safeguarding Islamic belief. In articulating the concept of divinity (*ulūhiyyah*), they argued that the universe is originated (*ḥādith*) and contingent (*ma’dūm* in its prior state), thus necessitating the existence of an eternal (*qadīm*) Creator.

As a result, the scope of Kalam came to encompass all existing entities. Nevertheless, in its treatment of nature, Kalam distinguishes itself from philosophy by adhering to revelation as a fundamental methodological principle, and from the empirical sciences by addressing questions related to the ultimate origin and purpose of existence (*mabda’* and *ma’ād*).

With the incorporation of logic into Islamic sciences—most notably through the contributions of al-Ghazālī—the domain of Kalam expanded further to include everything that falls within the scope of knowledge (*ma’lūm*), encompassing both external reality and mental constructs. Beginning from the 2nd century (Hijri), Mu‘tazilite scholars took the lead in responding to criticisms directed at Islam from various intellectual and cultural traditions. Although this engagement initially met resistance from more conservative circles, Sunni scholars eventually embraced and developed Kalam as a means of preserving orthodox belief.

This study focuses on one of the most enduring and debated issues in Kalam: the relationship between essence and attributes (dhāt/şifāt), particularly the question of whether the divine attributes are identical to or distinct from the divine essence (*ayniyyah* vs. *ghayriyyah*). While philosophers and the Mu‘tazila tended to emphasize absolute unity, and groups such as the Karrāmiyya argued for the createdness of divine attributes, Ash‘arism sought a mediating position. This study aims to clarify the Ash‘arite perspective and to demonstrate that, contrary to Mu‘tazilite critiques, it represents a coherent and intellectually consistent approach.

Keywords: Identity (‘Ayniyyah), Non-identity / Otherness (Ghayriyyah), Essence (Dhāt), Attribute (Şifah), Eternity (Qidam), Origination (Hudūth), “He is He” (Huwa Huwa).

EŞ‘ARİYYE’YE GÖRE AYNİYYET VE GAYRİYYET ANLAYIŞI

ÖZET

Dünya tarihi boyunca fizik ve metafizik alanında ortaya çıkan ve insanlık gelişimiyle gelişip olgunlaşan diğer tüm ilimler gibi Kelam ilmi esasında yaratıcı, Mebde ve meâd diye tabir edilen alemin başlangıç ve varacağı son gibi metafizik konulara dair tarih boyunca insan aklının soruşturmak suretiyle cevap bulmaya çalıştığı meseleleri vahyin ışığında akli ilke ve kurallar çerçevesinde soru ve problemleri çözüme kavuşturmayı hedefleyen bir ilimdir böylelikle insanlığın varoluşundan beri ismen yoksa da hakikatı açısından aslında hep varolan bir gerçektir.

Genelde insan düşünce sistemine yön veren özelde ise islam düşüncesinde önemli bir yere sahip olan kelam ilminin ana hedefi islamda temeli itibariyle kur’an ve sahih hadislerle tesbit edilen düşünceleri, doğruluğuna inanılması gereken usul ve esasları akli yöntemlerle teyit edilmesidir böylece islam dininin düşünce ve davranışlara dair ilke ve esaslarını naslardan hareketle belirleyen ve akli yöntemlerle temellendirip destekleyen Kelam disiplini hem ispatlayıcı hemde savunmacı bir disiplindir bu disiplin fen geometri, fizik ve benzeri ilimlerden beslendiği gibi bir çok ilme katkı sağladığıda gözardı edilmemelidir başlangıcından itibaren kelam ilmi konusu itibariyle gittikçe gelişim kaydeden değişiklikler meydana gelmiştir ilk dönemlerde kelamın konusu zat/sıfat ,kidem/hudus, tekfir ve tecvir gibi konulardan oluşurken daha sonraları ehli sünnet ile şia arasında önemli bir tartışma konusu olan imamet meselesi gibi bazı meseleler eklendi böylece kati naslarla sabit olan islamın inanç esasları kelam ilminin değişmez konuları olan mesail veya celilu’l-kelam oluştururken bunları açıklanması ve isbatlanması için baş vurulan sosyal bilimler ve pozitif ilimlerden elde edilen veriler ve yardımcı konumundaki bilgiler vesail veya dakiku’l-kelam konularını oluşturmaktadır.

İslam dünyasının hem coğrafi açıdan genişlemesinin hem kültürel açıdan açılmasından hem yabancı kültür ve dinlerle karşılaşmasında hemde terceme faaliyetleri ve felsefi akımların yayılması gibi birçok nedenle ortaya çıkan düşünce ve problemlere karşı inanç esaslarını korumak için alimler kelam disiplinine fikri bir alt yapı hazırlama konumuna girmişlerdir .imanın temeli olan uluhiyet bahsini açıklamak için tamamıyla alemin madum ve hadis olduğundan bir yaratıcıya muhtaç olmasına bağlayarak yaratıcının kadim alemin ise hadis olduğu şeklinde açıklığa kavuşturmuşlardır . Bu sebeple kelam ilminin konusu filen var olan tüm mevcudatı kapsayacak şekilde genişlik kazanmıştır. Ancak kelam ilmi tabiatan bahsederken yöntem açısından nassa bağlı kalmayı prensip edinerek bu yolla sırf akıldan hareket eden felsefeden ayrılmış bulunmakta olduğu gibi ilk yaratılış ve varacağı nokta yani mebde ve meâdı konu edindiği itibarla da pozitif ilimlerden de ayrılmıştır .

Gazzalının matik disiplinini islami ilimler kategorisine idhal etmesiyle beraber kelamın konusu bu doğrultuda ekseni gelişmeye başlamış hem hariçte hem zihinde mevcut varlıkları kapsacak şekilde islamın temel ilkelerini doğrudan veya dolaylı olarak ilgilendiren tüm bilgileri bünyesinde ihata ederek kelamın konusu “bilginin alanına giren her şey “(malûm) diye belirlenmiştir.

İslam dünyasında fetihlerin genişlemesiyle çeşitli inanç, kültür ve felsefeye mensup milletlerden islama ve inanç esaslarına yönetilen eleştiriler çoğalmasıyla II. yüzyıldan itibaren Mu'tezile alimleri tarafından bu problemler cevaplandırılmaya başlanmıştır .Muhafazakar alimler genelde ilk başlarda bu ilmi failiyete pek rağbet göstermeyip aksine karşı durmuşsada sünni alimler daha sonra bu ilmi muhafaza ve geliştirmeye gayret göstermişlerdir.

Kelam ilminin ortaya çıktığı günden beri en tartışmalı ve bu ilmin temelini oluşturan meselelerin başında gelen bu çalışmamızda açmaya çalışacağımız zat/sıfat ilişkisi kadim varlıkların çoğalmasıyla ilişkili olan sübuti sıfatların ayniyyet ve gayriyyeti meselesi gelmektedir.bu mesele daha çok klasik kelamcılar tarafından çokça tartışılmış ve tarafların birbirini tekfir eder derecesine kadar götürmüştür bir taraftan vahdeti mutlakı savunan felsefeciler ve Mu'tezile diğer taraftan da ilahi sıfatların hadis olduğunu savunan kerramiye ve benzerleri bu fikrin başını çekerken bu iki görüş arasında orta yolu bulmaya çalışan Eş'arilik ortaya çıkmış ve en ideal bir tezi isbat etmeye çalışmıştır.

Buna binaen biz bu çalışmamızda konu hakkındaki Eş'arilerin aslında ne demek istediğini aktarmaya çalışacağız Mu'tezile kelamcıları Eş'ari kelamcılarının bu tezini her ne kadar bazen manasız tutarsız akıl dışı ve bazende bu tezinden ötürü onları tekfire nisbet etmeye kadar götürmüşlerse de aslında Eş'ari uleması en tutarlı fikri savunduğunu açıklamaya gayret edeceğiz.

Anahtar Kelimeler: Ayniyet , Gayriyyet, Zat, Sıfat, Kıdem, Hudus, Hüve hüve

THE EVALUATION OF SAVINGS TOWARDS HUMAN HONOUR IN ISLAM FROM A FİQH PERSPECTIVE

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ABSTRACT

Islam accepts human beings as the most honoured creatures. Therefore, every human is valuable and deserves to be respected as an individual. Islam accepts all believers at the same value regardless of their race, religion, language, wealth in the presence of Allah and every believer deserves to be respected to the same degree. In this study, it is evaluated in an academic perspective how Islam protects the honour of individuals, how it is guaranteed and how this notion takes role in social order providing solutions to the current issues about individuals' honour in the modern era.

Islamic Law derived from Quran and Sunnah establishes a comprehensive system of personal rights, freedom, the protection of material and spiritual existence. In this study, document analysis, one of the qualitative research methods, is used. By examining savings towards human honour in two parts, verbal savings and body-related savings, firstly; the current issues have been defined and approaches towards similar issues have been examined. It is evaluated the views and opinions of Islamic scholars about the subject by determining the similarities and differences of the current issues. As technology develops rapidly, the current issues will continue to be examined in an Islamic perspective. The aim of this study is to provide a better understanding of the value that Islamic law gives to the human honour in a conceptual and practical way by evaluating the outcomes of current issues through a fiqh perspective.

Keywords: Honour, Human Honour, Human Rights, Fiqh, Current Issues.

İSLAM'DA İNSAN ONURUNA YÖNELİK TASARRUFLARIN FİKHÎ AÇIDAN DEĞERLENDİRİLMESİ

ÖZET

İslam Dini insanı yaratılmışların en şerefli (eşref-i mahlûkat) olarak kabul eder. Bu yüzden birey olarak her insan son derece kıymetlidir ve saygıya layıktır. İslam Dini bütün müminleri Allah'ın huzurunda ırk, din, dil, zengin, fakir ayırt etmeden aynı değerle kabul eder ve her mümin, insan olması hasebiyle aynı derecede saygı ve hürmete layıktır. Bu çalışmada modern çağda insan onuruna yönelik olarak ortaya çıkan güncel sorunlara fikhî olarak getirilen çözümler ele alınarak İslam Dininin bireyin onurunu nasıl koruduğu, haklarını nasıl teminat altına aldığı ve toplumsal düzen içerisinde bu kavramın nasıl bir rol oynadığı akademik bir çerçevede incelenmektedir.

Kur'an ve Sünnet ışığında oluşturulan İslam Hukuku kişinin kişilik hakları, hürriyetler ve maddi-manevi varlığın korunması yönünde kapsamlı bir sistem ortaya koymaktadır. Bu araştırmada nitel araştırma tekniklerinden doküman analizi kullanılmıştır. İnsan onuruna yönelik tasarruflar; sözlü tasarruflar ve bedene yönelik tasarruflar olarak iki kısımda incelenerek öncelikle güncel sorun tanımlanıp geçmişte benzer sorunlara yaklaşım incelenmiş, günümüzdeki sorunun farklılığı ya da benzerliği belirlenerek İslam âlimlerinin konu hakkındaki yorumları değerlendirilmiştir.

Teknoloji büyük bir hızla ilerlemeye devam ettikçe de yeni sorunların İslam'a uygunluğu hep araştırılacaktır. Bu araştırmanın, tespit ettiğimiz güncel sorunlara fikhî açıdan ulaşılan sonuçlar değerlendirilerek İslam Hukukunun kişinin onuruna verdiği değeri kavramsal ve pratik düzeyde daha iyi anlamaya katkı sağlaması hedeflenmektedir.

Anahtar Kelimeler: Onur, İnsan Onuru, İnsan Hakları, Fıkıh, güncel Sorunlar.

EVALUATION OF THE MINBAR OF RUM MEHMED PASHA MOSQUE IN TERMS OF MATERIAL, STYLE AND PERIODICAL LAYERS

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ABSTRACT

This study examines the existing pulpit of the Rum Mehmed Pasha Mosque, a significant 15th-century Ottoman architectural structure located in the Üsküdar district of Istanbul, in terms of its materials, design, decorative elements, and period. Dating back to the reign of Sultan Mehmed the Conqueror, the Rum Mehmed Pasha Mosque exhibits the multi-layered structure of early Ottoman architecture with its tabhane (kitchen/dining hall) plan, wall construction using a combination of stone and brick, dome structure, and various restorations. However, the current pulpit is far removed from the original 15th-century architectural texture, appearing as a later or renovated wooden interior component. The research meticulously examines the pulpit's light brown varnished wooden structure, its openwork railings, geometric panels, circular rosette arrangements, segmented arched pavilion, and conical-pyramidal dome. While the current pulpit bears traces of traditional Ottoman pulpit types, it deviates from the heavy and massive design, marble/stone surface structure, and limited but effective aesthetic of early Ottoman stone pulpits. Instead, it exhibits a lighter, more symmetrical, orderly style closer to modern carpentry. In this context, the pulpit of the Rum Mehmed Pasha Mosque can be considered not a direct continuation of the original 15th-century stone pulpit tradition, but rather a later or renewed application that draws upon the historical repertoire of forms. The pulpit's place within the mosque's historical architectural structure should be evaluated taking into account the restorations and interior arrangements the building has undergone over time. This study emphasizes that the pulpit of the Rum Mehmed Pasha Mosque should not be perceived solely as an independent work of art, but should be considered within the context of the mosque's historical continuity, its uses, and periodic changes.

Keywords: Rum Mehmed Pasha Mosque, minbar, early Ottoman architecture, wooden craftsmanship, Üsküdar.

RUM MEHMED PAŞA CAMİİ MİNBERİNİN MALZEME, ÜSLUP VE DÖNEMSEL KATMANLAR AÇISINDAN DEĞERLENDİRİLMESİ

ÖZET

Bu çalışmada, İstanbul'un Üsküdar bölgesinde bulunan XV. yüzyıl Osmanlı mimarisi açısından önemli bir yapı olan Rum Mehmed Paşa Camii'nin mevcut minberi malzeme, tasarım, dekoratif unsurlar ve ait olduğu dönem açısından ele alınmaktadır. Fatih Sultan Mehmed dönemine ait bir eser olan Rum Mehmed Paşa Camii, tabhâneli plan yapısı, taş ve tuğlanın bir arada kullanıldığı duvar örgüsü, kubbe yapısı ve geçirmiş olduğu restorasyonlar ile erken Osmanlı mimarisinin çok katmanlı yapısını sergileyen bir yapıdır. Fakat günümüzdeki minber, XV. yüzyıla ait özgün mimari dokunun izlerinden uzak, daha sonraki bir dönem ya da yenilenmiş bir ahşap iç yapı bileşeni olarak karşımıza çıkmaktadır.

Araştırmada minberin açık kahverengi vernikle kaplı ahşap yapısı, ajur işleme sahibi korkulukları, geometrik panoları, dairesel rozet düzenlemeleri, dilimli kemerli köşk kısmı ve konik-piramidal külahı detaylı bir şekilde incelenmiştir. Mevcut minber, geleneksel Osmanlı minber türlerinden izler taşıırken, erken Osmanlı taş minberlerinde görülen ağır ve kütleci anlayış, mermer/taş yüzey yapısı ve sınırlı fakat etkili bütünleme estetiğinden ayrılmaktadır.

Bunun yerine, daha hafif, simetrik, düzenli ve modern marangozluk anlayışına yakın bir stil sergilemektedir.

Bu çerçevede, Rum Mehmed Paşa Camii minberi, özgün XV. yüzyıl taş minber geleneğinin doğrudan devamı değil, tarihsel biçim repertuarından faydalanan daha geç dönem ya da yenilenmiş bir uygulama olarak ele alınabilir. Minberin caminin tarihi mimari yapısı içindeki yeri, yapının zamanla geçirdiği restorasyonlar ve iç mekan düzenlemeleri göz önünde bulundurularak değerlendirilmelidir. Bu çalışma, Rum Mehmed Paşa Camii minberinin yalnızca bağımsız bir sanat eseri olarak algılanmaması gerektiğini, caminin tarihi sürekliliği, kullanım şekilleri ve dönemsel değişimlerle birlikte ele alınması gerektiğini vurgulamaktadır.

Anahtar Kelimeler: Rum Mehmed Paşa Camii, minber, erken Osmanlı mimarisi, ahşap işçiliği, Üsküdar.

NEW APPROACHES TO ACQUIRING ARABIC LISTENING AND SPEAKING SKILLS AS A FOREIGN LANGUAGE

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ABSTRACT

The basic language skills that should be acquired in foreign language teaching are listed as reading, writing, listening and speaking. Just as important as acquiring reading and writing skills is the acquisition of listening and speaking skills. Regulations currently in force in Turkey emphasize communication and speaking in a foreign language as a fundamental goal in foreign language teaching. This situation necessitates the functional acquisition of listening and speaking skills, in addition to reading and writing skills, in the teaching of Arabic as a foreign language. The large gap between the upper and lower language levels in Arabic, as well as, from many religious and political perspectives, the fact that Modern Standard Arabic (MSA), aside from Classical Arabic, has a structure and status that can almost be described as inviolable, is thought to make the acquisition of listening and speaking skills more difficult in the context of teaching Arabic as a foreign language. It is considered that new approaches are needed in this field, where efforts have long been made to develop speaking skills through dialogues in Modern Standard Arabic. In today's period, where dialect teaching has also been included in curricula due to the influence of newly developing language teaching approaches and methods, it is observed that MSA plays a quite significant role in the acquisition of listening and speaking skills, especially in the context of everyday conversation. Therefore, it becomes clear that new approaches need to be developed for teaching Arabic listening and speaking skills. Consequently, answers to various questions need to be sought at this point. What should be the role of MSA and the role of dialects in the acquisition of listening and speaking skills? What kinds of classifications can be made in terms of rhetoric, presentations and daily conversation in teaching listening and speaking skills? Considering the Arab world where multiple dialects are spoken, which Arabic dialect should generally be taught? Focusing on seeking answers to these and similar questions, this study aims to propose and discuss new approaches related to the acquisition of Arabic listening and speaking skills.

Keywords: Speaking Skill, Listening Skill, Arabic Dialects, Foreign Language Teaching, Spoken Language, Public Speaking

YABANCI DİL OLARAK ARAPÇA DİNLEME VE KONUŞMA BECERİLERİNİN EDİNDİRİLMESİNE YÖNELİK YENİ YAKLAŞIMLAR

ÖZET

Yabancı dil öğretiminde edinilmesi gereken temel dil becerileri okuma, yazma, dinleme, konuşma şeklinde sıralanmaktadır. Bu becerilerden okuma ve yazma becerilerinin edinilmesi ne denli önemliyse dinleme ve konuşma becerilerinin edinilmesi de o denli önemlidir. Türkiye'de yürürlükte bulunan yönetmeliklerde yabancı dil öğretiminde temel bir hedef olarak yabancı dil ile iletişim ve konuşmanın önemi vurgulanmaktadır. Bu durum yabancı dil olarak Arapçanın öğretilmesinde okuma ve yazma becerilerinin yanı sıra dinleme ve konuşma becerilerinin de işlevsel bir şekilde edindirilmesini zorunlu kılmaktadır. Arapçada üst dil düzeyi ile alt dil düzeyi arasındaki büyük uçurum ek olarak dinî-siyasî birçok açıdan Klasik Arapça bir yana Modern Standart Arapçanın (MSA) neredeyse dokunulmazlık şeklinde tanımlanabilecek bir yapı ve konuma sahip olmasının Arapçanın yabancı dil olarak öğretilmesi bağlamında dinleme ve konuşma becerilerinin edindirilmesini güçleştirebileceği düşünülmektedir.

Öteden beri Modern Standart Arapça diyaloglarla konuşma becerisinin edindirilmeye çalışıldığı bu alanda yeni yaklaşımlara ihtiyaç duyulduğu değerlendirilmektedir. Günümüzde gelişen yeni dil öğretim yaklaşım ve yöntemlerinin de etkisiyle lehçe öğretiminin de programlara konulmuş olduğu bu dönemde dinleme ve konuşma becerisinin edindirilmesinde özellikle günlük konuşma bağlamında MSA'nın oldukça büyük rol oynadığı görülmektedir. Bu durumda ister istemez Arapça dinleme ve konuşma becerilerinin edindirilmesi konusunda yeni yaklaşımların geliştirilmesi gerektiği anlaşılmaktadır. Durum böyle olunca bu noktada çeşitli sorulara cevap aranması gerekmektedir. Dinleme ve konuşma becerilerinin edindirilmesinde MSA'nın payı ne olmalı lehçelerin payı ne olmalı? Dinleme ve konuşma becerilerinin edindirilmesinde hitabet, bildiri ve günlük konuşma açısından ne gibi sınıflandırmalar yapılabilir? Birden çok lehçenin konuşulduğu Arap dünyası düşünüldüğünde genel olarak Arapçanın hangi lehçesi öğretilmeli? Bu ve benzeri soruların cevaplarını arama noktasında odaklanan bu çalışmada Arapça dinleme ve konuşma becerilerinin edindirilmesiyle ilgili yeni yaklaşımlar önerilip tartışılmaya çalışılacaktır.

Anahtar Kelimeler: Konuşma Becerisi, Dinleme Becerisi, Arapçanın Lehçeleri, Yabancı Dil Öğretimi, Konuşma Dili, Hitabet

HOW DOES CLIMATE MIGRATION DIFFER FROM OTHER TYPES OF MIGRATION?

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ABSTRACT

This study aims to examine how the concept of “climate migration” differs from other types of migration in today’s international system, where the link between climate change and migration is becoming increasingly profound. Today, the phenomenon of migration is explained by economic, political, security-related, or social factors. However, environmental crises caused by climate change are giving rise to a new and distinct form of migration. Climate-related issues such as drought, rising sea levels, extreme weather events, water scarcity, and losses in agricultural production are forcing individuals to abandon their homes, creating a new migration dynamic that traditional migration theories fail to adequately explain.

The study first examines the concepts of migration, migrants, and climate migration within a theoretical framework, and then explores the aspects of climate migration that distinguish it from economic and political migration. It is argued that social networks, diaspora ties, employment expectations, and voluntary migration—factors that play a significant role in traditional migration processes—play a more limited role in climate migration; rather, climate migration is largely shaped by forced displacement, vulnerability, and survival.

The study employed a comparative analysis method. In this context, the fundamental differences between various types of migration and climate migration were evaluated within a cause-and-effect framework. The study’s central argument is that climate migration possesses a structure so unique that it cannot be fully captured within existing migration categories, and thus requires a distinct conceptualization in international law and migration policies. Consequently, climate migration cannot be fully explained by either traditional economic migration or existing categories of refugee law. Given its unique conceptual domain—defined by its element of necessity and its both internal and international dimensions—climate migration must be addressed within an independent framework outside existing classification systems.

Keywords: Climate Migration, Forced Migration, International Law, Migration Theories

İKLİM GÖÇÜ DİĞER GÖÇ TÜRLERİNDEN NASIL FARKLILAŞMAKTADIR

ÖZET

Bu çalışma, iklim değişikliği ile göç arasındaki ilişkinin giderek derinleştiği günümüz uluslararası sisteminde, “iklim göçü” kavramının diğer göç türlerinden hangi yönleriyle ayrıştığını incelemeyi amaçlamaktadır. Günümüzde göç olgusu; ekonomik, siyasal, güvenlik temelli ya da sosyal nedenlerle açıklanmaktadır. Ancak iklim değişikliğinin yol açtığı çevresel krizler yeni ve kendine özgü bir göç biçimini ortaya çıkarmaktadır. Kuraklık, deniz seviyesinin yükselmesi, aşırı hava olayları, su kıtlığı ve tarımsal üretimde yaşanan kayıplar gibi iklim kaynaklı sorunlar, bireyleri yaşadıkları alanları terk etmeye zorlamakta olup klasik göç teorilerinin açıklamakta yetersiz kaldığı yeni bir göç dinamiği yaratmaktadır.

Çalışmada öncelikle göç, göçmen ve iklim göçü kavramları kuramsal çerçevede ele alınıp ardından iklim göçünün ekonomik ve siyasi göç türlerinden farklılaşan yönleri incelenmektedir. Özellikle geleneksel göç süreçlerinde etkili olan sosyal ağlar, diaspora ilişkileri, istihdam beklentileri ve gönüllülük unsurlarının iklim göçünde daha sınırlı bir rol oynadığı; iklim göçünün çoğunlukla zorunlu yer değiştirme, kırılmalık ve hayatta kalma ekseninde şekillendiği savunulmaktadır.

Araştırmada karşılaştırmalı analiz yöntemi kullanılmıştır. Bu doğrultuda farklı göç türleri ile iklim göçü arasındaki temel farklılıklar neden-sonuç ilişkisi çerçevesinde değerlendirilmiştir. Çalışmanın temel iddiası, iklim göçünün yalnızca mevcut göç kategorileri içerisinde değerlendirilemeyecek kadar özgün bir yapıya sahip olduğu ve uluslararası hukuk ile göç politikalarında ayrı bir kavramsallaştırmayı gerekli kıldığıdır. Sonuç olarak iklim göçü; ne geleneksel ekonomik göçle ne de mevcut mülteci hukuku kategorileriyle tam olarak açıklanabilmektedir. Zorunluluk boyutu ve hem iç hem uluslararası boyutlarıyla özgün bir kavramsal alan oluşturan iklim göçünün, mevcut sınıflandırma sistemlerinin dışında bağımsız bir çerçeveye ele alınması gerekmektedir.

Anahtar Kelimeler: İklim göçü, zorunlu göç, uluslararası hukuk, göç kuramları

A COMPARATIVE ANALYSIS OF TÜRKİYE AND EUROPEAN UNION POLICIES IN COMBATING IRREGULAR MIGRATION FROM A SECURITY PERSPECTIVE

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ABSTRACT

This study aims to establish a theoretical and conceptual framework for the comparative analysis of the policies of Türkiye and the European Union in combating irregular migration from a security perspective. Within the conceptual framework of the study, the phenomenon of migration is primarily examined through the concepts of regular migration, irregular migration, refugee, asylum seeker, and migrant, addressing both their legal and academic dimensions. In particular, irregular migration is emphasized not merely as a form of population mobility, but also as a multidimensional phenomenon encompassing border management, sovereignty, public order, and human rights. By examining the historical transformation of the concept of security, the study demonstrates that, in the post-Cold War era, security has evolved beyond its narrow military and state-centric framework into a broader field of analysis that also includes economic, societal, and humanitarian dimensions. In this context, theoretical approaches developed within the frameworks of realism, liberalism, and critical security studies are evaluated. It is argued that the realist approach conceptualizes irregular migration as a threat in terms of state sovereignty and border security, whereas the liberal approach prioritizes individual rights and the perspective of human security. Furthermore, the securitization of migration is analyzed through the security perspectives of the Copenhagen, Paris, and Aberystwyth Schools. Within the framework of the Copenhagen School's securitization theory, the study explains how irregular migration is constructed as a security threat through political discourse; the Paris School evaluates security through bureaucratic practices and border management; while the Aberystwyth School approaches security from an emancipatory and human-centered perspective. Consequently, the study argues that the relationship between irregular migration and security cannot be explained through a one-dimensional threat-based approach, and that a balanced perspective between state security and human security should be established. The conceptual and theoretical infrastructure developed within this framework constitutes the basis for the comparative analysis of the irregular migration policies of Türkiye and the European Union.

Keywords: Irregular Migration, Security, European Union, Türkiye.

GÜVENLİK PERSPEKTİFİNDE DÜZENSİZ GÖÇLE MÜCADELE BAĞLAMINDA TÜRKİYE VE AVRUPA BİRLİĞİ POLİTİKALARININ KARŞILAŞTIRMASI

ÖZET

Bu çalışma, Güvenlik Perspektifinde Düzensiz Göçle Mücadele Bağlamında Türkiye ve Avrupa Birliği Politikalarının karşılaştırmalı analizine teorik ve kavramsal bir zemin oluşturmayı amaçlamaktadır. Çalışmanın kavramsal çerçevesinde öncelikle göç olgusu; düzenli göç, düzensiz göç, mülteci, sığınmacı ve göçmen kavramları üzerinden hukuki ve akademik boyutlarıyla ele alınmıştır. Özellikle düzensiz göçün yalnızca nüfus hareketliliği değil, aynı zamanda sınır yönetimi, egemenlik, kamu düzeni ve insan hakları boyutları bulunan çok katmanlı bir olgu olduğu vurgulanmıştır.

Güvenlik kavramının tarihsel dönüşümü incelenerek Soğuk Savaş sonrası dönemde güvenliğin askerî ve devlet merkezli dar çerçevesinden çıkarak ekonomik, toplumsal ve insani boyutları da kapsayan geniş bir analiz alanına dönüştüğü ortaya konulmuştur. Bu doğrultuda realizm, liberalizm ve eleştirel güvenlik çalışmaları kapsamında geliştirilen kuramsal yaklaşımlar değerlendirilmiş; realist yaklaşımın düzensiz göçü devlet egemenliği ve sınır güvenliği bağlamında bir tehdit olarak ele aldığı, liberal yaklaşımın ise birey hakları ve insan güvenliği perspektifini ön plana çıkardığı belirtilmiştir. Ayrıca Kopenhag, Paris ve Aberystwyth ekollerinin güvenlik anlayışları üzerinden göçün güvenlikleştirilmesi süreci analiz edilmiştir. Kopenhag Ekolü'nün güvenlikleştirme kuramı çerçevesinde düzensiz göçün siyasal söylemler aracılığıyla nasıl bir güvenlik tehdidi olarak inşa edildiği; Paris Ekolü'nün güvenliği bürokratik pratikler ve sınır yönetimi üzerinden değerlendirdiği; Aberystwyth Ekolü'nün ise güvenliği özgürleşim ve insan merkezli bir perspektifle ele aldığı ortaya konulmuştur. Sonuç olarak çalışma, düzensiz göç ile güvenlik arasındaki ilişkinin tek boyutlu bir tehdit yaklaşımıyla açıklanamayacağını, devlet güvenliği ile insan güvenliği arasında dengeli bir yaklaşım kurulması gerektiğini savunmaktadır. Bu çerçevede oluşturulan kavramsal ve kuramsal altyapı, Türkiye ve Avrupa Birliği'nin düzensiz göç politikalarının karşılaştırmalı analizine temel oluşturmaktadır.

Anahtar Kelimeler: Düzensiz Göç, Güvenlik, Avrupa Birliği, Türkiye

FROM VULNERABILITY TO AGENCY; SITUATED AGENCY REGIMES AMONG MIGRANT AGRICULTURAL WORKERS: MARDIN SAMPLE

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ABSTRACT

This paper proposes the concept of “Situating Agency Regimes” to explain how migrant agricultural workers develop strategic agency capacities under conditions of severe structural vulnerability and complete exclusion from formal organizational channels. The study draws on original qualitative fieldwork conducted among Syrian migrant workers residing in “Kuyubaşı” (Wellhead) settlements across Mardin’s Mesopotamia Plain - spatially isolated agricultural shacks housing approximately 14,000 individuals - as part of a doctoral dissertation completed at Mardin Artuklu University’s Department of Sociology. Workers in these settlements operate under conditions of legal precarity, spatial isolation and total exclusion from formal labor organizations such as unions or associations. Despite these constraints, the research demonstrates that workers have successfully transitioned from a fixed low-wage regime to a “percentage system” - harvest-share arrangements - through informal information networks and “silent collectivity” devoid of any central leadership or hierarchical structure. While occurring at the individual level, this transition produces collective outcomes, reflecting a centerless organizational logic. The theoretical framework integrates Pierre Bourdieu’s concepts of field, capital, and habitus; Guy Standing’s precariat theory; and Judith Butler’s conceptualization of the vulnerability-resistance relationship. The paper argues that vulnerability is not merely an obstacle to overcome but a generative resource that, under specific structural configurations, enables distinctive forms of agency. The concept of Situated Agency Regimes captures the regularity, adaptive flexibility and spatial embeddedness of these practices, offering a conceptual contribution to precariat theory and migration sociology.

Keywords: Situated Agency Regimes, Centerless Organization, Precariat, Vulnerability, Migrant Agricultural Workers, Wellheads

KIRILGANLIKTAN FAİLLİĞE; GÖÇMEN TARIM İŞÇİLERİNDE YERLEŞİK FAİLLİK REJİMLERİ: MARDİN ÖRNEĞİ

ÖZET

Bu bildiri, formel örgütlenme kanallarının tamamen dışında kalan göçmen tarım işçilerinin, yapısal kırılma koşulları içinde nasıl stratejik bir faillik kapasitesi geliştirebildiğini açıklamak amacıyla “Yerleşik Faillik Rejimleri” (Situating Agency Regimes) kavramını önermektedir. Çalışma, Mardin Artuklu Üniversitesi Sosyoloji Anabilim Dalı’nda tamamlanan doktora tezi kapsamında Mardin Mezopotamya Ovasındaki “Kuyubaşı” yerleşim birimlerinde yaşayan ve çalışan Suriyeli göçmen tarım işçileriyle yürütülen nitel saha araştırmasına dayanmaktadır. Yaklaşık 14.000 kişiyi barındıran bu barakalarda yaşayan işçiler, hukuki güvencesizlik, mekânsal izolasyon ve sendika/dernek gibi formel örgütlenme olanaklarından tam dışlanmışlık koşulları altında çalışmaktadır. Buna karşın araştırma, söz konusu işçilerin merkezi bir liderlik, sendika ya da hiyerarşik yapı olmaksızın geliştirdikleri “sessiz kolektivite” ve enformel bilgi ağları aracılığıyla sabit ücret rejiminden mahsul paylaşımı esasına dayanan “yüzdelik” sisteme geçişi başardıklarını ortaya koymaktadır. Bu geçiş, bireysel düzeyde gerçekleşmekle birlikte kolektif sonuçlar üretmekte, ve merkezizsiz bir örgütlenme mantığını yansıtmaktadır.

Çalışmanın teorik çerçevesi Pierre Bourdieu'nun alan/sermaye/habitus kavramsallaştırması, Guy Standing'in prekarya teorisi ve Judith Butler'ın kırılabilirlik-direnış ilişkisine dair görüşler üzerine inşa edilmektedir. Bildiri, kırılabilirliğin yalnızca aşılması gereken bir engel olmadığını; aksine belirli yapısal koşullarda özgün faillik biçimlerini besleyen üretken bir kaynak işlevi gördüğünü öne sürmektedir. Yerleşik Faillik Rejimleri kavramı, bu pratiklerin düzenlilik, uyumsal esneklik ve mekânsal gömülülük niteliklerini yakalamayı hedeflemekte ve prekarya teorisi ve göç sosyolojisi yazınına kavramsal bir katkı sunmaktadır.

Anahtar Kelimeler: Yerleşik Faillik Rejimleri, Merkeziyetsiz Örgütlenme, Prekarya, Kırılabilirlik, Göçmen Tarım İşçileri, Kuyubaşları

THE INTERNATIONAL FACE OF PUBLIC RELATIONS: PUBLIC DIPLOMACY IN THE DIGITAL AGE AND TURKEY'S SOFT POWER STRATEGIES

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ABSTRACT

Public diplomacy has become one of the most significant communication domains in international relations alongside developments in globalization, digitalization, and communication technologies. The traditional state-centered understanding has been replaced by a new approach based on direct communication with foreign publics. In this process, public diplomacy has gained importance as a strategic communication field in which states develop relations not only with political actors but also with societies. Public diplomacy generally refers to states' efforts to convey their culture, values, and policies to foreign audiences. The objectives in this process can be summarized as: transmitting information, building trust, and establishing long-term relationships. In this respect, public diplomacy shares common goals with international public relations activities, as both fields are grounded in communication, persuasion, and relationship management. The rapid transformation in communication technologies has significantly altered the structure of public diplomacy. In particular, the global proliferation of social media platforms and digital communication tools has facilitated direct communication between states and foreign publics. In this context, public diplomacy has moved beyond a state-centered structure and transformed into a multi-actor communication field that also includes media organizations, civil society organizations, and individuals. The concept of "soft power" also occupies an important place in the development of public diplomacy. A country's cultural values, media content, educational activities, humanitarian aid, and international communication efforts can directly influence that country's global perception. Therefore, public diplomacy practices are today evaluated within the framework of political communication, cultural diplomacy, media diplomacy, digital communication, and strategic public relations. States particularly rely heavily on these platforms to enhance their international visibility in the digital age. Public diplomacy activities in Turkey have been increasingly carried out since the 2000s. Cultural, artistic, and diplomatic activities conducted through institutions such as TİKA, Yunus Emre Institute, TRT, and the Turkish Maarif Foundation contribute to Turkey's visibility in the international arena. This study evaluates the conceptual structure of public diplomacy, its relationship with the field of public relations, and the transformation it has undergone in the digital communication age through a literature review method. It also addresses the development of public diplomacy in Turkey within the framework of digital public relations practices and soft power strategies.

Keywords: Public diplomacy, public relations, digital public relations, soft power, strategic communication

HALKLA İLİŞKİLERİN ULUSLARARASI YÜZÜ: DİJİTAL ÇAĞDA KAMU DİPLOMASİSİ VE TÜRKİYE’NİN YUMUŞAK GÜÇ STRATEJİLERİ

ÖZET

Kamu diplomasisi, küreselleşme, dijitalleşme ve iletişim teknolojilerindeki gelişmelerle birlikte uluslararası ilişkilerin en önemli iletişim alanlarından biri hâline gelmiştir. Geleneksel devlet merkezli bu yapının yerini, yabancı kamuoylarıyla doğrudan iletişime dayanan yeni bir anlayış almıştır. Bu süreçte kamu diplomasisi, devletlerin yalnızca siyasal aktörlerle değil, toplumlarla da ilişki geliştirmesine dayanan stratejik bir iletişim alanı olarak önem kazanmıştır. Kamu diplomasisi, genel olarak devletlerin kültür, değer ve politikalarını yabancı kamuoylarına aktarma çabalarını ifade etmektedir. Bu süreçte amaçlananlar; bilgi aktarmak, güven oluşturmak ve uzun vadeli ilişkiler kurmak olarak özetlenebilir. Bu açıdan kamu diplomasisi, uluslararası halkla ilişkiler faaliyetleriyle ortak hedefleri paylaşmaktadır. Çünkü her iki alan da iletişim, ikna ve ilişki yönetimini temel almaktadır. İletişim teknolojilerindeki hızlı dönüşüm, kamu diplomasisinin yapısını da önemli ölçüde değiştirmiştir. Özellikle sosyal medya platformları ve dijital iletişim araçlarının küresel ölçekte yaygınlaşması devletlerin yabancı halklarla doğrudan iletişim kurmasını kolaylaştırmaktadır. Bu bağlamda kamu diplomasisi yalnızca devlet merkezli bir yapı olmaktan çıkmış, medya kuruluşları, sivil toplum örgütleri ve bireylerin de dahil olduğu çok aktörlü bir iletişim alanına dönüşmüştür. Kamu diplomasisinin gelişiminde “yumuşak güç” kavramı da önemli bir yer tutmaktadır. Bir ülkenin kültürel değerleri, medya içerikleri, eğitim faaliyetleri, insani yardımları ve uluslararası iletişim çalışmaları, o ülkenin küresel ölçekteki algısını doğrudan etkileyebilmektedir. Bu nedenle kamu diplomasisi uygulamaları günümüzde siyasal iletişim, kültürel diplomasi, medya diplomasisi, dijital iletişim ve stratejik halkla ilişkiler çalışmaları çerçevesinde değerlendirilmektedir. Özellikle dijital iletişim çağında devletler, uluslararası görünürlüklerini artırmak için bu platformlara yoğun biçimde başvurmaktadır. Türkiye’de kamu diplomasisi faaliyetlerinin 2000’li yıllardan itibaren daha fazla gerçekleştirildiği görülmektedir.

TİKA, Yunus Emre Enstitüsü, TRT ve Türkiye Maarif Vakfı gibi kurumlar aracılığıyla yürütülen kültürel, sanatsal, diplomatik faaliyetler, Türkiye’nin uluslararası alandaki görünürlüğünü artırmaktadır. Bu çerçevede çalışma, kamu diplomasisinin kavramsal yapısını, halkla ilişkiler alanıyla olan ilişkisini ve dijital iletişim çağında geçirdiği dönüşümü literatür taraması yöntemiyle değerlendirmektedir. Ayrıca Türkiye’de kamu diplomasisinin gelişimi, dijital halkla ilişkiler uygulamaları ve yumuşak güç stratejileri çerçevesinde ele alınmaktadır.

Anahtar Kelimeler: Kamu diplomasisi, halkla ilişkiler, dijital halkla ilişkiler, yumuşak güç, stratejik iletişim

STRUCTURAL FEATURES OF ADVERTISING SLOGANS: A REVIEW ON SHORT TEXTS

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ABSTRACT

In the global competitive environment, integrated marketing communication has emerged as a strategic communication process in enabling businesses to reach target audiences, create brand value, and manage consumer perception. In today's market environment, brands need to develop a strong and memorable communication language in order to differentiate themselves among similar products and services, rather than limiting themselves solely to promotional activities. Advertising slogans constitute one of the most concentrated forms of this communication language. Advertising slogans are word constructions that possess the capacity to produce powerful meanings with a limited number of words. Slogans are regarded as fundamental elements of communication strategy in terms of providing high memorability and reflecting brand identity. In the digital age, the gradual decrease in consumers' attention span has increased the need for short and meaning-intensive messages.

Creative slogans are considered one of the most important elements of the advertising copywriting process and are among the fundamental building blocks that directly determine the memorability of advertising campaigns. The ability of an advertising campaign to be remembered by large audiences is often closely related to the striking nature of the slogan used, its repeatability, and the impression it leaves in the mind. In the literature, it is emphasized that slogans should be short, clear, and understandable. In addition, linguistic elements such as rhythm, repetition, rhyme, and phonetic similarity are stated to strengthen the memorability of slogans. It is also observed that slogans possess not only a linguistic but also a semantic and symbolic dimension. These short texts reflect the values, promises, and positioning of the brand and contribute to establishing an emotional and cognitive connection with consumers.

This study seeks to answer the question of how advertising slogans should be constructed as an effective communication tool. By examining slogans belonging to different brands, the fundamental structural features related to these slogans are classified and a framework for the field is presented. Within this scope, studies on advertising texts and slogan structures were reviewed, and variables such as slogan length, language use, rhythmic structure, repetition elements, and meaning production capacity were evaluated through a descriptive approach. The study employs the literature review method.

Keywords: Advertising, Advertising Slogans, Integrated Marketing Communication, Copywriting, Brand Communication, Consumer Perception, Digital Advertising

REKLAM SLOGANLARININ YAPISAL ÖZELLİKLERİ: KISA METİNLER ÜZERİNE BİR İNCELEME

ÖZET

Küresel rekabet ortamında bütünleşik pazarlama iletişimi, işletmelerin hedef kitlelerine ulaşmasında, marka değeri oluşturmada ve tüketici algısını yönetmesinde stratejik bir iletişim süreci olarak ön plana çıkmaktadır. Günümüz pazar ortamında markalar, benzer ürün ve hizmetler arasında farklılaşabilmek için yalnızca tanıtımla sınırlı kalmayıp, güçlü ve akılda kalıcı bir iletişim dili geliştirmek durumundadır. Bu iletişim dilinin en yoğun biçimlerinden birini reklam sloganları oluşturmaktadır. Reklam sloganları, sınırlı sayıda sözcükle güçlü anlamlar üretme kapasitesi olan söz dizimleridir. Sloganlar, yüksek hatırlanabilirlik sağlaması ve marka kimliğini yansıtmaya işlevi bakımından iletişim stratejisinin temel unsurları arasında yer almaktadır. Dijital çağda tüketicinin dikkat süresinin giderek azalması, kısa ve anlam yoğunluğu yüksek mesajlara duyulan ihtiyacı artırmıştır.

Yaratıcı sloganlar, reklam metin yazım sürecinin en önemli unsurlarından biri olarak değerlendirilmekte ve reklam kampanyalarının akılda kalıcılığını doğrudan belirleyen temel yapı taşları arasında yer almaktadır. Bir reklam kampanyasının geniş kitleler tarafından hatırlanması, çoğu zaman kullanılan sloganın çarpıcılığı, tekrar edilebilirliği ve zihinde bıraktığı iz ile yakından ilişkilidir. Literatürde sloganların kısa, açık ve anlaşılır olması gerektiği vurgulanmaktadır. Bunun yanı sıra ritim, tekrar, uyak ve ses benzerliği gibi dilsel unsurların sloganın akılda kalıcılığını güçlendirdiği ifade edilmektedir. Sloganların yalnızca dilsel değil, aynı zamanda anlamsal ve simgesel bir boyuta da sahip olduğu görülmektedir. Bu kısa metinler, markanın değerlerini, vaatlerini ve konumlandırmasını yansıtmakta; tüketici ile duygusal ve zihinsel bir bağ kurulmasına katkı sağlamaktadır.

Bu çalışma, reklam sloganlarının etkili bir iletişim aracı olarak nasıl oluşturulması gerektiği sorusuna yanıt aramaktadır. Farklı markalara ait sloganlar incelenerek bunlara ilişkin temel yapısal özellikler sınıflandırılmakta ve alana yönelik bir çerçeve sunulmaktadır. Bu kapsamda reklam metinleri ve slogan yapıları üzerine yapılmış çalışmalar incelenmiş; sloganların uzunluğu, dil kullanımı, ritmik yapısı, tekrar unsurları ve anlam üretme kapasitesi gibi değişkenler betimsel bir yaklaşımla değerlendirilmiştir. Çalışmada literatür taraması yöntemi kullanılmıştır.

Anahtar Kelimeler: Reklam sloganları, reklam metin yazarlığı, bütünleşik pazarlama iletişimi, marka iletişimi, reklam dili

THE COLONIAL HISTORY OF THE AFRICAN CONTINENT

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ABSTRACT

The colonial history of the African continent has played a significant role in shaping modern world politics and the global economic order. Particularly from the late 19th century onwards, European states pursued intensive colonial policies in Africa with the aim of controlling the continent's natural resources, trade routes, and strategic regions. The acceleration of industrialization, the increasing need for raw materials, and the competition between European states further strengthened colonial activities in Africa. Particularly after the Berlin Conference, African territories were divided among European states, and the continent largely came under colonial rule. Colonial administrations, while utilizing Africa's underground and above-ground resources in accordance with the needs of European economies, causing significant transformations in the political, economic, and social structures of local communities. During this period, economic exploitation, forced labor practices, and cultural interventions became widespread. Education, law, and governance systems were reshaped within the framework of colonial thinking. These developments had long-lasting effects on the social structure and political relations of African societies. This study aims to examine the history of colonialism in the African continent within a historical framework. The study examines the causes of colonial expansion, the process of the partition of Africa, and the impact of colonial administrations on the continent. Thus, the aim is to evaluate the fundamental dynamics of the colonization process in Africa and contribute to understanding the transformation in the continent's history.

Keywords: African colonial history, colonialism, colonial policies, Berlin Conference (1884–1885)

AFRIKA KITASININ SÖMÜRGE TARİHİ

ÖZET

Afrika kıtasının sömürge tarihi, modern dünya siyasetinin ve küresel ekonomik düzenin şekillenmesinde önemli bir yere sahiptir. Özellikle 19. yüzyılın sonlarından itibaren Avrupa devletleri, Afrika'nın doğal kaynaklarını, ticaret yollarını ve stratejik bölgelerini kontrol altına almak amacıyla kıta üzerinde yoğun sömürge politikaları yürütmüştür. Sanayileşmenin hız kazanması, hammadde ihtiyacının artması ve Avrupa devletleri arasındaki rekabet, Afrika üzerindeki sömürgeci faaliyetleri daha da güçlendirmiştir. Özellikle Berlin Konferansı sonrasında Afrika toprakları Avrupa devletleri arasında paylaşılmış ve kıta büyük ölçüde sömürge yönetimleri altına girmiştir. Sömürge yönetimleri, Afrika'nın yer altı ve yer üstü kaynaklarını Avrupa ekonomilerinin ihtiyaçlarına göre kullanırken yerel toplumların siyasal, ekonomik ve toplumsal yapılarında önemli dönüşümlere neden olmuştur. Bu dönemde ekonomik sömür, zorunlu çalıştırma uygulamaları ve kültürel müdahaleler yaygınlaşmıştır. Eğitim, hukuk ve yönetim sistemleri sömürgeci anlayış çerçevesinde yeniden şekillendirilmiştir. Bu gelişmeler Afrika toplumlarının sosyal yapısında ve siyasal ilişkilerinde uzun süreli etkiler bırakmıştır. Bu çalışma, Afrika kıtasındaki sömürgecilik tarihini tarihsel bir çerçevede incelemeyi amaçlamaktadır. Çalışmada sömürgeci yayılmanın nedenleri, Afrika'nın paylaşım süreci ve sömürge yönetimlerinin kıta üzerindeki etkileri ele alınmaktadır.

Böylece Afrika'nın sömürgeleştirilme sürecinin temel dinamiklerinin değerlendirilmesi ve kıta tarihindeki dönüşümün anlaşılmasına katkı sunulması hedeflenmektedir.

Anahtar Kelimeler: Afrika sömürge tarihi, sömürgecilik, sömürge politikaları, Berlin Konferansı (1884–1885)

THE RELATIONSHIP BETWEEN EXPORTS AND ECONOMIC GROWTH IN N11 COUNTRIES: QUANTILE REGRESSION APPROACH

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ABSTRACT

This study examines the relationship between economic growth and exports for N11 countries (Bangladesh, Egypt, Indonesia, Iran, South Korea, Mexico, Pakistan, Turkey, and Vietnam) over the period 1995-2024. Economic growth is defined as the dependent variable, exports as the main independent variable, and capital and population as control variables. Panel quantile regression is used as the coefficient estimation method. The analysis findings show that the impact of exports on economic growth varies depending on the growth level and becomes more pronounced at higher growth levels. In this context, it is important for policymakers to strengthen export-oriented growth strategies. In particular, promoting high value-added and technology-intensive production can increase the contribution of exports to sustainable growth.

Keywords: Economic Growth, Exports, Panel Quantile Regression

N11 ÜLKELERİNDE İHRACAT VE EKONOMİK BÜYÜME İLİŞKİSİ: KANTİL REGRESYON YAKLAŞIMI

ÖZET

Bu çalışmada ekonomik büyüme ile ihracat arasındaki ilişki N11 ülkeleri (Bangladeş, Mısır, Endonezya, İran, Güney Kore, Meksika, Pakistan, Türkiye ve Vietnam) için 1995-2024 dönemi kapsamında incelenmiştir. Çalışmada bağımlı değişken olarak ekonomik büyüme, ana bağımsız değişken olan ihracat ve kontrol değişkenler sermaye ve nüfus olarak belirlenmiştir. Katsayı tahmin yöntemi olarak panel kantil regresyon yöntemi kullanılmıştır. Analiz bulguları ihracatın ekonomik büyüme üzerindeki etkisinin büyüme düzeyine bağlı olarak değiştiğini ve daha yüksek büyüme seviyelerinde daha belirgin hale geldiğini göstermiştir. Bu çerçevede politika yapıcıların ihracata dayalı büyüme stratejilerini güçlendirmesi önem taşımaktadır. Özellikle yüksek katma değerli ve teknoloji yoğun üretimin teşvik edilmesi, ihracatın sürdürülebilir büyümeye katkısını artırabilir.

Anahtar Kelimeler: Ekonomik Büyüme, İhracat, Panel Kantil Regresyon

THE RATIONAL LOGIC OF WAR: AN ANALYSIS OF GAME THEORY AND THE TIT-FOR-TAT STRATEGY

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ABSTRACT

This study examines the conditions under which decisions for war can become a rational strategic preference within the framework of game theory. In the international relations literature, war is commonly explained through the balance of power, the security dilemma, ideological rivalry, economic interests, and historical hostilities. However, actors' mutual expectations, lack of information, misperceptions, deterrence calculations, problems of trust, and the possibility of retaliation may also play a decisive role in the emergence of war. In this respect, the study addresses war not merely as a form of conflict based on the use of military force, but as a multidimensional decision-making process shaped by mutual strategic interactions.

The research first evaluates the explanatory capacity of game theory in war analysis through the concepts of the rational actor assumption, information asymmetry, deterrence, trust, the commitment problem, and strategic reciprocity. It then identifies cases that can be characterized as large-scale wars in the post-1946 period by taking war-intensity criteria into account and examines them within the context of repeated games. At the center of the analysis lies the Tit-for-Tat strategy, which is based on actors responding in the same manner to the previous move of the opposing side. Through this strategy, the effects of cooperation, defection, reciprocity, retaliation, and trust-building processes on the initiation, escalation, continuation, or limitation of war are discussed. In addition, selected cases are used to evaluate how the parties' pre-conflict expectations, reciprocal moves, and processes of strategic adaptation influence the course of war.

The study aims to demonstrate that war is not merely an irrational form of destruction, but may also emerge as the product of strategic calculations under certain conditions. In this context, the research seeks to reveal the analytical opportunities offered by game theory for security studies and war analysis, and to contribute to a more systematic, conceptual, and comparative understanding of decisions for war. In this regard, the paper also aims to develop a comprehensive evaluative framework that connects theoretical modeling with empirical observation in war studies and to offer an original contribution to the literature.

Keywords: Game theory, war, Tit-for-Tat strategy, deterrence, strategic decision-making

SAVAŞIN RASYONEL MANTIĞI: OYUN TEORİSİ VE TIT-FOR-TAT STRATEJİSİ ÜZERİNE BİR ANALİZ

ÖZET

Bu çalışma, savaş kararlarının hangi koşullarda rasyonel bir stratejik tercih hâline gelebildiğini oyun teorisi çerçevesinde incelemektedir. Uluslararası ilişkiler literatüründe savaş çoğunlukla güç dengesi, güvenlik ikilemi, ideolojik rekabet, ekonomik çıkarlar ve tarihsel düşmanlıklar üzerinden açıklanmaktadır. Bununla birlikte aktörlerin karşılıklı beklentileri, bilgi eksikliği, yanlış algıları, caydırıcılık hesapları, güven sorunu ve misilleme olasılıkları da savaşın ortaya çıkışında belirleyici rol oynayabilmektedir. Bu yönüyle çalışma, savaşı yalnızca askerî güç kullanımına dayanan bir çatışma biçimi olarak değil, karşılıklı stratejik etkileşimlerin sonucunda şekillenen çok boyutlu bir karar alma süreci olarak ele almaktadır.

Araştırmada öncelikle oyun teorisinin savaş analizlerindeki açıklayıcı kapasitesi; rasyonel aktör varsayımı, bilgi asimetrisi, caydırıcılık, güven, taahhüt problemi ve stratejik karşılıklılık kavramları üzerinden değerlendirilmektedir. 1946 Sonrası dönemde büyük ölçekli savaş niteliği taşıyan örnekler, savaş yoğunluğu ölçütü dikkate alınarak belirlenmekte ve tekrarlanan oyunlar bağlamında incelenmektedir. Analizin merkezinde, aktörlerin karşı tarafın önceki hamlesine aynı yönde karşılık vermesine dayanan Tit-for-Tat stratejisi yer almaktadır. Bu strateji aracılığıyla iş birliği, ihanet, karşılıklılık, misilleme ve güven inşası süreçlerinin savaşın başlaması, tırmanması, sürmesi ya da sınırlandırılması üzerindeki etkisi tartışılmaktadır. Seçilen örnekler üzerinden tarafların çatışma öncesi beklentilerinin, karşılıklı hamlelerinin ve stratejik uyum süreçlerinin savaşın seyrini nasıl etkilediği değerlendirilmektedir.

Çalışma, savaşın yalnızca irrasyonel bir yıkım biçimi değil, belirli koşullarda stratejik hesaplamaların ürünü olabileceğini ortaya koymayı amaçlamaktadır. Söz konusu yaklaşım doğrultusunda araştırma, oyun teorisinin güvenlik çalışmaları ve savaş analizleri açısından sunduğu analitik imkânları göstermeyi; savaş kararlarının daha sistematik, kavramsal ve karşılaştırmalı bir çerçevede anlaşılmasına katkı sağlamayı hedeflemektedir. Bu yönüyle bildiri, savaş çalışmalarında kuramsal modelleme ile ampirik gözlem arasında ilişki kuran bütüncül bir değerlendirme zemini geliştirmeyi ve literatüre özgün katkı sunmayı da amaçlamaktadır.

Anahtar Kelimeler: Oyun teorisi, savaş, Tit-for-Tat stratejisi, caydırıcılık, stratejik karar alma

PARENTS' VIEWS ON PRESCHOOL CHILDREN'S DIGITAL DEVICE USAGE HABITS

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ABSTRACT

This study aimed to examine the relationship between children's digital device usage habits and the attitudes and practices demonstrated by their parents. The study group consisted of the parents of 16 preschool children. Interviews were conducted with the parents using a semi-structured interview form. The data obtained from the interviews were analyzed through content analysis. At the end of the study, it was understood that children's digital device usage habits varied according to the attitudes and practices of their parents regarding this issue. It was revealed that preschool children generally use digital devices for playing games, watching videos, and viewing cartoons. It was concluded that parents believe that the digital devices used by their children have both positive and negative effects. In addition, it was understood that the attitudes displayed by parents in determining the digital device usage habits of their preschool children are important. In line with the findings, it may be suggested that parents should be provided with training so that preschool children can benefit from the advantages of digital devices while being protected from their negative effects. Furthermore, it can be stated that the proper use of digital devices is also important for adults, and the awareness they develop in this regard may provide an advantage in serving as role models and mediators for their children.

Keywords: Preschool period, digital devices, parent.

OKUL ÖNCESİ ÇAĞDAKİ ÇOCUKLARIN DİJİTAL ARAÇLARI KULLANMA ALIŞKANLIKLARINA İLİŞKİN EBEVEYN GÖRÜŞLERİ

ÖZET

Bu araştırmada çocukların dijital araç kullanma alışkanlıklarının ebeveynlerin göstermiş olduğu tutum ve uygulamalarla nasıl bir ilişki içinde olduğu incelenmeye çalışılmıştır. Araştırmanın çalışma grubunu okul öncesi eğitim kademesindeki 16 çocuğun ebeveyni oluşturmuştur. Çalışma grubundaki ebeveynlerle yarı yapılandırılmış form üzerinden görüşmeler gerçekleştirilmiştir. Görüşmelerden elde edilen veriler içerik analizi yöntemiyle analiz edilmiştir. Araştırmanın sonunda çocukların dijital araç kullanma alışkanlıklarının ebeveynlerin bu konuda göstermiş olduğu tutum ve uygulamalara göre değişkenlik gösterdiği anlaşılmıştır. Okul öncesi dönemdeki çocukların dijital araçları genellikle oyun oynama, video ve çizgi film izleme amaçlı kullandıkları ortaya çıkmıştır. Velilerin çocukların kullandıkları dijital araçların olumlu ve olumsuz etkilere neden olduğu düşüncesine sahip oldukları sonucuna ulaşılmıştır. Ayrıca velilerin okul öncesi dönemdeki çocuklarının dijital araç kullanma alışkanlıklarını belirlemek adına ortaya koydukları tutumların önemli olduğu anlaşılmıştır. Sonuçlar doğrultusunda, okul öncesi dönemdeki çocukların dijital araçların sağlayacağı avantajlardan faydalanıp, olumsuz etkilerinden korunabilmeleri için ebeveynlere eğitimler verilmesi önerilebilir. Ayrıca dijital araçların doğru kullanımının yetişkinlerde de önemli olduğu ve bu konuda sahip olacakları bilincin çocuklarına rol model olma ve aracılık yapma adına avantaj sağlayacağı ifade edilebilir.

Anahtar sözcükler: Okul öncesi dönem, dijital araçlar, ebeveyn.

PRESCHOOL TEACHERS' METHODS FOR DEALING WITH PROBLEMATIC BEHAVIORS IN CLASSROOM MANAGEMENT

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ABSTRACT

The aim of this study is to identify the methods preschool teachers use to cope with problematic behaviors encountered in classroom management. In the study, the case study design, one of the qualitative research methods, was utilized. The study group consisted of fifty-one preschool teachers working in independent kindergartens and preschool classrooms in the districts of Tuşba, İpekyolu, Edremit, Erciş, and Çaldıran in the province of Van. The data were obtained through a structured interview form consisting of eight questions presented to the teachers. The interviews were conducted face-to-face and by telephone by the researchers. The information obtained from the forms was analyzed using the content analysis method. As a result of the analysis, it was concluded that the most common undesirable behaviors encountered by preschool teachers in the classroom were violence, the use of slang words, and noncompliance with rules. It was determined that teachers used methods such as giving responsibilities, punishment, and ignoring behaviors in order to cope with these undesirable behaviors.

Keywords: preschool teaching, classroom management, problematic behavior

OKUL ÖNCESİ ÖĞRETMENLERİNİN SINIF YÖNETİMİNDE PROBLEMLİ DAVRANIŞLAR İLE BAŞA ÇIKMA YÖNTEMLERİ

ÖZET

Bu araştırmanın amacı okul öncesi öğretmenlerinin sınıf yönetiminde karşılaştıkları problemleri davranışlar ile başa çıkma yöntemlerini tespit etmektir. Araştırmada yöntem olarak nitel araştırma yöntemlerinden durum çalışması deseninden yararlanılmıştır. Araştırmanın çalışma grubu Van ili Tuşba, İpekyolu, Edremit, Erciş ve Çaldıran ilçelerinde bağımsız anaokulu ve anasınıflarında görev yapmakta olan ellibir okul öncesi öğretmeni oluşturmaktadır. Veriler, öğretmenlere sunulan sekiz sorudan oluşan yapılandırılmış görüşme formuyla elde edilmiştir. Görüşmeler araştırmacılar tarafından yüz yüze ve telefonla elde edilmiştir. Formdaki bilgiler içerik analizi yöntemiyle analiz edilmiştir. Analiz sonucunda okul öncesi öğretmenlerinin sınıfta en çok karşılaştıkları istenmeyen davranışların şiddet, argo sözcükler kullanma ve kurallara uymama davranışları olduğu sonucuna ulaşılmıştır. Öğretmenlerin istenmeyen bu davranışlarla başa çıkmak için sorumluluk vermek, ceza vermek ve görmezden gelme yöntemlerini kullandıkları tespit edilmiştir.

Anahtar sözcükler: okul öncesi öğretmenliği, sınıf yönetimi, problemleri davranış

INVESTIGATION OF SECONDARY SCHOOL TEACHERS' INDIVIDUAL PERCEPTIONS OF PSYCHOLOGICAL CAPITAL COMPONENTS

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ABSTRACT

The aim of this study is to examine in depth high school teachers' individual perceptions of the components of psychological capital, namely self-efficacy, hope, resilience, and optimism, as teachers' psychological capital levels have become increasingly important in today's educational environments where schools are constantly undergoing change and transformation, both in terms of individual professional experiences and the quality of instructional processes. A qualitative research design was adopted in the study, specifically a case study approach. The data were collected through semi-structured interviews conducted with twelve teachers working in different high schools. Content analysis was used in the analysis process, and the obtained data were organized through thematic coding. The findings indicate that psychological capital demonstrates a multidimensional structure at the individual level within the framework of self-efficacy, hope, resilience, and optimism dimensions. The self-efficacy dimension was found to be shaped through the sub-themes of professional competence perception, confidence in problem-solving and decision-making, communication and interaction competence, and professional implementation competence. In the hope dimension, goal setting and planning, motivation-based goal orientation, perceived goal attainment, and the tendency to generate alternative solutions came to the forefront. The resilience dimension gained meaning through coping with stress, struggling with difficulties, experience-based strengthening, and managing multiple responsibilities, while the optimism dimension was associated with positive perspective, future expectations, and reinterpretation processes. The findings reveal that teachers' perceptions of psychological capital are not merely an individual psychological construct, but rather a multidimensional professional experience shaped by professional experiences, classroom practices, and social interactions.

Keywords: Psychological capital, self-efficacy, hope, resilience, optimism

LİSE ÖĞRETMENLERİNİN PSİKOLOJİK SERMAYE BİLEŞENLERİNE İLİŞKİN BİREYSEL ALGILARININ İNCELENMESİ

ÖZET

Bu araştırmanın amacı, lise öğretmenlerinin psikolojik sermaye bileşenlerine (öz yeterlilik, umut, dayanıklılık ve iyimserlik) ilişkin bireysel algılarını derinlemesine incelemektir çünkü okulların sürekli değişim ve dönüşüm içinde olduğu günümüz eğitim ortamlarında öğretmenlerin psikolojik sermaye düzeyleri, hem bireysel mesleki deneyimleri hem de öğretim süreçlerinin niteliği açısından giderek daha fazla önem kazanmaktadır. Araştırmada nitel araştırma desenlerinden durum çalışması benimsenmiş; veriler farklı liselerde görev yapan 12 öğretmen öğretmeni ile gerçekleştirilen yarı yapılandırılmış görüşmeler aracılığıyla elde edilmiştir.

Verilerin analizinde içerik analizi yaklaşımı kullanılmış ve elde edilen veriler tematik olarak kodlanarak organize edilmiştir. Bulgular, psikolojik sermayenin bireysel düzeyde öz yeterlilik, umut, dayanıklılık ve iyimserlik boyutları çerçevesinde çok boyutlu bir yapı sergilediğini göstermektedir. Öz yeterlilik boyutunun mesleki yetkinlik algısı, problem çözme ve karar verme güveni, iletişim ve etkileşim yeterliliği ve mesleki uygulama yeterliliği alt temaları üzerinden şekillendiği görülmüştür. Umut boyutunda hedef belirleme ve planlama, motivasyon kaynaklı amaç yönelimi, hedefe ulaşma algısı ve alternatif çözüm üretme eğilimi ön plana çıkmıştır. Dayanıklılık boyutunun stresle baş etme, zorluklarla mücadele, deneyim temelli güçlenme ve çoklu görev yönetimi üzerinden anlam kazandığı; iyimserlik boyutunun ise pozitif bakış açısı, geleceğe yönelik beklentiler ve yeniden yorumlama süreçleri ile ilişkilendiği belirlenmiştir. Araştırma sonuçları, öğretmenlerin psikolojik sermaye algılarının yalnızca bireysel bir psikolojik yapı değil; mesleki deneyim, sınıf içi uygulamalar ve sosyal etkileşimlerle şekillenen çok boyutlu bir mesleki deneyim alanı olduğunu ortaya koymaktadır.

Anahtar Kelimeler: Psikolojik sermaye, öz yeterlilik, umut, dayanıklılık, iyimserlik

SELF-ASSESSMENT AND PEER INTERACTION IN SCHOOL-BASED PROFESSIONAL DEVELOPMENT: AN EXAMINATION FROM A SOCIAL LEARNING PERSPECTIVE

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ABSTRACT

The issue of improving the quality of education can be regarded as directly related to teachers' continuous professional development processes. In this context, the aim of the study is to examine the perceptions and experiences of primary and secondary school teachers and administrators regarding the School-Based Professional Development (SBPD) model within the framework of self-assessment practices, peer interaction, the development of teaching-learning strategies, and school culture. In the study, the SBPD model, which is based on teachers' learning through collaboration, observation, and interaction, was addressed from the perspective of social learning theory. The main focus of the study is to reveal the reflections of teachers' and administrators' views on SBPD in professional development processes.

The research was conducted using the phenomenology approach, one of the qualitative research designs. The study group consisted of 25 teachers and school administrators working in Gaziantep province with different branches, genders, and professional seniority levels. Participants were determined through maximum variation sampling. The data were collected through a semi-structured interview form prepared on the basis of social learning theory in line with the literature review and expert opinions. The obtained data were analyzed using content analysis, and the findings were interpreted through coding and thematic analysis processes.

As a result of the study, it was determined that the participants evaluated SBPD as a collaborative development model in which stakeholders work in coordination. It was found that self-assessment practices increased professional awareness, sharing experiences among colleagues enriched teaching practices, and a supportive school culture strengthened professional development. However, factors such as workload, time constraints, and lack of motivation negatively affected the process. Consequently, it is recommended that SBPD activities should be planned in a sustainable structure appropriate to teachers' needs and the contextual characteristics of schools.

Keywords: School-Based Professional Development (SBPD), Professional Development, School Culture, Social Learning.

OKUL TEMELLİ MESLEKİ GELİŞİMDE ÖZ-DEĞERLENDİRME VE AKRAN ETKİLEŞİMİ: SOSYAL ÖĞRENME PERSPEKTİFİNDEN BİR İNCELEME

ÖZET

Eğitimde niteliğin artırılması konusu öğretmenlerin sürekli mesleki gelişim süreçleriyle doğrudan ilişkili olarak nitelendirilebilmektedir. Bu bağlamda araştırmanın amacı ilköğretim ve ortaokul düzeyinde görev yapan öğretmen ve yöneticilerin Okul Temelli Mesleki Gelişim (OTMG) modeline ilişkin algı ve deneyimlerini öz-değerlendirme uygulamaları, meslektaş etkileşimi, öğretme-öğrenme stratejilerini geliştirme süreçleri ve okul kültürü bağlamında incelemektir. Araştırmada öğretmenlerin iş birliği, gözlem ve etkileşim yoluyla öğrenmelerini esas alan OTMG modeli sosyal öğrenme kuramı perspektifinden ele alınmıştır. Çalışmanın temel odağını öğretmen ve yöneticilerin OTMG'ye ilişkin görüşlerinin mesleki gelişim süreçlerine yansımalarının ortaya konulması oluşturmaktadır. Araştırma, nitel araştırma desenlerinden fenomenoloji (olgubilim) yaklaşımıyla yürütülmüştür. Çalışma grubunu Gaziantep ilinde görev yapan farklı branş, cinsiyet ve mesleki kıdeme sahip 25 öğretmen ve okul yöneticisi oluşturmaktadır. Katılımcılar maksimum çeşitlilik örnekleme yöntemiyle belirlenmiştir. Veriler literatür taraması ve uzman görüşleri doğrultusunda hazırlanan sosyal öğrenme kuramı temelinde yarı yapılandırılmış görüşme formu aracılığıyla toplanmıştır. Elde edilen veriler içerik analizi yöntemiyle çözümlenmiştir; kodlama ve temalandırma süreçleri doğrultusunda bulgular yorumlanmıştır.

Araştırma sonucunda katılımcıların OTMG'yi iş birliğine dayalı, paydaşların eşgüdüm içerisinde çalıştığı bir gelişim modeli olarak değerlendirdikleri belirlenmiştir. Öz-değerlendirme uygulamalarının mesleki farkındalığı artırdığı, meslektaşlar arası deneyim paylaşımının öğretim uygulamalarını zenginleştirdiği ve destekleyici okul kültürünün mesleki gelişimi güçlendirdiği saptanmıştır. Bununla birlikte iş yükü, zaman yetersizliği ve motivasyon eksikliği gibi etkenlerin süreci olumsuz etkilediği görülmüştür. Sonuç olarak OTMG faaliyetlerinin öğretmen ihtiyaçlarına ve okulun bağlamsal özelliklerine uygun, sürdürülebilir bir yapıda planlanması önerilmektedir.

Anahtar Kelimeler: Okul Temelli Mesleki Gelişim (OTMG), Mesleki Gelişim, Okul Kültürü. Sosyal Öğrenme

EXAMINING THE RELATIONSHIP BETWEEN TEACHERS' ARTIFICIAL INTELLIGENCE LITERACY AND TECHNOLOGICAL PEDAGOGICAL CONTENT KNOWLEDGE

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ABSTRACT

Technological advancements, particularly the rapid progress in artificial intelligence (AI) applications, have increased the importance of digital competencies in educational processes and necessitated that teachers develop new skills adaptable to technology. In this context, AI literacy has emerged as a significant field encompassing individuals' abilities to understand, evaluate, and effectively utilize AI technologies. Teachers' levels of knowledge and awareness regarding AI directly influence how they integrate AI-supported tools and applications into educational processes. In addition, Technological Pedagogical Content Knowledge (TPACK) provides a fundamental theoretical framework explaining teachers' ability to integrate content knowledge, pedagogical approaches, and technology use in order to create effective learning environments. Accordingly, examining the relationship between teachers' AI literacy and TPACK competencies is considered important for enhancing the quality of contemporary educational environments.

This study was conducted to determine the relationship between teachers' levels of AI literacy and their Technological Pedagogical Content Knowledge. As data collection instruments in the study, "21st century skills-oriented TPACK scale" adapted by Alpaslan, Ulubey, and Ata in 2021, and the "Artificial Intelligence Literacy Scale" adapted by Eniş Erdoğan and Ekşioğlu in 2024, were utilized.

Within the scope of the study, data were collected from a total of 379 teachers, and the obtained data were analyzed using various statistical techniques. The findings revealed a positive, moderate, and statistically significant relationship between teachers' TPACK levels and their AI literacy levels. This result indicates that as teachers' AI literacy increases, their competency in integrating technology, pedagogy, and content knowledge also improves ($r=0.469$, $p<0.05$). Furthermore, the findings suggest that knowledge and awareness regarding AI technologies support the effective use of technology in instructional processes and play a significant role in teachers' adaptation to digital transformation.

Keywords: Artificial Intelligence Literacy, Technological Pedagogical Content Knowledge, TPACK, Teacher.

ÖĞRETMENLERİN YAPAY ZEKÂ OKURYAZARLIĞI İLE TEKNOLOJİK PEDAGOJİK ALAN BİLGİSİ ARASINDAKİ İLİŞKİNİN İNCELENMESİ

ÖZET

Teknolojik gelişmeler ve özellikle yapay zekâ uygulamalarındaki hızlı ilerleme, eğitim süreçlerinde dijital yeterliklerin önemini artırmış ve öğretmenlerin teknolojiye uyum sağlayabilen yeni beceriler geliştirmesini gerekli hâle getirmiştir.

Bu süreçte yapay zekâ okuryazarlığı; bireylerin yapay zekâ teknolojilerini anlama, değerlendirme ve etkili biçimde kullanabilme yeterliklerini kapsayan önemli bir alan olarak öne çıkmaktadır. Öğretmenlerin yapay zekâyâ yönelik bilgi ve farkındalık düzeyleri, yapay zekâ destekli araç ve uygulamaları eğitim süreçlerine nasıl entegre edeceklerini doğrudan etkilemektedir. Bununla birlikte teknolojik pedagojik alan bilgisi (TPAB), öğretmenlerin alan bilgisi, pedagojik yaklaşım ve teknoloji kullanımını bütünleştirerek etkili öğrenme ortamları oluşturabilmelerini açıklayan temel bir kuramsal çerçeve sunmaktadır. Bu bağlamda, öğretmenlerin yapay zekâ okuryazarlığı ile TPAB yeterlikleri arasındaki ilişkinin incelenmesi, çağdaş eğitim ortamlarının niteliğinin artırılması açısından önem taşımaktadır.

Bu çalışma, öğretmenlerin yapay zekâ okuryazarlığı düzeyleri ile teknolojik pedagojik alan bilgileri arasındaki ilişkiyi belirlemek amacıyla gerçekleştirilmiştir. Araştırmada veri toplama aracı olarak; Alpaslan, Ulubey ve Ata tarafından 2021 yılında uyarlanan “21. Yüzyıl Becerileri Kapsamında Teknolojik Pedagojik Alan Bilgisi Ölçeği” ile Eniş Erdoğan ve Ekşioğlu tarafından 2024 yılında uyarlanan “Yapay Zekâ Okuryazarlığı Ölçeği” kullanılmıştır.

Araştırma kapsamında toplam 379 öğretmenden veri toplanmış ve elde edilen veriler istatistiksel analizlerle değerlendirilmiştir. Analiz sonuçları, öğretmenlerin teknolojik pedagojik alan bilgisi (TPAB) düzeyleri ile yapay zekâ okuryazarlığı düzeyleri arasında pozitif yönlü ve orta düzeyde anlamlı bir ilişki bulunduğunu göstermiştir ($r=0.469$, $p<0.05$). Bu bulgu, yapay zekâ okuryazarlığı arttıkça öğretmenlerin teknoloji, pedagoji ve alan bilgisini bütünleştirme yeterliklerinin de geliştiğini ortaya koymaktadır.

Anahtar Kelimeler: Yapay Zekâ Okuryazarlığı, Teknolojik Pedagojik Alan Bilgisi, TPAB, Öğretmen.

EVALUATION OF THE DIFFERENTIATION APPROACH IN TEACHING WITHIN THE FRAMEWORK OF THE 21ST TURKISH EDUCATION MODEL IN ENGLISH TEACHING

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ABSTRACT

The Turkish Century of Education Model, considered the current education reform of our country, has introduced many pedagogical innovations. One of these is the differentiation approach in teaching, which is included in the curricula. The implications of this approach, which is intended to be integrated into all subjects, on English language teaching are being discussed. The aim of this research, designed to contribute to these discussions, is to examine the reflections of the differentiation approach included in the Turkish Century of Education Model Curricula on English language lessons. Method: In this study, which was conducted with a systematic literature review model, the relevant documents that were reviewed were analyzed using the documentary analysis technique. Findings: The differentiation approach included in the Turkish Century Education Model Curriculum holds a significant place among the pedagogical paradigms of this model. This importance lies in the fact that differentiation in education provides crucial universal values such as access to education, equality, and justice in education, and in the context of the pedagogical principles of "education for all." This pedagogical approach, which involves differentiating instruction in terms of aims, content, methods, and assessment, has two sub-dimensions: "enrichment and support." However, while these two sub-dimensions require enriching instruction for fast learners and supporting instruction for slow learners in English language teaching, they cannot be fully implemented in practice due to factors such as overcrowded classrooms, centralized exams, parental expectations, lack of materials, and traditional educational approaches. Conclusion: While the differentiated instruction approach, a significant achievement for the Turkish education system, is crucial in terms of values such as equality and justice in education, certain problems are encountered in its application in English lessons. Although some of these problems are related to the curriculum and textbooks, most are related to the conditions of implementation.

Keywords: Differentiated instruction, English language teaching, Justice and equality in education.

TÜRKİYE YÜZYILI MAARİF MODELİ ÖĞRETİMDE FARKLILAŞTIRMA YAKLAŞIMININ İNGİLİZCE ÖĞRETİMİ AÇISINDAN DEĞERLENDİRİLMESİ

ÖZET

Ülkemizin güncel eğitim reformu sayılan Türkiye Yüzyılı Maarif Modeli birçok pedagojik yenilikler getirmiştir. Bunlardan birisi de, öğretim programları bünyesinde yer verilen öğretimde farklılaştırma yaklaşımıdır. Bütün derslere entegre edilmesi öngörülen bu yaklaşımın, İngilizce öğretimine yansımaları tartışılmaktadır.

Bu tartışmalara katkı sağlamak üzere kurgulanan bu araştırmanın amacı, Türkiye Yüzyılı Maarif Modeli Öğretim Programlarında yer verilen farklılaştırma yaklaşımının İngilizce dersine yansımalarını irdelemektir. Yöntem: Sistemik literatür taraması modeliyle yürütülen çalışmada, taranan ilgili belgeler, dokümanlar analiz tekniğiyle çözümlenmiştir. Bulgular: Türkiye Yüzyılı Maarif Modeli Öğretim Programlarında yer verilen farklılaştırma yaklaşımı, bu modelin pedagojik paradigmaları arasında önemli bir yer tutmaktadır. Bu önem, eğitimde farklılaştırmanın sağladığı, eğitime erişim ve eşitlik ile eğitimde adalet gibi önemli evrensel değerler anlamında ve “herkes için eğitim” pedagojik ilkeler bağlamındadır. Öğretimi, amaç, içerik, yöntem ve değerlendirme olarak farklılaştırma anlayışı taşıyan bu pedagojik yaklaşımın “zenginleştirme ve destekleme” gibi iki alt boyut vardır. Ancak bu iki alt boyut İngilizce öğretiminde, hızlı öğrenenler için öğretimi zenginleştirme ve yavaş öğrenenler için desteklemeyi gerektirirken, uygulamada kalabalık sınıflar, merkezi sınavlar, veli beklentileri, materyal-malzeme eksiklikleri ile geleneksel eğitim anlayışı gibi nedenlerle tam olarak uygulanamamaktadır. Sonuç: Türk Eğitim Sistemi için önemli bir kazanım olan öğretimi farklılaştırma yaklaşımı, eğitimde eşitlik ve adalet gibi değerler bakımından çok önemli olsa da, İngilizce dersindeki uygulamalarda birtakım sorunlar yaşanmaktadır. Bu sorunların bir kısmı program ve ders kitapları ile ilişkili olsa da, çoğu, uygulama koşullarıyla alakalıdır.

Anahtar Kelimeler: Farklılaştırılmış öğretim, İngilizce öğretimi, Eğitimde adalet ve eşitlik.

SCHOOL VIOLENCE: PEDAGOGICAL BACKGROUND

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ABSTRACT

The phenomenon of violence in schools, which has belatedly reached our country from some developed societies, is a problem that closely concerns many disciplines, including educational science (pedagogy). Examining the pedagogical background of this problem, which seriously threatens the achievement of the ultimate goal of education, which is to instill desired behaviors in the individual, is important for the well-being of the individual, society, and the state. Aim: Based on this importance, the aim of this study is to examine the pedagogical reasons behind the problem of violence in schools from various perspectives in order to make the educational dimension of this phenomenon more understandable. Method: This study, structured within the framework of qualitative research paradigms, employs a scanning method. Selected written and digital documents, also known as document scanning, were analyzed using documentary analysis techniques. Findings: The possible causes of school violence, a problem our country is only now beginning to confront, can be linked to personal, psychological, social, political, economic, theological, and pedagogical components. While all of these are important, pedagogy, which claims to foster healthy and balanced personalities in individuals, is closely related to the phenomenon of school violence. This relationship is related to the functions of pedagogy in its mental, emotional, and action dimensions. When considered in the context of our country, it can be argued that the neglect of the holistic development of the individual, due to schools focusing solely on academic development and central exam success in line with the demands of families, is one of the precursors of school violence. This is because intention, which is the determinant of will that precedes actions in the human behavior map, is closely related to correct cognition and the resulting positive attitude. In this context, it can be stated that the weaknesses of the current education system in our country in developing the individual holistically—mind, emotions, body, and soul—contribute to the phenomenon of school violence. Recent events have shown that purely intellectual (academic) and physical development does not guarantee positive individual behavior, which is the antithesis of school violence. Conclusion: To prevent our schools from encountering the cognitive, affective, and behavioral symptoms that characterize the behavioral disorders we have recently witnessed, the education system, its model, curriculum, textbooks—in short, the entire educational process needs a holistic pedagogical transformation, encompassing both theoretical and practical dimensions, focusing on the individual's development towards accurate cognition, balanced emotions, and healthy physical and mental well-being.

Keywords: School violence, Undesirable behaviors, Behavioral symptoms.

OKULDA ŞİDDET: PEDAGOJİK ARKA PLAN

ÖZET

Gelişmiş kimi toplumlardan gecikmeli olarak ülkemize yansıyan okulda şiddet olgusu, birçok disiplin gibi eğitimbilim (pedagoji) disiplinini de çok yakından ilgilendiren bir sorundur. Eğitimin nihai hedefi olan bireye istendik davranışlar kazandırma amacına ulaşmayı ciddi biçimde tehdit eden bu sorunun pedagojik arka planının irdelenmesi, birey, toplum ve devletin esenliği bakımından önemlidir. Amaç: Bu önemden hareketle kurgulanan bu çalışmanın amacı, okulda şiddet olgusunun eğitim boyutunu daha anlaşılır kılmak üzere, bu sorunun arka planında yer alan pedagojik nedenleri, çeşitli boyutlar itibarıyla irdelemektir. Yöntem: Nitel araştırma paradigmaları çerçevesinde kurgulanan bu çalışmanın modeli, tarama yöntemidir. Belge tarama olarak da bilinen bu yöntemle seçilen yazılı ve dijital belgeler, dokümanter analiz tekniğiyle çözümlenmiştir. Bulgular: Ülkemizin yeni yeni yüzleşmeye başladığı bir sorun olan okulda şiddet olgusunun olası nedenleri, kişisel, psikolojik, sosyal, politik, ekonomik, teolojik ve pedagojik bileşenlerle ilişkilendirilebilir. Bunların hepsi önemli olmakla birlikte, bireyde sağlıklı ve dengeli kişilik geliştirme iddiasında olan pedagoji, okulda şiddet olgusu ile yakından ilişkilidir. Bu ilişki, pedagojinin zihinsel, duygu ve eylem boyutlarındaki işlevleriyle alakalıdır. Bu işlev, ülkemiz bağlamında ele alındığında, ailelerin de talepleri doğrultusunda, okulların salt akademik gelişim ve merkezi sınav başarısına odaklanmasıyla, bireyin bütüncül gelişimindeki ihmalin, okulda şiddetin öncüllerinden birisi olduğu ileri sürülebilir. Çünkü insan davranış haritasında birey eylemlerin öncülü olan iradenin belirleyicisi mahiyetindeki niyet; doğru biliş ve buna bağlı olumlu tutum ile yakından ilişkilidir. Bu bağlamda ülkemizde cari eğitim sisteminin bireyi zihin, duygular, beden ve ruh olarak, bütüncül geliştirme zaaflarının, okulda şiddet olgusunda payı olduğu belirtilebilir. Zira salt zihinsel (akademik) ve bedensel gelişimin, okulda şiddet olgusunun anti tezi olan, doğru birey davranışlarını garanti etmediği son yaşanan olaylarla ortadadır. Sonuç: Okullarımızın son günlerde yaşadığımız davranış bozukluklarını ifade eden bilişsel, duyuşsal ve eylemsel semptomlarla karşılaşmaması için, eğitim sistemi, modeli, programı, ders kitapları, kısaca, eğitim-öğretim sürecinin, teorik ve uygulama boyutlarıyla topyakun olarak, bireyi doğru biliş, dengeli duygu, sağlıklı beden ve ruhsal gelişime odaklı bütüncül bir pedagojik dönüşümüne ihtiyacı vardır.

Anahtar Kelimeler: Okulda şiddet, İstenmeyen davranışlar, Davranış semptomları

COMPARISON OF TEACHER EDUCATION SYSTEMS IN JAPAN, SINGAPORE AND THE TRNC IN THE CONTEXT OF DIGITAL TRANSFORMATION IN EDUCATION

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ABSTRACT

The aim of this study is to comparatively examine how teacher education systems in Japan, Singapore and the Turkish Republic of Northern Cyprus respond to the teacher profile required by the process of digital transformation in education. Digital transformation in the teaching profession requires not only the use of technological tools, but also digital pedagogical competence, technology-supported instructional design, the ability to manage online and blended learning environments, digital content development, the use of data-informed teaching, ethical and safe use of technology, and lifelong professional development skills. In this context, the teacher education systems of the three countries were examined in terms of pre-service teacher education, school practices, the reflection of digital competencies in curricula, the preparation of teacher candidates for technology-supported instruction, continuing professional development opportunities, institutional planning and policy continuity. The study was conducted through document analysis within the scope of a qualitative research approach. Education policy documents, official documents related to teacher education programmes, digital education strategies, national reports and relevant peer-reviewed academic publications published between 2020 and 2025 were examined within a comparative analysis framework. In the comparison, the level of preparation of teacher candidates for digital learning environments, the visibility of technology use in practice processes and the continuity of professional support mechanisms were taken into account as the main criteria. The findings indicate that central policy guidance and school-based digitalisation initiatives in Japan, and systematic teacher development and strong institutional planning in Singapore, enable teacher education processes to be addressed within a structure integrated with digital transformation. In the TRNC, although the teacher education structure shaped through different types of institutions offers significant diversity, there is a need for a clearer, more systematic and sustainable framework in terms of digital pedagogy, practice schools, continuing professional development and policy coherence. As a result, the study reveals that digital transformation in teacher education systems should be considered not merely as technology integration, but as a multidimensional process that transforms teacher identity, pedagogical approaches, classroom practices and the culture of professional development.

Keywords: Digital transformation, teacher education, digital pedagogy, digital competence, comparative education.

EĞİTİMDE DİJİTAL DÖNÜŞÜM BAĞLAMINDA ÖĞRETMEN YETİŞTİRME SİSTEMLERİNİN JAPONYA, SİNGAPUR VE KKTC KARŞILAŞTIRMASI

ÖZET

Bu çalışmanın amacı, Japonya, Singapur ve Kuzey Kıbrıs Türk Cumhuriyeti'nde öğretmen yetiştirme sistemlerinin eğitimde dijital dönüşüm sürecinin gerektirdiği öğretmen profiline nasıl karşılık verdiğini karşılaştırmalı olarak incelemektir. Dijital dönüşüm, öğretmenlik mesleğinde yalnızca teknolojik araç kullanımını değil; dijital pedagojik yeterlik, teknoloji destekli öğretim tasarımı, çevrim içi ve harmanlanmış öğrenme ortamlarını yönetebilme, dijital içerik geliştirme, veri temelli öğretimden yararlanma, etik ve güvenli teknoloji kullanımı ile yaşam boyu mesleki gelişim becerilerini de gerekli kılmaktadır. Bu bağlamda çalışmada üç ülkenin öğretmen yetiştirme sistemleri; hizmet öncesi öğretmen eğitimi, okul uygulamaları, dijital yeterliklerin programlara yansımaları, öğretmen adaylarının teknoloji destekli öğretime hazırlanması, mezuniyet sonrası mesleki gelişim olanakları, kurumsal planlama ve politika sürekliliği açısından ele alınmıştır. Araştırma, nitel araştırma yaklaşımı kapsamında doküman incelemesi yöntemiyle yürütülmüş; 2020–2025 yılları arasında yayımlanan eğitim politikası belgeleri, öğretmen yetiştirme programlarına ilişkin resmî dokümanlar, dijital eğitim stratejileri, ulusal raporlar ve konuya ilişkin hakemli akademik yayınlar karşılaştırmalı analiz çerçevesinde incelenmiştir. Karşılaştırmada, öğretmen adaylarının dijital öğrenme ortamlarına hazırlanma düzeyi, uygulama süreçlerinde teknoloji kullanımının görünürlüğü ve mezuniyet sonrası destek mekanizmalarının sürekliliği temel ölçütler olarak dikkate alınmıştır. Bulgular, Japonya'da merkezi politika yönlendirmesi ve okul temelli dijitalleşme girişimlerinin, Singapur'da ise sistematik öğretmen gelişimi ve güçlü kurumsal planlamanın öğretmen yetiştirme süreçlerini dijital dönüşümle bütünleşik bir yapı içinde ele aldığını göstermektedir. KKTC'de öğretmen yetiştirme yapısının farklı kurum türleri üzerinden şekillenmesi önemli bir çeşitlilik sunmakla birlikte, dijital pedagoji, uygulama okulları, hizmet sonrası mesleki gelişim ve politika bütünlüğü bakımından daha açık, sistematik ve sürdürülebilir bir çerçeveye ihtiyaç bulunduğu görülmektedir. Sonuç olarak çalışma, öğretmen yetiştirme sistemlerinde dijital dönüşümün yalnızca teknoloji entegrasyonu değil; öğretmen kimliğini, pedagojik yaklaşımı, sınıf içi uygulamaları ve mesleki gelişim kültürünü dönüştüren çok boyutlu bir süreç olarak ele alınması gerektiğini ortaya koymaktadır.

Anahtar Kelimeler: Dijital dönüşüm, öğretmen yetiştirme, dijital pedagoji, dijital yeterlik, karşılaştırmalı eğitim.

CONNECTING FINANCIAL MARKETS AND MODERN SUPPORT SYSTEMS IN BUSINESS DECISION-MAKING IN SMALL ECONOMIES

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ABSTRACT

The connection of financial markets and modern support systems in business decision-making is present in the framework of making business decisions of a large number of legal entities. This is of great importance for the work and functioning, especially within the functioning of small economies such as the economy of the Republic of Serbia. Financial markets can be viewed in a broader and narrower sense, because they can influence the functioning and carry out financial transactions of a large number of subjects. In a narrower sense, they can be defined as organized places where supply and demand for various forms of financial instruments meet, and for the work and functioning of legal entities, it is important to respect the mechanisms of financial markets because they can influence business decisions. Apart from that, the influence of financial markets can be seen through the influence on the functioning of business entities, because through them you can get the funds necessary to finance your regular business.

Keywords: financial markets, business decision-making, top management

IMPORTANCE OF FINANCIAL MARKETS IN THE WORK AND DECISION- MAKING OF THE REAL ECONOMY ON THE EXAMPLE OF SMALL ECONOMIES SUCH AS THE ECONOMY OF THE REPUBLIC OF SERBIA

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ABSTRACT

The influence of the financial markets is pronounced, because through them, business entities on a large scale get the funds necessary to finance their business in order to ensure the normal functioning and development of the legal entities they manage. They facilitate the connection of entities that have excess financial resources and entities that lack financial resources, thus enabling normal functioning but also the development of heterogeneous legal entities led by top management. This contributes to the essential, i.e. connects two significant macroeconomic categories - savings and investments, which are necessary categories for the normal functioning of the economy, which is of great importance for small economies such as the economy of the Republic of Serbia. Financial markets represent the most important factor of the overall economic and economic system in countries with a developed market economy, which spills over

Keywords: financial markets, business decision-making, top management.

REGIONAL ECONOMIC INEQUALITIES IN THE EUROPEAN UNION

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ABSTRACT

Regional economic inequalities represent one of the most significant challenges of the European Union (EU) states, despite all the efforts that were made through cohesion policies. Nowadays, considerable disparities can be seen between metropolitan regions from Western and Northern Europe and the less developed regions from Central, Eastern and Southern Europe. These inequalities are reflected in different levels of GDP per capita, employment rates, labor productivity, infrastructure quality, educational attainment and social welfare. Considering these aspects, the purpose of the present paper is to analyze the evolution and the determinants of regional economic inequalities within the European Union states since the beginning of the 20th century. In order to achieve this goal, we have used both a comprehensive literature review and a descriptive statistical analysis. The literature review synthesizes relevant academic studies and reports addressing regional disparities, cohesion policy effectiveness and economic convergence in the EU. The empirical part relies on secondary statistical data obtained primarily from Eurostat databases and EU regional development reports. One of our findings indicates that EU cohesion policy has generated positive effects especially in infrastructure development and regional competitiveness. However, the most vulnerable EU regions in terms of unemployment and economic growth remain the rural and peripheral ones.

Keywords: economic inequalities, regional gaps, European Union states.

Q* g CLOSED SETS IN NEUTROSOPHIC FUZZY SUPRA TOPOLOGICAL SPACES

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ABSTRACT

The notion of this paper is to present and examine a few characteristics of Neutrosophic fuzzy supra topological spaces. We explore the concepts of Q^*g , Closed sets of Neutrosophic Fuzzy Supra, Q^*g open sets of Neutrosophic Fuzzy Supra, Q^* closed sets of Neutrosophic Fuzzy Supra and Q^* open sets of Neutrosophic Fuzzy Supra. The creation of generalized topological structures has emerged as a significant area of study in contemporary mathematics, especially when it comes to handling ambiguity, uncertainty, and incomplete data. Despite its strength, classical topology is frequently inadequate for simulating imprecise real-world phenomena. Because of this restriction, Lofti A. Zadeh introduced fuzzy set theory in 1965, which permits elements to have degrees of membership instead of strict inclusion. Florentin Smarandache introduced further generalization through Neutrosophic set theory, in which each element is characterized by three elements: truth, indeterminacy, and falsity. Neutrosophic sets, as opposed to fuzzy sets, offer a more adaptable framework for dealing with inconsistent and ambiguous data, which makes them ideal for use in artificial intelligence, medical diagnosis, and decision theory. Concurrent with these advancements, A.S. Mashhour and associates introduced a number of topological space generalizations that loosen the requirement of closure under finite intersection. By introducing weaker forms of closedness, Norman Levine's theory of generalized closed sets further enhanced topological research. Neutrosophic topological spaces, where openness and closedness are expressed in terms of membership functions, were created by fusing Neutrosophic sets with topological structures. The collection of Neutrosophic fuzzy supra topological sets satisfies axioms similar to supra topology under Neutrosophic conditions, and each element of the universe is associated with truth, indeterminacy, and falsity membership functions in a Neutrosophic fuzzy supra topological space. The goal of this study is to present Neutrosophic Fuzzy Supra Q^*g closed sets and investigate some of their properties.

Keywords: Q^*g closed sets of Neutrosophic Fuzzy Supra, Q^*g open sets Neutrosophic Fuzzy Supra, Q^* closed sets of Neutrosophic Fuzzy Supra, Q^* open sets Neutrosophic Fuzzy Supra.

EFFECTS OF GENDER BASED VIOLENCE ON MENTAL HEALTH

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ABSTRACT

Gender-based violence (GBV) is a major public health challenge responsible for immediate physical harm and long term psychological effects, occurring in both local and public environments through physical violence, psychological abuse, and social intimidation. Although several studies have established a strong connection between GBV and adverse mental health outcomes, questions such as under what conditions do mental health outcomes persist in a population? Which factors most influence the progression from exposure to long-term psychological distress, and how sensitive are outcomes to changes in intervention strength?

This study investigates the impact of gender-based violence (GBV) on the mental health of victims and explores intervention strategies for safer environments by developing and analyzing a mathematical model. with major focus on the computation of the basic reproduction number (R_0), sensitivity analysis and the determination of the disease-free equilibrium (DFE) and endemic equilibrium points (EEP) to understand the system's long-term behavior. Results further showed that the exposure rate is the most sensitive parameter influencing the spread of GBV-related mental health effects, while effective interventions help reduce their persistence in the population. The disease-free equilibrium showed a stable state where GBV-related mental health effects gradually disappear when $R_0 < 1$, whereas the endemic equilibrium revealed that long-term psychological distress persists when $R_0 > 1$. Hence, These research highlight that reducing exposure and strengthening intervention measures are critical for controlling the long-run mental health burden of GBV. With early control strategies and proper intervention programs, there would be significant reduction in the persistence of psychological distress and increase overall population mental health outcomes.

Keywords: Gender Based Violence (GBV), Mathematical modelling, Basic reproduction number (R_0), Disease Free Equilibrium (DFE), Sensitivity, Endemic equilibrium Point (EEP).

EXPONENTIAL STABILITY FOR COUPLED LAM SYSTEM WITH A FRACTIONAL DERIVATIVE TIME DELAY

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ABSTRACT

This work is devoted to the study of a coupled Lamé system involving fractional time-delay terms. The considered model describes the propagation of elastic waves in a bounded domain under the influence of damping and memory effects represented by generalized Caputo fractional derivatives. The main objective of this paper is to investigate the well-posedness and the asymptotic behavior of the solutions.

First, the original problem is transformed into an augmented system by introducing suitable auxiliary variables inspired by the Dafermos approach. This reformulation allows us to rewrite the model as an abstract evolution equation in an appropriate Hilbert space. Using semigroup theory, we prove the existence and uniqueness of global solutions. More precisely, the associated operator is shown to be dissipative and maximal, which permits the application of the Hille--Yosida theorem.

Next, we study the stability of the system. A suitable energy functional is introduced and several auxiliary estimates are established. By constructing an appropriate Lyapunov functional and combining energy inequalities with Young and Poincaré inequalities, we prove that the total energy of the system decays exponentially with respect to time. The obtained results extend several previous works related to Lamé systems with delay and fractional damping effects.

Keywords: Coupled Lamé system, fractional derivative, time delay, semigroup theory, exponential stability, Lyapunov functional.

COST AND PROFIT EFFICIENCY OF MICROFINANCE INSTITUTIONS IN INDIA: A FRONTIER ANALYSIS APPROACH

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ABSTRACT

This study evaluates the financial performance of Indian microfinance institutions (MFIs) during 2000-2019 using frontier efficiency techniques. The standard Translog cost and profit functions are estimated by using a parametric technique that employs a distribution-free approach to obtain firm-specific average-cost and profit-efficiency estimates during the relevant period. The analysis provides insights into the operational performance, resource optimization, and long-term financial sustainability of Indian MFIs. The average relative cost and profit efficiencies of Indian MFIs were 0.76 and 0.301, respectively, during the period under study. The group-wise analysis reveals that Non-Government Organizations (NGOs) are the better performers in terms of cost and profit efficiency than Non-Banking Micro Finance Institutions (NBFIs). The cost efficiency for medium-sized MFIs is higher than that of large and small-scale MFIs, and small MFIs seem to be the better performers in terms of profitability. The rank-correlation coefficient between the frontier-based efficiency estimates and the standard average cost ratio is negative and statistically significant, while it is positively and significantly associated with the Return on equity. The efficiency estimates are robust and independent of the functional specifications or estimation methods, and they validate the choice of the Translog model. The likelihood ratio (LR) test results confirm that the Translog specification outperforms the one-output and Cobb-Douglas model. The profitability of Indian MFIs is driven by improved operational practices and higher efficiency.

Keywords: Microfinance Institutions, Translog Cost and Profit Functions, Cobb-Douglas Model, Frontier Efficiency, Likelihood Ratio Test, Non-Banking Micro Finance Institutions (NBFIs).

THE RIGHT TO LIFE OF GIG AND PLATFORM WORKERS: A LEGAL AND ETHICAL ANALYSIS OF FAST DELIVERY APPLICATIONS IN INDIA

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ABSTRACT

The rapid expansion of India's gig economy has transformed urban consumption through fast-delivery platforms such as Blinkit, Zepto, Swiggy Instamart, and Zomato. While these services offer unprecedented convenience, they also expose delivery personnel to severe occupational risks, including road accidents, long working hours, financial insecurity, algorithmic surveillance, and psychological stress. This paper examines the precarious working conditions of gig and platform workers through the lens of the constitutional right to life and dignity under Article 21 of the Constitution of India. It analyses how the classification of delivery workers as "independent partners" rather than employees deprives them of essential labour protections such as health insurance, social security, accident compensation, and workplace safety safeguards. The study further evaluates the legal framework under the Code on Social Security, 2020 and the Occupational Safety, Health and Working Conditions Code, 2020, highlighting the gap between statutory recognition and practical implementation. By discussing reported incidents involving delivery worker fatalities and the systemic pressures created by time-bound delivery models, the paper argues that efficiency-driven platform economies cannot operate at the expense of human dignity and safety. It advocates stronger regulatory accountability, enforceable safety standards, social security implementation, and a human-centred approach to gig work governance. The study ultimately contends that technological progress and consumer convenience must be balanced with constitutional values, ensuring that the right to earn a livelihood does not become a threat to the right to life.

Keywords: Gig Economy; Platform Workers; Article 21; Labour Rights; Delivery Platforms

ON A NEW CLASS OF NEUTROSOPHIC NANO CLOSED SETS IN NEUTROSOPHIC NANO TOPOLOGICAL SPACES

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ABSTRACT

In this paper, we introduce and formalize the novel concept of the Neutrosophic Nano Closed Set within the framework of Neutrosophic Nano Topological Spaces (NNTS). Originating as a synthesis of Smarandache's neutrosophic logic and Lellis Thivagar's nano topological space, NNTS provides a robust mathematical foundation for modeling multi-criteria uncertainty. We systematically investigate their algebraic and topological characteristics, demonstrating their behavior under core operations including the neutrosophic nano interior and closure operators.

Keywords: Neutrosophic Nano Closed Set (NNCS); Multi-Criteria Decision-Making (MCDM).

THE SYNERGISTIC NEXUS OF MINERAL EXTRACTION AND AGRICULTURAL DEVELOPMENT IN AFGHANISTAN: ECONOMIC PROSPECTS, ENVIRONMENTAL RISKS, AND POLICY IMPERATIVES

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ABSTRACT

Afghanistan possesses vast reserves of minerals, hydrocarbons, and critical raw materials while simultaneously relying heavily on agriculture as the primary source of livelihood for the majority of its population (UNDP, 2020; World Bank, 2025). This study examines the complex relationship between mineral extraction and agricultural development in Afghanistan, emphasizing both the economic opportunities and the environmental challenges associated with resource exploitation. The paper explores the theoretical classification of natural resources, the geological distribution of Afghanistan's mineral wealth, and the strategic role of hydrocarbons, metallic minerals, and industrial minerals in supporting agricultural modernization and rural development. The study highlights that mining revenues, industrial infrastructure, and extractive by-products can significantly contribute to agricultural productivity through fertilizer production, irrigation development, rural electrification, transport infrastructure, and employment generation. At the same time, the research critically evaluates the severe environmental and socio-economic externalities caused by unregulated mining activities, including water depletion, acid mine drainage, soil contamination, land degradation, biodiversity loss, and displacement of farming communities. This study further discusses sustainable policy frameworks and mitigation strategies, including environmental governance, revenue-sharing mechanisms, hydrological management, and domestic mineral processing, to ensure balanced development between the extractive and agricultural sectors. The findings suggest that Afghanistan's long-term economic stability and food security depend on the establishment of an integrated and sustainable mining-agriculture nexus in which mineral wealth is strategically utilized to strengthen, modernize, and protect the country's agrarian foundation.

Keywords: Afghanistan, Mining, Agriculture, Natural Resources, Sustainable Development, Environmental Impacts, Rural Development, Mineral Extraction, Water Resources, Economic Growth

THE ROLE OF SENIOR SECONDARY SCHOOL LEADERSHIP IN EFFECTIVE FUTURE DEVELOPMENT

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ABSTRACT

Leadership development in Senior Secondary School is an important factor in the formation of responsible, confident and future ready citizens. The senior secondary phase of a student's development offers a wonderful opportunity for students to develop leadership skills in communication, decision making, teamwork, problem solving and accountability. Good leadership training enables students to have confidence in themselves and encourages them to be actively involved in academic, cultural and social activities. It also equips them for the future challenges they may encounter in college, or in their work or community lives. Leadership development in schools enables students to think independently and to be responsible citizens to make a positive impact on society. Students learn to take responsibility, to work cooperatively with others and make ethical choices through activities like student councils, group projects, debates, sports, and community service. Leadership skills also promote discipline, creativity and critical thinking, leading to better academic achievement and personal growth. Moreover, leadership training in senior secondary colleges can enable the students to prepare themselves for the ever-changing global scenario where employers and institutions now expect the students to be equipped with leadership skills and interpersonal relations in addition to academics. Educational institutions can help in nurturing leadership skills from an early age, which will help in building a generation that is innovative, socially responsible, and can contribute to the development of a nation. Thus, leadership development programs in senior secondary schools are important contributors to a better future for the students and the community at large.

THE REMOTE WORK PARADOX: A COMPARATIVE ANALYSIS OF PERCEIVED FREEDOM vs. REALITY AMONG UNIVERSITY STUDENTS WORKING REMOTELY

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ABSTRACT

Remote work has rapidly expanded as a dominant work arrangement, particularly among university students seeking income, experience, and flexibility while completing academic responsibilities. While remote work is commonly associated with autonomy, reduced commuting, and improved work-life balance, emerging evidence suggests that flexibility may generate negative consequences such as telepressure, technostress, digital fatigue, and blurred work-life boundaries. This study proposes a qualitative investigation into the lived experiences of university students who work remotely, focusing on the paradox between perceived freedom and empirical reality. Using a phenomenological research approach, data will be collected through semi-structured interviews with 15–20 university students engaged in remote work for at least three months. The data will be analyzed using thematic analysis to identify patterns related to boundary management, psychological detachment, wellbeing outcomes, and coping strategies. The study aims to contribute to workplace wellness and organizational behavior literature by highlighting how remote work influences student wellbeing across affective, cognitive, social, professional, and psychosomatic dimensions. The findings are expected to inform universities, employers, and students on sustainable boundary management strategies and policies such as the right to disconnect.

Keywords: remote work, boundary management, student wellbeing, work-life balance.

THE IMPORTANCE OF DEVELOPING A NEW DISTANCE LEARNING METHODOLOGY UNDER MARTIAL LAW

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ABSTRACT

For the fifth year in Ukraine, the situation with the effective implementation of the educational process in all educational institutions has been significantly complicated. Martial law, the occupation of a large territory of the south and east of the country, constant shelling with rockets and mortars, unstable power supply, limited access to the material and technical base, as well as the forced mobility of participants in the educational process create new challenges for the educational system. It is especially difficult to implement the educational process for educational institutions from the occupied territories that are evacuated throughout our country and beyond. They work only remotely, using digital technologies under real conditions of limited access and opportunities.

Traditional approaches to distance learning, which are mostly based on synchronous interaction, video conferencing and the use of stationary equipment, are not effective enough in conditions of infrastructural instability. They require a stable Internet connection, significant energy resources and the constant presence of students in the network, which is not always possible. In this regard, there is an objective need to develop new methodological approaches to the implementation of distance learning, which would take into account the limited resources, provide the possibility of using mobile devices, minimize energy dependence and simplify access to educational resources. One of the promising areas in this context is the use of cloud services integrated according to the principle of a single account, which allows creating a holistic, simple and sustainable educational environment.

The problems of distance learning, digitalization of education and the formation of educational competencies have been studied in the works of domestic and foreign scientists. However, the issues of developing a distance learning methodology adapted to the conditions of infrastructural instability, taking into account the principles of mobility, energy independence, asynchrony and simplified access to resources, remain insufficiently developed and require further scientific substantiation.

In conditions of martial law, unstable power supply and limited access to the Internet, distance learning has become not just an alternative, but a necessity. Traditional approaches to the educational process cannot always be fully implemented, which requires the search for new solutions adapted to the real conditions of limited infrastructure functioning. There is a need to develop a learning methodology that should be based on five interrelated principles: cloud technologies, a single account, energy independence, mobility and asynchrony. Practical experience of distance learning confirms that it is the complex combination of these principles that ensures the stability and adaptability of distance learning in modern conditions.

Keywords: distance learning, methodology, principles of mobility, energy independence, asynchrony.

NEGOTIATION AS A PEDAGOGICAL TOOL: ENHANCING ACHIEVEMENT AND SOCIAL COMPETENCE IN JORDANIAN TENTH-GRADE CIVIC EDUCATION

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ABSTRACT

Civic and national education in Jordan is often delivered through teacher-centered, rote-learning approaches, which may constrain students' critical thinking, participation, and social development. Negotiation-based instruction offers a learner-centered alternative that emphasizes dialogue, perspective-taking, and collaborative problemsolving—skills that are essential for democratic citizenship. This study examined the impact of a negotiation-based teaching approach in civic and national education on the academic achievement and social skills of tenth-grade students in Jordan. A quasi-experimental, pretest–posttest, two-group design was employed. The sample comprised 55 tenth-grade students from Abi Hanifa Al-Nu'man Basic School in the Al-Ramtha Directorate of Education, Jordan, during the 2025–2026 academic year. Students were purposively selected and assigned to an experimental group ($n = 28$), taught using a negotiation-based approach, and a control group ($n = 27$), taught using conventional methods. Academic achievement was measured using a 25-item multiple-choice test. Social skills were assessed using an observation checklist encompassing nine skills, each represented by five behavioral indicators. Data were analyzed using independent-samples t -tests. The experimental group significantly outperformed the control group in academic achievement ($p < .05$). In addition, statistically significant differences were found in overall social skills, as well as across all nine individual skills, in favor of the experimental group ($p < .05$). The findings indicate that the negotiation-based teaching approach was effective in improving both cognitive and social outcomes in civic and national education. These results support the integration of negotiation strategies into Jordanian civic education curricula as a sustainable pedagogical practice that prepares students for active, constructive, and responsible citizenship.

Keywords: negotiation-based instruction; civic and national education; academic achievement; social skills; tenth grade; Jordan; quasi-experimental design

PEDAGOJİK BİR ARAÇ OLARAK MÜZAKERE: ÜRDÜN'DE ONUNCU SINIF VATANDAŞLIK EĞİTİMİNDE BAŞARI VE SOSYAL YETERLİĞİN GELİŞTİRİLMESİ

ÖZET

Ürdün'de yurttaşlık ve ulusal eğitim, çoğu zaman öğretmen merkezli ve ezbere dayalı yaklaşımlarla yürütülmekte; bu durum öğrencilerin eleştirel düşünme, katılım ve sosyal gelişimlerini sınırlayabilmektedir. Müzakereye dayalı öğretim; diyalog, bakış açısı alma ve işbirlikçi problem çözme vurgulayan öğrenci merkezli bir alternatif sunmaktadır.

Bu çalışma, yurttaşlık ve ulusal eğitim dersinde müzakereye dayalı öğretim yaklaşımının Ürdün'deki onuncu sınıf öğrencilerinin akademik başarıları ve sosyal becerileri üzerindeki etkisini incelemiştir. Çalışmada ön test-son test kontrol gruplu yarı deneysel desen kullanılmıştır. Örneklem, 2025–2026 öğretim yılında Ürdün Al-Ramtha Eğitim Müdürlüğüne bağlı Abi Hanifa Al-Nu'man Temel Okulunda öğrenim gören 55 onuncu sınıf öğrencisinden oluşmuştur. Öğrenciler amaçlı örnekleme yöntemiyle seçilmiş; 28 öğrenci müzakereye dayalı yaklaşımla öğretim yapılan deney grubuna, 27 öğrenci geleneksel yöntemlerle öğretim yapılan kontrol grubuna atanmıştır. Akademik başarı 25 maddelik çoktan seçmeli testle, sosyal beceriler ise her biri beş davranışsal gösterge içeren dokuz beceriyi kapsayan bir gözlem formuyla ölçülmüştür. Veriler bağımsız örneklem t-testi ile analiz edilmiştir. Bulgular, deney grubunun akademik başarıda kontrol grubuna göre anlamlı düzeyde daha yüksek performans gösterdiğini ortaya koymuştur ($p < .05$). Ayrıca, genel sosyal becerilerde ve dokuz becerinin her birinde deney grubu lehine istatistiksel olarak anlamlı farklılıklar bulunmuştur ($p < .05$). Sonuçlar, müzakereye dayalı öğretim yaklaşımının yurttaşlık ve ulusal eğitimde hem bilişsel hem de sosyal çıktıları geliştirmede etkili olduğunu göstermektedir.

Anahtar kelimeler: müzakereye dayalı öğretim; yurttaşlık ve ulusal eğitim; akademik başarı; sosyal beceriler; onuncu sınıf; Ürdün; yarı deneysel desen

STRUCTURAL, MAGNETIC, AND ELECTRICAL PROPERTIES OF NI–CU SPINEL FERRITE NANOPARTICLES FOR EMI APPLICATION

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ABSTRACT

Spinel ferrites are the materials with their excellent magnetic properties, electrical behaviour, and high chemical stability. Copper doped Nickel spinel ferrite nanoparticles were successfully synthesized by the auto-combustion technique. X-ray diffraction studies confirmed the formation of a single-phase cubic spinel structure, while Rietveld refinement indicated variations in lattice parameters with an average crystallite size determined. FTIR analysis verified the existence of characteristic metal–oxygen vibrations, and SEM–EDX results revealed densely packed polygonal grains along with the confirmation of elemental composition. Magnetic measurements showed a gradual transformation from soft to hard magnetic behaviour with increasing Cu substitution, accompanied by a decrease in magnetisation due to changes in cation distribution and magnetic exchange interactions. Electrical investigations demonstrated semiconducting nature dominated by polaron hopping conduction. The AC conductivity obeyed Jonscher's power law, and the decreasing frequency exponent with higher Cu concentration suggested a correlated barrier hopping mechanism. Impedance analysis confirmed non-Debye relaxation behaviour related to space-charge polarization and oxygen vacancies, whereas Cole–Cole plots indicated an increase in resistive contribution with Cu doping. Overall, the results demonstrate that Cu incorporation strongly influences the structural, magnetic, and electrical characteristics of Ni–Cu spinel ferrites.

Keywords: Ni–Cu spinel ferrites, Auto-combustion, Magnetic properties, Electrical conductivity, Impedance spectroscopy

NOVEL COGNITIVE ACTION OF EYE AND MIND DURING CREATION OF CLAY TOY INSPIRED OPTIMIZATION ALGORITHM FOR POWER LOSS REDUCTION IN ELECTRICAL DISTRIBUTION SYSTEM

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ABSTRACT

Composed mode eyesight and mind vision form an ample structure of observation and had on effects in what way human beings understanding the life and communicate to other beings. Molding clay in the toy making process necessitates appropriate eye-mind harmonization. In the examination period, human being after attaining a perception or opinion through eyesight and mind vision, may again do the analysis on the same opinion and engender the reasons for attaining the particular opinion. Molding clay in the toy making process necessitates appropriate eye-mind harmonization. Exploration is demarcated, based on the mind vision examinations on particular eyesight of the human being is considered. Creation of clay toy possesses multiple methodologies and type of the toy is expanded on the market value in the vending procedure. Injection molding commonly applied and carving, mixing, and terracotta tools are utilized to create various new designs in the clay toy making process. In the examination period, human being after attaining a perception or opinion through eyesight and mind vision, may again do the analysis on the same opinion and engender the reasons for attaining the particular opinion. Cognitive action of eye and mind during creation of clay toy inspired optimization algorithm (CTM) is validated in 7 benchmark functions and IEEE 30, 57 bus systems.

Keywords: Human, Eye, Clay, Toy

EFFICIENT FEATURE DIVERSITY IN CNN ENSEMBLES FOR MEDICAL IMAGE CLASSIFICATION

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ABSTRACT

Convolutional neural networks (CNNs) are widely used in medical image classification tasks. Ensemble approaches have demonstrated enhanced performance through the use of multiple models. In this work, we propose a hybrid framework using an ensemble of Convolutional Neural Networks for image classification. The main idea of this work is to enhance feature diversity by varying the size of convolutional filters across multiple CNNs. Each model is designed with different receptive field sizes in order to capture complementary spatial features at multiple scales.

The outputs of the different CNN models are combined using a Random Forest classifier to produce the final predictions. This fusion strategy reduces variance and improves decision stability, especially in the presence of noisy or limited medical datasets.

The proposed pipeline is evaluated on a benchmark chest X-ray dataset for pneumonia detection. Experimental results demonstrate that the combination of multi-scale CNN feature extraction and Random Forest-based fusion leads to improved classification performance compared to individual CNN models and standard ensemble averaging techniques.

Overall, the proposed approach highlights the effectiveness of combining deep convolutional feature learning with machine learning methods for robust medical image classification.

Keywords: Convolutional Neural Networks, Image Classification, Machine learning, Medical images.

NEW TRIGONOMETRIC ROBUST LOSS FUNCTION FOR ENHANCED LEARNING

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ABSTRACT

Neural network learning is strongly influenced by the choice of loss function. The loss function shapes the geometry of the optimization landscape in gradient-based training algorithms [1]. Robust loss functions ensure convergence stability, robustness to noise, and improved generalization performance. In classification tasks, cross-entropy with a softmax output layer is the standard choice due to its probabilistic interpretation. However, cross-entropy may produce large gradients when predictions deviate significantly from the target distribution, which can negatively affect performance.

In regression tasks, the mean squared error (MSE), defined as $\left(\rho(e) = \frac{1}{2}e^2\right)$, is commonly employed. However, it is highly sensitive to outliers, and large residuals can significantly degrade the performance of neural network models.

Several robust loss functions have been proposed, including mean absolute error (MAE), Huber-type losses, and adaptive robust formulations. However, these approaches may introduce non-smooth behavior or require additional hyperparameters. Robust loss design for neural network learning remains an active research area.

In this work, we propose a bounded trigonometric loss function defined on a compact interval, given as $\left(\rho_{\sin}(e) = \frac{1}{2}\sin^2(e)\right)$ for softmax output neural networks. The proposed function is smooth, symmetric, and bounded, ensuring controlled gradient behavior. The effectiveness of the proposed formulation is analyzed using the influence function. Experimental results on the MNIST handwritten digit dataset demonstrate improved robustness under both clean and noisy conditions compared to classical loss functions.

Keywords: Loss functions, Robust statistics, Neural Networks, Classification, Robust learning.

**EFFECTS OF SLEEP QUALITIES ON THE ACADEMIC PERFORMANCE (GPA)
AMONG 4CL CADETS OF THE PHILIPPINE MERCHANT MARINE ACADEMY
S.Y. 2025-2026**

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ABSTRACT

This study examined the effects of sleep quality on the academic performance (Grade Point Average) of 4CL cadets of the Philippine Merchant Marine Academy (PMMA) during the First Semester of School Year 2025–2026. The study aimed to determine the demographic profile of the respondents, assess their level of sleep quality, describe their academic performance, examine the relationship between sleep quality and academic performance, test differences when grouped according to demographic profile, and determine whether sleep quality significantly predicts academic performance.

The study utilized a descriptive-correlational research design involving 375 cadets. Frequency and percentage distribution were used for demographic profiling, weighted mean and standard deviation for sleep quality assessment, mean and standard deviation for academic performance, Pearson correlation for relationship analysis, independent samples t-test and one-way ANOVA for group differences, and simple linear regression for predictive analysis.

Results showed a weak to moderate but statistically significant positive relationship between sleep quality and academic performance ($r = 0.38$, $p < .001$), indicating that cadets with better sleep quality tend to have higher GPA. Further analysis using simple linear regression revealed that sleep quality significantly predicts academic performance ($R^2 = 0.14$, $F \approx 62.97$, $p < .001$), explaining approximately 14% of the variance in GPA. However, no significant differences in sleep quality and academic performance were found when respondents were grouped according to age and sex.

The study concludes that sleep quality plays a significant role in the academic performance of cadets, although demographic variables do not significantly influence either sleep quality or GPA. Based on these findings, it is recommended that PMMA implement comprehensive sleep wellness programs, optimize academic and training schedules, strengthen mental health support services, and adopt evidence-based policies to improve cadet well-being and academic success. Ultimately, enhancing sleep quality is essential in promoting better academic outcomes and overall performance among maritime cadets.

Keywords: Sleep Duration, Academic Performance (GPA), Sleep deprivation

THE RELATIONSHIP BETWEEN DORMITORY CONDITIONS AND SLEEP QUALITY OF 1CL PMMA CADETS, S.Y. 2025–2026

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ABSTRACT

This study investigated the relationship between living environments and sleep quality among 337 first-class cadets at the Philippine Merchant Marine Academy during the academic year 2025–2026. Grounded in the Sleep Environment Model, the research evaluated how the residential physical environment affects cadet rest, which is crucial for maintaining cognitive performance and safety awareness in maritime training. Data were collected via a structured questionnaire incorporating the Pittsburgh Sleep Quality Index (PSQI) and analyzed using descriptive statistics, correlation, and multiple regression. The descriptive findings showed that cadets generally perceived their quarters as moderately acceptable, with baseline sleep disturbances occurring infrequently, averaging less than once a week. While most measured environmental factors demonstrated negligible ties to sleep health, room ventilation showed a moderate positive relationship, and overall cleanliness exhibited a strong positive correlation. Crucially, multiple regression analysis revealed that cleanliness was the lone statistically significant predictor of sleep quality. Other traditional environmental stressors proved statistically insignificant, suggesting that cadets adapt to routine institutional disruptions due to their disciplined, regimented lifestyle. Ultimately, the study concludes that while overall barracks conditions meet basic operational needs, cleanliness stands out as the primary environmental driver of sleep quality. Based on these insights, it is recommended that academy management prioritize dormitory sanitation, implement targeted sleep wellness programs, and review training schedules to optimize cadet physical recovery and training readiness.

Keywords: Dormitory Conditions, Sleep Quality, PMMA Cadets, Cleanliness, PSQ

INFLUENCE OF DIGITAL EDUCATIONAL TOOLS ON THE COMPETENCE AND LEARNING ENGAGEMENT OF FIRST- CLASS MARINE ENGINEERING CADETS

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ABSTRACT

This study examined the influence of digital educational tools on the competence and learning engagement of maritime learners at the Philippine Merchant Marine Academy. Specifically, competence was assessed in terms of knowledge, skills, and readiness, while learning engagement was evaluated through behavioral, emotional, and cognitive dimensions. Using a quantitative correlational research design, data were collected from 50 First Class Midshipmen enrolled in the Bachelor of Science in Marine Engineering program through a structured questionnaire administered via Google Forms. Statistical tools such as frequency, percentage, weighted mean, and Pearson Correlation Coefficient were utilized to analyze the data. Findings indicated that respondents perceived digital educational tools as having a positive influence on both competence and learning engagement. Moreover, a very high and significant relationship was found between competence and learning engagement ($r = 0.859$, $p = 0.000$). The study concludes that the effective use of digital educational tools can enhance the competence and learning engagement of students.

Keywords: Digital Educational Tools, Maritime Students, Competence, Learning Engagement, Correlational Study.

A QUANTITATIVE STUDY ON THE RELATIONSHIP BETWEEN INTERNET CONNECTIVITY FREQUENCY AND LEVELS OF DEPRESSION, ANXIETY, AND STRESS AMONG FILIPINO SEAFARERS ON INTERNATIONAL VESSELS

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ABSTRACT

This quantitative, cross-sectional, correlational study examined the relationship between internet connectivity frequency and levels of depression, anxiety, and stress among 50 Filipino seafarers on international vessels. Data were collected using a structured online questionnaire that measured internet access frequency (days per week) and daily hours of use, and mental health outcomes using adapted items from the Depression Anxiety Stress Scales (DASS-21). Results showed that 96% of seafarers had internet access, but usage varied considerably (36% connected 5-7 days per week, while 34% connected only 1-2 days per week). Seafarers reported low levels of psychological distress, with mean scores of 2.55 (depression), 2.17 (anxiety), and 2.19 (stress), all interpreted as "Disagree" (symptoms occur infrequently). Pearson correlation revealed no significant linear relationship between internet connectivity frequency and depression ($r = 0.11$, $p = 0.46$), anxiety ($r = -0.03$, $p = 0.83$), or stress ($r = 0.06$, $p = 0.69$). An independent t-test comparing high and low internet usage groups found no significant differences in any mental health outcome ($p > 0.05$ for all). The study concludes that internet connectivity frequency alone does not significantly predict depression, anxiety, or stress among Filipino seafarers; instead, factors such as purpose of use of the internet, vessel type, and deployment length likely play more important roles. Future research should use larger samples and distinguish between adaptive and problematic internet use.

Keywords: internet connectivity, depression, anxiety, stress, Filipino seafarers, mental health, maritime industry

ACADEMIC OUTCOMES OF FOURTH-CLASS MIDSHIPMEN UNDER DISCIPLINE TRAINING AT PMMA, ACADEMIC YEAR 2024–2025

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ABSTRACT

This study investigated the relationship between discipline training and the academic outcomes of Fourth-Class (4CL) Engineering Midshipmen at the Philippine Merchant Marine Academy (PMMA) for the Academic Year 2024–2025. Grounded in Behaviorism and Self-Regulation theories, the research sought to determine if the academy's quasi-military disciplinary framework—specifically focusing on attendance, obedience to rules, time management, and personal responsibility—correlates with scholastic achievement.

Utilizing a positivist research paradigm and a purposive sampling method, data were gathered from fifty (50) 4CL Engineering Midshipmen through a researcher-developed "Discipline Training Module Evaluation Checklist" and official academic records. Statistical analysis revealed that 86% of the respondents achieved excellent marks (90 and above) in discipline training, establishing a high-performing behavioral profile.

The findings confirm a significant positive relationship between effective discipline training and academic performance. The study concludes that the structured routines and accountability inherent in PMMA's training develop mental toughness and time-management skills that directly enhance a midshipman's capacity to handle rigorous engineering coursework. Recommendations include refining institutional policies to further balance disciplinary measures with academic support and utilizing these baseline data to prepare cadets for the high-pressure demands of shipboard competence and future maritime careers.

Keywords: Discipline Training, Academic Performance, 4CL Midshipmen, PMMA, Maritime Education, Engineering Midshipmen, Self-Regulation.

FACTORS AFFECTING THE PERCEIVED ENGLISH PROFICIENCY AMONG 2015 TO 2025 PMMA GRADUATES

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ABSTRACT

The global maritime industry requires seafarers to possess not only technical competence but also language proficiency to effectively work in multinational crews. This study examined the English language proficiency of the graduates from the Philippine Merchant Marine Academy (PMMA) in the global maritime workforce. Particularly, it determined the respondents' demographic profile, assessed their communication competence in multicultural environments, and identified challenges related to language barriers. A quantitative correlational research design was employed using a structured survey questionnaire administered through Google Forms to fifty-one (51) PMMA graduates with international shipboard experience. The study revolves mainly with the PMMA graduates and the factors affecting their perceived English proficiency. Utilizing the One-Way ANOVA was employed in order to know if there is a significant difference between the PMMA Graduates' perceived English proficiency and the factors affecting it. The study concludes that there are no significant differences between the factors in terms of their rank, total sea service, type of vessel, crew nationality to their perceived English proficiency.

Keywords: PMMA graduates, multinational crews, Maritime English, maritime workforce, intercultural communication. III

BUILDING AN EVALUATION INDEX SYSTEM FOR PHYSICAL EDUCATION TEACHING ENVIRONMENT IN COLLEGES AND UNIVERSITIES IN NGHE AN PROVINCE, VIETNAM

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ABSTRACT

Introduction and Aim: The physical education (PE) teaching environment encompasses the totality of physical, socio-psychological, and institutional conditions that directly influence teaching quality, learning efficiency, and students' physical and mental development. In Vietnam, while research on the general teaching environment remains at an exploratory stage, no systematic, quantitative evaluation tool has yet been developed for higher education PE, especially in provinces characterized by diverse geographical and socio-economic conditions such as Nghe An. This study aims to construct a scientific, feasible, and context-sensitive evaluation index system for the PE teaching environment in colleges and universities in Nghe An province, thereby providing a foundation for environmental improvement and quality enhancement in training.

Methods: A rigorous three-stage methodology was employed, closely referencing theoretical frameworks and systemic, scientific principles.

1. Theoretical analysis and literature review: Domestic and international works on the PE teaching environment were synthesized to preliminarily identify key environmental components.

2. Two-round Delphi method: Nineteen experts (including PE lecturers, educational administrators, and quality assurance specialists) participated in reviewing, supplementing, and screening the indicators. Expert selection criteria included a minimum of 10 years of experience in PE or higher education management and familiarity with the actual conditions in Nghe An. Round 1 employed an open-closed questionnaire to establish the indicator set; Round 2 assessed the importance of each indicator on a 5-point Likert scale. Indicators were retained if they met the following criteria: mean score ≥ 3.5 , coefficient of variation $CV < 0.25$, and high expert consensus (statistically significant Kendall's W, $p < 0.05$).

3. Analytic Hierarchy Process (AHP): Pairwise comparison matrices were constructed for each indicator level, weights were calculated, and consistency was verified ($CR < 0.10$). Data were processed using Excel and SPSS 21.0.

Results: The final evaluation index system comprises 3 first-level indicators, 8 second-level indicators, and 30 third-level indicators (see Table 1).

Table 1. PE Teaching Environment Evaluation Index System (abbreviated version)

Level 1 (Weight)	Level 2 (Weight within Level 1)	Level 3 (Weight within Level 2)
A1. Physical Environment (0.55)	B1. PE Facilities (0.73)	C1. Sports grounds and gymnasiums (0.10); C2. Fitness equipment (0.25); C3. Teaching aids and apparatus (0.42); C4. Theory classrooms and library (0.22)
	B2. PE Natural Environment (0.27)	C5. Air quality (0.36); C6. Light intensity (0.09); C7. Noise level (0.33); C8. Color configuration (0.05); C9. Greenery coverage (0.10); C10. Temperature and humidity (0.06)
A2. Socio- Psychological Environment (0.34)	B3. Classroom Atmosphere (0.55)	C11. Student interest and engagement (0.45); C12. Cooperative spirit (0.55)
	B4. Interpersonal Communication (0.30)	C13. Teacher-student communication (0.58); C14. Student-student communication (0.33); C15. Teacher-teacher communication (0.09)
	B5. Time-Space Environment (0.05)	C16. Class size (0.18); C17. PE credit hours (0.16); C18. Timetable arrangement (0.43); C19. Individual practice space (0.24)
A3. Institutional Environment (0.11)	B6. PE Teaching Regulations (0.65)	C20. Information dissemination system (0.45); C21. Assessment and evaluation regulations (0.10); C22. Activity organization regulations (0.25); C23. Reward and incentive policies (0.20)
	B7. PE Management Regulations (0.35)	C24. Equipment and facility management (0.26); C25. Safety regulations (0.63); C26. Teacher professional development (0.11)

Note: This is an abbreviated table. The full paper will present complete definitions and measurement guidelines for each indicator.

Weight analysis revealed that the Physical Environment received the highest expert rating (0.55), reflecting the reality of inadequate facilities in many local universities. The Socio-Psychological Environment ranked second (0.34), with classroom atmosphere and teacher-student communication emerging as pivotal factors. Although the Institutional Environment carried a lower weight (0.11), it remains an indispensable component; experts particularly emphasized the role of safety regulations and policies that encourage teaching method innovation. All AHP matrices achieved $CR < 0.10$, ensuring strong consistency.

Conclusion and Recommendations: This study successfully developed a PE teaching environment evaluation index system tailored to the specific conditions of Nghe An province, comprising 3 factor groups, 8 criteria, and 30 concrete indicators. The system overcomes limitations of previous research by (i) clearly separating factors attributable to actors (teachers, students) from objective external conditions; and (ii) providing specific measurement guidance for each indicator (student questionnaires, observational checklists, expert assessments).

To maximize practical utility, higher education institutions in Nghe An can adopt this toolkit on a periodic basis to diagnose strengths and weaknesses and formulate targeted PE environment improvement plans. Future research should implement empirical assessments at selected institutions to test the reliability and validity of the scales and explore the system's adaptability to neighboring provinces.

Keywords: PE teaching environment, evaluation index system, Delphi method, AHP, Nghe An, Vietnam.

NAVIGATING THE MENTAL HORIZON: THE IMPACT OF CONTRACT DURATION ON PSYCHOLOGICAL STRESS AND CAREER LONGEVITY AMONG MARITIME CADETS

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ABSTRACT

The global shipping industry relies heavily on the mental resilience of its workforce, yet seafarers face unique stressors stemming from prolonged isolation and extended sea service. As the industry grapples with a growing shortage of qualified officers, understanding the factors that influence the career intentions of future maritime professionals is critical.

Objective: This study investigates the relationship between contract length, psychological stress levels, and the long-term career intentions of First-Class Cadets at the Philippine Merchant Marine Academy (PMMA).

Utilizing a quantitative research design grounded in Social Cognitive Career Theory (SCCT), data were collected from 117 graduating Marine Engineering cadets. Psychological stress was measured using standardized assessment scales, while career intentions were evaluated based on the cadets' desire to remain in the seafaring profession beyond their initial mandatory service. The findings indicate a significant correlation between perceived contract duration and psychological strain. Cadets who anticipated or experienced longer contracts (typically exceeding 6–9 months) reported higher levels of burnout and a notable decrease in "Career Self-Efficacy." Conversely, those favoring shorter, more frequent rotations demonstrated higher motivation to pursue senior officer ranks.

The study concludes that current industry contract standards may be a deterrent to long-term career commitment among new entrants. The results suggest that the "anticipatory stress" of long deployments begins as early as the cadetship phase.

The research proposes a "Flexible Contracting Model" to mitigate psychological fatigue. It suggests that shipping companies and manning agencies should re-evaluate deployment lengths to balance operational costs with seafarer mental health, thereby ensuring a more sustainable maritime workforce.

Keywords: Contract Length, Psychological Stress, Career Intentions, Maritime Education, Seafarer Retention, PMMA Cadets.

CADETSHIP EXPERIENCE AS A PREPARATORY PATHWAY TOWARD SHIPBOARD OFFICER READINESS: THE CASE OF FIRST-CLASS MARINE ENGINEERING MIDSHIPMEN OF THE PHILIPPINE MERCHANT MARINE ACADEMY

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ABSTRACT

This study examines the effectiveness of the cadetship program at the Philippine Merchant Marine Academy (PMMA) as a structured mechanism for developing officer readiness among first-class marine engineering midshipmen. As the maritime industry faces increasing demands for technically proficient officers due to automation and digitalization, the cadetship experience serves as a vital bridge between academic instruction and operational sea life. Utilizing a descriptive-correlational quantitative research design, the study surveyed over 80 respondents to evaluate various training components, including engine room operations, machinery maintenance, safety drills, and mentorship.

The findings reveal that the majority of midshipmen strongly agree that their cadetship provided sufficient hands-on experience and effectively developed essential competencies such as technical proficiency, leadership, and safety compliance. While safety protocols were consistently high across all vessels, variations were noted in the quality of mentoring and the level of advanced technical exposure depending on vessel types and individual shipboard cultures. The study concludes that while the cadetship training is fundamentally sound and significantly enhances professional readiness, there is a need for standardized mentoring systems and improved technological support to ensure equal learning opportunities for all maritime students.

Keywords: Cadetship experience, shipboard officer readiness, marine engineering, maritime education, PMMA, STCW compliance.

INTEGRATING COMMUNITY PRACTICES FOR POSITIVE BEHAVIOUR IN EARLY CHILDHOOD EDUCATION

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ABSTRACT

This paper examines the integration of community practices as a strategy for promoting positive behaviour in early childhood education. While being theoretical, the paper argues that children's behavioural development is deeply rooted in their socio-cultural environment, where community values and interactions play a central role. Focusing on Lev Vygotsky's socio-cultural theory and Albert Bandura's social learning theory, the paper explains that children acquire behaviours through social interaction, guided participation, observation, and imitation within their communities. By reviewing relevant literature and cultural practices such as storytelling, communal living, and moral instruction, the paper highlights how these indigenous approaches contribute to the development of desirable behaviours like empathy, cooperation, and self-regulation. It further emphasizes the need to align classroom practices with community values through culturally responsive pedagogy. The paper contributes theoretically by connecting established learning theories with local community-based practices and recommends their integration into early childhood education programmes, though, Inclusion of community practices in ECE curriculum particularly in culturally diverse contexts like Nigeria.

Keywords: community practice, positive behaviour, early childhood education

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17. Uluslararası Mardin Artuklu Bilimsel Araştırmalar Kongresi, 1-3 Haziran 2026 tarihlerinde; Mardin’de 34 farklı ülkenin akademisyen/araştırmacılarının katılımıyla gerçekleşmiştir. Kongre kapsamında sunumu yapılan 221 bildirinin 104 adeti Türkiye’den katılımcılar tarafından; 117 bildiri ise 33 farklı ülkeden katılımcılar tarafından sunulmuştur. Kongre 16 Ocak 2020 Akademik Teşvik Ödeneği Yönetmeliğine getirilen “Tebliğlerin sunulduğu yurt içinde veya yurt dışındaki etkinliğin uluslararası olarak nitelendirilebilmesi için Türkiye dışında en az beş farklı ülkeden sözlü tebliğ sunan konuşmacının katılım sağlaması ve tebliğlerin yarıdan fazlasının Türkiye dışından katılımcılar tarafından sunulması esastır.” değişikliğine uygun düzenlenmiştir. Bilgilerinize arz edilir,

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Prof. Dr. Yıldırar TOPCU
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