

24-25 February, 2022
Ankara Turkey

2. BASKENT
INTERNATIONAL CONFERENCE ON
MULTIDISCIPLINARY STUDIES
ABSTRACT BOOK



EDITED BY
LECT. DAMLA ZEYNEP UTEBAY
ALINA AMANZHLOVA

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Alina AMANZHLOVA**

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CONGRESS ID

TITLE OF CONGRESS

2. BASKENT

International Conference on Multidisciplinary
Studies

DATE - PLACE

24-25 February, 2022

Ankara, Turkey

ORGANIZATION

Institute of Economic Development and Social Researches



EDITED BY

Lect. Damla Zeynep UTEBAY

Alina AMANZHOLVA

EVALUATION PROCESS

All applications have undergone a double-blind peer review process

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Dr. Osman OKUYUCU - Namık Kemal University

PHOTO GALLERY



II. BASKENT INTERNATIONAL CONFERENCE ON MULTIDISCIPLINARY STUDIES

**February 24-25, 2022
Ankara, Turkey**

CONFERENCE PROGRAM

Online (with Video Conference) Presentation



**Meeting ID: 834 7835 0151
Passcode: 060708**

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ÖNEMLİ, DİKKATLE OKUYUNUZ LÜTFEN / IMPORTANT, PLEASE READ CAREFULLY

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- ✓ Kongremizde Yazım Kurallarına uygun gönderilmiş ve bilim kurulundan geçen bildiriler için online (video konferans sistemi üzerinden) sunum imkanı sağlanmıştır.
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Meeting ID: 834 7835 0151

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**Face to Face PRESENTATIONS****25.02.2022****Moderator: Mukadder Güneri****Ankara Local Time: 14:00 – 17:00****Place: Alba Hotel Ankara****Adres: Kızılay, Kocatepe Mahallesi, Yüksel Cd. No:19, 06000 Ankara**

Author(s)	Title	Affiliation
Mutlu BEKTAŞ Enes SAĞLAM Tuba BUĞDAYCI AVŞAR	DEVELOPMENT OF NITINOL MATERIAL SMART DETECTOR VEST	Yeşilirmak Elektrik Dağıtım A.Ş., Atakum /Samsun
Mustafa AKTAŞ Ahmet AKTAŞ Sedanur BİLGİN Fatma Nur ERDOĞMUŞ Melis ÖDER	SMART FAN MANAGEMENT ALGORITHM DESIGN FOR CONTROLLING POLLUTION ON CONDENSER SURFACE IN COOLING SYSTEMS	Gazi University, Ankara, Türkiye Nurdil SoğutmaA.Ş., Ankara, Türkiye
Büşra Nur KESKİN Kürşat YILDIZ	A NEW HYBRID MULTI-CRITERIA DECISION MAKING APPROACH FOR GREEN LOGISTICS SITE SELECTION	Gazi University, Ankara, Turkey
Mukadder Güneri	WAR OF INDEPENDENCE AND ANKARA	Bağımsız Araştırmacı
Mukadder Güneri	TO COMPARE	Bağımsız Araştırmacı
Güliz YAVUZ Ercüment ÇOLAK	EVALUATION OF <i>MUS</i> SPECIES DISTRIBUTED IN TURKEY IN TERMS OF TRADITIONAL MORPHOMETRICS	Kırşehir Ahi Evran University, Kırşehir, Turkey
Mustafa AKTAŞ Serhat KARYEYEN Alperen OKUR Süleyman ERTEN Melis ÖDER Fatma Nur ERDOĞMUŞ	NUMERICAL ANALYSIS OF AIR CURTAIN DESIGN PARAMETERS FOR OPEN TYPE REFRIGERATED DISPLAY CABINETS	Gazi University, Ankara, Turkey Nurdil SoğutmaA.Ş., Ankara, Türkiye
Elnara Musayeva	POSITION OF ISLAMIC ART IN THE HISTORY OF CONTEMPORARY ART	Türkiye

**Session 1 / Hall-1****24.02.2022****Moderator: Assoc. Prof. Dr. Chandrakant Naikodi****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 10:00 – 12:00**

Author(s)	Title	Affiliation
Iqra Javid Sibaram Khara	RESOURCE ALLOCATION AND INTERFERENCE MANAGEMENT STRATEGIES FOR DEVICE TO DEVICE COMMUNICATION IN 5G NETWORK	Sharda University, Greater Noida, India
Saptadeepa Kalita R.C. Singn Ali Imam Abidi	AN EFFECTIVE APPROACH FOR DENTAL CARIES CLASSIFICATION USING DEEP CONVOLUTIONAL NEURAL NETWORKS	Sharda University, Greater Noida, India
Assoc. Prof. Dr. Chandrakant Naikodi	IDENTIFYING RELIGION OF HISTORICAL MONUMENTS THROUGH IMAGE PROCESSING	Davangere University, Karnataka, India
Assoc. Prof. Dr. Chandrakant Naikodi	IDENTIFYING GENDER OF HISTORICAL STATUES THROUGH IMAGE PROCESSING	Davangere University, Karnataka, India
Sandhya Gupta	CHARGE CARRIERS DYNAMICS IN LOW VISCOSITY IONIC LIQUID DOPED POLYMER ELECTROLYTES	Sharda University, Greater Noida, India
Touraj Farsadi Mohammad Rahmadian	FIBER OPTIMIZATION OF VARIABLE STIFFNESS DOUBLY CURVED PANELS IN NONLINEAR FREE VIBRATION	Adana Alparslan Turkes Bilim ve Teknoloji University, Adana, Turkiye Gebze Technical University, 41400, Kocaeli, Turkey

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Session 1 / Hall-2

24.02.2022

Moderator: Dr. Mohamed MILOUDI

Meeting ID: 834 7835 0151 / Passcode: 060708

Ankara Local Time: 10:00 – 12:00

Author(s)	Title	Affiliation
Dr. Mohamed MILOUDI Dr. Houcine MILOUDI Prof. Dr. Abdelber BENDAOU Prof. Dr. Abdelkader RAMI Dr. Nassireddine BENHADDA	EMC PRINCIPLE OF MODELING SOURCES OF DISTURBANCES IN ELECTRONIC POWER SYSTEMS	APELEC Laboratory, AZUR University
Y. AIT FERHAT H. CHORFI I. ABACHA L. BENCHIKH M. KEBAILI	THE CALCULATION OF THE SIF THAT GOVERNS THE FRACTURE PHENOMENON IN FGM MATERIALS THROUGH THE METHOD OF THE INTERACTION INTEGRAL M IN A THIN PLATE CONTAINING A CENTRAL CRACK	Mechanical research center (CRM) Constantine, ALGERIA
Karan PANCHAL Shreeranjita KOWSHIK Sudhanva NADIGER Arumuga PERUMAL D Sasithra Devi ANBALAGAN	SIMULATION OF 2D AND 3D INCOMPRESSIBLE FLOWS IN A U- SHAPED CAVITY	NIT Karnataka, Surathkal, Mangalore, India VIT University, Chennai, India
Lilia BENCHIKH Maya KEBAILI Ilyes ABACHA Yazid AIT FERHAT	CHARACTERIZATION of EL DISS and EL RETMA CELLULOSE FIBERS AND THEIR EFFECT ON RHEOLOGICAL PROPERTIES OF EVOH BASED COMPOSITES	Université les frères Mentouri 1, Campus Chaab Erssas, Constantine, Algérie
Benmeziane – Derradji Farida Aoun Sara1, Achraf Cherifi Djermoune-Arkoub Lynda	TURMERIC AND GINGER FUNCTIONAL PROPERTIES: COMPARATIVE STUDY	Chadli Bendjedid University of El-Tarf, Algeria
Mehadjia BEZZERROUKI Ahmed AMIRI Djaffar AIT KACI Kouider MADANI Abderrahmane SAHLI Hamida FEKIRINI	IMPACT STRENGTH OF GEOMETRIC DESIGN AT A SINGLE LAP ADHESIVELY BONDED JOINTS	University of Djillali Liabes, Faculty of technology, LMPM Laboratory, Sidi-Bel-Abbes, Algeria
Iméne LARICHE Mehadjia BEZZERROUKI Abderrahmane SAHLI Mohammed Baghdadi Boualem SERIER	EFFECT OF REPAIR NATURE ON THE MECHANICAL BEHAVIOR OF CRACKED STRUCTURES REPAIRED BY COMPOSITE PATCH	University of Djillali Liabes, Faculty of technology, LMPM Laboratory, Sidi-Bel-Abbes, Algeria

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Session 1 / Hall-3

24.02.2022

Moderator: Dr. Rodolfo Reda

Meeting ID: 834 7835 0151 / Passcode: 060708

Ankara Local Time: 10:00 – 12:00

Author(s)	Title	Affiliation
Rodolfo Reda Alessio Zanza Maurilio D'Angelo Dario Di Nardo Luca Testarelli	NEW APPLICATIONS OF ULTRASOUND IMAGING IN DENTISTRY	Sapienza University of Rome, Rome 00161, Italy
Major Giurgiu Gheorghe Prof. Dr. Cojocaru Manole	THE LINK BETWEEN THE ALTERED GUT MICROBIOTA AND CHRONIC SPONTANEOUS URTICARIA: IMPACT OF ALERGIPLANT	Deniplant-Aide Sante Medical Center, Biomedicine, Bucharest, Romania
Nida Syed Amber Ilyas Basir Syed Aftab Ahmed Shamshad Zarina Zehra Hashim	NOVEL SYNERGISTIC COMBINATION TREATMENT FOR TRIPLE NEGATIVE BREAST CANCER	University of Karachi, Karachi 75270, Pakistan
Nicole Barbosa Bettiol Simone Cecilio Hallak Regalo Flávia Argentato Cecilio Ligia Maria Napolitano Gonçalves Paulo Batista de Vasconcelos Claire Genoveze Gauch Lopes Lilian Mendes Andrade Isabela Hallak Regalo Selma Siéssere Marcelo Palinkas	IMPACT OF INTERVERTEBRAL DISC DEGENERATION ON MAXIMAL MOLAR BITE FORCE AND MASSETER AND TEMPORALIS MUSCLES THICKNESS	University of São Paulo, Brazil
Flávia Argentato Cecilio Simone Cecilio Hallak Regalo Nicole Barbosa Bettiol Ligia Maria Napolitano Gonçalves Paulo Batista de Vasconcelos Claire Genoveze Gauch Lopes Lilian Mendes Andrade Isabela Hallak Regalo Selma Siéssere Marcelo Palinkas	INTERVERTEBRAL DISC DEGENERATION: AN ELECTROMYOGRAPHIC ANALYSIS OF THE MASSETER AND TEMPORALIS MUSCLES DURING MANDIBULAR TASKS	University of São Paulo, Brazil
Declan Chibueze Onyechege Norashidah Mohamed Nor Wan Azman Saini Bin Wan Ngah Mohd Naseem Bin Niaz Ahmad	EMPIRICAL INVESTIGATION ON SOCIOECONOMIC DETERMINANTS OF TUBERCULOSIS IN NIGERIA: AN ARDL APPROACH	Universiti Putra Malaysia, Selangor, MALAYSIA
OLARIU IOANA VLAIA LAVINIA CONEAC GEORGETA MUȚ ANA MARIA PREDA MARIUS VLAIA VICENȚIU	PRELIMINARY STUDY ON THE FORMULATION AND PHYSICAL AND RHEOLOGICAL EVALUATION OF SOME BIOCOMPATIBLE HYDROPHILIC CREAMS WITH CENTELLA ASIATICA OIL FOR DERMATOLOGIC USE	"Victor Babeș " University of Medicine and Pharmacy, Faculty of Pharmacy, Department II, Timișoara, România



Olga Yuschkovska Alexander Plakida Alyona Filonenko	THE USE OF NORDIC WALKING IN THE REHABILITATION OF PATIENTS WITH CORONARY HEART DISEASE	Odessa National Medical University, Odessa, Ukraine
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**Session 1 / Hall-4****24.02.2022****Moderator: Assoc. Prof. Dr. Erkan ARI****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 10:00 – 12:00**

Author(s)	Title	Affiliation
Assoc. Prof. Dr. Erkan ARI Prof. Dr. Veysel YILMAZ	MODERATING IMPACT OF ENVIRONMENTAL AND ENERGY BENEFIT IN THE ACCEPTANCE OF NUCLEAR POWER PLANTS	Dumlupinar University, Kütahya Eskisehir Osmangazi University, Eskişehir
Assoc. Prof. Dr. Erkan ARI Prof. Dr. Veysel YILMAZ	INVESTIGATION OF TRAM PASSENGER SATISFACTION BY PARTIAL LAST SQUARE STRUCTURAL EQUALITY MODELING (PLS-SEM)	Dumlupinar University, Kütahya Eskisehir Osmangazi University, Eskişehir
Kağan Cenk MIZRAK Serdar KIZILCAN	CABIN SUPERVISORS FROM THE PERSPECTIVE OF CABIN OFFICERS IN TERMS OF LEADERSHIP: CASE STUDIES	Usak University, Usak, Turkey.
Assoc. Prof. Dr. Dilek ÇİL	THE RELATIONSHIP BETWEEN URBANIZATION AND CO2: EVIDENCE FROM THE EU MEMBER TRANSITION ECONOMIES (1995-2018)	Trabzon University, Trabzon, Turkey
Çiğdem KARIŞ Dilek ÇİL Sinem KOÇAK	FOREIGN DIRECT INVESTMENT AND LOGISTICS SECTOR: TODA-YAMAMOTO CASUALTY FOR TURKEY	Trabzon University, Trabzon, Turkey
Sinem KOÇAK	THE EFFECT OF INTERNET USE ON CO2 EMISSIONS: THE CASE OF TURKEY	Trabzon, Turkey
Çiğdem KARIŞ	TOURISM AND TRADE OPENNESS NEXUS: PANEL CASUALTY ANALYSIS FOR COMMONWEALTH OF INDEPENDENT STATES	Trabzon University, Trabzon, Turkey
Ersin YAVUZ	ANALYSIS OF THE RELATIONSHIP BETWEEN PUBLIC INVESTMENT EXPENDITURES AND CARBON EMISSIONS	Pamukkale University, Denizli, Türkiye
Mehmet Çanakcı Ali Oğuz DİRİÖZ	CONSUMER BEHAVIOR PURCHASING PROCESS AND MOTIVATION	Inonu University
Nazım Ankarahgil	A DESCRIPTIVE STUDY ON THE CHANGE PROCESS OF AUDIOVISUAL MEDIA OWNERSHIP IN TURKEY	İzmir Kâtip Çelebi University

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**Session 1 / Hall-5****24.02.2022****Moderator: Assoc. Prof. Dr. Hulya DOGAN****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 10:00 – 12:00**

Author(s)	Title	Affiliation
İlknur GÜMÜŞ Hamza NEGİŞ Cevdet ŞEKER	AGRICULTURAL IMPORTANCE OF SOIL CRUSTING AND PREVENTION	Selçuk University, Konya, Turkey
Hakan Bozdoğan	EAST TO WEST MORPHOMETRY IN GREEN LACEWINGS (NEUROPTERA: CHRYSOPIDAE)	Kırşehir Ahi Evran University, Kırşehir, Turkey
Hakan Bozdoğan	COMPARISON OF GOLDEN-EYED (NEUROPTERA: CHRYSOPIDAE) PHENOLOGY OF NORTHERN DISTRICTS OF HATAY PROVINCE	Kırşehir Ahi Evran University, Kırşehir, Turkey
Levent YAZICI Assoc. Prof. Dr. Hulya DOGAN	THE EFFECT OF CLIMATE CHANGE ON FIELD CROPS	Yozgat Bozok University, Yozgat, Turkey
Assoc. Prof. Dr. Hulya DOGAN Levent YAZICI	CURRENT SITUATION OF SUGAR BEET PRODUCTION IN THE YOZGAT REGION	Yozgat Bozok University, Yozgat, Turkey
Furkan TAŞ İnanç ÖZGEN Ercan AYDOĞMUŞ İbrahim KOÇ	INVESTIGATION OF EFFECTS OF NEW GENERATION ORGANIC FERTILIZERS BY PYROLYSIS METHOD ON SOME PHENOLOGICAL PARAMETERS OF STRAWBERRY PLANT AND NEMATODE TROPHIC STRUCTURE IN SOIL	Fırat University, Elazığ Türkiye
İlker YÜCE Yeter ÇİLESİZ Tolga KARAKÖY	THE EVALUATION OF AGRO-MORPHOLOGICAL CHARACTERISTICS OF SOME COCKSFOOT (Dactylis glomerata ssp. glomerata L.) GENOTYPES IN SİVAS ECOLOGICAL CONDITIONS	Sivas Bilim ve Teknoloji Üniversitesi, Sivas, Türkiye
Yeter ÇİLESİZ İlker YÜCE Tolga KARAKÖY	EVALUATION OF THE PERFORMANCE OF SOME SAINGA (Onobrychis sativa) VARIETIES IN TERMS OF AGRO-MORPHOLOGICAL PROPERTIES IN SİVAS ECOLOGICAL CONDITIONS	Sivas Bilim ve Teknoloji University, Sivas, Türkiye
Batuhan ORAL Levent EFİL	DETERMINATION OF POPULATION DEVELOPMENT AND DAMAGE STATUS OF DIAMINDBACK MOTH (PLUTELLA XYLOSTELLA L.) (LEPIDOPTERA: PLUTELLIDAE) IN WINTER VEGETABLE AREAS OF ÇANAKKALE PROVINCE	Çanakkale Onsekiz Mart University, Çanakkale / Türkiye
Betül GÜL Cevdet ŞEKER	DETERMINATION OF SOIL COMPACTION IN SEMI-DRUG APPLE GARDENS	Selçuk University, Konya, Turkey

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**Session 1 / Hall-6****24.02.2022****Moderator: Assist. Prof. Dr. Özcan ERİŞEK****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 10:00 – 12:00**

Author(s)	Title	Affiliation
Zemfira GADIROVA	EDUCATIONAL REFORM AND THE ROLE OF GREAT LEADER HEYDAR ALIYEV IN AZERBAIJANI EDUCATION	Azerbaijan State Pedagogical University, Azerbaijan, Baku.
Mustafa Fatih AKAY İlkay Doğan TAŞ	THE EFFECT OF AUTOBIOGRAPHY AND BIOGRAPHY ACTIVITY FOR VOCATIONAL HIGH SCHOOL STUDENTS ON LIFE SATISFACTION	Kırıkkale University, Kırıkkale, Türkiye
Kübra KILIÇ	INVESTIGATION OF THE EFFECTS OF SECONDARY SCHOOL STUDENTS' SCIENTIFIC EPISTEMOLOGICAL BELIEFS ON PERMANENT SCIENCE MOTIVATION	Yüzüncü Yıl University
Assist. Prof. Dr. Özcan ERİŞEK	LEARNING STRATEGIES AND VOCABULARY LEARNING	Atatürk University
Hanne Erdoğan Şafak Uluçianır Sağır	TEACHER'S OPINIONS ON CONTEXT-BASED LEARNING	Amasya University
Şafak Uluçianır Sağır Damla KİRPİKSİZ ZİLE	TEACHERS' VIEWS ON THE RELATIONSHIP OF LIFE STUDIES COURSE WITH OTHER COURSES	Amasya University
Hasan Basri Memduhoğlu Seray Marakçı	STUDENTS' IMAGES AND PERCEPTIONS AGAINST DISTANCE EDUCATION: A METAPHOR ANALYSIS	Siirt University, Siirt, Türkiye
Hasan Basri Memduhoğlu Hasan YILDIRIM	PERCEPTIONS OF CANDIDATES TEACHERS REGARDING SCHOOL CULTURE	Siirt University, Siirt, Türkiye
Prof. Dr. Cevat Celep Assist. Prof. Dr. Ayça Kaya	THE EFFECTS OF THE ADMINISTRATORS' TEACHER INFLUENCING BEHAVIORS ON TEACHERS' ORGANIZATIONAL COMMITMENT	Girne American University, Girne, Turkish Republic of North Cyprus Haliç University, İstanbul, Turkey
Dr. Mehmet CİHANGİR	OTTOMAN EMBASSADORS AND SEFARETNAMES	Dicle University, Diyarbakır/Türkiye

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**Session 2 / Hall-1****24.02.2022****Moderator: Dr. Naeema Arzeen****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 12:30 – 14:30**

Author(s)	Title	Affiliation
Dr. Naeema Arzeen Dr. Saima Arzeen	RELATIONSHIP OF REJECTION SENSITIVITY, PARENTAL BONDING, AND ATTACHMENT STYLES WITH RELATIONSHIP SATISFACTION AMONG ADULT ADOPTEES	Lecturer, NUML, Islamabad, Pakistan
Dr. Naeema Arzeen Dr. Saima Arzeen	AGE AND GENDER RELATED DIFFERENCES IN ICT SELF-EFFICACY, SELF-DIRECTED LEARNING, E-LEARNING READINESS, AND STUDENT ENGAGEMENT AMONG STUDENTS	Lecturer, NUML, Islamabad, Pakistan
Prof. A. Sathiya Susuman	CORRELATES OF BIRTH PARITY AND CHILDHOOD SURVIVAL IN TANZANIA	University of the Western Cape, Cape Town, South Africa
Dr. Naseem Akhter	A TREND OF NON-TRADITIONAL MARRIAGES IN PAKISTAN (AN ANALYSIS FROM ISLAMIC PERSPECTIVE)	Shaheed Benazir Bhutto Women University, Peshawar, Pakistan.
Dr. Naseem Akhter	THE SHRINE OF KAKA SAHIB AND ITS ROLE IN DEVELOPING PEACE & HARMONY (AN ANALYSIS OF THE OPINIONS OF THE STUDENTS OF SHAHEED BENAZIR BHUTTO WOMEN UNIVERSITY, PESHAWAR)	Shaheed Benazir Bhutto Women University, Peshawar, Pakistan.
Dr. U.K.Thalgaspitiya	EMOTIONAL INTELLIGENCE AND WORK-LIFE BALANCE	University of Sri Jayewardenepura, Sri Lanka
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Session 2 / Hall-2

24.02.2022

Moderator: Dr. Dinesha Siriwardhane

Meeting ID: 834 7835 0151 / Passcode: 060708

Ankara Local Time: 12:30 – 14:30

Author(s)	Title	Affiliation
Ly Dai Hung	EFFICIENT CAPITAL ACCUMULATION ACROSS ECONOMIES	Vietnam Institute of Economics, Hanoi
Faisal ZULHUMADI Wan Nadzri OSMAN Mazri YAAKOB Firzana ROSLAN	DISASTER PREPAREDNESS OF NANOTECHNOLOGY RESEARCH CENTRE IN MALAYSIA: A CASE STUDY	Universiti Utara Malaysia
Tamar Barbakadze	TAXATION AS AN INSTRUMENT OF FISCAL AND STIMULATING POLICY	Tbilisi State University, Tbilisi, Georgia.
Vikram Bansal Deepthi. B	A STUDY ON THE AWARENESS OF MUTUAL FUND INVESTMENT: A CASE STUDY OF TELANGANA	Jawaharlal Nehru University, New Delhi, India
Olena BUDIAKOVA	BIOECONOMY: INTERDISCIPLINARY RESEARCH	Kyiv National University of Technologies and Design, Kyiv, Ukraine
Dinesha Siriwardhane	HOW HEALTH MATTERS TO THE WEALTH OF A NATION? CASE OF A DEVELOPING COUNTRY	University of Sri Jayewardenepura, Sri Lanka
Dinesha Siriwardhane	SOCIO-ECONOMIC DRIVERS OF INTERNATIONAL CONTRACT LABOUR MIGRATION: CASE OF A DEVELOPING COUNTRY CONTEXT	University of Sri Jayewardenepura, Sri Lanka
Fakarudin Kamarudin Nazratul Aina Mohamad Anwar	UNBOXING THE BANKS' PRODUCTIVITY AND IMPACT OF COUNTRY GOVERNANCE NEXUS	Universiti Putra Malaysia
Ihor PONOMARENKO	MARKETING STRATEGY IMPLEMENTATION IN THE DIGITAL ENVIRONMENT	Kyiv National University of Technologies and Design, Faculty of Management and Business Design, Kyiv, Ukraine
Zulnaidi Yaacob	ANALYSING THE POST-PANDEMIC FACTORS OF BUSINESS DIGITALIZATION AMONG SME IN MALAYSIA	Universiti Sains Malaysia

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**Session 2 / Hall-3****24.02.2022****Moderator: Bharath Goudar****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 12:30 – 14:30**

Author(s)	Title	Affiliation
Messaoudi ABDERRAZEK Laszlo Peter KISS	BUCKLING OF BEAMS BY MEANS OF A GREEN FUNCTION TECHNIQUE	University of Miskolc, Institute of Applied Mechanics, Miskolc, Hungary
Govinda Prasad Dhungana Vijay Kumar	ODD INVERTED WEIBULL-G FAMILY: MODEL, PROPERTIES AND APPLICATIONS	Tribhuvan University, Birendra Multiple Campus, Chitwan, Nepal Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur, India
Vakeel A. Khan Zahid Rahman	ON THE SOME NEW CLASSES OF RIESZ I-CONVERGENT FUZZY SEQUENCE SPACES	Aligarh Muslim University, Aligarh, INDIA
Ilias Lai Nadir Rezzoug	ON A DEGREE OF PRIMITIVE SEQUENCES	ENS Vieux Kouba, Algiers, Algeria University of Tiaret, Algeria
Bharath Goudar	QUADRATIC COMBINED CONVECTIVE FLOW AROUND YAWED CYLINDER IN PRESENCE OF TIME VARIATIONS AND MAGNETIC EFFECTS	Karnatak University, Dharwad – 580 003, India.
H. F. Shankar	INFLUENCE OF LIQUID HYDROGEN DIFFUSION ON NONLINEAR MIXED CONVECTIVE CIRCULATION AROUND A YAWED CYLINDER	Karnatak University, Dharwad – 580 003, India
Bharath Goudar	QUADRATIC COMBINED CONVECTIVE FLOW AROUND YAWED CYLINDER IN PRESENCE OF TIME VARIATIONS AND MAGNETIC EFFECTS	Karnatak University, Dharwad – 580 003, India.
Schehrazad SELMANE	MATHEMATICAL APPROACHES TO SCORPION STINGS PREDICTION AND CONTROL	University of Science and Technology Houari Boumediene Algeria

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Session 2 / Hall-4

24.02.2022

Moderator: Lect. Damla Zeynep ÜTEBAY

Meeting ID: 834 7835 0151 / Passcode: 060708

Ankara Local Time: 12:30 – 14:30

Author(s)	Title	Affiliation
Ensar BAKİ	THE RIGHT TO FOOD IN NATIONAL AND INTERNATIONAL LAW	Ankara Yıldırım Beyazıt University, Ankara, Turkey
Av. Dr. Selin Başer	A COMPARATIVE EVALUATION OF THE CRIME OF GENOCIDE IN TERMS OF INTERNATIONAL LAW AND TURKISH LAW	İstanbul, Türkiye
Hasan HARMANCI	THE OUTLOOK OF LITERARY CURRENTS IN CONTINENTAL EUROPE AND THE ARAB WORLD	Muş Alparslan University, Muş, Türkiye
Assoc. Prof. Dr. Yılmaz SEÇİM İrem DEMİRYÜREK	KONYA CIRCASSIAN CULINARY CULTURE	Necmettin Erbakan University
Assoc. Prof. Dr. Yılmaz SEÇİM Kübranur SORUÇ	ANALYSIS OF COMMENTS AND E-COMPLAINTS ON ETHNIC RESTAURANT MENUS OPERATING IN ISTANBUL	Necmettin Erbakan University
Damla Zeynep ÜTEBAY	FROM TRADITIONAL FOODS “ALMOND PASTE”	Trakya University, Edirne, Turkey
Celalettin Adil BEŞORAK	A STUDY OF RESEARCH FOR DETERMINING THE LEVEL OF COPING WITH STRESS AND PSYCHOLOGICAL RESILIENCE OF SEAMEN, LONG DISTANCE TRUCK DRIVERS AND THEIR SPOUSES	Nişantaşı Üniversitesi, İstanbul, Türkiye
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**Session 2 / Hall-5****24.02.2022****Moderator: Assoc. Prof. Dr. Arzu Yiğit****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 12:30 – 14:30**

Author(s)	Title	Affiliation
Assist. Prof. Dr. Ali ÖZDEMİR	A RARE COMPLICATION IN PILONIDAL SINUS DISEASE: MALIGN DEGENERATION	Recep Tayyip Erdoğan University
Assoc. Prof. Dr. Arzu YİĞİT Assoc. Prof. Dr. Vahit YİĞİT	BED UTILIZATION PERFORMANCE BY REGION IN TURKEY BEFORE AND DURING THE COVID 19 PANDEMIC	Süleyman Demirel University
Assoc. Prof. Dr. Arzu YİĞİT Assoc. Prof. Dr. Vahit YİĞİT	ECONOMIC EVALUATIONS OF REMOTE PATIENT MONITORING SYSTEM: EXAMPLE OF HYPERTENSION DISEASE	Süleyman Demirel University
Sevcan İpek Ufuk Utku Güllü	ECHOCARDIOGRAPHIC FINDINGS IN CHILDREN WITH ACUTE BRONCHIOLITIS	Kahramanmaraş Sutcu Imam University
Neziha ULUSOYLAR ERKEN Filiz ARAZ Ertuğrul ERKEN Birol ÖZER	THE EFFECT OF TREATMENT COST AND METHODS ON SURVIVAL IN HEPATOCELLULAR CARCINOMA	Gaziantep University Baskent University Kahramanmaraş Sutcu Imam University
Mine ARGALI DENİZ Muhammed Furkan ARPACI	THE IMPORTANCE OF CADAVER STUDIES IN ANATOMY THESIS	Suleyman Demirel University urgut Ozal University
Muhammed Furkan ARPACI Mine ARGALI DENİZ	EFFECT OF TELEREHABILITATION IN STROKE PHYSIOTHERAPY	Turgut Ozal University Suleyman Demirel University
Uzm. Fzt. Elif Özlem ŞAHİN Assist. Prof. Dr. Manolya ACAR	THE VALIDITY AND RELIABILITY OF THE TURKISH VERSION OF THE INFLAMMATORY ARTHRITIS FACILITATORS AND BARRIERS TO PHYSICAL ACTIVITY QUESTIONNAIRE	Baskent University
Ayşegül DURAK	COMPARISON OF FEMALE AND MALE IN THE FORMATION OF METABOLIC SYNDROME	Ankara University Faculty of Medicine Biophysics Department, Ankara, Turkey
Selin KALENDER Vahit YİĞİT	COST-EFFECTIVENESS ANALYSIS OF SECOND-LINE TREATMENT OPTIONS OF MULTIPLE SCLEROSIS DISEASE	Suleyman Demirel University, Isparta, TURKEY

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**Session-2 / Hall-6****24.02.2022****Moderator: Dr. Ahmet Erhan AKAN****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 12:30 – 14:30**

Author(s)	Title	Affiliation
Ahmet Erhan AKAN	INVESTIGATION of ENERGY and CO ₂ REDUCTION POTENTIAL of UNDERFLOOR COOLING SYSTEM INTEGRATED INTO GEOTHERMAL HEAT PUMP	Tekirdağ Namık Kemal University, Tekirdağ, Turkey.
Berna ÇERİ Tarkan KOCA	EXPERIMENTAL EXAMINATION OF THE EFFECT OF TURBULATOR USE ON CHIMNEY GAS OUTPUT TEMPERATURE IN GAS FUEL BOILER	Mimsan Endüstri Kazanları A.Ş., Malatya, Türkiye İnönü University Malatya, Türkiye
Ayşegül Balıkcı Tarkan Koca	IMPACT OF OUTPUT PIPE DIAMETER AND FLOW SPEEDS ON CYLON PERFORMANCE	Mimsan Endüstri Kazanları A.Ş., Malatya, Türkiye İnönü University Malatya, Türkiye
Ebru Tanboğa Korkmaz Assoc. Prof. Dr. Fatih Ahmet Çelik	STUDY ON GaAsN NANO-STRUCTURE MODEL VIA DFT COMPUTATIONAL METHOD: A GEOMETRIC OPTIMIZATION AND MOLECULAR DYNAMICS PROCESS	¹ Bitlis Eren University
Serhat OSMANOĞLU Aslıhan HAYIRKUŞ Oğuzhan TAŞ Harun GÜÇLÜ Murat YAZICI	DESIGNING A SELF HEALING ALUMINUM HONEYCOMB CORE SANDWICH PANEL WITH PLACING POLYMER RESIN IMPREGNATED FOAM INTO CORE CELLS	Bursa Uludağ University Konya Teknik University, Konya, Türkiye
Büşra Tansu CEYLAN Aycan KARAMAN Murat YAZICI	INVESTIGATION OF SELF-HEALING OF CRACKS BY JOULE EFFECT IN CONTINUOUS CARBON FIBER REINFORCED POLYPROPYLENE COMPOSITES	Bursa Uludağ University

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**Session 3 / Hall-1****24.02.2022****Moderator: Assoc. Prof. Dr. Hristina Runcheva Tasev****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 15:00 – 17:00**

Author(s)	Title	Affiliation
Advocate Nikita Dobhal Ishu Dobhal	DENIAL OF 3D MARK FOR LIPSTICK BY EU	Advocate in District Court Dehradun, Uttarakhand, India
SALAKO, Oluwaseun Adewale ADEWALE, Adeseun, Adeshile	THE EFFECT OF LOCAL GOVERNMENT AUTONOMY ON LOCAL GOVERNMENT SERVICE DELIVERY IN YEWA SOUTH LOCAL GOVERNMENT	Federal Polytechnic Ilaro, Ogun State, Nigeria
Vorya Shabrandi	RUSSIAN FOREIGN POLICY DURING PUTIN'S PRESIDENCY IN FRONT OF IRAN IN POST- JCPOA(SANCTIONS)	Guilan University, IRAN
Assoc. Prof. Dr. Hristina Runcheva Tasev	MACEDONIAN MEDIA LANDSCAPE: LEGAL AND POLITICAL CHALLENGES FOR TRADITIONAL AND ONLINE MEDIA	Ss Cyril and Methodius University Skopje
FASASI ABIODUN WAKEEL ADEWALE ADESEUN ADESILE	PERFORMANCE APPRAISAL AND CAREER ADVANCEMENT IN NIGERIAN PUBLIC SERVICE	UNIVERSITY OF BENIN, NIGERIA
Silviana DEWI Bahtiar EFFENDI	HALAL BEHAVIOR IN TRAVELING	Halal Center Of IAIN Pekalongan
Hidayatul SIBYANI Kuat ISMANTO	HALAL BEHAVIOR IN STOCK INVESTING	Halal Center Of IAIN Pekalongan
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Session 3 / Hall-2

24.02.2022

Moderator: Prof. Matthew Chidozie OGWU

Meeting ID: 834 7835 0151 / Passcode: 060708

Ankara Local Time: 15:00 – 17:30

Author(s)	Title	Affiliation
Matthew Chidozie OGWU Osamede Pearl, OSAWARU	STATE OF THE GENETIC RESOURCES OF WEST AFRICAN OKRA (ABELMOSCHUS CAILLEI [A. CHEV.] STEVELS.): A TAXON WITH INDUSTRIAL POTENTIALS	Appalachian State University, USA
Matthew Chidozie OGWU	SYSTEMATICS AND TAXONOMIC STATUS OF SOME CRITICAL VASCULAR PLANT GROUPS OF THE CENTRAL APENNINES, ITALY: TOWARDS CLARIFICATION AND SUSTAINABLE MANAGEMENT	Appalachian State University, USA
Le Tran Thanh Liem Pham Van Trong Tinh Nguyen Thi Bach Kim Nguyen Thi Kim Phuoc	RESEARCH ON THE FINANCIAL EFFICIENCY OF THE CULTIVATED MAIZE ON PADDY RICE FARMING LAND IN SOC TRANG PROVINCE, VIETNAM	Can Tho University, Can Tho City, Vietnam
Stella Gyudorova Plamen Glogov Grud Popov	STUDY OF THE REGENERATIVE ABILITIES OF MANNA ASH IN ARTIFICIAL AUSTRIAN PINE PLANTATIONS IN THE REGION OF SOFIA, BULGARIA	Bulgarian Academy of Sciences
Boban Stanković	RUDERAL FLORA IN THE AREA OF THE CITY OF JAGODINA (SERBIA)	City of Jagodina, Department of Environmental Protection, Serbia
Assia BOUHOUDAN Mustapha KHADDOR	MYCOTOXINS OF PENICILLIUM AURANTIOGRISEUM AS A PROMISING SOURCE FOR ANTI-CANCER THERAPY	Abdelmalek Essaadi University, Tetouan, Morocco
BELKHODJA Hamza KIARI Fatima BELARBI Maria DOUHI Nadjet	PHYTOCHEMICAL CHARACTERIZATION AND DEMONSTRATION OF THE ANTIOXIDANT AND ANTIMICROBIAL POWER OF POLYPHENOLIC EXTRACTS OF JUGLANS REGIA (COMMON WALNUT)	University of Mustapha Stambouli, Mascara, ALGERIA
Kübra YAZICI Aysegul HANNIGAN	THE IMPORTANCE OF RUDERAL PLANTS IN THE URBAN ECOSYSTEM	Yozgat Bozok University, Yozgat, Turkey Atatürk Horticultural Central Research
Aysegul HANNIGAN Kübra YAZICI	NATURAL AND CULTURAL RESOURCE VALUE OF ALLIUM SPECIES IN TURKEY	Atatürk Horticultural Central Research Yozgat Bozok University, Yozgat, Turkey
Mehmet Zeki KOÇAK Mustafa Güven KAYSİM Muhittin KULAK	DIFFERENT GROWTH CONDITIONS AFFECTING THE GERMINATION OF FLAXSEEDS (LINUM USITATISSIMUM L.)	Department of Herbal and Animal Production, Vocational School of Technical Sciences, Iğdir University, 76000, Iğdir, Turkey
Muhittin KULAK Mustafa Güven KAYSİM	DROUGHT STRESS MEMORY AND NANOPARTICLES IN PLANTS	Iğdir University, Vocational School of Technical Sciences, Department of Herbal and Animal Production, Iğdir, Turkey



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**Session 3 / Hall-3****24.02.2022****Moderator: Assoc. Prof. M. As. Michailov****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 15:00 – 17:00**

Author(s)	Title	Affiliation
Assist. Prof. Dr. Abbas R. Ali Zaid N. Aladeen	ENVIRONMENTAL IMPACTS OF CEMENT DUST ON THE AGRICULTURAL SOIL NEAR KIRKUK CEMENT FACTORY, NORTHERN IRAQ	University of Kirkuk, College of Education for Humanities Science, Department of Geography, Kirkuk, Iraq
Assoc. Prof. M. As. Michailov	ABOUT APPROACHES FOR WATER FLOW ASSESSMENTS	SWU “Neofit Rilski” – Bulgaria
Nikolay Kolev Vanya Koleva Teodora Koynova Asya Dragoeva	VISITORS IN NATURE PARKS – ECOSYSTEM SERVICE CONSUMERS AND ENVIRONMENTAL VOLUNTEERING	Konstantin Preslavsky University of Shumen, Shumen, Bulgaria
Asma ADDA Salah BEZARI Hadjira MAOUZ	SELECTION OF ENERGY RECOVERY DEVICE FOR DESALINATION PLANT	University of Dr Yahia Fares Medea, Medea 26000, Algeria
Salah BEZARI Mohamed Lebbi Asma ADDA Azzedine BOUTELHIG	HEATING TUNNEL GREENHOUSE WITH A ACTIVE SOLAR STORAGE	URAER, Ghardaïa 47133, Algeria
Mohamed RAOUI Naima BOUCHENAFSA-SAIB	ONE-STEP SYNTHESIS OF NiCoS@rGO AS FUNCTIONAL ELECTRO- CATALYST FOR OXYGEN EVOLUTION REACTION (OER)	Faculté de Technologie Université Blida 1, B.P. 270 route de Soumaa, Blida 09000, Algérie

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**Session 3 / Hall-4****24.02.2022****Moderator: Assoc. Prof. Dr. Hasan ÇİFTÇİ****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 15:00 – 17:00**

Author(s)	Title	Affiliation
Yavuz Selim Balcıoğlu	DETECTION OF DEPRESSION AND ANXIETY SYMPTOMS VIA TWITTER AFTER COVID-19 WITH MACHINE LEARNING	Gebze Technical University
Yavuz Selim Balcıoğlu	PREDICTION WITH MACHINE LEARNING AND COMPARISON OF LAND PRICES IN THE METAVERSE UNIVERSE.	Gebze Technical University
Assist. Prof. Dr. Ayşen BAKKALOĞLU	EVALUATION OF CRYPTO CURRENCY IN TERMS OF MONEY THEORIES AND DIGITAL MONEY	Nişantaşı University
Fulya ZARALI	INTUITIONISTIC FUZZY EDAS METHOD FOR SUPPLIER SELECTION IN SUSTAINABLE SUPPLY CHAINS	Kayseri University
Abdulahap BAYDAŞ Murat BAYAT Mehmet Emin YAŞAR	AN EMPIRICAL RESEARCH ON THE DETERMINATION OF THE RELATIONSHIP BETWEEN GREEN PRODUCT CONSUMPTION AND VOLUNTARY SIMPLE LIFE	Düzce University
Serhat ATA Abdulahap BAYDAŞ Mehmet Emin YAŞAR	EVALUATION OF THE EFFECT OF CONSUMER'S ADVERTISING PERCEPTION ON BRAND PREFERENCE IN TERMS OF PERSONALITY TRAITS	Düzce University
Alperen Mustafa Yiğit Ercan Yıldız	REASONS FOR NOT BEING A MEMBER OF A UNION: A RESEARCH IN THE BANKING INDUSTRY	Ordu University
Yavuz YAYLA	THORSTEIN VEBLEN: TECHNOLOGY AND ALIENATION TO "THE INSTINCT OF WORKMANSHIP"	Ondokuz Mayıs University
Farid HUSEYNOV	MOBILE APPLICATION ACCESS FREQUENCY AND USAGE DURATION ACCORDING TO DEMOGRAPHIC FACTORS	Gebze Technical University, Kocaeli, Turkey
Farid HUSEYNOV	INSTALLATION AND UTILIZATION RATE OF MOBILE APPLICATIONS ACCORDING TO DEMOGRAPHIC FACTORS	Gebze Technical University, Kocaeli, Turkey
Prof. Dr. Sedat Cereci Assoc. Prof. Dr. Hasan ÇİFTÇİ	TECHNOLOGY in INFORMATION and COMMUNICATION EDUCATION	Hatay Mustafa Kemal University Haran University
Prof. Dr. Sedat Cereci Assoc. Prof. Dr. Hasan ÇİFTÇİ	CINEMATIC TIME	Hatay Mustafa Kemal University Haran University

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**Session 3 / Hall-5****24.02.2022****Moderator: Hakan Büyükçelebi****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 15:00 – 17:00**

Author(s)	Title	Affiliation
Mehmet ILKIM Nalan R. AYVAZOĞLU Süleyman ŞAHİN	THE INVESTIGATION OF SPORTS CLUB ADMINISTRATORS' ATTITUDES TOWARDS THE PARTICIPATION OF INDIVIDUALS WITH DISABILITIES IN PHYSICAL ACTIVITY	İnönü University, Malatya, Turkey
Mehmet ILKIM Ramazan TOPUZ	PARTICIPATION IN PHYSICAL ACTIVITIES AND TRANSPORTATION PROBLEMS OF MILD MENTALLY DISABLED INDIVIDUALS (EXAMPLE OF MALATYA YESİLYURT)	İnönü University, Malatya, Turkey
Hakan Büyükçelebi Mahmut Açıak	THE EFFECT OF CENTRAL DEFENSIVE MIDFIELDERS ON TEAM SUCCESS	İnönü University, Malatya, Turkey Çanakkale Onsekiz Mart University, Çanakkale, Turkey
Abdullah Altunhan Hakan Büyükçelebi	DOES THE BALL POSSESSION BRING THE SUCCESS?	Mardin Artuklu University, Mardin, Turkey İnönü University, Malatya, Turkey
Prof. Dr. Şebnem ASLAN Arş. Gör. Havva Nur ATALAY	A CONTENT ANALYSIS ON THE THESIS WRITTEN ABOUT ETHICAL LEADERSHIP IN TURKEY	Selçuk University, Konya, Turkey
Prof. Dr. ŞEBNEM ASLAN Adem BİLGİN	TOXIC LEADERSHIP CONCEPT: CONTENT ANALYSIS	Selçuk University, Konya, Turkey
Setenay C. CEVHER TEMEL Gülbin ÖZÇELİKAY	THE PLACE OF PHARMACEUTICAL ETHICS IN THE LITERATURE	Ankara Üniversitesi
Serkan DÜZ	EXAMINATION OF THE INTERNET ADDICTION LEVELS OF SPORTS SCIENCES FACULTY STUDENTS	İnönü University, Malatya, Turkey
Serkan DÜZ	EXAMINATION OF ASSERTIVENESS LEVELS OF SPORTS SCIENCES FACULTY STUDENTS	İnönü University, Malatya, Turkey

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Session-3 / Hall-6

24.02.2022

Moderator: Prof. Dr. Hüseyin DOĞRAMACIOĞLU

Meeting ID: 834 7835 0151 / Passcode: 060708

Ankara Local Time: 15:00 – 17:00

Author(s)	Title	Affiliation
Prof. Dr. Hüseyin DOĞRAMACIOĞLU Prof. Dr. Nuran ÖZLÜK	THE CEREMONIES IN THE NEWSPAPER OF HÂKİMİYET-İ MİLLİYE	Kilis 7 Aralık University Bolu Abant İzzet Baysal University
Prof. Dr. Hüseyin DOĞRAMACIOĞLU Prof. Dr. Nuran ÖZLÜK	THE OFFICIAL HOLIDAYS IN THE NEWSPAPER OF HÂKİMİYET-İ MİLLİYE	Kilis 7 Aralık University Bolu Abant İzzet Baysal University
Prof. Dr. Kadir ÖZKÖSE	OTTOMAN DOMINATION IN SUDAN	Sivas Cumhuriyet University
Gerenfil Quliyeva	TBILISI LITERATURAL ENVIRONMENT IN RESEARCH	Baku State University, Bakü, Azerbaijan
Elmira Məhərrəmovə	NİZAMİ GENCEVİNİN DÜNYA EDEBİYYATININ BANİSİDİR	ADPU, Azerbaijan
Ayten Mehdiyeva	THE HISTORICAL MONUMENTS OF AZERBAIJAN: ZENGILAN MAIDEN TOWERS	ADPU, Azerbaijan
Kamal Salayev	ARMENIA'S POLICY OF FALSE GENOCIDE AGAINST AZERBAIJAN	Institute of Caucasus Studies of ANAS

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Session 1 / Hall-1

25.02.2022

Moderator: Asst. Prof. Dr. Rozina Khattaka

Meeting ID: 834 7835 0151 / Passcode: 060708

Ankara Local Time: 10:00 – 12:00

Author(s)	Title	Affiliation
Mastoura Mohamed Edrees Abdou	DRY GRINDING SYNTHESIS AND DOCKING STUDY OF CYCLOPENTANONE-SULFUR CONTAINING COMPOUNDS WITH ANTI-PROLIFERATIVE ACTIVITY FOR HepG-2 and A-549 CANCER CELL LINES	Chemistry Department, Faculty of Science, King Khalid University, Abha 61413, Saudi Arabia
Reda Abdel Hameed Sawsan E. Mohamad Freah Alshammery	RECYCLING AND APPLICATIONS OF EXPIRED DRUGS MATERIALS FOR CORROSION PROTECTION OF METALS AND ALLOYS	University of Ha'il, 1560, Hail, KSA
Zulfiqar Ali Khan	DESIGNED SYNTHESIS OF BIS-THIOBARBITURIC ACID HYBRID STRUCTURES AS POTENT UREASE INHIBITORS	Government College University, Faisalabad-38000, Pakistan
Widya Pintaka Bayu Putra Samsul Bahri	HAPLOTYPE DIVERSITY IN THE CLOWN KNIFE FISH (<i>CHITALA CHITALA</i>) BASED ON PARTIAL CYTOCHROME OXIDASE SUBUNIT I (COI) GENE: A META-ANALYSIS STUDY	National Research and Innovation Agency of Indonesia
Asst. Prof. Dr. Rozina Khattaka Asst. Prof. Dr. Muhammad Sufaid Khanb	ROLE OF CHELATE IN THE REDOX KINETICS OF DICYANOBIS(DIIMINE)IRON(III) IN THE AQUEOUS MEDIUM	Shaheed Benazir Bhutto Women University, Peshawar 25000, Pakistan
Asst. Prof. Dr. Rozina Khattaka	TBA CATALYSIS IN THE ELECTRON TRANSFER KINETICS OF FERRICPYRIDIDE AND FERRICPHEN-iodide IN AQUEOUS MEDIUM	Shaheed Benazir Bhutto Women University, Peshawar 25000, Pakistan
Dr. Mouffouk Soumia Dr. Mouffouk Chaima Pr. Haba Hamada	BIOLOGICAL STUDY OF THE METHANOLIC EXTRACT FROM THE ALGERIAN SPECIES NONEA VESICARIA	Université de Batna-1, Batna 05000, Algérie
Babita Tripathi Sunil Chauhan R.C. Singh	STUDY OF STRUCTURAL, OPTICAL AND PHOTOCATALYTIC PROPERTIES OF (1-x) NaNbO ₃ -xBiFeO ₃ HETEROSTRUCTURE NANOMATERIAL	Sharda University, U.P, India

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**Session 1 / Hall-2****25.02.2022****Moderator: Prof. Dr. Pramod K Singh****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 10:00 – 12:00**

Author(s)	Title	Affiliation
G. Asghar F. Shabir S. N. Khusro G. H. Tariq M. S. Awan M. A. Rehman	FACILE SYNTHESIS AND CHARACTERIZATION OF DOPED M-TYPE HEXAFERRITE FOR HIGH FREQUENCY DEVICES	University of Poonch Rawalakot, Pakistan
Bande A. B I.ZAKARIYA'U Garba M. M Aliyu S. Shehu A.	PERFORMANCE EVALUATION OF SPIRAL COIL RECIEVER FOR THERMAL STEAM GENERATION USING OPTICAL AND THERMAL ANALYSIS OF PARABOLIC DISH CONCENTRATOR	Shehu Shagari College of Education, Sokoto
I.ZAKARIYA'U Bande A. B	PERFORMANCE ANALYSES OF PASSIVE SOLAR DRYING SYSTEM	Shehu Shagari College of Education, Sokoto
Abhimanyu Singh Sangeeta Rawal Pramod K. Singh Bhawana Joshi	DEVOLOPMENT OF HIGHLY EFFICIENT SUPERCAPACITOR DERIVED FROM NOVEL SOLID POLYMER ELECTROLYTE AND GRAPHENE NANOSHEETS	Gautam Buddha University, India Sharda University
Pramod K Singh	ELECTROCHEMICAL DEVICES BASED ON GREEN ELECTRODE-ECTROLYTE	Sharda University, Greater Noida 201310, India
Sushant Kumar Manoj K. Singh Pramod K. Singh	HONEYCOMB BASED ACTIVATED CARBON FOR SUPERCAPACITOR APPLICATION	Sharda University, India
Subhrajit Konwar Pramod K. Singh	FUTURE PROSPECTS OF BIOPOLYMER- IONIC LIQUID POLYMER ELECTROLYTE	Sharda University, G. Noida, 201306, India
Suneyana Rawata Pramod K. Singha Ram Chandra Singha	NEW INSIGHT IONIC LIQUID DOPED POLYMER ELECTROLYTE	Sharda University, Greater Noida, 201310, India
Kağan YURDAL İsmail Hakki KARAHAN	DEPOSITION CHARACTERISTICS AND CORROSION TESTS OF COATINGS ELECTRODEPOSITED UNDER DIFFERENT PULSE FREQUENCIES FROM SOLUTIONS CONTAINING COPPER AND ZINC PRECURSORS	Hatay Mustafa Kemal University, Antakya Vocational School, Hatay, TURKEY
Kağan YURDAL İsmail Hakki KARAHAN	MORPHOLOGY AND PHASE FORMATION EXAMINATION OF BRASS FILMS FABRICATED BY ELECTRODEPOSITION USING DIFFERENT PULSE FREQUENCIES	Hatay Mustafa Kemal University, Antakya Vocational School, Hatay, TURKEY

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**Session 1 / Hall-3****25.02.2022****Moderator: Usman Yusuf Bello****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 10:00 – 12:00**

Author(s)	Title	Affiliation
Prof. Dr. Berrabah Hamza Madjid	INFLUENCE OF THE PIEZOELECTRIC EFFECT ON THE STRESSES FOR A COMPOSITE DISK UNDER THE PARABOLIC TEMPERATURE	Relizane University
Prof. Dr. Berrabah Hamza Madjid	THE DISPLACEMENT DISTRIBUTION FOR A CYLINDER WITH THE PRESENCE OF THE NON-LOCAL EFFECT	Relizane University
Usman Yusuf Bello Anji Reddy Polu Burak Gultekin Pramod K Singh	INSIGHT INTO THE USE OF IONIC LIQUID BASED POLYMER ELECTROLYTE FOR SOLID STATE BATTERIES	Sharda University, Greater Noida 201310, India Malla Reddy Engineering College (Autonomous), Telangana, India Solar Energy Institute, Ege University, Turkey
Amiya Kumar Sahoo Dhananjay R. Mishra	MULTI-RESPONSE OPTIMIZATION OF EDM DRILLING OF NITINOL SUBMERGED IN DISTILLED WATER USING GRA AND TAGUCHI ANALYSIS	Jaypee University of Engineering and Technology, Madhya Pradesh, India
Luca Quaranta Piera Di Marzio Paola Fortini	APPLICATION OF THE SINGLE IMAGE- NORMALIZED DIFFERENCE VEGETATION INDEX (SI-NDVI) FOR THE MONITORING OF Quercus cerris L. SEEDLINGS IN ITALY	University of Molise, Pesche, Italy
Bhatt Tirthraj HITESH Arumuga PERUMAL D Sivagamasundari M.S	COMPUTATIONAL STUDY OF FLUID CHARACTERISTICS OF BOUNDED DOMAINS USING LATTICE BOLTZMANN METHOD	NIT Karnataka, Surathkal, Mangalore, India VIT University, Chennai, India Amrita College of Engineering & Technology, Nagercoil, Tamilnadu
Maya KEBAILI Lilia BENCHIKH Ilyes ABACHA Hichem CHORFI Yazid AIT FERHAT	SYNTHESIS OF NATURAL AND SYNTHETIC HYDROXYAPATITE USING MECHANICAL AND CO-PRECIPIATION METHODS: A COMPARATIVE STUDY	Université les frères Mentouri 1, Constantine, Algérie
Dr. Nadire Nayir	TUNING HETEROPOLAR BONDING STRENGTHS OF PAIR ATOMS IN A MULTICOMPONENT Si/O/Ge SYSTEMS AT TERSOFF LEVEL: A MOLECULAR DYNAMICS STUDY	Karamanoğlu Mehmetbey universitesi

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**Session 1 / Hall-4****25.02.2022****Moderator: Assist. Prof. Dr. Adnan KILIÇ****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 10:00 – 12:00**

Author(s)	Title	Affiliation
Emre Çelik Adem Dalcı	DRAGONFLY SEARCH ALGORITHM BASED PID CONTROLLER DESIGN FOR DYNAMIC RESPONSE AND STABILITY IMPROVEMENT OF A STANDALONE AUTOMATIC VOLTAGE REGULATOR SYSTEM	Duzce University, Duzce, Turkey
Emre Çelik Adem Dalcı	DESIGN OF CASCADE FUZZY PI CONTROLLER FOR IMPROVING FREQUENCY STABILIZATION IN TWO- AREA MULTI-SOURCE POWER SYSTEMS	Duzce University, Duzce, Turkey
Adem Dalcı Emre Çelik	DESIGN AND OPTIMIZATION OF DIRECT DRIVEN AC SYNCHRONOUS MOTOR FOR ELEVATOR APPLICATIONS	Duzce University, Duzce, Turkey
Adem Dalcı Emre Çelik	DESIGN AND ANALYSIS OF LOW SPEED SURFACE MOUNTED SYNCHRONOUS GENERATOR FOR RUN-OF-THE-RIVER HYDROELECTRIC POWER PLANTS	Duzce University, Duzce, Turkey
Mehmet Kenan DÖŞOĞLU Mahmut ÖZBAY	INVESTIGATION OF THE EFFECTS OF DIFFERENT POWER VALUE FUEL CELLS ON SMALL SIGNAL STABILITY IN A GRID-CONNECTED DFIG BASED WIND TURBINE	Duzce University, Duzce, Turkey
Mehmet Kenan DÖŞOĞLU Muhammet DEMİRBAŞ	INVESTIGATION OF VOLTAGE STABILITY IN POWER SYSTEMS WITH STATCOM-EDS	Duzce University, Duzce, Turkey
Assist. Prof. Dr. Ümit YILDIKO	SYNTHESIS AND CHARACTERIZATION OF SULFONATED POLYIMIDE WITH THE COMBINATION OF (S)-2-(BIS(4- AMINOPHENYL)AMINO)BUTAN-1-OL AND 4,4'-DIAMINO-2,2'-STILBENEDISULFONIC ACID	Kafkas University, Kars, Türkiye
Adnan KILIÇ	SIMULATION OF ELECTROMAGNETIC SHOWER DEVELOPMENT IN A LYSO(Ce) SCINTILLATION CRYSTAL	Bursa Uludağ University

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**Session 2 / Hall-1****25.02.2022****Moderator: Assoc. Prof. Dr. Remzi Tuntaş****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 12:30 – 14:30**

Author(s)	Title	Affiliation
Assoc. Prof. Dr. Remzi Tuntaş	DESIGN OF AN INVERTING AMPLIFIER CIRCUIT BY ARTIFICIAL NEURAL NETWORK BASED MODELING TECHNIQUE	Van Yüzüncü Yıl University, VAN, TÜRKİYE
Müslüm Aykut AKGÜN	SOME CHARACTERIZATIONS OF CURVES ON CONTACT MANIFOLDS	Adıyaman University, Technical Sciences Vocational School, Computer-Mathematics, Adıyaman, Türkiye
Mehmet Zahit KARABULUT Assoc. Prof. Dr. Vildan ATEŞ	EVALUATION OF THE SOFTWARE DEVELOPMENT PROCESS IN PUBLIC INSTITUTIONS ACCORDING TO THE OPINIONS OF CONTRACTED IT PERSONNEL	Ankara Yıldırım Beyazıt University, Ankara, Turkey
Yusuf Yalçın KARAKAYA Murat YÜCEL	GEOGRAPHIC INFORMATION SYSTEM APPLICATIONS AND DEVELOPMENTS IN ELECTRICITY DISTRIBUTION NETWORKS	Gazi University, Ankara, Turkey
Deniz YILDIZ Prof. Dr. Rıfat AKBIYIKLI Dr. Volkan ATEŞ	ESTIMATION OF APPROXIMATE COST UNCERTAINTIES IN FLOOD PROTECTION PROJECTS USING ARTIFICIAL INTELLIGENCE TECHNIQUES	Duzce Universty, Duzce, Turkey

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**Session 2 / Hall-2****25.02.2022****Moderator: Assoc. Prof. Dr. Erkan Efilti****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 12:30 – 14:30**

Author(s)	Title	Affiliation
Dr. Nesrullah OKAN Meryem DOĞANOĞLU Amine ERGÜN	INVESTIGATION OF METAPHORICAL PERCEPTIONS OF UNIVERSITY STUDENTS ON THE CONCEPTS OF SPIRIT AND SELF	Fırat University, Elazığ, Türkiye
Metin BAYRAM Selman HIZAL Ahmet ZENGİN	THE EFFECTS OF INFORMATION TECHNOLOGY INFRASTRUCTURE ON DISTANCE EDUCATION SERVICE QUALITY	Sakarya University, Sakarya, Türkiye
Bayram DELEŞ Nazan KAYTEZ	EVALUATION OF PROBLEMATIC MEDIA USE OF PRESCHOOL CHILDREN BY THEIR MOTHERS	Ardahan University, Ardahan, Turkey Çankiri Karatekin University, Çankırı, Turkey
Lect. Sümeyye DALAGAN Assoc. Prof. Dr. Yeliz PEKERŞEN Assoc. Prof. Dr. Ümit SORMAZ	ON THE ORGANIZATIONAL LOYALTY OF ACADEMICIANS A QUALITATIVE RESEARCH	Siirt University
Erkan Efilti Aykanış Almarsbek kızı	EXAMINING THE PROBLEMS ENCOUNTERED BY WORKING STUDENTS IN EDUCATION	Kırgızistan – Türkiye Manas University Kırgızistan
Erkan Efilti Fati KOZAN	EXAMINING THE REASONS FOR SCHOOL EXTENSION OF FOREIGN STUDENTS	Kırgızistan – Türkiye Manas University Kırgızistan
Zeynep Özer Assoc. Prof. Dr. R. Erol Demirbatır	DETERMINING THE TENDENCIES OF STEM/STEAM EDUCATION RESEARCH CARRIED OUT FOR GIFTED STUDENTS IN TURKEY	Bursa Uludağ University, Bursa, Turkey
Bünyamin SARİKAYA	DO TEXTBOOKS DEVELOP HIGH-LEVEL THINKING SKILLS?: SAMPLE OF 7TH GRADE TURKISH TEXTBOOK	Muş Alparslan University
Bünyamin SARİKAYA	AN INVESTIGATION OF THE WORK TITLED “THE OX FALL INTO THE LIBRARY” IN TERMS OF SUITABILITY FOR CHILDREN'S LITERATURE	Muş Alparslan University

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**Session 2 / Hall-3****25.02.2022****Moderator: Assoc. Prof. Dr. Sarita Dhawale****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 12:30 – 14:30**

Author(s)	Title	Affiliation
Favour C. Uroko	VACCINE HESITANCY, ACCEPTANCE AND JEWISH APOCALYPTIC LITERATURE IN SUB-SAHARAN AFRICA	University of Nigeria
Assoc. Prof. Dr. Sarita Dhawale	THE HOLISTIC DEVELOPMENT IN MANAGEMENT EDUCATION: CASE STUDY OF BUSINESS SCHOOL	Ashoka Business School
Assoc. Prof. Dr. Boróka Prohászka-Rád	TEACHING POETRY THROUGH MUSIC AND PAINTING	Sapientia Hungarian University of Transylvania
Ágnes Sántha-Malomsoki PhD	A MIXED METHODS STUDY ON THE VERBAL ABILITIES AND COGNITIVE FLEXIBILITY OF HUNGARIAN LEARNERS IN CLIL AND GENERAL LANGUAGE PROGRAMMES	University of Pannonia, Veszprém, Hungary
Ilnitska Tetyana S.	INFORMATION AND EDUCATIONAL ENVIRONMENT OF MEDICAL COLLEGES IN TRAINING OF SPECIALISTS	Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University
Daniel Seabra	THE COSTS OF THE ABSENCE OF MULTIDISCIPLINARY IN THE FIGHT AGAINST VIOLENCE IN SPORTS EVENTS IN PORTUGAL	Fernando Pessoa University, Portugal
Dr. Sharanpal Singh Shilpi Goyal	SIGN AND SIGNIFICATION: LINGUISTIC TURN	Deemed to be University, Mullana, Ambala, Haryana
Lect. Vasyi PUZANOV	PROFESSIONAL PREPARATION OF BLOG POSTS	Zaporizhzhia National University, Zaporizhzhia, Ukraine
Nusrat Raza Mangi Peter Nigel Power	AN INVESTIGATION INTO PRIMARY SCHOOL DRAWING EDUCATION IN PAKISTAN	King Mongkut's University of Technology Thonburi(KMUTT), Bangkok, Thailand
Assist. Prof. Dr. Ulviyya Hajiyeve	THE NOTION OF LEXICAL MEANING IN THE ENGLISH LANGUAGE	Azerbaijan State Pedagogical University, Azerbaijan
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**Session 2 / Hall-4****25.02.2022****Moderator: Usman Lawal Usman****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 12:30 – 14:30**

Author(s)	Title	Affiliation
Anuradha Pandey Dubey Madhuri Sharon	MICROBES REGULATE THE BIOLUMINESCENCE OF SOME MARINE FISHES	Parishkar College of Global Excellence, Jaipur, Rajasthan, India
Soumen Roy Saumita Ghosh	MICROSTRUCTURES OF THE OTOLITH IN DIFFERENT BODY SIZE GROUPS OF BANDED GOURAMI TRICHOGASTER FASCIATA (OSPHRONEMIDAE, ANABANTIFORMES)	University of Calcutta, West Bengal, India
Mahendra Kumar Savita Vinay Dwivedi Prachi Srivastava	IN-SILICO ANALYSIS UNCOVER ANTIBACTERIAL PROPERTIES OF ALLIUM SATIVUM AGAINST AEROMONAS HYDROPHILA	Amity University, Uttar Pradesh, Lucknow Campus
I. ABACHA M.KEBAILI L. BENCHIKH Y.AIT FERHAT H.CHORFI	SYNTHESIS AND CHARACTERIZATION OF CU-ZN ALLOY BY ELECTRODEPOSITION-ANNEALING ROUTE USING ZINC CHLORIDE BATH AND THE STUDY OF THE EFFECT OF CORROSION BY IMPEDANCE SPECTROSCOPY	CRM Constantine 25000, Algeria
Usman Lawal Usman	FACILE GREEN FABRICATION OF IRON OXIDE-CHITOSAN (Fe ₃ O ₄ -CHITOSAN) NANOCOMPOSITES FOR THE ADSORPTION OF MERCURY IN AQUEOUS SOLUTION	Sharda University, Greater Noida, India Umaru Musa Yar'adua University, Katsina- Nigeria
Pratibha Pansari Prof. Geeta Durga	SYNTHESIS AND CHARACTERIZATION OF GREEN SOURCE DERIVED NOVEL FLUORESCENT CARBON QUANTUM DOT AS A PROMISING NANOMEDICINE	Sharda University, Greater Noida, India
Babatunde, Shakirat Adepeju	ANOTHER 17.126 TRILLION NAIRA AND 100 MILLION PEOPLE IN EXTREME POVERTY	University of Lagos Business School, Akoka, Lagos, Nigeria
Kanwal Shabbir Fakhar Ud-Din Muhammad Moneeb Khan Sara Imtiaz	MACROPHAGE TARGETING WITH RIFAMPICIN-LOADED NANOTRANSFEROSOMAL GEL FOR TREATMENT OF CUTANEOUS LEISHMANIASIS	Quaid-i-Azam University, Islamabad, Pakistan

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Session 3 / Hall-1

25.02.2022

Moderator: Лысенко В.С.

Meeting ID: 834 7835 0151 / Passcode: 060708

Ankara Local Time: 15:00 – 17:00

Author(s)	Title	Affiliation
Куанбекова Зарина Жаркыновна	ЭКОНОМИЧЕСКИЙ АНАЛИЗ ДЕЯТЕЛЬНОСТИ ПРЕДПРИЯТИЯ	НАО «Университет Нархоз»
Moldovan A.I. Golubkina N.A. Kharchenko V.A.	OBTAINING DIETARY FUNCTIONAL FOODS BASED ON CELERY AND PARSLEY ROOTS FROM THE CELERY FAMILY	Federal Scientific Center of Vegetable Production, Russia
Лысенко В.С. Кураков Ю.А. Сүлейменов Б.Т.	ДИНАМИЧЕСКИЙ АНАЛИЗ ПЛАНЕТАРНОГО МЕХАНИЗМА С ЭКСЦЕНТРИЧЕСКИМИ МАССАМИ	Казахский Национальный педагогический университет им. Абая
Yuliia Strilchuk	SUSTAINABLE FINANCIAL ECOSYSTEMS IN DIGITAL ERA	Kyiv National Economic University named after Vadym Hetman, Kyiv, Ukraine
Поліщук Дарина	ПСИХОЛОГІЧНІ ОСОБЛИВОСТІ ВІРТУАЛЬНИХ КОМУНІКАЦІЙ	Дніпровського гуманітарного університету
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**Session 3 / Hall-2****25.02.2022****Moderator: Lect. Derya ALTINTAS****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 15:00 – 17:00**

Author(s)	Title	Affiliation
Andrei, Felicia Anca Dragomirescu	A COUNSELING GUIDE FOR THE GOOD USE OF DECORATIVE COSMETICS	University of Medicine and Pharmacy, Timisoara, Romania
Wefa BOUGHRARA Fatima Zohra MOGHTIT Amina CHENTOUF Meriem ABERKANE	MOLECULAR CYTOGENETIC APPROACHES ON NEUROFIBROMATOSIS TYPE 1	Université d'Oran 1, Algérie
Benouis Ali Djebbar Noureddine Moulgada Abdelmadjid Rachid Zahi Djafar Ait Kaci	LOOSENING THR, STUDY OF THE EVOLUTION OF STRESS INTENSITY FACTOR IN THE ORTHOPEDIC CEMENT	University of Saida, Bp 138 saida, 20000, Algeria Djillali Liabes University of Sidi Bel-Abbes, Algeria University of Chlef, Algeria University of Tiaret, Algeria
Bazhutina G.A. Subbotina M.V. Vihareva E.V. Ivshina I.B.	OPTIMIZATION OF IBUPROFEN BIOTRANSFORMATION BY RHODOCOCUS CERASTII IEGM 1243	Perm State University, Perm, Russia
Sabina Farhadova Amani Ghousein Robert Feil	DISSECTION OF THE MOLECULAR AETIOLOGY OF IMPRINTING DISORDERS USING GENETIC AND EPIGENETIC CRISPR EDITING TOOLS	Azerbaijan National Academy of Sciences (ANAS), Baku, Azerbaijan. Institute of Molecular Genetics of Montpellier (IGMM), Montpellier University of Montpellier
Jafar Massah	ELECTRO-OSMOTIC IMPLEMENT FOR SOIL ADHESION REDUCTION	University of Tehran, Tehran, Iran
Derya ALTINTAS Yesim YESILOGLU	ENZYMATIC ANTIOXIDANTS IN THE PREVENTION AND DIAGNOSIS OF CANCER: A SHORT LITERATURE REVIEW	Trakya University, Arda Vocational College, Department of Pharmacy Services, Edirne, Turkey

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**Session 3 / Hall-3****25.02.2022****Moderator: Youcef BECHEFFAR****Meeting ID: 834 7835 0151 / Passcode: 060708****Ankara Local Time: 15:00 – 17:00**

Author(s)	Title	Affiliation
Naïma AISSA	GLOBAL EXISTENCE OF SOLUTIONS TO NONLINEAR PARABOLIC PROBLEM	USTHB, El Alia Bab Ezzouar, Algeria
Maria Hanif Muhammad Hanif	RATIONAL SOLUTIONS AND THEIR INTERACTIONS WITH KINK AND PERIODIC FOR A NONLINEAR DYNAMIC PHENOMENON	COMSATS University Islamabad, Lahore Campus, Pakistan.
Mohsin Nasir Asifa Ilyas	ON q -Quasi CONVEXITY RELATED WITH STRONGLY JANOWSKI FUNCTIONS	COMSATS University Islamabad, Islamabad, Pakistan
Youcef BECHEFFAR Mohamed ABDI Dalal Adnan Amer Maturi Hayriye Sevil Ergür	NATURAL CONVECTION OF SINGLE-WALLED CARBON NANOTUBE IN GROOVED SQUARE CAVITY	Ibn Khaldoun, University of Tiaret, 14000 Algeria. King Abdulaziz University, Jeddah, Saudi Arabia. Eskişehir Osmangazi University, Turkey
Tokar Andre	INFORMATION SUPPORT OF THE ACTIVITIES OF THE PREVENTIVE ACTIVITIES OF THE NATIONAL POLICE	University of Internal Affairs, Dnipro, Ukraine
S. H. Abbasi A. Mahmood Abdul Khaliq	REDUCED ORDER MODELING AND PROPORTIONAL DERIVATIVE CONTROL OF AN ELECTROMECHANICAL COVERT FEATHER FOR A FLAPPING WING UAV	SS CASE IT, Islamabad, Pakistan
Sunil Benawadi	SHAPE EFFECTS ON THE MIXED CONVECTIVE HYBRID NANOLIQUID FLOW OVER A ROUGH SLENDER CYLINDER WITH CONVECTIVE BOUNDARY CONDITION	Karnatak University, Pavate Nagar, Dharwad, 580003, India

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Session 3 / Hall-4

25.02.2022

Moderator: Dr. Esra Cebeci Mazlum

Meeting ID: 834 7835 0151 / Passcode: 060708

Ankara Local Time: 15:00 – 17:00

Author(s)	Title	Affiliation
Assoc. Prof. Dr. Nadire KARADEMİR Şeyma NACAR	EVALUATION OF PAZARCIK'S AGRICULTURAL POTENTIAL FROM A GEOGRAPHICAL PERSPECTIVE	Kahramanmaraş Sütçü İmam University, Kahramanmaraş, Turkey
Esra Cebeci Mazlum	THE EFFECTS OF TOURISM ON REGIONAL DEVELOPMENT: A RESEARCH ON MEDITERRANEAN REGION	Selçuk University, Mersin, Türkiye
Banu YÜCEL	THE ORIGIN OF ANAMORFIC ILLUSION TECHNIQUE AND ITS USE IN CONTEMPORARY ART	Ankara Hacı Bayram Veli University, Ankara, Türkiye
Esra Ertuğrul Tomsuk	CLIMATE CRISIS AND CONTEMPORARY ART	Çankırı Karatekin University, Çankırı, Türkiye
Barış BOZOK	TURKISH TIMELINES AS A CULTURAL TRANSFER ELEMENT REFLECTIONS ON CONTEMPORARY TURKISH ART	Pamukkale University, DENİZLİ-TÜRKİYE
İremnur AYDIN Sinan KOPUZLU	DGAT1 GENE POLYMORPHISM IN TUSHIN SHEEP	Ataturk University, Erzurum, Turkey
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**TOPRAK KAYMAK TABAKASININ TARIMSAL AÇIDAN ÖNEMİ VE ÖNLEME
YOLLARI**

AGRICULTURAL IMPORTANCE OF SOIL CRUSTING AND PREVENTION

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ÖZET

Toprakların strüktürel olarak dayanıklılığı ve erozyona karşı duyarlılığı hem toprak yönetimi hem de bitkisel üretim açısından son derece önemlidir. Ülkemiz genel olarak kurak, yarı kurak ve yarı nemli iklim kuşağında yer almaktadır. Özellikle kurak ve yarı kurak ekosistemlerde toprakların strüktürel gelişimleri yavaş olmaktadır. Strüktürel bozulmaya bağlı olarak ortaya çıkan en önemli sorunlardan biri kaymak tabakası problemidir. Kaymak tabakası ya da başka bir ifade ile kabuk; toprak parçacıklarının yeniden istiflenmesi sonucu oluşan sert yüzey katmanıdır. Kaymak tabakası; tohumun çimlenmesini, sürgün çıkışını hem toprak içerisindeki hem de toprak ile atmosfer arasındaki su ve hava hareketini engellediğinden dolayı bitki gelişimini ve bitkisel üretimi olumsuz olarak etkilemektedir. Bu çalışmada; kaymak tabakası oluşumu, bitkisel üretim açısından önemi ve önleme yolları irdelenmiştir.

Anahtar kelimeler: Bitkisel üretim, kaymak tabakası, toprak

ABSTRACT

The structural durability of soils and their sensitivity to erosion are extremely important in terms of both soil management and crop production. Our country is generally located in arid, semi-arid and semi-humid climatic zone. Especially in arid and semi-arid ecosystems, the structural development of soils is slow. One of the most important problems arising due to structural deterioration is the problem of crust layer. Crust layer or, in other words, crust; it is the hard surface layer formed as a result of re-stacking of soil particles. Crust layer; it adversely affects plant growth and plant production as it prevents the germination of the seed, the shoot growth, the water and air movement both in the soil and between the soil and the atmosphere. In this study; the formation of crusting layer, its importance in terms of plant production and prevention methods were examined.

Keywords: Crop production, crust layer, soil

DENIAL OF 3D MARK FOR LIPSTICK BY EU

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ABSTRACT

The General Court (Fifth Chamber) had negated the decision of European Union Intellectual Property Office (EUIPO) which rejected Guerlain's initial application for the registration of its recognizable 3D shape mark designed for lipstick on 14, July, 2021. Guerlain is a French cosmetics company manufacturing a wide variety of fragrances, makeup products, skincare products and much more. An application for the registration of a three-dimensional European Union trade mark with reference to lipsticks was submitted to the EUIPO by Guerlain on September 17, 2018. This mark is a three-dimensional sign in the shape of a lipstick. The application for registration was rejected by the Examiner of EUIPO declaring that the mark lacked distinctive character. As a result of rejection of the application of registration Guerlain filed an appeal against the decision of the examiner. Unfortunately, the appeal was dismissed by the Board of Appeal of EUIPO. The Board of Appeal also held that the applied mark lacked distinctive character as defined by the examiner of EUIPO. Finally, Guerlain filed a plea in the General Court of the European Union. The verdict of the Board of Appeal was cancelled and dissolved by the General Court. The General Court held that mark applied for registration possessed distinctive character for the reason that it withdraws from the norms, standards and customs belonging to the section of lipstick. This decision of the General Court authorized Guerlain to register its 3D shape mark for lipstick. This facilitated the Guerlain company to safeguard three-dimensional marks for cosmetic products in the European Union in for all-purpose.

Key words: 3D shape mark, three-dimensional marks, lipstick, European Union, EUIPO.

HÂKİMİYET-İ MİLLİYE GAZETESİNDE YER ALAN RESMÎ TÖRENLER

THE CEREMONIES IN THE NEWSPAPER OF HÂKİMİYET-İ MİLLİYE

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ÖZET

Millî Mücadele devam ederken Ankara Ulus'ta 10 Ocak 1920'de Hâkimiyet-i Milliye gazetesi çıkarılır. Gazete bizzat Mustafa Kemal'in direktifleriyle kurulur ve neşriyata devam eder. Gazetede cephe havadisleri günü gününe verilirken bir yandan da halkın Millî Mücadele'ye olan inancı ve desteği gazete sütunlarında yer alır. Gazetede köşe yazılarının birçoğunun Mustafa Kemal'e ait olduğu görülmektedir. Bu yazılarda özellikle Ankara'da yapılan resmî törenler halka anlatılmış ve Millî Mücadele devam ederken ve sonrasında halkın moralinin ve zafere olan inancının diri tutulması amaçlanmıştır. Bu törenlerin halk tarafından coşkuyla izlenmesi, devlet ricalinin törenlere katılışı gazete sütunlarında yer almıştır. Bu vesileyle Hâkimiyet-i Milliye gazetesinin neşriyatı vasıtasıyla Millî Mücadele yılları zaferle taçlanmış ve Türkiye Cumhuriyetinin fikrî temelleri bu yıllarda atılmıştır. Osmanlı harfleriyle neşrolunan gazete nüshaları bugün hâlâ yakın tarihimizin en önemli vesikalarından biri olarak arşiv raflarında beklemektedir. Millî Mücadelemizi anlayabilmek için Hâkimiyet-i Milliye nüshalarına müracaat edilmelidir.

Anahtar Sözcükler: Hâkimiyet-i Milliye gazetesi, Millî Mücadele ve resmi törenler

ABSTRACT

While the National Struggle was going on, the newspaper Hâkimiyet-i Milliye was published in Ankara Ulus on January 10, 1920. The newspaper was established by the directives of Mustafa Kemal himself and continued to be published. While the news of the front is given daily in the newspaper, the belief and support of the people for the National Struggle are also included in the newspaper columns. It is seen that most of the columns in the newspaper belong to Mustafa Kemal. In these articles, the official ceremonies held in Ankara were explained to the public and it was aimed to keep the morale of the people and their belief in victory alive during and after the National Struggle. Watching these ceremonies with enthusiasm by the public and the participation of state dignitaries in the ceremonies took place in the newspaper columns. On this occasion, through the publication of the Hâkimiyet-i Milliye newspaper, the years of the National Struggle were crowned with victory and the intellectual foundations of the Republic of Turkey were laid in these years. Newspaper copies published in Ottoman letters are still waiting on archive shelves as one of the most important documents of our recent history. In order to understand our National Struggle, copies of Hâkimiyet-i Milliye should be consulted.

Keywords: The Newspaper of Hâkimiyet-i Milliye, National Struggle and official ceremonies

**HÂKİMİYET-İ MİLLİYE GAZETESİNDE YER ALAN RESMÎ BAYRAMLAR
THE OFFICIAL HOLIDAYS IN THE NEWSPAPER OF HÂKİMİYET-İ MİLLİYE**

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ÖZET

10 Ocak 1920’de yayın hayatına başlayan Hâkimiyet-i Milliye gazetesi Mustafa Kemal tarafından kurulmuş ve uzun süre TBMM’nin bir nevi resmî yayın organı olarak görev yapmıştır. Gazetede bizzat Mustafa Kemal imzasıyla köşe yazıları yayınlanmaktaydı. Bu yazılar Millî Mücadele devam ederken gazetede basılıyor ve Anadolu’nun muhtelif yerlerine dağıtılıyordu. Gazetede özellikle savaştan yeni çıkmış olduğumuz günlerde düzenlenen resmî bayramlara yer ayrılarak halkın Milli Mücadele’yi kazanma azmi vurgulanmış ve zafer coşkusunu yaşaması haberleştirilmiştir. Osmanlı harfleriyle verilen bu yazılar bizzat Mustafa Kemal’in tashihleriyle ve bilgisi dâhilinde yayınlanmıştır. Hâkimiyet-i Milliye’deki yazıların günümüze kadar gün ışığına çıkmamış olması burada yayınlanan yazıların önemini arttırmaktadır.

Anahtar Kelimeler: Hâkimiyet-i Milliye gazetesi, Mustafa Kemal, resmî bayramlar

ABSTRACT

The newspaper Hâkimiyet-i Milliye, which started its publication life on January 10, 1920, was founded by Mustafa Kemal and served as a kind of official publication of the Turkish Grand National Assembly for a long time. Columns were published in the newspaper under the signature of Mustafa Kemal himself. These articles were printed in the newspaper and distributed to various parts of Anatolia during the National Struggle. In the newspaper, the determination of the people to win the National Struggle was emphasized and the joy of victory was reported by giving a place to the official holidays organized especially in the days when we had just emerged from the war. These writings, given in Ottoman letters, were published with the corrections and knowledge of Mustafa Kemal himself. The fact that the articles in Hâkimiyet-i Milliye have not come to light until today increases the importance of the articles published here.

Keywords: The newspaper of Hâkimiyet-i Milliye, Mustafa Kemal, official holidays

TECHNOLOGY in INFORMATION and COMMUNICATION EDUCATION

BİLGİ VE İLETİŞİM EĞİTİMİNDE TEKNOLOJİ

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ABSTRACT

Many of the traditional practices and values are no longer valid. The world is experiencing a new age and everything has been renewed. A new world has existed from living spaces to furniture, from arts to education. The earth changes rapidly via technology. Modern strategists designed a style based on technology and technology became the main component of modern era. Technology is the indispensable component of modern age and it is used almost in all areas of the world from daily life to ducation recently. Some people are not aware of the importance of technology in education but they also can not to avoid to use technology. Technology is the necessity of contemporary works and it is the way of modern methods especially in education. Technology eases life and also all business and provides people many different facilities and also extra time. Technology is the most essential element in that education due to the future face. The future is exactly based on technology and information and communication technologies determine the way of future. Therefore many developed countries use technology in information and communication education.

Keywords: Technology, İnformation, Communication, Education, Modern Age.

ÖZET

Geleneksel uygulamaların ve değerlerin çoğu artık geçerli değil. Dünya yeni bir çağ yaşıyor ve her şey yenilendi. Yaşam alanlarından mobilyaya, sanattan eğitime yeni bir dünya var oldu. Dünya teknoloji ile hızla değişiyor. Modern stratejistler teknolojiye dayalı bir tarz tasarladılar ve teknoloji modern çağın ana bileşeni haline geldi. Teknoloji, modern çağın vazgeçilmez bir bileşenidir ve son zamanlarda günlük yaşamdan doğuma kadar dünyanın hemen her alanında kullanılmaktadır. Bazı insanlar teknolojinin eğitimdeki öneminin farkında değiller ama teknolojiyi kullanmaktan da kaçınamıyorlar. Teknoloji, çağdaş çalışmaların gerekliliği ve özellikle eğitimde modern yöntemlerin yoludur. Teknoloji hayatı ve aynı zamanda tüm işleri kolaylaştırır ve insanlara birçok farklı olanak ve ayrıca ekstra zaman sağlar. Geleceğin yüzü olması nedeniyle bu eğitimde en önemli unsur teknolojidir. Gelecek tam olarak teknolojiye dayanır ve bilgi ve iletişim teknolojileri geleceğin yolunu belirler. Bu nedenle birçok gelişmiş ülke bilgi ve iletişim eğitiminde teknolojiyi kullanmaktadır.

Anahtar Kelimeler: Teknoloji, Bilgi, İletişim, Eğitim, Modern Çağ.

SİNEMASAL ZAMAN

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ÖZET

Sinema gerçek anlamda bir sanat olmasının yanı sıra aynı zamanda bir bacasız sanayidir. Daha geniş manada sinema endüstrisi; reklam ve televizyon endüstrilerinin karmasıdır. Bu endüstri birçok ülkede en çok gelişen kültür ekonomileri arasındadır. Sinema endüstrisi pek çok ülkede diğer ülkelere nazaran daha az gelişmiştir. Gelişmişlik ölçüsü farklı etkenlere bağlıdır. Birçok etkinin bir araya gelerek etkileşimi ile gelişebilmesi mümkündür. Bunlar; müzik, video, internet, basılı yayın endüstrileridir. Birçok insanın iş gücüne, firmaya ve alanında uzman kişilere, ekipmana yeni teknolojiye ihtiyaç duyar, ancak bu faktörler bir arada bulunduğu kaliteli bir iş ortaya çıkar. Fakat yine de bütün bu sanayi kollarının oluşması da çok uzun zaman ve oldukça fazla maddi güçle birlikte teknolojiye ihtiyaç duymaktadır. Sinemayı teknik açıdan ele alındığında, sinemanın bir yanılsamaya dayandığını söylenebilir. Bu yanılsama, ışık vasıtası ile gözümüzün ağ tabakasına düşen bir görüntünün, görüntü kaybolduktan sonra da, kısa bir süre daha algılanmasının beyin tarafından sürdürülmesine ve art arda ağ tabakasına düşen görüntüleri kesintisiz hareket eder şekilde algılamasına dayanır. İnsan gözü beyaz bir perde üzerine belirli bir hızla art arda düşen film karelerini kesintisiz bir hareket olarak algılar.

ABSTRACT

In addition to being an art in a real sense, cinema is also a chimney-free industry. In a broader sense, the cinema industry is a mixture of the advertising and television industries. This industry is one of the most decently developing cultural economies in many countries. The film industry is less developed in many countries than in other countries. The measure of development depends on different factors. It is possible that many effects can be decoupled and developed by interaction. These are; music, video, internet, print media industries. A lot of people need dec, firms and specialists in their field, equipment, new technology, but when these factors coexist, a quality job arises. But still, the formation of all these branches of industry also requires a very long time and a lot of material force, as well as technology. Considering cinema from a technical point of view, it can be said that cinema is based on an illusion. This illusion is based on the fact that the brain continues to perceive an image that falls into the network layer of our eye through light for a short time after the image disappears, and it deceives images that fall into the network layer repeatedly in a continuous way. The human eye perceives dec frames that fall successively at a certain speed on a white curtain as a continuous movement.

**DOĞU'DAN BATIYA YEŞİL DANTELA KANATLILARIN (NEUROPTERA:
CHRYSOPIDAE) MORFOMETRİSİ**

EAST TO WEST MORPHOMETRY IN GREEN LACEWINGS (NEUROPTERA: CHRYSOPIDAE)

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ÖZET

Chrysopidae (Neuroptera: Chrysopidae) familyasına ait olan ve yeşil dantela kanatlılar olarak da bilinen böcekler Neuroptera takımı içerisinde en dikkat çeken böcek grubunu oluşturmaktadır. Bu çalışmada Kahramanmaraş ilinin Doğu ve Batı ilçelerinden toplanan dantela kanatlı böcek örnekleri tür ve cins düzeyinde morfometrik olarak incelenmiştir. Bulgular, literatür bilgileri ile karşılaştırıldı. Çalışmada elde edilen bulguların biyolojik kontrol stratejilerinin oluşturulmasına katkı sağlayacağı öngörülmektedir.

Anahtar Kelimeler: Böcek, morfometri, dantela kanatlı, Chrysopidae.

ABSTRACT

Insects belonging to the family Chrysopidae (Neuroptera: Chrysopidae), also known as green lacewings, constitute the most conspicuous insect group in the order Neuroptera. In this study, lacewing specimens collected from the Eastern and Western districts of Kahramanmaraş Province were examined morphometrically at the species and genus level. The results were compared with the literature information. It is predicted that the findings will contribute to the creation of biological control strategies.

Keywords: Insect, morphometry, lacewing, Chrysopidae.

HATAY İLİ KUZEY İLÇELERİ YEŞİL DANTELA KANATLILARIN (NEUROPTERA: CHRYSOPIDAE) FENOLOJİLERİNİN KARŞILAŞTIRILMASI

COMPARISON OF GOLDEN-EYED (NEUROPTERA: CHRYSOPIDAE) PHENOLOGY OF NORTHERN DISTRICTS OF HATAY PROVINCE

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ÖZET

Chrysopidae familyasına ait böcekler, tarımsal ve doğal ekosistemlerde önemli bir predatör böcek grubunu temsil etmektedir. Birçok farklı floristik ve faunistik unsuru bünyesinde barındıran Hatay şehri, yeşil dantela kanatlılar da dahil olmak üzere birçok eklembacaklı için son derece sıra dışı bir yaşam alanı oluşturur. Ayrıca Hatay ili modern tarım uygulamalarının yapıldığı önemli bir alan konumundadır. Bu çalışmada Hatay ilinin kuzey ilçelerinden toplanan böcek örnekleri tespit edilmiş ve literatürle karşılaştırılmıştır.

Anahtar Kelimeler: Böcek, biyoçeşitlilik, Hatay, fenoloji.

ABSTRACT

Insects belonging to Chrysopidae Family represent an important group of predatory insects in agricultural and natural ecosystems. The city of Hatay, which contains many different floristic and faunistic elements, creates an extremely unusual habitat for many arthropods, including green lacewings. In addition, Hatay Province is an important field where modern agricultural practices are made. In this study, insect samples collected from the northern districts of Hatay Province were identified and compared with the literature.

Keywords: Insect, biodiversity, Hatay, Phenology

**EMC PRINCIPLE OF MODELING SOURCES OF DISTURBANCES
IN ELECTRONIC POWER SYSTEMS**

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ABSTRACT

The principle of modeling disturbance sources consists in using voltage and/or current generators as shown. These generators would be used to reconstitute the breakdown of the electrical quantities of a switch. If we consider a perfect switch, it will behave either as a perfect current source with zero value in the off state or as a perfect voltage source with zero value in on the state. The first method consists in dissociating the common-mode from the differential mode by establishing two transfer functions between the sources and the LISN in the frequency domain. The first, defined by the ratio between the voltages represents the differential mode. The second, defined by the ratio between the voltages corresponds to the common-mode. We start first by introducing the notion of separation of the modes of propagation of the disturbances which are the common mode and the differential mode. This principle is based on the source superposition theorem which is classically used in the study of linear circuits. From the point of view of conducted disturbances, this consists of physically separating the effects of current chopping from the effects of voltage chopping. Two equivalent and independent schemes are thus defined, one for the propagation of common-mode disturbances and the other for the propagation of differential mode disturbances. These two schemes each have their disturbance generator. The current flowing at the level of the DC bus is the main source of differential-mode disturbances, the disturbance generator is associated with it. Since the variation of the electrical potential is the main source of common-mode disturbances, the disturbance generator is associated with it.

Keywords: Electromagnetic Compatibility (EMC), Electromagnetic Interference (EMI), Parasitic Components, Power Systems.

PİLONİDAL SİNÜS HASTALIĞINDA NADİR BİR KOMPLİKASYON: MALİGN DEJENEREASYON

A RARE COMPLICATION IN PILONIDAL SINUS DISEASE: MALIGN DEGENERATION

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ÖZET

Pilonidal hastalık, erkeklerde sıklıkla görülen kronik tekrarlayan enflamasyon ile seyreden benign bir hastalıktır. En sık sakrokoksigeal bölgede bulunur. Ayrıca umbilikus, aksilla gibi birçok yerde de görülebilir.

Malign dejenerasyon, esas olarak kronik, tekrarlayan ve tedavi edilmemiş primer pilonidal hastalıkta gözlenen nadir bir komplikasyondur ve kötü prognoz ile ilişkilidir. Malign dejenerasyon oldukça nadir olup vakaların yaklaşık %0,1'inde görülür. Genellikle eksizyon materyallerinde rastlantısal olarak tanı konulur. En sık görülen malignite türü skuamöz hücreli karsinomlardır (%90). Daha nadir olarak da bazal hücreli karsinom ve adenokarsinomdur.

Tümör içermeyen sınırlarla geniş eksizyon tercih edilen tedavidir. Radyoterapi ve kemoterapinin değeri sınırlıdır.

Olgularımız 50 ve 52 yaşlarında iki erkek hasta idi. Her iki hastada, hastalık süreci yaklaşık 15 yıldan fazla idi. Her iki hastada da interglutealsulkustave gluteal bölgede fistül ağızları mevcuttu. Periferik LAP palpe edilmedi. Her iki hastaya da geniş eksizyon ve plastik cerrahi ile birlikte flap yöntemi ile onarım yapıldı. Her iki hastanın patoloji sonucunda skuamöz hücreli karsinom saptandı. Postoperatif onkoloji kliniğine yönlendirilen hastalardan biri il dışına çıktığından takip edilemedi. Diğer hasta ise cerrahi rezeksiyon sonrası onkoloji tarafından takip edilmekte ve adjuvan tedavi almadı.

Sonuç olarak pilonidal sinüs benign bir hastalıktır ve malignite oranları oldukça düşüktür. Ancak uzun süreli tedavi almamış ve tekrarlayan enflamasyon atakları sonrası malignite gelişebileceği akılda tutulmalıdır. Özellikle mevcut bulunduğu yerin etrafında yaygın sinüs ağızları ve enflamasyon varlığında malignite düşünülmelidir. Tedavisinde esas olan geniş cerrahi eksizyondur. Adjuvan tedavileri yeri ise kısıtlıdır. Tedavisinde apse drenajı ve antibiyoterapi yapılabilirse de malignite riskinden dolayı total eksizyon yapılmalıdır

Anahtar kelimeler: pilonidal sinüs, malign dejenerasyon, SCC

ABSTRACT

Pilonidal disease is a benign disease with chronic recurrent inflammation frequently seen in men. It is most commonly found in the sacrococcygeal region. It can also be seen in many places such as the umbilicus and axilla.

Malignant degeneration is a rare complication mainly observed in chronic, recurrent and untreated primary pilonidal disease and is associated with poor prognosis. Malignant degeneration is extremely rare and occurs in about 0.1% of cases. It is usually diagnosed incidentally in the excision materials. The most common type of malignancy is squamous cell carcinoma (90%). Basal cell carcinoma and adenocarcinoma are less common.

Wide excision with tumor-free margins is the preferred treatment. The efficacy of radiotherapy and chemotherapy is limited.

Our cases were two male patients aged 50 and 52 years. In both patients, the disease course was more than approximately 15 years. Both patients had fistula openings in the intergluteal sulcus and gluteal region. Peripheral LAP was not palpated. Both patients were repaired using the wide excision and flap method. The pathology results of both patients revealed squamous cell carcinoma. One of the patients who was referred to the postoperative oncology clinic could not be followed up because he went out of the province. The other patient is being followed up by oncology after surgical resection and did not receive adjuvant treatment.

In conclusion, pilonidal sinus is a benign disease and its malignancy rate is quite low. However, it should be kept in mind that malignancy may develop after recurrent episodes of inflammation that have not received long-term treatment. Especially in the presence of widespread sinus openings and inflammation around its current location, malignancy should be considered. The mainstay of treatment is wide surgical excision. The efficacy of adjuvant treatments is limited. Although abscess drainage and antibiotic therapy can be used in its treatment, total excision should be performed due to the risk of malignancy.

Key words: pilonidal sinus, malignant degeneration, SCC

NEW APPLICATIONS OF ULTRASOUND IMAGING IN DENTISTRY

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ABSTRACT

Background:

Ultrasonography is a non-invasive, radiation-free, method of diagnosing periapical lesions while radiologic methods are more common. Periapical lesions due to endodontic infection are one of the most common causes of periapical radiolucency that need to be distinguished to help determine the course of treatment, this can be decisive for a correct differential diagnosis and for the prognosis of the tooth.

This review aimed to examine the accuracy of ultrasound and compare it to radiographs in distinguishing these lesions in vivo.

Methods: This review process followed the PRISMA guidelines. A literature search of databases (PubMed, Scopus, Embase, and Web of Science) was conducted without any restrictions on time. Articles available in English were included. The selection was done according to the inclusion and exclusion criteria. The QUADAS-2 tool was used to assess the quality of the studies.

Results: The search provided a total of 87 articles, out of which, five were selected for the final review. In all the studies, ultrasound had higher accuracy in distinguishing periapical lesions. All the studies indicated a risk of bias, especially in patient selection.

Conclusion: Within limitations, the study indicates that ultrasound is a better diagnostic tool to distinguish periapical lesions compared to radiographs but further studies with well-designed, rigorous protocols and low risk of bias are needed to provide stronger evidence.

Keywords: dental imaging; ultrasound; radiograph; periapical; lesions; diagnosis.

THE LINK BETWEEN THE ALTERED GUT MICROBIOTA AND CHRONIC SPONTANEOUS URTICARIA: IMPACT OF ALERGIPLANT

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Background Nowadays, regulation of the immune system through gut microbiota is supposed to affect the chronic spontaneous urticaria (CSU). Unfortunately, the whole intestinal microbiome in CSU patients is rarely being clarified. Specific bacterial genera including *Lactobacillus* and *Bacteroides* as well as their microbial metabolites confer protection against CSU.

Objectives The gut microbiota may be a target for improving outcomes in subjects affected or at risk for CSU. Alergiplant could modulate the immune system through gut microbiota in CSU.

Materials and methods The evaluation of the patients was based on history and physical examination. We investigated the effect Alergiplant in CSU patients.

Results Chronic spontaneous urticaria is a spontaneous or inducible disorder defined as persistent urticaria longer than 6 weeks in duration and without an identifiable cause. Imbalanced microbiota diversity should be considered as one of the most important underlying causes of CSU. Although the mechanism of decreased microbiota diversity associated with the etiology of CSU is not clear, alterations in gut bacterial diversity could disrupt mucosal immunological tolerance by promoting Treg cells reacting to dietary antigens.

Conclusion This is the first study, to our knowledge, to show the change of microbiota composition in patients with CSU. Our results demonstrated that the microbial composition was significantly different between CSU patients and the healthy individual, which may be the reason leading to the various outcomes of probiotic treatment. This study suggests that disturbances in the gut microbiome composition and metabolites and their crosstalk or interaction may participate in the pathogenesis of CSU.

Keywords: gut microbiome, immune system, chronic spontaneous urticaria, Alergiplant

**ÜNİVERSİTE ÖĞRENCİLERİNİN RUH VE NEFİS KAVRAMLARINA İLİŞKİN
METAFORİK ALGILARIN İNCELENMESİ**

INVESTIGATION OF METAPHORICAL PERCEPTIONS OF UNIVERSITY STUDENTS ON THE
CONCEPTS OF SPIRIT AND SELF

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ÖZET

Ruh ve nefis kavramları düşünen ilk insan ile birlikte çözümlenmeye çalışılan ve mahiyeti hakkında bilgi sahibi olma gayesiyle irdelenen iki kavramdır. Bu iki kavram her toplumda, her dinde ve her ideolojide tartışma konusu olmuştur. Öyle anlaşıyor ki yeryüzünde son insan kalana kadar da tartışılmaya ve açıklanılmaya çalışılan iki olgu olarak sürekli karşımıza çıkacaktır. Esas itibariyle bu çalışmada da ruh ve nefis kavramlarını bir nebze olsun açıklamak ve anlamlandırmak amaç edinilmiştir. Bu yüzden de bu çalışmanın amacı ruh ve nefis kavramlarının üniversite öğrencileri nezdindeki metaforik algılarını ortaya çıkartmaktır. Bu amaç doğrultusunda çevrimiçi olarak hazırlanan formla birlikte 19-25 yaş arası 11 erkek ve 30 kadın katılımcı olmak üzere 41 katılımcıdan analizlere dahil edilebilecek veri elde edilmiştir. Araştırmacılar tarafından oluşturulan ve iki kısımdan oluşan bir form kullanılmıştır. Formun ilk kısmı katılımcılara ilişkin demografik değişkenleri belirlemek amacıyla hazırlanmıştır. Formun ikinci kısmı ise, “Ruh.....benzer, çünkü.....” ve “Nefis.....benzer, çünkü.....” şeklinde metaforik algıları ölçmeye yarayacak şekilde hazırlanmıştır. Araştırma kapsamında elde edilen veriler excel dosyası şeklinde transkripte edilmiş ve Maxqda 20 paket programı yardımıyla analiz edilmiştir. Buradaki amaç ruh ve nefis kavramlarının en çok neye ve niçin benzetildiğini doğru bir şekilde kategorize edebilmektir. Yapılan analizler sonucunda, katılımcıların özellikle ruhu mahiyeti bilinmeyen ancak hissedilebilen cümlelerle açıklamaya çalıştıkları görülmüştür. Nefsin ise daha çok doymak bilmeyen ve sürekli isteyen bir konumda tanımlandırıldığı görülmektedir.

Anahtar Kelimeler: Ruh, Nefis, Metafor Çalışması

ABSTRACT

The concepts of spirit and self are two concepts that are tried to be analyzed together with the first person who thinks and is examined to gain knowledge about their nature. These two concepts have been the subject of discussion in every society, religion, and ideology. It seems that there will always be two phenomena that are tried to be discussed and explained until the last human being on earth. Essentially, this study aims to explain and make sense of the concepts of spirit and self to some extent. Therefore, this study aims to reveal the metaphorical perceptions of spirit and self among university students. For this purpose, data that can be included in the analysis were obtained from 41 participants, 11 male, and 30 female participants, between the ages of 19-25, together with the online form. A form created by the researchers and consisting of two parts was used. The first part of the form was prepared to determine the demographic variables of the participants. The second part of the form is “The Spirit is.....like

because.....” and “The Self.....similar because.....” It has been prepared in a way to measure metaphorical perceptions. The data obtained within the scope of the research were transcribed as an excel file and analyzed with the help of the Maxqda 20 package program. The aim here is to categorize correctly what and why the concepts of spirit and self are most likened. As a result of the analysis, it was seen that the participants tried to explain the spirit with sentences whose nature is unknown but can be felt. It is seen that the self is defined in a greedy and always wanting position.

Keywords: Spirit, Soul, Metaphor Study

THE NOTION OF LEXICAL MEANING IN THE ENGLISH LANGUAGE

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ABSTRACT

The lexical meaning of a word is the realization of a notion by means of a definite language system. A word is a language unit, while a notion is a unit of thinking. A notion cannot exist without a word expressing it in the language, but there are words which do not express any notion but have a lexical meaning.

The term «notion» was introduced into lexicology from logics. A notion denotes the reflection in the mind of real objects and phenomena in their relations. Notions, as a rule, are international, especially with the nations of the same cultural level. The number of meanings does not correspond to the number of words, neither does the number of notions. Their distribution in relation to words is peculiar in every language.

It is through lexical resources that languages maintain the flexibility their open-ended commitments demand. Every language has a vocabulary of many thousands of words, though not all are in active use, and some are known only to relatively few speakers.

Languages in part create the world in which humans live. Of course, many words do name existing bits and pieces of earth and heaven: stone, tree, dog, woman, star, cloud, and so on. Others, however, do not so much pick out what is there as classify it and organize one's relations with it and with each other with regard to it.

There are two processes of the semantic development of a word: radiation and concatenation. In cases of radiation the primary meaning stands in the centre and the secondary meanings proceed out of it like rays. Each secondary meaning can be traced to the primary meaning.

In the modern English society there is a tendency to social stratification, as a result there are neologisms in this sphere as well. To this group we can also refer abbreviations of the type yuppie /young urban professional people/, such as: muppie, gruppie, rumpie, bluppie etc. People belonging to the lowest layer of the society are called survivors, a little bit more prosperous are called sustainers, and those who try to prosper in life and imitate those, they want to belong to, are called emulators. Those who have prospered but are not belongers are called achievers.

Keywords: lexical meaning, language system, notion, semantic development, primary meaning, secondary meaning,

NİZAMİ GENCEVİNİN DÜNYA EDEBİYYATININ BANİSİDİR

Elmira Məhərrəmovə

ADPU-nun ETM-nin Təbiiqi Tədqiqatlar bölməsinin əməkdaşı

Anahtar kelimeler: edebiyat, şair, şiir, lirik, edebi

Felsefe, edebiyat, astronomi, tip, geometri gibi alanlarda çalışmalar yapmış bir 12 yüzyıl filozofu ve şairidir. Eserlerinin çoğunu Farsca yazan şair, Fars edebiyatında hamse türünün kurucusu sayılır destansı şiir türünü zirveye taşımış, manzum aşk hikâyelerinin en büyük ustası unvanını kazanmıştır. Eserleri kendinden sonraki şair ve düşünürleri etkileyerek Sadi-i Şirazi'nin Bostanında, Mevlana Celaleddin Ruminin Mesnevisinde, Emir Hüsrev Dehlevinin Hamsesinde, Arif Erdebilinin Ferhadnamesinde, Ali Şir Nevai ve Abdurrahman Caminin "Hamsalarında", Fuzilinin Leyla ve Mecnunda yeniden işlenmiştir.

Nizami'nin ailesi hakkında bilgi yoktur, eserlerinden babasının isminin Yusuf olduğu (etnik kökeni tartışmalıdır) ve annesinin kuzey Azerbaycan bölgesinden olduğu görülebilmektedir. TDV İslam Ansiklopedisinde babasının Türk annesinin Kürt olduğu bilgisi yer alır.

Nizami, kimi kaynaklarda Fars şairi olarak kabul edilegelmiş olsa da Azerbaycan kaynakları onun Türk asıllı olduğu konusunda hemfikirlerdir. Bir grup araştırmacıya göre Kıpçak, diğerlerine göre Oğuz boyundandır. Babasının Gence'ye gelip yerleştiği ve Nizâmî'nin orada doğduğu kabul edilmektedir.

Doğum tarihi kesin olarak bilinmemekle birlikte, 1141-1145 yılları arasında Gence'de dünyaya geldiği düşünülür. Asıl adı *İlyas*, lakabı ise Nizameddindir. Aynı dönemde yaşamış olan başka Nizami'lerden ayrılmak için Nizami Gencevi yani Genceli Nizami adı ile zikredilmiştir. Tam adı Ebu Muhammed İlyas bin Yusuf bin Zaki bin Muayyed Nizami şeklindedir.

Anne-babasını erken yaşta kaybeden Nizami'nin Gence'de dayısı sayesinde iyi bir eğitim gördüğü, dil ve edebiyat yanında astronomi, felsefe, coğrafya, tıp ve matematik okuduğu, müziğe ilgi duyduğu, Farsça ve Arapça'dan başka Pehlevîce, Süryânîce, İbrânîce, Ermenice ve Gürcüce gibi dilleri de öğrendiği anlaşılmaktadır. Kişisel gayretleri ile Orta Çağ döneminin ilimlerine vakıf olmuştur; Orta Doğunun sözlü ve yazılı edebiyatını öğrenmiştir. Eserlerinde, İslam İlimleri

dışında, Antik Çağ Yunan Felsefesine de tamamıyla hakim olduğuna ve astronomi bilgisine dair kanıtlar bulunur.

Eğitim döneminden sonra resmi bir görev almayıp çevredeki devlet adamlarına gönderdiyi

Şiirlerden elde ettiği para ile geçindi; ancak bir saray şairi olmadı, Saray çevresinde yaşamak yerine mütevazı bir yaşamı tercih eden Nizami, üç kez evlenmiş ve üç eşi de erken yaşta ölmüştür.

Eşleri içinden Derbend hükümdarı tarafından hediye edilen Kıpçak Afak adlı eşinden 1174'te Muhammed adında bir oğlunun dünyaya geldiği bilinir; nasihatnameleri oğlu Muhammed'e hitaben yazılmıştır.

Dindar bir kişi olan Nizami, Batınılığe şiddetle karşı çıkıp, şiirlerinde Ehl-i sünnet inancını dile getirmiş, İslam peygamberi ve Dört Halife için övgüler yazmıştır.

ANAMORFİK İLLÜZYON TEKNİĞİNİN KÖKENİ VE GÜNCEL SANAT İÇERİSİNDE KULLANIMI

THE ORIGIN OF ANAMORFIC ILLUSION TECHNIQUE AND ITS USE IN CONTEMPORARY ART

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ÖZET

Yaşanılan mekânın algısı görme duyumu ile mümkün kılınmıştır. Görme algısı yaşanılan mekânı tanıma, algılama, hacmini kavrama gibi eylemleri gerçekleştirir. Ancak sanatın bir illüzyon olduğu varsayılır ise görme algısını doğrudan değiştirdiği de söylenebilir. Perspektifin keşfi ile derinlik yanılsamasını yüzeye aktaran sanatçılar, optik görüntüdeki gerçek üzerinde yoğunlaşarak yeni ifade alanı yaratmışlardır. Perspektifin yarattığı yanılsamayı sonuna kadar kullanan sanatçılar anamorfik illüzyon tekniğini de bu sebeple kullanmışlardır. Yüzey üzerinde bir algı yanılsamasıyla ortaya çıkan anamorfik illüzyon, sanatın kullandığı görsel yanılsamadan faydalanarak ortaya çıkan bir tekniktir. Kökeni Rönesans'a kadar uzanan bu teknik Brunellechi'nin perspektifi keşfi ile birlikte sanatın içine dahil edilmiştir. Leonardo da Vinci ve Hans Holbein gibi sanatçıların da kullandığı anamorfik illüzyon tekniği Güncel Sanat'da da farklı açılardan ele alınmıştır. Modernizmin geleneği reddetmesi ile beraber perspektifi de yüzey üzerinden dışlaması, sanatın birçok ifade biçimini de değişime uğratmıştır. Ancak modern sanatın içinde de bu yanılsama tekniğini kullanan sanatçılar mevcuttur. Özellikle Sürrealizm akımı içinde yer edinen anamorfik illüzyon ifade alanını oldukça genişletmiştir. Güncel Sanat'ın içerisinde farklı bir durumla gündeme gelen anamorfik illüzyon tekniği izleyicinin de rolünü belirleyen çalışmalardır. Bu tekniği algılamak için seyirci belli bir bakış açısı ile çalışmaya bakmalıdır. Aksi takdirde izleyici için anlamsız şekillerin yer aldığı bir yüzeye dönüşecektir. Sanatçı anamorfik illüzyon tekniği ile mekân içerisinde ya da kamusal alanda çalışmasını kurgularken seyircinin izleyeceği bakış açısını da hesaplamak durumundadır. Bunların yanı sıra yüzey yanılsamasından çok mekân yanılsamasına yönelen sanatçılar güncel sanatın içinde önemli bir konuma ulaşmışlardır. Teknolojinin ilerlemesi ile birlikte anamorfik illüzyon tekniği de büyük ölçüde gelişmiştir. Sanatçının uçsuz bucaksız hayal gücünü ifade etme kolaylığı sağlayan dijital keşifler birçok disiplinin de iç içe geçmesine olanak sağlamıştır.

Bu çalışma geçmişten bugüne kadar anamorfik illüzyon örneklerine katkı sağlayan sanatçıların bir kısmını içermektedir. Anamorfik İllüzyon ile hem yüzey hem de mekân algısını değiştiren sanatçılar, literatür taramasının yanı sıra internet ortamındaki doküman ve analiz yöntemi ile araştırılmıştır.

Anahtar Kelimeler: Anamorfik illüzyon, Mekân, Güncel Sanat.

ABSTRACT

The perception of the living space is made possible by the sense of sight. Visual perception performs actions such as recognizing, perceiving and grasping the volume of the living space. However, if it is assumed that art is an illusion, it can be said that it directly changes the perception of vision. The artists, who transferred the illusion of depth to the surface with the discovery of perspective, created a new expression area by concentrating on the reality in the optical image. Artists who use the illusion created by the perspective to the fullest have used the anamorphic illusion technique for this reason. Anamorphic illusion, which emerges with an illusion of perception on the surface, is a technique that emerges by making use of the visual illusion used by art. This technique, which dates back to the Renaissance, was included in art with Brunellechi's discovery of perspective. Anamorphic illusion technique, which is

also used by artists such as Leonardo da Vinci and Hans Holbein, is also discussed in Contemporary Art from different angles. Along with the rejection of tradition by modernism, its excluding perspective from the surface has also changed many forms of expression of art. However, there are artists who use this illusion technique in modern art. In particular, the anamorphic illusion, which took its place in the Surrealism movement, greatly expanded its expression area. Anamorphic illusion technique, which comes to the fore with a different situation in Contemporary Art, is the work that determines the role of the viewer. To perceive this technique, the audience must look at the work from a certain point of view. Otherwise, it will turn into a surface with meaningless shapes for the viewer. The artist has to calculate the point of view that the audience will follow while constructing his work in the space or in the public space with the anamorphic illusion technique. In addition to these, artists who tend towards the illusion of space rather than the illusion of the surface have reached an important position in contemporary art. With the advancement of technology, the anamorphic illusion technique has also greatly improved. Digital discoveries, which provide the ease of expressing the artist's vast imagination, have also allowed many disciplines to be intertwined.

This study includes some of the artists who contributed to anamorphic illusion samples from the past to the present. Artists, who changed both the surface and space perception with Anamorphic Illusion, were searched by using documents and analysis methods on the internet as well as literature review.

Key Words: Anamorphic illusion, Place, Contemporary Art.

RELATIONSHIP OF REJECTION SENSITIVITY, PARENTAL BONDING, AND ATTACHMENT STYLES WITH RELATIONSHIP SATISFACTION AMONG ADULT ADOPTEES

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ABSTRACT

Objective: The present study aimed to ascertain the relationship of rejection sensitivity, parental bonding, and attachment styles with relationship satisfaction among adult adoptees.

Methods: Cross sectional questionnaire-based survey was used for this study. A sample of 75 adult adoptees (40x males and 35x females) from middle upper-class family of Rawalpindi/Islamabad were approached. Parental Bonding Instrument, Rejection Sensitivity Questionnaire, Attachment Style Questionnaire, and Relationship Assessment Scale were administered on the participants.

Results: Results indicated the significant negative relationship between fearful attachment style and relationship satisfaction ($r = -.57^*$). Similarly, dismissing attachment style and relationship satisfaction are significantly negatively correlated ($r = -.65^{**}$). Further, rejection expectancy and relationship satisfaction were significantly negatively correlated ($r = -.48^*$).

Conclusion: Keeping in view the findings of the present study, adult adoptees experienced insecure attachment styles by the parents that lead to lower level of marital satisfaction. There is a need to highlight the significant role of parents in children's lives. Mental health professionals must promote the better ways of dealing with children because of those early patterns' individuals develop insecurities that leads to poor relationship satisfaction.

Keywords: Rejection sensitivity, Parental bonding, Attachment styles, Relationship satisfaction

AGE AND GENDER RELATED DIFFERENCES IN ICT SELF-EFFICACY, SELF-DIRECTED LEARNING, E-LEARNING READINESS, AND STUDENT ENGAGEMENT AMONG STUDENTS

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ABSTRACT

Objective: This study aimed to ascertain the age and gender related differences in ICT self-efficacy, self-directed learning, e-learning readiness, and student engagement.

Methods: Cross sectional questionnaire-based survey and convenient based sampling technique was used. Sample consisted of N=300 adolescents with age range between 15-21years. Further, data was divided based on gender (male, n= 150; female, n= 150). Data was collected from different schools and colleges of Rawalpindi and Islamabad (Pakistan). A booklet of informed consent, demographic information sheet, ICT self-efficacy scale, Self-directed Learning with Technology, E-Learning Readiness, and Student Engagement Measures were administered.

Results: Age related significant differences showed that late adolescents scored higher on self-directed learning ($t=2.90$, $p<.05$), E-learning readiness ($t=2.69$, $p<.05$), and student engagement ($t=2.13$, $p<.05$) as compared to young adolescents. Gender related differences indicated that on ICT self-efficacy male students scored higher ($t=3.41$, $p<.05$) as compared to female students.

Conclusion: Results have confirmed that mature group of students responded in a better way towards self-directed learning, E-learning readiness, and student engagement than younger students. Male students have reported better understanding of technology and had more level of ICT self-efficacy than female students. Educationists and other professionals must plan practical strategies for the improvement of new learners' skills through online system. There is a need at Government level to provide best network facilities for the teachers and students for running the online system in a better way.

Keywords: ICT Self-Efficacy, Self-Directed Learning, E-Learning Readiness, Student Engagement.

**ASANSÖR UYGULAMALARI İÇİN DOĞRUDAN TAHRİKLİ AA SENKRON MOTOR
TASARIMI VE OPTİMİZASYONU**

**DESIGN AND OPTIMIZATION OF DIRECT DRIVE AC SYNCHRONOUS MOTOR FOR
ELEVATOR APPLICATIONS**

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ÖZET

Binalarda dikey taşıma işlemini gerçekleştiren asansörler klasik yapılarda dişli kutusu ve makine dairesine sahiptirler. Klasik yapılar akustik gürültü, titreşim ve sık bakım ihtiyacı duyan sistemlerdir. Doğrudan tahrikli asansör sistemleri ise dişli kutusuna ve ayrı bir makine dairesine ihtiyaç duymamaktadır. Sabit mıknatıslı AA senkron motorlar yüksek güç yoğunluğu, yüksek verim ve geniş hız aralığında kontrol seçeneği ile doğrudan tahrikli asansör uygulamalarında ön plana çıkmaktadırlar. Bu çalışmada, 15 kW gücünde yüzey yerleştirmeli yüksek verimli sabit mıknatıslı senkron motorun tasarımı ve optimizasyonu gerçekleştirilmiştir. Analitik tasarım aşamasını geçen motor modeli, parametrik optimizasyon yöntemi kullanılarak optimize edilmiştir. Mıknatısın geometrik büyüklükleri parametrik analizlerde değiştirilerek vuru torku, motor verimi ve çıkış gücü gibi performans parametreleri incelenmiştir. Analizler sonucunda optimum kutup yayı/kutup adımı, kutup yayı ofset değeri ve mıknatıs kalınlığı belirlenmiştir.

Anahtar Kelimeler: AA senkron motor, sonlu elemanlar analizi, asansör uygulamaları, sürekli mıknatıs

ABSTRACT

Elevators that perform vertical transport in buildings have gearboxes and machine rooms in classical structures. Traditional systems require frequent maintenance and produce acoustic noise and vibration. In contrast to this, direct drive elevators do not require a gearbox or a separate machine room. Permanent magnet synchronous motors become a standout in direct drive elevator applications for their high power density, high efficiency and controllability within a broad speed range. A 15 kW surface mounted high efficiency permanent magnet synchronous motor has been designed and optimized in this research. In a parametric analysis, the magnet's size have been altered, and performance factors such cogging torque, motor efficiency, and output power have been studied. As a result of the analyses, optimum pole arc/pole pitch, pole arc offset value and magnet thickness have been determined.

Keywords: AC synchronous motor, finite element analysis, elevator applications, permanent magnet

**NEHİR TİPİ HİDROELEKTRİK SANTRALLER İÇİN DÜŞÜK HIZLI YÜZEY
YERLEŞTİRMELİ SENKRON GENERATÖR TASARIMI VE ANALİZİ**

**DESIGN AND ANALYSIS OF LOW SPEED SURFACE MOUNTED SYNCHRONOUS
GENERATOR FOR RUN-OF-THE-RIVER HYDROELECTRIC POWER PLANTS**

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ÖZET

Ülkelerin kalkınmasında önemli bir faktör olan enerji, teknolojinin gelişimi ve nüfusun artmasıyla birlikte her geçen gün daha da önem kazanmaktadır. Fosil yakıtların çevre kirliliğine neden olması ve kapasitesinin gün geçtikçe azalması ucuz, yerel ve çevre dostu olan yenilenebilir kaynakların kullanımını ön plana çıkarmaktadır. Yenilenebilir enerji kaynakları arasında hidrolik kaynaklar önemli bir yer tutmaktadır. Hidroelektrik santrallerde, özellikle generatör ve türbin sistemin en önemli parçalarındandır. Bu amaçla, çalışmada nehir tipi hidroelektrik santraller için yüksek verimli düşük hızlı sabit mıknatıslı senkron generatörün analitik tasarımı ve sonlu elemanlar analizi gerçekleştirilmiştir. Generatörün anma yükünde ve anma hızında manyetik akı dağılımları elde edilerek tasarım iyileştirilmiştir. Üretilen gerilim dalga şekilleri transient analizlerle çıkarılarak sinüse en yakın gerilim dalga şekline sahip generatör tasarımı sunulmuştur.

Anahtar Kelimeler: Hidroelektrik santral, yenilenebilir enerji, sürekli mıknatıs, senkron generatör

ABSTRACT

Energy, which is a crucial aspect in a country's development, is becoming increasingly important as technology advances and the population grows. The fact that fossil fuels pollute the environment and have a finite capacity forces the utilization of low-cost, local, and environmentally-friendly renewable resources to the fore. Hydraulic resources are among the most important renewable energy sources. In hydroelectric power plants, especially the generator and turbine are the most important parts of the system. To this end, analytical design and finite element analysis of a high-efficiency low-speed permanent magnet synchronous generator for river-type hydroelectric power plants were carried out in the study. The analytical design is improved by obtaining magnetic flux distributions at rated speed and rated load of the generator. The generated voltage waveforms are obtained by transient analysis and the generator design offering the voltage waveform closest to the sine wave is presented.

Keywords: hydroelectric power plant, renewable energy, permanent magnet, synchronous generator

İKİ ALANLI ÇOK KAYNAKLI GÜÇ SİSTEMLERİNDE FREKANS KARARLILIĞININ İYİLEŞTİRMESİNE YÖNELİK EKLEMELİ BULANIK PI DENETLEYİCİ TASARIMI

DESIGN OF CASCADE FUZZY PI CONTROLLER FOR IMPROVING FREQUENCY STABILIZATION IN TWO-AREA MULTI-SOURCE POWER SYSTEMS

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ÖZET

Güç sisteminde üretilen elektriğin frekansının değişen tüketime göre ayarlanması işlemine YFK denilmektedir. YFK güç sistem dizaynı ve operasyonunda oldukça önemlidir. Bu nedenle bu çalışmada iki alanlı çok kaynaklı bir güç sisteminde yük frekans kontrolü (YFK) ele alınmıştır. İkincil denetleyici olarak eklemeli bulanık PI denetleyici tasarlanmış ve önerilmiştir. Denetleyiciden en iyi performansı elde etmek amacıyla denetleyici parametreleri verimli ve gürbüz simbiyotik organizmalar arama (SOA) algoritması ile ayarlanmıştır. Benzetimi gerçekleştirilen güç sistemi MATLAB/Simulink ortamında modellenmiş, optimizasyon tekniği ise MATLAB/M-file ortamında kodlanmıştır. Çalışmanın literatüre katkısının ispatı için elde edilen sonuçlar saygın dergilerde yayımlanan sonuçlarla karşılaştırılmıştır. Karşılaştırma sonuçlarına göre önerilen denetleyicinin frekans ve bağlantı hattı güç değişim eğrilerindeki salınım, oturma zamanı, maksimum pozitif aşım ve maksimum negatif aşım gibi zaman alanı göstergeleri bakımından diğer yaklaşımlardan daha iyi performans sergilediği gözlenmiştir.

Anahtar Kelimeler: yük frekans kontrolü, iki alanlı çok kaynaklı güç sistemi, eklemeli PI denetleyici, simbiyotik organizmalar algoritması, optimizasyon

ABSTRACT

In a power system, the process of adjusting frequency of the electricity generated in accordance with the changing consumption is called load frequency control (LFC). LFC is quite important in power system design and operation. Therefore, in this study, LFC in a two-area multi-source power system is discussed. As secondary controller, cascade fuzzy PI controller is designed and proposed. To maximize the performance of this controller, controller parameters are tuned by effective and robust symbiotic organisms search (SOS) algorithm. The power system simulated are modeled in MATLAB/Simulink environment and the optimizer is coded in MATLAB/M-file platform. In order to affirm the contribution of the work, the collected results are compared with the results published in prestigious journals. As per the comparative results, the proposed approach controller is found to exhibit better performance than other approaches in terms of time domain indicators such as oscillations, settling time, maximum overshoot and maximum undershoot in the frequency and tie-line power deviations.

Keywords: load frequency control, two-area multi-source power system, cascade fuzzy PI controller, symbiotic organisms search algorithm, optimization

**BAĞIMSIZ BİR OTOMATİK GERİLİM REGÜLATÖRÜNÜN DİNAMİK TEPKİSİ VE
KARARLILIĞININ İYİLEŞTİRİLMESİNE YÖNELİK YUSUFÇUK ARAMA
ALGORİTMASI TABANLI PID DENETLEYİCİ TASARIMI**

DRAGONFLY SEARCH ALGORITHM BASED PID CONTROLLER DESIGN FOR DYNAMIC
RESPONSE AND STABILITY IMPROVEMENT OF A STANDALONE AUTOMATIC VOLTAGE
REGULATOR SYSTEM

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ÖZET

Bir elektrik güç ağında otomatik gerilim regülatörü (OGR), bu ağa bağlı alıcıların sağlıklı çalışmasına olanak tanıyacak sabit gerilimi sağlayabilmesi için iyi gibi dinamik tepkiye sahip olmalıdır. Ek olarak OGR, güç kalitesi, şebeke güvenliği ve güvenilirliğini ciddi derecede etkileyen bir sistemdir. OGR sistemin performansını iyileştirmek ilgi uyandırdığı için bu çalışmada son zamanlarda ortaya çıkan etkili yusufçuk arama algoritması (YAA) ile daha makul performans kriteri OGR’de kurulu PID denetleyici parametrelerinin daha iyi değerlerinin elde edilmesinde kullanılmışlardır. Önerilen yaklaşımın üstünlüğünü vurgulamak amacıyla benzer OGR sistemi için saygın dergilerde yayımlanan bir dizi çalışmalarla karşılaştırmalar gerçekleştirilmiştir. Karşılaştırmalarda geçici yanıt analizi, kök yer analizi ve bode analizi kullanılmıştır. Karşılaştırma analizi sonuçları YAA tabanlı PID denetleyicinin önceki muadillerine göre daha iyi gerilim tepkisi verdiğini göstermiştir, öyle ki sistem çıkışı verilen basamak referansa daha kısa sürede ve çok küçük bir aşım ile oturmaktadır. Bu yanıt ile çalışılan kontrol uygulamasının daha iyi kararlılık derecesiyle kontrol edilebildiği anlaşılmıştır.

Anahtar Kelimeler: otomatik gerilim regülatörü, PID denetleyici, çok amaçlı optimizasyon, yusufçuk arama algoritması, performans kriteri, geçici yanıt analizi, kararlılık analizi

ABSTRACT

In an electric power network, automatic voltage regulator (AVR) should have good dynamic response to ensure a constant voltage for healthy operation of equipment connected with this power network. Besides, it is a system that significantly influences the power quality, grid security and reliability as well. Since it is great interest to improve the performance of an AVR system, in this study recently proposed powerful dragonfly search algorithm (DSA) and a more reasonable performance criterion are used to find out better values of gains of the PID controller installed in an AVR. To emphasize on the superiority of our proposal, comparisons are made with a number of studies published in prestigious journals for the identical AVR system. In the comparisons, transient response analysis, root locus analysis and bode analysis are implemented. Comparative analysis results demonstrate that DSA optimized PID controller yields a better voltage response profile than its earlier counterparts in a sense that the system output settles to the given step reference in shorter time and with very mild overshoot. Such response is found to make it possible to control the studied control application with better stability margin.

Keywords: automatic voltage regulator, PID controller, multi-objective optimization, dragonfly search algorithm, performance criterion, transient response analysis, stability analysis

SUDAN'DA OSMANLI HÂKİMİYETİ

OTTOMAN DOMINATION IN SUDAN

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ÖZET

Afrika kıtasının merkezinde yer alan Sudan coğrafyası konumu, etnik yapısı, tarihi ve kültürü ile özellikli bir yere sahiptir. Tarihi dokusuyla Nil havzası üzerinde hareketli ve güçlü bir yapıya sahiptir. Bilâdü's-Sudan adıyla anılan Kızıldeniz'den Atlas Okyanusuna kadar uzanan coğrafya Afrika'nın merkezinde geniş bir sahayı kapsamaktadır. Mısır'ın fethiyle birlikte Yavuz Sultan Selim döneminde Osmanlılar Mısır'ın güneyine ilerleyince topraklarını genişleterek fetih hareketlerini sürdürdüler. Mısır ve Habeş Eyaletinin tesir halkası içerisinde bölgeye askeri, ticari, ilmi ve içtimai temaslar gerçekleştirilmiştir. Kavalalı Mehmed Ali Paşa'nın (ö. 1265/1849) Mısır valisi olmasıyla Osmanlı'nın Sudan topraklarındaki nüfuzu daha fazla artmış ve 1821-1895 tarihleri arasındaki yönetime Ahdü't-Türkiye adı verilmiştir. Osmanlı-Mısır güçlerinin destek ve katkıları ile bölgenin yönetim ve imarı gerçekleşmiştir. Mısır'ın İngilizler tarafından 1882 yılında istila edilmesiyle Sudan topraklarını da işgal eden İngiliz sömürge güçlerine karşı Fûr Hanedanlığı ve Sudan Mehdisi gibi önemli güçler mücadele vermiş ama sonunda bölge İngiliz sömürmesine maruz kalarak Osmanlı hâkimiyetinden çıkmak durumuyla karşı karşıya kalmıştır. Bilim dünyasında Osmanlı'nın Sudan üzerindeki hâkimiyet süreci, bölgede gerçekleştirdiği siyasi ve kültürel katkıları anlamında yeterli ve kapsayıcı düzeyde saha çalışmasının bulunmayışı nedeniyle böylesi bir konuyu değerlendirmek durumunda kaldık. Konuyla ilgili gerçekleştirilen akademik çalışmalardan da azami düzeyde yararlanmak suretiyle Osmanlı kültür ve medeniyetinin Sudan'daki gelişim seyrini ortaya koymaya çalıştık.

Anahtar Kelimeler: İslam, Osmanlı, Afrika, Sudan, Mısır Hıdivliği

ABSTRACT

Spotted in the center of the African continent, Sudan has a special location with its geography, ethnic structure, history and culture. It has a dynamic and strong structure on the Nile basin with its ancient historical texture. The geography known as Sudanese resorts Bilād al-Sūdān, extending from the Red Sea to the Atlantic Ocean, covers a wide area in the center of Africa. With the conquest of Egypt, during the reign of Yavuz Sultan Selim, the Ottomans descended to the south of Egypt and expanded their lands and continued their conquest movements. Military, commercial, scientific and social contacts were made to the region within the sphere of influence of the Beylerbeyliği of Egypt and the State of Abyssinia. By the appointment of Qavalalı Mehmed 'Alī Pasha as the governor of Egypt increased the influence of the Ottoman Empire further in the territory of Sudan and the administration of the country between 1821-1895 was named as Ahd al-Turkey. With the support and contribution of the Ottoman-Egyptian powers, the administration and development of the region was realized.

Keywords: Islam, Ottoman, Africa, Sudan, Egyptian Khedives

**DOĞRUSAL OLMAYAN SERBEST TİTREŞİMDE DEĞİŞKEN SERTLİKTE ÇİFT
KAVİSLİ PANELLERİN FİBER OPTİMİZASYONU**

**FIBER OPTIMIZATION OF VARIABLE STIFFNESS DOUBLY CURVED PANELS IN
NONLINEAR FREE VIBRATION**

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ÖZET

Çalışmamız, eğrisel bir fiber kompozit çift kavisli panelin (GA) temel doğal frekanslarını optimize ediyor. Daha sonra, temel genliğe bağlı doğrusal olmayan frekans davranışı açısından referans tek yönlü fiber yerleşimi ile karşılaştırılır. Çeşitli havacılık araçlarının yapısal çerçevelerinde çift kavisli paneller kullanılmaktadır. Kompozit laminatlardaki eğrisel fiber rota işlevi, değişken sertlik sağlar. Yapısal model sanal emek üzerine inşa edilmiştir. Amaç, kompozit panelin temel frekansları veya düzlem içi güçleri için fiber yollarını optimize etmektir. Bu çalışma, iki sınır koşuluna sahip sekiz katmanlı kompozit çift kavisli bir panel kullanılmaktadır. Sıkıştırılmış kenarlar için C ve serbest kenarlar için F sınır koşullarıdır. Orta kalınlıkta çift kavisli panel, Von-Karman kinematik gerinim ilişkileri ve birinci dereceden kayma deformasyon teorisi (FSDT) kullanılarak genelleştirilmiştir. Ana hareket denklemleri GDQ yöntemi kullanılarak çözülür. Sayısal bulgular, fiber açısı yollarının, sınır koşullarının ve geometrik düzensizliklerin çift eğri panelin temel frekansları üzerindeki etkisini göstermektedir.

Anahtar Kelimeler: çift eğimli panel, eğrisel fiber kompozit, genetik algoritma

ABSTRACT

In the present study, the fundamental natural frequencies of curvilinear fiber composite doubly curved panel are optimized applying genetic algorithm (GA). Later, the fundamental amplitude-dependent nonlinear frequency behavior of the optimized curved fiber layup configurations is studied and compared with the reference unidirectional fiber layup. Doubly curved panels are used in various components of the structural frames of the aerospace vehicles. The variable stiffness behavior is obtained by altering the fiber angles continuously according to curvilinear fiber path function in the composite laminates. Structural model is utilized based on the virtual work principle. The aim is to achieve the best fiber paths with maximized fundamental frequencies or in-plane strengths for a composite panel. An eight-layer composite doubly curved panel with two types of boundary conditions are considered as a case study in this research. The boundary conditions include; CCCC, FCFC where C stands for clamped, and F for free edges. Von-Karman kinematic strain relations are used and the first order shear deformation theory (FSDT) is employed to generalize the formulation for the moderately thick doubly curved panel including transverse shear effects. Generalized Differential Quadrature (GDQ) method of solution is employed to solve the governing equations of motion. Numerical results demonstrate the degree of effectiveness for fiber angle paths, boundary conditions, and geometrical non-uniformities on the fundamental frequencies of the doubly curved panel.

Keywords: doubly curved panel, curvilinear fiber composite, genetic algorithm

**THE EFFECT OF LOCAL GOVERNMENT AUTONOMY ON LOCAL GOVERNMENT
SERVICE DELIVERY IN YEWA SOUTH LOCAL GOVERNMENT**

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ABSTRACT

The research aimed at the effect of local government autonomy on local government service delivery in Yewa South Local Government area of Ogun state Nigeria, the central objective of this study was to examine the effect of local government Financial Autonomy of its effective service delivery in the study area. The questionnaire administered has a sample size of 80. Data were analyzed using simple percentage method and presented in tabular form. The findings of the study reveal that local government plays a significant role in the provision of essential services and the financial autonomy of Local government would make it to Perform better. The study concluded that there is need for Local Government to be Autonomous to improve its performance in provision of essential services to rural populate. The study therefore recommended that three should be constitutional review to expand the scope and functions of local government, Local government reform is also essential to give local government more statutory roles and functions to perform

Keywords: Local Government, Autonomy, Service Delivery and Efficiency

YAPAY SİNİR AĞ TEMELLİ MODELLEME TEKNİĞİ İLE BİR EVİREN YÜKSELTEÇ DEVRESİNİN TASARIMI

DESIGN OF AN INVERTING AMPLIFIER CIRCUIT BY ARTIFICIAL NEURAL NETWORK BASED MODELING TECHNIQUE

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ÖZET

Yükselteç tasarımı, opampların en temel uygulamalarından biridir. Girişlerine uygulanan elektriksel işaretleri yükselterek çıkışlarına aktaran yükselteçlerin açık çevrim kazancı çok yüksektir. Bu durumun kullanıcıya avantaj sağlaması için opamp kazancının kontrol altında olması gerekmektedir. Opamp kazancının kontrol edilebileceği temel yükselteç devrelerinden biride geri besleme yönteminin kullanıldığı eviren yükselteç devresidir. Opampın faz çevirici girişine uygulanan giriş sinyalinin çıkış fazını değiştiren bir yükselteçtir. Bu çalışmada modelleme yöntemlerinden Yapay Sinir Ağ (YSA) yöntemi kullanılarak bir eviren yükselteç devresi gerçekleştirilmiştir. Bunun için bir eviren yükselteç devresinin YSA modeli elde edilmiş ve elde edilen YSA modeli ile girişe uygulanan bir elektriksel sinyalin çıkışta yükseltip evirilerek elde edildiği gösterilmiştir. Bu çalışmada, MATLAB programlama dili kullanılarak eviren yükselteç devresinin YSA modeli elde edilmiştir. YSA mimarisinin eğitilmesi ve oluşturulması aşamasında eviren yükselteç devresine ait gerilim giriş-çıkış veri çiftleri kullanılmıştır. Önerilen YSA modelinin oluşturulması için giriş ve çıkış parametreleri belirlendikten sonra ileri beslemeli geri yayılmalı yapay sinir ağı kullanılarak en uygun YSA mimarisi ve eğitim parametreleri tespit edilmiş ve ağ hata geriye yayma yöntemi ile eğitilmiştir. YSA yöntemi ile gerçekleştirilen modelleme tekniğinin başarısını ölçmek için Belirleme Katsayısı (R2) ve Ortalama Hata Karelerinin Karekökü (RMSE) gibi iki performans kriteri hesaplanarak YSA metodolojisi ile elde edilen model sonuçları gerçek sonuçlarla karşılaştırılmıştır. Yapılan değerlendirmeler sonucunda, YSA modeli ile elde edilen sonuçların doğru ve güvenilir olduğu gözlenmiştir.

Anahtar Kelimeler: Eviren Yükselteç, Yapay Sinir Ağları, Devre Modellemesi.

ABSTRACT

Amplifier design is one of the most fundamental applications of opamps. Amplifiers that amplify the electrical signals applied to their inputs and transfer them to their outputs have a very high open-loop gain. In order for this situation to provide an advantage to the user, the opamp gain must be under control. One of the basic amplifier circuits in which the opamp gain can be controlled is the inverting amplifier circuit in which the feedback method is used. It is an amplifier that changes the output phase of the input signal applied to the phase inverter input of the opamp. In this study, an inverting amplifier circuit has been realized by using the Artificial Neural Network (ANN) method, which is one of the modeling methods. For this, an ANN model of an inverting amplifier circuit is obtained and it is shown that an electrical signal applied to the input is obtained by amplifying and inverting at the output with the obtained ANN model. In this study, an ANN model of the inverting amplifier circuit was obtained using the MATLAB programming language. During the training and creation of the ANN architecture, voltage input-output data pairs of the inverting amplifier circuit were used. After determining the input and output parameters for the creation of the proposed ANN model, the most suitable ANN architecture and training parameters were determined using a feed-forward back propagation artificial neural network, and the network was trained with the error back propagation method. In order to measure the success of the modeling technique performed with the ANN method, two performance criteria such as Coefficient of Determination (R2) and Root Mean Error Squares (RMSE) were calculated and the model results

obtained with the ANN methodology were compared with the actual results. As a result of the evaluations, it was observed that the results obtained with the ANN model were accurate and reliable.

Keywords: Inverting Amplifier, Artificial Neural Networks, Circuit Modeling.

ÇAĞDAŞ SANAT TARİHİNDE İSLAM SANATININ YERİ

POSITION OF ISLAMIC ART IN THE HISTORY OF CONTEMPORARY ART

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ÖZET

Toplumun manevi değerlerinin tarihsel gelişim sürecinde, sanat ve din gibi sosyal bilinç biçimleri arasında bir takım etkileşimler vardır. Böyle bir tarihsel süreçte, bazı dinler, belirli bir dinin manevi atmosferini ve dini inançlarını en uygun şekilde genişletebilecek bir veya başka bir sanat sistemini seçer. Sanat, dini fikirlerin mecazi-duygusal bir onayı olarak, bir veya başka bir dinin yapısında belirli bir yer tutar. Bu süreç gelişmiş dünya dinlerinin faaliyetlerine de yansımaktadır. Sanat ve din ilişkisi gibi tarihsel bir süreç, hemen hemen tüm geleneksel ve modern sanat biçimlerini bünyesine katmıştır. Ancak bu sürecin sonuçları her zaman olumlu olmamıştır. Her türlü sanatın etkisi sonucunda dini düşüncenin sınırları kesinliğini ve hayali içeriğini yitirmiştir.

Dünyada İslam dininin tanınmasında İslam sanatının rolü büyüktür. İslam dünyası sanatçıları, dini inançlarını bir dizi soyut formda sanat eserlerine uygulamışlardır. Bu sanat biçimleri, zamanın Roma ve Bizans kültürünün etkisinden önemli ölçüde uzaklaşarak yeni bir üslubun ortaya çıkmasında ilerici bir yön haline geldi. Bu sanatçılar için sanat, İslam'ın mesajlarını iletmenin bir aracıydı. Çünkü İslam sanatı güzelliğiyle, süslemeleriyle, mimari detaylarıyla, kaligrafisiyle herkesin kalbine dokunmayı başarmıştır. İnsan dahil tüm canlıların tasviri yasak olmasına rağmen, yüksek kültürel değerlere dayanan İslam sanatının özgünlüğünü vurgulamak önemlidir. İnsan, insanı yaratan Allah'ın güzelliğinin bir yansımasıdır. İslam sanat ve medeniyetinde güzellik, simetri, denge ve hayatın ifadesi İslam estetiğinin ilkelerinin birliğidir. İslam mimarisine ve geleneksel sanatlara ilgi 18.yüzyılın sonunda Avrupa'da ortaya çıktı, ancak Doğu sanatının incelenmesindeki başarı ile birlikte ciddi araştırmaları 19. yüzyılın ikinci yarısında başladı.

O zamandan beri İslam sanatı olgusu, sanat tarihi ve Sanat Tarihinin genel tablosuna dahil edilmiştir. İslam sanatı konusunun derinden incelenmesi mevcut olan yazılı kaynakların hacmine ve Orta Çağ ile sınırlı kalmama olasılığına bağlıdır. Bununla birlikte, bölgesel sanat tarihlerini inceleyen çağdaş sanat tarihi, İslami etkilerini ulusal bir geleneğin gelişmesinde bir aşama olarak görmektedir. Bu nedenle, sanat tarihinde özel bir başlık olarak "İslam sanatı" sorunu, bir süre sonra aktüelliğini yitirebilir. "İslam sanatı" terimi dünyanın diğer sanatsal geleneklerinden açıkça farklı, zaman ve mekan açısından muazzam olan bir sanatsal birliği ifade eder. Aynı zamanda, genel İslami olandan bölgesel olana doğru bir vurgu değişikliği vardır. İncelenen eserlerde İslam sanatına yönelik temel yaklaşımlar şu şekildedir. Farklı etnik grupları kucaklayan kültürün senkretik doğasına vurgu yapılır. Din değiştirmeden önce farklı sanatsal geleneklere sahip olan ve yeni bir biçime dönüştürülmekte olan ülkelerde ortak bir dinin varlığının İslam sanatının belli bir tekdüzeliğini belirlediği ileri sürülmektedir.

Anahtar kelimeler: sanat, din, İslam sanatı, sanat tarihi, monoteizm.

ABSTRACT

In the historical development process of the spiritual values of the society, there are some interactions between forms of social consciousness such as art and religion. In such a historical process, some religions choose one or another art system that can optimally expand the spiritual atmosphere and religious beliefs of a particular religion. Art occupies a certain place in the structure of one or another religion, as a figurative-emotional confirmation of religious ideas. This process is also reflected in the

activities of the developed world religions. A historical process such as the relationship between art and religion has incorporated almost all traditional and modern art forms. However, the results of this process have not always been positive. As a result of the influence of all kinds of art, the boundaries of religious thought have lost their certainty and imaginary content. The role of Islamic art in the recognition of the religion of Islam in the world is great. Artists of the Islamic world applied their religious beliefs to works of art in a number of abstract forms. These art forms diverged significantly from the influence of Roman and Byzantine culture of the time, becoming a progressive direction in the emergence of a new style. For these artists, art was a means of conveying the messages of Islam. Because Islamic art has managed to touch everyone's hearts with its beauty, ornaments, architectural details and calligraphy. Although the depiction of all living things, including humans, is prohibited, it is important to emphasize the authenticity of Islamic art, which is based on high cultural values. Man is a reflection of the beauty of God, who created man. Beauty, symmetry, balance and expression of life in Islamic art and civilization are the unity of the principles of Islamic aesthetics. Interest in Islamic architecture and traditional arts emerged in Europe at the end of the 18th century, but with the success in the study of Eastern art, its serious research began in the second half of the 19th century. Since then, the phenomenon of Islamic art has been included in the overall picture of art history. A deep research of the subject of Islamic art depends on the volume of written sources available and the possibility of not being limited to the Middle Ages. However, contemporary art history researching regional art histories sees Islamic influences as a stage in the development of a national tradition. Therefore, the problem of "Islamic art" as a special title in the history of art may lose its actuality after a while. The term "Islamic art" denotes an artistic unity that is vast in time and space, clearly distinct from other artistic traditions of the world. At the same time, there is a shift in emphasis from the general Islamic to the regional. The basic approaches to Islamic art in the analyzed works are as follows. Emphasis is placed on the syncretic nature of culture that embraces different ethnic groups. It is argued that the existence of a common religion determines a certain uniformity of Islamic art in countries that had different artistic traditions before conversion and were being transformed into a new form.

Keywords: art, religion, Islamic art, art history, monotheism.

TURMERIC AND GINGER FUNCTIONAL PROPERTIES: COMPARATIVE STUDY

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ABSTRACT

Since ancient times man has used spices as plants for therapeutic purposes in traditional medicine, after which he discovered their role in the kitchen to flavor dishes. Among these spices, ginger and turmeric, very popular spices widely used in Algerian cuisine, especially in recent years. These two spices are widely studied in terms of content of bioactive molecules. However, very few studies are available on their functional properties. The objective of this work is to determine the functional properties of the two spices turmeric and ginger marketed in Algeria for their use as an ingredient in different food matrices. Different functional properties have been determined, namely the absorption capacity of water, oil, whole and totally skimmed milk, the dispersibility, the hygroscopicity, the apparent density, the swelling capacity, the solubility, the emulsifying activity and emulsion stability, compressibility index and Hausner's ratio. The results showed that the powder of turmeric is more hygroscopic (1.06%) than that of ginger (0.57%), absorbs more water, whole and partially skimmed milk with respective values of 296.5, 174 and 196.67%. Contrary, the two powders of turmeric and ginger have an oil absorption capacity quite close to 173.33% and 174.67%, respectively. Good emulsifying activity was noted on ginger powder (43.42%) with greater emulsion stability in turmeric powder (78.89%). The swelling capacity of turmeric powder (13.33%) was more than double that of ginger (6.67%). The solubility of turmeric (25.28%) was close to that noted in ginger (24.95%). In conclusion, the determination of the functional properties, in particular the capacities of water and oil absorption showed that the powders of turmeric and ginger have properties which can be useful in industrial applications, in particular as an ingredient in the formulation of new food products.

Keywords: Turmeric, Ginger, Functional properties.

SPOR KULÜBÜ YÖNETİCİLERİNİN ENGELLİ BİREYLERİN FİZİKSEL AKTİVİTELERE KATILIMLARINA YÖNELİK TUTUMLARININ İNCELENMESİ

THE INVESTIGATION OF SPORTS CLUB ADMINISTRATORS' ATTITUDES TOWARDS THE PARTICIPATION OF INDIVIDUALS WITH DISABILITIES IN PHYSICAL ACTIVITY

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ÖZET

Bu çalışmanın amacı Spor kulübü yöneticilerinin engelli bireylerin fiziksel aktivitelere katılımlarına yönelik tutumlarını incelemektir. Bu amaçla Malatya Yeşilyurt ilçesinde sportif faaliyetler yürüten 18 spor kulübü yöneticisiyle yüz yüze görüşmeler sağlandı. Görüşmeler kapsamında spor yöneticilerine; kulübünüzde lisanslı engelli sporcu var mı ?, Kulübünüzde engelli bireylere fiziksel aktivite yaptıracak uzman antrenör bulunmakta mıdır?, Engelli bireylerin katılım gösterdiği spor branşları var mıdır ?, Engelli bireylerin fiziksel aktivitelere katılmaları konusunda ne tür tedbirler alıyorsunuz ?. Soruları soruldu. Spor kulübü yöneticilerinin verdikleri cevaplar istatistiksel olarak değerlendirilerek benzer cevaplar kategorize edildi. Veri toplama metodu olarak nitel araştırma yöntemi tercih edilmiştir. Verilerin toplanmasında odak grup görüşmelerinden faydalanılmış ve görüşmeler sırasında yarı yapılandırılmış soru formu kullanılmıştır. Nitel araştırma metodlarından mülakat tekniği tercih edilmiştir. 13 spor kulübü yöneticisi kulüplerinde lisanslı engelli sporcu bulunduklarını belirtirken, 5 spor kulübü yöneticisi kulüplerinde lisanslı engelli sporcu bulunmadığını belirtti. 3 Spor kulübü yöneticisi kulüplerinde engelli bireylere fiziksel aktivite yaptıracak alanında uzman antrenörlerin bulunduğunu belirtirken, 15 spor kulübü yöneticisi kulüplerinde alanında uzman antrenör bulunmadığını belirtti.

Sonuç olarak spor kulübü yöneticilerinin engelli bireylerin fiziksel aktivitelere katılımlarına yönelik tutumları olumlu yönde olduğu söylenebilir; alanında uzman antrenörlerin olmaması engelli bireylerin spora katılımını engelleyen en büyük etken olarak görülmektedir.

Anahtar kelimeler: Engelli birey, fiziksel aktivite, yönetici

ABSTRACT

The purpose of the study is to investigate the attitudes of Sports Club Administrators' towards the physical activity participation of individuals with disabilities. Face to face meetings were conducted with 18 sports club administrators in Malatya Yesilyurt District. To collect data, the following questions were asked to sports administrators. Is there any licensed athlete with a disability in your club? Is there any coach with an expertise in teaching physical activities to individuals with disabilities? Are there any sports branches in which individuals with disabilities can participate? What kind of measures do you take to ensure that individuals with disabilities can participate in physical activity? Qualitative research method was used to gather the data. The responses of sport administrators were evaluated statistically and similar responses were categorized. Focus group interviews were conducted to collect data and a

semi-structured questionnaire was used during those interviews. While 13 administrators mentioned that they have licensed athletes with disabilities, 5 administrators mentioned that they did not have a licensed athlete with a disability in their sports club. Moreover, while 3 administrators mentioned that they have a coach with an expertise to teach physical activities to individuals with disabilities, 15 administrators did not have an expert coach.

Results revealed that, although the attitudes of sports club administrators towards the participation of individuals with disabilities in physical activities were positive, not having a coach to teach in the field was the biggest barrier preventing individuals with disabilities from participating in sports.

Key words: Individuals with disabilities, physical activity, administrator

**HAFİF DÜZEY ZİHİNSEL ENGELLİ BİREYLERİN FİZİKSEL AKTİVİTELERE
KATILIMI VE ULAŞIM PROBLEMLERİ(MALATYA YEŞİLYURT ÖRNEĞİ)**

**PARTICIPATION IN PHYSICAL ACTIVITIES AND TRANSPORTATION PROBLEMS OF MILD
MENTALLY DISABLED INDIVIDUALS (EXAMPLE OF MALATYA YESILYURT)**

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ÖZET

Bu çalışmanın amacı Malatya Yeşilyurt İlçesinde fiziksel aktivitelere düzenli olarak katılan hafif zihinsel engelli bireylerin ulaşım problemlerinin araştırılmasıdır. Bu kapsamda fiziksel aktivitelere katılım gösteren 20 hafif zihinsel engelli bireyin ailesiyle görüşme yapıldı. Ailelerin verdikleri cevaplar kategorize edilerek istatistiksel olarak değerlendirildi. Görüşme kapsamında ailelere zihinsel engelli bireyleri hangi koşullarda fiziksel aktivitelere ulaştırdıkları soruldu. 4 aile Zihinsel engelli bireylerini fiziksel aktivitelere kendi imkanlarıyla ulaştırdıklarını belirtti. 6 aile yerel yönetimler vasıtasıyla zihinsel engelli bireylerini fiziksel aktiviteye ulaştırdıklarını belirtti. 3 aile spor kulüpleri yöneticileri vasıtasıyla zihinsel engelli bireylerini fiziksel aktiviteye ulaştırdıklarını belirtti. 7 aile fiziksel aktivitelere düzenli katılımın önündeki en büyük engelin ulaşım problemi olduğunu belirterek fiziksel aktivitelere düzenli olarak katılım sağlayamadıklarını belirttiler. Veri toplama metodu olarak nitel araştırma yöntemi tercih edilmiştir. Verilerin toplanmasında odak grup görüşmelerinden faydalanılmış ve görüşmeler sırasında yarı yapılandırılmış soru formu kullanılmıştır. Nitel araştırma metotlarından mülakat tekniği tercih edilmiştir.

Sonuç olarak 20 hafif zihinsel engelli bireyin velileri fiziksel aktiviteler esnasında zihinsel engelli bireylerinin yanında olmaları gerektiğini belirtti. Bu nedenle ulaşım sorunu yaşamamaları gerektiğini belirttiler. Ulaşım sorununun özellikle hafif zihinsel engelli bireylerin fiziksel aktivitelere katılımının önündeki engel olduğu tespit edilmiştir.

Anahtar Kelimeler: Fiziksel aktivite, zihinsel engelli bireyler, ulaşım

ABSTRACT

The aim of this study is to investigate the transportation problems of mild mentally disabled individuals who regularly participate in physical activities in Malatya Yesilyurt District. In this context, interviews were conducted with the families of 20 mild mentally disabled individuals who participated in physical activities. The answers given by the families were categorized and evaluated statistically. Within the scope of the interview, families with mild mentally disabled individuals were asked under what conditions they take these individuals to physical activities. 4 families stated that they take their mild mentally disabled individuals to physical activities by their own means. 6 families stated that they take mild mentally disabled individuals to physical activities through local administrations. 3 families stated that they take mild mentally disabled individuals to physical activities through the managers of sports clubs. 7 families stated that the biggest obstacle in front of regular participation in physical activities is the transportation problem and stated that they could not participate in physical activities regularly. Qualitative research method was preferred as data collection method. Focus group interviews were used to collect data and a semi-structured questionnaire was used during the interviews. The interview technique, one of the qualitative research methods, was preferred.

As a result, the parents of 20 mild mental disabilities individuals stated that they should be with them during physical activities. For this reason, they stated that they should not have transportation problems. It has been determined that the transportation problem is an obstacle to the participation of mild mentally disabled individuals to physical activities.

Key Words: Physical activity, mentally disabled individuals, transportation

EFFICIENT CAPITAL ACCUMULATION ACROSS ECONOMIES

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ABSTRACT

Objective:

The paper examines the efficient capital accumulation level across economies. The theory is based on the neoclassical growth model, inspired by Solow (1956), and Diamond (1965). Then, the empirical evidence is based on a data sample of 180 economies over 1990-2019.

Methodology:

The paper employs a literature review combined with a cross-section analysis method. In particular, the literature review investigates the recent findings on the efficient capital accumulation level. Then, the cross-section analysis accesses the efficient capital level in each economy by averaging the variables over time.

Findings:

The evidence records that only some economies attain the efficient capital accumulation level. This finding is consistent with the neoclassical growth theory, on the sense that the efficient capital level is only attained for some specific conditions.

Originality:

The paper contributes on the related literature on the economic growth and on the capital investment. The paper fills in a research gap on the literature by showing whether an economy can attain an efficient capital accumulation in the long term.

Implications:

For the policy implications, the paper uncovers that the capital accumulation can be at its efficient level for appropriated policy. In particular, the government can adjust the domestic investment, through the public investment, to drive the capital accumulation to its efficient level.

Keywords: Capital Accumulation; Economic Growth; Quantitative Analysis.

JEOTERMAL ISI POMPASINA ENTEGRE YERDEN SOĞUTMA SİSTEMİNİN ENERJİ ve CO₂ AZALTIM POTANSİYELİNİN İNCELENMESİ

INVESTIGATION of ENERGY and CO₂ REDUCTION POTENTIAL of UNDERFLOOR COOLING SYSTEM INTEGRATED INTO GEOTHERMAL HEAT PUMP

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ÖZET

Günümüzde, karbon kökenli enerji kaynaklarının azalması, enerjiye olan talebinin hızlı artışı ve var olan enerji kaynaklarının bilinçsizce kullanılmasının oluşturduğu çevresel sorunlar, enerji kaynaklarının daha etkin ve verimli kullanılmasını kaçınılmaz kılmaktadır. Bu sebeple, bir konutun soğutma sisteminin enerji tüketiminin mümkün olduğunca düşük olmasını sağlayan parametrelerin belirlenmeye çalışıldığı bu çalışmada, 90 m² taban alana sahip bir mahalin (deney alanı) toprak kaynaklı ısı pompası sistemi ile entegre yerden soğutma sisteminin yaz sezonundaki kullanımı incelenmiştir. Enerji kullanımının mümkün olduğunca düşük olmasını sağlayan parametrelerinin belirlenmesinde, düşük sıcaklık rejiminde çalışan sistem seçilerek, kullanılan jeotermal ısı pompası kompresörünün daha az devreye girerek toplam enerji tüketiminin azaltılması hedeflenmiştir. Yapılan deneysel çalışmaların sonuçlarından yararlanılarak, sisteme enerji, analizi uygulanmıştır. Elde edilen sonuçlara göre, soğutma sürecinde, sistemin enerji verimliliği % 81,45 olarak bulunmuştur. Ayrıca deneysel verilerin doğruluğunun tespit edilmesi için gerçekleştirilen belirsizlik analizi sonucunda, ölçümlerdeki en büyük belirsizliğin $\pm 1,03 - \pm 1,91$ °C değerleri ile sıcaklık ölçümlerinde, sistemdeki en büyük ikinci belirsizlik oranının ise 0,87 m³/h değerindeki akışkanların debi ölçümlerinde gerçekleştiği görülmüştür. Ayrıca incelenen sistem, karbondioksit eşdeğeri emisyon değerleri açısından geleneksel bir soğutma sistemi ile karşılaştırılmış ve soğutma mevsimi boyunca yaklaşık 32 ton karbondioksit eşdeğeri emisyonu azaltma potansiyeline sahip olduğu tespit edilmiştir. Sonuç olarak, mahal soğutmasında kullanılacak olan bu sistemin, gerek enerji tüketimini azaltmada gerekse sera gazları emisyonlarını düşürmede oldukça etkili olduğu sonucuna varılmıştır.

Anahtar Kelimeler: Jeotermal ısı pompası, Yerden soğutma, Termodinamik analiz, Enerji analizi, CO₂ eşdeğer emisyon azaltımı.

ABSTRACT

Nowadays, the decrease in carbon-based energy resources, the rapid increase in the demand for energy and the environmental problems caused by the unconscious use of existing energy resources make it inevitable to use energy resources more effectively and efficiently. For this reason, in this study, in which the parameters that ensure that the energy consumption of the cooling system of a house is as low as possible, the use of a ground source heat pump system and integrated floor cooling system in the summer season of a 90 m² floor area (experimental area) was investigated. It is aimed to reduce the total energy consumption by choosing the system operating in a low-temperature regime by switching on less energy consumption of the used geothermal heat pump compressor. Using the experimental studies energy analysis results were applied to the system. According to the results obtained, the system's energy efficiency was found to be 81.45% during the cooling process. In addition, as a result of the uncertainty analysis performed to determine the accuracy of the experimental data, it was observed that the greatest uncertainty in the measurements was in temperature measurements with $\pm 1.03 - \pm 1.91$ °C values and the second-largest uncertainty ratio in the system was in flow measurements of 0.87 m³/h fluids. In addition, the examined system was compared with a conventional cooling system in terms of CO₂ equivalent emission values, and it was determined that it has the potential to reduce approximately 32

tons of CO₂ equivalent emissions during the cooling season. As a result, it has been concluded that this system, which will be used in space cooling, is very effective in reducing energy consumption and greenhouse gas emissions.

Keywords: Geothermal Heat Pump, Floor Cooling, Thermodynamic Analysis, Energy Analysis, CO₂ Equivalent Emissions.

THE IMPORTANCE OF RUDERAL PLANTS IN THE URBAN ECOSYSTEM

KENT EKOSİSTEMİNDE RUDERAL BITKİLERİN ÖNEMİ

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ÖZET

Günümüzde, yoğun kentleşme nedeniyle doğa insanlar tarafından tahrip edilmiştir. Nüfus artışı ve teknolojinin gelişmesiyle birlikte insanlar ekosistemin dengeleri üzerine çevreden yaralanma ve yaşanılabilir bir çevre oluşturmak amacıyla baskı uygulamaya başlamışlardır. İnsan eliyle şekillenmiş ekosistemlere ise insan ekosistemi adı verilmektedir. Kentler de bir ekosistemdir. Bu nedenle canlı ve cansız varlıkların bir bütün şeklinde ele alınması gerekmektedir. Bitkiler de kent ekosisteminde önemli yere sahiptir. Kentlerde doğa ile ilgili tanık olduğumuz olaylardan biri ruderal bitkilerin varlığıdır. Kent ekosisteminde insan tarafından değil tamamen doğal olarak yetişen bitkilerdir. Ruderal bitkilerin baskınlığı yoğun insan tahribi olan alanlarda görülmektedir. Bu bitkiler yabancı ot olarak da değerlendirilebilir. Bu vejetasyon kent ekosistemlerinde özellikle de yollarda, kaldırımlarda, demiryollarında ve duvarlarda yaygınlaşan özel bir bitki örtüsü olarak düşünülmektedir. Literatürde birçok tanımı olan bu bitkilerin en önemli özelliği çöplüklerde ve terk edilmiş yerlerde, kaldırımlarda yetişen, yapıları nitrat anyonunca zengin olan bitkiler olmasıdır. Zor şartlarda bile yetişen bu vejetasyonlar kent ekosisteminde önemli yere sahiptir. Bu çalışma ruderal bitkilerin kent ekosistemindeki yeri ve peyzaj alanlarında süs bitkisi olarak kullanımının değerlendirilmesi amacıyla yapılmıştır. Günümüzün en büyük sorunlarından biri olan küresel ısınma ve bunun ortaya çıkardığı kuraklık için ayrıca insan tahribatının yoğun olduğu alanlar için alternatif bitkiler önemli rol oynamaktadır. Bu çalışmada Türkiye’de yapılan ruderal vejetasyonu ve bitki tespitleri ile ilgili araştırmalar incelenerek kurakçıl peyzajda ve alternatif peyzaj kullanımlarında ruderal bitkiler değerlendirilmiştir.

Anahtar Kelimeler: Alternatif bitkiler, peyzaj, kent ekosistemi

ABSTRACT

Due to urbanization, the beauty of our world has been steadily destroyed. Ecosystems shaped by humans are called human ecosystems. Cities are also an ecosystem. For this reason, living and non-living things should be considered as a whole. Plants also have an important place in the urban ecosystem. One of the phenomena we witness in nature in cities is the presence of ruderal plants. They are the plants that grow naturally in the urban ecosystem. Ruderal plants are a good example of nature renewing itself. They are generally seen in areas with intense human destruction. These plants are a special type of vegetation that is widespread in urban ecosystems, especially on roads, pavements, railways, and walls. The most important feature of these plants is that they can grow in garbage dumps, abandoned places, and on pavements. Also, they have a rich nitrate anion in their structures. This vegetation can grow even under difficult conditions and holds an important place in the urban ecosystem. This study was carried out in order to evaluate the use of ruderal plants in an ornamental capacity in landscape areas. It is a fact that alternative plants are important in areas where drought and human destruction are intense. In this study, the determination of ruderal vegetation in Turkey was examined and was evaluated in a xeric landscape and alternative landscape uses.

Keywords: Alternative plants, landscape, urban ecosystem

NATURAL AND CULTURAL RESOURCE VALUE OF *ALLIUM* SPECIES IN TURKEY

***ALLIUM* TÜRLERİNİN TÜRKİYE’DE DOĞAL VE KÜLTÜREL KAYNAK DEĞERİ**

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ÖZET

Allium, Alliaceae familyasına dahil olan ve soğan, sarımsak, pırasa gibi çok bilinen türleri içeren bir bitki cinsidir. İçermiş olduğu 1250 kadar tür ile dünyanın en büyük bitki cinslerinden biri olan *Allium*, bazı sınıflandırmalarda *Liliaceae* familyasına dahil edilmiştir. Yaklaşık 200 türü Türkiye Florasında bulunur. İçerdiği türler çok yıllık ve yumru gövdeli olup, tipik soğan ya da sarımsak koku ve tadını veren kimyasal bileşikler üretirler. Pek çoğu yenilebilir türdür. Birçok yabani, yenilebilir türleri kuzey yarım kürede geniş çapta yayılmıştır. Bu nedenle, kullanımları tarih boyunca çok yaygın olmuştur. Geçmişte süs bitkisi olarak üretilen *Allium*ların sayısı az olsa da 19. Yüzyılın ortalarından bu yana süs olarak kullanımı yaygınlaşmıştır. Birçok *Allium*’un güzel çiçeklere sahip olmasının yanı sıra, güzel kokan türleri de bulunmaktadır. Tıbbi aromatik olarak kullanılan *Allium* türleri fenolik bileşikler, vitaminler, kükürtlü uçucu bileşikler, amino asitler, organik asitler gibi bileşikler içermektedir. Ayrıca *Allium* sp. polinatörleri (tozlayıcılar) üzerine çekme özelliğine sahip bir bitki olmasından dolayı arıcılık faaliyetlerine olumlu etki yapmaktadır. Tozlaştırıcı popülasyonunu dengeleyerek, biyoçeşitliliğin desteklenmesi çalışmalarında tercih edilebilecek türlerin olduğu görülmektedir. Yapılan birçok çalışmada peyzaj bitkileri olarak da kabul edilen bu türün (örn: Sivas, Van, Bingöl) arıcılık faaliyetlerine olumlu katkı sağladığı görülmektedir. Bu çalışmada Türkiye’de *Allium* türlerinin farklı peyzaj karakter alanlarında kullanımları, peyzaj planlamasında, tıbbi aromatik bitki olarak, arboretum faaliyetlerinde, arıcılık faaliyetlerinde kullanımı değerlendirilmiştir. Bu çalışmanın amacı *Allium* türlerinin Türkiye için önemini ortaya çıkarmak ve yapılan çalışmalar ışığında ilerlemeleri vurgulamak ve yapılması planlanan çalışmalara bir literatür kaynak oluşturmaktır.

Anahtar Kelimeler: *Allium*, peyzaj planlama, süs bitkisi, tıbbi aromatik bitki

ABSTRACT

Allium is a genus of plants belonging to the Alliaceae family and includes well-known species such as onions, garlic, and leeks. *Allium*, which is one of the largest plant genera in the world with its 1250 species, is included in the Liliaceae family in some classifications. About 200 species are found in the Flora of Turkey. The species produce chemical compounds that give the typical onion or garlic odor and taste. Many are edible species. Therefore, their use has been very common throughout history. Although the number of *Alliums* produced as ornamental plants in the past was not much, the use of ornamental *Alliums* has become widespread since the middle of the 19th century. While many *Alliums* have beautiful flowers, there are also varieties that smell good. *Allium* species used as medicinal aromatic contain compounds such as phenolic compounds, vitamins, volatile sulfur compounds, amino acids, organic acids. In addition, *Allium* sp. since it is a plant that attracts pollinators, it has a positive effect on beekeeping activities. It is seen that there are species that can be preferred in studies of supporting biodiversity by balancing the pollinator population. In many studies, it is seen that this species, which is also considered as landscape plants (eg Sivas, Van, Bingöl) contributes positively to beekeeping activities. In this study, the use of *Allium* species in different landscape character areas in Turkey, their

use in landscape planning, as a medicinal aromatic plant, in arboretum activities, and in beekeeping activities were evaluated. The aim of this study is to reveal the importance of *Allium* species for Turkey and emphasize the progress in the light of the studies and create a literature source for the studies planned to be done.

Keywords: *Allium*, landscape planning, ornamental plant, medicinal aromatic plant

MOLECULAR CYTOGENETIC APPROACHES ON NEUROFIBROMATOSIS TYPE 1

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ABSTRACT

Background:

The Neurofibromatosis type 1 (NF1) or Van Recklinghausen disease is a relatively common multi-system inherited genetic disease caused by heterozygous mutations of the NF1 gene located at 17q. Characterized by spots, freckles, neurofibromas and hamartomas on the iris called Lisch nodules as well as cognitive disorders. In more severe cases, it predisposes to the development of malignant tumors of the peripheral nervous system and may affect other tissues or organs. The variability of the phenotypic expression of NF1 in an individual and within the same family, makes the understanding of the disease even more difficult [1,2]. The NF1 accounts for approximately 97% of neurofibromatosis cases worldwide [3], presenting a homogeneous distribution with an incidence of 1 case out of 3000 to 4000 individuals affected [4]. Neurofibromatosis type 1 "NF1" is an autosomal dominant disease, with complete penetrance [5]. The mutation, alteration or sequence deletion of the Nf1 gene is correlated with the positive dysregulation of p21ras leading to cell growth and the neuronal development from Schwann cells [6,7,8]

Materials and methods:

Our study involved six patients with NF1. The population originates from western Algeria. We explored a possible presence of micro-deletion by the fluorescence in situ hybridization technique. In addition, we conducted a histopathological study on a single patient.

Results and discussion:

Molecular results showed the presence of the NF1 gene in all six patients. These results make it possible to indicate their vital prognosis, because patients with an NF1 micro-deletion have a more severe phenotype than those with a gene mutation. The histopathological result showed the presence of a diffuse neurofibroma.

Conclusion:

The early histological diagnosis is therefore important in determining vital prognosis of the patient and their survival rate. Further large-scale studies should be conducted to provide more information on the prevalence of NF1 in Algerian.

MOTS CLES: Neurofibromatose de type 1, genetics, Algerian population, Fish.

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**RUSSIAN FOREIGN POLICY DURING PUTIN'S PRESIDENCY IN FRONT OF IRAN IN
POST- JCPOA(SANCTIONS)**

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ABSTRACT

After the collapse of the Soviet Union, the Islamic Republic of Iran has a special place in Russian foreign policy. The relations between Iran and Russia, regardless of the requirements of geographic neighborhoods, historical records, economic cooperation and regional relations have always been one of the issues interested among the elites of Iran and Russia, at a regional and international level. During the presidency of Putin, in particular since 2012, Iran Post- JCPOA (sanctions) a significant importance in Russian foreign policy, and its orientation towards Russian strategic interactions in the Middle East region. This research was carried out using descriptive-analytic method. The widespread relations between Iran and Russia were upgraded in the political, economic, military and security areas at the level of two strategic ally. The main question in this research is how Putin's approach in Post- JCPOA (sanctions) in relation to the Islamic Republic of Iran, especially between 2012 and 2021? In response, Russia's organizational policy approach towards the Islamic Republic of Iran has been influenced by the difference in Russian identity from the West of Russia with the Islamic Republic of Iran against the West, and the process of interactions of the last two decades of Tehran-Moscow, despite the progress taken, It was not fixed and relations between Iran and Russia have had a fragile process. Therefore, considering the importance of the research of Russian foreign policy and its behaviors towards Iran, we examine this issue and its causes and factors affecting it.

Key words: Russia, Putin, Iran, Post- JCPOA², sanctions, foreign policy, Theory of Continuity of James Rosenau.

² Joint Comprehensive Plan of Action

CORRELATES OF BIRTH PARITY AND CHILDHOOD SURVIVAL IN TANZANIA

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ABSTRACT

This study aims to find the effects of birth parity on the survival odds of infants and children separately. The most recent Tanzania Demographic and Health Survey (TDHS 2010) was used to ascertain the effects of birth parity on survival odds of children under five. The Cox Proportional Hazard Model was employed. We found that the risk of mortality for both infants and children increases one time per unit in the number of births. We argue that spacing succeeding birth intervals greater than 24 months has tremendous effects on reducing childhood mortality regardless of the number of births or the birth order. We found a difference in mortality patterns between infants and children. The study also found that it was inconclusive if how maternal fertility behaviors interact to determine childhood mortality.

Key words: infant mortality, child mortality, hazard rates, birth parity, maternal fertility behaviors.

**DISASTER PREPAREDNESS OF NANOTECHNOLOGY RESEARCH CENTRE IN
MALAYSIA: A CASE STUDY**

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ABSTRACT

This study aimed to identify the preparedness of a nanotechnology research centre in Malaysia toward disaster. Any research centre, especially one that is very sensitive and vulnerable to disaster like nanotechnology, can contribute greatly to various fields of technology as well as education sectors. However, it is difficult for these research centres to maintain competitiveness because nanotechnology can be a volatile technology and due to its characteristics, it is vulnerable to problems. Thus, this study focused on identifying the factors of effective disaster and emergency planning, and possible solutions for this type of sensitive research centre in Malaysia, more specifically in the northern region (state of Perlis). This study employed qualitative research methods (phenomenological qualitative study to explore the experiences in terms of disaster preparedness of a nanotechnology research centre) where observation and interview were employed to collect primary data. The respondents involved in interview sessions consisted of senior workers from Institute of Nanotechnology Electronic Engineering (INEE) located in Perlis. An interview protocol was developed, based on the current published literature, to assist in the semi-structured interviews. A total of seven interviews were conducted (each interview session lasted for about 30-40 minutes per session) and recorded using a mobile phone (voice recorder application), and the audio recording was then transcribed and analysed using thematic analysis. The results showed that there are many factors that can contribute toward the disaster preparedness of the research centre, namely skill level of workers, security management, and interoperability of communication equipment. Possible disaster occurrences and problems were also identified, for example the research centre is susceptible to power shortages. Even though these power shortages occur only for a couple of seconds, it has a lasting effect on the laboratory status where clean-up and sanitation procedures must be performed which can take weeks to complete. The results of this study recommended several viable solutions for the research centre from the aspect of disaster preparedness, one of which is that they can establish a formal agreement or contract with vendors to overcome the identified problems. The research centre management can also provide incentives to excellent workers, implement a more effective and efficient system to replace the current data storage system, and keep improving the communication equipment for emergency response. This study result can assist the research centre to be more aware of disaster preparedness in order to help them compete and maintain their business, which in turn contributes toward the growth and development of the nanotechnology industry in Malaysia.

Keywords: Disaster Preparedness, Qualitative Approach, Nanotechnology, Research Centre, Malaysia

BUCKLING OF BEAMS BY MEANS OF A GREEN FUNCTION TECHNIQUE

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ABSTRACT

Buckling is a possible and common way of failure in various engineering structures and elements. Therefore, it has been an important topic to scientific investigations for quite a while. Since Euler's pioneering work, it is well-known that buckling can as well happen to straight columns under compressive loads. The current research is about a novel approach to a classical stability problem. The investigated straight beam has two end-supports and an intermediate one. The boundary conditions are homogeneous. The selected stability issue can, in fact, be considered as a three-point boundary value problem. The Green function for this problem is constructed analytically in closed-form for multiple support conditions. With this function in hand, the related eigenvalue problems can equivalently be replaced by homogeneous Fredholm integral equations. The eigenvalues are proportional to the critical (or buckling) loads, while the kernel of the integral equation can be derived from the corresponding Green function. With a suitable boundary element technique, this eigenvalue problem can finally be reduced to an algebraic system of equations. An effective numerical algorithm is used to find solutions to the lowest allowable loads. Within linear elasticity, the model is applicable not only to homogeneous but also to inhomogeneous materials. In this way, multi-layered beams or up-to-date functionally graded material distributions can also be handled as long as the material properties are independent of the axial coordinate. It turns out that both the intermediate support position and the material distribution have significant impact on the allowable load for such structural members.

Keywords: beam, Green's function, Fredholm integral equation, boundary value problem, buckling

STATE OF THE GENETIC RESOURCES OF WEST AFRICAN OKRA (*ABELMOSCHUS CAILLEI* [A. CHEV.] STEVELS.): A TAXON WITH INDUSTRIAL POTENTIALS

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ABSTRACT

West African okra [WAO] (*Abelmoschus caillei* (A. Chev.) Stevels.) is the amphidiploid hybrid product of *A. esculentus* and *A. manihot* found under cultivation and in the wild in humid and sub-humid parts of West, Central and East Africa. It accounts for five to ten per cent of okra cultivated globally and yield depends on the landrace or cultivar as well as other specific agro-morpho-economic traits due to the enormous intra-specific variation inherent in the genetic resources. WAO is common in traditional agriculture systems and markets within its range and collection, cultivation, utilization and conservation are linked to local knowledge systems and practices. The leaves, fruits, seeds, floral parts and stems are considered invaluable because of the food and income security, medicinal and industrial potentials. Women and young girls are the major custodians of the genetic resources of WAO. However, the introduction of exotic and improved varieties is eroding landraces and cultivars, whose potentials have not been maximized. Therefore, there is a need to collect, document and explore the potentials of WAO genetic resources. Information on the diversity and distribution can contribute to the rational use and conservation of WAO. Although it is a multipurpose crop, only food use is widely reported and the plant can benefit from research into the industrial potentials of the wood and phytochemicals. Also, fibres from WAO are comparable and considered as a substitute to cotton, jute and other members of its family – Malvaceae. Threats from soilborne microorganisms and the reference of WAO as a minor crop is challenging the huge socio-economic potentials of the crop. Breeding resistant and improved varieties from landraces and cultivars will benefit WAO genetic resources

Keywords: West Africa Okra (*Abelmoschus caillei*), Traditional agriculture, Agro-morphological traits, Industrial potential, Food systems, Local knowledge and practices, Vegetable, Landraces

SYSTEMATICS AND TAXONOMIC STATUS OF SOME CRITICAL VASCULAR PLANT GROUPS OF THE CENTRAL APENNINES, ITALY: TOWARDS CLARIFICATION AND SUSTAINABLE MANAGEMENT

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ABSTRACT

Plants are essential to understanding ecosystems and the impacts of human development. The deciduous montane forests of the central Apennines (Southern Europe) is considered a true biodiversity hotspot because of the numerous endemic plant species. However, extreme weather and human development is increasingly threatening this pristine habitat. Taxonomic clarification and sustainable management of critical plant groups and populations within central Apennines such as *Anthyllis vulneraria*, *Centaurea* sp., *Clinopodium* sp., *Lathyrus pannonicus* gr., ecc), *Senecio doronicum* gr., *Taraxacum* sect. *Palustria*, *Veronica* gr. *austriaca* will provide an avenue to understand climate change impacts. New plant species, sub species, varieties and sections continue to be recorded from the area in spite of already documented ones needing ecological, systematics, sustainable utilization and conservation attention. The spread of invasive species, loss of indicator species, progressive warming especially in high altitudes and other anthropogenic and natural threats are reshaping this hitherto intact ecosystem. If unchecked, plant adaptation to environmental change might produce phenotypic plasticity in lieu of genetic diversity. Policies from the European Union and Italian government can help address topical confusions surrounding this center of diversity for many vascular plants as well as new knowledge on plant populations and groups by using bibliographic data, field collection, and analysis of morphological data, research and consultation of herbaria data. For instance, systematics and taxonomic undertaking can focus on the existence or absence of significant variations within, between and among closely related vascular plant populations and groups within the central Apennines and include description of their physical attributes, geographical bearings, soil characteristics, economic and cultural activities of the people residing in and around the environment. This will enable the design and implementation of a sustainable plant germplasm management program to complement existing efforts and have a global impact especially in areas where similar plant taxa occur.

Keywords: *Centaurea* sp., *Clinopodium* sp., *Lathyrus pannonicus* gr., ecc), *Senecio doronicum* gr., *Taraxacum* sect. *Palustria*, *Veronica* gr. *austriaca*, Central Apennines

MACROPHAGE TARGETING WITH RIFAMPICIN-LOADED NANOTRANSFEROSOMAL GEL FOR TREATMENT OF CUTANEOUS LEISHMANIASIS

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ABSTRACT

Aim: Targeted and localized drug delivery via dermal route is an effective approach to improve drug delivery and reduce drugs associated toxicities, most particularly treating cutaneous leishmaniasis (CL), which otherwise are difficult to achieve via oral and parenteral routes. Aim of this study is targeting of rifampicin (RIF)-loaded nanotransfersomes (NTs) incorporated in chitosan gel for leishmania-infected macrophages via the topical route.

Materials & methods: NTs were prepared through a thin-film hydration process and incorporated into chitosan gel to allow the retention of RVCT to the infected skin and reduce the drugs toxicity.

Results: The mean particle size of the NTs was 190 nm, with 83% encapsulation efficiency. The permeation rate of the NTs was threefold higher than that of the RIF solution. The NTs improved cellular internalization via passive targeting, which was confirmed by macrophage uptake evaluation. A low IC₅₀ value, flow cytometry analysis and in vivo study demonstrated the RIF-loaded NTs enhanced apoptosis and had better antileishmanial effects.

Conclusion: RIF-loaded NT gel could be a fitting carrier for the delivery of antileishmanial drugs in cutaneous leishmaniasis.

Keywords: Leishmaniasis; Rifampicin; Nanotechnology; Transfersomal gel; Drug delivery system

**VACCINE HESITANCY, ACCEPTANCE AND JEWISH APOCALYPTIC LITERATURE IN
SUB-SAHARAN AFRICA**

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ABSTRACT

Background: A causal link has been identified between vaccine refusal in the Makurdi local government region and Jewish apocalyptic literature. The coronavirus pandemic has thrown the world into a state of uncertainty and terror, but plague epidemics were nothing new to Christians in the past. The indigenes of Makurdi Local Government Area's lifestyle have been influenced by religion and spirituality. This development did not spare the coronavirus vaccination. Benue State's administration demanded that schools, companies, and religious institutions educate their members about vaccinations. Many residents of Makurdi's local government regions, however, have resisted vaccinations because of their religious and spiritual beliefs.

Objective: The aim of this study was to assess the nexus between COVID-19 vaccine hesitancy and how vaccination Jewish Apocalyptic Literature has influenced the attitudes of the inhabitants of Makurdi towards vaccination. This Christian oriented area is highly influenced by religiosity and spirituality, which has really influenced their refusal of the coronavirus vaccine.

Method: This qualitative study was conducted with a phenomenological approach in the Makurdi local government area of Benue State, Nigeria. Semi-structured interviews with ten informants chosen using a snowball sampling method were used to collect primary data. The secondary method makes use of textbooks, journals, and gazettes. The documentary analysis, content analysis, and Colaizzi's methodologies were adopted in this study.

Results: The findings reveal that homilies in Jewish apocalyptic literature such as mark of the beast, hell fire bound, behaving immorally, animalistic tendencies, and other religious and spiritual tendencies such as religious fundamentalism, religious exclusivity, Christian religious orientation, and the activities of preachers in Pentecostal churches have sustained vaccine hesitancy in Makurdi, Benue State. The potential of vaccines to reduce suffering, save lives, and curb healthcare spending has been threatened by vaccine refusal in Makurdi, especially from Christians. This complex problem requires a multilevel approach, including interventions at the individual, church, and health system levels. This time is the most appropriate to act before an outbreak that may be difficult to control.

Keywords: Makurdi, Benue State, COVID-19, Vaccine hesitancy, Vaccination, Jewish Apocalyptic

AN INVESTIGATION INTO PRIMARY SCHOOL DRAWING EDUCATION IN PAKISTAN

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ABSTRACT

Research shows that drawing promotes concentration, improves hand-eye coordination, and encourages creative thinking. This inquiry investigated the current drawing curriculum and its modes of delivery in two primary schools, one government, and one from the private sector in the Sindh region of Pakistan. The project adopted a mixed-methods research design. The first stage of the project sought to identify and assess the existing curriculum and delivery methods. Archival research enabled the researcher to locate and analyze current curricula and policy in relation to drawing education. A questionnaire was sent to eight primary school teachers, five of whom responded, and five semi-structured interviews drawing subject experts were conducted. Three classroom observations and on-site discussions with four teachers in the workshop were also conducted. Analysis of the data enabled the researcher to identify a set of problems and issues with the current delivery of drawing education in Pakistan, namely issues, untrained teachers using old classroom drawing exercise, which have affected negatively the children's creative growth, lacks of modern approaches for drawing, unavailability of train teachers. In the second stage of the project, the researcher developed a set of teaching and learning strategies to address these problems and piloted this through a five-day creative workshop involving sixteen primary school students and four primary school teachers. These strategies were based upon focused and emphasize, playful exploration, conversation, drawing from life, and drawing collaboratively. Drawing can be a very good creative tool for kids, based on the researcher's own experience. Analysis of the workshop's results demonstrated the effectiveness of the approach taken. Students' levels of concentration/ enjoyment/ participation increased their motor skills, students valued their work more with greater interest in the subject, and the work enabled greater interaction between students and teachers. In conclusion, the researcher argues that modifying the instruction and learning of drawing in Pakistani primary schools in the light of the workshop, would have beneficial results for the development of creativity.

Keywords: Investigation-Drawing Education-Primary School-Pakistan.

**NÜKLEER SANTRALLERİN KABULÜNDE ÇEVRESEL VE ENERJİ FAYDASININ
DÜZENLEYİCİLİK ETKİSİ**

MODERATING IMPACT OF ENVIRONMENTAL AND ENERGY BENEFIT IN THE
ACCEPTANCE OF NUCLEAR POWER PLANTS

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ÖZET

Bu çalışmada, nükleer santrallere yönelik güven ve algılanan riskin kabule etkisinde çevresel ve enerji faydasının düzenleyicilik etkisi araştırılmıştır. Önerilen “Nükleer Santral Kabul Modelinde(NSKM)”, yer alan faktörler nükleer santrallere yönelik, “Güven”, “Risk Algısı” ve “Kabul” dür. Faktörler arasındaki ilişkilerin tanımlandığı NSKM Kısmi En Küçük Kareler Yapısal Eşitlik Modellemesi (KEK-YEM) kullanılarak test edilmiştir. Modelin uyumu için hesaplanan SRMR = 0.034< 0.05 ve NFI= 0.946 > 0,90 olarak hesaplanmıştır. Bu bulgulardan modelin uyumunun kabul edilebilir sınırlar içinde kaldığı söylenebilir. Analiz sonuçlarında, nükleer enerji santrallerine (NES) yönelik güven düzeyindeki bir birimlik artış, tehlikelerine yönelik algılanan riskte 0.381 birimlik azalma, kabulde ise 0.781 birimlik bir artış olacağı tahmin edilmiştir. Ayrıca, nükleer enerji santrallerinin kabulünde çevresel ve enerji faydasının düzenleyicilik etkisi de anlamlı bulunmuştur. Çalışmada, nükleer santrallerin kabulüne güven ve algılanan riskin etkisinde çevresel ve enerji yararının düzenleyicilik etkisi de araştırılmıştır. Analiz sonuçlarında, nükleer enerji santrallere (NES) yönelik algılanan riskteki bir birimlik artışın NES kabul düzeyinde 0.167 birimlik bir azalma olacağı tahmin edilmiştir. Çalışmadaki NSKM sonuçlarından kabulü etkileyen en önemli faktörlerden biri güvendir. Bu sonuç, nükleer santraller için Güven algısı faktörünü oluşturan, “uygun yer seçimi”, “inşaatının kalitesi ve güvenilirliği”, ve “uzman personel çalıştırılması” bileşenlerinin NES kabul edilmesindeki önemini ortaya koymuştur. Analiz sonucunda enerji öncelikli grubun NES’ne ilişkin kabul düzeyinin %60 olarak hesaplanmıştır. Ayrıca, NES’e yönelik güven arttıkça, kabul düzeyinin de artacağı belirlenmiştir. Güvenin, Kabul üzerindeki etkisinde Enerji Yarar Algısının düzenleyicilik etkisi araştırıldığında; GÜVEN→KABUL ilişkisi için katsayı 0.185 olarak hesaplanmıştır. Bu katsayının pozitif bulunması, güven arttıkça nükleer santrallerin kabulünün artması anlamına gelir. GÜVEN*ENERJİ→ KABUL katsayısı 0,077 (P<0,01) olarak hesaplanmıştır. Bu durum, kişilerin santralleri enerji kaynağı olarak faydalı görmesi, güven düzeyini artırarak kabul üzerinde pozitif olarak etkilediği anlamına gelebilir.

Anahtar Kelimeler: Nükleer Santraller, Kabul, Güven, Risk, Yapısal Eşitlik modellemesi

ABSTRACT

In this study, the moderating effect of environmental and energy benefits on the effect of trust and perceived risk on nuclear power plants was investigated. In the proposed "Nuclear Power Plant Acceptance Model (NSKM)", the factors included are "Trust", "Risk Perception" and "Acceptance" for nuclear power plants. It was tested using NSKM Partial Least Squares Structural Equation Modeling (KEK-PLS), in which the relationships between the factors were defined. The SRMR = 0.034< 0.05 and NFI= 0.946 > 0.90 calculated for the fit of the model. From these findings, it can be said that the fit of the model is within acceptable limits. In the results of the analysis, it is estimated that there will be a

one-unit increase in the confidence level for nuclear power plants (NPP), a 0.381-unit decrease in the perceived risk of their hazards, and an increase of 0.781-unit in acceptance. In addition, the moderating effect of environmental and energy benefits in the acceptance of nuclear power plants was also found to be significant. One of the most important factors affecting acceptance from the NSKM results in the study is trust. This result revealed the importance of "appropriate location selection", "quality and reliability of construction", and "employment of expert personnel" components, which constitute the Trust perception factor for nuclear power plants, in the acceptance of NES. As a result of the analysis, the acceptance level of the energy priority group regarding NES was calculated as 60%. In addition, it has been determined that as the trust towards QC increases, the level of acceptance will also increase. When the regulatory effect of Energy Benefit Perception on the effect of trust on acceptance is investigated; The coefficient for the TRUST → ACCEPTANCE relationship was calculated as 0.185. Finding this coefficient positive means that the acceptance of nuclear power plants increases as the confidence increases. The TRUST*ENERGY → ACCEPTANCE coefficient was calculated as 0.077 ($P < 0.01$). This may mean that people see power plants as an energy source, increasing the level of trust and positively affecting acceptance.

Keywords: Nuclear Power Plants, Acceptance, Trust, Risk, Structural Equation modeling

**TRAMVAY YOLCU MEMNUNİYETİNİN KISMİ EN KÜÇÜK KARELER YAPISAL
EŞİTLİK MODELLEMESİ (KEK-YEM) İLE ARAŞTIRILMASI**

**INVESTIGATION OF TRAM PASSENGER SATISFACTION BY PARTIAL LAST SQUARE
STRUCTURAL EQUALITY MODELING (PLS-SEM)**

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ÖZET

Bu çalışmanın amacı toplu taşıma araçlarından biri olan tramvaya yönelik yolcu memnuniyetini etkileyen faktörleri ölçmek ve en önemli faktörü kısmi en küçük kareler yapısal eşitlik modellemesi (KEK-YEM) ile ortaya koymaktır. Eskişehir’de üç üniversitenin bulunmasıyla birlikte toplu taşıma kullanımı oldukça artmıştır. Bu nedenle çalışmada yolcuların tramvay ulaşım hizmetinden aldıkları memnuniyeti etkileyen faktörleri araştırmak ve bunlar arasındaki ilişkiyi ortaya koymak amaçlanmıştır. Bu amaçla, memnuniyeti etkileyen faktörleri ele almak için 4 ana faktör ortaya konulmuştur. Bu faktörler hizmet kalitesi, lojistik hizmet kalitesi, personel memnuniyeti, tramvay konfor kalitesi ve memnuniyettir. Hizmet grubundaki değişkenler; zaman çizelgesi netliği, bilgi (haritalar, durak işaretleri), durak yeterliliği, taşıma hızı ve taşıma konforudur. Lojistik grubundaki değişkenler; hizmet sürekliliği, sıklık, dakiklik ve ücrettir. Personel memnuniyeti grubundaki değişkenler; güvenlik, nezaket ve personel sayısıdır. Tramvay konforu grubundaki değişkenler; araç temizliği, koltuk rahatlığı ve tramvay tasarımıdır. Çalışma sonucunda, ortaya konan yapısal modelin yakınsak geçerliliği ve yapı güvenilirliğinin sağlanmıştır. Model için SRMR değeri 0.071; NFI değeri ise 0,87 olarak hesaplanmış ve modelin iyi uyuma sahip olduğu belirlenmiştir. Çalışma sonucunda, lojistik boyutunda hizmet kalitesi bir birim arttıkça tramvay hizmetinden duyulan memnuniyetin 0,317 birim arttığı; Hizmet boyutunda hizmet kalitesi bir birim arttıkça tramvay hizmetinden duyulan memnuniyetin 0,266 birim arttığı belirlenmiştir. Ayrıca, tramvay konforu boyutunda hizmet kalitesi bir birim arttıkça tramvay hizmetinden duyulan memnuniyetin 0,234 birim ve personel memnuniyeti boyutunda hizmet kalitesi bir birim arttıkça tramvay hizmetinden duyulan memnuniyetin 0,232 birim arttığı belirlenmiştir. Çalışmada ortaya konan 4 hipotez de sağlanmıştır.

Anahtar Kelimeler: Tramvay hizmeti, Hizmet kalitesi, Lojistik hizmet kalitesi, Memnuniyet Kısmi En Küçük Kareler Yapısal Eşitlik Modeli (KEK-YEM)

ABSTRACT

The aim of this study is to measure the factors affecting passenger satisfaction towards the tram, which is one of the public transportation vehicles, and to reveal the most important factor with partial least squares structural equation modeling (PLS-SEM). With the presence of three universities in Eskişehir, the use of public transportation has increased considerably. For this reason, it is aimed to investigate the factors affecting the satisfaction of passengers from the tram transportation service and to reveal the relationship between them. For this purpose, 4 main factors have been put forward to address the factors affecting satisfaction. These factors are service quality, logistics service quality, personnel satisfaction, tram comfort quality and satisfaction. Variables in the service group; timeline clarity, information (maps, stop signs), stop adequacy, transport speed and transport comfort. Variables in the logistics

group; service continuity, frequency, punctuality and cost. Variables in the personnel satisfaction group; security, courtesy and number of staff. Variables in the tram comfort group; vehicle cleanliness, seat comfort and tram design. As a result of the study, the convergent validity and structural reliability of the structural model were provided. The SRMR value for the model was 0.071; The NFI value was calculated as 0.87 and it was determined that the model had a good fit. As a result of the study, as the service quality in the logistics dimension increases by one unit, the satisfaction with the tram service increases by 0.317 units; It has been determined that as the service quality increases by one unit in the service dimension, the satisfaction with the tram service increases by 0.266 units. In addition, it has been determined that as the service quality increases by one unit in the tram comfort dimension, the satisfaction with the tram service increases by 0.234 units and as the service quality increases by one unit in the personnel satisfaction dimension, the satisfaction with the tram service increases by 0.232 units. The 4 hypotheses put forward in the study were also provided.

Keywords: Tram service, Service quality, Logistics service quality, Satisfaction, Partial Least Squares Structural Equation Model (KEK-YEM)

BİR LYSO(Ce) SİNTİLASYON KRİSTALİNDE ELEKTROMANYETİK SAĞANAK GELİŞİM BENZETİŞİMİ**SIMULATION OF ELECTROMAGNETIC SHOWER DEVELOPMENT IN A LYSO(Ce) SCINTILLATION CRYSTAL***Adnan KILIÇ¹*¹Bursa Uludağ Üniversitesi, Fen Edebiyat Fakültesi, Fizik Bölümü, Bursa, Türkiye.¹ORCID ID: <https://orcid.org/0000-0003-0983-7504>**ÖZET**

Yüksek enerji fiziği (YEF) parçacık detektörlerinde, elektron, pozitron, gamma gibi elektromanyetik (em) parçacıkların deteksiyonu elektromanyetik kalorimetreler (em kal) vasıtası ile yapılır. Homojen em kalorimetreler, gelen parçacıklar tarafından parçacık sağanağı gelişimi için bir kristal ve deteksiyon için kristalin arka yüzüne yapıştırılmış bir foto-detektör temel bileşenlerinden oluşur. Bu temel yapılar belirli geometriler oluşturacak şekilde bir araya getirilerek em kalorimetre modüllerini meydana getirirler. Kristal ön yüzüne gelen em parçacıklar enerjilerini ardışık fiziksel etkileşimlerle ikincil parçacık üretilmesinde harcarlar. Sonuç olarak kristal içerisinde enine ve boyuna gelişim gösteren bir em parçacık sağanağı meydana gelir. Em sağanakların enine ve boyuna uzaysal boyutlarının bilgisi, seçilen kristal ile ne kadar kompakt ve ne kadar yüksek tanelikli (high granularity) em kalorimetre tasarlanabileceği konusunda bir fikir sağlar. Cerium katkılı lutetium yttrium oxy-orthosilicate ($\text{Lu}_{2x}\text{Y}_{2-2x}\text{SiO}_5\text{:Ce}$, LYSO:Ce) kristali, yüksek ışık çıkıtısına, hızlı sintilasyon cevabına (yavaş sintilasyon bileşensiz), yüksek yoğunluğa, çok iyi enerji çözünürlüğüne ve yüksek radyasyon dayanıklılığına sahiptir. Diğer sintilasyon kristallerine göre bu üstün nitelikleri, günümüz parçacık fiziği deneylerinde (SuperB, KOLE ve Mu2e gibi) ve gelecekte çalışılması planlanan yüksek ışıklı parçacık detektörlerinin (HL-LHC gibi) yüksek doğruluklu em kalorimetrelerinde kullanılmaları için güçlü bir aday haline gelmelerini sağlamıştır. Geant4 (Geometry and Tracking) Monte Carlo aracı, tıp ve uzay bilimlerinin yanı sıra yüksek enerji, nükleer ve hızlandırıcı fiziğinde geniş bir uygulama alanına sahip, parçacıkların madde içerisinden geçişinin benzetişimini yapan, C++ dilinde yazılmış nesne yönelimli bir programdır. Bu çalışmada, Geant4 yardımıyla 1-10 GeV enerji aralığındaki elektronların LYSO:Ce kristali içerisinde neden oldukları em sağanakların uzaysal dağılımlarının tahminine yönelik benzetişimler yapılmıştır.

Anahtar Kelimeler: sintilasyon, LYSO, Geant4, elektron, sağanak.

ABSTRACT

In high energy physics (HEP) particle detectors, the detection of electromagnetic (em) particles such as electron, positron, gamma is done by electromagnetic calorimeters (em cal). Homogeneous em calorimeters consist of the basic components of a crystal for particle shower development and a photo-detector adhered to the back face of the crystal for detection by incoming particles. These basic structures are combined to form specific geometries to form em calorimeter modules. Em particles coming to the crystal front surface spend their energy in producing secondary particles by sequential physical interactions. As a result, a shower of em particles occurs in the crystal, which develops transversely and longitudinally. Knowledge of the transverse and longitudinal spatial dimensions of em showers provides an idea of how compact and how high granularity em calorimeters can be designed with the chosen crystal. Cerium-doped lutetium yttrium oxy-orthosilicate ($\text{Lu}_{2x}\text{Y}_{2-2x}\text{SiO}_5\text{:Ce}$, LYSO:Ce) crystal has high light output, fast scintillation response (without slow scintillation component), high density, very good energy resolution and high radiation hardness. These superior qualities over other scintillation crystals have made them a strong candidate for use in today's particle physics experiments (such as SuperB, KOLE, and Mu2e) and high-accuracy em calorimeters of future high luminosity particle detectors (such as HL-LHC). The Geant4 (Geometry and Tracking) Monte Carlo tool is an

object-oriented program written in C++ that simulates the passage of particles through matter, with wide applications in high energy, nuclear and accelerator physics, as well as in medicine and space sciences. In this study, simulations were made for the estimation of the spatial distributions of em showers caused by electrons in the energy range of 1-10 GeV in the LYSO:Ce crystal with the help of Geant4.

Keywords: scintillation, LYSO, Geant4, electron, shower.

**UZAKTAN HASTA TAKİP SİSTEMİNİN EKONOMİK DEĞERLENDİRİLMESİ:
HİPERTANSİYON HASTALIĞI ÖRNEĞİ**

**ECONOMIC EVALUATIONS OF REMOTE PATIENT MONITORING SYSTEM: EXAMPLE OF
HYPERTENSION DISEASE**

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ÖZET

Günümüzde hastane yatış sayısını azaltmak, ani ölümleri ve hastane enfeksiyonlarını önlemek, maliyeti azaltmak, hasta yaşam kalitesini artırmak, hastalıkları erken ve gerçek zamanlı tespit etmek için sağlık kuruluşları özellikle hipertansiyon gibi kronik hastaların yaşamsal belirti ve semptomlarını uzaktan izlemeye başlamıştır. E-sağlık bileşenlerinden biri olan uzaktan hasta izleme (remote patient monitoring), sağlık hizmeti sunucularının bir hastanın sağlık verilerindeki gerçek zamanlı değişiklikleri uzaktan izlemesini ve bunu hasta tedavi planında kullanmasını sağlayan teknolojik bir sistem olarak tanımlanmaktadır. Hipertansiyon, küresel kardiyovasküler hastalık yükünde en büyük morbidite ve mortalite nedeni olduğu birçok araştırmada tespit edilmiştir. Hipertansiyon kontrolü, kardiyovasküler hastalıkların önlenmesinin önemli bir bileşenidir. Bu araştırmanın amacı, hipertansiyon hastalığının tedavisinde standart bakım ile uzaktan hasta izleme seçeneklerinin maliyet etkililiğini tespit etmektir. Araştırmada sistematik tarama yöntemi kullanılmıştır. Araştırmada dil, kanıt düzeyi, araştırma tarihi, veri tabanları, anahtar kelimeler ile ilgili dışlama ve dahil etme kriterlerini de içeren sistematik tarama stratejileri geliştirilmiştir. Araştırma sonuçları PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) akış diyagramı yardımı ile elde edilmiştir. Sistematik taramada raporlama kalitesi Konsolide Sağlık Ekonomik Değerlendirme Raporlama Standartları (CHEERS) kullanılarak değerlendirilmiştir.

Araştırma sonucunda hipertansiyon hastalığının tedavisinde standart bakım ile uzaktan hasta izleme seçeneklerinin ekonomik değerlendirilmesini yapan 8 çalışma tespit edilmiştir. Bu çalışmalar Amerika Birleşik Devletleri, Rusya, Danimarka, İskoçya, Kanada, Singapur ve İngiltere ülkelerinde yapılmıştır. Çalışmalarda ekonomik değerlendirme yöntemlerinden maliyet yararlanım ve maliyet etkililik yöntemleri kullanılmıştır. Araştırma sonucunda hipertansiyon tedavisinde uzaktan hasta izleme sistemleri, önemli ölçüde kan basıncı kontrolü, kardiyovasküler olayların önlenmesi nedeniyle standart bakım seçeneğine göre maliyet etkili olduğu tespit edilmiştir. Bu çalışmalarda hipertansiyon hastalarda uzaktan izlemenin hastaneye yatışları ve sağlık bakım maliyetlerini azaltmaktadır. Uzaktan hasta izleme sistemlerinin ekonomik değerlendirilmesi ile ilgili literatürde çok kısıtlı çalışma bulunmaktadır. Türkiye’de uzaktan hasta takip sistemleri henüz çok gelişmiş durumda olduğunu söyleyemeyiz. Bu nedenle önümüzdeki dönemlerde sağlık projelerine dahil edilmesi kırsal bölgelerde yaşayan hastalar için özellikle faydalı ve maliyet etkili olabilecektir.

Anahtar Kelimeler: Hipertansiyon, Uzaktan Hasta İzleme, Ekonomik Değerlendirme

ABSTRACT

Today, in order to reduce the number of hospitalizations, prevent sudden deaths and nosocomial infections, reduce costs, increase patient quality of life, and detect diseases early and in real time, health institutions have started to monitor the vital signs and symptoms of chronic patients, especially

hypertension, remotely. Remote patient monitoring, one of the components of e-health, is defined as a technological system that enables healthcare providers to remotely monitor real-time changes in a patient's health data and use it in the patient treatment plan. It has been determined in many studies that hypertension is the biggest cause of morbidity and mortality in the global cardiovascular disease burden. Hypertension control is an important component of cardiovascular disease prevention. The aim of this study is to determine the cost-effectiveness of standard care and remote patient monitoring options in the treatment of hypertension. Systematic scanning method was used in the study. In the study, systematic screening strategies were developed, including language, level of evidence, research history, databases, keywords, and exclusion and inclusion criteria. Research results were obtained with the help of PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) flow chart. The reporting quality in the systematic review was assessed using the Consolidated Health Economic Evaluations Reporting Standards (CHEERS).

As a result of the research, 8 studies were identified that made the economic evaluation of standard care and remote patient monitoring options in the treatment of hypertension. These studies were conducted in the United States, Russia, Denmark, Scotland, Canada, Singapore and England. In the studies, cost-utilization and cost-effectiveness methods, which are among the economic evaluation methods, were used. As a result of the research, it has been determined that the remote patient monitoring systems, significant blood pressure control, and prevention of cardiovascular events are cost-effective compared to the standard care option in the treatment of hypertension. In these studies, remote monitoring in hypertension patients reduces hospitalizations and health care costs. There are very limited studies in the literature on the economic evaluation of remote patient monitoring systems. We cannot say that remote patient monitoring systems in Turkey are still very advanced. Therefore, inclusion in healthcare projects in the future is particularly beneficial and cost-effective for patients living in rural areas.

Keywords: Hypertension, Remote Patient Monitoring, Economic Evaluation

**LİDERLİK AÇISINDAN KABİN MEMURLARININ GÖZÜNDEN KABİN AMİRLERİ:
YAŞANAN ÖRNEK OLAYLAR**

CABIN SUPERVISORS FROM THE PERSPECTIVE OF CABIN OFFICERS IN TERMS OF
LEADERSHIP: CASE STUDIES

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ÖZET

Havacılık sektörünün büyümesi ve gelişmesiyle birlikte havayolu şirketlerinin de sayısı çoğalmış ve bu durum rekabetin daha çok artmasına neden olmuştur. Şirketlerin hem ulusal hem de uluslararası düzeydeki rekabet koşullarında pazardan pay alabilmek ve ayakta kalabilmek için müşteri memnuniyetini ön planda tutmaları gerekmektedir. Yolcunun bilet alıp seyahat ettiği havayolu şirketinden memnun kalması, havayolu şirketinin vitrini konumundaki kabin ekibinin performansına da bağlıdır. Uçuş esnasında kabin amirlerinin benimsemiş oldukları tutumlar, kabin ekiplerinin var olan performanslarını ortaya koymalarında önemli bir etkidir. Mesai kavramı olmayan, çoğu kez ayakta çalışılan ve yolcularla sürekli iletişim halinde olmayı gerektiren bir işte çalışmak elbette kolay değildir. Bu tür zorlukların yanında kabin amirinin iyi bir lider olmayışı, rutin bir uçuşun çok sıkıntılı geçmesine neden olabilir. Ya da uçuşta yaşanan kötü bir durum ya da olay, kabin amirinin sayesinde çözüme kavuşturulabilir. Bu çalışmanın amacı kabin memurlarının yaşamış olduğu olaylardan yola çıkarak uçuşlarda lider konumundaki kabin amirlerinin performanslarının ekibe nasıl yansıdığını ve olayın gidişatını nasıl etkilediğini görmektir. Çalışmada öncelikle liderlik kavramı üzerinde durulmuş, liderin özellikleri ve öne çıkan liderlik türlerinden bahsedilmiştir. Daha sonra havayolu şirketlerinde kabin amirinin görev ve sorumluluklarına dair bilgi verilmiştir. Çalışmanın son bölümünde ise kabin memuru odaklı bir bakış açısı benimsenmiştir. Özel bir havayolu şirketinde çalışan kabin memurlarının uçuşlarında yaşamış oldukları olaylar aktarılmıştır. Çıkan sonuçlar doğrultusunda birtakım tavsiyelerde bulunulmuştur. Sonuç itibarıyla kabin memurlarının yaşadığı olaylar, bize kabin amirlerinin eylemlerinin ya da eylemsizliklerinin uçuşun seyrini değiştirebildiğini göstermiştir. Bazı kabin amirlerinin olayda köprü vazifesi gördüğü, bazılarının ise olayda hiçbir etkisinin olmadığı anlaşılmaktadır. Amirin iyi ya da kötü performansının, ekibini sahiplenip sahiplenmemesinin, iletişim ve empati kurup kurmamasının olumlu ya da olumsuz olarak direkt kabin ekibine yansıdığı görülmüştür.

Anahtar Kelimeler: Liderlik, Kabin Ekibi, Sivil Havacılık.

ABSTRACT

With the growth and development of the aviation industry, the number of airline companies has also increased and this has led to an increase in competition. Companies need to prioritize customer satisfaction in order to get a share from the market and survive in both national and international competitive conditions. The passenger's satisfaction with the airline he/she is traveling with also depends on the performance of the cabin crew, which is the showcase of the airline. The attitudes adopted by cabin supervisors during the flight are an important factor for cabin crews to demonstrate their current performance. Of course, it is not easy to work in a job that does not have a concept of overtime, often

requires standing and being in constant contact with passengers. In addition to such difficulties, the cabin chief's not being a good leader can make a routine flight very difficult or a bad situation or event in flight can be resolved thanks to the cabin supervisor. The aim of this study is to see how the performances of the cabin chiefs, who are the leaders in flights, are reflected on the team and how they affect the course of the event, based on the events experienced by the cabin crew. In the study, first of all, the concept of leadership was emphasized, the characteristics of the leader and prominent leadership types were mentioned. Then, information was given about the duties and responsibilities of the cabin chief in airline companies. In the last part of the study, a cabin crew-oriented perspective was adopted. The incidents experienced by flight attendants working in a private airline company are reported. Some recommendations were made in line with the results. As a result, the events experienced by the cabin crew have shown us that the actions or inactions of the cabin chiefs can change the course of the flight. It is understood that some cabin chiefs acted as a bridge in the incident, and some of them had no effect on the incident. It has been observed that the good or bad performance of the supervisor, whether he owns his crew or not, whether he communicates and empathizes, is directly reflected on the cabin crew, either positively or negatively.

Keywords: Leadership, Cabin Crew, Civil Aviation.

**ÇİMENTO TOZUNUN, KERKÜK ÇİMENTO FABRİKASI YAKINLARINDAKİ TARIMSAL
TOPRAK ÜZERİNDEKİ ÇEVRESEL ETKİLERİ, IRAK'IN KUZEYİ**
ENVIRONMENTAL IMPACTS OF CEMENT DUST ON THE AGRICULTURAL SOIL NEAR
KIRKUK CEMENT FACTORY, NORTHERN IRAQ

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ÖZET

Bu çalışma, Kerkük şehrinin güneybatısındaki Leylan köyü yakınlarında fizikokimyasal analizler yapmak, farklı toprak katmanlarındaki bazı majör ve ağır elementlerin seviyelerini belirlemek ve ayrıca bu elementlerle potansiyel kirlenme kaynaklarını belirlemek amacıyla toplanan tarımsal toprak örneklerine dayanmaktadır. pH sonuçları, çeşitli katmanlarından alınan toprak örneklerinin çoğunluğunun hafif ila orta derecede alkali olduğunu ortaya çıkarmıştır ve organik madde (O.M.) içeriğinin orta düzeyde olduğu da tespit edilmiştir. Ayrıca, aynı bölgedeki toprak pH'ındaki değişim, yıllar içinde çimento tozunun çökmesinin bir sonucu olabilir.

Sonuçlar, Majör (CaO, MgO, Fe₂O₃, Al₂O₃, Na₂O, K₂O) ve bazı ağır elementlerin (Co, Ni, Cd, As) ortalama konsantrasyonlarının, yerkabuğundaki ve aynı bölgeden alınan kirlenmemiş benzer topraklardaki doğal bolluğu ile karşılaştırıldığında bu elementlerin daha yüksek olduğunu göstererek, çalışma alanının çimento sanayi faaliyetlerine yakınlığı sonucu bu elementlerin topraktaki derişimlerinde artışa işaret etmekte ve ağır elementlerin yüksek emisyonuna neden olmaktadır. Jeo-birikim faktörü (Igeo), farklı katmanlardaki toprak örneklerinin çoğunun aşırı derecede kobalt ve Nikel ile kontamine olduğunu ve kadmiyum ve arsenik ile orta ila şiddetli derecede kontamine olduğunu gösterir.

Anahtar Kelimeler: Çevresel Etkileri, Çimento Tozu, Ağır element, Jeo-birikim faktörü, Çimento Fabrikası, Kerkük.

ABSTRACT

This study is based on agricultural soil samples collected near the village of Leylan, southwest of Kirkuk City, to conduct physiochemical analysis and determine the levels of some major and heavy elements in the surface and subsurface soil horizons, as well as to identify potential sources of contamination with these elements. The pH results revealed that the majority of the soil samples from various horizons were slightly to moderately alkaline and the organic matter (O.M.) content was moderate. Furthermore, the change in soil pH in the same area may be a result of the precipitation of cement dust over the years.

The results showed that the average concentrations of major oxides (CaO, MgO, Fe₂O₃, Al₂O₃, Na₂O, K₂O) and some heavy elements (Co, Ni, Cd, As) are higher than their natural concentrations when compared to the natural abundance of these elements in the earth's crust and those in unpolluted similar soils from the same area, which indicates an increase in the concentration of these elements in the soil as a result of the proximity of the study area to the cement industry's activities, causing the emission of high concentrations of heavy elements. The geo-accumulation factor (Igeo) indicates that most of the soil samples within different horizons are extremely contaminated with cobalt and Nickel, and moderately to strongly contaminated with cadmium and arsenic.

Keywords: Environmental Impacts, Cement Dust, Heavy Element, Geo accumulation factor, Cement Factory, Kirkuk.

DRY GRINDING SYNTHESIS AND DOCKING STUDY OF CYCLOPENTANONE-SULFUR CONTAINING COMPOUNDS WITH ANTI-PROLIFERATIVE ACTIVITY FOR HepG-2 and A-549 CANCER CELL LINES

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ABSTRACT

Background: The dry grinding method is a green technique for efficient organic synthesis with numerous advantages, such as: mild reaction conditions, environmental acceptability, simple segregation and refinement as well as the elevated selectivity and efficiency. Objective: The aim of the present work is to design and synthesize of cyclopentylidene-hydrazino)-thiazole derivatives using dry grinding condition to investigate their antitumor activity against two cell lines namely, HepG-2 and A-549. Methods: In this context, we synthesized series of thiazole incorporated cyclopentane through hydrazone-group and 2-cyclopentylidenehydrazine-1-carbimidic-2-ethoxy-N-aryl-2-oxoacetohydrazonic thioanhydride under dry grinding within minutes and excellent to good yield. Results: All spectral data confirmed the proposed structures. The molecular docking studies have been performed using Macrophage Migration Inhibitory Factor (Pdb: 4k9g) and Lysozyme C (Pdb: 2f4a), the overexpressed proteins in human liver cancer cell (HepG-2) and lung cancer cell lines (A-549), respectively, in addition to the antitumor activity investigations contra the two types of tumor cells. Conclusion: Two derivatives 9b and 9d showed the highest antitumor activity against the two cell lines HepG-2 and A-549. Also, docking results revealed high energy score ranging from -7.1590 to -5.9364 Kcal/mol with Macrophage Migration Inhibitory Factor (Pdb: 4k9g) which is more than the energy score = -4.118 Kcal/mol of co-crystallized ligand. Moreover, the tested 2 derivatives showed energy score varies from -6.0802 to -4.5503 Kcal/mol against Lysozyme C (Pdb: 2f4a).

Keywords: Thiazoles, free solvent reaction, dry grinding, antitumor activity, docking study

**RECYCLING AND APPLICATIONS OF EXPIRED DRUGS MATERIALS FOR
CORROSION PROTECTION OF METALS AND ALLOYS**

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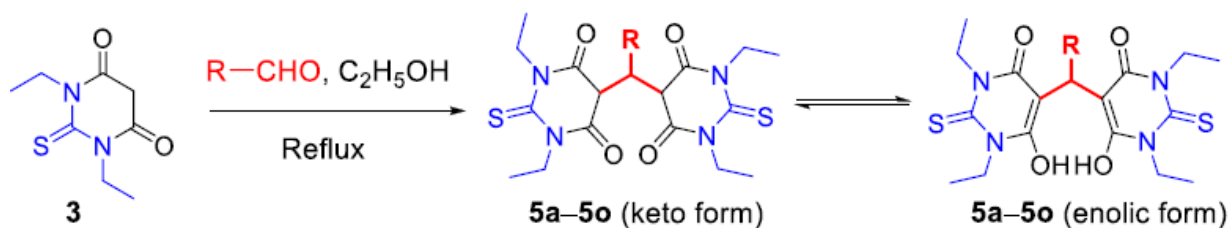
ABSTRACT

Significant inhibition efficiency of several drugs have been proved many years ago, but unfortunately, drugs are expensive and their practical applications as corrosion inhibitors for metal and alloys has been delayed. Several reports have mentioned the application of novel environmentally friendly molecules as corrosion inhibitors. One of these prominent areas in this field is pharmaceutical products. In the present review, the studies on the inhibition properties in metal corrosion processes of expired drugs have been emphasized, starting with the paper of R. S. Abdel Hameed, published in 2009. This review presents most of the contributions made to the literature on the use of expired drugs as corrosion inhibitors of various metals. All the reported survey of literatures proved that the use of expired drugs as corrosion inhibitors traced back to 2009's by the scientist Reda Abdel Hameed that introduced the new idea for application of the expired drugs as Environmentally Sustainable Corrosion Inhibitors.

Keywords: Metals; Corrosion; Expired drug; Sustainable Inhibitors; Metal Protection.

DESIGNED SYNTHESIS OF BIS-THIOBARBITURIC ACID HYBRID STRUCTURES AS POTENT UREASE INHIBITORS*Zulfiqar Ali Khan¹*¹Department of Chemistry, Faculty of Physical Sciences, Government College University, Faisalabad-38000, Pakistan**ABSTRACT**

A series of Bis-thiobarbiturates **5a–5o** synthesized by condensing 1,3-diethylthiobarbituric acid **3** with a variety of aromatic aldehydes with varied structural features and substitution at active methylene position of thiobarbituric acid (Scheme 1). Afterward, thiobarbituric acid structures were characterized through FT-IR, NMR spectroscopy and mass spectrometry. Subsequently, the inhibitory potential of thiobarbiturates **5a–5o** against urease enzyme was evaluated. The inhibitory potential of all synthesized analogues in terms of IC_{50} value was observed in the range of 8.42 ± 0.42 to $79.34 \pm 0.52 \mu\text{M}$ by comparing with thiourea (IC_{50} $21.25 \pm 0.15 \mu\text{M}$) as a standard urease inhibitor. Most of the analogues exhibited potent inhibitory activity against urease. After interesting findings, structure activity relationship (SAR) has been established for all analogues. Docking studies revealed that synthesized analogues interacted with active site residues of bimetallic nickel center of the urease enzyme through, thiolate, π - π stacking and hydrogen bonding interactions.



Scheme 1

ODD INVERTED WEIBULL-G FAMILY: MODEL, PROPERTIES AND APPLICATIONS

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DATA AVAILABILITY STATEMENT

The data used to support the findings of this study are included in the article. The data are available in the data analysis part.

CONFLICT OF INTEREST

The authors declares no conflict of interest

ABSTRACT

This study suggested a new family of distribution called the *odd inverted Weibull G family* by applying inverted Weibull as a generator. The four sub-models: the odd inverted Weibull Rayleigh, the odd inverted Weibull half logistic, the odd inverted Weibull logistic and the odd inverted Weibull Burr II distribution have been introduced. Some important properties of the distribution are investigated: survival and hazard rate function; quintile; moments, moment generating function; incomplete moment; probability weighted moment, inequality measure, Shannon entropy; reliability and order statistic. Likelihood ratio test has been also introduced. Two real data on Aircraft Windshield and Sum of Skin folds data are used for the efficiency of the proposed model. The value of the parameters with asymptotic normality results obtained from the maximum likelihood method in two sub models; odd inverted Weibull Rayleigh and odd inverted Weibull log logistic. From both data analysis, the proposed models provide a reasonably better fit than some other well-known models. As a result, the odd inverted Weibull-G family is an alternative G family for future reliability and survival data analysis.

Keywords: Entropy; odd inverted Weibull-G family; odd inverted Weibull Rayleigh; odd inverted Weibull log logistic; Moments

**FACILE SYNTHESIS AND CHARACTERIZATION OF DOPED M-TYPE HEXAFERRITE
FOR HIGH FREQUENCY DEVICES**

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ABSTRACT

Substituted barium hexaferrite with nominal composition $\text{BaFe}_{12-2x}\text{Cr}_x\text{Sm}_x\text{O}_{19}$ ($x=0.0, 0.2, 0.4, 0.6$) was prepared by WOWS sol gel method. X-ray diffraction (XRD) analysis confirmed the M-type hexagonal structure of synthesized nano powder. The surface morphology examined by scanning electron microscopy (SEM) indicated the formation of round shaped grains. The DC electrical resistivity measurements were carried out in the temperature range of 273K– 623 K using a two-probe technique and was found to increase with doping. The dissipation factor measured in the frequency range 20Hz – 3MHz at room temperature was decreased with doping concentration due to decrease in particle size and impending nature of Cr. Hysteresis loops obtained at room temperature showed a decreasing trend in saturation magnetization and increasing trend in coercivity. Low loss and higher coercivity of synthesized material can enhance the efficiency of high frequency devices.

Key Words: M-type Hexaferrites, DC electrical resistivity, Dielectric constant, Dissipation factor, Coercivity, Magnetization.

HAPLOTYPE DIVERSITY IN THE CLOWN KNIFEFISH (*Chitala chitala*) BASED ON PARTIAL CYTOCHROME OXIDASE SUBUNIT I (COI) GENE: A META-ANALYSIS STUDY

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ABSTRACT

Clown knifefish (*Chitala chitala*) are one of threatened fish species that widely spread at South Asia until to Southeast Asia. This study was aimed to observe the haplotype diversity in the partial Cytochrome Oxidase Subunit I (COI) gene of Clown knifefish assessed with a meta-analysis study. A total of twentyseven (27) COI gene sequence from GenBank were used in this study for the bioinformatic analysis. Thus, the bioinformatic analysis was performed using four (4) computer programs of BioEdit, MEGA-X, DNAsp and NETWORK. Results showed that Clown knifefish in this study have nine (9) haplotypes. Moreover, the Clown knifefish in this study can be discriminated into three haplogroups of A (haplotype 1,2,3,5 and 6), B (haplotype 4 and 9) and C (haplotype 7 and 8). Hence, the haplotype diversity in Clown knifefish was 0.838 (high category). The Pairwise genetic distance was ranged from 0.002 to 0.116. The Neutrality test of Fu's F_s statistic and Tajima's D test were 7.066 and -1.133, respectively. According to the Neutrality test, low allelic frequency in the COI gene of Clown knifefish can be caused by isolated habitat or species expansion. In conclusion, haplotype 1 was detected as the common ancestral of Clown knifefish at South Asia.

Keywords: bioinformatic, COI gene, *Chitala chitala*, GenBank, haplotype,

AZERBAIJAN'IN TARİHİ ANITLARI: ZENGİLAN KIZ KALELERİ

THE HISTORICAL MONUMENTS OF AZERBAIJAN: ZENGILAN MAIDEN TOWERS

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ÖZET

Dünya üzerinde Türkün geliştirdiği zengin kültür, dünya medeniyetlerinin oluşmasında mühim temel taşı vazifesi görmüştür. Türk halklarına ait, büyük arazide yayılmış kültür anıtları arasında Kız kalesi bazı özellikleri ile farklılık arz ediyor. Kız kalelerinin doğu ülkelerinde, özellikle türk halklarının yaşadığı bölgelerde inşa edilmesi ve farklı tarihi dönemlerde çeşitli amaçlarla ilişkilendirilmesi araştırmacılar arasında kabul gören görüşler arasındadır. Türkiye, Azerbaycan, Orta Asya cumhuriyetleri, İran ve benzeri ülkelerde bu anıtların farklı amaçlarla inşası ile ilgili bilgiler günümüze gelmiştir.

Azerbaycan topraklarında tarihi anıtlar arasında Kız kaleleri yaygındır. Azerbaycan'ın, aynı zamanda Karabağ'ın Batı ile Doğu arasında coğrafi konumu, ülkenin yer şekli ve renkli doğal ortamı henüz eski dönemlerden burada sağlam etnik temelin oluşmasına, bölgeden geçen göçler zamanı yerel etnik kültürün temellerini muhafaza etmek ve geliştirme olanağı sağlamıştır. İşte ekonomik ve kültürel ilişkilerin geliştirilmesi çeşitli tarihi anıtların oluşumu için önem arz etmektedir. Bu tür anıtlardan biri Zengilan Kız kalesidir. Eski tarihe sahip Zengilan köyleri içerisinde Bartaz, Vejneli ve Emirhanlı köylerinin ilgi odağımız olmasının nedeni bu alanlarda Kız kalelerinin bulunması ile ilgilidir.

Her yurdun kültürel miras örnekleri onun hangi halka ait olduğunu gösteren inkar edilemez gerçekler toplusudur. Bu açıdan Zengilan bölgesi arazisinde rastlanan Kız kaleleri tarihinin öğrenilmesi büyük önem taşımaktadır. Türk dünyasının önemli yapılarından biri olan Kız Kalesinin burada inşa edilmesi, aynı zamanda birkaç Kız kalesinin Zengilan toprağında bulunması Zengilan'ın Azerbaycan toprağı olduğunu kanıtlıyor.

Tarihin canlı tanığı olan yapılar, aynı zamanda Kız kaleleri zamanla kendi döneminin tarihi olaylarını gelecek kuşaklarda aktarır. Bu açıdan onların tarihinin öğrenilmesi, Azerbaycan Kız kalelerinin bir kültür örneği olmasının gerekçesi, aynı adlı kalelerin geniş bir bölgeye yayılmasının nedenlerinin açıklanması Azerbaycan topraklarında bir zamanlar mevcut olmuş eski bir uygarlığın varlığından haber vermektedir. Bu nedenle, dönemin somutlaşmış sembolü olan Kız kaleleri üzerinde yapılan çalışmalar büyük ilgi görüyor ve güncelliği ile seçiliyor.

Anahtar Kelimeler: Azerbaycan, Kız kaleleri, Zengilan, kültürel miras, ilişki, inşa, kültür örneği

ABSTRACT

The rich culture created by Turks in the world took the part of important base in development of the cultures all over the world. The Maiden Towers are differed with some characteristic features among the cultural monuments of Turkish peoples spread on wide territory. Their construction in Eastern countries, especially in the regions of Turkish peoples and connection with various targets during the different periods are considered as one of the opinions existed among the investigators. The information connected with the construction of these monuments for different targets in Turkey, Azerbaijan, the republics of Central Asia, Iran and such countries reached to the modern period.

Among the historical monuments situated on the territory of Azerbaijan the Maiden Towers are numerous. The geographical situation of Azerbaijan, also Karabakh among the West and East, the relief and rich natural landscape from ancient times gave the possibility to form here the strong ethnic base, defend the principles of local ethnic culture during the migration pass through the region and create the

convenient situation for to develop. The development of economic and cultural relations is important for formation of different historical monuments. One of these monuments is Zengilan Maiden Tower. The reason of our interest for the villages of Bartaz, Vejneli and Emirhanly among the villages of Zengilan with the ancient history is the situation of Maiden Towers on these territories.

The examples of cultural heritage of each region are the indisputable realities showed their belonging to what kind of people. From this point of view, the investigation of history of Maiden Towers situated on the territory of Zengilan region is very important. The construction of Maiden Tower here, one of the important examples of Turkish world, also the situation of some Maiden Towers on the territory of Zengilan confirm that Zengilan is the territory of Azerbaijan.

The constructions, also Maiden Towers, the real witnesses of history, search the historical events of their period in coming generation. From this point of view, the investigation of their history, importance of being of Maiden Towers of Azerbaijan as one of the examples of culture, explanation of reasons of spreading of towers of the same name on huge territory give the information of being of ancient civilization formerly on the territory of Azerbaijan. That is why the investigation devoted to the Maiden Towers, the personified symbols of the period, attracts the great attention and differs with its actuality.

Keywords: Azerbaijan, Maiden Towers, Zengilan, cultural heritage, relation, construction, example of culture

SIMULATION OF 2D AND 3D INCOMPRESSIBLE FLOWS IN A U-SHAPED CAVITY

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ABSTRACT

The *U*-shaped cavity is a fluid mechanical problem serving as an benchmark for testing numerical methods and studying fundamental aspects of incompressible flows in confined domains, driven by the tangential motion of a bounding wall. The *U*-shaped incompressible cavity encompasses the fluid flow problem wherein there are two moving walls and three stationary walls in the cavity. The method used to derive the simulations in this paper is using finite volume based solver namely ANSYS-FLUENT. This solver is chosen since Computational fluid dynamics (CFD) allows good control over the physical process, along with providing the ability to isolate specific phenomena for study. To observe the fluid flow characteristics, the different values of Reynolds numbers are studied, subsequently changing the values of velocity in the boundary conditions, thereby obtaining relevant results. There are three cases considered in the present work. The first is considering the walls moving in the same direction (positive *x*-direction); next one is walls moving in opposite directions (being the walls inwards), and in the latter case, the walls are moving outwards. The grid independence study is conducted for the *U*-shaped cavity flow at low Reynolds number. A very fine quality mesh is generated for the present work. The pictorial representations of the streamline patterns, pressure and velocity contours have been focused on different values of Reynolds number, and subtle differences are observed in the results. The finite volume based solver is predicted for the simulation that spans the entire range of flow physics, providing access to virtually any field of engineering simulation that a design and simulation process requires. The streamline patterns and velocity contours show that the *U*-shaped cavity exhibits remarkable circulation zones and structure in contrast to the conventional square lid-driven cavity. It can be concluded that the *U*-shaped cavity is a paramount problem that enhances one's understanding of the nature of fluid flow characteristics.

Keywords: Computational Fluid Dynamics, incompressible flow, *U*-shaped cavity, ANSYS-FLUENT, Reynolds number.

TAXATION AS AN INSTRUMENT OF FISCAL AND STIMULATING POLICY

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ABSTRACT

Tax culture strategies are particularly important for taxpayers and state economic prosperity. In general, strategies are - legal conduct of economic activities, regulating obligations by law and managing economical risks. Those strategies support raising awareness of responsibilities in taxpayers, which serve avoiding their and states economic loss.

Managing tax system implies regulating its components by state. Regulating means following processes – refinement of taxes, making processes and results of avoiding processes clear about liabilities and rights for each involved side (tax authority and taxpayer). As an outcome, tax system is based on three main points – tax legislation, communication between tax authority and taxpayer and tax control.

Tax legislation in Georgia is constantly changing and leads to unstable environment for business development within country. For effective tax administration and economic development have been identified several obstructive issues:

- Constant change of tax legislation;
- Non-compliant sanctions;
- Low awareness of tax legislation in taxpayers.

In order to raise tax culture, it is not important to focus on the strictness of the punishment, but on a comprehensive system of control. In Georgia, tax code in addition has normative act as a separate document. Both documents should be equally understandable for both – taxpayers and tax auditors.

Tax culture is important for state economic policy and for creating developed economic environment for taxpayer. In addition, it will promote the economic activity of small and medium-sized businesses in Georgia.

Keywords: Taxpayer; Tax Code; Tax control; tax legislation.

ÇALIŞAN ÖĞRENCİLERİN EĞİTİMDE KARŞILAŞTIĞI PROBLEMLERİN İNCELENMESİ

EXAMINING THE PROBLEMS ENCOUNTERED BY WORKING STUDENTS IN EDUCATION

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ÖZET

Bu araştırma, çalışan üniversite öğrencilerin eğitiminde karşılaştıkları problemleri incelemek amacıyla yapılmıştır. Araştırma medodu olarak nitel araştırma metodu kullanılmıştır. Araştırmanın çalışma grubu Kırgızistan- Türkiye Manas Üniversitesinde eğitim alan gönüllü 2'i erkek 8'i kız olmak üzere toplam 10 öğrenciden oluşmaktadır. Veri toplama aracı olarak araştırmacı tarafından hazırlanan 4 sorudan oluşan yarı yapılandırılmış görüşme formu kullanılmıştır. Görüşme formu hazırlanırken literatür taraması yapılmış uzman görüşleri alınarak sorular oluşturulmuştur. Yarı yapılandırılmış görüşme formundan elde edilen veriler içerik analizi tekniği ile analiz edilmiştir. Araştırmadan elde edilen bulgularına göre, katılımcılara sorulan çalışıyor olmanın ders başarılarını nasıl etkilediği hakkında sorudan elde edilen en yüksek frekanslı bulgu katılımcıların çalışmaya başladıktan sonra ders notlarının düşmeye başladığı ve eğitim hayatını olumsuz etkilediği sonucuna ulaşılmıştır. Çalışıyor olmanın kendisini ders dışı etkinliklerde alanı ile ilgili gelişmesini nasıl etkilediği ilgili soruya verilen en yüksek frekanslı cevap ise, ders dışı etkinliklere hiç bir şekilde katılamadığını, katılamadığı için kendisini geliştiremediği sonucuna ulaşılmıştır. Çalışıyor olmanın ders devamlarıyla ilgili ne tür sorunlara neden olduğu ile ilgili en yüksek frekanslı bulgu ise, çalıştığı yerin çalışma saatlerinin ders programına göre ayarlandığı için ders günleri izinli olması nedeni ile hiç sorun yaşanmadığı bulgusuna ulaşılmıştır.

Anahtar Kelimeler: Öğrenci, çalışan öğrenci, iş-okul.

ABSTRACT

This research was carried out to examine the problems faced by working university students in their education. Qualitative research method was used as the research method. The study group of the research consists of 10 volunteer students, 2 boys and 8 girls, studying at Manas University in Kyrgyzstan-Turkey. As a data collection tool, a semi-structured interview form consisting of 4 questions prepared by the researcher was used. While preparing the interview form, a literature review was made and questions were formed by taking expert opinions. The data obtained from the semi-structured interview form were analyzed with the content analysis technique. According to the findings obtained from the research, the highest frequency finding obtained from the question asked to the participants about how being working affects their success in the course was concluded that the course grades of the participants started to decrease after they started working and it negatively affected their educational life. The highest frequency answer to the question about how working affects his/her development in extracurricular activities related to his/her field, was concluded that he could not participate in extracurricular activities in any way, and could not improve himself because he could not participate. The highest frequency finding about what kind of problems being working causes about attendance is

that there is no problem because the working hours of the place where she works are arranged according to the course schedule and the course days are off.

Keywords: Student, working student, work-school

YABANCI ÖĞRENCİLERİN OKUL UZATMA NEDENLERİNİN İNCELENMESİ

EXAMINING THE REASONS FOR SCHOOL EXTENSION OF FOREIGN STUDENTS

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ÖZET

Bu araştırma, üniversitede öğrenim gören öğrencilerin üniversiteye devam ederken okul uzatmalarının nedenlerini incelemek amacıyla yapılmıştır. Araştırma metodu olarak nitel araştırma metodu kullanılmıştır. Araştırmanın çalışma grubunu üniversitede öğrenim gören 2'si erkek 4'ü kız olmak üzere toplam 6 öğrenci oluşturmaktadır. Veri toplama aracı olarak dört sorudan oluşan yarı yapılandırılmış görüşme formu kullanılmıştır. Görüşme formu hazırlanırken literatür taraması yapılarak sorular oluşturulmuş ve uzman görüşleri alınarak sorulara son şekli verilmiştir. Yarı yapılandırılmış görüşme formundan elde edilen veriler içerik analizi tekniği ile analiz edilmiştir. Araştırmadan elde edilen bulgulara göre katılımcılar, genel olarak üniversiteyi ya da bölümü tercih etme nedenleri ile ilgili elde edilen en yüksek frekanslı bulgu, yakın arkadaşların etkisiyle tercih edildiğidir. Katılımcıların okul uzatma nedenleri ile ilgili elde edilen en yüksek frekanslı bulgu, bölümün yabancı dil ağırlıklı eğitimi olması bulgusuna ulaşılmıştır. Bölüm uzatmaları kendileri üzerinde ne tür bir etki yarattı sorusu ile ilgili elde edilen en yüksek frekanslı bulgu, pişmanlık, hayal kırıklığı ve psikolojik olarak kendilerini kötü hissetme bulgusuna ulaşılmıştır. Katılımcıların okul uzatmalarının aileleri üzerindeki etkisi ile ilgili elde edilen en yüksek frekanslı bulgu, özellikle maddi anlamda sorun olması bulgusuna ulaşılmıştır.

Anahtar Kelimeler: Okul uzatma, devamsızlık, yurtdışı eğitimi, yabancı öğrenciler

ABSTRACT

This research was conducted in order to examine the reasons why students studying at the university have school extensions while attending the university. The qualitative research method was used as the research method. The study group of the study consists of a total of 6 students studying at the university, 2 of whom are boys and 4 are girls. A semi-structured interview form consisting of four questions was used as a data collection tool. During the preparation of the interview form, questions were created by conducting a literature review and expert opinions were taken and the final form of the questions was given. The data obtained from this semi-structured interview form were analyzed using the content analysis technique. According to the findings of the study, the highest frequency finding obtained by the participants regarding the reasons for choosing a university or department in general is that they were preferred by the influence of their close friends. The highest frequency finding obtained by the participants about the reasons for the school extension is that the foreign language education they have received in the department is insufficient. It was found that the highest frequency findings obtained regarding the question of what kind of effect the departmental extensions had on them were regret, disappointment and feeling psychologically bad. The highest frequency of findings obtained regarding the effect of school extension on the families of the participants was found to be a problem, especially in a material sense.

Keywords: School extension, absenteeism, study abroad, foreign students

NİTİNOL MALZEMELİ AKILLI DEDEKTÖR YELEK GELİŞTİRİLMESİ

DEVELOPMENT OF NITINOL MATERIAL SMART DETECTOR VEST

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ÖZET

İş güvenlik kurallarına uymak ve çalışma alanında iş güvenlik tedbirlerinin alınması kazadan korunmanın ilk ve tek şartıdır. Özellikle Elektrik dağıtım şebekelerinde çalışanlar; dikkatsizlik, kendine aşırı güven, ekipman hatası vb. sebeplerle ölümlü ve yaralanmalı iş kazaları yaşayabilmektedirler. Bu kapsamda elektrik enerjisinin varlığını personele 3 duyu organı ile uyararak "Nitinol Malzemeli Akıllı Dedektör Yelek" geliştirilmiştir. Geliştirilen iş güvenliği yeleği, Alçak Gerilim (AG) ve Orta Gerilim (OG) enerji nakil hatlarında çalışan işçilerin hatlara temas etmeden en az 4 metre önce uyarılması sağlayan, yelek üzerine monte edilen bir elektronik devre, bu devreye bağlı olan ve elektrik alan algılayan bir anten, elektrik enerjisi algılandığında elektronik devre üzerinden çalışanı ve ekip arkadaşını uyararak görsel uyarı amaçlı çalışacak olan reflektörler, yine elektrik enerjisi algılandığında sesli uyarı için kontrol kartı üzerinde yer alan buzzerlar ve yeleği giyenin omuz bölgesini sıkılaştıracak NiTi (Nitinol) hafızalı metal ile elektrik alan bölgesinde kademeli olarak personellerin uyarılmasıdır.

Bu çalışma sonucunda nitinol malzemenin AG ve OG elektrik alan bölgesine girildiğinde değişimleri incelenmiş elektrik alan bölgesinin en iyi şekilde algılanması için anten özellikleri geliştirilmiştir. Elektronik kontrol devresi bileşenleri optimum konumlandırılarak akredite laboratuvarlarda standartlara uygun testler yapılmıştır. Yapılan EMC testlerinden başarı ile geçen iş güvenliği yeleği saha ekiplerinin kullanımına açılmış ve 50 adet yelek Yeşilirmak Elektrik Dağıtım A.Ş. hizmet bölgesinde kullanılmaktadır. Kullanımda olan yeleklerin saha faaliyetleri sonucunda faydası incelenmiş ve bu çalışma ile anlatılacaktır.

Anahtar Kelimeler: İş Güvenliği, Nitinol, Elektrik Alan, Elektrik Dağıtım

ABSTRACT

The first and only conditions of avoiding from the accident is following the occupational safety rules and taking the occupational safety measures in the working area. Especially those who is working in electricity distribution networks may experience fatal and injury occupational accidents due to the various reasons such as carelessness, overconfidence, equipment failure, etc. In this context, the "Smart Detector Vest with Nitinol Material" has been developed-to warn the by existence of electrical energy with the help of 3 sensory organs. The developed occupational safety vest consists of an electronic circuit assembled on the vest, an antenna connected to this circuit and an electric field sensing that warns the workers working on Low Voltage (LV) and Medium Voltage (MV) power transmission lines at least 4 meters before they come into contact with the lines. When electrical energy is detected, reflectors working for visual warning purposes warn the employee and teammate from the electronic circuit when electrical energy is detected, there are buzzers on the control card for an audible warning when electrical

energy is detected. In addition to that, NiTi (Nitinol) memory metal will tighten the shoulder area of the vest. In the electric field area these precautions result with alerting staff gradually.

As a result of this study, the antenna properties of the nitinol material have been developed in order to create the best detection in the electric field region, the changes of which are examined while entering the LV and MV electric field regions. Electronic control circuit components were optimally positioned and tests were carried out in accredited laboratories in accordance with standards. The occupational safety vest, which passed the EMC tests successfully, was being released to the use of field teams and 50 vests were produced by Yeşilirmak Elektrik Dağıtım A.Ş. to be used in the service area. The benefits of the vests in use on the field activities have been examined and will be gone through the further examinations in this study.

Keywords: Occupational Safety, Nitinol, Electric Field, Electricity Distribution

KONYA ÇERKEZ MUTFAK KÜLTÜRÜ
KONYA CIRCASSIAN CULINARY CULTURE

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ÖZET

Çalışmanın amacı Konya’da yaşayan Çerkez azınlığın mutfak kültürünü araştırmaktır. Konya’da yaşayan Çerkezlerin mutfak kültürü, özel gün yemekleri, kullandıkları malzemeler tanıtılmaya çalışılmıştır. Mutfak kültürü, coğrafi koşullara, iklim şartlarına, gelenek göreneklere, dini unsurlara göre şekillenmektedir. Kafkasya’dan göç eden Çerkez halkının, mutfak kültürlerini korunmasının yanı sıra, zaman içinde yerel halkla kurulan etkileşimle birlikte Konya mutfağından da etkilendiği görülmüştür. Bu çalışmada nitel araştırma yöntemi ve derinlemesine görüşme tekniği kullanılmıştır. Çalışma sonucunda Çerkez mutfağında mısır unu, patates, sarımsak kullanımının oldukça fazla olduğu görülmüştür. Haluj, patates şıpsı gibi hamur işleri ve leps, şıpsı baste gibi et yemekleri tüketilmektedir. Katılımcıların çoğu Çerkez yemeklerini anne, annes ve babaannesinden öğrendiklerini belirtirken kendisinden sonraki nesle öğretmek Çerkez mutfak kültürünü devam ettirmeye çalışmaktadır.

Anahtar kelimeler: Çerkez, Çerkez Mutfağı, Çerkez Mutfak Kültürü

ABSTRACT

The aim of the study is to investigate the culinary culture of the Circassian minority living in Konya. The culinary culture, special day meals and materials used by Circassians living in Konya have been tried to be introduced. Circassians culinary culture has been shaped with the effect of geographical conditions, climatic conditions, traditions and religious elements. In addition to preserving their culinary culture, the Circassian people who migrated from the Caucasus have been influenced by Konya cuisine as a result of the interaction with the local people over time. In this study, qualitative research method and in-depth interview technique have been used. As a conclusion of the study, it has been observed that the use of corn flour, potatoes and garlic in Circassian cuisine is quite high. Pastries such as haluj, potato şıpsı and meat dishes such as leps and şıpsı baste are consumed. While most of the participants stated that they have learned Circassian food and culinary from their mothers and grandmothers, they try to maintain Circassian culinary culture by teaching it to the next generations.

Keywords: Circassian, Circassian cuisine, Circassian culinary culture

**İSTANBUL'DA FAALİYET GÖSTEREN ETNİK RESTORAN MENÜLERİNE YAPILAN
YORUMLARIN VE E-ŞİKÂyetLERİN ANALİZİ**

ANALYSIS OF COMMENTS AND E-COMPLAINTS ON ETHNIC RESTAURANT MENUS
OPERATING IN ISTANBUL

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ÖZET

Bu çalışmanın amacı İstanbul'da bulunan etnik restoran menülerine yapılan yorumların müşteriler tarafından ifade edilen sorunlu yanlarını tespit etmektir. Google Haritalar 'da bulunan 165 adet 3,6 yıldız ve üzeri oy almış etnik restoranların menüleri hakkında paylaşılan 1054 şikâyet, içerik analizine tabi tutulmuş ve öne çıkan şikâyetler betimsel olarak yorumlanmıştır. Ayrıca menü şikâyetlerine konu olan hizmetlerin ilk beşinin sırasıyla menüdeki ürünlerin pahalı olması, porsiyonların küçük olması, menüdeki fiyatlar ile müşteri beklentisinin karşılanmaması, menüdeki ürünün olmaması ve kısıtlı menü olduğu tespit edilmiştir. Bulgular doğrultusunda etnik restoranların menülerinin yetersiz kaldığı noktalar ve eksikliklerinin tespit edilmesi sonucunda kaliteyi artırmak konusunda yapılması gerekenler ortaya koyulmuştur.

Anahtar kelimeler: Etnik restoran, menü, e-şikâyet.

ABSTRACT

The aim of this study is to determine the problematic aspects of the comments on ethnic restaurant menus in Istanbul, expressed by customers. 1054 complaints shared on the menus of 165 ethnic restaurants with 3.6 stars and above on Google Maps were subjected to content analysis and the prominent complaints were interpreted descriptively. In addition, it has been determined that the first five of the services subject to the menu complaints are that the products on the menu are expensive, the portions are small, the prices on the menu do not meet the expectations of the customers, the products on the menu do not meet the expectations of the customers. items on the menu and limited menu. In line with the findings, it was determined that the menus of ethnic restaurants are insufficient and the points where there are deficiencies and what needs to be done to increase the quality are revealed.

Keywords: Ethnic restaurant, menu, e-complaint.

METABOLİK SENDROM OLUŞUMUNDA DIŞI VE ERKEKĞİN KARŞILAŞTIRILMASI
COMPARISON OF FEMALE AND MALE IN THE FORMATION OF METABOLIC SYNDROME**Ayşegül DURAK**

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ÖZET

Metabolik sendrom (MetS) gelişmiş ve gelişmekte olan ülkelerde hızlı artmaktadır. Toplumların daha fazla hareketsiz yaşama geçmesi ile birlikte ve alınan enerjinin harcanan enerjiye göre artması MetS görülme sıklığını arttırmaktadır. Toplumlar arasında farklılıklar olsa da MetS tanı kriterleri abdominal obezite, insülin direnci, aterosjenik dislipidemi ve hipertansiyondur. Metabolik sendromun önemi büyük ölçüde kardiyovasküler risk faktörlerinin kardiyovasküler hastalık riskini 2 kat ve tip 2 diabetes mellitus gelişme riskini 3 kat artırmasında yatmaktadır. Metabolik sendromun etiyolojisi, önlenmesi ve tedavisi şu anda yoğun araştırma faaliyetlerinin odak noktasıdır. Metabolik sendromun farklı bileşenlerinin katkıları cinsiyetler arasında ve farklı ülkelerde farklılık göstermektedir. Bazı araştırmacılar erkeklerde metabolik sendrom insidansının kadınlardan daha yüksek olduğunu bildirmektedir, diğer bazı raporlarda da tam tersi gösterilmektedir. Bizim bu çalışmada amacımız dişi ve erkek arasında MetS oluşum kriterlerini araştırmak ve histolijik olarak kalplerde MetS etkilerini incelemektir. Bunun için 2 aylık wistar türü sıçanlar alınarak bir gruba içme suyu ve serbest yem sağlanırken diğer grubun içme sularına %33 oranında sukroz karıştırılmıştır. 20 hafta sonunda kilo, kan şekeri, insülin direnci ve kuyruk kan basınçları ölçülmüştür. Ayrıca kalp dokusundan Masson Trikom (MT) kesitleri alınarak yağ ve kolojen doku birikimi ölçülmüştür.

Elde edilen sonuçlarda dişi sıçanlarda erkeklere göre kan şekeri artışının ve insülin direncinin fazla olduğu gösterilmiştir. Sistolik ve diyastolik basınç iki grupta da anlamlı olarak arttığı fakat dişi ve erkek arasında anlamlı fark olmadığı gösterilmiştir. Yine kilo artışında dişi sıçanların daha fazla kilo aldığı gösterilmiştir. Histolijik incelemelerde her iki grupta da anlamlı olarak bağ ve kolejen doku artışı gösterilmiştir. Elde edilen sonuçlara bakıldığında 20 haftanın sonunda her iki grupta da MetS oluştuğu ve kadınların daha eğilimli olabileceği ve histolijik incelemeler doğrultusunda biriken kolejen dokunun kalp elektriksel iletkenliğinde soruna yol açabileceği gösterilmiştir.

Anahtar kelime: Cinsiyet, insülin direnci, metabolik sendrom**ABSTRACT**

Metabolic Syndrome (MetS) is increasing rapidly in developed and developing countries. The more sedentary lifestyles of societies and the increase in energy intake relative to the energy spent increases the incidence of MetS. Although there are differences between societies, the diagnostic criteria for MetS are abdominal obesity, insulin resistance, atherogenic dyslipidemia and hypertension. The importance of metabolic syndrome lies largely in the fact that cardiovascular risk factors increase the risk of cardiovascular disease by 2 times and the risk of developing type 2 diabetes mellitus 3 times. The etiology, prevention and treatment of metabolic syndrome are currently the focus of intense research activities. The contributions of the different components of the metabolic syndrome differ by gender and country. Some researchers report a higher incidence of metabolic syndrome in men than in women, while some other reports show the opposite. Our aim in this study is to investigate the criteria for MetS formation between males and females and to examine the effects of MetS in hearts histologically. For this, 2-month-old wistar type rats were taken and drinking water and free feed were provided to one group, while 33% sucrose was mixed into the drinking water of the other group. At the end of 20 weeks, weight, blood glucose, insulin resistance and tail blood pressures were measured. In addition, Masson Trichoma (MT) sections were taken from the heart tissue and fat and collagen tissue accumulation was

measured. In the results obtained, it was shown that blood sugar increase and insulin resistance were higher in female rats compared to males. It was shown that systolic and diastolic pressure increased significantly in both groups, but there was no significant difference between males and females. It has also been shown that female rats gain more weight in weight gain. Histological examinations showed a significant increase in fat and collagen tissue in both groups. When the results obtained are examined, it has been shown that MetS occurred in both groups at the end of 20 weeks, and that women may be more prone, and that the accumulated collagen tissue may cause a problem in the electrical conductivity of the heart, according to histological examinations.

Keywords: Gender, insulin balance, metabolic syndrome

**NOVEL SYNERGISTIC COMBINATION TREATMENT FOR TRIPLE NEGATIVE
BREAST CANCER**

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ABSTRACT

Breast cancer is one of the most alarming health issues among women throughout the world. Nearly, 2.3 million new cases of breast cancer were identified in 2020, across the globe with approximately 685,000 lives lost. One out of every nine women in Pakistan is suffering from Breast cancer. Triple negative breast cancer (TNBC) is the most frequently occurring type that shows resistance against hormonal therapy and chemotherapy hence it is an aggressive type of breast cancer with poor prognosis, high mortality frequent recurrence. Approximately, 19% of the Pakistani population was diagnosed with TNBC with a majority of younger females. Mammograms at stages I, II, or III are performed to diagnose breast cancer, however due to inefficient diagnosis and absence of early biomarkers, breast cancer has a very high mortality rate. Surgical resection, chemotherapy and radiation therapy are the most common choices of treatment used against breast cancer. During recent years combination therapy is being investigated for better therapeutic effects. The purpose of our study was to investigate the role of Mevalonate (MVA) pathway intermediates in TNBC. MVA is a complex metabolic cascade which is essential for the production of cellular end products and growth of cell cycle. In the present study, we induced Bisphosphonate (MVA pathway inhibitor), in combination with Temozolomide (alkylating agent), to stimulate cytotoxic effect as therapeutic strategy for TNBC. Gene expression analysis was performed in both treated (single agent and drugs combination) and untreated breast cancer cells to identify the changes in pro apoptotic, apoptotic and MVA pathway enzymes. Moreover, proteomic analysis was performed to identify the differential expression of proteins after incubation of combination therapy in TNBC cells. Our study may provide an insight to understand the role of novel drugs combination as effective anticancer regimen which could be beneficial for TNBC treatment.

Keywords: Triple Negative Breast Cancer, Bisphosphonate, Combination Therapy, Anti-tumor Effect.

A TREND OF NON-TRADITIONAL MARRIAGES IN PAKISTAN (AN ANALYSIS FROM ISLAMIC PERSPECTIVE)

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ABSTRACT

Islam insists on genuine interaction between a man and a woman, referred to as Nikah. Islam empowers both men and women to begin their practical lives (marriage) by choosing a spouse of their choosing, as long as they follow the religion's guidelines. However, research suggests that in Pakistan, activities that disregard Islamic guidelines and impose self-made conventions are on the rise. Forced marriages, exchanged matrimonials, cousin weddings, and give-and-take Suwarah or Vani were all utilized by parents to impose their will on their offspring. On the other hand, young people are attracted to court marriages, love marriages, eloped marriages, and other sorts of marriage. In this article, the causes and reasons for such marriages will be discussed and analyzed in light of Islamic teachings to identify and categorize them as proper or wrong.

Keywords: Unconventional matrimonials, Pakistan, Islamic Teachings, Young generation

**THE SHRINE OF KAKA SAHIB AND ITS ROLE IN DEVELOPING PEACE & HARMONY
(AN ANALYSIS OF THE OPINIONS OF THE STUDENTS OF SHAHEED BENAZIR
BHUTTO WOMEN UNIVERSITY, PESHAWAR)**

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ABSTRACT

Hadrat Syed Kastir Gul, a great mystic (Sufi) master of his time, was a great mystic (Sufi) master of his day. He was born in the first Ramadan of the Islamic calendar year (A.H) 983 and died in the twenty-fourth Rajab of the Islamic calendar year (A.H)1063 in Ziarat Kaka Sahib, Noshehra, Khyber Pakhtunkhwa. He was a Hussaini Syed, descended from Ali bin Ismail bin Imam Jafar Al-Sadiq and a well-known Arab "Bani Hashim" dynasty. He was also known as Sheikh Rahamkar and Kaka Sahib. Kaka Sahib was a man of high moral integrity. He gave compassion and charity to everyone, regardless of caste, ethnicity, or religion. He was known for his gentleness, humility, and soft-spokenness. Throughout his life, he promoted Islamic teachings. Many people become Muslims as a result of his teachings. Every day, thousands of visitors and pilgrims flock to the shrine in search of spiritual fulfilment. This is an indication of Hadrat Kaka Sahib's spiritual attraction, as his devotees gather to his shrine to read the Holy Quran and pray for the rest of his soul. They left with contented hearts and a sense of accomplishment. The purpose of this paper was to show how the great mystic (Sufi) tried to bring peace and harmony into the world. The role of the mystic shrine in promoting affection, respect, and religious patience among individuals of all religions has been explained. In addition, the opinions of students at Shaheed Benazir Bhutto Women University in Peshawar have been incorporated in this study on the Sufi and whether or not he plays a significant role in spreading Islamic teachings in society. And did he play a significant part in the development of societal harmony and peace? In this research work, we used qualitative, quantitative, and field research methods, and we distributed 145 questionnaires to students. The students were divided into three groups: M.Phil, Masters, and BS students. In this work, tables of frequency were used to present students' perspectives. The majority of students agreed that a mystic (Sufi) may play a vital role in bringing peace and harmony to society through Islamic teachings, much as Kaka sahib served throughout his life for humanity. Many people visit his shrine to pray to rest his soul and recite the Holy Quran to put Kaka Sahib's spirit to rest. This work will be significant research because of its specialized subject and research background, and it can assist many researchers and readers.

Keywords: Hadrat Syed Kastir Gul, Mystic (*Sufi*), Shrine, Harmony, Peace

**ROLE OF CHELATE IN THE REDOX KINETICS OF DICYANOBIS(DIIMINE)IRON(III)
IN THE AQUEOUS MEDIUM**

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ABSTRACT

The octahedral geometry of dicyanobis(diimine)iron(III) nitrate was altered using 2,2'-bipyridine and 1,10-phenanthroline as ligands. The binding site was preserved, but the chelate's structure was changed. Hexacyanoferrate(II) reduced the outer-sphere and substitution inert mixed ligand coordination compounds in aqueous medium. At 60 mM ionic strength, complex kinetics lead the redox process in either bpy or phen systems. To summarize the results, the data i.e., absorbance as a function of time were processed using the integration approach. The redox reactions followed similar kinetics and orders with different rates under pseudo-first order condition and completed into three phases, starting with zero order to some fraction, then overall second order, and later competed with the rate of precipitation of the neutral mixed ligand product, dicyanobis(diimine)iron(II). The observed rate constant accelerated, decelerated and catalyzed by increasing the concentration of the reductant in the second phase of the reactions. An inhibitory effect of ionic strength, protons, and decreasing dielectric constant of the medium showed protonation of hexacyanoferrate(II) and its leading role in the mechanism.

Keywords: Dicyanobis(diimine)iron(III), hexacyanoferrate(II), redox mechanism, kinetics, aqueous medium

**TBA CATALYSIS IN THE ELECTRON TRANSFER KINETICS OF FERRICPYR-IODIDE
AND FERRICYPHEN-IODIDE IN AQUEOUS MEDIUM**

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ABSTRACT

In solar cells such as perovskite solar cells and dye-sensitized solar cells, iodide oxidation is widely used. The impact of a range of factors on reaction time is obvious. Reaction media, electrolyte, and the type of solvents and electrolyte are some examples of such factors. If such characteristics are adjusted, the reaction rate can be regulated and used in ways that maximize its value, such as cost-effective and environmentally friendly operations. The kinetics of ferricpyr-iodide and ferricyphen-iodide redox reactions were studied in 90% aqueous-tertiary butyl alcohol (TBA). Ferricpyr and ferricyphen rapidly oxidized iodide in aqueous-TBA without the use of an external trigger. The process was studied spectrophotometrically under pseudo-first order conditions with excess iodide over oxidants at 20 degree celcius and 0.06 M ionic strength. In ferricpyr and iodide, the reaction was discovered to be zero and first order, respectively, which was catalysed to third order in iodide when the ferricyphen was oxidant in aqueous-TBA. The rate of reaction was further refined by analyzing primary salt effect on the rate constant and the effect of acidity to propose rate law.

Keywords: TBA, kinetics, iodide, ferricpyr, ferricyphen.

**RESEARCH ON THE FINANCIAL EFFICIENCY OF THE CULTIVATED MAIZE ON
PADDY RICE FARMING LAND IN SOC TRANG PROVINCE, VIETNAM**

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ABSTRACT

The research was conducted to analyze the current farming situation and financial efficiency of grown maize on paddy rice farming land in the Vietnamese Mekong delta in the case study in Chau Thanh district, Soc Trang province. The study data were collected from 45 households growing maize on rice land by convenient sampling collection method. The methods were used, including descriptive statistics, cost-benefit, and correlation regression analysis. Research results showed that the model farming of cultivated maize on rice land brought high production efficiency. The average corn yield per hectare/crop was an average of 21,273 corn fruits/ha. While the total cost of corn cultivation per hectare/crop was an average of 24,749,000 VND/ha, the profit without family labor was an average of 36,370,000 VND/ha/growing season. The profit included family labor households ranging from - 3,470,000 to 83,027,000 VND/ha/growing season. The corn productivity model depended on many factors in which hired labor and agrochemicals dose were positively correlated. The profit model depended on seed, hired labor, agrochemicals dose, and family labor costs. Besides these advantages, corn production in the district also faces many difficulties, including the price of inputs and output, the consumption of the market, and low technology production of the household scale.

Keywords: Cultivated maize on rice land, financial efficiency, Soc Trang province, Vietnam

MICROBES REGULATE THE BIOLUMINESCENCE OF SOME MARINE FISHES

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ABSTRACT

Bioluminescence is an inner glow that is due to cold light produced by that organism due to a chemical reaction occurring within a living being. In all known bioluminescent organisms the chemical reaction is based on a specific molecule called luciferin. This research presentation encompasses review of bioluminescence exhibited by Firefly, Fungi, Crustaceans, Dinoflagellates, Deep-sea blooms, Plants and study of bioluminescence in Bacteria and Fish,. The Biochemistry and Molecular Genetics of Generating Bioluminescence by Photoproteins, Luciferase and biochemical mechanism of Luciferase has led to the belief that in future there may be many environmental applications, feasibility of biolighting, bioluminescent immobilized systems and biosensors etc.

For study of bioluminescence exhibited by some marine fish; microorganisms were isolated and cultured from two marine fishes (*Stolephorus indicus* and *Nemipterus japonicus*). Identification and assessment of impact of five different culture media on the growth and light emission properties were studied. Isolates from both the fishes were analysed for their biochemical characteristics. Biochemical analysis of both the bacterial isolates exhibited difference in sugar (Mannitol and Lactose), LDC, Indole and Urea content; suggesting that the two isolated colonies are of different bioluminescent bacteria. Repeated subculture (to obtain pure colonies) of both the isolates resulted in gradual reduction in the intensity of luminescence of the bacteria and eventually loss of luminescence property occurred. However, luminescence was revived when they were grown in aerated condition. The bioluminescence study, their cultural characteristics growth pattern provides information regarding the effect of repeated subcultures on bioluminescence, revival of luminescence depending on the aeration conditions or oxygen level and various salts that affect the luminescence intensity of bacteria.

The appearance of bioluminescence also depends on the habitat and the organism in which it is found. The habitats mainly on which the bioluminescent organisms thrive can be categorised into fresh water and marine water. The difference between the two habitats mainly lies in the difference in the concentrations of the dissolved salts and dissolved solids. During this study it was attempted to understand the bioluminescent organisms present in fresh water and marine water and their evolution in different habitats; by collecting and analysing water samples from different habitats. Moreover, interest and dabbling of synthetic biologist with bioluminescence is also directing it to be a part of many emerging technologies and applications.

Keywords: Bioluminescence, luciferase, luciferin, biosensors, biolighting.

**A STUDY ON THE AWARENESS OF MUTUAL FUND INVESTMENT: A CASE STUDY OF
TELANGANA**

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ABSTRACT

A Mutual Fund is a SEBI (Securities Exchange Board of India) licensed AMC (Asset Management Company), which attracts funds from both institutional and retail investors to park their pooled money in various asset classes such as equity, bonds, commodities and short-term debt. Investing in mutual funds is one of the most cost-effective and simple ways to build wealth for investors. Since its inception in 1963, the mutual fund business has seen numerous changes and stages. Now, the industry has matured and established itself as a favored financial investment vehicle. However, India's participation and penetration rates remain lower than those of developed countries. The success of a mutual fund is greatly dependent on the investor's awareness, acceptability and confidence. As the awareness among investors differs greatly due to many reasons it is critical to examine investors' perceptions of mutual funds in light of recent events such as the new tax structure, technological advancement, and mobile penetration. Thus, the purpose of this study is to ascertain investors' understanding of mutual fund investment and its operation, with a particular emphasis on some selected locations of Telangana state. Chi-square test is used to test the association between various factors. The study has identified that the awareness among participants is less than 50% and there is a substantial relation between the earning level of participants and the awareness regarding MF investment.

INTERVERTEBRAL DISC DEGENERATION: AN ELECTROMYOGRAPHIC ANALYSIS OF THE MASSETER AND TEMPORALIS MUSCLES DURING MANDIBULAR TASKS

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ABSTRACT

The aim of this study was to analyze the electromyographic activity of the masseter and temporalis muscles during the mandibular tasks of individuals with degeneration of the intervertebral discs. This study was approved by the Ethics Committee of the Faculty of Dentistry of Ribeirão Preto, University of São Paulo, Brazil (process # 29014620.1.0000.5419) with financial support from FAPESP and the National Institute and Technology - Translational Medicine (INCT.TM). Thirty-two individuals were divided into two groups: with degeneration of the intervertebral discs (n=16) and without degeneration, considered control (n=16). The electromyographic signals of the masticatory muscles during rest, right and left laterality, protrusion and dental clenching in maximum voluntary contraction were recorded using a wireless system (Trigno, Delsys Inc., Boston, MA, USA). The 95% significance level was used (Student's t test, $p < .05$). There was a significant difference between the groups for the right masseter ($p = .05$), left masseter ($p = .05$) and right temporal ($p = .02$) muscles at rest, with lower normalized electromyographic activity for the group with disease. degeneration of the intervertebral discs. The authors suggest that adult individuals with degenerative diseases of the intervertebral discs present alterations in the normalized electromyographic activity of the masticatory muscles.

Keywords: Degenerative disease, intervertebral disc, EMG, masseter muscle, temporal muscle.

IMPACT OF INTERVERTEBRAL DISC DEGENERATION ON MAXIMAL MOLAR BITE FORCE AND MASSETER AND TEMPORALIS MUSCLES THICKNESS

Nicole Barbosa Bettiol, Simone Cecilio Hallak Regalo, Flávia Argentato Cecilio, Ligia Maria Napolitano Gonçalves, Paulo Batista de Vasconcelos, Claire Genoveze Gauch Lopes, Lilian Mendes Andrade, Isabela Hallak Regalo, Selma Siéssere, Marcelo Palinkas

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ABSTRACT

Degenerative disease of the intervertebral discs is a pathological condition associated with the intervertebral disc that is related to functional changes in the human body systems. The aim of this study was to analyze the maximum molar bite force and masseter and temporalis muscles thickness of individuals with degeneration of the intervertebral discs. This study was approved by the Ethics Committee of the Faculty of Dentistry of Ribeirão Preto, University of São Paulo, Brazil (process # 29014620.1.0000.5419) with financial support from FAPESP and the National Institute and Technology - Translational Medicine (INCT.TM). Thirty-two individuals were divided into two groups: with degeneration of the intervertebral discs (n=16) and without degeneration, considered control (n=16). The maximum molar bite force (right and left sides) was measured using a digital dynamometer. Masseter and temporalis muscles thickness during mandibular rest and clenching tasks in maximum voluntary contraction were analyzed using portable ultrasound equipment. A significant difference was observed in the left molar bite force ($p=.04$) between the groups (Student's t test, $p<.05$). The group with degeneration of the intervertebral discs had lower maximum molar bite force. In muscle thickness, no significant differences were observed in the masseter and temporal muscles in both mandibular tasks between the groups. However, according to clinical observation, the group with degeneration of the intervertebral discs had less thickness for the masseter muscles and greater thickness for the temporalis muscles in both mandibular tasks. The degenerative disease of the intervertebral discs promoted morphofunctional changes in the stomatognathic system when the maximum molar bite force and masseter and temporalis muscles thickness were observed.

Keywords: Degenerative disease, intervertebral disc, ultrasound, bite force, masseter muscle, temporal muscle.

APPLICATION OF THE SINGLE IMAGE-NORMALIZED DIFFERENCE VEGETATION INDEX (SI-NDVI) FOR THE MONITORING OF *Quercus cerris* L. SEEDLINGS IN ITALY

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ABSTRACT

The Normalized difference vegetation index is the best known among the qualitative index to evaluate the state of health of the natural and semi-natural vegetation. Since the early 70s, the application of this modification by the National Aeronautics and Space Administration Earth Observatory to monitor global vegetation health, has become a standard analysis to monitor wide areas using remote-sensing multispectral images. The common used equation is:

$NDVI = (NIR - Red) / (NIR + Red)$ (Yengoh et al. 2014).

This equation requires two overlapping photos to be processed by the software. The SI-NDVI is an alternative equation that requires a single photo to be calculated:

$SI-NDVI = (NIR - BLUE) / (NIR + BLUE)$ (Beisel et al. 2018)

This technology has been rarely used for investigations on individual plants and seedlings. In this work has been used *in-situ* for the evaluation of the NDVI of the seedlings in three deciduous *Quercus cerris* L. woods (in Italy) trying to develop a protocol for its detection. The NDVI images were taken with a modified Mobius action-cam HD, to which was removed the IR filter and applied a blue filter. The images were analysed with a plug-in named Photo-monitoring installed on an ImageJ-Fiji software (Rasband 1997-2018). The results show that the seedlings of the three areas examined have diverse NDVI values due to the ecological characteristics of the three woods. Thanks to this NDVI application qualitative and quantitative seedlings values, useful for policies for the renewal of the forest, were obtained. This application also introduces a new line of research which can provide data on individual target species for biodiversity conservation.

Key words: Biodiversity, photo-monitoring, vegetation index, in-situ conservation.

BIOLOGICAL STUDY OF THE METHANOLIC EXTRACT FROM THE ALGERIAN SPECIES *NONEA VESICARIA*

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ABSTRACT

The supplementation of the body by exogenous bioactive compounds is one of the new therapeutic strategies to prevent the appearance of cancers, oxidative, infectious and neurodegenerative diseases. In this context, many researchers are interested in medicinal plants as an alternative and important source of natural compounds. The aim of the present study is the evaluation of cytotoxic, hemolytic and antioxidant activities of the methanolic extract obtained from the species *Nonea vesicaria* (L.) Rchb. The total phenolic and flavonoid contents were quantified by Folin-Ciocalteu and trichloroaluminum methods respectively. The cytotoxic effect was tested by Brine shrimp lethality assay and the hemolytic activity was assessed by spectrophotometric test on human erythrocytes. Moreover, the antioxidant activity was determined by four different technics. The phytochemical screening revealed the presence of many classes of secondary metabolites, a moderate level of polyphenols and a low content of flavonoids was quantified in the crude extract. The methanolic extract showed a significant cytotoxic effect with a value of LC50 at 35.7 ± 0.5 µg/mL and induced hemolysis in a dose-dependent manner with a value of EC50 at 175.6 ± 0.08 µg/mL. The results of antioxidant activities indicated an important effect in nonpolar systems especially in ferric thiocyanate test and β-carotene bleaching inhibition assay. The methanolic extract of *N. vesicaria* could constitute an important source of antioxidant and cytotoxic compounds but a prudent use is recommended in order to reduce the adverse effects related to the possible hemolysis.

Keywords: *Nonea vesicaria*, Cytotoxic, Antioxidant, Hemolytic activity.

MYCOTOXINS OF *PENICILLIUM AURANTIOWRISEUM* AS A PROMISING SOURCE FOR ANTI-CANCER THERAPY

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ABSTRACT

Cancer considered one of the most deadly diseases in the world. The identification of anti-cancer compounds, specific to cancerous lines and presented low side effect, is a promising area of investigation. The urgent need for new substances for cancer therapy promotes intensive exploration of natural substances originating from microorganisms. *Penicillium aurantiowriseum* is a *Penicillium* species frequently isolated from food and feed. This species could be used as a mean of a biological fighter against bacteria and fungi harmful to plants and agricultural products. Mycotoxins of *P. aurantiowriseum* are of great importance given their largely variable effects between harmful and beneficial to human and animal health. *P. aurantiowriseum* contains a large number of mycotoxins that can be used, in the future, for cancer treatments and are of great potential in clinical research. An important part of these mycotoxins has proved their effect on tumour cells and has been the subject of pharmaco-clinical studies. Some of these mycotoxins have already been on the market while others have not received much attention. The use of mycotoxins by humans has several advantages for the treatment and prevention of cancer since the production of these metabolites is safe and easy with relatively small amounts are recommended for treatment. The contribution of mycotoxins is not limited to the direct application of these molecules but also extends to their derivatives such as semi-synthetic analogues. Mycotoxin's derivatives have occupied an important place in modern medical chemistry and have found applications as drugs.

The use of *P. aurantiowriseum* has not gained sufficient attention in the pharmaceutical field and the identification of its mycotoxins with anticancer effect could lead to new therapeutic targets. This review will present an overview of the use of *P. aurantiowriseum* mycotoxins in cancer studies, as well as the advantages and limitations for the application of mycotoxins as a treatment tool will be presented.

Keywords: *P. aurantiowriseum* ; mycotoxins ; natural substances ; anti-tumour effect.

ON THE SOME NEW CLASSES OF RIESZ I –CONVERGENT FUZZY SEQUENCE SPACES

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ABSTRACT

This research paper is devoted to define some new classes of I –convergent sequences of fuzzy numbers. That is we define I –convergent, I –null, I –bounded and bounded sequence of fuzzy real numbers as domain of triangle Riesz matrix, denoted by $c^{IF}(\mathcal{R}_n^b)$, $c_0^{IF}(\mathcal{R}_n^b)$, $l_\infty^{IF}(\mathcal{R}_n^b)$ and $l_\infty^F(\mathcal{R}_n^b)$ respectively. Also we discovered some important topological and algebraic properties for those spaces. Further we shall examine some inclusion relations regarding those fore-said sequence spaces.

Keywords: Riesz matrix operator, Riesz I –convergence, Riesz I –Cauchy, Riesz I –bounded, Riesz transform.

THE CALCULATION OF THE SIF THAT GOVERNS THE FRACTURE PHENOMENON IN FGM MATERIALS THROUGH THE METHOD OF THE INTERACTION INTEGRAL M IN A THIN PLATE CONTAINING A CENTRAL CRACK

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ABSTRACT

The aim of this work is to present a numerical study of the breaking behavior of functional gradient materials under steady-state thermal loading. The variation of the stress intensity factors (SIF) is based on the use of the displacement extrapolation method (DET) and the displacement correlation method (DCT), implemented in the Ansys finite element code. Numerical calculations were performed on a metal ceramic FGM thin plate containing an inclined central crack. In this work, the effect of thermal conductivity and the effect of thermal expansion coefficient were analyzed.

Keywords: FGM materials, stress intensity factors, mixed mode, displacement extrapolation method.

**THE HOLISTIC DEVELOPMENT IN MANAGEMENT EDUCATION: CASE STUDY OF
BUSINESS SCHOOL**

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ABSTRACT

Due to changing global scenario, current corporate employers want to recruit individual talents who are adept at collaboration, communication, critical thinking and creativity, which are some of the skills developed through social and emotional learning in the 21st Century. Coupled holistically with mastery of hard skills, social and emotional proficiency, so-called “soft skills,” will equip students to succeed in the rapidly evolving digital and creative economy. The holistic development of each individual student is only possible through balanced development of **hard skills** and **soft skills** in the academic and non-academic educational settings in the society. To such an extent, Bangkok University has developed a holistic development approach called “**creative convergence education**” which aims to foster collaborative learning between faculty, student affairs professionals, current students, alumni and related stakeholders from multi-disciplines to co-create innovative solutions for the real-world challenges.

This paper uses “**IQAC Calendar**,” a co-curricular activity, as a case study to examine how the program was designed, developed, and implemented to facilitate creative convergence education. Based on reactions of academic instructors, student affairs professionals, students, alumni and other related stakeholders who participate in this program, it is found that **IQAC Calendar** had positive impacts on supporting creative convergence education and developing a social and intellectual environment of high academic expectations of students through co-curricular activity in which student affairs and academic affairs were thoroughly interwoven.

Keywords: Holistic Development, Creative Convergence, Business School Education, Students Activities, *IQAC Calendar*.

IN-SILICO ANALYSIS UNCOVER ANTIBACTERIAL PROPERTIES OF *ALLIUM SATIVUM* AGAINST *AEROMONAS HYDROPHILA*

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ABSTRACT

The establishment of antimicrobial resistance in fish farming as a result of the widespread use of antibiotics in the last three decades has resulted in the persistence of multidrug-resistant bacteria. *Aeromonas hydrophila* is a Gram-negative bacterium that causes bacterial septicemia in fish. We recognized DNA gyrase as the target protein in *A. hydrophila*, a tetrameric enzyme required for DNA replication that catalyzes the ATP-dependent negative super-coiling of dsDNA and one of the most promising intracellular drug targets. For generating a 3-D model using homology modeling, we used the DNA gyrase sequence from UniProtKB. The Ramachandran plot was used to validate the 3-D model, and it was discovered that 94.88 percent of amino acids were present in favorable regions. Quercetin, a product of *Allium sativum*, was discovered to be a more potent therapeutic molecule than other investigated molecules by molecular docking using the DNA gyrase 3D structure, based on ligand binding energy, binding affinity, and significant weighting of the force field components (electrostatic and van-der Waals energies) as docking score -7.812, glide score -7.844, glide emodel -66.175. This study makes it easier to find prospective therapeutic targets by allowing researchers to look for the phytochemical composition and pharmacological activity of quercetin, a key active ingredient in *A. sativum*. This research also lays the groundwork for medication development against other harmful bacteria that pose a threat to the ecosystem. Since their crucial relevance was recognized ages ago, switching to herbal medications is the best method to tackle a variety of problems.

Keywords: *Aeromonas hydrophila*, Bacterial Septicemia, Quercetin, *Allium sativum*, Molecular Docking.

SIMULATION OF 2D AND 3D INCOMPRESSIBLE FLOWS IN A U-SHAPED CAVITY

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ABSTRACT

The *U*-shaped cavity is a fluid mechanical problem serving as an benchmark for testing numerical methods and studying fundamental aspects of incompressible flows in confined domains, driven by the tangential motion of a bounding wall. The *U*-shaped incompressible cavity encompasses the fluid flow problem wherein there are two moving walls and three stationary walls in the cavity. The method used to derive the simulations in this paper is using finite volume based solver namely ANSYS-FLUENT. This solver is chosen since Computational fluid dynamics (CFD) allows good control over the physical process, along with providing the ability to isolate specific phenomena for study. To observe the fluid flow characteristics, the different values of Reynolds numbers are studied, subsequently changing the values of velocity in the boundary conditions, thereby obtaining relevant results. There are three cases considered in the present work. The first is considering the walls moving in the same direction (positive *x*-direction); next one is walls moving in opposite directions (being the walls inwards), and in the latter case, the walls are moving outwards. The grid independence study is conducted for the *U*-shaped cavity flow at low Reynolds number. A very fine quality mesh is generated for the present work. The pictorial representations of the streamline patterns, pressure and velocity contours have been focused on different values of Reynolds number, and subtle differences are observed in the results. The finite volume based solver is predicted for the simulation that spans the entire range of flow physics, providing access to virtually any field of engineering simulation that a design and simulation process requires. The streamline patterns and velocity contours show that the *U*-shaped cavity exhibits remarkable circulation zones and structure in contrast to the conventional square lid-driven cavity. It can be concluded that the *U*-shaped cavity is a paramount problem that enhances one's understanding of the nature of fluid flow characteristics.

Keywords: Computational Fluid Dynamics, incompressible flow, *U*-shaped cavity, ANSYS-FLUENT, Reynolds number.

**COMPUTATIONAL STUDY OF FLUID CHARACTERISTICS OF BOUNDED DOMAINS
USING LATTICE BOLTZMANN METHOD**

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ABSTRACT

The numerical simulation of fluid flow has become an important research field in the area of fluid mechanics. When simulating transport equations of mass, momentum and heat, there are usually two conventional approaches taken, which are continuum and discrete. Continuum approach incorporates traditional CFD methods and Navier Stokes equations to convert nonlinear partial differential equations into a class of nonlinear algebraic equations. These algebraic equations are then discretized and solved iteratively until convergence is achieved. The scale considered in this approach is macroscopic as each node, element or volume contains a body of particles and is hence referred to as the macroscopic approach to CFD. Hence, with the macroscopic approach where behaviour of each particle is not considered and the microscopic approach, where there exist drawbacks with regard to simulation of a large size of particles, Lattice Boltzmann Method plays the role of the middleman, bridging the gap between the two by considering the behaviour of a collection of particles as a unit. This collection of particles is represented by a distribution function. The Lattice Boltzmann Method is hence the mesoscopic approach to solving CFD simulations. In the Lattice Boltzmann method, the solution domain is split into several lattices, where at each of the lattice nodes, a distribution function resides. The particles stream along certain directions towards their respective neighbouring nodes. Depending on the dimension there are different lattice model for the collision and streaming direction. A bounded domain essentially consists of a simple square of rectangular domain is considered in the present work. In the present study, the two-dimensional nine lattice (D2Q9) model is used to study the bounded domain. The problem considered here is the two dimensional incompressible steady-state flow in a bounded domain. This type of fluid flow also finds its application in industrial purposes such as coating, mixing, and drying. The fluid flow characteristics are presented in terms of streamline patterns, velocity profiles and vorticity contours.

Keywords: Bounded Domain, Lattice Boltzmann Method, D2Q9 model, Single-Relaxation-time.

TEACHING POETRY THROUGH MUSIC AND PAINTING

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My personal academic teaching experience and also a recently conducted research have shown that despite certain aspects of poetry (such as the fact that most poems are short texts or that many of them operate with imagery that addresses the senses and thus the experience is immediate) that would predestine it to be a favoured genre today, students tend to prefer fiction to verses, given that poetry – in most cases – does not yield easily to a superficial and passive reading. In this presentation I wish to share my experiences of teaching poetry at BA level using a different approach than the traditional close reading of texts: by involving music and painting. In the course of three workshops that I have organized with literature and music students I have come to the conclusion that by involving different arts (specifically music and painting) students become more aware of the different layers of meaning that poems carry and they find it easier to decode these layers if they are assisted by tools other than the traditional ones of versification and figurative language.

**STUDY OF STRUCTURAL, OPTICAL AND PHOTOCATALYTIC PROPERTIES OF (1-x)
NaNbO₃-xBiFeO₃ HETEROSTRUCTURE NANOMATERIAL**

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ABSTRACT

We have reported the effect of BiFeO₃ replacement on structural, magnetic, optical and photocatalytic properties of hydrothermal method synthesized (1-x) NaNbO₃-xBiFeO₃ for x=0; 0.05; 0.1; 0.2 and 0.4 nanocomposites. The X-ray diffraction data and FESEM and TEM techniques identified the pure phase and polycrystalline heterostructure of NNO-BFO samples. The increasing the amount of BFO in composite from x=0 to 0.4 change the structural distortion from orthorhombic to rhombohedral studied using Raman and FTIR spectroscopy technique, which seeming from XRD data. The energy band gap of NNO-BFO nanocrystals is reduced by increasing the BFO from 3.2-2.2 eV. The photocatalytic effect on Rhodamine blue (RhB) dye under UV-visible light, (1-x) NaNbO₃-xBiFeO₃ for x= 0.4 showed 90% RhB degradation in the irradiation time of 135 min. The advanced magnetic, optical and photocatalytic properties of synthesized NNO-BFO samples revealed with compared to pristine NaNbO₃.

**UZAKTAN EĞİTİM HİZMET KALİTESİ ÜZERİNDE BİLİŞİM ALTYAPISI KAYNAKLI
SORUNLARIN ETKİSİ**

THE EFFECTS OF INFORMATION TECHNOLOGY INFRASTRUCTURE ON DISTANCE
EDUCATION SERVICE QUALITY

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ÖZET

Uzaktan eğitim, uzaktan öğrenme, e-eğitim gibi kavramlar Covid19 süreci ile birlikte hayatımızda daha çok yer almaya başlamıştır. Diğer taraftan kısıtlama süresince bazı öğrencilerin uzaktan eğitim için gerekli tablet, bilgisayar gibi donanımlara sahip olmaması ve internet altyapısından dolayı sıkıntılar yaşanması da bilinen bir gerçek olarak karşımızda durmaktadır. Dolayısıyla, uzaktan eğitimden arzu edilen çıktının gerçekleşmesinde hizmet sağlayıcının vermiş olduğu hizmet kalitesi kadar eğitim süresince katılımcıların donanım, yazılım ve internet erişimi kaynaklı sorunlar yaşamamaları da büyük önem arz etmektedir. İşte bu çalışmada uzaktan eğitim süresince ortaya çıkan bilişim teknolojileri kaynaklı sorunlar ile uzaktan eğitim hizmet kalitesi boyutları uzaktan öğrenme yönetim sistemi kalitesi, etkileşim kalitesi, çıktı kalitesi arasındaki ilişkilerin araştırılması amaçlanmaktadır. Bu amaçla 2021-2022 Güz eğitim öğretim döneminde lisans düzeyinde eğitim alan Sakarya Üniversitesi öğrencileri üzerinde bir anket çalışması yapılmıştır. Toplanan veriler, Kısmi En Küçük Kareler-Yapısal Eşitlik Modeli (KEKK-YEM) yöntemiyle analiz edilmiştir. Bulgular bilişim teknolojileri kaynaklı sorunlar ile uzaktan öğrenme yönetim sistemi kalitesi, etkileşim kalitesi, çıktı kalitesi arasında istatistiksel olarak anlamlı ilişkiler olduğunu göstermektedir. Ayrıca etkileşim kalitesi ve çıktı kalitesi üzerinde uzaktan öğrenme yönetim sistemi kalitesinin doğrudan pozitif etkisi olduğu bulunmuştur. Son olarak etkileşim kalitesine bağlı olarak uzaktan eğitimin çıktı kalitesinin de artacağı sonucuna varılmıştır. Sonuç itibarıyla uzaktan eğitim sürecinde bilişim teknolojileri kaynaklı ne kadar az sorun yaşanırsa öğrencilerin uzaktan eğitim hizmet kalitesi algılarının daha yüksek olacağı bulgusuna ulaşılmıştır.

Anahtar Kelimeler: Uzaktan eğitim, bilişim teknolojileri, e-hizmet kalitesi, etkileşim kalitesi, çıktı kalitesi, uzaktan öğrenim yönetim sistem kalitesi

ABSTRACT

Concepts such as distance education, distance learning, e-learning have started to take more place in our lives during the COVID-19 pandemic. On the other hand, it is a well-known fact that some students have experienced some difficulties during the restriction due to lack of necessary equipment such as tablets or computers and inadequate internet infrastructure. Therefore, it is of great importance that the participants do not experience hardware, software, or internet access-related problems as much as the service quality provided by the service provider in realizing the desired output from distance education. This study aims to investigate the relationships between the information technology-related problems

that occur during distance education and distance learning management system quality, interaction quality, and output quality, which are distance education service quality dimensions. In this research, a survey study was conducted on Sakarya University students who received undergraduate education in the 2021-2022 Fall semester. The collected data were analyzed with the Partial Least Squares-Structural Equation Model (PLS-SEM) method. The results show statistically significant relationships between information technology-related problems and distance learning management system quality, interaction quality, and output quality. In addition, a direct positive effect of distance learning management system quality on interaction quality and output quality was found. Finally, it has been concluded that the output quality of distance education will increase depending on the interaction quality. As a result, the fewer problems caused by information technologies are experienced in the distance education process, the higher the distance education service quality perceptions of the students.

Keywords: Distance education, information technologies, e-service quality, interaction quality, output quality, distance learning management system quality.

**STUDY ON GaAsN NANO-STRUCTURE MODEL VIA DFT COMPUTATIONAL METHOD:
A GEOMETRIC OPTIMIZATION AND MOLECULAR DYNAMIC PROCESS**

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ÖZET

GaAsN, malzeme bilimindeki çeşitli uygulamaları ve fiziksel özellikleri nedeniyle çok dikkat çeken bir alaşımdır. Çalışmada GaAsN'ye ait elektronik bant yapısı, genişletilmiş sıkı bağlama modeline dayalı yoğunluk fonksiyonel teorisi (DFT) kullanılarak hesaplanmıştır. Tutarlı yük olmaksızın genişletilmiş yoğunluklu fonksiyonel sıkı bağlama (NonSCC-GFN1-xTB), geometrik optimizasyon ve moleküler dinamik (MD) simülasyon sürecini anlamak için GaAsN model sistemini araştırmak için benimsenmiştir. Bu bulguların GaAsN'nin modelleme yaklaşımının geliştirilmesinde önemli bir etkisi olması beklenmektedir.

Anahtar Kelimeler: Simülasyon ve modelleme, Genişletilmiş yoğunluklu fonksiyonel sıkı bağlama, Metaller ve alaşımlar, GaAsN.

ABSTRACT

GaAsN alloy has received much attention due to its physical properties and several applications in materials science. We have presented the electronic band structure of GaAsN has been calculated by using density functional theory (DFT) based on extended tight-binding model. Extended density functional tight-binding without self-consistent charge (NonSCC-GFN1-xTB), is adopted to investigate of GaAsN model system for understanding the geometric optimization and molecular dynamic (MD) simulation process. These findings will have a significant impact on the development of modelling approach of GaAsN.

Keywords: Simulation and modelling, Extended density functional tight-binding, Metals and alloys, GaAsN.

**YARI BODUR ELMA BAHÇELERİNDE TOPRAKLARIN SIKIŞMA DURUMUNUN
BELİRLENMESİ**

DETERMINATION OF SOIL COMPACTION IN SEMI-DRUG APPLE GARDENS

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ÖZET

Tarımsal verimliliği ve sürdürülebilirliği olumsuz etkileyen; ülkemizde ve dünyada tarım topraklarında büyük bir problem olan toprak sıkışması, yoğun tarımsal faaliyetlere maruz kalan ve mekanizasyonun fazla olduğu bahçelerde daha fazla görülmektedir. Yapılan çalışmada, Karaman ilindeki yirmi adet yarı bodur elma bahçelerinden 0-30 ve 30-60 cm toprak derinliğinde dijital toprak penetrometresi ile her bir bahçede 10 tekerrürlü penetrasyon okumaları yapılmış, ayrıca bu derinliklerden hacim ağırlığı belirlenmesi için bozulmamış toprak örnekleri alınmıştır. Penetrasyon direnci (PD) 0-30 cm toprak derinliğinde daha düşükken 30-60 cm toprak derinliğinde artmıştır. Toprakların 0-30 cm derinliğinde ölçülen en düşük PD değeri 0.30 MPa iken, en yüksek PD değeri ise 4.30 MPa çıkmıştır. Toprağın 30-60 cm derinliğinde, en düşük PD değeri 0.90 MPa iken, en yüksek PD değeri ise 4.33 MPa ölçülmüştür. Hacim ağırlığı (Pb) değeri 0-30 cm toprak derinliğinde en düşük 1.03 g cm⁻³ iken, en yüksek 1.44 g cm⁻³ bulunmuş, 30-60 cm derinlikte ise en düşük 1.22 g cm⁻³ iken, en yüksek 1.60 g cm⁻³ olmuştur. Toprak sıkışması toprakların toplam hacmini azaltmakta ve toprak parçacıklarının birbirine yaklaşmasıyla toprağın hacim ağırlığını arttırmaktadır. Hacim ağırlığı değeri de penetrasyon direnci gibi 30- 60 cm toprak derinliğinde artış göstermiştir. Penetrasyon direnci ve hacim ağırlığındaki bu değişimlerin toprakların yapısal farklılıklarından ve uygulanan toprak işleme yöntemlerinden kaynaklandığı değerlendirilmiştir. Ayrıca yapılan bu çalışma ile yarı bodur elma bahçelerinde toprak sıkışması probleminin olduğu tespit edilmiş ve toprak sıkışmasının azaltılması için tarlatrafiğinin en aza indirgenmesi ile uygun toprak işleme yöntemlerinin uygulamaya geçirilmesinin gerekliliği ortaya konmuştur.

Anahtar Kelimeler: Toprak sıkışması, Hacim ağırlığı, Penetrasyon direnci, Elma bahçesi

ABSTRACT

Affecting agricultural productivity and sustainability negatively; soil compaction, which is a major problem in agricultural soils in our country and in the world, is more common in gardens that are exposed to intensive agricultural activities and where mechanization is high. In the study, penetration readings were made with a digital soil penetrometer at 0-30 and 30-60 cm soil depth from twenty semi-dwarf apple orchards in Karaman province with 10 replications in each orchard, and undisturbed soil samples were taken from these depths to determine the bulk density. Penetration resistance (PD) was lower at 0-30 cm soil depth and increased at 30-60 cm soil depth. The lowest PD value measured at 0-30 cm depth of soils is 0.30 MPa, while the highest measured PD value is 4.30 MPa. At 30-60 cm depth of the soil, the lowest PD value was 0.90 MPa, while the highest measured PD value was 4.33 MPa. The lowest bulk density (Pb) value of the soil determined at 0-30 cm soil depth was 1.03 g cm⁻³, while the highest Pb value was 1.44 g cm⁻³. The lowest Pb value measured at 30-60 cm depth of the soil was 1.22 g cm⁻³, while the highest Pb value was 1.60 g cm⁻³. Soil compaction decreases the total volume of soils and increases the bulk density of the soil as soil particles come closer to each other. The Pb value also

increased at 30-60 cm soil depth, as did the penetration resistance. It is thought that these changes in penetration resistance and bulk density are caused by the structural differences of the soils and the applied tillage methods. In addition, with this study, it has been determined that there is a soil compaction problem in semi-dwarf apple orchards and the necessity of minimizing orchard traffic and *implementing appropriate tillage methods in order to reduce soil compaction has been revealed.*

Keywords: Soil compaction, Bulk density, Penetration resistance, Apple orchard

REDUCED ORDER MODELING AND PROPORTIONAL DERIVATIVE CONTROL OF AN ELECTROMECHANICAL COVERT FEATHER FOR A FLAPPING WING UAV

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ABSTRACT

This paper presents design and reduced order modeling of an electromechanical (EM) covert feather for a bio-inspired Flapping Wing UAV (FUAV). Bond graph modeling (BGM) approach is used for detailed model and for the digital simulation of an EM covert feather module. State space equations are computed to analyze the model internal dynamics and responses using 20-SIM software package. The model attained is of higher order and its analysis and subsequent controller design is computationally complex. To address this, Reduced Order Modeling (ROM) of the EM feather is presented. Finally, Proportional Derivative (PD) controller is designed for stabilization of the unstable covert feather model. Simulation results show that the obtained ROM preserves the characteristics of the original model and the PD controller stabilizes the feather in less than 0.3 seconds and therefore validates the proposed methodology.

Keywords: Bio-Inspiration, Covert Feather, Flapping Wing UAV, Bond Graph Modeling, Reduced Order Modeling, Simulation, PD Control

PERFORMANCE EVALUATION OF SPIRAL COIL RECIEVER FOR THERMAL STEAM GENERATION USING OPTICAL AND THERMAL ANALYSIS OF PARABOLIC DISH CONCENTRATOR

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ABSTRACT

Solar energy can be used for substitution of the depleting fossil fuels in thermal applications and electricity generation through thermal route. For medium and high temperature applications, a system for collecting solar energy at high temperatures was developed and built in this research work. Solar collector developed over the years can be categorized as concentrating or focusing collectors, flat plate collectors, solar panels and photovoltaic panels. The paper was aimed at determining the performance evaluation of spiral coil reciever for thermal steam generation using parabolic concentrating system. The parabolic dish solar concentrator (PDSC) with a rim angle of 45° , focal length of 6.15 m, and an aperture area of 5.8 m^2 was designed and constructed for the determination of the variables. The PDSC and spiral coil reciever were made of stainless steel reflector sheet and copper tube pipe respectively, in such a way that both the manufacturing and assembly processes do not require complicated technology or skilled labour. Since the PDSC is for high enthalpy steam generation, hot water and cooking application. A finite element stress analysis is conducted to determine the thermal efficiency and optical efficiency of the system under various weather conditions. A simple solar tracking system is employed when it is oriented in a direction of solar radiation. The thermal efficiency of the collector is also reported. The efficiency according to the finding depends on the optical properties of the materials involved, the geometry of the collector, and the various imperfections arising from the construction of the collector. The thermal efficiency and optical analysis of the system were determined and obtained to be 54.4%, and 48.6% respectively.

Keywords: optical efficiency, thermal efficiency, stainless steel parabolic reflector, spiral coil reciever, and steam generation

**DEVELOPMENT OF HIGHLY EFFICIENT SUPERCAPACITOR DERIVED FROM NOVEL
SOLID POLYMER ELECTROLYTE AND GRAPHENE NANOSHEETS**

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ABSTRACT

Our current study reports the fabrication of highly efficient Supercapacitors using bulk synthesis of single waste plastic Graphene nanosheets (GNs). and novel solid polymer electrolyte. Bentonite nanoclay has been used as an agent for the degradation of waste plastics with two step pyrolysis processes at 450 °C and 945 °C in an inert atmosphere of N₂ gas to obtain GNs. The electrical, structural and optical characterization such as Impedance Spectroscopy, RAMAN spectroscopy, XRD and HRTEM of GNs and solid polymer electrolyte have been performed for further identification and quantitative analysis. The utilization of GNs as an active layer material of supercapacitor electrodes offered a high specific capacitance of 398 F/g with a scan rate of 0.005V/s. The supercapacitor also exhibited significant energy density (Ed) and power density (Pd) of 0.005V/s. The supercapacitor also exhibited significant energy density (Ed) and power density (Pd) of 38Wh/kg and 1009.74 W/kg, respectively. Thus, the process illustrated the utility of waste plastics upcycling for conservation of EEE i.e., ecology, economy and energy for better tomorrow.

Keywords: Waste Plastic, Graphene, Solid Polymer Electrolyte, nanoclay, Energy Density, Power Density

**OKUL ÖNCESİ DÖNEM ÇOCUKLARININ PROBLEMLİ MEDYA KULLANIMLARININ
ANNELERİ TARAFINDAN DEĞERLENDİRİLMESİ**

EVALUATION OF PROBLEMATIC MEDIA USE OF PRESCHOOL CHILDREN BY THEIR
MOTHERS

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ÖZET

Teknolojik gelişmelere bağlı olarak özellikle medya araçları, kullanım alanlarının da genişlemesiyle birlikte insanların vazgeçilmezleri arasına girmiş; içinde yaşadığımız çağda popülerliğini küçük yaştaki çocuklar arasında da arttırmıştır. Medya araçlarının fazla kullanımına bağlı olarak özellikle okul öncesi dönem çocuklarının sosyal, duygusal, bilişsel ve dil gelişimi olumsuz yönde etkilenebilmektedir. Bu bağlamda okul öncesi dönem çocuklarının problemli medya kullanımlarının anneleri tarafından değerlendirilmesinin çocuğun sağlıklı gelişimini yakından ilgilendirdiği düşünülmektedir. Bu düşünceden hareketle araştırmada okul öncesi dönem çocuklarının problemli medya kullanımlarının anneleri tarafından değerlendirilmesi amaçlanmıştır. Araştırmada betimsel araştırma yöntemi tarama modeli kullanılmıştır. Araştırmanın çalışma grubunu Milli Eğitim Bakanlığı'na bağlı bağımsız anasınıflarına ve anaokullarına çocuğu devam eden anneler oluşturmaktadır. Araştırmada veri toplama aracı olarak 'Kişisel Bilgi Formu ve 'Problemli Medya Kullanım Ölçeği' kullanılmıştır. Araştırma verileri online olarak Google form aracılığı ile toplanmaktadır. Veriler SPSS programı ile analiz edilecektir. Elde edilen verilerin normallik dağılımları incelendikten sonra normal dağılım gösteren veriler için bağımsız gruplar t testi, tek yönlü varyans analizi (ANOVA) kullanılacak olup normal dağılım göstermeyen veriler için Mann-Whitney U ve Kruskal Wallis H Testi uygulanacaktır. Araştırma sonucunda problemli medya kullanımına yönelik önerilerde bulunulacaktır.

Anahtar Kelimeler: Anne, Çocuk Gelişimi, Problemli Medya Kullanımı, Okul Öncesi Dönem

ABSTRACT

Through technological developments, especially media tools have become indispensable for people with the expansion of their usage areas; it has also increased its popularity among young children in period where we live. Due to excessive use of media tools, especially the social, emotional, cognitive and language development of preschool children can be negatively affected. In this regard, evaluation of problematic media use of their children by their mothers in the preschool period is believed that it is closely related to the healthy development of the child. Based on this idea, it was aimed to evaluate the problematic media use of preschool children by their mothers in the research. The descriptive research method and the screening model were used in the research. The working group of the study is composed of mothers whose children attend independent kindergartens and kindergartens affiliated to the Ministry of National Education. In the research, 'Personal Information Form' and 'Problematic Media Use Scale' were used as data collection tools. The research data are collected online via Google form. The data will be analyzed with the SPSS program. After analyzing the normality distributions of the obtained data, the independent sample t test, one-way analysis of variance (ANOVA) will be used for data showing a

normal distribution, and the Mann-Whitney U and Kruskal Wallis H Tests will be used for data that do not show a normal distribution. Recommendations will be made for the use of problematic media as a result of the research.

Keywords: Mother, Child Development, Problematic Media Use, Preschool Period

İKLİM DEĞİŞİKLİĞİNİN TARLA BİTKİLERİ TARIMINA ETKİSİ

THE EFFECT OF CLIMATE CHANGE ON FIELD CROPS

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ÖZET

Geçmişten günümüze küresel ısınma artık teori olmaktan çıkmış ve etkisini göstermeye başlamıştır. İklim değişikliği sürdürülebilir olmayan tarımsal, endüstriyel veya enerji gibi faaliyetlerin sonucu, küresel atmosferin yapısının bozulması ve küresel ısınmayla meteorolojik olaylarda oluşan farklılıklardır. Dünyada aşırı nüfus artışı ve bunun yanında endüstriyel gelişmeler ile küresel düzeyde yaşanan iklim değişikliğinin doğal kaynaklar üzerine etkisi her geçen gün daha atmaktadır. İklim değişikliği ortalama sıcaklıklarda artış, kuraklık, çölleşme, yağışların düzensizliği, su baskınları, yangın, heyelan, tayfun, fırtına vs birçok şekilde etkisini göstermektedir. Türkiye’de artan sıcaklıklar ve yağış düzensizlikleri ise birçok sektörde olduğu gibi temel ihtiyaçlarımızı karşılayan tarım sektörünü ve dolayısıyla gıda sektörünü olumsuz etkilemektedir. Tarım sektörünün içinde önemli yere sahip olan tarla bitkileri; endüstri bitkileri, tahıllar, yemeklik tane baklagiller ve çayır-mera ve yem bitkileri olmak üzere sınıflandırılmaktadır. Tarla bitkileri gıda zincirinin önemli bir parçasıdır. Bu nedenle iklim değişikliği altında yaşanabilecek her olumsuz durum yetiştiriciler dışında daha geniş kitleler olan tüketicileri de etkilemektedir. Küresel ölçekte etkisini daha çok gösterecek olan iklim değişikliğine karşı gerekli önlemler alınması gelecek nesiller için kaçınılmaz bir durum olarak ortaya çıkmaktadır. Bu çalışmada, iklim değişikliğinin tarla bitkilerinin üzerindeki olumsuz etkileri ele alınarak, bu kapsamda yapılacak çalışmalara ve alınacak tedbirler için yol göstermesi amaçlanmıştır.

Anahtar Kelimeler: Kuraklık, tarla bitkileri, tarım sektörü, yetiştiricilik

ABSTRACT

From the past to the present, global warming has ceased to be a theory and has begun to show its effect. Climate change is the result of unsustainable agricultural, industrial, or energy activities. In addition, it is the deterioration of the structure of the global atmosphere and the differences in meteorological events with global warming. Thanks to population growth in the world, as well as industrial developments and global climate change, the effects on natural resources, are increasing day by day. Climate change showed its effects in many ways such as the increase in average temperatures, drought, desertification, irregular precipitation, floods, fire, landslide, typhoon, storm, etc. Increasing temperatures and precipitation irregularities also affected negatively many sectors which directly affected the agricultural sector, which meets our basic needs, also the food sector in Turkey. Field crops, which have an important place in the agricultural sector; are classified as industrial crops, cereals, legumes, meadow-pasture, and fodder crops. Field crops are an important part of the food chain. For this reason, every negative situation that can be experienced under climate change also affects consumers, who are larger masses, besides the growers. Taking necessary measures against climate change, which would have a greater impact on a global scale, emerged as an inevitable situation for future generations. This study, it was aimed to discuss the negative effects of global climate change on field crops and to guide the studies and measures to be taken in this context.

Keywords: Drought, field crops, agriculture sector, growing

**QUADRATIC COMBINED CONVECTIVE FLOW AROUND YAWED CYLINDER IN
PRESENCE OF TIME VARIATIONS AND MAGNETIC EFFECTS**

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ABSTRACT

The significance of time-dependent variations in a quadratic combined convective MHD flow around an infinite yawed cylinder is explored in the present investigation. There are numerous real-world applications wherein the yawed-shaped bodies are used extensively, for example, overhead cables, bridge stay cables, chimney stacks etc. The dimensional governing equations are made dimensionless by applying the appropriate transformations of nonsimilar nature. After that, using the Quasilinearization technique, so obtained equations are linearized and are then discretized by employing implicit finite difference approximations. The flow and energy transfer characteristics are displayed through graphical representation for various values of combined convection parameter, yaw angle, quadratic convection parameter and magnetic parameter for the cases of steady, unsteady, and in particular, for accelerating and decelerating flows. In the case of unsteady flow, velocity distributions along chordwise and spanwise directions (i.e., x and z -directions, respectively) reduce when compared with the steady case. As the yaw angle increases, i.e., the cylinder tilts more, it causes high inner pressure in the fluid, increasing its velocity in all directions. The velocity profiles, surface drag coefficients along chordwise and spanwise paths and energy transfer rate enhance whenever the quadratic convection characteristic upsurges for both steady and unsteady cases. To validate the accuracy of the present numerical approach, the rate of energy transfer values are computed and compared with the prior research findings. The current findings are reported to be in good agreement with prior results.

Keywords: Unsteady flow; Yawed cylinder; Quasilinearization technique; Finite difference scheme; Magnetohydrodynamics (MHD); Quadratic combined convection.

**RESOURCE ALLOCATION AND INTERFERENCE MANAGEMENT STRATEGIES FOR
DEVICE TO DEVICE COMMUNICATION IN 5G NETWORK**

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ABSTRACT

The demand for cellular data services is increasing rapidly due to rich bandwidth, higher data speeds, shorter latency, lower energy usage, and better coverage. Device to Device (D2D) communication in 5G networks offers opportunity to develop small localized network connecting millions of devices. It is a promising concept in which the communication occurs between the two user equipment or devices that are in close proximity to each other without traversing the data to the Base Station (BS). The BS or any access points are not involved for the sharing of data. By this the load on the base station gets minimized and hence offers great spectral efficiency to the whole network. D2D communications will meet specific future expectations. New types of brief selection services and information-intensive short range programs like content sharing, online gaming, vehicle to vehicle communication, multimedia usage, social networking are among the demands. New kinds of services like application downloads, movie streaming, online gaming, and Peer-to-Peer (P2P) file sharing will all be enabled due to D2D communications. Furthermore, the recent research trends have shown that D2D will be one of the beneficial technologies in the upcoming cellular network generations. This work presents the detailed survey of D2D communication and the issues like resource allocation and interference minimization.

Keywords: *D2D Communication, Cellular Networks, 5G, Resource Allocation*

AN EFFECTIVE APPROACH FOR DENTAL CARIES CLASSIFICATION USING DEEP CONVOLUTIONAL NEURAL NETWORKS

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ABSTRACT

With the advancement of Artificial Intelligence (AI), the demand of automated assistance in the field of medical imaging is high. Lately poor lifestyle choices have been resulting in a variety of dental diseases that have been burgeoning which has led to multiple researches being carried out for pre-emptive detection in order to deal with these diseases within time. Dental Caries is one of the major oral diseases that can be seen increasing among adults as well as children since 20th century. It is a progressive bacterial infection that can cause tooth loss if left untreated. Early detection and proper treatment of this disease can prevent loss of tooth. Many works have been carried out for early detection of dental caries but achieving a good accuracy is still a challenge. This work aims to develop a model based on deep learning that can classify the three classes of the dental caries namely enamel caries, dentin caries and pulpitis. The dataset of RVG (RadioVisioGraphy) images of tooth comprising of both infected and healthy tooth is collected and labelled for this purpose. The performance of the model is evaluated based on the Accuracy, Precision, Recall, F1 Score. The designed model shows the best performance and the overall accuracy of the model is 96.66% with minimal loss and helps in dental image classification as the second opinion to the medical expert.

Keywords: Dental Caries, Artificial Intelligence, RVG images, Deep Learning

**EMPIRICAL INVESTIGATION ON SOCIOECONOMIC DETERMINANTS OF
TUBERCULOSIS IN NIGERIA: AN ARDL APPROACH**

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ABSTRACT

Purpose – This study was conducted to investigate the socioeconomic determinants of Tuberculosis (TB) in Nigeria. The prevalence of Tuberculosis in Nigeria in recent years has been on thunderous increase, and this has led to poor health outcome and dwindled economic growth. Nigeria government has put different measures to stop the prevalence of TB in Nigeria but it seems their efforts are fruitless. This situation becomes a great challenge to the people and the government. This facts, motivated this study to empirically investigate socioeconomic factors/determinants which may have been the causes of increase in TB continuous prevalence despite the government efforts to stop its menace in Nigeria.

Design/Methodology/Approach – This study used Auto Regressive Distributed Lag (ARDL) model for its design and methodology. Unit Root Test was conducted at the initial stage which led to the decision of using the ARDL model. The ARDL bound test, Coefficient test, Error Correction Model (ECM), and diagnostic test were conducted. The data used in this study is annual secondary data ranging from 1985 to 2018 (34 years of observation). The data were sourced from a reliable means.

Findings – The study finding shows that there are socioeconomic determinants/factors which can control the prevalence of TB in Nigeria. Socioeconomic determinants like income, education, savings and final consumption expenditure (FCE) used in this study showed a positive relationship with Tuberculosis. Only savings and final consumption expenditure were significant at 5% and 10% respectively, proving that increase in savings and FCE leads to increase in TB prevalence in Nigeria. Income and education were not significant with TB because savings and FCE are components of income and they were used in this study. In general, increase in income and education may lead to increase in TB prevalence but it depends on the savings and how the expenditure where made and channelled.

Originality/Value – This study is an original study of the Authors.

Keywords: ARDL model, SocioEconomic Determinants, Tuberculosis, Nigeria.

YOZGAT BÖLGESİNDE ŞEKER PANCARI ÜRETİMİNİN MEVCUT DURUMU
CURRENT SITUATION OF SUGAR BEET PRODUCTION IN THE YOZGAT REGION

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ÖZET

Şeker maddesi birçok bitkinin bünyesinde bulunmasına rağmen dünyada şeker üretimi için kullanılan sadece iki bitki türü vardır. Bunlar, şeker kamışı ve şeker pancarıdır. Ülkemizdeki şekerin ana kaynağı olarak bilinen en önemli endüstri bitkisi şeker pancarı (*Beta vulgaris* L.)'dir. Şeker pancarı tarımı ve sanayisinin üreticilere sağladığı katma değerden dolayı dünyada stratejik öneme sahiptir. Türkiye, şeker pancarı üretiminde dünya sıralamasında beşinci Avrupa'da ise dördüncü sırada yer almaktadır. 2020 yılında şeker pancarı dünyada yaklaşık 169.040.000 ton üretilirken, Türkiye'de ise 23.025.000 ton üretilmiştir. Ülkemizde üretim 2019 yılına göre %27.5 oranında artmıştır. Bu artışın en önemli sebebi şeker pancarı üretimi yapan çiftçi sayısındaki artışa bağlı olarak üretim yapılan alanın da artması olarak değerlendirilmektedir. 2020 yılı şeker pancarı üretiminin yaklaşık %31.4'ü Konya'da, %8.6'sı Eskişehir'de ve %7.1'i ise Yozgat'ta gerçekleşmiştir. Bu verilere göre şeker pancarı tarımı yapılan 336.300 ha alanın 25.300 ha alanı Yozgat'a aittir. Bu nedenle Yozgat ili şeker pancarı üretiminde Türkiye'de önemli bir konuma sahiptir. Bu çalışmanın amacı, Yozgat Bölgesinde yetiştirilen şeker pancarının üretimi ve sorunlarına değinmek ve çözüm önerileri sunmaktır. Araştırmada, Türkiye İstatistik Kurumu (TÜİK), Birleşmiş Milletler Gıda ve Tarım Örgütü (FAO) ve Uluslararası Ticaret Merkezi (ITC) verileri kullanılmış ve literatür taramalarından yararlanarak mevcut durum değerlendirilmiştir.

Anahtar kelimeler: Endüstri bitkisi, Şeker pancarı, Üretim, Yozgat, Verim

ABSTRACT

Sugar is found in many plants, but only two species are used for sugar production in the world. These are cane sugar and sugar beet. The most important industrial plant known as the main source of sugar in our country is sugar beet (*Beta vulgaris* L.). It has strategic importance in the world due to the added value that sugar beet agriculture and industry provide to producers. Turkey ranks fifth in the world in sugar beet production and fourth in Europe. In 2020, approximately 169.040.000 tons of sugar beet were produced globally, while 23.025.000 tons were produced in Turkey. Production in our country has increased by 27.5% compared to 2019. The most important reason for this increase is considered to be the increase in the production area due to the increase in the number of farmers producing sugar beet. Approximately 31.4% of sugar beet production in 2020 was realized in Konya, 8.6% in Eskişehir, and 7.1% in Yozgat. According to these data, 25.300 ha of the 336.300 ha area cultivated sugar beet belongs to Yozgat. This study aimed to evaluate the production and current situation of sugar beet cultivation in the Yozgat region. Therefore, Yozgat province has an important position in sugar beet production in Turkey. The research data were obtained from the records of the Turkish Statistical Institute (TUIK), the United Nations Food and Agriculture Organization (FAO), and the International Trade Center (ITC) and literature reviews.

Keywords: Industrial crop, Sugar beet, Production, Yozgat, Yield

MOBILE APPLICATION ACCESS FREQUENCY AND USAGE DURATION ACCORDING TO DEMOGRAPHIC FACTORS

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ABSTRACT

In this study, mobile application usage behavior of android mobile operating system users was examined. More specifically, it has been examined whether the mobile application access frequency and usage duration in different categories differ according to the gender, age and education level of the users. Mobile application categories assessed in this study are as follows: productivity, communication, internet browsing, e-commerce, education, entertainment, game, health, news, photography, social network, tools, and travel. The study data was obtained with a small mobile application installed on the mobile devices of the users. This application collected the mobile application usage details of the users over a one-week period. In total, 91 volunteer participants participated in this research. In the analysis of the data, Mann-Whitney U test and Kruskal-Wallis test, which are non-parametric tests, were used. Important findings of this study are as follows. Study findings showed that the access frequency of mobile applications in the categories of games and news differs statistically significantly according to gender. The usage durations of mobile apps in game, news, and tool categories differ statistically significantly according to gender. Study findings also showed that the access frequencies of mobile applications in productivity, entertainment, game, and travel categories differ statistically significantly according to education level. The usage durations of mobile apps in productivity, education, entertainment, game, tool, and travel categories differ statistically significantly according to education level. Furthermore, game, news and photography are the mobile application categories that their access frequencies differ statistically significantly according to age. The usage durations of mobile apps in game, news, and photography categories differ statistically significantly according to age. The findings of this study are expected to provide important information for creating more effective mobile advertising campaigns according to the demographic characteristics of the users.

Keywords: Android, Mobile Apps, Access Frequency, Usage Duration, Demographics

INSTALLATION AND UTILIZATION RATE OF MOBILE APPLICATIONS ACCORDING TO DEMOGRAPHIC FACTORS

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ABSTRACT

In this study, it was examined whether the number of mobile applications in different categories installed by users of Android mobile operating system differ according to gender, age and education level. Also, whether the utilization rate of these installed apps differs according to demographic factors was examined. Mobile application categories examined in this research are as follows; productivity, communication, internet browsing, e-commerce, education, entertainment, game, health, news, photography, social network, tools, and travel. In order to collect the data required in this study, 91 volunteer participants were asked to install a mobile app usage tracker on their mobile devices. App usage tracker collected the necessary data during one-week period. Later, two non-parametric statistical tests, Mann-Whitney U test and Kruskal-Wallis test, were used to analyze the study data. The important findings obtained as a result of the analyzes are as follows. Total number of installed apps in entertainment, game, news and travel categories differs statistically significantly according to age. Also, the utilization of the installed mobile apps in communication, game, news and photography categories differs statistically significantly according to age. Additionally, total number of installed apps in productivity, communication, browsing, game, and tool categories differs statistically significantly according to education level. Furthermore, the utilization of the installed mobile apps in productivity, entertainment, game and travel differs statistically significantly according to education level. Total number of installed apps in game and news categories differs statistically significantly according to gender. The utilization of the installed mobile apps in game and news differs statistically significantly according to gender. This study not only guides app developers about what kind of apps can be developed, but also shows which app categories should be focused on to deliver mobile ads customized to demographics.

Keywords: Android, Mobile Apps, App Installation, App Utilization, Demographics

ABOUT APPROACHES FOR WATER FLOW ASSESSMENTS

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ABSTRACT

Different approaches to the study of any water flows on land have been proposed for discussion. They are based on analyzes and comparisons of their geographical characteristics (lengths, area of their catchments, etc.); to establish a specific scientific field for the study of hydrological, hydraulic dependencies and channel processes; of prerequisites and assessments of the living conditions of aquatic organisms in them; as a source of resources for the life and economy of the respective territory (catchment areas), etc.

On this basis, different approaches and methodological guidelines are created for assessments of natural formations (watercourses), which (essentially) perform a certain function - have the purpose, after the springs (at a given altitude) to collect in a certain place (riverbed) a certain amount of water and transport it to another place (at a lower altitude), which eventually turns out to be an mouth (in the World Ocean).

In the performance of this function the water flows find themselves in different situations and roles, which are the basis of the realized classifications and research.

For example, it is of interest to comment on Rosgen's popular classification system, through which different sections of watercourses (rivers) are grouped into types from "A" to "G".

Along with the mentioned classification system, others related to the study of living conditions in rivers, etc. are also widely used. **river continuum concept (RCC)** or to classify the nature of tributaries - **river orders**.

Therefore, it is necessary to point out some features that are not considered in the creation of the listed classification systems for watercourses, namely, the distinctive feature of watercourses - the speed of movement of water in them. It is inexplicable why the different classification systems do not consider these features related to the flow velocity, which affects all types of channel processes in the formation of the riverbed and, mainly, the enrichment of the watercourse with oxygen.

Keywords: water flows, classification systems, flow velocity, oxygen

EMOTIONAL INTELLIGENCE AND WORK-LIFE BALANCE

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ABSTRACT

Nurses are responsible for a wide range of tasks, and their daily activities can be quite varied. Every nurse may face conflicts as a result of their work environment. It could be due to differing ideas, a problematic family member, personality clashes, or even general stress. Dealing with conflict could directly impact their work and family life, but emotional intelligence is vital for remaining calm and achieving better results. Therefore, Nurses must possess competencies and a certain level of intelligence to balance their work and life. Thus, this study investigates the impact of emotional intelligence on nurses who work at private hospitals in western province, Sri Lanka. A sample consisted of 278 nurses, and a structured questionnaire was used to collect the data. Data were analysed using the computer-based statistical package, SPSS version 21. Univariate and bivariate analyses were used to analyse them. Tally with many prior studies, the present study showed a strong positive impact of emotional intelligence on the work-life balance of Nursing staff. Most of them possess and use all the dimensions of emotional intelligence. Self-awareness, self-regulation, self-motivation and social skills significantly affect the work-life balance, while contrary to the prior studies, empathy negatively impacts the work-life balance. Then they have the opportunity to practice emotional intelligence to maintain the balance between work and family life. These findings will be useful to the administration of the private hospitals to increase exposure to differences in nurses' emotional intelligence and consider assigning duties, tasks and responsibilities.

Keywords: Emotional Intelligence, Work-life balance, Self-awareness, Self-regulation, Self-motivation, Social skills, Empathy

HALAL BEHAVIOR IN TRAVELING

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ABSTRACT

Tourism that is developing in Indonesia and even in the world is currently a trend. One of the trending tourism trends is halal tourism. The behavior of a Muslim in traveling will always develop and change according to the progress of civilization by not leaving Islamic law. This study aims to explore halal behavior in traveling. The method used in this research is literature study. The results of the study indicate that the business or tourism industry must know that Muslim tourists are influenced by their religion and how the tourism industry can better accommodate their needs such as quality of service, facilities and infrastructure that accommodates them; linking tourism with worship and science, forbids going on tours to infidel countries. A Muslim who travels not only to entertain but also has the essence of getting closer to Allah and contemplating the beauty of Allah's creation.

Keywords: Halal, Behavior, Travel

HALAL BEHAVIOR IN STOCK INVESTING

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ABSTRACT

In March 2020, Covid-19 hit Indonesia and caused economic paralysis, the rupiah exchange rate declined and the stock price fell by 6.58%. However, from December 2020 to February 2021, the majority share price rose drastically. As Muslims and Muslim women who hold fast to religious principles, of course they also want to maintain that in investing. This study aims to introduce and educate how investment behavior is lawful according to the Shari'a, knowing that the majority of Indonesian people are Muslim. This research method uses literature study sourced from relevant literature and novelty with the discussion of research problems. This study explains that MUI has determined mistakes in investing in stocks that meet sharia criteria so that the Muslim community does not need to doubt anymore if they want to invest. One of the discussions in fiqh is the discussion of muamalah, namely the relationship between human beings related to commerce. Based on this, stock investment activities were developed on the basis of fiqh muamalah. There are rules of fiqh muamalah which state that basically, all forms of muamalah may be carried out unless there is an argument that forbids it. This concept is the principle of Islamic stock investment in Indonesia.

Keywords: Halal, Stock investment, Muslim

CHARACTERIZATION of EL DISS and EL RETMA CELLULOSE FIBERS AND THEIR EFFECT ON RHEOLOGICAL PROPERTIES OF EVOH BASED COMPOSITES

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ABSTRACT

Environmental pollution with increased plastics consumption is becoming a major problem due to their non-biodegradability. Thus, there has been growing interest in the development of bio-based products to replace non-biodegradable plastics and reduce dependence on fossil fuels. Cellulose-based composites can be an alternative to reduce the consumption of plastics for their many improved properties. Also, natural fibers are biosynthesized and a renewable source. However, the incompatibility, the poor interfacial adhesion of the polar cellulose and the non-polar matrix and the poor dispersion of the fibers lead to poor mechanical properties [1-3].

This study aims to investigate the potential of two local fibers, namely El Diss and El Retma, which are abundant in the mountains of North Africa (Setif, Algeria) to isolate cellulose fibers (CFs) with toluene-ethanol and HNO₃ treatments. Then, the isolated CFs were used as a reinforcement for a poly (vinyl alcohol-co-ethylene) (EVOH) matrix. The extracted cellulose fibers from both El Diss (CF_D) and El Retma (CF_R) were characterized by Fourier transform infrared spectroscopy (FTIR), thermogravimetric analysis (TGA), scanning electronic microscopy (SEM) and X-ray diffraction analysis (XRD). Also, rheological properties of EVOH/CF composites have been studied. SEM micrographs of the treated fibers confirmed the elimination of non-cellulosic materials and their crystallinity was estimated by DRX. Thermal analyses by TGA indicate a slight improvement compared to the raw fibers. The incorporation of cellulosic fibers to EVOH showed an increase of the loss and storage modulus indicating interactions at the interface between EVOH and the CF.

Key-words: cellulose fiber, valorization, composites, adhesion, wood plastic composites.

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PERFORMANCE APPRAISAL AND CAREER ADVANCEMENT IN NIGERIAN PUBLIC SERVICE

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ABSTRACT

Performance appraisal is a formal systematic assessment of an employee to determine the degree to which employees in public service are performing their job effectively and how their performance can earn them career advancement. It is important in assessing the capacity of public service and how bureaucracy can make and mar performance appraisal of workers in Nigerian public service.. The objective of the study is to examine the impact of performance appraisal and career advancement in Nigerian public service and revisiting the webberian drawback in Human Resources Management. The research adopted an expo facto research design. This was necessary because the data for the study were obtained mainly from secondary sources. Extant literature was assessed to explain the variables of the study. The literature was evaluated with content analysis. The issues raised provided the basis for suggestions to improve the Nigerian public service appraisal system so as to have effectiveness in Nigerian public service.

Keywords: Performance Appraisal, Career Advancement, Public Service.

**STUDY OF THE REGENERATIVE ABILITIES OF MANNA ASH IN ARTIFICIAL
AUSTRIAN PINE PLANTATIONS IN THE REGION OF SOFIA, BULGARIA**

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ABSTRACT

Manna ash (*Fraxinus ornus*) is a species that is often found as an undergrowth element in Austrian pine (*Pinus nigra*) artificial stands and the presence of this species can cause oppression of the natural oak understory not only through shading but also through competition for soil moisture. For this reason, it is important to monitor the implementation of measures related to the reduction of the manna ash undergrowth in coniferous plantations, which are expected to be replaced by natural for these habitats representatives of the *Quercus* genus. The aim of the present study is to analyze the regenerative abilities of manna ash in Austrian pine artificial stands after an applied mechanical control and grazing measures. The object of the study are 50 to 75-year-old *Pinus nigra* plantations in the Lyulin and Stara Planina mountains located in Sofia periphery region. Four 400 m² sample plots were set up and observed in the following period 2019-2021. In three of them the following mechanical measures have been applied to limit the growth of individuals from manna ash: cutting the stem at the base (Sample Plot 1), cutting the stem at a height of 50 cm (SP2), refraction of the top of the stem. In sample plot 4 (SP4) was applied a biological measure - goat grazing. Within the sample plots, the density of stems (number of stems per m²) was measured from *Fraxinus ornus*, *Quercus daleschampii* and regeneration representatives from others tree and shrub species in the period of application of the measure and in the following year. The results of the study showed that manna ash individuals in Austrian pine plantations are fully recovered after a single application of mechanical control and grazing measures. The manna ash shoots form a characteristic "hydra effect", the regulation of which requires frequent interventions and a sufficient number of forest workers, which are currently lacking in the country. In this situation, the variant of "silvicultural patience" towards manna ash is recommended with the tendency that the oaks will gradually outgrow it. Forestry measures should not be aimed at reducing manna ash at an early age, but at caring for the oak regeneration. After the ninth year, the oak undergrowth strengthens, develops a deep root system and becomes competitive with its companions including the manna ash.

Key words: conifer plantations, *Fraxinus ornus*, *Pinus nigra*, thinnings, understory

**SYNTHESIS AND CHARACTERIZATION OF CU-ZN ALLOY BY
ELECTRODEPOSITION- ANNEALING ROUTE USING ZINC CHLORIDE BATH AND
THE STUDY OF THE EFFECT OF CORROSION BY IMPEDANCE SPECTROSCOPY**

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ABSTRACT

Cu-Zn alloys were obtained in two steps from non-cyanide electrolytes. First, a copper layer electrodeposited onto a nickel under-layer, followed by a thin layer of zinc from Zinc chloride bath. The Zn/Cu/Ni sandwich system was then subjected to heat treatment, to ensure the diffusion of zinc into the copper layer to give the desired Cu-Zn alloy structure.

The synthesized films were characterized by using X-ray diffraction XRD, scanning electron microscopy and energy dispersive X-ray spectroscopy (EDS). XRD demonstrated that the electrodeposited film is crystalline and present the $\text{Cu}_{0.7}\text{Zn}_{0.3}$ phase with preferential (111) orientation. An analysis of XRD patterns revealed that after heat treatment, the Cu-Zn alloys were composed of a predominating α -phase structure. After annealing, well defined pseudo-spherical Cu-Zn grains were formed covering the entire substrate surface. The EDS analysis indicated the formation of $\text{Cu}_{0.7}\text{Zn}_{0.3}$ brass alloys. The results showed the feasibility of this low-cost new route for the preparation of good quality Cu-Zn alloys from cyanide-free electrolytes. 3 metal composites, consumption was concentrated by impedance spectroscopy. The outcomes demonstrated the achievability of this minimal effort new course for the arrangement of good quality Cu-Zn combinations from non-cyanide electrolytes

Keywords: electrodeposition; Cu-Zn alloy; brass; non-cyanide bath; heat treatment.

Ref:

Abacha, I., & Boukherissa, S. (2020). Synthesis and Characterization of Cu-Zn Alloy cyanide Free-by an Electrodeposition-annealing Route using Zinc chloride bath and Impedance spectroscopy analysis. *Materials and Biomaterials Science*, 3(2), 071-075

VISITORS IN NATURE PARKS – ECOSYSTEM SERVICE CONSUMERS AND ENVIRONMENTAL VOLUNTEERING

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ABSTRACT

Volunteering is perceived as an altruistic act with global significance and encompasses the world. Scientific data suggests environmental and conservation volunteering is a valuable tool in solving local environmental problems with a much broader positive effect. Moreover, protected green areas are valued by people as beneficial for recreation. The main objective of the present study is to assess the ambition to become a conservation volunteer among people who benefit from the natural services and resources of nature parks. Participants in the study filled out an online survey shared on the social media platform "Facebook". Results from the respondents show regular use of nature parks' resources - people visit them because, as they suggest, it improves their physical and psychological status. Part of them also collects herbs for personal use. The majority of participants say they have witnessed illegal logging in protected areas. Survey data indicates people's willingness to volunteer in programmes, related to animal, plant and environmental conservation. Considering the gathered information we can conclude that people do consume and use services of nature parks, but at the same time offer their voluntary work for the protection and recovery of ecosystems.

Keywords: Volunteering, nature parks, ecosystem services

SYNTHESIS OF NATURAL AND SYNTHETIC HYDROXYAPATITE USING MECHANICAL AND CO-PRECIIPITATION METHODS: A COMPARATIVE STUDY

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ABSTRACT

The last few years have seen a major development in the field of biomaterials among them bio ceramics. Hydroxyapatite is considered as the best biomaterial, since its good tolerance by the biological system of the organism and it does not provoke toxicity or inflammation. Among all these fields, we have chosen, in this work, to prepare the raw material generally used in the replacement of worn or damaged bones. There are two types of materials frequently used in this field, either synthetic biomaterials from precursors and salts or biomaterials from natural sources.

The objective of this work is to prepare hydroxyapatite and compare between two approaches, a top-down one: by the valorization of some biological waste (bovine bone) for natural Hydroxyapatite; as well as a bottom-up one: using precipitation method to obtain synthetic Hydroxyapatite. We focused on mechanical method and co-precipitation method for both natural and synthetic HAp respectively for their different advantages such as the purity of powdered using mechanical method as well as the simplicity and being non-expensive of co-precipitation method.

The comparative study was done between obtained HAp N (natural hydroxyapatite) and HAp S (synthetic hydroxyapatite), in which XRD and FTIR results have shown that the natural Hydroxyapatite was formed but the synthetic one shows incomplete formation of Hydroxyapatite due to insufficient reaction time.

Finally we can conclude that the obtained HAp N, from bovine bones by mechanical grinding and heat treatment, is monophase and does not contain secondary phases such as calcium oxide and tricalcium phosphate. For the Synthetic HAp, if we plan to have a complete formation of the powder, we requires more time of transformation, more than three hours.

Key-words: biomaterial, natural and synthetic hydroxyapatite, bovine bone, mechanical method, co-precipitation method.

**OBTAINING DIETARY FUNCTIONAL FOODS BASED ON CELERY AND PARSLEY
ROOTS FROM THE *CELERY* FAMILY**

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The intensive rhythm of life, at the same time the need of people for healthier and nutritious food requires the creation of alternative foods with a high content of antioxidants, a long shelf life and preservation of taste and nutritional qualities. Such an alternative can be chips from celery (*Apium graveolens L.*) and parsley (*Petroselinum crispum L.*) roots belonging to the *Apiaceae* family. These plants are valued all over the world for their taste, medicinal and aromatic properties. Consumption of root crops of these plants reduces the risk of cancer (Bogucka-Kocka et al., 2008), stabilizes blood pressure, promotes normalization of spermatogenesis (Kooti&Daraei, 2017; Golubkina et al., 2020).

Chips were obtained from the varieties of celery - Egor and Dobrynya, varieties of parsley - Cinderella selection of the Federal Scientific Center of Vegetable Growing.

Convection drying allows to preserve up to 100% of antioxidants, while during freeze drying, the preservation of antioxidants to 92%. The safety of polyphenols during convection drying was 80.2-98.1% for chips from celery and parsley root crops. The safety of vitamin C after freeze-drying is 72-96%, depending on the culture, and convection - 55-88%.

We found that freeze-drying provided maximum preservation of taste, aromatic properties, as well as vitamin C, in chips from celery and parsley root vegetables, which is why we recommend this drying method for obtaining vegetable chips. Such chips are a functional food product with a high content of antioxidants, polyphenols and ascorbic acid.

Keywords: chips, functional foods, celery, parsley, antioxidants.

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**ДИНАМИЧЕСКИЙ АНАЛИЗ ПЛАНЕТАРНОГО МЕХАНИЗМА С
ЭКСЦЕНТРИЧЕСКИМИ МАССАМИ.**

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Тезисы доклада. В докладе представлены результаты динамического анализа планетарного механизма с вращающимися эксцентрическими массами и экспериментальных исследований изменения скорости вращения и крутящего момента на водиле механизма. Разработана математическая модель планетарного механизма, состоящего из неподвижного центрального зубчатого колеса и обкатывающего его за счет водилы зубчатого колеса сателлита с эксцентрической массой. Получены аналитические зависимости крутящего момента и мощности на оси механизма в зависимости от скорости вращения привода, эксцентрической массы и геометрических размеров механизма, а также проведен анализ изменения кинетической энергии механизма в соответствии с законом сохранения момента количества движения в зависимости от изменения момента инерции вращающихся элементов механизма в экстремальных положениях и проведен анализ экспериментальных исследований этого механизма. Эксперименты показали, что при возрастании скорости вращения привода от 150 об/мин, водило вращается быстрее привода, то есть обгоняет привод. Этот обгон достигает значения в 1,95 раз при скорости вращения от 400 до 800 об/мин, затем несколько падает.

Также получены при помощи тензометрии зависимости крутящего момента на водиле механизма в зависимости от скорости вращения привода. Экспериментальные данные изменения скорости вращения водилы и крутящего момента на нем в зависимости от скорости вращения привода согласуются с аналитическими зависимостями изменения кинетической энергии механизма в соответствии с законом сохранения момента количества движения.

Ключевые слова: Динамический анализ, планетарный механизм, эксцентрические массы, силы инерции, момент количества движения.

ELECTROCHEMICAL DEVICES BASED ON GREEN ELECTRODE- ELECTROLYTE

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ABSTRACT

Researchers move recently to develop environmental safe materials due to Covid pandemic situation. Most of electrochemical devices comprise with electrodes and electrolyte. Moving forward a step we have tried to develop plastic waste based Carbon as electrodes and environmental safe polymer electrolyte. High conducting electrolyte developed are based on ionic liquid (IL) doped solid Polyethers. Porous Carbon materials has been developed using plastic bottle throne within campus of Sharda University while variety of low viscosity ionic liquid, like 1-ethyl -3-methyl imidazolium dicynamide (EmImdcn, viscosity 28 cP at 20 °C) and a polymers, i.e. polyvinyl alcohol (PVA), Polyethylene oxide (PEO) have been prepared using solution cast technique and characterized by impedance spectroscopy, optical microscopy (OM), differential scanning calorimetry, x-ray diffraction (XRD), and fourier transform infrared spectroscopy (FTIR). Finally we have tested these Carbon based electrodes and IL doped high conducting solid polymer electrolyte films in energy devices namely supercapacitors and dye sensitized solar cell.

Keywords: Ionic Liquid, Polymer electrolyte, Supercapacitor, Dye sensitized solar cell

HONEYCOMB BASED ACTIVATED CARBON FOR SUPERCAPACITOR APPLICATION

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ABSTRACT

Here by we are reporting activated carbon derived from honeycomb. Chemical activation is used for the activation of the activated carbon for which ZnCl_2 is used as an activating agent. Prepared carbon shows high BET surface area ($586.56 \text{ m}^2/\text{g}$). A quasi-solid-state supercapacitor is also fabricated using honeycomb based activated carbon and Ionic Liquid based polymer electrolyte which shows a high specific capacitance i.e. 67.48 F/g . (Kumar et al., 2022; Singh et al., 2022; Yadav et al., 2018)

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A MIXED METHODS STUDY ON THE VERBAL ABILITIES AND COGNITIVE FLEXIBILITY OF HUNGARIAN LEARNERS IN CLIL AND GENERAL LANGUAGE PROGRAMMES

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The number of schools offering CLIL (Content and Language Integrated Learning) programmes is increasing in Hungary. They consider language development as a natural and dynamic process in which learners play an active role. These programmes are characterized by the parallel use of both languages with the general aim of supporting conceptual knowledge construction in either language. Programmes like these provide intensive exposure to authentic second language embedded in meaningful practices with the final aim of making learners achieve an officially declared language level. This different L2 teaching approach can cause learners' qualitatively different levels of knowledge, learning paths and mental sets. For this reason, in this study, we applied Mixed Methods to investigate whether extensive (CLIL) and general second language use among instructed conditions result in different verbal and cognitive outcomes that are detectable via either quantitative and qualitative methods.

The study was designed in accordance with Creswell's Sequential Explanatory Design (2012) in which a quantitative large sample study is followed by a qualitative small sample study. In the model the qualitative method serves as the main method. The data received this way further refine the results to serve deeper understanding. In the first phase of the research an experimental group (CLIL group, N=69) and a control group (N=73) were compared by means of a language experience and proficiency questionnaire (LEAP-Q), a selective attention test (d2-R) and a phonemic fluency test (in the first language (L1=Hungarian) the second language (L2=English)). LEAP-Q questionnaire provided background information about learners' attitude, exposure and assumed level regarding the L1 and L2 in both groups. D2-R test was applied to explore whether there is a difference between the two groups in terms of selective attention that is usually cited to be more enhanced in bilinguals as a result of constant shifting between the L1 and L2. The purpose of the application of the phonemic fluency tests was twofold. Firstly, these test types provide information about learners' executive abilities and second, they might also refer to the size of their mental lexicon. Executive functioning was measured by variables of shifting and clustering while the size of the mental lexicon was defined by the total number of generated words and that of words from different word classes. Since word retrieval is often cited to be slower for bilinguals in comparison to monolinguals in the scientific literature, we expected results accordingly. For this reason, in the first phase a large-scale quantitative data collection and analysis was carried out with the aim of exploring specific verbal and cognitive patterns in the test outcomes. As a result, four different groups have been defined: a CLIL 'high' (N=3), a control 'high' (N=3), a CLIL 'low' (N=3) and a control 'low' (N=3) group. Those learners have been selected for the 'high' groups who achieved exceptionally high results in all test types compared to their group results. Conversely, 'low' group learners achieved the lowest results in all test types. We assumed that superiority in the tests would be reflected in the way learners form their opinions on L2-related questions. To gain insight in learners' thinking patterns, a structured interview served as a tool in the second phase of the research.

The test outcomes revealed no significant difference related to selective attention; however, significant differences were found for most of the variables related to phonemic fluency in the L2, indicating higher level of executive functioning in case of the experimental (CLIL 'high') group. Findings of the qualitative interview analyses were in line with these test outcomes. Our final conclusion is that the results might imply the superiority of the CLIL method over traditional L2 teaching methods.

Keywords: CLIL, executive functions, mental lexicon

IMPACT STRENGTH OF GEOMETRIC DESIGN AT A SINGLE LAP ADHESIVELY BONDED JOINTS

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ABSTRACT

The principal aims of adhesive bond are to ensure a uniform transfer of the stress along overlap length and transmit a maximum of them to minimize a stress concentration to avoid damages. Structural adhesive are strong, with a specifics characterizations which respond for the needs of different fields. The study of the influence of shear and peel stresses are very interesting in the fracture mechanics. This work fits in this context. The innovative idea of this work is to bring geometric modifications to an assembly system type Aluminum/Aluminum 2024-T3 bonded with an adhesive ADEKIT A-140 using the ASTM D1002 standard. The analysis of the stress distribution is realized by the three-dimensional finite element method using the ABAQUS calculation code. The modification made to the assembly considerably reduces the stresses at the edge of the adhesive and therefore makes the depth of the adhesive work, which balances the stresses along overlap length. As well as other results will be discussed in the article.

Keywords: Single-Lap-Joint; Peel stress; Shear stress.

EFFECT OF REPAIR NATURE ON THE MECHANICAL BEHAVIOR OF CRACKED STRUCTURES REPAIRED BY COMPOSITE PATCH

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ABSTRACT

The technology of bonded composite repair has displayed its efficiency for various domains. However, two important phenomena reduce the performance of this technique; the adhesive disband by the fatigue loading and the thermal residual stresses due to the adhesive curing. The heating process for the repair ensures a good spreading of the adhesive which generates an increase of the adhesion phenomenon for different parts of the repair system, but it causes a harmful thermal residual stress. The superposition of these stresses and the mechanical one in the repaired structure can lead to premature degradation of the junction by the damage of the adhesive layer. Our work revolves around this axis and aims at a comparative analysis of the mechanical behavior of repair at ambient temperature and the repair with heat adhesive curing process. This behavior is analyzed in terms of variation of normal stresses (stress intensity factor in mode I) and shear stresses in the adhesive layer. A numerical modeling based on the finite element method is used. The results obtained allow us to conclude that, the nature of the repair (hot or cold) plays a determining role in the performance of the repaired cracked structure in terms of normal stresses level in the cracking fronts (SIF) of the plate and of the maximum shear stresses at the adhesive layer. Compared to cold repair, hot repair generates normal and tangential stresses of high intensities. Residual stresses at the plate-adhesive interface induced by hot repair are responsible for this behavior. As well as other results will be discussed in the paper.

Keywords: Stress intensity factor, temperature, stress, composite patch.

**INFORMATION AND EDUCATIONAL ENVIRONMENT OF MEDICAL COLLEGES IN
TRAINING OF SPECIALISTS**

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ABSTRACT

The article analyzes the definition of information and educational environment in the works of Ukrainian and foreign scientists; based on the analysis of scientific works of foreign and domestic scientists the main characteristics of the information and educational environment are identified: openness, expandability, adaptability, scalability, integration and their definitions are presented. The functions of the information and educational environment are determined: informational, interactive, communicative, professional-oriented, coordinating, developmental; the scientific and pedagogical directions of information and educational environment formation are characterized: organizational, methodical, technical, resource-based, the explanation of these principles is given. The structure and possibilities of using the information and educational environment on an example of the structure of the information and educational environment in Vinnytsia medical professional college named after academician D.K. Zabolotny is characterized as well as the possibility of its implementation in the process of forming the professional competence of future specialists to practical activities. The need for a proper level of students' training in medical educational institutions is due to the urgent need of the society to provide high quality professional medical care in the context of reforming the medical field. The expediency of the methods used in medical colleges for training future specialists in the information and educational environment for professional activities requires a research. The relevance of the study is based on the need for new aspects of learning motivation and professional medical activities, updating the content of the bachelor's training, combination of personal needs and professional self-realization.

Key words: information and educational environment, medical college, training of specialists, professional activity.

**INFLUENCE OF LIQUID HYDROGEN DIFFUSION ON NONLINEAR MIXED
CONVECTIVE CIRCULATION AROUND A YAWED CYLINDER**

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ABSTRACT

A yawed cylinder is a cylinder inclined in the plane of a flowing liquid. The liquid flow past the yawed cylinder is important for practice, namely, for bubble suppression and control of the boundary layer transition in undersea applications. It should be noted that an inclined cylinder characterizes an asymmetrical behavior of fluid flow and heat transfer. Energy and mass transference characteristics of a steady nonlinear convective flow over the yawed cylinder by accounting for chemically reactive species and viscous dissipation are analyzed in this investigation. The differential equations defining the boundary layer parameters are then transformed into a dimensionless view, taking into account the non-similar transformation. It should be noted that the governing equations have been written using the conservation laws of mass, momentum, energy, and concentration. These considered equations allow the simulation of the analyzed phenomenon using numerical techniques. Further, quasilinearization and implicit finite difference approximation are used to work out the non-dimensional governing equations. A parametric investigation of all the pertinent characteristics accompanies this. A descriptive system of computation outcomes for the velocity, temperature, and concentration patterns, the drag coefficients, Nu and Sh , is demonstrated by graphs. Enhancing the magnitudes of the Eckert number raises the temperature pattern while energy transport strength is reduced. As the species concentration profile diminishes, the mass transfer characteristics are enhanced for raising magnitudes of the nonlinear chemical reaction parameter. Further, a velocity profile along the chordwise direction rises with enhancing magnitudes of nonlinear convection characteristics and yaw angle. Furthermore, the velocity pattern along the spanwise direction enhances with the growing magnitudes of yaw angle. For assisting buoyancy flow, the friction parameter at the border in the spanwise direction enhances with rising values of yaw angle.

Keywords: mixed convection; yawed cylinder; viscous dissipation; nonlinear chemical reaction; nonlinear convection parameter; Quasilinearization technique.

**QUADRATIC COMBINED CONVECTIVE FLOW AROUND YAWED CYLINDER IN
PRESENCE OF TIME VARIATIONS AND MAGNETIC EFFECTS**

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ABSTRACT

The significance of time-dependent variations in a quadratic combined convective MHD flow around an infinite yawed cylinder is explored in the present investigation. There are numerous real-world applications wherein the yawed-shaped bodies are used extensively, for example, overhead cables, bridge stay cables, chimney stacks etc. The dimensional governing equations are made dimensionless by applying the appropriate transformations of nonsimilar nature. After that, using the Quasilinearization technique, so obtained equations are linearized and are then discretized by employing implicit finite difference approximations. The flow and energy transfer characteristics are displayed through graphical representation for various values of combined convection parameter, yaw angle, quadratic convection parameter and magnetic parameter for the cases of steady, unsteady, and in particular, for accelerating and decelerating flows. In the case of unsteady flow, velocity distributions along chordwise and spanwise directions (i.e., x and z -directions, respectively) reduce when compared with the steady case. As the yaw angle increases, i.e., the cylinder tilts more, it causes high inner pressure in the fluid, increasing its velocity in all directions. The velocity profiles, surface drag coefficients along chordwise and spanwise paths and energy transfer rate enhance whenever the quadratic convection characteristic upsurges for both steady and unsteady cases. To validate the accuracy of the present numerical approach, the rate of energy transfer values are computed and compared with the prior research findings. The current findings are reported to be in good agreement with prior results.

Keywords: Unsteady flow; Yawed cylinder; Quasilinearization technique; Finite difference scheme; Magnetohydrodynamics (MHD); Quadratic combined convection.

DISSECTION OF THE MOLECULAR AETIOLOGY OF IMPRINTING DISORDERS USING GENETIC AND EPIGENETIC CRISPR EDITING TOOLS***Sabina Farhadova^{1,2,3,*} / Amani Ghousein^{2,3*} and Robert Feil^{2,3}***¹Institute of Genetic Resources, Azerbaijan National Academy of Sciences (ANAS), Bakou, Azerbaijan.²Institute of Molecular Genetics of Montpellier (IGMM), Centre National de Recherche Scientifique (CNRS), Montpellier.³University of Montpellier.

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ABSTRACT

Our laboratory has explored the disease-associated *Dlk1-Dio3* imprinted gene domain. In humans, DNA methylation changes at this 1.8-Mb domain cause the growth- and endocrine disorders Temple Syndrome (TS) and Kagami-Ogata Syndrome (KOS) (Farhadova *et al.* 2019). The domain comprises an essential antagonistic Notch-signalling gene, *Dlk1* (Delta like-1), which becomes transcriptionally activated on the paternal chromosome during development. What prevents *Dlk1* activation on the maternal chromosome is unclear. Imprinted expression along the domain, however, requires an 'imprinting control region' (ICR) whose unmethylated maternal copy drives the expression of a close-by polycistron that, besides many miRNAs (*Mirg* gene) and C/D box snoRNAs (*Rian* gene), produces a long ncRNA (lncRNA) called Meg3 (Kota *et al.* 2014). Although Meg3 lncRNA is strictly nuclear and retained *in cis*, it remains unknown whether this lncRNA itself controls the imprinted expression of *Dlk1* (Sanli *et al.* 2018).

We used hybrid mouse systems and CRISPR-based genetic and epigenetic editing to address this key question. Naïve hybrid embryonic stem cell (ESC) lines were generated that had insertions of a poly(A) signal (pAS) at different positions, to abrogate RNA expression across different parts of the 220-kb ncRNA polycistron. Following differentiation of the obtained recombinant hybrid ESC lines, our RNA expression studies indicate that the Meg3 lncRNA (and not other ncRNAs of the polycistron) is required for the allelic repression of *Dlk1* during development. To unravel the consequences of pathological DNA methylation changes we used a novel transient CRISPR-dCas9-SunTag system that recruits TET1 to gRNA-targeted sequences (Morita *et al.*, 2016). This approach led to DNA demethylation at the (normally methylated) paternal *Meg3* promoter. This was stably maintained and induced biallelic expression of the polycistron in the ESCs. Following differentiation, it gave rise to a lack of *Dlk1* expression on both the parental genomes. Our combined CRISPR studies show that the *Meg3* lncRNA itself is functionally important, and we are currently exploring whether its effects on *Dlk1* involve chromatin structural changes (Llères *et al.* 2019). The requirement of Meg3 lncRNA for *Dlk1* imprinting helps to understand the human imprinting disorders TS and KOS.

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**MICROSTRUCTURES OF THE OTOLITH IN DIFFERENT BODY SIZE GROUPS OF
BANDED GOURAMI *TRICHOGASTER FASCIATA* (OSPHRONEMEDIAE,
ANABANTIFORMES)**

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ABSTRACT

Analysis of otolith morphology is considered as an important tool for fish taxonomy and various other studies of the fishery. Our investigation aimed to compare the developmental variations of various microstructures of the sagitta otolith in different body size groups of the *Trichogaster fasciata* using the scanning electron microscope. The sagitta of *T. fasciata* is an ovate-shaped structure with a well-developed orthorostrum patch and dorsal depression. Depth of the orthorostrum patch and its basal elevations have increased with the increment of the total length. The sulcus is the ostio-caudal type structure that lacks collum. The growth stripes are very prominent in the wall of the sulcus and the orthorostrum patch but they are very prominent in the fishes of the larger body size. The rostrum and excisura major are well-developed while the antirostrum is poorly developed. The marginal sculpture is dorsally lobate and ventrally crenate shaped with well-developed scallops. Numerous hexangular stony pillars of various sizes are found near the distal end of the dorsal and ventral surface of the sagitta and their growth is varied with the total length of the fish. The fifty-eight sagitta microstructural characteristics are studied and analyzed their significant relationship with the total length of the fish. Most of the descriptors of the sagitta showed a characteristic morphometric variation with the increment of the body size of the fish. Different shape indices such as the form factor, circularity, and aspect ratio are analyzed and established their relative relationship in the different body size groups. The detailed ultrastructural features of the sagitta are described for the first time in the freshwater labyrinth perch. The otolith characteristics of the *T. fasciata* are also helpful for inter-specific and inter-genus relationships among the Anabantiformes.

MATHEMATICAL APPROACHES TO SCORPION STINGS PREDICTION AND CONTROL

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ABSTRACT

Scorpionism is an actual public health problem in North-Saharan and South and East Africa, Middle-East, South India, Brazil, Mexico and Amazonian basin. The scorpions mainly predominate in arid, semi-arid or Saharan areas of the world in a band not exceeding 50° latitude, both south and north, and their distribution is dependent on a number of factors. The human, scorpion, climate and environment are the main factors that determine the epidemiology of scorpion envenomations. Even though scorpionism is geographically limited, the world's population at risk of scorpion envenomations is almost two and a half billion people.

Owing to its climatic and geographic conditions and ecological characteristics, Algeria houses a diverse scorpion fauna and is faced to endemic scorpionism and ranks among the leading endemic countries in the world with an annual average of around 50 000 stings. More than 46 species are catalogued for the country, including four dangerous species to human. The epidemiological situation revealed that 45 out of 48 provinces were affected by scorpion envenomation accidents in 2019; that is, 86 % of the estimated population was at risk of scorpion stings.

Mathematics has long been an important tool for understanding and controlling the life related issues. Here, we present an overview of the epidemiology of scorpion envenomations in Algeria as well as the mathematical approaches used to date to scorpion stings prediction and control.

FACILE GREEN FABRICATION OF IRON OXIDE-CHITOSAN (Fe₃O₄-CHITOSAN) NANOCOMPOSITES FOR THE ADSORPTION OF MERCURY IN AQUEOUS SOLUTION

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ABSTRACT

Mercury is considered as one of the most toxic pollutants found in the aquatic ecosystem, which has been of great concern to environment and public health. Hence, its removal from the aquatic environment using nanotechnology is of paramount importance. Fabricated nanoparticles from Iron oxides are gaining more attention because of their unique properties which include effective magnetism, modifiability of the particle surface, high biocompatibility, large surface area to volume ratio, easily separation, recyclability and economical. In the present experiment, extract of *Ricinus communis* (Castor plant) was used as capping and stabilizing agent to synthesized magnetic magnetite (Fe₃O₄) modified with natural biopolymer-chitosan via co-precipitation techniques for the removal mercury in aqueous solution. The synthesized nanocomposite (Fe₃O₄-chitosan) was characterized using field emission scanning electron microscopic (FE-SEM), energy dispersive X-rays (EDX), X-ray diffraction, the functional groups on the surface of Fe₃O₄-chitosan NC was analyze using FTIR spectroscopy, while magnetic measurement was examined with vibrating sample magnetometer (VSM). The specific surface area was measured using Brunauer-Emmett-Teller (BET). The effects of analytical parameters such as pH range, effect of temperature, contact time and adsorbent dosage were studied and optimized. The adsorption equilibrium was best fitted to the Langmuir isotherm. The maximum capacity examine from Langmuir isotherm was 168.27 mg/g at 303 K. Adsorption kinetics of Hg²⁺ was best described with pseudo-second-order kinetic model. Thermodynamics studies reveal that with an increase of solution temperature 303K, 313K and 323K the adsorption efficiency decreases correspondingly to -89.46, -81.77 and -73.95 KJ/mol respectively, suggesting exothermic nature of the adsorption process. The reusability of the green synthesized adsorbent (Fe₃O₄-chitosan) indicated five successful sequential cycles. Thus, the fabricated green magnetite chitosan composites can be used as a reliable and sustainable material for efficient removal of Hg²⁺ species from aqueous solution.

Keywords: Mercury, Iron Oxides, Chitosan, Aquatic ecosystem, Nanocomposite, Kinetic Models

BIOECONOMY: INTERDISCIPLINARY RESEARCH

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ABSTRACT

The article considers the concept of bioeconomy as an interdisciplinary scientific component based on economics, biotechnology and ecology.

It is determined that science and technology are important factors in shaping the economy based on biotechnology. However, social processes also play an important role on the path to the bioeconomy. These include, but are not limited to, global population growth and, as a result, conflicting goals in the competition for biogenic resources or new patterns of life and consumption. Consideration of these socially significant aspects of the bioeconomy is an important part of bioeconomic research.

It is emphasized that the bioeconomy is of strategic importance for the chemical, pharmaceutical and biotechnology industries in the framework of the global growth strategy. Its technical basis is industrial biotechnology, which processes biomass into organic products.

The bioeconomy affects all industrial sectors, such as the chemical, pharmaceutical, energy, food and textile industries, agriculture and forestry, as well as consumer goods, construction and automotive. Bioeconomy is based on the latest scientific discoveries and combines technology, ecology and efficient economics.

Bioeconomy is a form of economy that provides sustainable use of biological resources and knowledge of biological systems for processes, products and services in all applications and sectors of the economy.

Bioeconomy means the sustainable use of biological resources such as plants, animals and microorganisms.

Analyzing the above approaches to the definitive aspect of bioeconomy, the following explanations can be made in order to further their development and use in explaining phenomena, processes and laws that go beyond the traditional sciences and are studied in the interdisciplinary sciences.

Key words: economics, bioeconomy, biotechnology, ecology, interdisciplinary research.

ЭКОНОМИЧЕСКИЙ АНАЛИЗ ДЕЯТЕЛЬНОСТИ ПРЕДПРИЯТИЯ

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Современная рыночная экономика требует конкурентоспособности товаров и услуг с внедрением инновационных идей, увеличения эффективности работы предприятий, новых бизнес-проектов. Новшества, вошедшие на рынок и имеющие большой спрос, соответственно улучшают эффективность компании, а также укрепляют конкурентоспособность. Однако, не всегда организациям удастся выходить на первые позиции, и иметь положительный рост. Для определения направления работы предприятия необходимо проводить анализы, которые выявляют сильные и слабые показатели работы компании. Одним из таких исследований является экономический анализ, который позволяет отслеживать и проводить диагностику её финансового состояния, осмыслить перспективность её деятельности в сложившихся реалиях, определить факторы, влияющие на величину прибыли и предложить методы предупреждения банкротства или его профилактики. Грамотно проведённый анализ выводит проблемы, задерживающие и препятствующие развитию организации, а также находить пути увеличения её доходов.

В работе даются определения и классификации видов экономического анализа, позволяющих определять состояние деятельности компании и прогнозировать дальнейшие результаты.

Во введении обоснована актуальность темы проекта, определены цель и задачи, обозначен объект исследования.

Далее предоставлен анализ рентабельности, ликвидности, деловой активности и финансовой устойчивости компании ТОО «Оператор финансовой поддержки сельского хозяйства», которая является одним из лидеров в сельскохозяйственной отрасли Казахстана.

Также проведён корреляционно-регрессионный, для определения влияния факторов на доход компании.

Ключевые слова: экономический анализ деятельности компании, показатели эффективности, рентабельность, ликвидность, финансовая устойчивость, деятельность международных компаний.

ÖĞRENCİLERİN UZAKTAN EĞİTİME YÖNELİK İMGE VE ALGILARI: BİR METAFOR ANALİZİ

STUDENTS' IMAGES AND PERCEPTIONS AGAINST DISTANCE EDUCATION: A METAPHOR ANALYSIS

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ÖZET

Moore, (2002) “eskiden insanlar bilgiye gelirdi ve bilgi üniversitelerdeydi; gelecekte ise insanlar nerede olurlarsa olsunlar bilgiler onlara gelecektir” söylemiyle aslında bireylerin zamandan ve mekândan bağımsız kendilerini özgür hissettikleri bir öğrenme anlayışına vurgu yapmıştır. (Akt: Çokyaman, Ünal, 2021). Uzaktan eğitim yüzyüze örgün eğitime bir alternatif olarak hatta gelecekte bu yüzyüze-örgün eğitimin yerini alacağı gözüyle bakılan bir öğrenme biçimi haline gelmiştir. Covit-19 salgını ile her alanda olduğu gibi eğitim alanında da küresel ölçekte yaşanan durumun etkisiyle uzaktan eğitim ön plana çıkmış ve gelişimini büyük ve ani değişimlerle hızlandırmıştır. Aniden ortaya çıkan durumla gelen öngörülmezlik ve plansızlıkla birlikte, hızlı hareket etme zorunluluğu uzaktan eğitimin önemli aksaklıklar ve sorunlarla beraber yoğun ve kapsamlı şekilde devreye sokulmasını zorunlu kılmıştır. Bu yeni fiili durum, eğitime ilişkin yoğun tartışmaları beraberinde getirdiği gibi uzaktan eğitim pek çok yeni bilimsel araştırmanın da konusu olmuştur. Bu anlamda uzaktan eğitimin işleyişini, niteliğini ve yaşanan sorunları öğrencilerin gözünden okumak, süreci öğrencilerin perspektifinden değerlendirmek önemli görülmektedir.

Bu çalışmada amaç ortaöğretim öğrencilerinin uzaktan eğitime ilişkin algılarını nitel olgu bilim (fenomenoloji) yöntemi çerçevesinde metafor analizi ile incelemektir. Araştırmanın çalışma grubunu 2020-2021 öğretim yılında Siirt İli Merkez ilçesinde öğrenim gören toplam 65 ortaöğretim öğrencisi oluşturmaktadır. Araştırmada nitel araştırma yöntemlerinden temel yorumlayıcı nitel desen kullanılmış ve veriler içerik analizi tekniği ile çözümlenmiştir. Araştırmanın verileri, görüşme yoluyla elde edilmiştir. Bu görüşmelerde katılımcılardan uzaktan eğitime ilişkin metafor üretmeleri ve bunu gerekçelendirmeleri istenmiştir. Araştırmaya katılan öğrencilerin uzaktan eğitim kavramına ilişkin ürettikleri 65 geçerli metafor ortak özellikleri bakımından olumlu ve olumsuz iki kavramsal kategoriye ayrılmış ve temalandırılmıştır. Bu çalışmada öğrenciler tarafından geliştirilen metaforlardan benzer temaları içerenler aynı başlık altında bir araya getirilerek kategoriler oluşturulmuştur. Oluşturulan metaforların benzer olma durumları belirlenirken benzetme yönü esas alınmıştır. Olumlu metaforlar yararlılık, esneklik ve kurtarıcılık; olumsuz metaforlar ise verimsizlik, etkileşimsizlik, ve teknik sorunlar temaları altında yorumlanmıştır. Öğrencilerin çoğunluğunun olumlu metaforlar kullandığı ve uzaktan eğitime yönelik olumlu imgelere sahip oldukları görülmüştür.

Anahtar Kelimeler: Uzaktan eğitim, online eğitim, çevrimiçi öğrenme, pandemi, koronavirüs, metafor

ABSTRACT

Moore, (2002) “formerly people came to knowledge and knowledge was in universities; In the future, wherever people are, information will come to them,” he emphasized on a learning approach in which individuals feel free regardless of time and place. (Acted by Çokyaman, Ünal, 2021). Distance education has become an alternative to face-to-face formal education, and even a form of learning that is

considered to replace face-to-face formal education in the future. With the Covid-19 epidemic, distance education has come to the forefront with the effect of the global situation in the field of education, as in every field, and has accelerated its development with great and sudden changes. Along with the unpredictability and unplannedness that came with the sudden situation, the necessity to act quickly necessitated the intense and comprehensive introduction of distance education with important disruptions and problems. This new de facto situation brought along intense debates on education, and distance education has also been the subject of many new scientific researches. In this sense, it is considered important to read the functioning, quality and problems of distance education from the eyes of the students and to evaluate the process from the perspective of the students.

The aim of this study is to examine secondary school students' perceptions of distance education through metaphor analysis within the framework of qualitative phenomenology method. The study group of the research consists of 65 secondary school students studying in the central district of Siirt in the 2020-2021 academic year. In the research, the basic interpretive qualitative design, one of the qualitative research methods, was used and the data were analyzed by content analysis technique. The data of the research were obtained through interviews. In these interviews, the participants were asked to produce metaphors about distance education and justify it. The 65 valid metaphors produced by the students participating in the research regarding the concept of distance education were divided into two conceptual categories, positive and negative, in terms of their common characteristics, and they were themed. In this study, the metaphors developed by the students containing similar themes were brought together under the same heading and categories were created. While determining the similarity of the created metaphors, the analogy aspect was taken as a basis. Positive metaphors are usefulness, resilience, and redemption; negative metaphors were interpreted under the themes of inefficiency, lack of interaction, and technical problems. It was observed that the majority of the students used positive metaphors and had positive images of distance education.

Keywords: Distance education, online education, online learning, pandemic, coronavirus, metaphor

**ÇANAKKALE İLİ KIŞLIK SEBZE ALANLARINDA LAHANA YAPRAK GÜVESİ
(*PLUTELLA XYLOSTELLA* L.) (LEPIDOPTERA: PLUTELLIDAE)' NİN POPÜLASYON
GELİŞİMİ VE ZARAR DURUMUNUN BELİRLENMESİ**

DETERMINATION OF POPULATION DEVELOPMENT AND DAMAGE STATUS OF
DIAMINDBACK MOTH (*PLUTELLA XYLOSTELLA* L.) (LEPIDOPTERA: PLUTELLIDAE) IN
WINTER VEGETABLE AREAS OF ÇANAKKALE PROVINCE

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ÖZET

Kışlık sebzeler insan sağlığı açısından önemli bir besin kaynağıdır. Kışlık sebze çeşitlerinin büyük bir kısmını ise lahanagiller (Brassicaceae) oluşturmaktadır. Çanakkale ilinde geniş bir alanda kışlık sebze üretimi yapılmaktadır. Üretimi gerçekleştirilen bu ürünlerin bir kısmı il bazında piyasaya sunulurken bir kısmı da il dışında pazarlanmaktadır. Bu ürünlerdeki kalite ve görünüm pazar değeri olarak önem taşımaktadır. Çanakkale ilinde 2019-2021 yılları arasında yapılan bu çalışmada kışlık sebze alanlarında Brassicaceae (lahanagiller) familyasında zararlı olan önemli türlerden biri *Plutella xylostella* (L.) (Lepidoptera: Plutellidae) (Lahana Yaprak Güvesi) 'nin zarar durumu ve ergin popülasyon gelişmesi incelenmiştir. Çalışma Çanakkale ili ve merkezi yerleşim bölgesinde her iki yılda dörder tarlada yürütülmüştür. Yürütülen çalışmada zararlının yumurtalarını bitkilerin dış kısmına bıraktığı ve bu yumurtadan çıkan larvaların yapraklarla yoğun bir şekilde beslenerek, zarar yaptıkları gözlenmiştir. Fidelerin tarlaya şaşırtılmasından hasat edilmeye kadar olan sürede çalışmalar devam etmiş, yapraklardaki zarar oranı, larva sayısı ve pupa sayıları kaydedilmiştir. Sonuç olarak yapraklardaki zarar oranının dıştan içe doğru azaldığı fakat larva ve pupa sayılarının dıştan içe doğru arttığı kaydedilmiştir. Ergin popülasyon takibi için feromon tuzakları eylül ayında tarlalara yerleştirilmiştir. Tuzaklardaki ilk erginler 27.09.2019 tarihinde belirlenmiştir. En yüksek birey sayısı tuzak başına 38 adet olarak 07.10.2019 tarihinde belirlenmiştir. 16.01.2020 tarihinden itibaren tuzaklarda ergin belirlenememiştir. Çalışma sonunda zararlının Çanakkale ili kışlık sebze alanlarında önemli bir sorun olduğunu ve ürünlerin pazar değerini azalttığı belirlenmiştir.

Anahtar Kelimeler: *Plutella xylostella*, Kışlık sebze, Zarar şekli, Lahanagiller (brassicaceae), Çanakkale.

ABSTRACT

Winter vegetables are an important source of nutrients for human health. Most of the Winter vegetable varieties are crucifers (Brassicaceae). Winter vegetables are produced in a large area in Çanakkale. While some of these products are offered to the market on a provincial basis, some are marketed out of the province. The quality and appearance of these products are important as market value. In this study, which was carried out between 2019-2021 in Çanakkale province, the damage status and adult Population development of *Plutella xylostella* (L.) (Lepidoptera: Plutellidae) (Cabbage Leaf Moth) which is one of the important pests of the Brassicaceae (cabbage family) family, were investigated in Winter vegetable fields. The study was carried out in four fields each throughout these two years in Çanakkale province and central settlement area. In the study carried out, it was observed that the pest lays its eggs on the outside of the plants and the larvas that emerge from this egg intensively are fed

with the leaves and cause damage. The studies continued during the period from transplanting the seedlings to the harvest, and the damage rate on the leaves, the number of larvae and pupas were recorded. As a result, it was noted that the damage rate on the leaves decreased from the outside to the inside, but the number of larvae and pupas increased from the outside to the inside. In September, Pheromone traps were placed in the fields to monitor adult population. The first adults in the traps were determined on 27.09.2019. The highest number of individuals was determined as 38 per trap on 07.10.2019. As of 16.01.2020, no adults have been identified in the traps. At the end of the study, it was determined that the pest is a crucial problem in winter vegetable areas of Çanakkale province and reduces the market value of the products.

Keywords: *Plutella xylostella*, Winter vegetable, Type of damage, Crucifers (brassicaceae), Çanakkale.

**PAZARCIK'IN TARIM POTANSİYELİNİN COĞRAFI BAKIŞ AÇISIYLA
DEĞERLENDİRİLMESİ**

**EVALUATION OF PAZARCIK'S AGRICULTURAL POTENTIAL FROM A GEOGRAPHICAL
PERSPECTIVE**

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ÖZET

İnsan kültür ve uygarlığının en somut sonuçlarından olan tarımsal üretim; tarihsel kökeni, gelişimi ve değişimi ile coğrafi çevrenin dokusunu oluşturan süreçlerle bağlantılıdır. İnsanlar besin ihtiyacını karşılayabilmek için çok eski dönemlerden beri tarımsal faaliyetler ile uğraşmıştır. Pazarcık Akdeniz Bölgesi'nin Adana Bölümünde yer alan Kahramanmaraş iline bağlı bir ilçedir. Sahip olduğu coğrafi yapı ve ekolojik koşullar sebebiyle tarım potansiyeli ve ürün çeşitliliği oldukça yüksektir.

Bu çalışmanın amacı, sahanın coğrafi koşulları ile birlikte sınırlılıklarını belirlemek ve süreç dâhilindeki tarım potansiyelini ortaya koymaktır. Çalışmada Pazarcık'ın mevcut tarım potansiyeli arazi kullanım kabiliyet sınıfları ve arazi kullanım verileri dikkate alınarak sürdürülebilirlik ilkeleri doğrultusunda değerlendirilmiştir. Çalışmada betimsel tarama yöntemi kullanılmıştır. Çalışma kapsamında literatür taraması, arazi gezi gözlemleri yapılmış ve çeşitli kamu kurum ve kuruluşlarından veri temin edilmiştir. Çalışma alanının doğal ortam özellikleri, arazi kullanım durumu, toprak yapısı ve arazi kullanım kabiliyet sınıfları belirlenerek ArcGIS (10.5) programında haritalandırılmıştır. Çalışmanın amacı doğrultusunda haritalar tablo, grafik ve fotoğraflarla da desteklenmiştir.

Pazarcık 382.232 dekar tarım arazisine sahip olup, başta tahıl olmak üzere sebze ve meyve yetiştirilmektedir. En fazla ekilen ürün ise buğday ve mısırdır. Pazarcık'ın güneybatısında 22 bin hektarlık alanı kaplayan Narlı Ovası, verimli tarım arazilerine sahiptir. I. ve II. sınıf tarım arazilerinden oluşan Narlı Ovası'nda en çok pamuk, mısır, buğday, ayçiçeği ve şeker pancarı üretilmektedir. Pamuk, yörenin en çok gelir getiren tarım ürünü olma özelliği göstermektedir.

Çalışma alanının tarımsal üretim potansiyelinin yüksek olması gerek bölge ve gerekse ülke ekonomisi açısından büyük önem taşımaktadır. Artan iç talebi karşılamak ve ekilebilir arazilerin oransal olarak artışı sağlamak için üretimin modern metotlarla yapılması önem arz etmektedir. Tarımsal üretimde teknolojilerin kullanılmasıyla birlikte verimliliğin sürdürülebilirliğinde düzenli artışların olacağı düşünülmektedir.

Anahtar Kelimeler: Tarım Üretim, Tarımsal Yapı, Coğrafi Bilgi Sistemleri, Pazarcık.

ABSTRACT

Agricultural production, one of the most tangible results of human culture and civilization; It is related to its historical origin, development and change and the processes that form the texture of the geographical environment. People have been dealing with agricultural activities since ancient times in order to meet their nutritional needs. Pazarcık is a town in the province of Kahramanmaraş, located in

the Adana part of the Mediterranean Region. Due to its geographical structure and ecological conditions, its agricultural potential and product diversity are quite high.

The aim of this study is to determine the geographical conditions and limitations of the field and to reveal the agricultural potential within the process. In the study, Pazarcık's current agricultural potential has been evaluated in line with sustainability principles, taking into account land use capability classes and land use data. Descriptive survey method was used in the study. Within the scope of the study, literature review, field trip observations were made and data were obtained from various public institutions and organizations. The natural environment characteristics, land use status, soil structure and land use capability classes of the study area were determined and mapped in the ArcGIS (10.5) program. In line with the purpose of the study, maps were also supported with tables, graphics and photographs.

Pazarcık has 382,232 decares of agricultural land and mainly grains, vegetables and fruits are grown. Covering an area of 22 thousand hectares in the southwest of Pazarcık, Narlı Plain has fertile agricultural lands. Most cotton, corn, wheat, sunflower and sugar beet are produced in the Narlı Plain, which consists of first class agricultural lands. Cotton is the most earner agricultural product of the region.

The high agricultural production potential of the study area is of great importance for the economy of the region and the country. In order to meet the increasing domestic demand, it is important to carry out production with modern methods. It is thought that there will be an increase in the productivity of the soil with the use of technologies in agricultural production.

Key words: Agriculture Production, Agricultural Structure, Geographic Information Systems, Pazarcık.

İKLİM KRİZİ VE GÜNCEL SANAT

CLIMATE CRISIS AND CONTEMPORARY ART

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ÖZET

Doğa, çok eski zamanlardan beri sanatçılar için bir ilham kaynağı olmuştur. Ancak son yıllarda, yangınların, kasırgaların, sellerin ve sıcak dalgalarının neredeyse günlük tecrübe edildiği bir dünyada ekolojik krizin etkileri çok daha fazla hissedilmeye başlamış, içinde bulunduğumuz ekolojik kriz hem yerel hem küresel olarak en yaşamsal sorunlardan biri haline gelmiştir. Günümüzde insanın ayrıcalıklı bir varlık oluşunu, doğa karşısında ezici bir güç haline gelişini ve insanlığın dünyaya olan etkisinin en üst düzeylere çıkmasını ifade eden Antroposen çağa girdiğimiz düşünülmektedir. Bu bağlamda bu düşünceye eleştirel bir bakış açısı getiren ve iklim krizinin giderek artan ve kaçınılmaz etkilerini konu edinen sanatçılar da ortaya çıkmış, bu ekolojik tehlikeleri eserlerine yansıtan birçok sanatçı, çalışmalarını farkındalık yaratmak ve daha sürdürülebilir bir gelecek hayal etmek için bir platform olarak kullanarak adeta birer iklim aktivisti hâline gelmiştir. Sanatın yaşadığımız gezegenin bugünü ve geleceğini tehdit eden ekolojik krize karşı değişim yolunda güçlü bir araç olabileceği düşüncesi ile sanatçılar eyleme geçmiş ve çözüm ya da farkındalık yaratma amacıyla işler üretmeye başlamışlardır. Bu bağlamda gezegenimizi tehdit eden ve acil bir durum haline gelen iklim krizini üretim pratiğine dahil eden sanatçıların sayısı günümüzde giderek artmaktadır. Bu çalışma ile çevreye ve tahakküm altında olan doğaya karşı duyarlı olan ve kendi pratiklerini bu yönde dönüştürme sorumluluğunu duyarak işler üreten sanatçıların eserleri incelenmiştir.

Anahtar Kelimeler: İklim Krizi, Ekolojik Sanat, Çevresel Sanat, Doğa, Güncel Sanat

ABSTRACT

Nature has been an inspiration for artists since time immemorial. However, in recent years, in a world where fires, hurricanes, floods and heat waves are experienced almost daily, the effects of the ecological crisis have begun to be felt much more, and the ecological crisis we are in has become one of the most vital problems both locally and globally. Today, it is thought that we have entered the Anthropocene era, which expresses the fact that man is a privileged being, has become an overwhelming power against nature, and that humanity's influence on the world has reached its highest levels. In this context, artists who take a critical perspective to this idea and deal with the increasing and inevitable effects of the climate crisis have emerged, many artists who reflect these ecological dangers in their works, using their works as a platform to raise awareness and dream of a more sustainable future, almost as a climate changer. became an activist. With the idea that art can be a powerful tool for change against the ecological crisis that threatens the present and future of the planet we live in, artists took action and started to produce works with the aim of raising awareness or solutions. In this context, the number of artists who include the climate crisis, which threatens our planet and has become an emergency, into their production practice is increasing day by day. In this study, the works of artists who are sensitive to the environment and the nature that is under domination and who produce works with the responsibility of transforming their own practices in this direction have been examined.

Keywords: Climate Crisis, Ecological Art, Environmental Art, Nature, Contemporary Art

PRELIMINARY STUDY ON THE FORMULATION AND PHYSICAL AND RHEOLOGICAL EVALUATION OF SOME BIOCOMPATIBLE HYDROPHILIC CREAMS WITH CENTELLA ASIATICA OIL FOR DERMATOLOGIC USE

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ABSTRACT

Due to its major bioactive compounds (asiatic acid, madecassic acid, asiaticoside and madecassoside), *Centella asiatica* oil (CAO) is used in dermatology in wound healing and in the treatment of inflammatory skin disorders. The present study aimed to develop and evaluate physically and rheologically some hydrophilic creams using CAO as main and also bioactive component of the lipophilic phase, a biocompatible mixture composed of Emulgade PL 68/50-Span 65 or Tween 65-Span 65 as surfactant and cetyl stearyl alcohol as stabilizer. Also, other two oils (Jojoba oil and isopropyl myristate each 5%), glycerol (5%), methylparaben (0.1%) and vitamin E (1%) were added to improve the quality profile of the creams. CAO in concentration of 10%, 15% and 20% was emulsified with 9% surfactant's mixture (8% Emulgade PL 68/50 or Tween 65 and 1% Span 65). Six hydrophilic creams were prepared in accordance with pharmacopoeial provisions, and were evaluated in terms of organoleptic features, pH and rheological properties (flow behavior, viscosity, thixotropy, consistency and spreadability). For all tested systems, the results revealed a homogeneous and elegant appearance, pH values in the range of 5.89-6.28, and appropriate rheological properties, namely pseudoplastic and thixotropic flow behavior, viscosity, consistency and spreadability specific to semisolid preparations. The CAO concentration and the type of hydrophilic surfactant (Emulgade PL 68/50 and Tween 65) influenced the rheological parameters of the developed creams. In conclusion, the obtained preliminary data confirm the successfully formulation of CAO as hydrophilic creams and offer a background useful for further studies.

Keywords: *Centella asiatica* oil, hydrophilic cream, wound healing.

**TÜRKİYE'DE COVID 19 PANDEMİSİ ÖNCESİ VE DÖNEMİNDE BÖLGELERE GÖRE
YATAK KULLANIM PERFORMANSI**

**BED UTILIZATION PERFORMANCE BY REGION IN TURKEY BEFORE AND DURING THE
COVID 19 PANDEMIC**

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ÖZET

Dünya Sağlık Örgütü, 11 Mart 2020 tarihinde COVID-19'u pandemi olarak ilan etmiştir. Covid-19 toplumda enfekte riski çok yüksek olması nedeniyle bütün ülkelerin sağlık otoriteleri acil haller dışında sağlık kuruluşlarına yapılan başvuruların azaltılması gerektiğini bildirmişlerdir. Bu nedenle tüm dünyada olduğu gibi Türkiye'de de pandemi döneminde hastanelere yapılan başvurular azalmıştır. Bu araştırmanın amacı, Türkiye'de Covid-19 pandemisi öncesi (2019) ve döneminde bölgelere göre yatak kullanım performans düzeylerini tespit etmektir. Araştırmada bölgelere göre sağlık kuruluşlarının performans düzeylerini tespit edebilmek için Pabon Lasso modeli kullanılmıştır. Pabon Lasso modelinde yatak doluluk oranı, yatak devir hızı ve ortalama yatış süresi değişken olarak alınmıştır. Araştırma verileri Sağlık Bakanlığı Sağlık Bilgi Sistemleri Genel Müdürlüğü tarafından yayınlanan raporlardan derlenmiştir. Verilerin analizinde MS Visio ve MS Excel yazılımlarından yararlanılmıştır.

Araştırma verilerinden elde edilen bulgulara göre pandemi öncesi hekime müracaat sayısı 9,8 iken pandemi döneminde 7,2'ye düşmüştür. Bu durum pandemi döneminde yatak kullanım performans göstergeleri olan yatak doluluk oranı ve yatak devir hızının da düşmesine neden olmuştur. Pandemi koşulları nedeniyle ortalama yatış süresi ise artmıştır. Pabon Lasso modeli sonuçlarına göre pandemi öncesi dönemde en verimli bölge Akdeniz Bölgesi iken en verimsiz bölge Batı Anadolu Bölgesi'dir. Araştırma sonucunda pandemi döneminde en verimli bölgenin Güneydoğu Anadolu Bölgesi en verimsiz bölgenin ise Batı Anadolu olduğu tespit edilmiştir. COVID-19 salgını, dünya çapında olduğu gibi Türkiye'de de rutin hastane hizmetlerini kesintiye uğratmıştır. 2014 Dünya Sağlık Raporunda sağlık sektörü kaynaklarının yaklaşık %20-40'nın verimsiz kullanıldığını ifade etmektedir. Türkiye'de pandemi öncesi yıllarda yatak kullanım oranı ortalama %70 iken pandemi döneminde bu oran %52'ye düşmüştür. Pandemi döneminde uygulanan kısıtlamalara ilave olarak küresel düzeyde tedarik zincirinde yaşanan problemler ilaç ve tıbbi malzeme temin edilememesine dolayısıyla birçok hastanın yatışının iptal edilmesine neden olmuştur. Pandeminin etkisinin azalmasıyla birlikte yatak kullanımı ile ilgili göstergeleri verimsiz olan bölgelerdeki sağlık kuruluşlarını verimli hale getirebilecek politikalar belirlenerek iyileşme oranları takip edilmelidir.

Anahtar Kelimeler: Yatak performansı, Pandemi, Pabon Lasso Modeli

ABSTRACT

The World Health Organization declared COVID-19 as a pandemic on March 11, 2020. Due to the high risk of infection in the community of Covid-19, the health authorities of all countries have stated that applications to health institutions should be reduced, except for emergencies. For this reason, applications to hospitals have decreased during the pandemic period in Turkey as well as all over the world. The aim of this research is to determine the bed usage performance levels by region before the Covid-19 pandemic (2019) and during the period in Turkey. In the research, Pabon Lasso model was

used to determine the performance levels of health institutions according to regions. In the Pabon Lasso model, the bed occupancy rate, bed turnover rate and average length of stay were taken as variables. Research data were compiled from the reports published by the Ministry of Health, General Directorate of Health Information Systems. MS Visio and MS Excel software were used in the analysis of the data.

According to the findings obtained from the research data, while the number of applications to the physician was 9.8 before the pandemic, it decreased to 7.2 during the pandemic period. This situation caused the bed occupancy rate and bed turnover rate, which are bed usage performance indicators, to decrease during the pandemic period. The average length of stay has increased due to pandemic conditions. According to the results of the Pabon Lasso model, the most productive region in the pre-pandemic period was the Mediterranean Region, while the most inefficient region was the Western Anatolia Region. As a result of the research, it was determined that the most productive region in the pandemic period was Southeastern Anatolia Region and the most inefficient region was Western Anatolia. The COVID-19 pandemic has interrupted routine hospital services in Turkey as well as around the world. In the 2014 World Health Report, it is stated that approximately 20-40% of the health sector resources are used inefficiently. While the average bed usage rate was 70% in the pre-pandemic years in Turkey, this rate decreased to 52% during the pandemic period. In addition to the restrictions applied during the pandemic period, the problems experienced in the supply chain at the global level have caused the inability to supply drugs and medical supplies, thus canceling the hospitalization of many patients. With the decrease of the effect of the pandemic, policies that can make health institutions productive in regions with inefficient bed use indicators should be determined and recovery rates should be followed.

Keywords: Bed performance, Pandemic, Pabon Lasso Model

A COUNSELING GUIDE FOR THE GOOD USE OF DECORATIVE COSMETICS

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The current demands of the society regarding the quality of life, also impose aesthetic and health standards that demand normal parameters regarding the external appearance of the body but especially of the face. The current study described in this bachelor's thesis is also dedicated to this area.

Beyond the cosmetic demands that any person has, the prevention and improvement of the appearance of local skin dysfunctions in certain more exposed regions has much deeper arguments related to the human psychology. That is why the pharmacist or other care specialists, especially in the current conditions of development of the cosmetics market, must be prepared both theoretically but especially practically to guide, advise and satisfy patients in their desire to have an aesthetic appearance as pleasant as possible for them and for outsiders.

Finding non-invasive means of pharmaceutical or cosmetic aesthetics in order to eliminate small imperfections, to improve the appearance of the skin or just to decorate it remains a desideratum, for which the efforts of various specialists worldwide continue to be focused.

At least 70% of women want to improve their skin daily in exposed areas but especially on the face and 15% of the adult world population suffers due to deviations in appearance, color, symmetry of the skin (about 650 million adults), numbers estimated to increase to 80% and 20% respectively.

The purpose of this study is to evaluate the possibility of creating formulations of natural cosmetic care and beauty products, analyzing their chromatic capabilities and determining the ideal way to achieve and apply them. Thus, we provide the pharmacists and pharmacy assistants with a practical and easy-to-prepare tool, as well as an advisory guide on decorative cosmetics.

HOW HEALTH MATTERS TO THE WEALTH OF A NATION? CASE OF A DEVELOPING COUNTRY

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To improve the health of the public, the majority of developing countries offer free public healthcare services. As per the economic theory, strengthening healthcare services improves labor productivity and, as a result, domestic production. This paper aimed to examine the role of healthcare services in uplifting developing-country production. The study examined the evidence of Sri Lanka, which has progressed in healthcare development. With World Bank data, the study estimated an OLS regression to examine the effect of healthcare investments on the gross domestic product of the country. Based on the Solow-Swan theory, capital formation, labor force size, and inflation rate were included as predictors of gross domestic product in the model. The results found that the size of the labor force, as well as capital formation, have a significant effect on production, confirming the Solow-Swan model. It was found that the investment in healthcare services does have a significant impact on the country's GDP. However, the findings revealed that healthcare services makes a negative effect on the GDP. This finding, along with a few similar findings in the literature related to the developing country context, opens the possibility of further research.

Keywords: Health; GDP; Economic growth; Human capital; Sri Lanka

**SOCIO-ECONOMIC DRIVERS OF INTERNATIONAL CONTRACT LABOUR
MIGRATION: CASE OF A DEVELOPING COUNTRY CONTEXT**

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ABSTRACT

The primary aim of this study was to examine the role of main socio-economic factors in determining international contract labour migration. The study examined the case of Sri Lanka. The study, which has been based on the push-pull theory of migration, assessed the effects of the country's level of economic growth, human capital development, unemployment, international trade openness, and international remittance inflow on the flow of international contract labour migrants. The study estimated an OLS regression model using secondary data on migration and socio-economic factors to measure the effects of each of these variables on the size of the international contract labour migration flow. The research found that the country's level of economic growth and unemployment status has a significant impact on international contract labour migration. In this scenario, increased unemployment, and slow down economic growth act as push factors. However, there was no evidence supporting the contribution of human capital development, remittance receipts, and international trade openness to migration flow. Despite the fact that the country receives a significant flow of remittances, the results show no evidence supporting the motivation given by remittances for people to migrate. Education and healthcare services have both improved significantly over the last three decades. However, the findings provide no facts to justify the contribution of human capital development to the flow of international contract labour migrants.

Keywords: J61: Labour Mobility, O10: Economic Development, F 24: Remittances

SELECTION OF ENERGY RECOVERY DEVICE FOR DESALINATION PLANT

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ABSTRACT

The rapid increase of drinking water needs has been strong and remains contained, on the other hand, the long period of drought led to overexploitation of a large part of the underground water reserves. Algeria opts for the desalination of seawater. The reverse osmosis process is a more recent technique, bringing real energy savings compared to the distillation technique, which is very expensive in energy. For this, desalination plants recover the hydraulic energy from the brine flow at high pressure through turbines or pressure exchangers, which reduces the total plant energy consumption from 5 to 3 kWh/m³ of water produced. For this, the installation of recovery systems or the use of low energy consumption pumps has become an optimal solution for reducing energy consumption. There are different types of systems, the oldest turbine systems, currently, the pressure exchangers are the most used thanks to their efficiency that can reach 96%. In this article, we have used MATLAB software to develop a program that will perform the simulations necessary to choose the processes to be adopted to optimize the operational parameters and the consumption of a minimum of energy to operate the desalination plant. The execution of our program consists in minimizing the energy consumption for different configurations and recalculating the values of the operational parameters to ensure the minimization of this energy. According to the results obtained, the process operating with the pressure exchanger energy recovery system is the most cost-effective compared to the process operating with the turbine system.

Key Words: Recovery device, Desalination, Reverse osmosis, Turbine, Exchanger pressure.

HEATING TUNNEL GREENHOUSE WITH A ACTIVE SOLAR STORAGE

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ABSTRACT

Heating greenhouses is indispensable for microclimate maintenance particularly in winter when the air temperature is lower. In that vision, passive solar heating is a promising alternative compared to classic methods such as fossil fuels that are cost impacted and harmful to the environment. In this work, the performance of a rock-bed heating system is analyzed and discussed in a conventional tunnel type greenhouse in Ghardaïa region (32.36° N, 3.81° W) Algeria, with a semi-arid climate characterized by the more important sunshine duration with a monthly daily average varying from 5 h until 14 h. This paper presents a contribution that includes an experimental comparative study between a conventional witness greenhouse and a greenhouse heated by a storage system. In this view, some steps and a novel design has been proposed consisting of an economical and practical rock bed with the sensible heat technique for heating system in integrated H shape channel. The excess diurnal heat captured by the greenhouse is stored in the system and then is restored for nocturnal heating. Results show that the temperature at night inside the greenhouse equipped with the rock-bed exceeds that of the control greenhouse by 3 °C. The relative humidity is found to be 9% lower at night inside the heated greenhouse.

Key Words: Solar greenhouse, Rock-bed, Storage material, Heating system, Temperature.

**SYNTHESIS AND CHARACTERIZATION OF GREEN SOURCE DERIVED NOVEL
FLUORESCENT CARBON QUANTUM DOT AS A PROMISING NANOMEDICINE**

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Even after tremendous growth in nanotechnologies and overwhelming understanding of the future direction; this global trend of Nanomedicine has become a paradox of progress as major proceedings remain unanswered. Most of the central nervous system doesn't have satisfactory treatment as the blood-brain barrier obstructs the delivery of drug molecules to the brain. Furthermore, it is very hard to study the drug release kinetics. To overcome these challenges, an appropriate single formulation is required which can perform drug delivery, bioimaging, biosensing altogether. Monotonous synthesis procedure which required high temperature, furthermore demand of particular equipment, use of toxic solvents, various inorganic-organic molecules, stabilizing agents, synthetic capping agents, expensive precursors during the synthesis procedure, and toxicity showed by traditional nanomaterial obstruct their biomedical application. A new class of carbon nanomaterial i.e. carbon quantum dot may acquire the room as they possess ultrafine size with remarkable fluorescence. The hydrothermal method of green synthesis approach for the synthesis of Carbon Quantum Dot may fulfil all unmet needs as these methods are cost-effective as well as eco-friendly. Furthermore, green source derived Carbon Quantum Dots shows efficient drug delivery applications. This non-toxic and biocompatible fluorescent Carbon Quantum Dots allows real-time tracking of drug release as well. The eccentric administration of these ultra-fine size Carbon Quantum Dots in drug delivery can efficiently cross the blood brain barrier along with that fluorescent property of these dots allows them to track and study drug release kinetics.

SIGN AND SIGNIFICATION: LINGUISTIC TURN

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ABSTRACT

Homo sapiens have been employing signs since times immemorial for semantic purposes, to aid, abet, clarify modes of being, actions of behaviour, and sundry idiosyncracies and vicissitudes of life. Signs are verbal, non-verbal, and range from simple and commonplace to elaborate and intricate. Alternately speaking, signs render intelligible what is not within ken or what cannot be seen or observed otherwise. Earlier on familiar objects and feelings could be conveyed through signs for better understanding. Josef Simon in Philosophy of Sign explains that signs in the present signify what cannot be made present. This distinguishes present significations of signs from the earlier ones. Earlier, signified (et le signifie) was accessible, but now signs lead to other signs, and interpretations and significations are postponed. This tells upon both: semantics and comprehension (95). Things (res) and words (verba) were differentiated in the discipline of Rhetoric, leading to human beings employing signs for signification, which took us to the language's realm of ontology. It was for christening people and things and comprehending that process that we had to perforce acquire comprehension of things and objects and, most importantly, their nature. We may think of writing also in the similar vein. Signs and related theoretics have acquired importance in the last century. Significant theoretical discussions vis-a-vis signs are known to all: Ferdinand de Saussure's Course de linguistique generale (1915) and his commencement of the intellectual discipline of Semeiology (semeio stands for sign), as also Charles Sanders Peirce's taxonomy of the sign, and initiation of the subject, semiotics. Indeed, signs have become ubiquitous, but concern in the contemporary is more with "le signelinguistique" (Saussure). Such ubiquity, following Simon's lead can be called as "de-reification of the social." Peirce would have us believe that signs surface through "iteration" (Peirce 474). Factuality of the analysis leads to presentation/description of reality, thus falsifying the dictum that opposite of everything is present, differentiating beings from things.

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**THE COSTS OF THE ABSENCE OF MULTIDISCIPLINARY IN THE FIGHT AGAINST
VIOLENCE IN SPORTS EVENTS IN PORTUGAL**

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Aiming to prevent and battle against the violence that occurred in sports events in Portugal - especially in football - the legislative authority published, from 1998 onwards, several laws that lead organized groups of supporters, commonly known as Ultra Groups, to register themselves as associations under the general terms of Portuguese law.

Ultra Groups can be defined as groups of supporters, with their own names, who are concentrated in the same area of a football stadium with the purpose of supporting their clubs, using chants, flags, banners, etc.

An investigation supported by 100 semi-directive interviews demonstrated that the successive laws passed by the Portuguese legislative authority aiming to prevent and battle against violence by supporters, instead of what was wanted, has had the perverse effect of creating conditions that consent the rise of the number of individuals who abandon the Ultra Groups to integrate the *Casual Style*. This style has increased a lot in Portugal from the beginning of the 21st century, and some of those who adopt it travel in small groups to accompany the teams they support, seeking to get involved in acts of violence against fans of opposing clubs.

The communication to be presented aims, therefore, to demonstrate that the legislative measures that sought to combat the violence carried out by elements of the Ultra Portuguese groups had the opposite effect, as they were taken without the necessary multidisciplinary and without taking into account the results of social research which had already pointed towards the increase in the number of violent incidents.

NEW INSIGHT IONIC LIQUID DOPED POLYMER ELECTROLYTE

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ABSTRACT

Recent study of ionic liquid doped polymer electrolyte have been briefly used to increase the ionic mobility of electrolyte ^[1]. The incorporation of ionic liquid in Proton conducting polymer electrolyte with ethylene oxide as polymer matrix and ammonia iodide as salt has investigated ^[2]. The solution-cast films of different configuration have been prepared and characterized ^[3]. Ionic transport has been investigated using various characterized studies, i.e., optical microscopy, X-ray diffraction, differential thermal analysis, infrared, coulometry transient ionic current, electrical conductivity measurements at different temperature and humidity ^[4].

Keywords: Polymer electrolyte, Ionic Liquid, Proton conducting, Ionic Mobility.

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**UNBOXING THE BANKS' PRODUCTIVITY AND IMPACT OF COUNTRY GOVERNANCE
NEXUS**

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ABSTRACT

The primary goal of this research is to look at the influence of nation governance on the productivity of Islamic and conventional banks using the Data Envelopment Analysis-Based Malmquist Productivity Index (DEA-MPI) approach in the first stage of analysis. Meanwhile, a panel regression analysis was used in the second stage to determine the influence of country governance and other characteristics on bank productivity. In general, empirical data show that Islamic banks' productivity is higher than that of conventional banks. Both Islamic and conventional banks' productivity levels are influenced by liquidity and global financial crisis determinants. In contrast, only the Islamic parts are affected by bank size, credit risk, market power, management efficiency, and inflation. On the country governance side, voice and accountability is found to positively influence both Islamic and conventional banks' productivity. Regulatory quality and rule of law significantly influences the conventional parts. Political stability and absence of violence, government effectiveness, rule of law and control of corruption negatively influence the banks' productivity, but this influence is only significant for the Islamic banks. The issues discussed in this study are important because the related parties can use the empirical results to identify the micro- and macro-level determinants that may improve, enhance and maintain the productivity level of the Islamic and conventional banking sector.

Keywords: Country Governance; Islamic Banks; Conventional Banks; Data Envelopment Analysis-Based Malmquist Productivity Index; Total Factor Productivity Changes

**INFLUENCE OF THE PIEZOELECTRIC EFFECT ON THE STRESSES FOR A
COMPOSITE DISK UNDER THE PARABOLIC TEMPERATURE**

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ABSTRACT

In this study, we studied the pressure of the piezoelectric consequence under the disparity of the parabolic temperature, for this purpose, a thermo-elastic composite disk reinforced by steel fibers is old to the examination of the radial and tangential elastic thermal stresses. The solutions of the stresses have been found analytically. In addition, a evaluation between these expressions for different temperature values is calculated.

Keywords: piezoelectric, radial, temperature, tangential, elastic.

**THE DISPLACEMENT DISTRIBUTION FOR A CYLINDER WITH THE PRESENCE OF
THE NON-LOCAL EFFECT**

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ABSTRACT

In this work we study the variation of the displacement as a function of the distance for a cylinder with polar coordinates we include the non-local effect, we work with the clamped-clamped fixing mode, the material properties are assumed to vary as a power form of the thickness coordinate, the non-local effect has a very clear influence on the behaviour of the structures, the mode of fixation has an important role in the variation of the displacement, a differential equation has been solved to find the expression of the displacement, the mode of fixation is used to calculate the constants of integrations.

Keywords: displacement, non-local, cylinder, polar.

FUTURE PROSPECTS OF BIOPOLYMER- IONIC LIQUID POLYMER ELECTROLYTE

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ABSTRACT

With the increase in demand of clean and green energy, the chase in the development of bio degradable, nontoxic, ecosystem friendly materials has gain tremendous interest. In the past decades the researchers were mainly focus on the development of the new technology compromising the sustainability of the ecosystem. But looking at the present scenario different standard has been set for every technology to control the level of pollution and pollutant. Energy storage devices are the hot tropics of the present and also of the future. Most electrochemical devices comprises with electrodes and electrolyte. Polymer electrolyte already proposed as novel alternative for liquid electrolyte. Biopolymer electrolyte has disadvantage of low ionic conductivity. Low viscosity ionic liquid (IL) is proposed as novel dopants which enhances conductivity and also act as plasticizer which reduces crystallinity and enhances amorphous nature. This paper deals the importance of low viscosity IL as dispersoid. The electrical, structural and photoelectrochemical device performance are also going to describe in detail.

Keywords: Bio-Polymer, Ionic Liquid, Electrolyte, Conductivity

MARKETING STRATEGY IMPLEMENTATION IN THE DIGITAL ENVIRONMENT

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ABSTRACT

The transformation of national economic systems and the global space in the context of digitalization and the COVID pandemic is leading to changes in the activities of companies that innovate in key processes to ensure a high level of competitiveness. Digitalization is inextricably linked to advances in science and technology and growing demand for digital products, due to the steady increase in Internet users and specialized gadgets (smartphones, tablets, laptops, etc.). A significant factor in the increase in time spent on the Internet and various mobile applications was the COVID-19 pandemic, which encouraged large populations to be in a social distance for a long period of time. Recognizing the transformation of potential customer behavior and the need to find new opportunities for profit, companies began to intensively reorient to the digital market. Along with the introduction of innovative products on the market, e-commerce companies began to use innovative technologies to promote classic products (food, clothing, consumer goods, etc.). To achieve the maximum level of conversion in certain time conditions, it is necessary to implement an effective marketing strategy that will allow the company to achieve loyalty of the target audience in the long run. Marketing strategy in the digital environment is characterized by certain features compared to the offline environment. Digitalization processes, characterized by the rapid introduction of innovations, lead to continuous improvement of relevant marketing strategies and the introduction of advanced solutions and products on an ongoing basis, which allows to ensure a high level of loyalty of the target audience. In addition, the presence of a large number of competing companies involves the use of specialized search algorithms for potential customers in accordance with a system of socio-economic and psychological characteristics. Correct identification of the target audience and interaction with it through the use of effective digital marketing tools allows companies to get the best result. It should be noted that there are a large number of digital marketing tools, among which the company chooses relevant in accordance with the specifics of the activity, the uniqueness of the product and the characteristics of the target audience. The dynamism of the changing situation on the Internet requires the company to adjust the digital marketing tools used on an ongoing basis. The specifics of the interaction of companies with the target audience in the digital environment involves the selection of relevant content and its demonstration to interested users on relevant web resources, in many cases we are talking about social networks.

Keywords: digital marketing tools, communications, optimization, strategy, target audience.

**ANALYSING THE POST-PANDEMIC FACTORS OF BUSINESS DIGITALIZATION
AMONG SME IN MALAYSIA**

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ABSTRACT

The COVID-19 outbreak has had a major impact on the business sector, particularly small and medium-sized firms (SME). For instance, many businesses have reported about low demand, revenue declines, and negative cash flow. As a result, several of them have faced major financial challenges, and many employees have lost their jobs and income because of this. Further, this could lead to economic and social tensions in the community. As a key player in the economy in terms of creating jobs and wealth for citizens, the SME sector must be protected. According to literature review, most SMEs have flaws that render them vulnerable to business uncertainty. Limited cash, inadequate financial planning and management, and a lack of business digitalization are just a few of the issues. As a result, the Malaysian government has urged SMEs to use business digitization as one of the corrective measures they may take to help them get through this difficult period. This is evidenced by the economic packages announced during the COVID-10 pandemic and the long-term policy of Malaysia Entrepreneurship Policy 2030. However, firm and market factor also play an important role in motivating enterprises to digitize their business. This article examines the factors that influence a firm's decision to digitalize its operations as a response to post pandemic effect.

Keywords: COVID-19 pandemic, business digitalization, SME

**PHYTOCHEMICAL CHARACTERIZATION AND DEMONSTRATION OF THE
ANTIOXIDANT AND ANTIMICROBIAL POWER OF POLYPHENOLIC EXTRACTS OF
JUGLANS REGIA (COMMON WALNUT)**

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ABSTRACT

This work focused on the valorization of a medicinal plant known by their traditional use; *Juglans regia* L (Juglandaceae) by phytochemical screening, identification of bioactive compounds and evaluation of the antioxidant and antimicrobial activity of the leaves and bark of *J. regia*. The extraction of polyphenols has shown that the macerated aqueous extract of the leaves records high yield ($22.13 \pm 0.43\%$) compared to other extracts. The qualitative phytochemical tests demonstrated a richness of the extracts in bioactive compounds by the presence of total and gallic tannins, saponosids and coumarins in all the extracts. While tests for flavonoids and anthocyanins were minimal or negative. The quantitative determination reveals that the aqueous extract decocted from the leaves is the richest in polyphenols ($553 \mu\text{g GAE/g}$). For the flavonoids content, the aqueous extract decocted from the leaves proved to be the richest ($255 \mu\text{g QE/g}$) followed by the aqueous extract decocted from the bark ($225 \mu\text{g QE/g}$). The results of the antioxidant activity showed that all the extracts have interesting antiradical properties, in particular the macerated aqueous extract of the bark and even the decocted methanolic extract of the leaves. It is manifested by low IC₅₀ values (0.021 mg/ml and 0.023 mg/ml respectively) which are very close to the IC₅₀ of ascorbic acid (0.019 mg/ml). The antimicrobial activity of the extracts on *E. coli*, *S. aureus*, *Lactobacillus* sp. and *Candida albicans* made it possible to determine that the extracts are more active on Gram+ and Gram- bacteria with an inhibition diameter of 12 mm and with a lower MIC (25 mg/ml).

Keywords: *Juglans regia*, Phytochemical, Polyphenols, Antioxidant effect, Antimicrobial effect.

PROFESSIONAL PREPARATION OF BLOG POSTS

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ABSTRACT

Nowadays, most blogs are either located on a ready-made blogging platform or use a popular CMS. Both preparing text for a blog post on a mass platform and preparing similar text for posting a blog on a CMS have their own characteristics. SEO approaches to these two types of content also differ.

The content that you plan to post on the blog must have a high percentage of uniqueness - not less than 95-100%. That is, it is either the author's text or materials collected from several sources of information with a very deep processing and a complete change in the structure of the initial texts and an acceptable level of non-literal quoting are obligatory. Even if you are sure that the text is unique, you still need to check it with an automatic system for checking the uniqueness of the text. Such systems exist both for one and for many languages, therefore, if you write in a language other than English, then all the same, the uniqueness of the text is not only possible, but also needs to be checked. Usually, a text editor is selected for each blog system or CMS, styles and format are correctly imported. This allows you to immediately stylistically correct headers and lists, which saves setup time. Blog platforms usually already have pre-made styles and a pre-made format, but it is not automatically configured, so it will also be wise to use a specific text editor that is suitable for your tasks.

One of the most important elements of a blog post is the title. It is by the title that Internet users most often find an article, and it is by the title that the reader decides whether to read a certain blog post or not. Modern blog titles are very reminiscent of classic newspaper headlines. There are, in fact, two requirements for them: maximum relevance for your target audience and brevity. Titles often contain incomplete sentences: articles and service verbs can be omitted, simple tenses can be used instead of complex tenses, for example, in English, the continuous and perfect tenses are replaced by simple ones, and the infinitive is used to talk about the future. On many mass blogging platforms, it is possible to temporarily get to the main page of the mass blogging platform - this significantly increases the number of views of your post, but to get there, this post must be immediately viewed many times and have many comments

The simplest and most common structure of the text is triune: introduction, main body, conclusion. Logic and completeness of the text, its good style and grammatical correctness are important conditions for successful indexing in modern search engines. In the introduction, we bring to the main part, introduce the Internet user into the context of our post, in the main part we reveal some issue in detail, in the final part we draw a conclusion. Our post must have keywords these are often included in hashtags. Usually there are 5 or more. On mass blogging platforms, there are many where such an outdated element as the description of the post remains, although it is insignificant, it increases the indexing of the post, so you need to do it.

The illustration to the post is also very important. It is best if it is your author's photo or your drawing. The illustration should match the theme and tone of the post, and should also catch the eye. Very often, when placing a link to your blog on other resources, it is the title of the post and the thumbnail of the illustration for it that are displayed. Often, on mass blogging platforms, a picture needs to be edited according to certain service requirements. This cannot be ignored or the formatting of the post will be corrupted.

Thus, we see that the professional preparation of blog posts is a complex and multi-stage process. However, if you methodically follow all the requirements for such posts, you will have a guarantee that

search engines will index them well and possibly even give your posts in the highest positions in the SERP for certain queries.

Keywords: titles, headline, blog, post, newspaper, text, illustration.

OPTIMIZATION OF IBUPROFEN BIOTRANSFORMATION BY *RHODOCOCCUS CERASTII* IEGM 1243

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This work is the result of a cooperative work between microbiology specialists from the Perm State National Research University and chemistry specialists from the Perm Pharmaceutical Academy.

One of the most commonly occurred pharmaceutical pollutant is ibuprofen. The ibuprofen molecule stability makes possible its environmental accumulation, which entails significant environmental risks.

Current chemical and physical methods of ibuprofen degradation are ineffective or energy-expensive, therefore more priority is being given to the methods of biodegradation.

One of the most promising biodegraders is actinobacteria of the genus *Rhodococcus*.

Previously we have shown that the *R. cerastii* IEGM 1243 was able to biotransform ibuprofen at relatively high concentrations (0.1 g/l) but there was noted a significant inhibition effect on bacterial growth, that slowed down ibuprofen biotransformation process. To improve the ibuprofen biotransformation, we selected conditions to reduce the lag-phase and accelerate the pollutant metabolism in the presence of additional carbon and energy sources.

It was shown that inoculation of an optimized mineral medium K in addition of 0.5 g/l of glucose and 0.001 µl/l of hexadecane by *R. cerastii* IEGM 1243 to a final cell concentration of 5 NTU lead to 50% of ibuprofen biotransformation on the first day of the experiment. This was followed by a slight decrease in the rate of oxidation, while the minimum ($20 \pm 5\%$) pollutant concentration reached on the 4th day.

The concentration of hydroxylated ibuprofen metabolites started to decrease after 4 days, which indicated further transformation of the pollutant.

**INSIGHT INTO THE USE OF IONIC LIQUID BASED POLYMER ELECTROLYTE FOR
SOLID STATE BATTERIES**

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ABSTRACT

Renewable energy is among the pioneering fields of research in energy area and it is another very effective alternative for fossil fuel options available. As the efficiency and an electrical conductivity improvement of electrochemical devices are the main concerns of nowadays, an ionic liquid of different types was found to have an excellent application in that aspect. In this study, we are able to put the recent progress towards polymer electrolyte (specially polyethylene oxide -based polymer electrolytes) with a strong emphasis on evenly distributed form and ionic liquid built-in polymer electrolyte for energy storage applications. The reliable transmission mechanism suggested by previous researchers to address the increasing trend in transport properties is ascertained with a sharp sense on the presence of different concentrations of interaction, i.e. polymer ionic liquids are summarized and discussed in detail

**MACEDONIAN MEDIA LANDSCAPE: LEGAL AND POLITICAL CHALLENGES FOR
TRADITIONAL AND ONLINE MEDIA**

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ABSTRACT

The paper gives an overview of the Macedonian media landscape, presenting both the private media and the public broadcasting service Macedonian Radio and Television (MRTV) and its role in informing. The traditional media outlets content is mostly affected by the editorial policy which is in direct correlation with the ownership of the private media or the policy of the governing party/coalition when it refers to the public broadcaster.

However, online media in North Macedonia are not regulated and are subject to self-regulation. The global trend of receiving news by online media gives the digital environment the possibility to use algorithms in order to adjust the content to the viewers' preferences but at the same time the online environment can be used for spreading disinformation. Online media in North Macedonia have become an unregulated space where disinformation has been spread very often for different purposes, and social networks have been used for the same purposes, too. One of the key challenges of the Macedonian media landscape is how ethical and professional principles that apply to traditional media could be also applied to the online media as a growing source of information for the public.

The paper analyses the structure of the Macedonian media system, which has consequences over the production and dissemination of disinformation. It also addresses the types of information disorder (misinformation, disinformation and malinformation) and how the disinformation can be used for different types of manipulation, including manipulation in political context or COVID-19. The legislative framework on media will be used to present the current challenges that have been noted in the latest Report by the European Commission.

Keywords: media system, legislative framework, North Macedonia, combat disinformation.

MULTI-RESPONSE OPTIMIZATION OF EDM DRILLING OF NITINOL SUBMERGED IN DISTILLED WATER USING GRA AND TAGUCHI ANALYSIS

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ABSTRACT

Nitinol is biocompatible and shape-memory alloy. It has various applications in orthodontics, Micro-electrical-mechanical systems (MEMS) and micro-actuators. However, it is difficult to cut material due to its mechanical and physical properties (viz., lower elastic modulus, thermal conductivity and strain hardening). These lead to heat accumulation, higher load variation, degraded tool life, thermal damage to the material, and impact on the shape memory property during conventional machining methods. Hence, an unconventional method of electric discharge machining (EDM) is suitable for getting the required machined jobs satisfactorily with the desired accuracy. As the material removal mechanism is melting and evaporation, it raises the concern of its shape memory property, and its physical properties raise the requirement of an optimized mode of operation on Nitinol. This manuscript reports the optimization of a multi-response parameter of EDM drilling of the Nitinol material using GRA and Taguchi. Experiments were carried out on submersed Nitinol material in dielectric fluid (distilled water). From the analysis of variance (ANOVA) of GRG, discharge time (T_{ON}) and dielectric flushing pressure (DP) are significant process control parameters. The multi-response optimal setting was I_2 , V_2 , T_{ON2} , T_{OFF1} & DP_3 and having the pick signal-to-noise ratio (SNR) of -2.9689 dB. Improvements were recorded in MRR and DoT by 43.71 and 23.19 %, whereas TWR rose by 50 % concerning the initial setting.

Keywords: EDM drilling, Nitinol, GRA, Taguchi analysis

**RATIONAL SOLUTIONS AND THEIR INTERACTIONS WITH KINK AND PERIODIC
FOR A NONLINEAR DYNAMIC PHENOMENON**

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ABSTRACT

Lump (rational) waves and their interactions with kink and periodic waves, periodic cross-lump solutions will be discussed for (2+1)-dimensional Maccari-system in this paper. With the combination of rational, exponential, and trigonometric functions, we will study various lump soliton solutions. We will find out analytical solutions with interaction phenomenon and also describe them in graphical ways.

Keywords: Multiple-lump solitons; ansatz transformations; Maccari-system.

ON q -Quasi CONVEXITY RELATED WITH STRONGLY JANOWSKI FUNCTIONS

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ABSTRACT

Using generalized Janowski functions and q -calculus, the class $Cq^*[A,B,\gamma]$ is defined and its properties are studied which include coefficient bounds and Bernardi operator. Some known and new interesting results are pointed out as applications of the main result.

Keywords: q -derivatives, q -quasi convexity, convolution operator, starlike functions, close to-convex functions.

GLOBAL EXISTENCE OF SOLUTIONS TO NONLINEAR PARABOLIC PROBLEM

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ABSTRACT

We are dealing with a nonlinear parabolic model system modeling suggested by [2]. The main difficulty relies on the singularity of the death term which can blow up for small values of the activator complex.

The solution is obtained by passing to the limit in a suitably chosen approximate problem.

Keywords: Nonlinear Parabolic Systems, Reaction-diffusion Systems, Activator-Inhibitor Systems.

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NATURAL CONVECTION OF SINGLE-WALLED CARBON NANOTUBE IN GROOVED SQUARE CAVITY

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ABSTRACT

The major goals of this research are to find out how the sinusoidal form grooved affects heat transfer rate inside the solar collector panel, as well as how the number of grooves affects the average Nusselt number. The current study aims to investigate the impacts of single-walled carbon nanotubes on heat transfer between the working fluid and the solar panel's walls. The numerical simulation has been carried out of two-dimensional steady laminar flow natural convection heat transfer of 10% SWCNT inside a sinusoidal shape grooved solar collector panel. The number of grooves is set to be 1, 3, and 5 grooves evenly dispersed throughout the enclosure's lateral wall, with the amplitude grooves set at 0.05. As a thermal boundary condition, the solar panel is exposed to a uniform and constant temperature over a Rayleigh number range of ($10^3 Ra 10^6$) and at a fixed Prandtl number of 6.2.

The predicted results show that a reduction in the number of sinusoidal shape grooves leads to a significant improvement in the heat transfer mechanism between the working fluid and the lateral wall, where a significant increase in the Nusselt number, it should be noted that this enhancement is more pronounced as the Rayleigh number increased.

KEYWORDS: Grooves, Natural Convection, Nusselt Number, SWCNT.

**ИНФОРМАЦИОННОЕ ОБЕСПЕЧЕНИЕ ДЕЯТЕЛЬНОСТИ ПОДРАЗДЕЛЕЙ
ПРЕВЕНТИВНОЙ ДЕЯТЕЛЬНОСТИ НАЦИОНАЛЬНОЙ ПОЛИЦИИ**

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На сегодняшний день Национальная полиция Украины начала внедрять ряд реорганизационных моментов, увенчавшихся успехом. Реформы были проведены для улучшения функционирования каждого подразделения полиции и введения в них новых стандартов, связанных с изменением общества. В большинстве своем это касалось улучшения введения и использования информационного обеспечения полицейских.

Одним из таких подразделений есть превентивная деятельность. Данное подразделение было образовано после реорганизации, а именно: принятие и утверждение Закона Украины "О Национальной полиции Украины", меняется название подразделения общественной безопасности на "превентивную деятельность" [1].

Прежде всего, следует отметить, что именно представляют подразделения превентивной деятельности - это такой вид деятельности подразделений полиции, который направлен на предупреждение и предотвращение совершения новых правонарушений в сфере обеспечения общественного и публичного порядка [2].

Поэтому, как уже было сказано, данное подразделение функционирует, в большинстве, в общественной сфере. Поэтому для его надежного и эффективного функционирования следует обратить внимание на обеспечение информацией разного типа и содержания, что может оказаться необходимым в предотвращении правонарушений.

Необходимо учесть тот факт, что полиция превентивной деятельности в рамках своей юрисдикции реализует государственную политику в сфере обеспечения публичной безопасности и порядка, безопасности дорожного движения, организации работы разрешительной системы, превентивной и профилактической деятельности, предотвращения и прекращения насилия в семье. Поэтому вполне логично, что для обеспечения применения профилактической деятельности подразделения превентивной деятельности внедрять следующие информационно – аналитические факторы, требующие дальнейшего совершенствования:

Во – первых, обеспечение качественного поступления электронных заявлений и сообщений о фактах совершенных правонарушений. Например, таких как насилие в семье, поступление других обращений граждан и юридических лиц, органов государственной власти и т.д.

Во – вторых, стоит обратить внимание на те ситуации, которые происходят во время патрулирования, ведь только тогда, когда полицейские смогут получать быстро информацию благодаря электронным и информационным ресурсам, это существенно влияет на снижение уровня совершенных правонарушений. Правоохранители будут вовремя остановить и прекратить те или иные виды преступлений.

В-третьих, улучшить фиксацию входящей информации, а также ее передачу. Понятно, что на данном этапе развития информационного общества есть ряд проблем, которые существуют в информационном пространстве. Поэтому необходимо регистрировать любую документацию и каждую входящую информацию, которая понадобится в деятельности полицейских.

В некоторых случаях поиск необходимой информации может осуществляться за счет самостоятельной работы и собственной инициативы работников полиции, уполномоченных на профилактическую работу.

Таким образом, современное развитие и распространение применения информационных технологий в сфере работников превентивной деятельности приобрело значительно новый прогресс и является определяющим в становлении и расширении возможностей полицейских, улучшении их профессиональной деятельности.

Введение такой системы работы работников превентивной деятельности, несомненно, поможет в противодействии преступности и повышению эффективности функционирования данного органа исполнительной власти.

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IDENTIFYING RELIGION OF HISTORICAL MONUMENTS THROUGH IMAGE PROCESSING

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ABSTRACT

Religion is a social cultural system with specific behaviours and habits, world-views, morals, places of sanctification, texts, prophecies, ethics or organizations, all of which connect humans with supernatural, transcendental or spiritual elements. However, there is currently no academic consensus on what is religion. Religious symbols are iconic representations designed to represent specific religions or specific concepts in a given religion. Throughout the history, people of various religions have built monuments, shrines and statues to depict their gods. In sacred places of prayer, some religious monuments stand out because of their huge scale and the sacrifices required to build them. A monument is a structure specially created to commemorate a certain event or person or because of its artistic, political, historical, and technical significance, it becomes a structure related to social groups to commemorate historical or cultural heritage or architectural importance. Image classification analyse which comprises of training and testing the numerical attributes of various monument image features and organizes the data into categories viz Religions like Hinduism, Christianity, Islam, Buddhism, Folk religions, Sikhism, Judaism, etc. Monument recognition is a challenging issue in the area of image characterization because of colossal varieties in the engineering of various monuments. Various directions of the construction assume a significant part in the recognition of the monuments in their images.

Keywords- Religion, monument, Image Processing

IDENTIFYING GENDER OF HISTORICAL STATUES THROUGH IMAGE PROCESSING

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ABSTRACT

Programmed face recognition plans to extricate these significant snippets of data and assembled them into a valuable portrayal to play out a classification/identification task on them. While we attempt to identify gender from facial expressions, we are regularly inquisitive with regards to what elements of the face are most significant in deciding gender. The goal of this paper is to distinguish the gender of a statue by checking out the photo. This is an instance of directed realizing where the algorithm is first prepared on a bunch of female and male faces, and afterward used to group new information. Gender classification algorithms can be of two types: first being Pictorial, which is the algorithm peruses pixel information into a cluster and uses measurable devices to process that cluster and make classification. Such algorithms require a dataset where all images are appropriately adjusted, with next to no commotion. Another is Geometric where the algorithm peruses pixel information what's more gets data on elements, for example, width of jaw, curve of cheek and so on It utilizing this new data as the trait space and gives a contribution to a managed learning algorithm. These algorithms are more hearty to geometric varieties in dataset.

Keywords- statue, gender, algorithms, geometric, pictorial

PERFORMANCE ANALYSES OF PASSIVE SOLAR DRYING SYSTEM

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ABSTRACT

Drying is an excellent way to preserve food which would otherwise be lost to spoilage. Proper drying of food product would result in significant saving to our farm product which in turn transforms into strengthening of the nation economy. This paper is a detailed presentation of continuous drying of an agricultural crop for a nine day period. Drying tests were carried out, using simultaneously a mixed mode solar dryer and the traditional open –air solar drying system, while all the major drying related variables were monitored. The results obtained show clearly that a crop which is solar-dried inside a solar cabinet dryer is far less susceptible to reconstitution during night than that which is solar dried in the open air. It is found, however, that the reconstitution problem is sufficiently important in prolonged solar drying of agricultural crops to merit some attention. The dryer was able to remove 85.5% of moisture, dry basis from 0.1kg to 0.5kg of okra in one day for both okra and pepper respectively. The dryer exhibited sufficient ability to dry food items reasonably rapidly to a safe moisture level and simultaneously it ensures a superior quality of the dried products.

Keywords: Okra, pepper, solar dryer, nutritional value, collector.

RUDERAL FLORA IN THE AREA OF THE CITY OF JAGODINA (SERBIA)

Boban Stanković

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ABSTRACT

Ruderal flora develops in urban and rural settlements and other areas with pronounced direct or indirect human activity. During the three-year research (2018-2020) of the flora of ruderal habitats in the area of the city of Jagodina, 284 vascular plant species recorded, divided into 56 families and 184 genera. The families with the largest number of species are Asteraceae (46 sp.), Poaceae (29) and Fabaceae (24). These families are also represented with the largest number of species in the flora of Serbia. The genera with the largest number of species are *Veronica* and *Trifolium*. This paper presented a list of registered plant species.

Key words: ruderal flora, urban habitats, Jagodina, Asteraceae.

**THE USE OF NORDIC WALKING IN THE REHABILITATION OF PATIENTS WITH
CORONARY HEART DISEASE**

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The goal of rehabilitation of patients with coronary artery disease at the sanatorium stage is a gradual increase in functional and adaptive capabilities, which should be implemented according to the general principles of physical rehabilitation. At the same time, the fundamental issue is determining the patient's ability to recover on time and save the results in the future, which depends on a complex of biological, personal, and social factors that form the basis of the ability to recover - rehabilitation potential.

In recent years, as a means of physical rehabilitation at the sanatorium stage, Nordic walking (NW) has gained popularity, which differs from ordinary walking in a specific technique and requires special sticks. It should be noted that the effectiveness of walking as a motor act largely depends on the characteristics of the static-dynamic stereotype of a person and the existing pattern, which requires that the latter be taken into account when prescribing the components of the rehabilitation program.

Thus, the development of an algorithm for a differentiated approach to selecting of components of an individual rehabilitation program for CHD patients involved in Nordic walking, depending on the non-optimality of the static-dynamic stereotype, remains relevant and requires study.

The study involved 65 patients (men - 26, women - 39, mean age - 57.65 ± 7.41) with verified coronary artery disease. The main group included patients to whom the developed step-by-step algorithm of a differentiated approach to the components of the rehabilitation program was applied (32 people, mean age - 56.59 ± 6.69). The control group included patients to whom the generally accepted approach to using NW in the rehabilitation program was applied. . (33 people, average age - 58.72 ± 8.13).

It has been established that the rehabilitation potential of patients with coronary artery disease as a predictor of the possibility of recovery probably depends on age, the level of exercise tolerance, body mass index, the presence of compliance, sufficient physical activity in history, comorbidities of patients and does not depend on gender, duration of the disease or stay on the disability group, the number of surgical interventions due to the underlying pathology. At the same time, the possibility of realizing the rehabilitation potential in the program of rehabilitation of patients with coronary artery disease using Nordic walking significantly depends on the patient's ability to optimally implement the necessary motor acts, which requires an additional assessment of the static-dynamic stereotype and correction of the identified disorders before the use of NW.

ARAŞTIRMALARDA TİFLİS EDEBİYAT ORTAMI
TBİLİSİ LITERATURAL ENVIRONMENT IN RESEARCH

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ÖZET

Tüm arşiv belgeleri, hatıralar, araştırma çalışmaları, süreli yayın materyalleri, Tiflis edebi ortamının Azerbaycan halkının milli kültürünün ve milli benlik bilincinin gelişmesinde, aydınlanma hareketini güçlendirmesinde önemli bir rol oynadığını teyit etmektedir. Uzun yıllar Kafkasya'nın idari ve kültürel merkezi olan Tiflis'te (Tiflis) ilerici, demokratik aydınlarımızın işbirliği, Azerbaycan halkının kültürel yaşamının gelişmesinin yolunu açmıştır. Entelijansiyamız, 19. yüzyılın başında Tiflis'te Rusça olarak yayınlanan Tiflissskiye Vedomosti, Transcaucasian Bulletin ve diğer gazetelerle işbirliği yaptı. Bu işbirliği, M.Sh tarafından bir matbaa yaratmaya yönelik girişimlerin yanı sıra. Vazekh, M.F.Ahundzade, Azerbaycan gençliğinin Avrupa'da yüksek öğrenim gördükten sonra vatanlarına dönüşü vb. Azerbaycan'da modern bir aydın neslinin oluşmasına yol açmıştır.

Mirza Şafi Vaze, Mirza Fatali Ahundzade, İsa Sultan Şahtakhtli, Einali bey Sultanov, Safarali bey Valibekov, Firdün bey Koçarlı, Unsuzade kardeşler, M. Shahtakhtli, Omar Faig Nemanzade, Mirza Jalil ve onlarca aydın, aydın, yüksek eğitilmiş halkımız. Şehirde kendi anadilinde yayın yapan matbaalar, süreli yayınlar, devam eden kültürel etkinliklerde aktif rol aldı vb. Sonraki yıllarda Azerbaycan'da eğitim, kültür ve basın faaliyetlerinde bu tür faktörler önemli rol oynamıştır. Ağırlıklı olarak Rusça basında konuşan bu aydınlar, basının toplumdaki rolünü ve yerini anladılar ve neler yapabileceğini gördüler. Tiflis'teki Azerbaycan aydınlarının kendi matbaalarını yaratma ve yeni okullar açma çabaları meyvesini verdi.

Sonuç olarak 19. yüzyılın başlarından itibaren Tiflis edebi ortamı Azerbaycan edebiyatının, kültürünün ve eğitiminin gelişmesine zemin hazırlamıştır. 1875 yılında Azerbaycan dilinde ilk gazete olan "Ekinchi" kuruldu. Ne yazık ki, "Ekinchi"nin faaliyetleri uzun sürmedi. Çarlık hükümeti burayı kapatmak için her yolu kullandı. Entelijansiyamız basının işini kendi ana dillerinde sürdürmek için ne kadar uğraştıysa da başarılı olamadı. Bu nedenle Ekinchi'den sonra Azerbaycan'da kendi ana basın faaliyetini gerçekleştiremeyen milli aydınlarımız, planın uygulanması için tekrar Tiflis'e başvurdu.

Ünsizade kardeşlerin katılımıyla Tiflis'te Azerbaycan gazeteciliğinin gelişmesinde yeni bir dönem başladı. Said, Celal ve Kemal Ünsizade kardeşler Tiflis'te bir matbaa açarak kendi ana dillerinde bir gazete çıkarmayı başardılar. Burada "Ziya", "Ziyai-Kafkazia", "Keşkul", ardından "Şargi-Rus" ve "Molla Nasreddin" medyasının faaliyetlerinde başarılı olan aydınlarımız, tarihin gelişmesine ve zenginleşmesine katkıda bulunmuştur. milli basınımızın halkı aydınlatmasının yanı sıra milli şuurunu da uyandırmıştır. Böylece 20. yüzyılın ilk on yılında Bakü'de Azerbaycan dilinde matbaa faaliyetinin yeniden canlandırılması mümkün olmuştur.

Tiflis'in edebi ortamının hem Çarlık Rusyası döneminde hem de Azerbaycan Demokratik Cumhuriyeti döneminde Azerbaycan basınının ve edebi ortamının gelişmesinde "parlak bir aşamayı" temsil ettiği de bir gerçektir.

Anahtar Kelimeler: basın, edebi ortam, milli bilinç, gazetecilik

ABSTRACT

All archival documents, memoirs, research works, materials of periodicals confirm that the Tbilisi literary environment played an important role in the development of the national culture and national self-consciousness of the Azerbaijani people, strengthening the enlightenment movement. The

cooperation of our progressive, democratic intelligentsia in Tiflis (Tbilisi), which for many years has been the administrative and cultural center of the Caucasus, opened the way for the development of the cultural life of the Azerbaijani people. Our intelligentsia collaborated with the newspapers Tiflisskiye Vedomosti, Transcaucasian Bulletin, and others, which were published in Russian in Tbilisi at the beginning of the 19th century. This collaboration, as well as attempts to create a printing house by M.Sh. Vazekh, M.F.Akhundzade, the return of Azerbaijani youth to their homeland after receiving higher education in Europe, etc. led to the formation of a generation of modern intelligentsia in Azerbaijan.

Mirza Shafi Vaze, Mirza Fatali Akhundzade, Isa Sultan Shahtakhti, Einali bey Sultanov, Safarali bey Valibekov, Firdun bey Kocharli, Unsuzade brothers, M. Shahtakhti, Omar Faig Nemanzade, Mirza Jalil and dozens of our enlightened, enlightened, highly educated residents of the city to achieve the publication presses in their native language, published in periodicals, took an active part in ongoing cultural events, etc. Such factors played an important role in the activities of education, culture and press in Azerbaijan in subsequent years. These intellectuals, who spoke mainly in the Russian-language press, understood the role and place of the press in society and saw what it was capable of. The efforts of the Azerbaijani intelligentsia in Tbilisi to create their own press and open new schools have borne fruit.

As a result, starting from the beginning of the 19th century, the Tbilisi literary environment paved the way for the development of Azerbaijani literature, culture and education. In 1875, the first newspaper in the Azerbaijani language "Ekinchi" was founded. Unfortunately, the activities of "Ekinchi" did not last long. The tsarist government used every means to close it. No matter how hard our intelligentsia tried to resume the work of the press in their native language, it did not succeed. Therefore, our national intelligentsia, unable to achieve the activity of their native press in Azerbaijan after Ekinchi, again turned to Tiflis for the implementation of the plan.

A new era in the development of Azerbaijani journalism began in Tiflis with the participation of the Unsizade brothers. The brothers Said, Jalal and Kamal Unsizade opened a printing house in Tiflis and managed to publish a newspaper in their native language. Here, our intellectuals, who succeed in the activities of the media "Ziya", "Ziyai-Kafkazia", "Keshkul", then "Shargi-Rus" and "Molla Nasreddin", contributed to the development and enrichment of the history of our national press, as well as enlightening the people, awakened his national consciousness. Thus, in the first decade of the 20th century, it was possible to revive the activity of printing in the Azerbaijani language in Baku.

It is also a fact that the literary environment of Tiflis represents a "bright stage" in the development of the Azerbaijani press and literary environment, both during the reign of Tsarist Russia and during the period of the Azerbaijan Democratic Republic.

Keywords: press, literary environment, national consciousness, journalism

KÜLTÜREL BİR AKTARIM UNSURU OLARAK TÜRK TAMGALARININ ÇAĞDAŞ TÜRK SANATINA YANSIMALARI

TURKISH TIMELINES AS A CULTURAL TRANSFER ELEMENT REFLECTIONS ON CONTEMPORARY TURKISH ART

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ÖZET

Gelişen ve değişen dünyada kültürel araştırmalar, birçok farklı disiplinin çalışmaları ile önemini giderek artırmaktadır. Beraber yaşadıkları toplumda azami birlikteliği sağlamanın yolunun, ortak kültüre sahip olmak ve bu kültürü aktarmaktan geçtiğini keşfeden toplumlar, konuyla ilgili çalışmalarını yoğunlaştırmaktadırlar. Türk kültürünün yapı taşlarını oluşturan Türk mitolojik unsurları da, her geçen gün yeni araştırmaların konusu olmaktadır. Günümüz Türk kültürünün kökeni, Türk mitolojik unsurlarını barındırmaktadır. Ama şu da bir gerçektir ki; toplum, hayatın bu kadar içinde olan bu unsurlar hakkında yeterli bilgi ve görsel algıya sahip değildir. Geçmişten itibaren bütün insan toplulukları, kültürel değerlerini aktarabilmek için birçok yol ve yöntemden faydalanmıştır. Kültürel değerlerin aktarımında tercih edilen yöntemlerden biri de, sanat disiplinlerinin kullanılmasıdır. Edebiyat, sinema, plastik sanatlar, müzik ve diğer sanat disiplinleri bu konuda oldukça etkili sonuçlar elde edilmesini sağlamaktadır. Türk mitolojisinin görselleştirilmesi hususunda verilen çabalar önemli olmakla birlikte yeterli değildir. Semboller toplumlar için önemli bir hafıza belgeleridir. Türkler için semboller, taşıdıkları anlamların ötesinde önemli bir iletişim imgeleridir. Bu çalışmanın konusunu oluşturan Tamgalar/Damgalar, Türk tarihinde sıklıkla karşımıza çıkmaktadır. Mezar taşlarında, kilim ve halılarda, ziynet eşyalarında, ev kapı ve duvarlarda, dövmelede, at koşum takımlarında sıklıkla görülen bu tamgalar hem sahiplik hem de kutsallık anlamına gelmektedir. Literatüre baktığımızda Türk damgaları konusunda yerli yabancı birçok araştırma yapılmış olduğunu görmekteyiz. Kültürel soyut ya da somut olguların sanata yansması toplumların kültürlerini koruma ve sürdürme de en etkili yollardan biri olduğu düşünülmektedir. Bu bağlamda bu araştırma kapsamında Türk tamgalarının Çağdaş Türk Sanatına yansımaları incelenecektir. Çağdaş Türk sanatçılarından Bedri Rahmi Eyüboğlu, Adnan Turani ve Rauf Tuncer'in sanat anlayışları ve Türk tamgalarını konu aldığı eserler üzerinden kültürel bir imgenin plastik sanatlardaki yansımalarının çözümlemesi yapılacaktır. Böylece sanatta özgün olmanın, bireysel üslup geliştirebilmede bireyin kendi kültüründen beslenmesinin, kültürü tanıırken aslında kendisini tanıdığının farkındalığını keşfedeceği bir süreç aktarılacaktır. Türk kültürüne ait imgeler, nesneler ve semboller var olduğu günden bugüne çok farklı alanlarda karşımıza çıkmaktadır. Farklı alanlarda çalışan bir çok uzman için ilham verici olan bu kültürel olgular taşıdığı anlamları da kuşaktan kuşaklara iletmektedir.

Anahtar Kelimeler: Kültür, Çağdaş Sanat, Tamgalar.

ABSTRACT

In the developing and changing world, cultural studies is gradually increasing its importance with the studies of many different disciplines. Societies, who discovered that the way to ensure maximum unity in the society they live together, is to have a common culture and to transfer this culture, intensify their studies on the subject. Turkish mythological elements, which constitute the building blocks of Turkish culture, are also the subject of new researches every day. The origin of today's Turkish culture contains Turkish mythological elements. But it is also a fact that; society does not have enough information and visual perception about these elements that are so much in life. Since the past, all human societies have benefited from many ways and methods to transfer their cultural values. One of the preferred methods

of transferring cultural values is the use of art disciplines. Literature, cinema, plastic arts, music and other art disciplines provide very effective results in this regard. Efforts to visualize Turkish mythology are important but not sufficient. Symbols are important memory documents for societies. For Turks, symbols are important communication images beyond their meanings. Stamps/Seals, which are the subject of this study, are frequently encountered in Turkish history. These stamps, which are frequently seen on tombstones, rugs and carpets, jewelry, house doors and walls, tattoos, horse harnesses, mean both ownership and sanctity. When we look at the literature, we see that many local and foreign researches have been done on Turkish stamps. The reflection of cultural abstract or concrete phenomena on art is thought to be one of the most effective ways of protecting and maintaining the cultures of societies. In this context, the reflections of Turkish stamps on Contemporary Turkish Art will be examined within the scope of this research. The reflection of a cultural image in plastic arts will be analyzed through the works of contemporary Turkish artists, Bedri Rahmi Eyüboğlu, Adnan Turani and Rauf Tuncer, on their understanding of art and Turkish stamps. Thus, a process will be conveyed in which the individual will discover the awareness of being original in art, nourishing from his/her own culture in developing an individual style, and actually knowing himself/herself while recognizing the culture. Images, objects and symbols of Turkish culture appear in very different areas since the day they existed. These cultural facts, which are inspiring for many experts working in different fields, convey their meanings from generation to generation.

Keywords: Culture, Contemporary Art, Seals.

**SOĞUTMA SİSTEMLERİNDE KONDENSER YÜZEY KİRLİLİĞİNİN KONTROL
EDİLMESİNE YÖNELİK AKILLI FAN YÖNETİM ALGORİTMA TASARIMI**

**SMART FAN MANAGEMENT ALGORITHM DESIGN FOR CONTROLLING POLLUTION ON
CONDENSER SURFACE IN COOLING SYSTEMS**

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ÖZET

Günümüzde enerji kaynakları hızla tüketilirken, soğutma sistemlerinde akıllı teknolojilerle enerji tüketiminin düşürülmesi ve enerji verimliliği sağlanmasına yönelik yapılan çalışmalar büyük önem taşımaktadır. Bu sistemlerde kullanılan fanlar yüksek enerji tüketimine sahiptir. Bu yüzden fanların doğru seçilmesi ve enerjinin verimli yönetilmesi gerekmektedir. Soğutma sisteminde fanlar, kondenser ve evaporatörde cebri hava akışı sağlamaktadır. Ayrıca fanlar kondenserde yoğunlaşma, evaporatörde buharlaşma işleminin gerçekleşebilmesine yardımcı olmaktadır. Kondenser yüzeyinde zaman içinde kirlenme gerçekleşir ve bu kirlilik kondenserin kanatçıklarında birikerek bir tabaka oluşturur. Bu tabaka hava geçişini engelleyerek kondenserde hava fark basıncını yükseltir ve kondenserin ısı atmasını zorlaştırır. Kondenser fanları kompresör ile eş zamanlı çalışmakta ve kompresör devreden çıktığında belirli süre ters yönde çalışarak, kirlenen kondenser yüzeyini temizlemektedir. Bu süreçler sabit bir döngü ve hızda gerçekleştirildiğinden, fanlar, kompresör her devreden çıktığında aynı hız ve süre boyunca ters yönde çalışır. Bu uygulama alanlarında fanlar sabit bir kontrol algoritması ile yönetilmemektedir. Bu çalışmada kondenser kirliliğinin kontrol edilmesine yönelik akıllı fan yönetim algoritması tasarlanmıştır. Tasarlanan algoritmada kondenser çıkışındaki soğutucu akışkan sıcaklığı referans alınarak fan devri değişken hızlı olarak belirlenmiştir. Aynı zamanda algoritma, kondenserin hava fark basınç değeri ile fanın ters yönde çalıştığı durumda çalışma süresini belirlemektedir. Önerilen akıllı fan yönetim algoritması ile kondenser yüzey kirliliği hassas bir şekilde kontrol altına alınarak enerji verimliliği sağlanabilir.

Anahtar Kelimeler: Akıllı Fan Yönetim Algoritması, Değişken Devirli Fan, Endüstriyel Soğutma, Kondenser Yüzey Kirliliği

ABSTRACT

Today, while energy resources are consumed rapidly, studies on reducing energy consumption and providing energy efficiency with smart technologies in cooling systems are of great importance. The fans used in these systems have high energy consumption. Therefore, it is necessary to choose the fans correctly and to manage the energy efficiently. Fans provide forced air flow in the condenser and evaporator in the cooling system. In addition, fans help to achieve condensation in the condenser and evaporation in the evaporator. Pollution occurs in the condenser surface over time and this pollution accumulates on the fins of condenser, forming a layer. This layer blocks the air flow, increasing the air differential pressure loss in the condenser and making it difficult for the condenser to rejection of heat. Condenser fans work simultaneously with the compressor and when the compressor is off for a certain period of time, the fans work on the reverse for cleaning the polluted condenser surface. Because these processes are performed at a fixed cycle and speed, the fans work in reverse for the same speed and duration each time the compressor closed. Fans are not controlled by a fixed control algorithm in these applications. In this study, a smart fan management algorithm is designed to control pollution on condenser surface. In the designed algorithm, the fan speed was determined as variable speed by taking the refrigerant temperature at the condenser outlet as a reference. In addition, the algorithm determines the reverse of fan operating time with the air differential pressure loss of the condenser. The pollution on condenser surface can be precisely controlled and energy efficiency can be achieved with the smart fan management algorithm.

Keywords: Variable Speed Fan, Industrial Cooling, Smart Fan Management Algorithm, Pollution on Condenser Surface

ŞEBEKEYE BAĞLI ÇBAG TABANLI RÜZGAR TÜRBİNİNDE FARKLI GÜÇ DEĞERİNDEKİ YAKIT HÜCRESİNİN KÜÇÜK SİNYAL KARARLILIĞI ÜZERİNDEKİ ETKİLERİNİN İNCELENMESİ

INVESTIGATION OF THE EFFECTS OF DIFFERENT POWER VALUE FUEL CELLS ON SMALL SIGNAL STABILITY IN A GRID-CONNECTED DFIG BASED WIND TURBINE

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ÖZET

Güç sistemlerinin çalışma koşulları günümüz teknolojisine bağlı olarak sürekli değişmektedir. Çalışma koşullarındaki değişimler çok makinalı güç sistemlerinde güç transfer limitlerini zorlamaktadır. Çalışma koşullarının daha etkili hale gelmesi için yenilenebilir enerji kaynaklarından rüzgar enerjisi kullanılmaktadır. Rüzgar enerjisinden elektrik enerjisi elde etmek için çeşitli generatörler kullanılmaktadır. En çok aktif güç ve moment karakteristiği iyi olan Çift Beslemeli Asenkron Generatör (ÇBAG) tercih edilmektedir. Çok makinalı güç sistemine ÇBAG tabanlı rüzgar türbinin entegre edilmesi ile sürekli ve geçici durum analizleri benzetim çalışmalarında incelenmektedir. Özellikle de kararlılık durumları detaylı bir şekilde analiz edilmektedir. Kararlılık çalışmaları farklı sınıflandırmalar altında toplanmaktadır. Kararlı çalışmanın en önemlilerinden birisi güç salınımlarının sönümlenmesi konusu ile ilişkili olan küçük sinyal kararlılığıdır. Küçük sinyal kararlılığı çok makinalı güç sisteminde bozucu etkiler sonucundaki sistemin çalışma moduna bağlı olarak baskın makinaların, özdeğer analizlerinin, salınım ve sönümleme durumlarının tablolar halinde kapsamlı şekilde ifade edilmesidir. Yapılan bu çalışmada çok makinalı güç sisteminde Çift Beslemeli Asenkron Generatör (ÇBAG) tabanlı rüzgar türbinlerinin sisteme entegre edilmesi ve enerji depolama sistemin elemanlarından yakıt hücresinin kullanılması ile küçük sinyal kararlılığı analizi incelenmiştir. Bunun yanı sıra senkron generatör denetleyici modelleri olarak güç sistemleri kararlı kılıcısı, otomatik gerilim regülatörü ve türbin yöneticisi modelleri birlikte kullanılmıştır. Benzetim çalışması Güç Sistemleri Analizi Programı (PSAT) kullanılarak gerçekleştirilmiştir. ÇBAG tabanlı rüzgar türbinin güç sistemine entegre edildiği durumda farklı güçlerdeki katı oksit yakıt hücresinin bağlandığı durumdaki küçük sinyal kararlılığı sonuçları karşılaştırılmıştır. Katı oksit yakıt hücresinin güç değerleri 100 MVA, 125 MVA ve 150 MVA olarak seçilmiştir. Karşılaştırmalar olarak mod, baskın makineler, özdeğerler, osilasyon frekansı, sönümleme oranı ve katılık faktöründeki değişimler değerlendirilmiştir. Dahası ÇBAG tabanlı rüzgar türbinin entegre edilmesi ve farklı yakıt hücresi güç değişimlerinde gerçek ve sanal özdeğer grafikleri verilmiştir. 2 farklı senaryo halinde benzetim çalışması sonuçları detaylı bir şekilde yorumlanmıştır. Elde edilen çalışma sonucunda ÇBAG tabanlı rüzgar türbini ve farklı güçlerdeki yakıt hücresinin sistemin küçük sinyal kararlılığı üzerinde etkili sonuçlar verdiği görülmüştür.

Anahtar Kelimeler: ÇBAG tabanlı rüzgar türbini, farklı güçlerde yakıt hücresi, küçük sinyal kararlılığı, PSAT

ABSTRACT

The operating conditions of power systems are constantly changing depending on today's technology. Changes in operating conditions can push the power transfer limits in multi-machine power systems. Wind power, one of the renewable energy sources, is used to make operating conditions more effective. Various generators are used to obtain electrical power from wind power. The Double-Feed Induction Generator (DFIG) with good active power and torque characteristics is most preferred. The steady-state and transient analyses are examined in simulation studies by integrating a DFIG-based wind turbine into the multi-machine power system. In particular, stability situations are analyzed in detail. Stability studies are grouped under different classifications. One of the most important in stability operations is small-signal stability, which is related to the issue of damping power oscillations. Small-signal stability is a comprehensive tabular representation of dominant machines, eigenvalue analysis, oscillation, and damping states depending on the operating mode of the system as a result of disturbance effects in a multi-machine power system. In this study, small-signal stability analysis was investigated by integrating Double Feed Induction Generator (DFIG) based wind turbines into the system and using a fuel cell, one of the elements of the energy storage system, in a multi-machine power system. In addition, power systems stabilizers, automatic voltage regulators, and turbine manager models were used together as synchronous generator controller models. The simulation study was carried out using the Power Systems Analysis Program (PSAT). The small-signal stability results in the case of a solid oxide fuel cell of different powers were compared when the DFIG-based wind turbine has integrated into the power system. The power values of the solid oxide fuel cell were chosen as 100 MVA, 125 MVA, and 150 MVA. As for comparisons, mode, dominant machines, eigenvalues, oscillation frequency, damping ratio, and changes in stiffness factor were evaluated. Moreover, real and imaginary eigenvalue graphs for integrating DFIG based wind turbines and different fuel cell power variations were given. The results of the simulation study were evaluated in detail in 2 different scenarios. As a result of the study, it was seen that the DFIG-based wind turbine and the fuel cell of different powers give effective results on the small-signal stability of the system.

Keywords: DFIG based wind turbine, fuel cell of different power, small signal stability, PSAT

**GÜÇ SİSTEMLERİNDE STATCOM-EDS İLE GERİLİM KARARLILIĞININ
İNCELENMESİ**

INVESTIGATION OF VOLTAGE STABILITY IN POWER SYSTEMS WITH STATCOM-ESS

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ÖZET

Dünya nüfusundaki gözlemlenen artış gibi teknolojik gelişmelerin de hızlı bir şekilde yaşandığı son yıllarda; kırsal bölgelerdeki nüfus yoğunluğunun azalmasına karşılık kentsel bölgelerdeki nüfus yoğunluğundaki artış ve bu bölgelerde teknolojiye erişiminin kolaylaşması gibi nedenler güç sistemlerinden talep edilen enerjinin miktarında artışlara neden olmaktadır. Talep edilen enerji miktarını karşılayarak son kullanıcıya ulaştırmak için güç sistemlerine yeni üretim ünitelerinin dahil edilmesi, mevcut iletim hattı sayısının artırılması ve dolayısıyla güç sistemlerinin büyümesi gerekmektedir. Bu durum sistemin karmaşıklaşmasına neden olurken maliyet açısından değerlendirildiğinde gözlemlenen olumsuz etki mevcut güç sisteminin verimli ve güvenilir olarak işletilmesinin önemini ortaya çıkarmaktadır. Güç sistemlerinin kararlılık sınırlarının incelenmesi ve geliştirilmesi, verimlilik ve güvenilirlik açısından önemli bir konudur. Güç sistemlerinin kararlılığı sistemin normal çalışma koşullarının sürdürülebilirliği olarak tanımlanmaktadır. Güç sisteminde meydana gelen çeşitli bozucu etkiler ve ani yük değişimleri gibi nedenler kararlılık problemlerinin yaşanmasına neden olmaktadır. Günümüzde yaygın olarak gözlemlenen kararlılık problemlerinden birisi de gerilim kararlılığıdır. Gerilim kararlılığı ise güç sisteminde yüklere yakın bölge gerilimlerinin normal çalışma koşullarındaki değerlerinin sürdürülebilirliği olarak tanımlanmaktadır. Gerilim kararlılığı için yapılan incelemelerde gerilim ve maksimum yüklenme parametresi değerlerinin arasında bulunan ilişki son derece önemlidir. Güç sistemi gerilim kararlılığı çalışmalarında, bara gerilim genlik profillerini normal çalışma koşullarında tutmak için güç elektroniği tabanlı Esnek AC İletim Sistemi (FACTS) cihazları sıkça kullanılmaktadır. Yapılan bu çalışmada güç elektroniği tabanlı FACTS cihazlarından olan Statik Senkron Kompanzatör (STATCOM) ile birlikte kullanılan Enerji Depolama Sistemi (EDS)'nin güç sistemi gerilim kararlılığına olan etkisi incelenmiştir. Yapılan inceleme; Güç Sistemi Analizi Programı (PSAT) kullanılarak, 6 (altı) baralı güç sistemi üzerinde gerçekleştirilmiştir. STATCOM-EDS'nin güç sisteminde kullanılmadığı durum ile kullanıldığı durumda bara gerilim genlik profilleri ile maksimum yüklenme parametresi değerleri bulunarak kıyaslanmıştır. Dahası EDS'nin farklı güç oranlarında kullanılması durumunda gerilim kararlılığı üzerinde oluşturduğu etkiler incelenmiştir. Yapılan çalışma sonucunda STATCOM-EDS'nin güç sisteminde kullanıldığı durumda maksimum yüklenme parametresini iyileştirdiği, STATCOM'un bulunduğu baranın gerilim genliğinin normal çalışma durumundaki değerinde tutulabildiği ve EDS güç oranının artması durumunda da maksimum yüklenme parametresindeki iyileşmenin artarak devam ettiği gözlemlenmiştir.

Anahtar Kelimeler: Güç sistemleri, Gerilim kararlılığı, FACTS cihazları, Enerji depolama sistemi.

ABSTRACT

In recent years, when technological developments such as the observed increase in the world population have been experienced rapidly; increase in population density in urban areas versus a decrease in population density in rural areas and in these regions, reasons such as ease of access to technology cause increases in the amount of energy demanded from power systems. In order to meet the demanded amount of energy and deliver it to the end user, it is necessary to include new generator units in power systems, increase the number of existing transmission lines, and therefore grow power systems. While this situation causes the complexity of the system, the negative effect observed when evaluated in terms of cost reveals the importance of efficient and reliable operation of the existing power system. Examining and developing the stability limits of power systems is an important issue in terms of efficiency and reliability. The stability of power systems is defined as the sustainability of the normal operating conditions of the system. Causes such as various disruptive effects and sudden load changes in the power system cause stability problems. One of the stability problems commonly observed today is voltage stability. Voltage stability is defined as the sustainability of the values of the region voltages close to the loads in the power system under normal operating conditions. The relationship between voltage and maximum loading parameter values is extremely important in the investigations for voltage stability. In power system voltage stability studies, power electronics based Flexible AC Transmission System (FACTS) devices are frequently used to keep the bus voltage amplitude profiles under normal operating conditions. In this study, the effect of the Energy Storage System (ESS) used together with the Static Synchronous Compensator (STATCOM), which is one of the power electronics based FACTS devices, on the power system voltage stability was investigated. The review made; It was carried out on a 6 (six) bus power system using the Power System Analysis Program (PSAT). When STATCOM-ESS is not used in the power system and when it is used, the bus voltage amplitude profiles and the maximum loading parameter values are compared. Moreover, the effects of ESS on voltage stability when used at different power ratios were investigated. As a result of the study, it has been observed that when STATCOM-ESS is used in the power system, it improves the maximum loading parameter, the voltage amplitude of the bus where STATCOM is located can be kept at its normal operating value, and the improvement in the maximum loading parameter continues increasingly in case of an increase in the ESS power ratio.

Keywords: Power systems, voltage stability, FACTS devices, Energy storage systems.

MULTİPL SKLEROZ HASTALIĞININ İKİNCİ BASAMAK TEDAVİLERİNİN MALİYET-ETKİLİLİK ANALİZİ¹

COST-EFFECTIVENESS ANALYSIS OF SECOND-LINE TREATMENTS OF MULTIPLE SCLEROSIS DISEASE

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ÖZET

Multipl Skleroz (MS); engelliliğe neden olan, progresif, nörolojik ve kronik bir hastalıktır. Bu araştırmanın amacı, MS hastalığının ikinci basamak tedavisinde kullanılan hastalığı modifiye edici ilaç (Disease Modifying Drug-DMD) tedavilerinin geri ödeme kurumu perspektifinden maliyet etkililiğini analiz etmektir. Araştırmanın evrenini Süleyman Demirel Üniversitesi Araştırma ve Uygulama Hastanesi'nde 2019 yılında tedavi alan MS hastaları oluşturmaktadır. Araştırmada örneklem çekilmemiş ve evrenin tamamı araştırma kapsamına alınmıştır. İkinci basamak tedavilerin maliyeti ve etkililiği Markov modeli ile tespit edilmiştir. Modelde yer alan sağlık durumları hasta değerlendirmeli EDSS ölçeği ile belirlenmiştir. Araştırmada kullanılan maliyet verileri hasta faturalarından elde edilmiştir. Etkililik değerleri ise hastalara uygulanan EQ-5D-5L ölçeği ile tespit edilmiştir. Modelde hastaların sağlık durumları arasındaki geçişleri için döngü uzunluğu 1 yıl, zaman dilimi ise 10 yıl olarak belirlenmiştir. Araştırmada MS'in ikinci basamak tedavilerinin toplam maliyeti ve toplam kaliteye ayarlı yaşam yılı (QALY) hesaplanmış ve hesaplanan sonuçlara %3 indirgeme yapılmıştır. Sonuçlar ilave maliyet etkililik oranı (İMEO) olarak sunulmuştur. Ayrıca araştırmada ikinci sonuç ölçütü olarak net parasal fayda (Net Monetary Benefit-NMB) hesaplanmıştır. Maliyet-etkililik analizinde tek yönlü ve olasılıksal duyarlılık analizi (Monte Carlo simülasyonu) yapılmıştır. Araştırmada Markov modelinden elde edilen sonuçlara göre ikinci basamak DMD tedavilerinin toplam maliyeti ve toplam QALY'leri tespit edilmiştir. Fingolimod tedavisi 219.921 TL maliyete ve 5.84 QALY'ye; Okrelizumab tedavisi 374.354 TL maliyete ve 5.88 QALY'ye, Natalizumab tedavisi ise 439.867 TL maliyete ve 5.94 QALY'ye sahiptir. Fingolimod tedavisi ile karşılaştırıldığında Okrelizumab ve Natalizumab'ın maliyet etkili tedaviler olmadığı tespit edilmiştir. İkinci basamak tedaviler arasında parasal açıdan en yüksek NMB değerine sahip tedavinin 697.257 TL ile Fingolimod olduğu tespit edilmiştir. Yapılan tek yönlü duyarlılık analizinde sonuçlar tüm parametre değişimlerinde kararlı bir sonuç göstermiştir. Sonuç olarak MS'in ikinci basamak tedavisinde kullanılan DMD'ler yüksek sağlık kazanımlarına rağmen oldukça maliyetli tedavilerdir. Bu nedenle bu tedavilerin maliyetlerinin düşürülmesine yönelik sağlık politikalarının geliştirilmesi ve ilaç fiyatları döviz kurlarındaki artıştan etkilendiği için Türkiye'de QALY başına eşik değerin dövize endeksli olarak belirlenmesi önerilmektedir. Bu araştırma 1002 Hızlı Destek Programı kapsamında TÜBİTAK tarafından desteklenmiştir.

Anahtar Kelimeler: Ekonomik Değerlendirme, Hastalığı Modifiye Edici Tedaviler, Maliyet-Etkililik Analizi, Markov Modeli, Multipl Skleroz.

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ABSTRACT

Multiple Sclerosis (MS); is a progressive, neurological and chronic disease that causes disability. The aim of this study is to analyze the cost-effectiveness of the disease-modifying drug (DMD) treatments used in the second-line treatment of MS disease from the perspective of the reimbursement institution. The population of the research consists of MS patients who received treatment at Süleyman Demirel University Research and Application Hospital in 2019. No sample was drawn in the study and the entire universe was included in the research. The cost and effectiveness of second-line treatments were determined by the Markov model. The health states in the model were determined by the patient-evaluated EDSS scale. The cost data used in the study were obtained from patient invoices. Efficacy values were determined with the EQ-5D-5L scale applied to the patients. In the model, the cycle length is determined as 1 year and the time period is 10 years for the transition of patients between their health states. In the study, the total cost of second-line treatments for MS and the total quality-adjusted life years (QALY) were calculated and a 3% discount was made to the calculated results. The results are presented as an incremental cost-effectiveness ratio (ICER). In addition, net monetary benefit (Net Monetary Benefit-NMB) was calculated as the second outcome measure in the study. In cost-effectiveness analysis, one-way and probabilistic sensitivity analysis (Monte Carlo simulation) was performed. According to the results obtained from the Markov model in the study, the total cost and total QALYs of second-line DMD treatments were determined. The cost of fingolimod treatment was 219,921 TL, its QALY was 5.84; the cost of ocrelizumab treatment was 374,354 TL, its QALY was 5.88; the cost of natalizumab treatment is 439,867 TL and its QALY is 5.94. Compared with Fingolimod treatment, Ocrelizumab and Natalizumab were not found to be cost-effective treatments. Among the second-line treatments, it was determined that the treatment with the highest NMB value in terms of money was Fingolimod with 697,257 TL. In the one-way sensitivity analysis, the results showed a stable result in all parameter changes. In conclusion, DMDs used in the second-line treatment of MS are very costly treatments despite their high health gains. For this reason, it is recommended to develop health policies to reduce the costs of these treatments and to determine the threshold value per QALY in Turkey as foreign currency indexed since drug prices are affected by the increase in exchange rates. This research was supported by TUBITAK within the scope of the 1002 Rapid Support Program.

Keywords: Economic Evaluation, Disease-Modifying Treatments, Cost-Effectiveness Analysis, Markov Model, Multiple Sclerosis

TUJ KOYUN IRKINDA DGAT1 GENİ POLİMORFİZMİ

DGAT1 GENE POLYMORPHISM IN TUSHIN SHEEP

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ÖZET

Bu çalışmada amaç Atatürk Üniversitesi Gıda ve Hayvancılık Uygulama ve Araştırma Merkezi Çiftliğinde yetiştirilen Tuj koyunlarında Diacylglycerol acyltransferase1 (DGAT1) gen lokusu bakımından göstermiş oldukları polimorfizmi araştırmak ve ilgili genler bakımından koyunlara ait genotip ve alel frekansların dağılımını belirlemektir. Çalışmada kullanılan 100 baş Tuj Koyun ırklarından alınan kıl örneklerinden izole edilmiş DNA'larda, *PCR-RFLP* yöntemi kullanılarak *DGAT1/AluI* gen polimorfizmleri tanımlanmıştır. *PCR-RFLP* ürünleri elektroforez ortamında yürütülerek sonuçlar ultraviyole (UV) cihazında bantlar halinde görüntülenmiştir. Araştırmada popülasyonlara ait genotip ve alel gen frekans dağılımları hesaplanmış ve popülasyonların Hardy-Weinberg genetik denge testine uyup uymadıkları test edilmiştir.

Hardy-Weinberg genetik denge testine göre çalışılan popülasyonlarda genotip frekansları dağılımının dengede olduğu ($P>0,05$) gözlenmiştir. Popülasyondaki DGAT1 genine ait CC, CT ve TT genotip frekansları Tuj koyun ırkında sırasıyla %53, %38 ve %9 olduğu tespit edilmiştir. Popülasyon alel frekansları bakımından incelendiğinde Tuj koyun ırkında C allelinin 0,72 ve T allelinin 0,28 olduğu belirlenmiştir. Tuj ırkı koyunlardan alınan kıl örneklerinden *PCR-RFLP* yöntemi kullanılarak DGAT1 genotipleri tespit edilmiştir. İncelenen koyun ırkı popülasyonunda DGAT1 gen lokusu dağılımının Hardy-Weinberg genetik denge testine göre dengede olduğu gözlenmiştir. DGAT1 gen polimorfizmi açısından belirlenen genotip ve alel frekansları bu ırkın genotip çeşitliliğini ortaya koymada yeterli olabileceği tespit edilmiştir.

Anahtar Kelimeler: DGAT1, Tuj, koyun, polimorfizm, *PCR*, *RFLP*

ABSTRACT

This study aims to investigate the polymorphism of Diacylglycerol acyltransferase1 (DGAT1) gene locus in Tushin sheep raised at Atatürk University Food and Livestock Application and Research Center Farm and to determine the distribution of genotype and allele frequencies of sheep in terms of related genes. DGAT1/AluI genes polymorphism was defined by using the PCR-RFLP method in the DNAs isolated from hair samples taken from 100 Tuj sheep used in this study. PCR- RFLP products were run in an electrophoresis medium and the results were visualized as bands in an ultraviolet (UV) device. In the study, distributions of the genotype and allele gene frequency of the population were calculated and it was tested whether the populations comply with the Hardy-Weinberg (HW) genetic equilibrium test.

According to the Hardy-Weinberg genetic equilibrium test, it was observed that the distribution of genotype frequencies was in balance ($P>0,05$) in the population studied. The CC, CT, and TT genotype frequencies of the DGAT1 gene in the population were found to be 53%, 38%, and 9% for the Tuj sheep breed, respectively. When the population was examined in terms of allele frequencies, it was defined that the C allele and the T allele were 0.72 and 0.28 for the Tuj sheep, respectively. DGAT1 genotypes were determined using the PCR-RFLP method from hair samples taken from Tushin sheep. It was

observed that the distribution of the DGAT1 gene locus in the examined sheep breed population was in balance according to the HW genetic equilibrium test. It has been defined the genotype and allele frequencies determined in terms of DGAT1 gene polymorphism may be found to be sufficient to reveal the genotype diversity of this breed.

Keywords: DGAT1, Tuj, sheep, polymorphism, PCR-RFLP

KENTLEŞME VE CO₂ İLİŞKİSİ: AB ÜYESİ GEÇİŞ EKONOMİLERİ ÖRNEĞİ (1995-2018)

THE RELATIONSHIP BETWEEN URBANIZATION AND CO₂: EVIDENCE FROM THE EU MEMBER TRANSITION ECONOMIES (1995-2018)

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ÖZET

Sürdürülebilir ekonomik büyüme anlayışı çevresel kalitenin hem bugünün hem de gelecek nesillerin en temel hakkı olduğunu ve gezegenin geleceği için önem arz ettiğini ifade etmektedir. Bununla birlikte günümüz dünyasında ekonomik büyümeye yönelik süreçlerin aynı zamanda çevresel bozulmalara neden olarak yaşam kalitesini düşürdüğü ve uzun vadede katlanılması gereken ek maliyetler ortaya çıkardığı bilinmektedir. Dolayısıyla dünyada yaygın bir şekilde kabul gören çevresel kalitenin ölçütü olan karbondioksit salınımını etkileyen etmenlerin tespiti son dönemde araştırmalar tarafından incelenen önemli konular arasında yer almaktadır. Karbondioksit salınımı üzerinde etkili olan faktörlerden birisi kentleşmedir. Kentleşmenin ekonomik ve sosyal gelişme üzerindeki etkisi nedeniyle dünya genelinde kentli nüfus miktarı sürekli artış eğilimindedir. Ancak hızlı kentleşmenin ulaştırma faaliyetlerini ve enerji talebini artırmak suretiyle de çevre kirliliğine yol açtığı söylenebilir. Karbondioksit salınımını etkileyen etmenlerin belirlenmesi ortaya çıkacak maliyetlerin azaltılmasına yönelik çalışmalara katkı sunmaktadır. Bu amaçla çalışmada karbondioksit ve kentleşme arasındaki ilişki Avrupa Birliği'ne üye 9 geçiş ekonomisi için araştırılmıştır. Ekonomik, sosyal, siyasal ve hukuksal alanlarda kaydettikleri ilerleme ile AB'ye üye olma hakkı kazanan geçiş ekonomileri pek çok avantajdan da yararlanma fırsatı yakalamışlardır. Diğer yandan söz konusu ülkelerde makroekonomik performans yükselişi enerji talebi artışına ve çevresel sorunların oluşumuna da etki etmiştir. Literatür incelemesi sonucu kentleşme ve karbondioksit arasındaki ilişkiyi örneklem ve yöntem bakımından inceleyen benzer çalışmalara rastlanılamamış olması çalışmanın bu boşluğa da katkı sunması bakımından önemini ortaya koymaktadır. Karbondioksit ve kentleşme arasındaki ilişki Dumutrescu-Hurlin panel nedensellik yaklaşımı yardımıyla uzun dönem veri bulunabilirliği kriterine göre 1995-2018 dönemi için yıllık veriler kullanılarak araştırılmıştır. Çalışmada karbondioksit; kişi başına düşen karbondioksit salınımı ile kentleşme; kentsel nüfusun toplam nüfus içindeki yüzdesi ile temsil edilmiştir. Dumutrescu-Hurlin panel nedensellik analizi sonucu karbondioksit ile kentleşme arasında çift yönlü bir nedensellik ilişkisi tespit edilmiştir. Değişkenler arasındaki çift yönlü nedensellik ilişkisi geri besleme sürecinin de işlediğini belirtmesi bakımından önem arz etmektedir. Buna göre karbondioksit salınımı ile kentleşme arasındaki karşılıklı ilişki çevresel kalitenin artırılmasında kentsel enerji ihtiyaçlarının yenilenebilir enerji yatırımlarıyla desteklenmesinin gerekliliğini ve karbondioksit salınımını azaltmaya yönelik alternatif kaynakların planlanmasının gerekliliğini ortaya koymaktadır.

Anahtar Kelimeler: Kentleşme, CO₂, Dumutrescu-Hurlin Panel Nedensellik, Geçiş Ekonomileri.

ABSTRACT

The understanding of sustainable economic growth states that environmental quality is the most fundamental right of both today and future generations and is important for the future of the planet. However, in today's world, it is known that processes for economic growth also reduce the quality of life by causing environmental deterioration and create additional costs that must be incurred in the long run. Therefore, the determination of the factors affecting the emission of carbon dioxide, which is a widely accepted measure of environmental quality in the world, is among the important issues examined by researches recently. One of the factors affecting carbon dioxide emissions is urbanization. Due to the impact of urbanization on economic and social development, the amount of urban population in the

world is constantly increasing. However, it can be said that rapid urbanization also causes environmental pollution by increasing transportation activities and energy demand. Determining the factors affecting carbon dioxide emissions contributes to the action aimed at reducing the costs that will arise. For this purpose, the relationship between carbon dioxide and urbanization has been investigated for 9 transition economies that are members of the European Union. With the progress they have made in the economic, social, political and legal fields, the transition economies that have gained the right to become a member of the EU have also had the opportunity to benefit from many advantages. On the other hand, the increase in macroeconomic performance in these countries has also affected the increase in energy demand and the occurrence of environmental problems. As a result of the literature review, the lack of similar studies examining the relationship between urbanization and carbon dioxide in terms of sample and method reveals the importance of the study in terms of contributing to this gap. The relationship between carbon dioxide and urbanization is investigated with the help of Dumutrescu-Hurlin panel causality approach, using annual data for the period 1995-2018 according to the long-term data availability criterion. In the study, carbon dioxide emissions and urbanization are represented by carbon dioxide emissions per capita and the percentage of urban population in the total population, respectively. As a result of Dumutrescu-Hurlin panel causality analysis, a bidirectional causality relationship between carbon dioxide and urbanization is determined. The bidirectional causality relationship between the variables is important in terms of showing the feedback process. Accordingly, the reciprocal relationship between carbon dioxide emissions and urbanization reveals the necessity of supporting urban energy needs with renewable energy investments in order to increase environmental quality, and the planning of alternative sources to reduce carbon dioxide emissions.

Keywords: Urbanization, CO₂, Dumutrescu-Hurlin Panel Causality, Transition Economies.

**DOĞRUDAN YABANCI YATIRIMLAR VE LOJİSTİK SEKTÖRÜ İLİŞKİSİ: TÜRKİYE
İÇİN TODA-YAMAMOTO NEDENSELLİK SINAMASI**

FOREIGN DIRECT INVESTMENT AND LOGISTICS SECTOR: TODA-YAMAMOTO
CASUALITY FOR TURKEY

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ÖZET

Küresel sermaye hareketlerindeki serbestleşmenin etkisiyle birlikte doğrudan yabancı yatırımlar (DYY) ülkelerin ekonomik büyüme ve kalkınma süreçlerinde olumlu etkiler meydana getirebilmektedir. Özellikle yeterli sermaye veya ulusal tasarruf düzeyine sahip olmayan gelişmekte olan ülkeler için DYY ekonomik büyüme sürecinde önemli bir dış finansman kaynağı haline gelmiştir. Diğer yandan, özellikle daha etkin ve yeterli bir lojistik sektörünün varlığı firmaların daha kısa zamanda en az maliyetle taşıma giderlerine katlanması anlamına gelmektedir. Dolayısıyla ülkelerin daha güçlü ve gelişmiş bir lojistik ağına sahip olması hem operasyonel hem de maliyet açısından yabancı sermaye akışını gerçekleştirecek olan yatırımcıların dikkat ettikleri unsurların başında gelmektedir. Bu bağlamda firmaların daha üretken ve verimli olmalarına olanak sağlayacak olan bu lojistik yapı, DYY'lerin ülkeye yönelimi konusunda cezbedici bir unsur olarak değerlendirilmektedir. Literatürde yapılan bir çok ampirik çalışma gelişmiş lojistik ağına sahip olan ekonomilerin DYY'yi daha çok çekme eğiliminde olduğunu ortaya koymaktadır. DYY'lerin sermaye temini ve ekonomik büyüme sürecinde üstlendiği önemli rol dikkate alındığında bu çalışmanın amacını DYY ve lojistik sektörü arasındaki ilişkinin Türkiye ekonomisi için araştırılması oluşturmaktadır. Bu amaç doğrultusunda çalışmada DYY ile lojistik sektörü için bir gösterge olarak çalışmalarda sıklıkla kullanılan karayolu, demiryolu ve havayolu aracılığıyla taşınan toplam yük miktarları arasındaki nedensel ilişkiler 1970-2019 dönemi dikkate alınarak Toda-Yamamoto nedensellik testi ile araştırılmıştır. Toda-Yamamoto nedensellik testi sonuçlarından elde edilen bulgular karayolu lojistiğinden ve demir yolu lojistiğinden DYY'ye doğru tek yönlü bir nedensellik ilişkisinin mevcut olduğunu göstermektedir. Bulgularda havayolu lojistiği ile DYY arasında herhangi bir nedensellik ilişkisine rastlanılmamıştır. Söz konusu sonuçlar DYY ve lojistik sektörü arasındaki etkileşimin varlığını ortaya koyması bağlamında Türkiye ekonomisi için önem arz etmektedir.

Anahtar Kelimeler: Doğrudan Yabancı Yatırımlar, Lojistik, Karayolu Taşımacılığı, Demiryolu Taşımacılığı, Havayolu Taşımacılığı, Toda-Yamamoto Nedensellik, Türkiye

ABSTRACT

With the effect of liberalization in global capital movements, foreign direct investments (FDI) can have positive effects on the economic growth and development processes of countries. FDI has become a reliable and important source of external financing in the economic growth process, especially for developing countries that do not have sufficient capital or national savings. On the other hand, the existence of a more efficient and sufficient logistics sector means that companies bear the transportation

expenses in a shorter time with the fewest cost. Therefore, the fact that countries have a stronger and more developed logistics network is one of the factors that investors pay attention to, who will realize the flow of foreign capital in terms of both operational and cost. In this context, this logistics structure, which will enable companies to be more productive and efficient, is considered as an attractive factor for the orientation of FDIs to the country. Many empirical studies in the literature reveal that economies with developed logistics networks tend to attract more FDI. Considering the important role FDIs, the aim of this study is to investigate the relationship between FDI and logistics sector for the Turkish economy. For this purpose, the causal relationships between FDI and the total amount of freight transported by road, rail and air, which are frequently used in the studies as an indicator for the logistics sector, have been investigated with the Toda-Yamamoto causality test for the period 1970-2019. Findings from the results of the Toda-Yamamoto causality test showed that there is a one-way causality relationship both from road logistics and rail logistics to FDI. No causal relationship between airway logistics and FDI has been found in the findings. These results are important for the Turkish economy in terms of revealing the existence of the interaction between FDI and the logistics sector.

Keywords: Foreign Direct Investment, Logistics, Road Transportation, Rail Transportation, Airline Transportation, Toda-Yamamoto Causality, Turkey

İNTERNET KULLANIMININ CO₂ EMİSYONU ÜZERİNE ETKİSİ: TÜRKİYE ÖRNEĞİ

THE EFFECT OF INTERNET USE ON CO₂ EMISSIONS: THE CASE OF TURKEY

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ÖZET

İnternet kullanımı dünya insanları için günlük yaşamın vazgeçilmez bir parçası haline gelmiştir. Bu süreç, özellikle yakın bir geçmişte başlayan ve halen daha dünya genelinde etkisini sürdüren Covid-19 salgını ile birlikte yeni bir boyuta taşınmıştır. Sosyal medyadan e-ticarete, eğitimden haberleşmeye kadar birçok sektöre ait bilgiye, internet ve mobil ağların sağlamış olduğu kolay erişim imkanı dijital dönüşümün hızlanmasına ve aktif internet kullanıcı sayısının dünya çapında artmasına olanak sağlamaktadır. Dünya nüfusunun %62.5'i aktif internet kullanıcısı iken bu oran Türkiye için %77 olarak gerçekleşmiştir. Bilgi ve iletişim teknolojileri özelinde, internet kullanımında yaşanan bu gelişmeler ülkelerin ekonomik aktivitelerinde önemli bir rol oynamakla birlikte oldukça yüksek miktarda da enerji tüketimine yol açmaktadır. Bununla birlikte her geçen gün sayısı artan veri merkezleri gibi bilgi ve iletişim ekipmanları da hem kurulum hem de işletim sırasında oldukça yüksek enerji talebinde bulunmaktadır. Özellikle internet kullanımından kaynaklanan bu yüksek enerji tüketimi ise nihayetinde karbondioksit (CO₂) emisyonunda bir değişime neden olabilmektedir. İnternet kullanımı ile CO₂ emisyonu ilişkisi, literatürde çok yakın geçmişte sıkça tartışılmaya başlanmış ancak Türkiye için henüz yeteri kadar ele alınmamış önemli bir konudur. Bu bağlamda çalışmanın amacı, internet kullanımının CO₂ emisyonu üzerine olan etkilerini Türkiye örneği için araştırmaktır. 1993-2020 dönemini dikkate alan mevcut çalışmada, internet kullanımı, ekonomik büyüme, finansal gelişme ve ticari açıklık değişkenleri ile CO₂ emisyonu arasındaki kısa ve uzun dönemli ilişkiler Gecikmesi Dağıtılmış Otoregresif (ARDL) sınır testi yaklaşımı kullanarak analiz edilmiştir. Zaman serisi analizinden elde edilen bulgular internet kullanımının CO₂ emisyonunu hem kısa hem de uzun dönemde pozitif etkilediğini ortaya koymuştur.

Anahtar Kelimeler: İnternet Kullanımı, CO₂ Emisyonu, Ekonomik Büyüme, Finansal Gelişme, Ticari Açıklık, ARDL Yaklaşımı, Türkiye

ABSTRACT

Internet use has become an indispensable part of daily life for the people of the world. This process has moved to a new dimension, especially with the Covid-19 epidemic, which started recently and still continues to affect the world. The easy access to information in many sectors, such as social media to e-commerce, from education to communication provided by the internet and mobile networks, enables the acceleration of digital transformation and the increase in the number of active internet users worldwide. While 62.5% of the world's population is an active internet user, this rate has realized 77% for Turkey. While these developments in internet usage play an important role in the economic activities of countries, they also lead to high energy consumption. In addition, information and communication equipment such as data centers, whose number is increasing day by day, demand very high energy both during installation and operation. This high energy consumption stemmed from internet use can eventually cause a change in CO₂ emissions. Especially in the recent past, the relationship between internet use and CO₂ emission is an important issue that has been frequently discussed in the literature, but has not yet been adequately addressed for Turkey. In this context, the aim of this study is to investigate the effects of internet use on CO₂ emissions for Turkey. In the current study, which considers the 1993-2020 period, the short-run and long-run effects of internet usage, economic growth, financial development and trade openness variables on CO₂ emissions were analyzed using The Auto Regressive

Distributed Lag (ARDL) bounds testing approach. Findings from time series analysis revealed that internet use has a positive effect on CO₂ emissions both in the short and long term.

Keywords: Internet Use, CO₂ Emission, Economic Growth, Financial Development, Trade Openness, ARDL Approach, Turkey

**TURİZM VE TİCARİ DİŞA AÇIKLIK İLİŞKİSİ: BAĞIMSIZ DEVLETLER TOPLULUĞU
ÜLKELERİ ÜZERİNE PANEL NEDENSELLİK ANALİZİ**

**TOURISM AND TRADE OPENNESS NEXUS: PANEL CASUALITY ANALYSIS FOR
COMMONWEALTH OF INDEPENDENT STATES**

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ÖZET

Turistik faaliyetlerde meydana gelen artış ulaşım, konaklama, yeme ve eğlence başta olmak üzere çeşitli mal ve hizmetlere olana talebi artırmaktadır. Ülkeler artan bu talepleri ancak mevcut üretim seviyelerini artırarak karşılayabilirler. Bu durum ise ekonomide üretim, gelir ve istihdam artışı şeklinde olumlu etkiler meydana getirir. Aynı zamanda turizm döviz kazandırıcı özelliğiyle ülkeler için öncelikli bir sektör durumundadır. Turizmin yanı sıra ülkeler için bir diğer önemli döviz kaynağı dış ticarettir. Küreselleşme hareketleriyle birlikte bir taraftan dış ticaret hacmi artmış ve ülkelerin ticareti dışa açık hale gelmiş diğer taraftan ise ticaret kalıpları da önemli bir değişim geçirmiştir. Serbest dış ticaret ve ticari dışa açıklık ülkeler arasında ekonomik entegrasyon sağlamıştır. Ülkeler arasındaki bu entegrasyon karşılıklı sermaye ve yatırım akışlarını artırmıştır. Bununla birlikte ticari dışa açıklık, rekabet ve verimlilik artışı, yeni teknolojilerin temin edilmesi yoluyla ülkelerin üretim artışına katkı sağlamıştır. Dolayısıyla ekonomilerine sağlayacağı getirilerden faydalanmak için ülkeler dış ticaret hacimlerini artırma yoluna gitmişlerdir. Turistik faaliyetlerle birlikte artan seyahatler sonucu yapılan ticari anlaşmalar dış ticareti artırmaktadır. Dış ticaret hacmi ve ticari dışa açıklık düzeyi yüksek ülkelerin uluslararası pazarlara daha kolay ulaşması ise turizm sektörünü olumlu etkileyebilir. Sovyet Blok'unun dağılmasından sonra, serbest piyasa ekonomisini benimseyen Bağımsız Devletler Topluluğu (BDT) ülkeleri tüm dünya ile serbest dış ticaret yapma ve dış pazarlara açılma olanağı bulmuşlardır. Ortak sosyoekonomik özellikler taşıyan bu ülkelerde piyasa ekonomisini geçiş süreci bölge turizmi üzerinde de önemli etkiler meydana getirmiştir. Bu çalışmanın amacı BDT üyesi 9 geçiş ekonomisinde turizm ve ticari dışa açıklık arasındaki ilişkinin incelenmesidir. Çalışmada turizm ve ticari dışa açıklık arasındaki ilişki 2001-2019 dönemi itibarıyla 9 BDT üyesi geçiş ekonomisi için Dumitrescu ve Hurlin panel nedensellik testi kullanılarak araştırılmıştır. Analiz sonuçlarına göre, ticari dışa açıklıktan turizme doğru tek yönlü bir nedensellik ilişkisi bulunmaktadır. Bu ampirik bulgu, enerji, hammadde ve maden ihracatçısı olan bu ülkelerde ticari dışa açıklığın turizme neden olduğunu göstermesi bakımından önemlidir.

Anahtar Kelimeler: Turizm, Ticari Dışa Açıklık, Dumitrescu ve Hurlin Panel Nedensellik, Bağımsız Devletler Topluluğu.

ABSTRACT

The increase in touristic activities increases the demand for various goods and services, especially transportation, accommodation, food and entertainment. Countries can only satisfy these increasing demands by increasing their current production levels. This situation creates positive effects such as production, income and employment increase in the economy. At the same time, tourism is a priority sector for countries as it earns foreign exchange. Besides tourism, another important foreign exchange source for countries is foreign trade. With the globalization movements, on the one hand, the volume of foreign trade has increased and the trade of the countries has become open to the outside, on the other hand, the trade patterns have also undergone a significant change. Free foreign trade and trade openness have provided economic integration between countries. This integration between countries has increased mutual capital and investment flows. In addition, trade openness has contributed to the production

increase of countries by providing competition and productivity increase, and by providing new technologies. Therefore, countries have tried to increase their foreign trade volumes in order to benefit from the returns they will provide to their economies. Commercial agreements made as a result of increasing travels with touristic activities increase foreign trade. The easier access of countries with high foreign trade volume and trade openness to international markets may positively affect the tourism sector.. The fact that countries with high trade openness levels, due to their foreign trade volume, can reach international markets more easily may affect the tourism sector positively. After the collapse of the Soviet Bloc, the Commonwealth of Independent States (CIS) countries, which adopted the free market economy, has the opportunity to do free foreign trade with the whole world and open up to the outside world. After the collapse of the Soviet Bloc, the Commonwealth of Independent States (CIS) countries, which adopted the free market economy, had the opportunity to do free foreign trade with the whole world and open up to foreign markets. In these countries, which have common socio-economic characteristics, the transition process from the market economy has also had significant effects on regional tourism. The aim of this study is to investigate the relationship between tourism and trade openness in 9 transition economies that are members of the CIS. In the study, the relationship between tourism and trade openness has been investigated by the Dumitrescu and Hurlin panel causality test based on the 2001-2019 period for 9 CIS member transition economies. According to the results of the analysis, there is a unidirectional causality from trade openness to tourism. This empirical result is important in that it shows that trade openness causes tourism in these countries, which are energy, raw material and mineral exporters.

Keywords: Tourism, Trade Openness, Dumitrescu ve Hurlin Panel Causality, Commonwealth of Independent States.

GAZ YAKITLI KAZANDA TÜRBÜLATÖR KULLANIMININ BACA GAZI ÇIKIŞ SICAKLIĞINA ETKİSİNİN DENEYSEL OLARAK İNCELENMESİ

EXPERIMENTAL EXAMINATION OF THE EFFECT OF TURBULATOR USE ON CHIMNEY GAS OUTPUT TEMPERATURE IN GAS FUEL BOILER

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ÖZET

Sürekli gelişen teknoloji ve artan nüfus enerji ihtiyacını devamlı artırmaktadır. Enerji ihtiyacının artmasıyla birlikte özellikle fosil enerji kaynaklarında tükenme ihtimali meydana gelmektedir. Bu sebepten dolayı bilim insanları enerjiyi daha verimli kullanmak adına araştırmalar yapmaya başlamışlardır. Ayrıca alternatif enerji kaynakları üzerinde çalışmalar da her geçen gün artmaktadır. Enerjinin olabildiğince verimli kullanılması ısı transferinde de önem kazanmaktadır. Isı transferinde, ısı enerjisi kayıplarının minimum seviyeye düşürülmesi, dikkat edilmesi gereken bir durumdur. Isı transferini iyileştirmek amacıyla kazanlarda türbülör kullanımı oldukça ilgi çekmektedir. Türbülörler kalorifer kazanları ve endüstriyel tip kazanlarda yoğun olarak kullanılmaktadırlar. Yapılan çalışmalarda türbülör kullanılması ısı değiştiricilerinde ısı transferini iyileştirdiği görülmektedir. Çok sayıda çalışmada farklı tiplerde türbülörler tasarlanmış ve tasarlanan türbülörlerden verimlilikleri araştırılmıştır. Yapılan çalışmalarda türbülör kullanımının boru içerisindeki türbülansı artırdığı ve akım yolunu uzattığı tespit edilmiştir. Türbülörler ısı transferini artırırken enerji tasarrufu da sağlamaktadır. Türbülör kullanılmasıyla baca gazı çıkış sıcaklığında düşüş olmasıyla birlikte baca gazı kayıplarında da azalmalar meydana gelmektedir.

Bu çalışmada doğal gaz yakıtlı kazanda türbülör kullanılması sonucu baca gazı çıkış sıcaklığında meydana gelen değişiklikler araştırılmıştır. Deney türbülör kullanılmadan ve türbülör kullanılarak yapılmıştır. Deneyde türbülör 3.geçiş borularına konulmuştur. İmal edilen 12 adet türbülörün boru çapı Ø42.4 mm, boyu 1720 mm'dir. Deneyde su giriş sıcaklığı 50°C, su çıkış sıcaklığı 70°C olarak sabit tutulmuştur. Deney sonucuna göre türbülör kullanımının gaz yakıtlı kazanda ısı transferine etkisi ve baca gazı çıkış sıcaklığına etkisi belirlenmiştir. Yapılan deneysel çalışma sonucunda türbülör kullanılmasıyla birlikte baca gazı çıkış sıcaklığında düşüş meydana geldiği tespit edilmiştir. Bu sonuç doğrultusunda da doğalgaz yakıtlı türbülör kullanılması ısı transferini olumlu etkilediği görülmüştür.

Anahtar Kelimeler: Isı değiştiricileri, türbülör, ısı transferi, baca gazı çıkış sıcaklığı.

ABSTRACT

Continuously developing technology and increasing population are constantly increasing the energy need. With the increase in energy needs, there is a possibility of depletion, especially in fossil energy sources. For this reason, scientists have started to conduct research in order to use energy more efficiently. In addition, studies on alternative energy sources are increasing day by day. The efficient use of energy also gains importance in heat transfer. In heat transfer, reducing heat energy losses to a minimum is a matter of care. The use of turbulators in boilers in order to improve heat transfer is of great interest. Turbulators are heavily used in heating boilers and industrial boilers. In studies, it is seen

that the use of turbulotators improves heat transfer in heat exchangers. In numerous studies, the efficiency of different types of turbulators from designed and designed turbulators was investigated. In the studies, it was determined that the use of turbulotators increases turbulence in the pipe and extends the current path. Turbulators increase heat transfer and save energy. With the use of turbulators, chimney gas output temperature decreases and flue gas losses decrease.

In this study, changes in flue gas output temperature were investigated as a result of the use of turbulators in natural gas-fired boiler. The experiment was carried out without the use of a turbulator and using a turbulator. In the experiment, the turbulator was placed in the 3rd passage pipes. The pipe diameter of the 12 manufactured turbulents is Ø42.4 mm and the length is 1720 mm. In the experiment, the water inlet temperature was kept constant at 50°C and the output temperature at 70°C. According to the results of the experiment, the effect of turbulent use on heat transfer in the gas-fired boiler and the effect on the flue gas output temperature were determined. As a result of the experimental study, it was determined that the flue gas output temperature decreased with the use of turbulators. In line with this result, it has been seen that the use of natural gas-fired turbulators positively affects heat transfer.

Keywords: Heat exchangers, turbulator, heat transfer, flue gas output temperature

SİKLON AYIRICILARDA ÇIKIŞ BORU ÇAPI VE AKIŞ HIZLARININ SİKLON PERFORMANSINA ETKİSİ

IMPACT OF OUTPUT PIPE DIAMETER AND FLOW SPEEDS ON CYLON PERFORMANCE

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ÖZET

Siklon ayırıcılar kullanım alanı olarak enerji üretim santrallerinde, kimya ve ilaç sanayisinde, yakma sistemlerinde, kütle ve ısı transferinin olduğu sistemlerde ana ayırıcı ve filtreleme olarak yer almaktadır. Sıcak gaz temizleme işleminde çeşitli uygulamalar arasında yer alan siklonlar, toz ayıklamada optimum verime sahiptirler. Siklon ayırıcılar, iç gövdede gaz-katı parçacıkların girdap oluşması sonucu merkezkaç kuvvetin etkisiyle katı parçacıkların gazdan ayrılma işleminde kullanılan toz tutuculardır. Siklon ayırıcılar giriş tiplerine göre eksenel, teğetsel ve salyangoz şeklinde olup en çok kullanım alanına göre teğetsel girişli siklonlar tercih edilmektedir. Siklonların iç yapısına göre vorteks oluşturması için teğetsel bir giriş, eksenel temiz gaz çıkışı ve tozu boşaltmak için konik bir yapıya sahiptirler. Siklon ayırıcıların partikül çapı 5–10 µm daha büyük parçalarda yüksek verimde çalışmaktadır. Siklonlar yüksek sıcaklığa ve yüksek basınçta dayanım gösterebilen tek parçalı cihazlardır. Siklon performansına etki eden parametrelere göre basınç kaybı ve toz toplama verimliliği en önemli faktörlerdir. Basınç kaybını etkileyen etmenler; dalma boru çapı, siklon giriş kesiti ve gövde iç duvarındaki sürtünmedir. Bu çalışmada Stairmand tipi yüksek verimli siklon esas alınarak dalma boru çapını azaltarak toz tutma verimliliği ve basınç kaybına etkileri incelenmiştir. Buna bağlı olarak üç farklı dalma boru çapının konfigürasyon ile modellemesi Solidworks programında tasarlanmıştır. Yüksek verimli Stairmand siklon tipine göre dalma boru çapının boyutları; Ø88.9 mm, Ø114,3 ve Ø139.7mm olarak belirlenmiştir. Siklona giriş yapan gaz-katı karışımı için havanın debisi 0.450 m³/sn, katının debisi 0.125 m³/sn ve sıcaklığı 120°C olarak alınmıştır. Elde edilen verilere göre Solidworks Flow Simulation programında üç farklı akış analizi yapılmıştır. Yapılan çalışmaya göre analiz sonucunda hız ve basınç parametrelerinin istatistiksel verileri oluşturularak, optimum verim ve basınç belirlenmiştir.

Anahtar Kelimeler: Siklon ayırıcılar, akış simülasyonu, basınç kaybı

ABSTRACT

Cyclone separators are included as the main separator and filtration in power generation plants, chemical and pharmaceutical industries, combustion systems, mass and heat transfer systems. Cyclones, which are among the various applications in the hot gas cleaning process, have optimum yield in dust extraction. Cyclone separators are dust holders used in the process of separating solid particles from the gas due to centrifugal force as a result of the formation of vortexes of gas-solid particles in the inner body. Cyclone separators are axial, tangential and snail-shaped according to input types and tangential entry cyclones are preferred according to the most usage area. They have a tangential input to form a vortex according to the internal structure of cyclones, axial clean gas output and a conical structure to discharge dust. The particle diameter of cyclone separators operates at high efficiency in parts larger than 5–10 µm. Cyclones are monoliths that can withstand high temperatures and high pressure. Pressure loss and dust collection efficiency are the most important factors according to the parameters affecting cyclone performance. Factors affecting pressure loss; diving is the diameter of the pipe, the cyclone inlet

section and friction on the inner wall of the body. In this study, the effects of dust retention efficiency and pressure loss were examined by reducing the plunge pipe diameter based on stairmand type high efficiency cyclone. Accordingly, configuration and modeling of three different plunge pipe diameters were designed in the Solidworks program. Dimensions of plunge pipe diameter according to high efficiency Stairmand cyclone type; Ø88.9 mm, Ø114.3 and Ø139.7mm. For the gas-solid mixture entering the cyclone, the air flow is 0.450 m³/s, the flow of the solid is 0.125 m³/s and the temperature is 120°C. According to the data obtained, three different flow analyses were performed in solidworks flow simulation program. According to the study, statistical data of speed and pressure parameters were created as a result of the analysis and optimum efficiency and pressure were determined.

Keywords: Cyclone separators, flow simulation, pressure loss

ADAY ÖĞRETMENLERİN OKUL KÜLTÜRÜNE İLİŞKİN ALGILARI
PERCEPTIONS OF CANDIDATES TEACHERS REGARDING SCHOOL CULTURE

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ÖZET

Okul kültürü, insanların içinde yaşadıkları dünyayı birlikte yaratmalarını ve yeniden inşa etmelerini sağlayan aktif, yaşayan bir olgu (Dessel, 2010) olarak, örgütsel davranış ve performansı güçlü bir şekilde etkiler. Sosyal normlar, ortak değerler ve sosyal kimlikler aracılığıyla okul üyelerinin davranışlarını düzenler ve kontrol eder, okul üyelerinin ortak hedefler etrafında kümelenerek aynı şekilde hareket etmelerini ve ortak karar almalarını sağlar. Güçlü bir okul kültürüne sahip olmak, tüm örgütün başarısının anahtarı olarak kabul edilir. Dolayısıyla bir eğitim örgütünün de başarısı için en önemli faktörlerden biri kültürdür. Okul kültürü, öğrencilerin öğrenmesinin yanında güven ve kabul edilme duygusunu etkileyen, sosyal bir unsur niteliğindedir. Eğitim, toplumsal bir süreçtir ve eğitimin temel işlevi sosyal hayatın ürünü olan kültürü yeni gelecek nesillere taşımaktır. Öyle ise, eğitim hem kökeni, hem de işlevi bakımından sosyal bir yaşantıdır. Eğitimin içeriğinin toplumdan topluma farklılık ve çeşitlilik göstermesi, her toplumun kendi coğrafyasında ürettiği sosyal, siyasal ve ekonomik değerlerinin yani kültürünün farklılığından kaynaklanmaktadır. Bundan dolayı hemen hemen her toplumun meydana gelme sürecinde kendine has değerlerle oluşturduğu bir yapısı vardır. Bu yapıyı ulaşılması gereken bir amaç olarak kabul ettiğimizde, eğitimi de bu amacı gerçekleştirmede en önemli ve doğrudan araç olarak almalıyız.

Bu çalışmada amaç aday öğretmenlerin okul kültürüne ilişkin algılarını belirlemektir. Araştırma genel tarama modelindedir. Araştırmanın evreni, 2021-2022 eğitim öğretim yılında Batman ili ve ilçelerine bağlı okullarda göreve başlayan adaylık dönemindeki 978 öğretmendir. Araştırmanın örneklemini basit seçkisiz örnekleme yöntemiyle seçilen ve Batman il merkezi ile Beşiri ilçesinde göreve yapan 210 öğretmenden oluşmaktadır. Araştırmanın verileri, Şişman tarafından (1994) geliştirilmiş “Okul Kültürü Ölçeği” uygulanarak elde edilmiştir.

Araştırma sonucunda aday öğretmenlerin görev yaptıkları okulların kültürüne ilişkin genel anlamda olumlu algıya sahip oldukları belirlenmiştir. Aday öğretmenlerin okullarda amaçta birlik, özerklik-hoşgörü ve yarışma boyutlarına ilişkin algıları yüksek iken, işbirliği- güven, sonuca yönelme ve ödüllendirme boyutlarına ilişkin algıları daha düşüktür. Bu durum, öğretmenlerin birbirleriyle ve öğrencileriyle ilişkilerinin olumlu olduğunu, toplulukçu kültürün egemen olduğunu göstermektedir.

Anahtar Kelimeler: Okul kültürü, örgütsel kültür, kültür, aday öğretmenler

ABSTRACT

School culture strongly influences organizational behavior and performance as an active, living phenomenon that enables people to co-create and rebuild the world they live in (Dessel, 2010). It regulates and controls the behavior of school members through social norms, shared values and social identities, and enables school members to act and make common decisions by clustering around common goals. Having a strong school culture is considered the key to the success of the entire organization. Therefore, one of the most important factors for the success of an educational organization

is culture. School culture is a social element that affects students' learning as well as their sense of trust and acceptance. Education is a social process and the main function of education is to carry the culture, which is the product of social life, to new generations. So, education is a social experience both in terms of origin and function. The difference and diversity of the content of education from society to society is due to the difference in the social, political and economic values, namely the culture, produced by each society in its own geography. Therefore, almost every society has a structure created with its own values in the process of its formation. When we accept this structure as a goal to be achieved, we should take education as the most important and direct tool in realizing this goal.

The aim of this study is to determine the perceptions of novice teachers about school culture. The research is in the general screening model. The universe of the research is 978 teachers who started to work in schools in Batman province and its districts in the 2021-2022 academic year. The sample of the study consists of 210 teachers selected by simple random sampling method and working in Batman city center and Beşiri district. The data of the study were obtained by applying the "School Culture Scale" developed by Şişman (1994).

As a result of the research, it was determined that the novice teachers have a generally positive perception about the culture of the schools they work in. While novice teachers have high perceptions of unity in purpose, autonomy-tolerance and competition dimensions in schools, their perceptions of cooperation-trust, result orientation and rewarding dimensions are lower. This shows that teachers have positive relations with each other and with their students, and the collectivist culture is dominant.

Keywords: School culture, organizational culture, culture, prospective teachers

ULUSAL VE ULUSLARARASI HUKUKTA GIDA HAKKI
THE RIGHT TO FOOD IN NATIONAL AND INTERNATIONAL LAW

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ÖZET

Gıda hakkı, insan hakkı olarak nitelendirilen birçok hakla yakın ilişki içindedir. İlk olarak 1948 Birleşmiş Milletler Evrensel Beyannamesinde güvence altına alınan gıda hakkı; ulusal mevzuatlarda, bölgesel sözleşmelerde ve Ekonomik, Sosyal ve Kültürel Haklara İlişkin Uluslararası Sözleşme başta olmak üzere insan haklarına ilişkin birçok uluslararası sözleşmede düzenlenen bir haktır.

Özellikle 21. Yüzyılda küreselleşmenin ve neoliberalizmin etkisiyle yaşanan gıda krizleri; gıda hakkının ve gıda güvencesinin giderek önem kazanmasını sağlamıştır. Bu bağlamda gıda hakkının ulusal ve uluslararası alanda korunması da küresel bir mesele haline almıştır. Bu bakımdan ulusal ve uluslararası hukuki düzenlemelerin yanı sıra ulusal ve uluslararası yargı mekanizmaları da gıda hakkının güvence altına alınmasında işlevsel niteliktedir.

Çalışmamızda ilkin gıda hakkının tanımı, kapsamı ve tarihsel gelişimi ele alınacaktır. Ardından gıda hakkına ilişkin ulusal ve uluslararası hukuki düzenlemelere yer verilecektir. Küreselleşmenin ve neoliberalizmin gıda hakkı üzerinde etkileri irdelendikten sonra gıda hakkının ihlaline sebep olan savaşlar, iklim krizleri, ekonomik krizler gibi faktörler de değerlendirilecektir. Gıda hakkına ilişkin faaliyet gösteren ulusal ve uluslararası kuruluşların yapısı ve işleyişi ele alınacaktır. Bu bağlamda özellikle 1943 yılında kurulan ve 1946 yılından itibaren birleşmiş milletler bünyesinde bir uzmanlık kuruluşu olarak faaliyet gösteren gıda ve tarım örgütünün (GTÖ) yapısına ve faaliyetlerine değinilecektir. Son olarak gıda hakkının korunmasına ilişkin ulusal ve uluslararası düzeyde mevcut olan yargısal mekanizmaların değerlendirilmesinin ardından, gıda hakkının korunmasına ilişkin değerlendirmelerde ve tavsiyelerde bulunulacaktır.

Anahtar Kelimeler: Gıda Hakkı, İnsan Hakları, Küreselleşme, Neoliberalizm

ABSTRACT

The right to food is closely related to many human rights. The right to food first guaranteed in the 1948 United Nations Universal Declaration; It is a right regulated in national legislation, regional conventions and many international conventions on human rights, especially the International Covenant on Economic, Social and Cultural Rights.

Especially in the 21st century, the food crises experienced with the effect of globalization and neoliberalism has led to the increasing importance of the right to food and food security. In this context, the protection of the right to food in the national and international arena has also become a global issue. In this respect, not only national and international legal regulations but also national and international judicial mechanisms are functional in securing the right to food.

Initially in our study the definition, scope and historical development of the right to food will be discussed. Then, national and international legal regulations regarding the right to food will be included. After examining the effects of globalization and neoliberalism on the right to food, factors such as wars, climate crises, economic crises that cause the violation of the right to food will also be evaluated. The structure and functioning of national and international organizations operating on the right to food will be discussed. In this context, the structure and activities of the Food and Agriculture Organization (FAO), which was established in 1943 and has been operating as a specialist organization within the

United Nations since 1946, will be mentioned. Finally, evaluations and recommendations regarding the protection of the right to food will be made after the evaluation of the existing judicial mechanisms at the national and international level regarding the protection of the right to food.

Key Words: The Right to Food, Human Rights, Globalization, Neoliberalism

TÜRKİYE’DE ÖZEL YETENEKLİ ÖĞRENCİLERE YÖNELİK GERÇEKLEŞTİRİLEN STEM/STEAM EĞİTİMİ ARAŞTIRMALARININ EĞİLİMLERİNİN BELİRLENMESİ

DETERMINING THE TENDENCIES OF STEM/STEAM EDUCATION RESEARCH CARRIED OUT FOR GIFTED STUDENTS IN TURKEY

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ÖZET

Mevcut çalışmada özel yetenekli öğrencilere yönelik Türkiye’de gerçekleştirilen STEM/STEAM eğitimi araştırmalarının eğilimlerinin belirlenmesi amaçlanmıştır. Bu amaçla doküman analizi yöntemi kullanılarak, son yılların popüler yaklaşımı olan STEM/STEAM eğitiminin özel yetenekli öğrencilere yönelik hangi düzeyde ve kapsamda kullanıldığı farklı değişkenler doğrultusunda tespit edilmeye çalışılmıştır. Araştırmada amaçsal örnekleme yöntemi ile, Google Akademik ve YÖK Ulusal Tez Merkezi veri tabanlarında yıl belirtmeksizin “Özel Yetenekli” ve “STEM/STEAM” anahtar kelimeleriyle yapılan taramada 48 bilimsel araştırmaya ulaşılmış ve araştırmanın çalışma grubu oluşturulmuştur. Araştırmalar farklı değişkenler açısından değerlendirilmiş ve sınıflandırılmıştır. Veri toplama aracı olarak Sözbilir vd. (2012) tarafından geliştirilen “Makale Sınıflama formu” araştırmaya uygun bir şekilde revize edilerek kullanılmıştır. İçerik analizi yöntemi ile elde edilen veriler araştırmanın alt problemleri doğrultusunda başlıklar halinde frekans ve yüzdelik tablolar şeklinde sunulmuş ve yorumlanmıştır. Elde edilen veriler ışığında 2014 yılından önce bu alanda gerçekleştirilmiş bir çalışmanın tespit edilmediği, en çok çalışmanın ise 2019 yılında yapıldığı belirlenmiştir. Çalışmalar tez, makale ve bildiri olarak sınıflandırılmış ve bu alanda en çok makale olduğu tespit edilmiştir. Ayrıca özel yetenekli öğrencilere yönelik gerçekleştirilen STEM/STEAM eğitimi konulu çalışmaların daha çok bilim, teknoloji ve matematik alanlarında kurgulandığı, sanat alanının ise geri planda kaldığı görülmüştür. Sanat alanında da çalışmaların daha çok görsel sanatlar alanında gerçekleştirildiği tespit edilmiştir. Çalışmaların daha çok nitel yöntemlerden durum çalışması yöntemi kapsamında kurgulandığı ve içerik analizi ile değerlendirildiği belirlenmiştir. Sanat eğitiminin özel yetenekli öğrencilerin estetik değer algılarını, düşünme becerilerini ve yaratıcılık potansiyellerini geliştirdiği düşünüldüğünde STEAM eğitimde kullanılması gereken disiplinlerden biri olması gerektiği öneriler arasında yer almaktadır.

Anahtar Kelimeler: Özel yetenekli öğrenciler, STEAM eğitimi, bilimsel araştırma.

ABSTRACT

In this study, it is aimed to determine the tendencies of STEM/STEAM researches for gifted students in Turkey. For this purpose, by using the document analysis method, it has been tried to determine the level and scope of STEM/STEAM education, which is the popular approach of recent years, for gifted students, in line with different variables. Purposive sampling method was used in the research. In this context, without specifying the year, 48 scientific researches were reached in the Google Academic and YÖK National Thesis Center databases with the keywords "Special Talent" and "STEM/STEAM" and the study group of the research was formed. Studies were evaluated and classified in terms of different variables. As a data collection tool, the "Article Classification form" developed by Sözbilir et al (2012) was used by being revised in accordance with the research. The data obtained by the content analysis

method were presented and interpreted in the form of frequency and percentage tables under headings in line with the sub-problems of the research. In the light of the data obtained, it was determined that no study could be found in this area before 2014, and the most studies were carried out in 2019. Studies were classified as theses, articles and papers, and it was determined that there were the most articles in this field. In addition, it was seen that the studies on STEM/STEAM education carried out for gifted students were mostly built in the fields of science, technology and mathematics, while the field of art remained in the background. It has been determined that the works in the field of art are mostly carried out in the field of visual arts. It has been determined that the studies are mostly constructed within the scope of the case study method, which is one of the qualitative methods, and evaluated with content analysis. Considering that art education improves the aesthetic value perceptions, dreaming skills and creativity potential of gifted students, STEAM is among the suggestions that it should be one of the disciplines that should be used in education. In this template, the congress formatting requirements are described.

Keywords: Gifted students, STEAM education, scientific research.

AZƏRBAYCAN TƏHSİLİNDƏ TƏHSİL İSLAHATLARI VƏ ULU ÖNDƏR HEYDƏR ƏLİYEVİN ROLU

EDUCATIONAL REFORM AND THE ROLE OF GREAT LEADER HEYDAR ALIYEV IN AZERBAIJANI EDUCATION

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ÖZET

Müasir dövrün tələblərinə uyğun olaraq cəmiyyətə hərtərəfli inkişaf etmiş şəxsiyyətin formalaşdırılmasına xidmət edən təhsil özündə təlim-tərbiyənin bütün elementlərini ehtiva edən bir proses kimi elmi-texniki tərəqqinin inkişafına və sosial tələbatlara uyğun olaraq daimi yeniləşməlidir. Təhsilin yeniləşməsi dedikdə ötürülən biliklərin həcmnin artırılması deyil, daha geniş mənada təhsil sahəsində həyata keçirilən köklü islahat tədbirlərinin gerçəkləşdirilməsi nəzərdə tutulur. Qloballaşan dünyada günü-gündən artan informasiya bolluğunda yararlı və yararsız informasiyaların düzgün təyini, gənc nəslin bu informasiyalardan hansına sahiblənməsinin müəyyənəşdirilməsi, onların optimal təlim-tərbiyə metodlarının təsiri altında inkişaf etməsi, milli və ümumbəşəri dəyərlərə sahiblənməsinin effektiv yolları, cəmiyyətdə ziyalı təbəqəsinin miqyasının genişləndirilməsi, təhsilin inkişaf etmiş ölkələr səviyyəsinə çatdırılması, innovasiyaların tətbiqi və bu kimi başqa prioritet məqsədlərə çatmaq üçün təhsil sistemini təkmilləşdirilməsinə, müxtəlif islahat xarakterli tədbirlər həyata keçirilməsinə zərurət yaranır. Təhsilin hər bir dövlətin tərəqqisinin ən vacib şərti, xalqın və millətin intellektual xarakteristikalarını əks etdirən ən əsas meyar olduğunu bilən Heydər Əliyev hakimiyyətə gəlişinin ilk günündən etibarən Azərbaycanda təhsilin inkişafına qayğını ön plana çəkmişdir. O, respublikanın sosial-iqtisadi inkişafında aparıcı istiqamətlərdən biri kimi təhsilin tərəqqisinə nail olmaq üçün bütün potensial imkanların istifadəsinə geniş meydan vermiş və şərait yaratmışdır. Azərbaycanda təhsilin son 48 illik tarixi inkişafının təhlilinə nəzər salsaq görürük ki, təhsilimiz aşağıdakı mərhələlərdən keçmişdir :

- 5) Azərbaycanda təhsilin yenidən təşkili və yüksəlişi dövrü : 1969-1982-ci illər;
- 2) Azərbaycanda təhsil : 1988-1993-cü illər;
- 3) Azərbaycan təhsili depressiya illərində : 1988-1993-cü ilin I yarısı ;
- 4) Müstəqil Azərbaycanda yeni təhsil quruculuğu dövrü : 1993cü ilin iyunundan 1999-cu ilə kimi ;
- 5) Təhsil islahatları dövrü:1999-2005-ci illər və müasir dövr

Anahtar kəlimələr: təhsil, informasiya, təlim-tərbiyə, innovasiya, islahat.

ABSTRACT

Education, which serves the formation of a comprehensively developed personality in accordance with the requirements of modern times, as a process that includes all the elements of education, must be constantly updated in accordance with the development of scientific and technological progress and social needs. Renewal of education does not mean increasing the amount of knowledge transferred, but in a broader sense, the implementation of radical reform measures in the field of education. In the growing globalization of information, the correct definition of useful and useless information, determining which of the young generation has access to this information, their development under the influence of optimal teaching methods, effective ways to acquire national and universal values, expanding the scale of the intelligentsia, There is a need to improve the education system and implement various reform measures to achieve the level of developed countries, the introduction of innovations and other such priority goals. Knowing that education is the most important condition for the progress of

any state, the main criterion reflecting the intellectual characteristics of the people and the nation, Heydar Aliyev from the first day of coming to power focused on the development of education in Azerbaijan. It has created a wide field and created conditions for the use of all potential opportunities to achieve the progress of education as one of the leading directions in the socio-economic development of the republic. If we look at the analysis of the last 48 years of historical development of education in Azerbaijan, we can see that our education has passed the following stages:

- 1) Period of reorganization and growth of education in Azerbaijan: 1969-1982 years);
- 2) Education in Azerbaijan: 1988-1993;
- 3) Azerbaijan education in the years of depression: the first half of 1988-1993;
- 4) The period of building a new education in independent Azerbaijan: 1993 from June to 1999;
- 5) The period of educational reforms: 1999-2005 and the modern period

Keywords: education, information, training, innovation, reform.

**MESLEK LİSESİ ÖĞRENCİLERİNE YÖNELİK OTOBİYOGRAFİ VE BİYOGRAFİ
ETKİNLİĞİNİN YAŞAM DOYUMUNA ETKİSİ**

**THE EFFECT OF AUTOBIOGRAPHY AND BIOGRAPHY ACTIVITY FOR VOCATIONAL
HIGH SCHOOL STUDENTS ON LIFE SATISFACTION**

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ÖZET

İnsanların yaşamlarını mutlu ve verimli şekilde devam ettirebilmeleri için yaşam doyumlarının yüksek olması önemlidir. Sürekli değişen koşullar (Teknoloji, eğitim, hastalık vb.) insanların yaşam doyumunu da etkilemektedir. Yaşam doyumunu yükseltebilmek için deneyimlerden ve yaşam öykülerinden sistematik olarak bahsedilmesi ve eğitimsel süreçlerin içinde öğretimle verilmesi gerekmektedir. Bu bağlamda yapılan araştırmanın amacı, otobiyografi ve biyografi temelli etkinliklerin lise 9. sınıf meslek lisesi öğrencilerinin yaşam doyumuna etkisini belirlemektir. Araştırma 2021-2022 eğitim öğretim yılında Sakarya merkezinde 9. sınıfa devam eden 28 öğrencinin katılımıyla ön test-son test kontrol gruplu deneysel desen ile yürütülmüştür. Deney grubuna 6 hafta ve haftalık iki ders saati olmak üzere 12 ders saati boyunca araştırmacı tarafından hazırlanan “Meslek Lisesi Öğrencilerine Yönelik Otobiyografi ve Biyografi Etkinliği” uygulanmıştır. Kontrol grubunda ise normal öğretim programına devam edilmiştir. Verilerin toplanmasında 1985 yılında Diener, Emmons, Laresen ve Griffin tarafından geliştirilen 2016 yılında da Dağlı ve Baysal tarafından Türkçe’ye uyarlanan “Yaşam Doyum Ölçeği (YDÖ)”nden yararlanılmıştır. Araştırmanın veri toplama sürecinde deney ve kontrol gruplarına öntest ve son test olarak YDÖ uygulanmıştır. Verilerin analizinde “Wilcoxon işaretli sıralar testi” ve “Mann Whitney U-testi” kullanılmıştır. Deney grubunun uygulama öncesi YDÖ ortalama puanları 14,42, uygulama sonrası ise 17,07; kontrol grubunun ise uygulama öncesi puanları 14,50, uygulama sonrası puanları ise 14,50 olarak belirlenmiştir. Bu bağlamda kontrol grubundaki öğrencilerin yaşam doyumlarında ön test-son test arasında anlamlı bir farklılık bulunmazken, deney grubundaki öğrencilerin yaşam doyumlarında ön test-son test arasında anlamlı bir farklılık meydana gelmiş ve artış olmuştur. Bununla birlikte uygulama öncesinde deney ve kontrol gruplarının yaşam doyum puanları arasında anlamlı bir fark bulunmazken uygulama sonrasında deney grubu lehine anlamlı bir fark meydana gelmiştir. Bu durum otobiyografi ve biyografi temelli etkinliklerin öğrencilerin yaşam doyumları üzerinde olumlu bir etkiye sahip olduğunu göstermektedir.

Anahtar Kelimeler: Yaşam doyum, Meslek lisesi, Otobiyografi, Biyografi

ABSTRACT

People need to have high life satisfaction so that they can continue their lives happily and efficiently. Constantly changing conditions (technology, education, illness, etc.) also affect people's life satisfaction. To increase life satisfaction, it is necessary to talk about experiences and life stories systematically and to teach them in educational processes. In this context, the research aims to determine the effect of autobiography and biography-based activities on the life satisfaction of ninth-grade vocational high school students. The research was conducted with the pretest-posttest control group experimental design with the participation of 28 ninth-grade students in Sakarya center in the 2021-2022 academic year. The "Autobiography and Biography Activity for Vocational High School Students" prepared by the

researcher was applied to the experimental group for twelve lesson hours, 6 weeks, and two lessons per week. In the control group, the formal education program continued. "The Satisfaction with Life Scale (SWLS)", which was developed by Diener, Emmons, Larsen, and Griffin in 1985, and adapted into Turkish by Dağlı and Baysal in 2016, was used to collect data. During the data collection process of the research, SWLS was applied to the experimental and control groups as pretest and posttest. "Wilcoxon signed-rank test" and "Mann Whitney U-test" were used in the analysis of the data. The mean SWLS scores of the experimental group before the application were 14.42, and 17.07 after the application; on the other hand, the pre-application scores of the control group were determined as 14.50, and the post-application scores were determined as 14.50. In this context, while there was no significant difference between the pretest-posttest in the life satisfaction of the students in the control group, there was a significant difference and an increase in the life satisfaction of the students in the experimental group between the pretest-posttest. However, while there was no significant difference between the life satisfaction scores of the experimental and control groups before the application, there was a significant difference in favor of the experimental group after the application. This shows that autobiography and biography-based activities have a positive effect on students' life satisfaction.

Keywords: Life Satisfaction, Vocational High School, Autobiography, Biography.

KAMU YATIRIM HARCAMALARI İLE KARBON EMİSYONU ARASINDAKİ İLİŞKİNİN ANALİZİ**ANALYSIS OF THE RELATIONSHIP BETWEEN PUBLIC INVESTMENT EXPENDITURES AND CARBON EMISSIONS****Ersin YAVUZ¹**¹Pamukkale Üniversitesi, İ.İ.B.F., Maliye Bölümü, Denizli, Türkiye.¹ORCID ID: <https://orcid.org/0000-0002-2543-3393>**ÖZET**

Çalışmanın amacı, 1990-2015 dönemi için Türkiye’de kamu yatırım harcamaları, kamu harcamaları, kişi başı enerji tüketimi, kentsel nüfus, biyokapasite ve ekonomik büyüme değişkenlerinin karbon emisyonu üzerindeki etkisini ARDL eşbütünleşme yöntemi ile incelemektir. Pesaran, Shin & Smith (2001) tarafından önerilen ARDL yönteminin sonuçlarına göre, karbon emisyonu ile açıklayıcı değişkenler arasında eşbütünleşme ilişkisi bulunmaktadır. Uzun dönem katsayıları ise kamu yatırım harcamaları, kamu harcamaları, kişi başı enerji tüketimi, kentsel nüfus ve ekonomik büyüme değişkenlerindeki %1’lik değişimin, karbon emisyonu değişkenini sırasıyla %-0.21, %0.18, %1.95, %0.07 ve %-0.009 şeklinde etkilediğini göstermektedir. Başka bir deyişle, uzun dönemde kamu yatırım harcamaları ve ekonomik büyüme değişkenleri karbon emisyonunu azaltarak çevresel iyileşme sağlamaktadır. Kamu harcamaları, kişi başı enerji tüketimi ve kentsel nüfus değişkenleri ise karbon emisyonunu artırarak çevresel bozulmaya neden olmaktadır. Biyokapasite değişkenin karbon emisyonu üzerinde olumsuz etkisi olduğu tespit edilmesine karşın istatistiksel olarak anlamlı değildir. Son olarak hata düzeltme katsayısına göre, değişkenler arasında kısa dönemde oluşacak dengeden sapmalar bir dönemden daha kısa sürede düzeltilmektedir. Bulgular değerlendirildiğinde, kişi başı enerji tüketiminin karbon emisyonu üzerinde artırıcı etkisi, fosil yakıt enerji tüketiminin ağırlıklı olması ile açıklanabilmektedir. Kentsel nüfus artışının karbon emisyonu üzerinde baskı oluşturmaması da beklenen bir durumdur. Diğer yandan çalışmanın odak noktası olan kamu yatırım harcamalarının karbon emisyonunu azaltması dikkat çekmektedir. Bu bağlamda enerji, ulaştırma, eğitim ve sağlık gibi sektörel düzeyde gerçekleşen kamu yatırım harcamalarında çevre kalitesinin gözetildiği sonucuna ulaşılmaktadır. Toplam kamu harcamalarının çevre üzerindeki olumsuz etkisi ise cari ve transfer harcamalarının etkisi üzerinden açıklanabilir. Çalışmanın sonuç bölümünde, bulgulara dair tartışmaların yanı sıra öneriler de yer almaktadır.

Anahtar Kelimeler: Karbon Emisyonu, Kamu Yatırım Harcamaları, ARDL Eşbütünleşme.

ABSTRACT

The aim of the paper is to examine the effects of public investment expenditures, public expenditures, per capita energy consumption, urban population, biocapacity and economic growth variables on carbon emissions in Turkey for the period 1990-2015 using ARDL cointegration method. According to the results of the ARDL method proposed by Pesaran, Shin & Smith (2001), there is a cointegration relationship between carbon emission and explanatory variables. Long-term coefficients shows that the 1% change in public investment expenditures, public expenditures, per capita energy consumption, urban population and economic growth variables affect the carbon emission variable -0.21%, 0.18%, 1.95%, 0.07% and -0.009%, respectively. In other words, in the long term, public investment expenditures and economic growth variables provide environmental improvement by reducing carbon emissions. Public expenditures, per capita energy consumption and urban population variables increase carbon emissions and cause environmental degradation. Although it was determined that the biocapacity variable had a negative effect on carbon emissions, it was not statistically significant. Finally, according to the error correction coefficient, the deviations from the short-term balance between the variables are corrected in less than one period. When the findings are evaluated, the increasing effect of energy

consumption per capita on carbon emissions can be explained by the weight of fossil fuel energy consumption. It is also expected that urban population growth will put pressure on carbon emissions. On the other hand, it is noteworthy that public investment expenditures, which is the focus of the paper, reduce carbon emissions. In this context, it is concluded that environmental quality is looked after in public investment expenditures at sectoral level such as energy, transportation, education and health. The negative impact of total public expenditures on the environment can be explained by the effect of current and transfer expenditures. In the conclusion part of the paper, there are suggestions as well as discussions on the findings.

Keywords: Carbon Emission, Public Investment Expenditures, ARDL Cointegration.

**SÖZLEŞMELİ BİLİŞİM PERSONELİ GÖRÜŞLERİNE GÖRE KAMU KURUMLARINDAKİ
YAZILIM GELİŞTİRME SÜRECİNİN DEĞERLENDİRİLMESİ**

EVALUATION OF THE SOFTWARE DEVELOPMENT PROCESS IN PUBLIC INSTITUTIONS
ACCORDING TO THE OPINIONS OF CONTRACTED IT PERSONNEL

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ÖZET

Gelişen teknoloji ile birlikte tüm kurumların çalışması, bilişim teknolojilerinin desteği olmadan yürütülemez hale gelmiştir. Bu dijitalleşmeden, kamu kurum ve kuruluşları da etkilenmekte ve kamuda artık birçok iş ve hizmet, dijital ortamlara taşınmaktadır. Bununla birlikte kamuda dijital dönüşüm için politikalar oluşturulmakta, yasalar yapılmakta ve bilgi teknolojilerine olan yatırımlar artmaktadır. Kamu kurumlarında dijitalleşme sürecinde birçok farklı yöntemin benimsendiği görülse de, kamunun artık teknolojiyi sadece kullanan değil, üreten ve ürettiğini de farklı kamu kurumlarının istifadesine sunan bir model ile ön plana çıktığı görülmektedir. Kamu kurumlarının kendi yazılımlarını ürettiği bu modelde özellikle büyük ölçekli bilgi işlem birimi statüsündeki kamu kurumlarında istihdam edilen sözleşmeli bilişim personellerinin etkileri görülmekte ve mevcut faaliyetlerin çoğunun dijital ortamlara taşınmasıyla birlikte yazılım projelerinin sayısının da arttığı gözlenmektedir. Bu doğrultuda dijitalleşen kamu kurumlarının yazılım geliştirme sürecini başarılı ve sorunsuz bir şekilde yürütmesi kritik öneme sahiptir.

Bu araştırmanın amacı kamu kurumlarında büyük ölçekli bilgi işlem birimlerinde çalışmakta olan sözleşmeli bilişim personellerinin, kamu kurumlarında yazılım geliştirme süreci hakkındaki görüşlerini ortaya çıkarmaktır. Araştırmada elde edilen bulguların, kamu kurumlarındaki yazılım geliştirme sürecinin aksayan ya da işleyen yönlerini ortaya çıkararak kamu kurumlarına bu süreçte katkı sağlayacağı öngörülmektedir.

Bu amaç doğrultusunda nitel araştırma yöntemi kullanılmış ve veriler 15 sorudan oluşan yarı yapılandırılmış görüşme formu ile toplanmıştır. Araştırma verileri kamuda büyük ölçekli bilgi işlem birimlerinde sözleşmeli bilişim personeli olarak çalışmakta olan 7 katılımcıdan toplanmıştır. Araştırmadaki toplanan nitel veriler, betimsel analiz ve içerik analizi kullanılarak analiz edilmiştir.

Yapılan görüşmeler sonucunda katılımcılar kamu kurumlarında yazılım geliştirme sürecinde, yazılım geliştirme yaşam döngüsünde sırasıyla en çok planlama aşamasında sonrasında analiz, tasarım, kodlama ve test aşamalarında sorunların yaşandığını belirtmişlerdir. Ayrıca yazılım sürecinde belirli iş kurallarının olduğunu ancak baskı ve aciliyet durumlarında bu iş kurallarına bağlı kalınmadığını, çoğunlukla yazılı bir proje planının yapılmadığını, genellikle çevik modellerin kuruma özgü modifiye edilerek kullanıldığını vurgulamışlardır. Dokümantasyonun tam olarak yapılmadığını yapılsa bile eksiklerinin olduğu ya da güncel tutulmadığını ve de son kullanıcı eğitimlerine önem verilmediğine dikkat çekmişlerdir. Buna ilaveten yazılımların kullanıcı arayüzlerinin kullanılabilirliğinin test edilmediğini de belirtmişlerdir. Çalışma sonucunda kamu kurumları yazılım geliştirme sürecinin aksayan ve işleyen yönleri ortaya çıkarılmış ve aksayan yönler için öneriler sunulmuştur.

Anahtar Kelimeler: Dijital Dönüşüm, Kamuda Yazılım Geliştirme, Yazılım Geliştirme Yaşam Döngüsü, Digital Devlet, E Devlet.

ABSTRACT

With the developing technology, the work of all institutions has become impossible to carry out without the support of information technologies. Public institutions and organizations are also affected by this digitalization, and many businesses and services in the public sector are now being transferred to digital environments. In addition, policies are being created for digital transformation in the public sector, laws are being made and investments in information technologies are increasing. Although it is seen that many different methods are adopted in the digitalization process in public institutions, it is seen that the public institutions now comes to the fore with a model that not only uses technology but also produces it and presents what it produces to the benefit of different public institutions. In this model, in which public institutions produce their own software, the effects of contracted informatics personnel employed in public institutions, especially in the status of large-scale information processing units, are observed and it is observed that the number of software projects has increased with the transfer of most of the existing activities to digital environments. In this direction, it is critical for digitalized public institutions to carry out the software development process successfully and smoothly.

The aim of this research is to reveal the views of contracted information technology (IT) personnel working in large-scale IT units in public institutions about the software development process in public institutions. It is predicted that the findings obtained in the research will contribute to the public institutions in this process by revealing the faulty or functioning aspects of the software development process in public institutions.

For this purpose, qualitative research method was used and data were collected with a semi-structured interview form consisting of 15 questions. Research data were collected from 7 participants working as contracted informatics specialists in large-scale data processing centers in the public sector. The qualitative data collected in the research were analyzed using descriptive analysis and content analysis.

As a result of the interviews, the participants stated that in the software development process in public institutions, the most problems were experienced in the planning phase, then in the analysis, design, coding and testing phases. In addition, they emphasized that there are certain business rules in the software process, but these business rules are not adhered to in cases of pressure and urgency, mostly a written project plan is not made, and agile models are generally used with organization-specific modifications. They drew attention to the fact that the documentation is not complete, even if it is done, there are deficiencies or cannot be kept up to date, and end-user training is not given importance. In addition, they stated that the usability of the user interfaces of the software was not tested. As a result of the study, the faulty and functioning aspects of the software development process of public institutions were revealed and suggestions were presented for the faulty aspects.

Keywords: Digital Transformation, Software Development in the Public Institutions, Software Development Life Cycle, Digital Government, E Government.

OSMANLI SEFİRLERİ VE SEFARETNAMELERİ
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ÖZET

Sefirler, gittikleri ülkelerde Osmanlının resmi devlet temsilcileridir. Bir diğer ifadeyle sefirler, görev yaptıkları topraklarda Osmanlının elçileridir. Dolayısıyla sefirler, Osmanlıyı dış dünyayla, dış dünyayı da Osmanlıyla irtibatlandıran araçlar olarak adlandırılabilir. Osmanlı Devleti tarafından görevlendirilen sefirlerin her meslek grubundan olabildikleri, özellikle yabancı dil bilmenin sefir olarak yurtdışına gönderilme de önemli bir tercih nedeni olduğu söylenebilir. Ayrıca Osmanlının, değişik vesilelerle Doğu'dan ve Batı'dan pek çok ülkeye sefir göndermiş olduğu ifade edilebilir.

Sefirler, devletin resmi birer temsilcisi olmaları hasebiyle yaptıkları görevle ilişkili resmi raporlar yazdıkları gibi, onlardan bazıları ise bulundukları ülkelerde edindikleri tespit ve izlenimleri kaleme aldıkları ve bunları okurlarıyla paylaştıkları bilinmektedir. Bu eserlere sefaretname denir. Bu bağlamda sefaretnameleri ikiye ayırmak mümkündür. Bunlardan ilki resmi kayıtların yer aldığı çalışmalar, diğeri ise sefirlerin izlenimlerini kapsayan eserlerdir. Dolayısıyla sefaretnameler, resmi birer rapor olarak da açıklanabilir, edebî-kültürel çalışmalar olarak da değerlendirilebilir.

İzlenim ve intiba yönünden sefaretnamelerin, seyahatnamelerle benzer bir özellik taşıdığı ileri sürülebilir. Bu yönüyle sefaretnamelerde, bulunulan coğrafya hakkında her türlü detay yer alabilmektedir. Mesela bahsi geçen eserlerde, söz konusu ülkenin kentsel özelliklerinin yanında sosyal, kültürel nitelikleri hakkında da detaylı paylaşımlar bulunabilmektedir. Söz gelimi kentsel özellikler çerçevesinde şehirde yer alan evler, park ve bahçelerle ilgili bilgiler yer alabilmektedir. Hatta bazı sefaretnamelerde, bulunulan coğrafyada yer alan evlerin mimari özellikleri, park ve bahçelerdeki bitki ve nebatat çeşitlerine kadar detayların mevcut olduğu söylenebilir.

Bu bilgilerin yanı sıra söz konusu bölgenin toplumsal ve kültürel ayrıntılarının da sefirler tarafından kaleme alındığı ifade edilebilir. Sözü gelişi, birey ve bireyler arasındaki ilişkiler, toplumsal yaşamda kadın – erkek münasebetleri, din ve inanç yönleri, okuma – yazma seviyesi, giyilen kılık – kıyafetler, yenilen yemekler, tüketilen içecekler gibi daha pek çok ayrıntının sefaretnameler üzerinden okurlarla buluştuğu dile getirilebilir. Ancak kaleme alınan her sefaretnamenin aynı özellikte bilgi ve detay içerdiği söylenemez. Çok ayrıntılı paylaşımların yer aldığı sefaretnamelerin yanı sıra çok yüzeysel bilgiler içeren sefaretnamelerin de var olduğu bilinmektedir. Böylelikle sefaretnameler, kaleme alındıkları dönemin barındırdığı sosyal, kültürel, ekonomik vb. koşulların anlaşılmasına önemli katkılar sunar.

Yazınsal bir çalışmanın, yazarından bağımsız ele alınması nasıl mümkün değilse, sefaretnameler de sefirlerden bağımsız ele alınamaz. Dolayısıyla sosyal, siyasal, kültürel vb. bakımdan sefirlerin taşıdıkları donanım, doğrudan ya da dolaylı bir biçimde eserlerine yansıdığı ileri sürülebilir. Mesela gidilen ülkede kullanılan dilin sefir tarafından bilinmesi, ona önemli katkılar sunduğu görülmektedir. Bu durumun, kaleme alınan sefaretnamede yer alan konuların çeşitliliğine ve ayrıntılarına doğrudan ya da dolaylı bir şekilde etki etmiştir denilebilir. Ayrıca sefaretname – yazar ilişkisi, söz konusu çalışmalarda objektif yaklaşımların yanı sıra subjektif değerlendirmelerin de yer almasını kaçınılmaz bir hâle getirir. Böyle bir durum ise okuyucuları, sefaretnamelerde yapılan paylaşımların tamamen doğru ya da yanlış olduğu sonucuna götürmemelidir. Bu bağlamda, sefirlerin ortaya koydukları görüşlerin vesika ve kaynaklarla desteklenmesi önem arz eder.

Doğrudan doğruya tutulan notlardan oluştuğu göz önüne alındığında sefaretnameleri, birinci elden kaynaklar olarak değerlendirmek mümkündür. Dolayısıyla sefaretnamelerden hem birinci elden kaynaklar hem de tarihî-kültürel kaynaklar olarak yararlanılabilir. Sefir ve sefaretnamelerin kitap,

makale ve tez gibi pek çok çalışmayla Türk yazınına konu edildiği tespit edilmiştir. Özetle sefirler ve sefaretnameler; kişi ve kişilerin farklı birey, toplum ve milletler hakkında hem resmi hem de edebî-kültürel konular bakımından bilgi sahibi olmasına kaynaklık etmektedirler.

Anahtar Kelimeler: Osmanlı Devleti, Sefir, Sefaretname, Memuriyet, Edebiyat, Kültür.

ABSTRACT

Ambassadors are the official state representatives of the Ottoman in the countries they were tasked with. In other words, ambassadors are the messengers of the Ottoman in the lands they were tasked with. Therefore, ambassadors can be called as intermediaries connecting the Ottomans with the outside world and the outside world with the Ottomans. It can be said that the ambassadors assigned by the Ottoman State could be from any profession group, especially knowing a foreign language was an important reason to be sent to abroad as an ambassador. Besides, it can be stated that the Ottoman sent ambassador to many countries from the East and the West on different occasions.

It is known that ambassadors wrote official reports related to their duties as they were official representatives of the state and some of them wrote also their determinations and observations in the countries they were tasked with and they shared them with their readers. These works are called as sefaretname. In this context, it is possible to divide to two sections the sefaretnames. The first of these is the works that include official records, the other is the works that include the impressions of the ambassadors. Therefore, sefaretnames can explain as official reports, they can also be evaluate as literary-cultural studies.

It can be argued that sefaretnames have a similar feature with travel books in terms of impression and observations. In sefaretnames from this respect can be included all kinds of details about the geography being talked about. For example, in the mentioned works exist detailed informations about the social and cultural characteristics as well as the urban characteristics of the country being talked about. For instance, within the frame of urban characteristics can exist informations about houses, parks and gardens in the city. Moreover, it can be said that in some sefaretnames there are many details such as the architectural features of the houses, the plant and vegetable varieties in the parks and gardens in the geography being talked about.

In addition to this information, it can be stated that the social and cultural details of the region being talked about were also written by the ambassadors. For example, it can be said that the readers by way of sefaretnames have about many details such as the relations between the individual and individuals, the relations between men and women in social life, religion and belief aspects, literacy level, dresses put on, meals eaten, drinks consumed. But, it cannot be said that every sefaretnames which written contain information and detail at the same feature. It is known that there are sefaretnames which included very superficial information as well as sefaretnames with very detailed informations. Thus, the sefaretnames make important contributions to the understanding of social, cultural, economic, etc. conditions in the period being written.

Just as a literary work is not possible to be handled independently from its author, sefaretnames cannot be handled independently from ambassadors. Therefore, it can be argued that social, political, cultural etc. features being had by the ambassadors reflect directly or indirectly to their works. For instance, it is seen that knowing the language used in the countries they were tasked with, by the ambassadors make significant contributions to them. It can be said that this situation affected directly or indirectly to the diversities and details of the subjects which included in the sefaretnames. In addition to this situation, the sefaretname - author relationship takes a inevitable case that there are biased/subjective evaluations as well as impartial/objective approaches in the sefaretnames. Such a situation should not lead the readers to the conclusion that the informations which give in the sefaretnames are completely right or wrong. In this context, it is important that the views and opinions which put forward by the ambassadors should support with documents and resources.

Considering that they consist of notes which taken directly, it is possible to evaluate as first-hand sources the sefaretnames. Therefore, it can be used both as primary sources and as historical-cultural sources

from the sefaretnames. It has been determined that the ambassadors and the sefaretnames are the subject to Turkish literature with many studies such as book, article and these. In summary, the ambassadors and the sefaretnames are important sources that so, individual and individuals have information in terms of both official and literary-cultural subjects about different people, societies and nations.

Keywords: Ottoman State, Ambassador, Sefaretname, Officialism, Literature, Culture.

**YÖNETİCİLERİN ÖĞRETMENİ ETKİLEME DAVRANIŞLARININ ÖĞRETMENLERİN
ÖRGÜTSEL ADANMIŞLIĞINA ETKİSİ**

**THE EFFECTS OF THE ADMINISTRATORS' TEACHER INFLUENCING BEHAVIORS ON
TEACHERS' ORGANIZATIONAL COMMITMENT**

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ÖZET

Öğretmenlerin performansları, bu nesnelere değer biçtikleri değerlere ve onlarla olan ilişkinin kalitesine bağlıdır. Eğitim kurumlarının etkililik derecesi yönetici, öğretmen ve öğrenci arasındaki etkileşime bağlıdır. Öğretmenlerin okula, öğrencilere, öğretim etkinliklerine, mesleğe ve meslektaşlarına adanmışlığı, grupların ve nesnelerin normatif beklentilerinin ötesinde informal davranışlar sağlayarak okulun etkililiğine olumlu katkı sağlayabilir (Celep, 2000). . Etkileme taktiği, liderlik tanımlarının kilit noktası olarak örgütsel amaçlara ulaşmak için gerekli bir süreç olan bireyin tutum ve davranışlarını etkilemek için kasıtlı olarak kullanılan davranış türü olarak belirlenir (Yukl, 2013). Glinow, 2008). Bu araştırmanın amacı, yöneticilerin öğretmeni etkileme taktiklerini ve öğretmenlerin örgütsel adanmışlıklarını incelemektir. Ayrıca, yöneticilerin öğretmeni etkileme taktikleri ile öğretmenlerin örgütsel adanmışlık düzeyleri arasındaki ilişkiyi belirlemektir. Araştırmanın evrenini Türkiye'deki ortaöğretim öğretmenleri oluşturmaktadır. Evrenin bu ülkeden oluşması ve araştırmacıların ulaşabileceği büyüklükte olması için tesadüfi örnekleme tekniği kullanılmıştır. Veri toplamak için öğretmen örgütsel etkileme taktiklerini ve çok boyutlu örgütsel adanmışlığı incelemek için iki farklı araç kullanılmıştır. Yöneticilerin statülerinin gerektirdiği bir öğretim liderliği erdemine sahip olma kapasitesinin, öğretmenlerin siyasete adanmışlıkları dışında tüm adanmışlık türlerini artırdığı tespit edilmiştir. Yönetme kapasitesine sahip yöneticilerin, öğretmenlerin siyasete adanmışlıklarını geliştirmekten çok, öğretmenlerin öğretmenlik mesleğine adanmışlıklarını, okula adanmışlıklarını, öğretime adanmışlıklarını ve meslektaşlarına adanmışlıklarını artırdığını söyleyebiliriz. Yöneticilerin öğretmenlerle öğretime odaklanan samimi ve yakın ilişkisi, öğretmenlerin öğretime olan adanmışlığını artırmaktadır.

Anahtar Sözcükler: Yöneticilerin öğretmeni etkileme taktikleri, örgütsel adanmışlık, okula adanma.

ABSTRACT

Teachers' performances depend on the values that they appraise to these objects and the quality of the relationship with them. Educational institutions' degree of effectiveness depends on the interaction between administrator, teacher and student. Teachers' commitment to the school, to the students, to instructional activities, to the profession and to the colleagues can make a positive contribution to the school effectiveness by supplying informal behaviors beyond the normative expectations of the groups and the objects (Celep, 2000). An influencing tactic is determined as the type of behavior that is used on purpose in order to affect an individual's attitudes and behaviors (Yukl, 2013) which is a necessary process to reach the organizational objectives as the key point of leadership definitions (McShane & Von Glinow, 2008). The purpose of this research is to examine administrators' teacher influencing tactics and to examine teachers' organizational commitment Furthermore, it is to identify the correlation in administrators' teacher influencing tactics, and teachers' organizational commitment levels. The population of the research is the secondary level teachers in Turkey. So that the population consisted of

ttthis countrie and being big enough for the researchers to reach, a random sampling technique was utilized. Two different tools were used to examine the teacher organizational influencing tactics and multi-dimensioned organizational commitment to collect data. It was found that the administrators' capacity that their status requires, which is having an instructional leadership virtue, increases all commitment types of the teachers except their commitment to politics. We can state that the administrators who have the capacity to rules increase the teachers' commitment to the teaching profession, commitment to school, commitment to teaching and commitment to the colleagues rather than developing the teachers' commitment to politics. Administrators' sincere and close relationship with the teachers that focuses on teaching increases the teachers' commitment to teaching.

Key Words: Administrators' teacher influencing tactics, organizational commitment, commitment to school.

ÇOK BİLEŞENLİ Si/O/Ge SİSTEMLERİNDE ÇİFT ATOMLARIN HETEROPOLAR BAĞLANMA GÜÇLERİNİN TERSOFF DÜZEYİNDE AYARLANMASI: BİR MOLEKÜLER DİNAMİK ÇALIŞMASI

TUNING HETEROPOLAR BONDING STRENGTHS OF PAIR ATOMS IN A MULTICOMPONENT Si/O/Ge SYSTEMS AT TERSOFF LEVEL: A MOLECULAR DYNAMICS STUDY

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ÖZET

Atomik düzeyde silika üzerinde Ge'nin büyüme dinamiklerini anlamak, geniş alanlı tek kristal Ge'yi imal etmek için deneysel çalışmalar için büyük önem taşımaktadır. Bununla birlikte, Ge fabrikasyonundaki önemli bilimsel ilgiye ve ilerlemeye rağmen, yazarın bildiği kadarıyla, şu ana kadar herhangi bir teorik çalışma bildirilmemiştir. Bu çalışmada silika üzerinde Ge büyümesi için Tersoff tabanlı moleküler dinamik (MD) simülasyonları yapılmıştır. Çok bileşenli bir Si/O/Ge sisteminde Si-Ge ve Ge-O heteropolar bağlanma kuvvetleri (χ_{Si-Ge} ve χ_{Ge-O}) için Tersoff potansiyel parametrelerinin yeteneği, özellikle Ga üretiminde deneysel olarak gözlemlenen üç önemli durumu taklit etmek için incelendi: (i) Si substratı üzerinde c-Ge'nin tohumlanmış büyümesi, (ii) Si-Ge arayüzünde Si-Ge arası difüzyon (iii) Şeritte Ge'nin rastgele çekirdeklenmesi. MD simülasyonları temelinde, Ge atomları rapor edilen χ_{Ge-O} değerinde a-SiO₂ üzerinde güçlü bir ıslanma eğilimi gösterir. 1 ns için yükseltilmiş sıcaklıklarda (> Ge'nin erime noktası) dengelemeye rağmen, χ_{Si-Ge} literatür değeri için Si-Ge interdifüzyonu çok düşüktür, bu durum literatürde bildirilen deneysel gözlemle çelişir. Bu yüzden Si-Ge ve Ge/SiO₂ arayüzlerinde inter-difüzyonun modellenmesini MD simülasyonları kullanılarak yapabilmek için χ_{Si-Ge} ve χ_{Ge-O} parametrelerinin optimal değerleri bulunmuştur.

Anahtar Kelimeler: Tersoff, Moleküler dinamik, Si, SiO₂

ABSTRACT

Understanding the growth dynamics of Ge on silica on the atomistic level is of great importance for the experimental studies to fabricate the large area single crystal Ge. However, despite significant scientific interest and progress in the Ge fabrication, to the best of the author's knowledge, there has been no theoretical study reported so far. In this study, Tersoff-based molecular dynamics (MD) simulations were conducted for the Ge growth on silica. The ability of Tersoff potential parameters for Si-Ge and Ge-O heteropolar bonding strengths (χ_{Si-Ge} and χ_{Ge-O}) in a multicomponent Si/O/Ge system was examined particularly to mimic three significant cases experimentally observed in the Ga fabrication: (i) seeded growth of c-Ge on the Si substrate, (ii) Si-Ge inter-diffusion at the Si-Ge interface (iii) Random nucleation of Ge in the stripe. On the basis of the MD simulations, the Ge atoms show a strong de-wetting tendency on a-SiO₂ at the reported value of χ_{Ge-O} , and for the literature value of χ_{Si-Ge} . The Si-Ge intermixing is barely observed at the interface of Si/Ge despite of the equilibration at elevated temperatures (> the melting point of Ge) for 1 ns, contradicting experimental observation reported in literature. The optimal values of the χ_{Si-Ge} and χ_{Ge-O} parameters are, therefore explored using MD simulations to enable to model the inter-diffusion at the Si-Ge and Ge/SiO₂ interfaces.

Keywords: Tersoff, Molecular Dynamics, Ge, Si, SiO₂

DEFANSİF ORTA SAHA OYUNCULARININ TAKIM BAŞARISINA ETKİSİ

THE EFFECT OF CENTRAL DEFENSIVE MIDFIELDERS ON TEAM SUCCESS

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ÖZET

Yanlı yorumlardan kaçınmayı sağlayan teknolojik analiz sistemleri ile birlikte performans analizinin alanı da oldukça genişlemiştir. Antrenörler oyuncuların performanslarını ayrı ayrı değerlendirebilir. Birçok spor branşında olduğu gibi futbolda da oyuncuların mevkilerine göre sorumlulukları vardır. Bu çalışmada da Euro 2020 Avrupa Şampiyonasında yarı finale kalan takımların defansif orta saha oyuncularının teknik performans parametreleri incelenmiştir. Elde edilen verilerle birlikte defansif orta saha olarak görev yapan oyuncuların takım başarısına olan etkilerini ortaya koymak amaçlanmıştır.

Çalışmada Euro 2020 Avrupa Şampiyonasında yarı finale kalan takımların defansif orta saha oyuncularının aksiyonları hücum ve savunma olarak incelenmiştir. Bu kapsamda hücum aksiyonlarında; gol, asist, pas yüzdesi, ceza sahası içine pas parametreleri incelenmiştir. Savunma aksiyonları olarak hava topu mücadelesi kazanma ve top kazanma sayıları analiz edilmiştir. Veriler bireysel ve takım performans değerlendirmesini profesyonel araçlar ile gerçekleştiren spor-performans analiz şirketi InStat tarafından elde edilmiştir.

İtalya milli takımının defansif orta saha oyuncusu Jorginho 754 dakika görev almıştır. Bu süre boyunca, %96 isabetli pas, %64 ceza sahası içine pas, %57 hava topu kazanma ve maç başı 6 top kazanma ortalamasına sahiptir. İngiltere milli takımının defansif orta saha oyuncusu Phillips turnuvada 712 dakika görev almıştır. Oyuncu 1 asist, %89 isabetli pas, %44 ceza sahası içine pas yüzdesi, %87 hava topu kazanma yüzdesi ve maç başı 3.5 top kazanma ortalamasına sahiptir. İspanya milli takımı defansif orta sahası Busquets turnuva boyunca 422 dakika görev yapmıştır. Busquets, %91 pas isabet yüzdesi ve ceza sahasına atılan paslarda %50 başarı oranına sahiptir. Ayrıca, %74 hava topu kazanma yüzdesi ve maç başına 4.5 top kazanma ortalaması vardır. Danimarka milli takımının defansif orta sahası Hojbjerg turnuvada 3 asist yapmıştır. Ayrıca oyuncunun, %88 isabetli pas, %50 ceza sahası içine pas, %47 hava topu kazanma ve maç başına 6 top kazanma ortalaması bulunmaktadır. Takımın oyuncu profili oyuncuların performans verilerini etkileyen unsurlardır. Ancak ortaya konan veriler oyuncuların başarıya olan etkilerini yorumlamaya olanak sağlamaktadır.

Anahtar Kelimeler: Futbol, Müsabaka Analizi, Hücum, Savunma, Orta Saha, Defansif Orta Saha.

ABSTRACT

In recent years, data analysis in professional leagues has been done with player tracking technologies instead of subjective comments. In football, as in many sports, players have responsibilities depending on their position. In this study, the in-game technical performance parameters of the defensive midfielders of the semi-finals of the Euro 2020 European Championship were examined. In addition, it is aimed to reveal the effects of the players acting as defensive midfielders on the team success.

In the study, the actions of the defensive midfielders of the four teams (Italy - England - Spain - Denmark) in the semi-finals of the Euro 2020 European Championship were examined under two

headings as offensive and defensive. In this context, in offensive actions; goal, assist, pass accuracy, pass into the penalty area parameters were discussed. As defensive actions, the numbers of successful air ball challenges and interceptions were analyzed. The data of the study was obtained by the sports-performance analysis company InStat, which performs individual and team performance evaluation with professional tools.

As a result of the study, Jorginho, the defensive midfielder of the Italy national team, played 754 minutes in the tournament. Jorginho played with an average of 96% pass accuracy, 64% passing into the penalty area, 57% airball challenges and 6 interceptions per game in the tournament. The defensive midfielder of the England national team, Calvin Phillips, played 712 minutes in the tournament. Phillips had a 1 assist, 89% pass accuracy, 44% passing into the penalty area, 87% air ball challenges and 3.5 interceptions per game. Spain national team defensive midfielder Sergio Busquets played 422 minutes throughout the tournament. Busquets had a 91% pass accuracy and a 50% passing into the penalty area. Moreover, he had a 74% airball challenges and an average of 4.5 balls per game. Denmark national team defensive midfielder Pierre Hojbjerg, had 3 assists in the tournament. In the tournament, the player had 88% pass accuracy, 50% passing into the penalty area, 47% airball challenges and 6 interceptions per game. Teams strategy and player profile can also be considered as factors that affect the performance data of the players. However, the data in the study explain the responsibilities of defensive midfielders and their effects on team success.

Keywords: Football, Match Analysis, Offensive, Defensive, Midfielder, Central Defensive Midfielder.

TOPA SAHİP OLMAK BAŞARIYI GETİRİR Mİ?
DOES THE BALL POSSESSION BRING THE SUCCESS?

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ÖZET

Son yıllarda ortaya konan teknolojik yeniliklerle spor bilimleri alanında bilgi yoğunluğu giderek artmaktadır. Futbolda skorun oluşturan oyun içi parametreler fizyolojik, psikolojik, teknik parametreler başlığı altında toplanabilir. Topa sahip olma, koşu mesafeleri, taktiksel farklılıklar bu parametrelerden bazılarıdır. Yapılan bu çalışmanın amacı 2021 Copa América’da başarılı ve başarısız takımların topa sahip olma verilerinin incelenmesidir.

Çalışmada 2021 Copa América’da finale kalan Brezilya ve Arjantin ile gruptan çıkamayan Bolivya ve Venezuela takımlarının pozisyon başına topa sahip olma süreleri, 5 saniyeden daha az topa sahip olma sayısı, 5-15 saniye arasında topa sahip olma sayısı, 15-45 saniye arasında topa sahip olma sayısı ve 45 saniyeden daha fazla süreyle topa sahip olma sayıları incelenmiştir. Bolivya ve Venezuela takımlarının oynadıkları 4 müsabaka, Arjantin ve Brezilya takımlarının 7 müsabakası ele alınmıştır. Çalışmanın verileri bireysel ve takım performans değerlendirmesini profesyonel araçlar ile gerçekleştiren spor-performans analiz şirketi InStat tarafından elde edilmiştir.

Venezuela takımının pozisyon başına topa sahip olma süresi 14 saniyedir. Bolivya takımı için bu süre 15.5 saniye olarak tespit edilirken, Arjantin milli takımı 16.8, Brezilya milli takımı ise pozisyon başına 18.7 saniye boyunca topu ayağında tutmaktadır. Maç başına 5 saniyeden daha az süre boyunca topa sahip olma sayısında Bolivya ve Venezuela milli takımları 18 defa topa sahip olmuşlardır. Brezilya takımında bu rakam 20, Arjantin milli takımında 22’dir. Bolivya 39, Venezuela 41, Brezilya 31, Arjantin ise 36 defa 5-15 saniye arasında topa sahip olmuştur. 15-45 saniye arasında topa sahip olma rakamlarında Venezuela 26, Bolivya 27, Arjantin 25 ve Brezilya 35 defa topa bu süreler arasında sahip olmuştur. Venezuela 2.8 ve Bolivya 3.8 defa 45 saniyeden daha uzun süre topa sahip olurken Arjantin ve Brezilya milli takımı bu ortalamaya 7 defa ulaşmıştır. Bu sonuçlarla birlikte Copa America’da başarılı ve başarısız olan takımlar arasındaki topa sahip olma nitelikleri yorumlanabilir. Başarıya ulaşan takımların topa sahip olma niteliklerindeki farklılık antrenörlerin oyun planlarını şekillendirebilir.

Anahtar Kelimeler: Futbol, Müsabaka Analizi, Pas, Topa Sahip Olma, Copa America.

ABSTRACT

In recent years, there has been an increase in technological innovations. Accordingly, statistical analysis methods also change. In-game parameters that provide the score in football can be explained as physiological, psychological, technical and tactical parameters. Ball possession, running distances, shots, tactical differences are some of these parameters. The aim of the study is to analyze the ball possession data of successful and unsuccessful teams in 2021 Copa América and to reveal the importance of the ball possession.

In the study, the ball possession data of the teams of Brazil, Argentina, Bolivia and Venezuela in the 2021 Copa América were analyzed. Accordingly, ball possession times per position, possession of the

ball less than 5 seconds per game, possession of the ball between 5-15 seconds per game, possession of the ball between 15-45 seconds per game and ball possession of more than 45 seconds per game were examined. 4 matches played by Bolivia and Venezuela teams in the tournament and 7 matches of Argentina and Brazil teams were analyzed. The data of the study was obtained by the sports-performance analysis company InStat, which performs individual and team performance evaluation with professional tools.

According to the results of the study, ball possession time of the Venezuelan team per position is 14 seconds. For the Bolivian team, this time is 15.5 seconds. The Argentina national team has the ball for 16.8 seconds, and the Brazilian national team for 18.7 seconds per position. In the number of possessions for less than 5 seconds per game, the national teams of Bolivia and Venezuela had the ball 18 times. In the Brazilian team, this number is 20. Argentina national team had the ball 22 times for less than 5 seconds. Bolivia had the ball 39 times, Venezuela 41, Brazil 31, Argentina 36 times between 5-15 seconds. Between 15-45 seconds, Venezuela had the ball 26 times, Bolivia 27, Argentina 25 and Brazil 35 times between these times. Venezuela 2.8 and Bolivia 3.8 times had the ball for longer than 45 seconds. Argentina and Brazil national team reached this average 7 times. In the light of these results, ball possession variable between the successful and unsuccessful teams in Copa America can be interpreted. The difference in the number and duration of possession of the ball by the successful teams may affect the game plans of the coaches in the future.

Keywords: Football, Match Analysis, Pass, Ball Possession, Copa America.

**PARA TEORİLERİ AÇISINDAN KRİPTO PARA BİRİMLERİNİN DEĞERLENDİRİLMESİ
VE DİJİTAL PARA**

**EVALUATION OF CRYPTO CURRENCY IN TERMS OF MONEY THEORIES AND DIGITAL
MONEY**

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ÖZET

Para ve dengesine dair belirleyiciler arasındaki ilişki, çoğu makroekonomik davranış teorisinde temel bir yapı taşıdır. Para talebi, para politikasının oluşturulmasında kritik bir bileşendir ve para için istikrarlı bir talep fonksiyonu, uzun zamandır parasal politikanın yürütülmesinde kullanılması için bir ön koşul olarak algılanmıştır. Bu sebeple para ile ilgili gerçekleşen gelişmeler, oluşan yeni bakış açıları politika yapıcılar için de büyük bir önem arz etmektedir. Birçok fonksiyonu olan paraya dair öne sürülen teorilerin çerçevesinin dışına çıkıldığında, bu durum politika yapıcılar açısından tedirgin edici ve üzerine düşünülmesi gereken konular halini almaktadır.

Çağımızda gelişen teknolojiyle birlikte hayatın hemen her alanında teknolojik buluşlar, birçok günlük yaşam unsurunu ikame etmeye başlamıştır. Bu yeniliklerden biri hatta belki de en önemlisi parayla ilgili gerçekleşen gelişmelerdir. Yaşamın dijitalleşmesiyle birlikte paranın da dijital bir hal alması iktisadi faaliyetler noktasında oldukça büyük bir öneme sahiptir. Para konusundaki dijitalleşmenin de günümüzde “kripto para birimleri” çerçevesinde gelişmesi hatta zaman zaman “kripto para” kavramının kullanılmaya başlaması kripto para birimlerinin paranın fonksiyonlarından hangilerine sahip olduğunun anlaşılması ile mümkün olacaktır.

Bunun yanı sıra yaşanan gelişmelere de kayıtsız kalınmasının mümkün olmadığı günümüz küreselleşen dünyasında iktisadi yaşamın gereği olarak ülkelerin “dijital para” birimlerini gündemlerine almaları söz konusu olmaktadır. Günümüzde yaşanmakta olan kripto salgınının ve olumsuz sonuçlarının önüne geçilebilmesi adına kripto para birimlerine olan bakış açısının para teorileri kapsamında değerlendirilmesi sonrasında, ülkelerin merkez bankalarının gündemlerinde olan “dijital para” kavramının “kripto salgınının” önüne geçeceği düşünülmektedir. Bu amaçla ve bakış açısıyla hazırlanan bu çalışmanın da dijital para kavramının kripto para birimlerinden ayrılması ve konuyla ilgili ileride yürütülecek çalışmalara bakış açısı kazandırması beklenmektedir.

Anahtar Kelimeler: Kripto Para Birimi, Para Teorileri, Kripto Salgını, Dijital Para

ABSTRACT

The relationship between the determinants of money and its equilibrium is highly fundamental building block in most theories of macroeconomic behavior. The demand for money is a critical component in the establishment of monetary policy, and a stable demand function for money has long been perceived as a prerequisite for its use in the conduct of monetary policy. For this reason, developments in money and new perspectives are of great importance for policy makers. Upon going out of the theoretical frameworks having been put forward about money, which holds many functions, it becomes not solely unsettling but also of consideration for policy makers. In addition, it stands out as a subject that needs to be considered.

Having a major impact on daily life, the technological inventions have become a major substitution in miscellaneous aspects in the everyday chores. One of these innovations, perhaps the most important, is the developments in money. With the digitalization of life, the digitalization of money is of great

importance in terms of economic activities. The development of digitalization in money within the framework of "cryptocurrencies" and even the use of the concept of "crypto money" from time to time will be possible by understanding what functions of money cryptocurrencies hold.

In addition to this, in the globalizing world, where it is not possible to be indifferent to the developments experienced today, as a necessity of economic life, "digital money" becomes involved in the countries' agendas. In order to prevent the current "crypto outbreak" and its negative consequences, having a part on the agenda of central banks worldwide, the concept of "digital money" has been considered as a way of preventing the crypto outbreak after the evaluation of the perspective on cryptocurrencies within the scope of monetary theories. It is expected that this study, which is prepared with the mentioned purpose and perspective, will separate the concept of digital money from cryptocurrencies and provide a perspective for future studies on the subject.

Keywords: Cryptocurrency, Money Theories, Crypto Outbreak, Digital Money

KITA AVRUPASI VE ARAP DÜNYASINDA EDEBİ AKIMLARIN TEZAHÜRÜ
THE OUTLOOK OF LITERARY CURRENTS IN CONTINENTAL EUROPE AND THE ARAB
WORLD

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ÖZET

Bir milletin edebiyat tarihi kitabını okumak aslında o milletin siyasi, içtimai ve iktisadi tarihini okumak gibidir. Şiir, tiyatro, roman ve öykü gibi edebi türler içinde gündelik hayatın, bireyin ve toplumun yansıması sayabileceğimiz pek çok disiplini taşır. Bu sebeple edebi okumalar bizlere her daim interdisipliner okumalar sağlar. Şiir düşünceden daha çok duygulara yaslanıp insanın ruh dehlizlerine varana kadar şerh eden bir edebi tür iken, roman duygunun yanı sıra düşünceleri de ziyadesiyle içinde barındıran, insan hayatının pek çok ayrıntısını muhtevasında taşıyan bir edebi tür olarak karşımıza çıkar. İnsanın ve toplumun uzun ve derinlikli tarihini hem soyut hem de somut yönden bizimle buluşturan edebiyat eserleri aslında dünya milletleri üzerindeki değişimi de anlatan bir tarih gibidir. Modern Batı edebiyatında XVII. yüzyıldan itibaren Klasisizm ile başlayan modern edebi akımlar yine kıta Avrupası'nda felsefede Rene Descartes (1596-1650), fizikte Sir Isaac Newton (1643-1727), astromide Galileo Galilei (1564-1642) ve matematikte Johannes Kepler (1571-1630) gibi çok farklı alanlardaki bilim adamlarının çalışmalarından etkilenip bunları içselleştirerek ortaya çıkmıştır. Örneğin Klasisizm, Fransa'da XVII. asrın sonlarında tezahür etmeye başlamış ve XVIII. asırda büyük bir güç kazanmış, eski Yunan ve Latin edebiyatlarını örnek alan sanat akımıdır ki bu antik çağa dönüşü diğer ilmi disiplinlerde de açık bir şekilde görebiliriz. Kıta Avrupası'nda Klasisizm'den hemen sonra görülen bir diğer akım ise Romantizmdir. Söz konu akımının ortaya çıkmasına sebep Klasisizm akımına muhalefetidir. Klasisizm akımının edip için belirlediği ağır kurallara ve baskıya karşı çıkmış, rasyonalite yerine kalbi öncelemiştir. Relizm, Sürrealizm, Toplumcu Gerçekçilik veya Ulusal Edebiyat kavramları da bu minvalde reaksiyoner bir şekilde Avrupalı insanın günlük hayatının değişiminin yanı sıra edebi ekollerin birbirleri ile olan tartışmaları sonucu ortaya çıktığı görülür. Diğer batı dışı toplumlarda olduğu gibi Arap edebiyat dünyasını da kıta Avrupası menşeli bu edebi akımlar oldukça fazla etkilemiştir. Bu çalışmada modern dönemde dünyayı etkisi altına almış kıta Avrupası edebi akımlarının Arap ülkelerinin edebiyatlarına edebi fraksiyonlar üzerinden ne denli etki ettiğine bir mukayese ile bakılmaya çalışılacaktır.

Anahtar Kelimeler: 20. Yüzyıl Arap Edebiyatı, Çağdaş Avrupa Edebiyatı, Modern Edebi Ekoller

ABSTRACT

Reading a nation's literary history book is actually like reading that nation's political, social and economic history. It carries many disciplines that we can count as the reflection of daily life, individual and society within literary genres such as poetry, theatre, novel and story. For this reason, literary readings always provide us with interdisciplinary readings. While poetry is a literary genre that rests on emotions rather than thoughts and explains the souls of people, the novel appears as a literary genre that contains many details of human life, including thoughts as well as emotions. Literary works that bring the long and deep history of man and society together with us both abstractly and concretely are like a history that also tells about the change in the nations of the world. XVII in modern Western literature. The modern literary movements that started with Classicism from the 19th century onwards were again in continental Europe, such as Rene Descartes (1596-1650) in philosophy, Sir Isaac Newton (1643-1727) in physics, Galileo Galilei (1564-1642) in astronomy and Johannes Kepler (1571-1630) in mathematics. It has emerged by being influenced by the work of scientists in many different fields and internalizing them. For example, Classicism, XVII in France. began to manifest at the end of the century

and XVIII. It is an art movement that gained great power in the 19th century and took the old Greek and Latin literatures as an example, which we can clearly see in other scientific disciplines as well. Another movement seen right after Classicism in Continental Europe is Romanticism. The reason for the emergence of the said movement is the opposition to the Classicism movement. He opposed the heavy rules and pressure set by the classicism movement for literature, and prioritized the heart instead of rationality. It is seen that the concepts of Realism, Surrealism, Social Realism or National Literature emerged as a result of the changes in the daily life of European people in a reactionary way, as well as the discussions of literary schools with each other. As in other non-Western societies, these literary movements originating from continental Europe greatly influenced the Arab literary world. In this study, we will try to compare how the literary movements of continental Europe, which have influenced the world in the modern period, have affected the literature of Arab countries through literary fractions.

Keywords: 20th Century Arabic Literature, Contemporary European Literature, Modern Literary Schools

AKUT BRONŞİOLİTLİ ÇOCUKLARDA EKOKARDİYOĞRAFİK BULGULAR ECHOCARDIOGRAPHIC FINDINGS IN CHILDREN WITH ACUTE BRONCHOLITIS

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ÖZET

Giriş ve Amaç: Akut bronşiolit iki yaşından küçük çocuklarda çoğunlukla viral nedenlerle gelişen alt solunum yolu enfeksiyonudur [1, 2]. Bronşiolit için evrensel bir tanı kriteri yoktur. Genellikle burun akıntısı gibi üst solunum yolu enfeksiyonu şeklinde başlayıp öksürük, hışıltı, takipne, solunum zorluğu gibi bulgular ile seyreder [3, 4]. Çalışmada akut bronşiolitli hastalarımızda ekokardiyografi ile kardiyak fonksiyonları değerlendirmeyi amaçladık. **Yöntem:** Akut bronşiolit tanısı ile yatırılarak takip edilen 1 ay- 24 ay arası hastalar çalışmaya alındı. Konjenital ve edinsel kalp hastalığı olan, immün yetmezlik, hematolojik ve onkolojik rahatsızlığı olan hastalar çalışmadan çıkarıldı. Kontrol grubu olarak çocuk kardiyoloji polikliniğine üfürüm nedeni ile başvuran herhangi bir hastalığı olmayan aynı yaş grubundan sağlıklı çocuklar alındı. Medikal kayıtlardan hastaların demografik özellikleri ve ekokardiyografik incelemeleri retrospektif olarak tarandı. **Sonuçlar:** Akut bronşiolitli 29 hasta ve kontrol grubunda 39 çocuk vardı. Hastaların demografik verileri ve ekokardiyografik verileri tablo 1 de verilmiştir. Buna göre akut bronşiolitli grubun ejeksiyon fraksiyonu kontrol grubuna göre daha düşük saptandı ($p=0,042$). Kısılma fraksiyonu kontrol grubuna göre daha düşük olmasına rağmen istatistiksel olarak anlamlı değildi ($p>0.05$). **Tartışma:** Bu retrospektif çalışma ile akut bronşiolitli hastaların kalp fonksiyonlarını ekokardiyografi ile değerlendirdik. Gonzalez ve arkadaşları akut bronşiolitli hastalarda akciğer ödemi, konsolidasyonlar ve hava yolu obstrüksiyonu gibi hipoksiye, solunumsal asidoza ve artan solunum çabasına neden olan faktörlerin kardiyak performansı düşürdüğünü ileri sürmüşlerdir [5]. Yine bir başka çalışmada önceden sağlıklı olan akut bronşiolitli hastalarda miyokardial zorlanmanın hastalığın başlangıcında gelişebileceği gösterilmiştir [6]. Bizim de hastalarımızda ejeksiyon fraksiyonunun sağlıklı çocuklara göre daha düşük tespit edilmesi akut bronşiolit sırasında kalbin olumsuz olarak etkilendiğini göstermesi açısından önemlidir.

Anahtar Kelimeler: bronşiolit, ekokardiyografi, ejeksiyon fraksiyonu, kısılma fraksiyonu.

Tablo 1. Hastaların demografik ve ekokardiyografik bulguları

	Akut bronşiolitli hastalar (n=29)	Kontrol Grubu (n=39)	<i>p</i>
Yaş ^a (ay)	3 (1-22)	5 (1-22)	0,08 ^c
Cinsiyet ^b kız	13 (45)	19 (49)	0,75 ^d
erkek	16 (55)	20 (51)	

Ejeksiyon fraksiyonu	73 (60-79)	75 (70-80)	0,04 ^c
Kısalma fraksiyonu	40 (30-59)	42 (37-42)	0,07 ^c

^aortanca (min-max), ^b sıklık (yüzde), ^c Mann-whitney U testi, ^d Ki-kare testi

ABSTRACT

Introduction and Aim: Acute bronchiolitis is a lower respiratory tract infection that mostly develops due to viral causes in children under 2 years of age [1, 2]. There are no universal diagnostic criteria. It usually starts as an upper respiratory tract infection such as a runny nose and progresses with findings such as cough, wheezing, tachypnea, and respiratory distress [3, 4]. In this study, we aimed to evaluate cardiac functions by echocardiography in patients with acute bronchiolitis. **Methods:** Patients between 1-24 months who were hospitalized with the diagnosis of acute bronchiolitis were included in the study. Patients with congenital and acquired heart disease, immunodeficiency, hematologic and oncologic disorders were excluded from the study. As the control group, healthy children of the same age group who applied to the pediatric cardiology outpatient clinic with a murmur without any disease were included. Demographic characteristics and echocardiographic examinations of the patients were retrospectively scanned from the medical records. **Results:** There were 29 children with acute bronchiolitis and 39 children in the control group. Demographical and echocardiographical data of the patients are given in Table 1. Accordingly, the ejection fraction of the group with acute bronchiolitis was found to be lower than the control group ($p=0.042$). Although the shortening fraction was lower than the control group, it was not statistically significant ($p>0.05$). **Discussion:** Gonzalez et al. suggested that factors causing hypoxia, respiratory acidosis, and increased respiratory effort, such as pulmonary edema, consolidations, and airway obstruction, decrease cardiac performance in patients with acute bronchiolitis [5]. Another study showed that myocardial strain may develop at the onset of the disease in previously healthy patients with acute bronchiolitis [6]. The fact that the ejection fraction was found to be lower is important in terms of showing that the heart is adversely affected during acute bronchiolitis.

Keywords: bronchiolitis, echocardiography, ejection fraction, shortening fraction.

Table 1. Demographical and echocardiographical findings of the patients

	Patients with acute bronchiolitis (n=29)	Control Group (n=39)	<i>p</i>
Age ^a (months)	3 (1-22)	5 (1-22)	0.08 ^c
Sex ^b female	13 (45)	19 (49)	0.75 ^d
male	16 (55)	20 (51)	
Ejection fraction	73 (60-79)	75 (70-80)	0.04 ^c
Shortening fraction	40 (30-59)	42 (37-42)	0.07 ^c

^a median (min-max), ^b frequency (percent), ^c Mann-Whitney U test, ^d Chi-square test

**TURİZMİN BÖLGESEL KALKINMAYA ETKİSİ: AKDENİZ BÖLGESİ ÜZERİNE BİR
ARAŞTIRMA**

THE EFFECTS OF TOURISM ON REGIONAL DEVELOPMENT: A RESEARCH ON
MEDITERRANEAN REGION

Esra CEBECİ MAZLUM

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ÖZET

Bölgeler arası dengesizlik tüm ülkelerin karşılaştıkları önemli sorundur. Bölgeler arasındaki sosyo-ekonomik farklılıkları azaltmaya yarayan bölgesel kalkınma politikalarının önemi günümüzde de önemini korumaktadır. Bölgesel kalkınmaya önemli katkısı olan faktörlerden biri de turizmdir. Türkiye zengin potansiyel turizm potansiyeli ile bölgesel kalkınmaya destek olabilmektedir. Türkiye’de turist çeken bölgelerden biri olan Akdeniz bölgesi turizm açısından önemli potansiyele sahiptir. Bu bağlamda bu çalışmanın amacı bölgesel kalkınmanın sağlanmasında turizm sektörünün katkısının ortaya koyulmasıdır. Panel veri analizinin kullanıldığı çalışmada Akdeniz Bölgesindeki Antalya, Adana ve Mersin illerine ilişkin 2004-2019 dönemi yıllık seriler kullanılarak turizmin bölgesel kalkınmaya etkisi araştırılmıştır. Elde edilen bulgulara göre, turizmin ekonomik kalkınmayı pozitif yönlü etkilediği görülmüştür.

Anahtar Kelimeler: Turizm, Bölgesel Kalkınma, Panel Veri Analizi.

ABSTRACT

Regional development is one of the important problems faced by all countries. The importance of regional development policies, which serve to reduce socio-economic differences between regions, maintains its importance today. One of the factors that contribute to regional development is tourism. Turkey can support regional development with its rich potential tourism potential. The Mediterranean region, which is one of the regions that attract tourists in Turkey, has an important potential in terms of tourism. In this context, the aim of this study is to reveal the contribution of the tourism sector in ensuring regional development. In the study, in which panel data analysis was used, the effect of tourism on regional development was investigated by using annual series for the provinces of Antalya, Adana and Mersin in the Mediterranean Region for the period 2004-2019. According to the findings, it has been seen that tourism has a positive effect on economic development.

Keywords: Tourism, Regional Development, Panel Data Analysis.

(S)-2-(BİS(4-AMİNOFENİL)AMİNO)BUTAN-1-OL VE 4,4'-DİAMİNO-2,2'-STİLBENDİSÜLFONİK ASİT KOMBİNASYONUyla SÜLFONLANMIŞ POLİİMİD SENTEZİ VE KARAKTERİZASYONU

SYNTHESIS AND CHARACTERIZATION OF SULFONATED POLYIMIDE WITH THE COMBINATION OF (S)-2-(BIS(4-AMINOPHENYL)AMINO)BUTAN-1-OL AND 4,4'-DIAMINO-2,2'-STILBENEDISULFONIC ACID

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ÖZET

Son on yılda polimer elektrolit membranlı yakıt hücreleri (PEMFC'ler), uzay endüstrisi, elektronik cihazlar ve diğer uygulamalar için, performanslı ve mobil güç sağladıkları için çok dikkat çekmiştir. Polimer elektrolit membran, bir PEMFC'nin temel bileşenidir. Şu anda, DuPont'un Nafion'u gibi sülfonath polimidler, yüksek proton iletkenlikleri, iyi mekanik özellikleri ve yüksek termal, elektrokimyasal ve kimyasal stabiliteleri nedeniyle pratik olarak kullanılan tipik membranlardır. Burada, sentezlenen özgün difenilamin (DPA) olan (S) - 2 - (bis (4- aminofenil) amino) butan - 1 -ol (BAPMB), bir dianhidrit (NTCDA) ve ayrıca sülfonik asitleri yapısında barındıran 4, 4'- diamino - 2, 2'- stilbendisülfonik asit (DSD) kullanılarak poliamik asitin termal çözelti imidizasyonu yöntemiyle üstün özelliklere sahip SPI sentezlenmiştir. Aynı zamanda kondenzasyon polimerizasyonu da gerçekleşmiş ve su çıkışı olmuştur. Sentezlenen sülfonlanmış poliimidlerin çeşitli spektroskopik karakterizasyonları (proton nükleer manyetik rezonans (1H-NMR), fourier dönüşümlü kızılötesi spektroskopisi (FT-IR), diferansiyel tarama kalorimetrisi (DSC) ve termal gravimetrik analiz/ diferansiyel termal analiz (TGA/DTA)) gerçekleştirilmiştir ve literatüre kazandırılmak üzere sunulmuştur. Termal gravimetrik analiz eğrisinde, mevcut çalışmalarındaki sıcaklık değerlerini destekleyerek 400 °C'den daha yüksek bir sıcaklıkta ikinci bir bozunma aşaması görüldü ve 500 °C'nin üzerindeki polimer omurgasını temsil eden bozunmanın son aşaması tespit edildi. Ters ısı akışındaki değişiklik ile birlikte SPI'nın camı geçiş sıcaklığı 352 °C olarak belirlendi. PEM'lerde iyonik kanalların varlığının, yüksek proton iletkenliği ile sonuçlanan proton taşınmasını kolaylaştırabileceği kabul edilmiştir. İyonik kanalları oluşturmak için, PEM'lerin blok kopolimerizasyon ile elde edilebilen hidrofilik-hidrofobik mikrofazla ayrılmış yapıya sahip olması gerekir. Sentezlediğimiz üç yapısal birimin poli kondenzasyonu ile elde edilen SPI'nın PEM yakıt hücre membranlarında kullanma potansiyeline sahip olacağı düşünülmektedir.

Anahtar Kelimeler: Sülfonlanmış poliimidler, poliamik asit, sentez

ABSTRACT

In the last decade, polymer electrolyte membrane fuel cells (PEMFCs) have received much attention as they provide high performance and mobile power for the aerospace industry, electronic devices, and other applications. The polymer electrolyte membrane is the essential component of a PEMFC. Currently, sulfonated polyimides such as DuPont's Nafion are typical membranes in practical use because of their high proton conductivity, good mechanical properties, and high thermal, electrochemical and chemical stability. Here, (S) - 2 - (bis (4- aminophenyl) amino) butan - 1-ol (BAPMB), the original diphenylamine (DPA) synthesized, SPI with superior properties was synthesized by thermal solution imidization method of polyamic acid using a dianhydride (NTCDA) and also 4,4'-diamino-2,2'-stilbenedisulfonic acid (DSD) containing sulfonic acids in its structure. At the same time, condensation polymerization also took place and water was released. Various spectroscopic characterizations (Proton nuclear magnetic resonance (1H-NMR), fourier-transform infrared

spectroscopy (FT-IR), differential scanning calorimetry (DSC) and thermal gravimetric analysis/differential thermal analysis (TGA/DTA)) of the synthesized SPI were performed and presented to the literature. In the thermal gravimetric analysis curve, a second degradation stage was seen at a temperature higher than 400 °C, supporting the temperature values in the existing studies, and the final stage of degradation representing the polymer backbone above 500 °C was detected. With the change in reverse heat flow, the glass transition temperature of SPI was determined as 352 °C. It has been recognized that the presence of ionic channels in PEMs can facilitate proton transport resulting in high proton conductivity. To form ionic channels, PEMs must have hydrophilic-hydrophobic microphase separated structure, which can be achieved by block copolymerization. It is thought that the SPI obtained by poly condensation of the three structural units we synthesized will have the potential to be used in PEM fuel cell membranes.

Keywords: Sulfonated polyimides, polyamic acid, synthesis

**YEŞİL LOJİSTİK YER SEÇİMİ İÇİN ÇOK ÖLÇÜTLÜ KARAR VERMEDE YENİ BİR
BÜTÜNLEŞİK YÖNTEM ÖNERİSİ**

A NEW HYBRID MULTI-CRITERIA DECISION MAKING APPROACH FOR GREEN
LOGISTICS SITE SELECTION

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ÖZET

Ülkelerin gelişmişlik seviyelerini gösteren en önemli parametrelerden biri ekonomidir. Ekonomik kalkınma bir ülkenin ferah seviyesini belirten temel göstergeler arasındadır. Ekonomik kalınmanın sağlanmasında ki temel kaynak ise ticarettir. Sanayileşmenin yaygınlaşması ticarete ülkeler arası ürün akışına sebep olmaktadır. Günümüzde giderek artan sanayileşme olgusu ülkelere ekonomik anlamda katma değer sağlasa da çevresel anlamda büyük problemlere neden olmaktadır. Birçok bilimsel çalışmada, çevresel bozulmaların son yıllarda giderek arttığı ve gerekli önlemlerin alınmadığı taktirde geri dönüşü olmayacak sorunlarla karşılaşılacağı belirtilmiştir. Ülkelerin birçoğu çevresel bozulmalarla ilgili yapılan bilimsel çalışmaları ve uyarıları dikkate alarak çalışmalar başlatmıştır. Bu çalışmaların temeli “Sürdürülebilirlik” kavramına dayanmaktadır.

Son yıllarda kamuoyu tarafından benimsenen ve dikkate alınan sürdürülebilirlik kavramı, evrensel bir nitelik taşımaktadır. Başka bir şekilde ifade etmek gerekirse dünyada daha iyi bir yaşam için yapılan çalışma ve faaliyetlerde sürdürülebilirlik ön planda tutulmalıdır. Günümüzde sera gazı emisyon oranlarında ki artış, küresel ısınma, ekolojik dengenin bozulması gibi çevresel problemler insanlarda çevresel duyarlılık algısını daha fazla ön plana çıkartmaya başlamıştır. Dolayısıyla birçok işletme sahibi ticarete avantaj sağlamak adına sürdürülebilir eylem planlarıyla gündeme gelmektedir. Son yıllarda yapılan çalışmalar incelendiğinde pek çok sektörün sürdürülebilirliği ön plana çıkardığı tespit edilmiştir. Lojistik sektörü bir ülkenin kalkınmasında önemli bir paya sahiptir. Ülkeler arası köprü görevi gören ve ürün akışında mesafe tanımayan lojistik sektörü yaşamımızda hayati bir öneme sahiptir. Lojistik sektörünün geniş bir çalışma alanına sahip olması ve dolaylı ya da dolaysız her sektörle ilişkili olması bu sektörde sürdürülebilir faaliyetleri zorunlu kılmaktadır.

Literatürde lojistik sektörü sürdürülebilirlik faaliyetleri ilgili çalışmalar incelendiğinde çoğunlukla yeşil lojistik ve tersine lojistik kavramları göze çarpmaktadır. Tersine lojistik daha çok geri dönüşüm ve atık yönetimi konuları üzerine odaklanırken, yeşil lojistik ekolojik dengelerin göz önünde bulundurulduğu çevreci faaliyetlere odaklanmaktadır. Bu çalışmada, güncel bir sorun olan küresel ısınma ve çevresel bozulmalara karşı mücadeleyi ve lojistik sektörüne düşen pay ve sorumluluğu ortaya çıkarmayı hedefleyen bir yeşil lojistik uygulaması üzerinde durulacaktır.

Literatürde, lojistik faaliyetinin sürdürülebilirliği ile ilgili birçok çevreci yaklaşımların olduğu tespit edilmiştir. Bu çalışma ise yeşil lojistiği bir bütün olarak değerlendirmeye imkan tanıyan lojistik merkezleri ele alınmıştır. Bunun için ilk aşamada, literatürde mevcut olan yeşil lojistik uygulamalarına ait temel kriterler belirlenmiştir. İkinci aşamada, bu kriterlere göre Türkiye’de işletmeye açılmış olan dokuz lojistik merkez arasından optimum yeşil lojistik merkezi yer seçimi yapılmıştır. Optimum yer seçimi için çok ölçütlü karar verme yöntemlerinden olan ORESTE (Organisation, rangement et synthèse de données relationnelles -in French) yöntemi kullanılmıştır. ORESTE yönteminin tercih edilmesinin nedeni, alternatifleri farklı kriter kümelerinde karşılaştırma imkânı sağlamasıdır.

Bu çalışmanın amacı, yeşil lojistik faaliyetlerinin de içinde olduğu çevresel yaklaşım sağlayarak ülkemizde işletmeye açılmış olan lojistik merkezlerinin değerlendirilip yeşil lojistiğe uygunluğunu ortaya çıkarmaktır.

Anahtar Kelimeler: Sürdürülebilirlik, lojistik, yeşil lojistik, ORESTE, lojistik merkez

ABSTRACT

One of the most important parameters showing the development level of countries is the economy. Economic growth is among the basic indicators that indicate the level of well-being of a country. So the main source of economic growth is trade. The spread of industrialization causes product flow between countries by trade. Although the increasing industrialization phenomenon provides added value to the countries in terms of economy, it causes great environmental problems. In many scientific studies, it has been stated that environmental degradation has increased in recent years and those irreversible problems will be encountered if necessary precautions are not taken. Many of the countries have started studies by taking into account the scientific studies and warnings about environmental degradation. The basis of these studies is based on the concept of “Sustainability”.

The concept of sustainability, which has been adopted and taken into account by the public in recent years, has a universal character. In other words, sustainability should be prioritized in studies and activities for a better life in the world. In this present day, environmental problems such as the increase in greenhouse gas emission rates, global warming, and deterioration of ecological balance have begun to bring the perception of environmental sensitivity more into the forefront of people. Therefore, many business owners come to the fore with sustainable action plans in order to gain an advantage in trade. When the studies carried out in recent years are examined, it has been determined that many sectors have brought sustainability to the fore. The logistics sector has an important share in the development of a country. The logistics industry, which acts as a bridge between countries and does not allow distance in product flow, has vital importance in our lives. The fact that the logistics sector has a wide working area and is directly or indirectly related to every sector necessitates sustainable activities in this sector.

When the studies on sustainability activities in the logistics sector are examined in the literature, the concepts of green logistics and reverse logistics mostly stand out. While reverse logistics mostly focuses on recycling and waste management issues, green logistics focuses on environmental activities where ecological balances are taken into account. In this study, a green logistics application that aims to fight against global warming and environmental degradation, which is a current problem, and to reveal the share and responsibility of the logistics sector, will be emphasized.

In the literature, it has been determined that there are many environmentalist approaches related to the sustainability of logistics activity. In this study, logistics centers that allow evaluating green logistics as a whole are discussed. For this, at the first stage, the basic criteria of green logistics applications available in the literature were determined. In the second stage, the optimum green logistics center location was selected among the nine logistics centers opened in Turkey according to these criteria. ORESTE (Organisation, rangement et synthèse de données relationnelles -in French) method, which is one of the multi-criteria decision-making methods, was used for optimum site selection. The reason why the ORESTE method is preferred is that it provides the opportunity to compare alternatives in different criteria sets.

The aim of this study is to evaluate the logistics centers opened in our country by providing an environmental approach, including green logistics activities, and to reveal their suitability for green logistics.

Keywords: Sustainability, logistics, green logistics, ORESTE, logistic center

HEPATOSELLÜLER KARSİNOM'DA TEDAVİ MALİYETİ VE TEDAVİ YÖNTEMLERİNİN SAĞKALIM ÜZERİNE ETKİSİ

THE EFFECT OF TREATMENT COST AND METHODS ON SURVIVAL IN HEPATOCELLULAR CARCINOMA

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ÖZET

Hepatosellüler karsinom (HSK) tanısı alan hastaların sağkalım verileri farklılık göstermektedir. Çalışmamızın amacı, HSK tanısı alan sirotik hastaların tedavi ile ilişkili olarak maliyet ve sağkalım verilerini incelemektir. Mayıs 1998 ve Mart 2015 tarihleri arasında tek merkezde tedavi gören, 157 hastanın bilgileri tarandı. Etiyoloji, biyopsi sonucu, Child-Pugh-Turcotte (CPT) skoru, BCLC evrelemesi, tedavi cevabı, maliyet ve prognostik faktörleri kaydedildi. Siroz komplikasyonları ve diğer hastalıklara bağlı vefat edenler çalışmadan çıkarıldı. 157 hastanın (% 82.8 erkek) tanı anındaki ortalama yaşı 62.2±11.4 yıl idi. Etiyoloji de HBV (% 56), HCV (% 26.1), kriptojenik (%11.7) ve diğer patolojiler (%19.1) mevcuttu. Ortanca kitle boyutu 4 (0.5-28) cm'di. Kitle sayılarına göre % 46.5 tek kitle, % 19.1 inde 2 adet kitle ve % 34.2 hastada ise ≥3 kitle saptandı. Uygulanan tedaviler, palyatif (n:53), TAKE (n:53), RF (n:14), radyoembolizasyon (n:3), alkol (n:5) ve kemoterapi (n:14) idi. Rezeksiyon (n:9) ve transplantasyon (n:6) sadece birkaç hasta için uygundu. Tedavi öncesi, 114 (% 72.6) hasta CPT A/B idi. Fakat başlangıçta tüm hastaların % 59.3 (n:93)'ünde BCLC evrelemesi B/C idi. Ortalama sağkalım 11.6±0.9 ay ve 1 senelik sağkalım olasılığı % 33 olarak saptandı. Kaplan-Meier analizi ile incelendiğinde tedavi öncesi CPT skoru, BCLC evresi (evre B: HR=9.58, % 95 G.A.=1.03-88.98, p=0.047; evre C: HR=13.41, % 95 G.A.=1.37-130.85, p=0.026, evre D: HR=24.72, % 95 G.A.=2.33-262.46, p=0.008), TAKE yapılması (HR=2.36, % 95 G.A.=1.18-4.71, p=0.015) ve rezeksiyon yapılmasının sağkalımla anlamlı olarak ilişkili olduğu bulundu. Cox regresyon analizine göre BCLC evrelemesinin, sağkalım üzerinde bağımsız risk faktörü olduğu saptandı. Tedavi modaliteleri arasında maliyet açısından anlamlı fark saptanmadı (p= 0.656). HSK tanı anında, öncelikle rezeksiyon, transplantasyon planlanmalıdır. Küçük kitlelerin varlığında ise RF için değerlendirilmelidir. Erken dönemde uygulanan küratif tedaviler, palyatif bakım ve lokal ablatif tedavilere göre, maliyet ve sağkalım açısından daha etkin olduğu gösterilmiştir.

Anahtar Kelimeler: Hepatosellüler Karsinom, Siroz, Tedavi Metodları, Sağkalım, Maliyet.

ABSTRACT

Survival data for patients with hepatocellular carcinoma (HCC) is heterogeneous. We aimed to analyze the survival and cost related with treatment in cirrhotic patients with HCC. From May 1998 to March 2015, 157 patients with HCC diagnosed and treated in a single center were assessed retrospectively. Etiology, biopsy findings, Child-Pugh-Turcotte (CPT) scores, BCLC stages, treatment response, cost and prognostic factors were recorded. Deaths due to complications of cirrhosis or other diseases were excluded. 157 patients (82.8% male) with mean age of 62.2 ± 11.4 years at diagnosis were included. Etiology was HBV (56%), HCV (26.1%), cryptogenic (11.5%) and others (6.4%). Median lesion diameter was 4 (0.5-28) cm. 1, 2 and ≥ 3 lesions were present in 46.5%, 19.1% and 34.2% of patients, respectively. Treatments were as follows: palliative (n: 53), TACE (n: 53), RF (n: 14), radioembolisation (n: 3), alcohol (n: 5), and chemotherapy (n: 14). Resection (n: 9) and transplantation (n: 6) were amenable in few patients. Before treatment, 114 (72.6%) patients were in CPT A/B group, but 93 (59.3%) of all patients were initially staged as BCLC-C/D. Overall survival was 11.6 ± 0.9 months with 32% probability of surviving 1 year. Kaplan-Meier analysis revealed pre-treatment CPT score, BCLC stage, TACE and resection as factors affecting survival significantly. Cox regression defined BCLC stage (stage B: HR=9.58, 95% CI=1.03-88.98, $p=0.047$; stage C: HR=13.41, 95% CI=1.37-130.85, $p=0.026$, stage D: HR=24.72, 95% CI=2.33-262.46, $p=0.008$) and TACE (HR=2.36, 95% CI=1.18-4.71, $p=0.015$) as independent predictors of survival. Treatments modalities were not significantly different for cost ($p=0.656$) HCC was usually diagnosed at late stage and treatment modalities were similar in terms of cost. BCLC stage and TACE were predictive on survival.

Keywords: Hepatocellular Carcinoma, Cirrhosis, Treatment Methods, Survival, Cost effectiveness

**ORTAOKUL ÖĞRENCİLERİNİN BİLİMSSEL EPİSTEMOLOJİK İNANÇLARININ DAİMİ
BİLİM MOTİVASYONLARINA ETKİSİNİN İNCELENMESİ**

**INVESTIGATION OF THE EFFECTS OF SECONDARY SCHOOL STUDENTS' SCIENTIFIC
EPISTEMOLOGICAL BELIEFS ON PERMANENT SCIENCE MOTIVATION**

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ÖZET

Bu çalışmada öğrencilerin bilimsel epistemolojik inanç ile daimi bilim motivasyonları arasındaki ilişkinin tespit edilmesi ve düzeyinin belirlenmesi amaçlanmaktadır. Bu çalışma korelasyona dayalı ilişkisel tarama modeli esas alınarak oluşturulmuştur. Çalışmanın katılımcılarını 2020-2021 öğretim yılı bahar döneminde öğrenim gören 5, 7, 8. sınıf 233 ortaokul öğrencisi oluşturmuştur. Veriler yüz yüze gönüllü 251 ortaokul öğrencisinin katılım ile sağlanmıştır. Çalışmadan elde edilen veriler SPSS 18 paket programı kullanılarak veriler %5 anlamlılık düzeyinde yorumlanmıştır.

Fen bilimleri dersine ilişkin katılımcıların motivasyon ölçeğinin alt boyutu olarak cinsiyet faktörü üzerinde etkisine bakıldığında kızlar ve erkeklerde olan motivasyon ortalama puanının yakın olduğu görülmektedir. Benzer şekilde sınıf faktörü bağlamında incelendiğinde 7.sınıfların motivasyon ölçeği ortalamalarının birbirine yakın olduğu görülmektedir. Epistemolojik inanç ölçeğine cinsiyet alt demografisi kapsamında bakıldığında kız öğrencilerdeki ortalamanın erkek öğrencilerdeki ortalamadan daha yüksek olduğu görülmüştür. Benzer şekilde sınıf faktörü açısından bakıldığında 5.sınıflardaki ortalamanın daha yüksek olduğu söylenebilir. Cinsiyet faktörü bağlamında karne puanlarının toplamına bakıldığında kız öğrencilerin erkek öğrencilere göre not ortalamalarının daha yüksek olduğu görülürken sınıf faktörü açısından 7.sınıflardaki ortalamanın daha yüksek olduğu görülmüştür. Korelasyon analizi bulgularına bakıldığında fene yönelik epistemolojik inançla daimi bilim motivasyonu arasında anlamlı bir ilişki bulunduğu tespit edilmiştir. Regresyon analizi bulgularına göre epistemolojik inancın daimi bilim motivasyonu üzerinde anlamlı bir etkisi olduğu ortaya çıkmıştır beta değeri . 191 olarak hesaplanmıştır.

Anahtar Kelimeler: *bilimsel epistemolojik inanç, daimi bilim motivasyonu, ortaokul öğrencileri, fen bilimleri*

ABSTRACT

In this study, it is aimed to determine the relationship between students' scientific epistemological belief and permanent science motivation and to determine its level. This study was created on the basis of correlation-based relational screening model. The participants of the study consisted of 233 secondary school students in the 5th, 7th, and 8th grades studying in the spring semester of the 2020-2021 academic year. The data were obtained with the participation of 251 volunteer secondary school students face to face. The data obtained from the study were interpreted at the 5% significance level by using the SPSS 18 package program.

When the effect of the participants in the science course on the gender factor as a sub-dimension of the motivation scale is examined, it is seen that the average motivation score for girls and boys is close. Similarly, when examined in the context of the class factor, it is seen that the motivation scale averages of the 7th graders are close to each other. When the epistemological belief scale is examined within the scope of gender sub-demography, it is seen that the average of female students is higher than the average of male students. Similarly, in terms of class factor, it can be said that the average in 5th grades is higher.

When the sum of the report card scores in the context of the gender factor is examined, it is seen that the grade averages of the female students are higher than the male students, while the average of the 7th grade students in terms of the class factor is higher. Considering the correlation analysis findings, it was determined that there was a significant relationship between epistemological belief in science and permanent science motivation. According to the regression analysis findings, it was revealed that epistemological belief had a significant effect on persistent science motivation beta value. It was calculated as 191.

Keywords: scientific epistemological belief, persistent science motivation, secondary school students, science

**MORPHOLOGY AND PHASE FORMATION EXAMINATION OF BRASS FILMS
FABRICATED BY ELECTRODEPOSITION USING DIFFERENT PULSE FREQUENCIES**

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ABSTRACT

Brass or Cu-Zn alloys have several fine properties making them ideal candidates for many applications. Films of Cu-Zn alloys and their derivatives containing more elements attract attention due to technological and scientific reasons. For example when Cu-Zn alloys are fabricated with certain properties, they have shape memory feature, which make them ideal materials for actuator applications. Electrodeposition of Cu-Zn has been studied widely using several solution types and parameters. It is important to reveal effects of electrodeposition parameters on film properties to be able to obtain films with desired properties. There are several solution types for electrodeposition as alternatives to cyanide solutions. One of these cyanide-free solutions is pyrophosphate solutions which were used in this study. We carried out some electrodeposition processes from solutions containing copper and zinc ion precursors. As the process variable, electrodeposition pulse frequency was used. Cu-Zn films were fabricated on stainless steel substrates under different deposition frequencies. To reveal physical properties of films, suitable examination techniques were used. Both phase formation and morphology are important factors for films since they effect many material properties. Phase formation was investigated using x-ray diffraction technique. Scanning electron microscopy was used to determine morphology of samples. Electron microscope images were taken at several magnifications. According to x-ray diffraction results, all films showed alpha phase structure with high copper/zinc ratio. This phase basically has the same structure with copper with some substitutions of Cu with Zinc. That is, some zinc atoms replaced copper atoms in crystal structure. Electron microscope images taken at several magnifications revealed effects of pulse frequency on surface morphology. Moreover, they give idea about crystallite shape and size distribution of samples. As a conclusion it can be stated that examined pulse frequency range all resulted with alpha crystal phase structure indicating Cu rich films. Electron microscopy images revealed some differences in crystallite characteristics depending on electrodeposition frequency.

Keywords: Brass, pulse electrodeposition, coatings, films, characterization.

**DEPOSITION CHARACTERISTICS AND CORROSION TESTS OF COATINGS
ELECTRODEPOSITED UNDER DIFFERENT PULSE FREQUENCIES FROM SOLUTIONS
CONTAINING COPPER AND ZINC PRECURSORS**

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ABSTRACT

Copper-zinc alloys are ideal materials for many applications either in bulk or film forms due to several fine features. Some of potential application fields for Cu-Zn films or coatings include corrosion protection, use as interlayer, aesthetic applications etc. Moreover, Cu-Zn and some ternary alloys derived from Cu-Zn can be used as actuator materials due to shape memory property of some specific alloys. Therefore, there are many studies concerning electrodeposition properties of Cu-Zn alloys. In this study, we investigated effect of electrodeposition frequency during electrodeposition of films using pulse electrodeposition method from solutions containing Cu and Zn ion precursors. It was aimed to form Cu-Zn alloys. In pulse electrodeposition instead of a continuous current, repetitive pulses are used for film formation. It was aimed to observe differences on applied potential vs.time graphs and resultant film compositions depending on electrodeposition pulse frequencies. For electrodeposition, pyrophosphate solutions containing Cu and Zn precursors were used as an alternative to cyanide solutions. Two types of substrates were used. Stainless steel plates were used to determine elemental composition of coatings. EDS method was used to determine Cu ratio in brass. Steel rods were coated with same solutions for each frequency value. These specimens were used to obtain electrodeposition potential vs. time graphs and corrosion tests were carried out using these specimens. Elemental composition of coatings on steel rods were not determined based on the assumption that these coatings have very similar compositions with their counterparts fabricated on plate substrates since they were fabricated with same parameters. For corrosion tests electrochemical testing methods were used. First, samples were subjected to open circuit potential test both for recording potential values and some stabilization. Then, electrochemical impedance tests were carried out. Finally, several electrochemical parameters such as corrosion potential were determined. Corrosion test result were compared for specimens electrodeposited at different frequencies. In addition, these results were compared with uncoated steel rod substrate. Electrodeposition potential-time graphs give idea about electrodeposition characteristics. Films formed on steel plates show elemental compositions in a narrow band, all of them being rich in copper. Corrosion test results show similar corrosion responses for specimens fabricated under different frequencies.

Keywords: Brass, pulse electrodeposition, coatings, films, corrosion.

**ELEKTRİK DAĞITIM ŞEBEKELERİNDE COĞRAFI BİLGİ SİSTEMİ UYGULAMALARI
VE GELİŞİMLERİ**

**GEOGRAPHIC INFORMATION SYSTEM APPLICATIONS AND DEVELOPMENTS IN
ELECTRICITY DISTRIBUTION NETWORKS**

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ÖZET

Günümüzde azalan enerji kaynakları ve artan popülasyondan kaynaklı tüketim enerji yönetimini zorlaştırmaktadır. Enerji yönetimi için firmalar daha doğru planlama, yatırım ve bakım maliyetleri yaratmak için bilgi teknolojilerinden faydalanmaktadır. Elektrik dağıtım firmaları bölgedeki abonelere dağıtılan elektrik enerjisini ve şebekesini yönetmek için farklı sistemler ve çözümler kullanmaktadır. Coğrafi Bilgi Sistemi (CBS) ise dağıtım firmalarının şebeke yönetimi ve diğer süreçlerinde aktif bir rol oynayan bilgi teknolojisi.

Bu çalışmada, farklı çözümler kullanan dağıtım firmalarının süreçlerinde ve iş gerçekleştirmelerinde, hangi problemleri çözdükleri ve verimliliği nasıl artırdıkları araştırılmıştır. Literatür ve sektör çözümleri araştırması sonucu belirlenen CBS tabanlı masaüstü, web, mobil ve servis çözümleri 5 ana başlık altında özetlenmiştir. Veri yönetimi, simülasyon, analiz, raporlama ve entegrasyonlar başlıkları altında detaylı şekilde irdelenmiştir ve değerlendirilmiştir. Bu başlıklar altında şebeke sayısallaştırma ve güncelleme yöntemleri, şebeke topoloji kuralları ve analizi, tematik haritalarda görsel, yönetmeliklere ve standartlara uygun raporlamalar, kurum ihtiyaçları doğrultusunda dış sistemler ile farklı yöntemlerle yapılan entegrasyonlar konuları anlatılmıştır.

Sonuç olarak, kurulabilecek ve diğer sistemlerle entegre edilecek CBS sistemini doğru ve etkili yönetebilmesi için gereken sistem öncelikleri ve çözüm önerileri belirlenmiş ve bulgular paylaşılmıştır. Dağıtım şirketlerinin verimli iş süreçleri, yatırım, planlama ve bakım maliyetlerini azaltabilmesi, optimal iş yükünün ortaya çıkartılması ve teknolojik anlamda gelecekte ortaya çıkacak çözüm ve sistemlere altyapı sağlaması için önerilerde bulunulması düşünülmektedir. Sonuçların elektrik dağıtım şirketleri ve bu şirketlerdeki karar vericiler, sektörde çözümler üreten firma/kurumlara örnek çözüm tasarımı ve kurgusu teşkil etmesi amaçlanmıştır.

Anahtar kelimeler: Coğrafi Bilgi Sistemi (CBS), Elektrik Dağıtım Altyapı Bilgi Sistemi (Edabis), Elektrik Dağıtım Şebekesi, Elektrik Dağıtım Şirketleri (EDAŞ), Yazılım, Entegrasyon

ABSTRACT

Today, the decreasing energy resources and the consumption due to the increasing population complicate the energy management. For energy management, companies benefit from information technologies to create more accurate planning, investment and maintenance costs. Electricity distribution companies use different systems and solutions to manage the electrical energy and grid distributed to subscribers in the region. Geographic Information System (GIS) is an information technology that plays an active role in network management and other processes of distribution companies.

In this study, it has been researched that distribution companies using different solutions solve the problems in their processes and business realizations and how they increase productivity. GIS-based desktop, web, mobile and service solutions determined as a result of literature and industry solution research are summarized under 5 main headings. Data management has been examined and evaluated in detail under the titles of simulation, analysis, reporting and integrations. Under these titles, network digitization and update methods, network topology rules and analysis, visuals on thematic maps, reporting in accordance with regulations and standards, integrations with external systems with different methods in line with the needs of the institution are explained.

As a result, the system priorities and solution suggestions required for the correct and effective management of the GIS system that can be established and integrated with other systems have been determined and the findings have been shared. It is thought to make suggestions for distribution companies to reduce their efficient business processes, investment, planning and maintenance costs, to reveal the optimal workload, and to provide infrastructure for solutions and systems that will emerge in the future in terms of technology. It is aimed that the results will constitute an exemplary solution design and setup for electricity distribution companies and decision makers in these companies, companies/institutions producing solutions in the sector.

Keywords: Geographic Information System (GIS), Electricity Distribution Infrastructure Information System (Edabis), Electricity Distribution Network, Electricity Distribution Companies, Software, Integration

LEARNING STRATEGIES AND VOCABULARY LEARNING

ÖĞRENME STRATEJİLERİ VE SÖZCÜK ÖĞRENME

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ÖZET

Bu çalışmamızla, yabancı dil öğrenen öğrencilerin hedef dili öğrenirken sıklıkla başvurdukları dil öğrenme stratejilerini saptamayı ve strateji kullanımında cinsiyet ve bulundukları sınıfın belirleyici olup olmadığını ortaya koymayı amaçlıyoruz. Betimsel tarama modelinin kullanıldığı bu araştırma, Atatürk Üniversitesi Kazım Karabekir Eğitim Fakültesi Yabancı Diller Eğitimi Bölümü Alman Dili Eğitimi Anabilim Dalı'nın birinci, ikinci, üçüncü ve dördüncü sınıflarında öğrenim gören 128 kadın, 39 erkek olmak üzere toplam 167 öğrenci üzerinde yürütülmüştür. Araştırmaya yönelik veriler Kocaman ve Kızılkaya Cumaoğlu (2014) tarafından geliştirilen yabancı dil kelime öğreniminde kullanılan stratejileri belirleyen 32 maddeden oluşan ölçek temelinde toplanmıştır. Veri toplamaya yönelik anketimiz "Bellek Stratejileri", "Bilişsel Stratejiler", "Telafi Stratejileri", "Üst-Bilişsel Stratejiler", "Duyuşsal Stratejiler" ve "Sosyal Stratejileri" gibi altı öğrenme stratejisini ölçmeye yönelik sorulardan oluşmaktadır. "Öğrenme stratejileri ve sözcük öğrenimi ilişkisinin incelenmesi" amacıyla yapılan bu çalışmanın örnek genişliğini hesaplamada, her değişken için Power (Testin Gücü) en az %80 ve 1. tip hata %5 alınarak belirlenmiştir. Çalışmadaki strateji alt boyut puanlarının normal dağılıp dağılmadığına Kolmogorov-Smirnov ($n>50$) ve Skewness-Kurtosis testleri ile bakılmış ve ölçümler normal dağıldığından dolayı Parametrik testler uygulanmıştır. Araştırmamızla, üniversite öğrencilerinin yabancı dil öğrenirken strateji kullanımında cinsiyete dayalı önemli bir fark oluşmadığı saptanmıştır. Strateji kullanımında sınıfsal anlamda da önemli bir fark saptanamamakla birlikte, "Telafi Stratejileri" ve "Üst Bilişsel Stratejiler" bakımından birinci sınıfların diğer sınıflardan ayrıştıkları gözlemlenmiştir. Deneysel araştırma verilerine göre, öğrencilerin hepsi de sözcük öğrenimi sırasında az ya da çok sözcük öğrenme stratejilerine başvurmaktadır.

Anahtar Kelimeler: Sözcük Öğrenme, Yabancı Dil, Öğrenme Stratejileri, Bellek Stratejileri, Bilişsel Stratejiler, Telafi Stratejileri, Sosyal Stratejiler

ABSTRACT

With this study, we aim to determine the language learning strategies that foreign language learners frequently use while learning the target language and to reveal whether gender and the class they are in are determinative in the use of strategy. This research, in which the descriptive scanning model was used, was conducted on a total of 167 students, 128 female and 39 male, studying in the first, second, third and fourth grades of Atatürk University Kazım Karabekir Faculty of Education, Department of Foreign Language Education, Department of German Language Education. The data for the research was collected based on a 32-item scale developed by Kocaman and Kızılkaya Cumaoğlu (2014), which determines the strategies used in foreign language vocabulary learning. Our questionnaire for data collection consists of questions to measure six learning strategies such as "Memory Strategies", "Cognitive Strategies", "Compensatory Strategies", "Meta-Cognitive Strategies", "Affective Strategies" and "Social Strategies". In calculating the sample size of this study, which was conducted for the purpose of "examination of the relationship between learning strategies and vocabulary learning", Power (Test Power) was determined by taking at least 80% and type 1 error 5% for each variable. Kolmogorov-Smirnov ($n>50$) and Skewness-Kurtosis tests were used to determine whether the strategy sub-dimension scores in the study were normally distributed and because the measurements were

normally distributed, parametric tests were applied. In our study, it was determined that there was no significant gender-based difference in the use of strategy by university students while learning a foreign language. Although no significant class difference could be detected in the use of strategy, it was observed that first graders differed from other classes in terms of "Compensation Strategies" and "Metacognitive Strategies". According to experimental research data, all students use more or less vocabulary learning strategies during vocabulary learning.

Keywords: Vocabulary Learning, Foreign Language, Learning Strategies, Memory Strategies, Cognitive Strategies, Compensatory Strategies, Social Strategies

KONTAKT MANİFOLDLAR ÜZERİNDE EĞRİLERİN BAZI KARAKTERİZASYONLARI

SOME CHARACTERIZATIONS OF CURVES ON CONTACT MANIFOLDS

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ÖZET

Manifoldlar üzerinde eğriler bir çok yazar tarafından çalışılmıştır. Özellikle contact ve para-contact manifoldlar üzerinde eğriler bir çok yazarın dikkatini çekmiş ve çalışılmıştır.

$M, (\phi, \xi, \eta)$ hemen hemen kontakt yapısı ile birlikte

$$\begin{aligned}\phi &= -I + \eta \otimes \xi, & \eta(\xi) &= 1, \\ \phi(\xi) &= 0, & \eta \circ \phi &= 0.\end{aligned}$$

şartlarını sağlayan $(1,1)$ tipinde ϕ tensör alanı, ξ global vektör alanı ve bir η 1-formu içeren $(2n+1)$ -boyutlu diferensiyellenebilir bir manifold olsun.

O halde, η, M üzerinde bir kontakt form; ξ , Reeb vektör alanı; g , metrik ise (M, ϕ, ξ, η, g) bir kontakt manifold olarak adlandırılır. Eğer g metriğini Lorentzian metrik olarak alırsak

(M, ϕ, ξ, η, g) kontakt Lorentzian manifold olarak adlandırılır.

Bu çalışmada bir $\gamma: I \rightarrow M$ eğrisini M üzerinde birim hızlı eğri olarak tanımlayarak M manifoldu üzerinde γ eğrisinin bazı karakterizasyonlarını vereceğiz.

Anahtar Kelimeler: Kontakt manifold, eğri, çatı.

ABSTRACT

The differential geometry of curves in manifolds has been investigated by several authors. Especially the curves in contact and para-contact manifolds drew attention and have been studied by many authors.

Let M be a $(2n+1)$ -dimensional differentiable manifold with an almost contact structure

(ϕ, ξ, η) , consists of a tensor field ϕ of $(1,1)$, a global vector field ξ and a 1-form η such that

$$\begin{aligned}\phi &= -I + \eta \otimes \xi, & \eta(\xi) &= 1, \\ \phi(\xi) &= 0, & \eta \circ \phi &= 0.\end{aligned}$$

Then if η is a contact form on M , ξ is the associated Reeb vector field, g is an associated metric and (M, ϕ, ξ, η, g) is called a contact manifold. If we take the metric g as a compatible Lorentzian metric then, (M, ϕ, ξ, η, g) is called a contact Lorentzian manifold.

In this study we define $\gamma: I \rightarrow M$ as a unit speed curve in M and give some characterizations of the curve γ on the manifold M .

Keywords: Contact manifold, curve, frame.

SUSTAINABLE FINANCIAL ECOSYSTEMS IN DIGITAL ERA

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ABSTRACT

One of the current global trends in a circular economy is the creation of sustainable financial ecosystems. The global financial ecosystem includes global, regional and national associations of financial institutions, regulators and other stakeholders, as well as the financial ecosystems of individual countries. The central bank plays a key role in creating a sustainable financial ecosystem in the country, which must provide the necessary conditions for the functioning of all financial market players. The digitalization of the economy and financial system has led to the emergence of new actors in financial ecosystems - fintech companies. It is necessary to regulate fintech ecosystems in terms of remote technologies spread and growing demand for fintech services. An important role in building a sustainable fintech ecosystem at the national level is played by regulators, who are responsible for creating an adequate regulatory framework for regulating fintech activities and stimulating their development. There is a global tendency among regulators to prioritize the development of fintech. In addition to assisting regulators, business participation in building a fintech ecosystem is also important. The basis for the development of fintech is investment in innovation, especially venture capital, which is one of the incentives for the creation of new companies and technologies. In recent years, there has been a global trend to increase investment in fintech. Despite economic volatility, the largest US banks continue to make strategic investments in fintech companies operating in various niches. The pandemic has made digitalisation a top priority for any business, including financial. In the context of building sustainable financial ecosystems, the banking business is transforming, expanding the boundaries of banking and reorienting from the traditional banking operations that form the basis of the banking business to the implementing of digital banking services, cooperation with fintech companies.

Key words: bank, fintech, financial ecosystem.

KURTULUŞ SAVAŞI VE ANKARA
ANKARA AND WAR OF INDEPENDENCE

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ÖZET

Osmanlı Devleti askeri, ekonomik, idari, kültürel, siyasi, sosyal alanlarda gerek doğrudan, gerekse dolaylı mücadelesi neticesinde yenik düşmüş 1914-1920 ve sonrası top yekun yapılan çok çetin milli mücadele sonucunda, kazanan Anadolu olmuştur. 23 Nisan 1920 tarihinde Ankara'da küllerinden yeniden doğarak milli varlığımız tüm dünyaya Türkiye Büyük Millet Meclisinin açılışı ile duyurulmuştur. Ankara(a'nkara), Osmanlı Devleti'nin yükseliş, gerileme dönemine paralel olarak askeri, ekonomik, idari, siyasi ve sosyal yönden güce sahip olmuş, kaybetmiş kentlerden biridir. Yalnız coğrafi konumu gereği tarihi süreçte, geniş bir bölgeye merkezlik yapmıştır. Kervan yolları üzerinde olması nedeniyle, İstanbul, Bursa, Manisa, Kayseri, Konya, Karaman ve bu gibi ticaret merkezleriyle ticari ilişkilerini yürütmüştür. Özellikle sof üretiminde öndedir. İpek Yolu ile doğrudan bağlantılı olduğu ticaret yolları: Bursa > Tebriz > Halep > Şam. Öte yandan Ankara > Antalya > İskenderiye > Arabistan. Bugün ayakta bulunan han, pazar yerleri, bedestenler, kentin ticari faaliyetlerinin canlı kanıtıdır. 1919 tarihinde her Osmanlı kenti gibi Ankara'da düşman işgali altındadır. 20. Kolordu Komutanlığı Ankara'dadır. Komutanı Ali Fuat Paşa'dır. O günün koşullarında İzmir'in Yunanlılarca işgalinde, ülke genelinde mitingler yapılması çağrısına Ankara halkı mitingler yaparak karşılık verir. Ekonomik yönü olduğu kadar, sosyal yönü olan Ahilik teşkilatı yüzyıllardır Ankara'da yaşatılmaktadır. Bu konumda kısa zamanda Müdafaa-i Hukuk- u Milliye Merkezi olur ve bunu izleyen çeşitli örgütler kurulur. Bu girişimlere, çokta iddialı olmayan bir görünüm sergileyen halk, kısa zamanda destek vererek, çalışmalarına güç katar. Halk gün ve gün candan faaliyetlerini sürdürerek, Ankara'nın Milli Mücadelenin merkezi vasfını kazanmasına zemin hazırlarlar. Ankara, bu konumuyla, 1920 tarihinde yeniden tarih sahnesinde yerini alır. Osmanlı toplumunun yeni umudu, Yeni Türkiye Cumhuriyeti'nin başkenti olur.

Yukarıda kısaca 1919 öncesi, sonrası verilen bilgilerden hareketle, gerek arşiv, gerekse seyahatnameler(Evliya Çelebi Seyahatnamesi) ve hakkında yazılmış eserler, klasik bir yöntemle incelenerek, Kurtuluş Savaşına ve Ankara'nın o günkü koşul ve konumuna kısa bir göz atılacaktır.

Anahtar Sözcükler: Ankara, İstiklal Savaşı, Osmanlı Devleti

ABSTRACT

The Ottoman State, which was surrounded by the dispute states, is defeated in the military, economic, administrative, cultural, political and social fields as a result of its direct and indirect struggle. As a result of very arduous national struggle and after condone 1914-1920, winning becomes Anatolia and Ankara on April 23, 1920 Emerging from the ashes again, our national existence is announced to the whole world with the opening of the Grand National Assembly of Turkey. It is a city which has had economic and political power in parallel with the rise and decline period of the Ottoman Empire alone. However, due to its geographical location, it has centered on a wide region in the historical process. Due to its location on the silk roads, it has conducted commercial relations with trade centers such As İstanbul, Bursa, Manisa, Kayseri, Konya and Karaman and the like. It is especially in the production of sof. Directly connected trade routes: Bursa > Tabriz and Aleppo > Damascus route, that is Silk Road. Other, Ankara > Antalya > Alexandria > Arabia. Some inns, bazaars, which are still standing are living proof of the commercial activities of the city. In 1919 like every Ottoman city, Ankara is under enemy occupation. 20. Corps Command is in Ankara. Its commander is Ali Fuat Pasha. In the invasion by the Greeks, the people of Ankara immediately responded to the call for rallies throughout the country. Ahilik

Organization, which has social aspect as well as economic aspect, has been living in Ankara for centuries. In position, the National Defense Center for the Defense of Rights has been established and various organizations have been established in a short time. These initiatives, the people who show a very unpretentious view by providing support in a short time, add power to the work. The people continued their activities day by day and prepared the ground for Ankara to gain the central character of the National Struggle. Ankara takes its place in the history scene again in 1920 with its position above and new hope of Ottoman society then the capital of the new Republic of Turkey.

Briefly above the information provided before and after 1919, and movement, both archival and both travelogues and written about works, examining a conventional way, why selected centers in Ankara War of Independence, after the First Grand National Assembly of Turkey causes gathered in Ankara and Ankara answers to the questions became the capital of the Republic of Turkey will be searched.

Key Words: Ankara, Turkey, War of Independence, the Ottoman Empire.

KARŞILAŞTIRMA

TO COMPARE

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ÖZET

Farklı coğrafyada konuşula gelen Türkçe, gelişme sürecinde Köktürk, Uygur, Soğd, Latin, Kiril, Mani, Brahmani, Tibet, Süryani, Arap, Grek, Ermeni, İbrani olmak üzere on üç farklı alfabe ile yazıldığı bilinmektedir. Türk dili Uygurlar döneminde, Sanskritçe, Toharca, Soğudca, Çincenin etkisinde kalır. Selçuklu ve Osmanlı devletleri döneminde Arapça, Farsçanın etkisi çokça görülür. Cumhuriyet döneminde İngilizce, Fransızcanın ve Rusçanın(Türk Devletleri coğrafyasında) etkisinde kalır. Özellikle 1980 sonrası Türk devletleri ve diğer Türk halklarının bağımsızlıklarına kavuşmaları, Türk dili kendi ülkelerinde devlet dili olarak kabul edildikten sonra Türk dilinin yaşam kaynakları genişlemiştir denilebilir. Bu durumunda Türk dilinin konuşulduğu coğrafyada gelişme göstermesi için önemli bir adım olduğu açıktır. Öte yandan geçmişe bakıldığında, Türk dili denilince sürekliliği açısından ilk akla gelen Karamanoğlu Mehmet Bey ve Ali Şir Neva’i ve Mustafa Kemal Atatürk’ün yanı sıra gerek kütüphanelerde gerekse müzelerde sayıca çok kaynak bulunmaktadır. Bu Türkçe kaynakların başlıca özelliği çeşitli diller ve dini inanışların iç içe yaşandığı bir coğrafyaya ait olmalarıdır. Bu kaynaklara geniş bir çerçeveden bakıldığında, Türkiye Türkçesinin birikimi ile Avrasya coğrafyasında konuşulan Türkçenin birikiminin ortak özellikler taşıdığı görülür. Yalnız bir dil hangi coğrafyada konuşulursa konuşulsun, söz varlığı o dilin zenginliğini gösterir. Türk diline söz varlığı açısından bakıldığında zengin söz varlığına sahip olduğu görülür. Türk dili denilince ilk akla Türkiye, Azerbaycan, Başkurt, Kazakistan, Kırgızistan, Özbekistan, Türkmenistan ve Çin Uygur Bölgesi gelmektedir. Türk Dilinin yaşayan zengin söz varlığını, Türkiye Türkçesi ile diğer Azerbaycan, Başkurt, Kazak, Kırgız, Özbek, Tatar, Türkmen, Uygur Türkçelerinin söz varlığı ile Türkçenin ses yapısında, ünlüler ile ünlüler, ünsüzler ile ünsüzler arasındaki uyum kuralını göre ve ünsüz değişmeler ve ses düşmeleri ve eklemelere örnekler verilmek suretiyle bir çalışma yapılmıştır.

Klasik bir yöntemle yapmış olduğum bu çalışma, gelecekte Türk dilinin söz varlığıyla ilgili çalışacak araştırmacıların ve akademisyenlerin, çalışmalarına, katkı yapacağı inancıyla yapılmıştır.

Anahtar Kelimeler: Türk Dili, Fonoloji, Karşılaştırma, Söz varlığı,

ABSTRACT

It is known that Turkish which is spoken in different geographies was written in thirteen different alphabets as Köktürk, Uyghur, Sogdian, Latin, Cyrillic, Mani, Brahmani, Tibetan, Syriac, Arabic, Greek, Armenian, Hebrew. The Turkish language is under the influence of Sanskrit, Tohar, Sogudian and Chinese during the Uighur period. In the period of Seljuk and Ottoman states the influence of Arabic and Persian is seen a lot. In the Republican period it was influenced by English, French and Russian (the Turkish States). It can be said that the living resources of the Turkish language expanded especially after the Turkish states and other Turkish peoples gained their independence after 1980, and Turkish was accepted as the state language in their own countries. In this case, it is clear that it is an important step for the development of the Turkish language in the geography where it is spoken. On the other hand, in retrospect, there are many sources in libraries and museum, as well as Karamonoğlu Mehmet Bey and Ali Şir Neva’i and Gazi Mustafa Kemal Atatürk, who come to mind first in terms of continuity when the Turkish Language is mentioned. The main feature of these Turkish sources is that they belong to geography where various language and religious beliefs are intertwined. When these sources are viewed from a board perspective, it is seen that the accumulation of Türkiye Turkish and the Turkish spoken in

the Eurasian geography have common features. When we look at the Turkish language in terms of vocabulary, it is seen that it has a rich vocabulary. When the Turkish language is mentioned, the first thing that comes to mind is Turkey, Azerbaijan, Bashkir, Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan and the Chinese Uyghur Region. The rich living vocabulary of the Turkish language, the vocabulary of Türkiye Turkish and other Azerbaijani, Bashkir, Kazakh, Kyrgyz, Uzbek, Tatar, Turkmen, Uyghur Turkish and the sound structure of Turkish, according to the harmony rule between vowels and vowels, consonants and consonants, and also consonant changes. And again, a study was made by giving examples of sound reductions and additions.

This study which I have done with a classical method has been done with the belief that it will contribute to the studies of researchers and academicians who will work on the vocabulary of the Turkish language in the future.

Keywords: Turkish Language, Dialects, Phonology, Comparison, Vocabulary.

TÜRKİYE'DE ETİK LİDERLİK İLE İLGİLİ YAZILAN TEZLER ÜZERİNE BİR İÇERİK ANALİZİ

A CONTENT ANALYSIS ON THE THESIS WRITTEN ABOUT ETHICAL LEADERSHIP IN TURKEY

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ÖZET

Organizasyonlarda liderliğin önemi uzun yıllardır tartışılmaktadır. Bu tartışmaların sonucunda liderlik kavramının farklı birçok türü ortaya çıkmaktadır. Bu türlerden biri olan etik liderlik ise liderliğin etik yönünü vurgulamaktadır. Çalışanların etik ve ahlaki davranışlarının ödüllendirildiği etik dışı davranışlarının da cezalandırıldığı etik liderlik bu çalışmanın ana konusunu oluşturmaktadır. Dolayısıyla çalışmanın amacı Türkiye’de 2010-2020 yılları arasında YÖKTEZ veri tabanında yayımlanmış olan tezlerin içerik analizi ile incelenmesidir. Bu amaç doğrultusunda, nitel araştırma yöntemlerinden olan içerik analizi ile içerik analizinin alt yöntemleri olarak ele alınan sıklık ve yüzde yöntemleri kullanılmıştır. “Etik liderlik” kavramı ile yapılan arama sonucunda toplam 151 teze ulaşılmıştır. Tezlerin 2010-2020 yılları arasında yayımlanmış olması, Türkçe dilinde yazılmış olması, açık erişim olması ve tezlerin nitel, nicel veya karma yöntemle yazılmış olması bu çalışmanın arama kriterlerini oluşturmaktadır. Bu kriterler doğrultusunda toplam 128 tez analize tabi tutulmuştur. Araştırma sonucunda elde edilen bulgular tezin yayım yılı, tezin lisansüstü türü, tezin yayımlandığı üniversite, tezin yayınladığı enstitü, tezin araştırma yöntemi ve tezde etik liderliğin ilişkilendirildiği kavram olmak üzere altı kategoriye ayrılmıştır. Çalışmada etik liderlik ile ilgili çalışmaların her yıl giderek arttığı ve etik liderliğin en çok 2019 (f=25) yılında çalışıldığı ve toplam 111 yüksek lisans ve 17 lisans tezinde ele alındığı ve bu çalışmaların büyük çoğunlukla nicel (f=114) yöntemle yapıldığı sonucuna ulaşılmıştır. Ayrıca etik liderlik ile ilgili en çok çalışma Bahçeşehir Üniversitesi (f=11) ve Sosyal Bilimler Enstitüsü (f=91) tarafından yapılmıştır. Bununla birlikte tezlerde etik liderlik kavramı ile ilişkilendirilen kavramlar arasında en çok örgütsel adalet (f=19) ve örgütsel bağlılık (f=19) geldiği tespit edilerek etik kavramı ile adalet ve bağlılığın daha çok araştırıldığı sonucuna ulaşılmıştır.

Anahtar Kelimeler: Etik liderlik, YÖKTEZ, içerik analizi.

ABSTRACT

The importance of leadership in organizations has been discussed for many years. As a result of these discussions, many different types of the concept of leadership emerge. Ethical leadership, one of these types, emphasizes the ethical aspect of leadership. Ethical leadership, where the ethical and moral behaviors of the employees are rewarded and their unethical behaviors are punished, is the main subject of this study. Therefore, the aim of the study is to examine the theses published in the YÖKTEZ database between 2010-2020 in Turkey with content analysis. For this purpose, content analysis, which is one of the qualitative research methods, and frequency and percentage methods, which are considered as sub-methods of content analysis, were used. As a result of the search made with the concept of "ethical leadership", a total of 151 theses were reached. The search criteria of this study are that the theses were published between 2010-2020, they were written in Turkish, they were open access, and the theses were written with a qualitative, quantitative or mixed method. A total of 128 theses were analyzed in line with

these criteria. The findings obtained as a result of the research were divided into six categories: the year of publication of the thesis, the graduate type of the thesis, the university where the thesis was published, the institute where the thesis was published, the research method of the thesis and the concept associated with ethical leadership in the thesis. In the study, it was concluded that the studies on ethical leadership are increasing every year, and ethical leadership was mostly studied in 2019 (f=25), and it was discussed in a total of 111 master's and 17 undergraduate theses, and these studies were mostly carried out with quantitative (f=114) method. In addition, the most studies on ethical leadership were conducted by Bahçeşehir University (f=11) and Social Sciences Institute (f=91). However, it was determined that organizational justice (f=19) and organizational commitment (f=19) were the most associated with the concept of ethical leadership in the theses, and it was concluded that the concept of ethics and justice and commitment were investigated more.

Keywords: Ethical leadership, YÖKTEZ, content analysis.

TOKSİK LİDERLİK KAVRAMI: İÇERİK ANALİZİ
TOXIC LEADERSHIP CONCEPT: CONTENT ANALYSIS

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ÖZET

Organizasyonlar için lider oldukça önem arz etmektedir. Örgütün işleyişine ve işgörenlerin çalışmalarına doğrudan katkı sağlamaktadır. Örgütlerin rekabet ortamında sürdürülebilirliğine devam edebilmesi adına, verimliliklerini ve rekabet güçlerini koruması için etkin ve becerili liderlere ve işgörenele ihtiyaçları vardır. Liderlerin örgüte olumlu katılımlarının yanı sıra olumsuz katılımlarının da olduğu ortaya konulmaktadır. Toksik liderlik kendi menfaatleri doğrultusunda işgörenleri korkutan, zorbalık yaparak kendi düşüncelerini dikta eden liderlik tipi olarak karşımıza çıkmaktadır. Tüm kararların tarafınca verilmesini isteyen liderlik türü aynı zamanda işgörenlerin fiziksel ve ruhsal yıkımlarına sebep olarak örgütü olumsuz etkilediği görülmektedir. Bu çalışmanın amacı 2015-2022 yılları arasında toksik liderlik ile ilgili çalışmaları incelemektir. Dergi Park, Google Akademi, Ulakbim, Science Direct, Pubmed ve yüksek lisans, doktora tezlerine ise Ulusal Tez Merkezi üzerinden arama yapılarak ulaşılmaya çalışılmıştır. Yapılan literatür taramaları sonucu 31 çalışmaya ulaşılmıştır. Erişime açık olmayan çalışmalar kapsam dışı bırakılmıştır. Çalışmanın sonucunda toksik liderlik kavramı ile yapılan çalışmaların anket yöntemi kullanılarak gerçekleştirildiği ve uzun vadeli çalışmaların yapılmadığı saptanmıştır.

Anahtar Kelimeler: Toksik Liderlik, Liderlik, İçerik Analizi.

ABSTRACT

The leader for organizations is highly important. It directly contributes to the functioning of the organization and the work of the workers. In order for organizations to continue their sustainability in a competitive environment, they need effective and skilled leaders and collaborators to maintain their efficiency and competitiveness. In addition to the positive risks of leaders in the knitness, there are also negative dashes. Toxic leadership comes across as the type of leadership that scares the workers in their own interests, bullying them and dictates their own thoughts. The type of leadership that wants all decisions to be made by the side also appears to negatively affect the organization by causing the physical and mental destruction of the workers. The aim of this study is to examine the toxic leadership studies carried out in Turkey between 2015 and 2022. The aim of the study is to examine the work done in Turkey in the field of "Toxic leadership". In this context, in accordance with the purpose of the study, the studies conducted between 2015 and 2022 were accessed through the Science Direct, PubMed, Web of Science, Ulakbim, Dergipark database, and the National Thesis Center. Available studies were evaluated by content analysis method. As a result of the literature reviews, 31 studies were reached. Activities that are not accessible are excluded. As a result of the study, it was determined that the studies carried out with the concept of toxic leadership were carried out using the survey method and long-term studies were not carried out.

Keywords: Toxic Leadership, Leadership, Content Analysis.

**SOYKIRIM SUÇUNUN ULUSLARARASI HUKUK VE TÜRK HUKUKU AÇISINDAN
KARŞILAŞTIRMALI OLARAK DEĞERLENDİRİLMESİ**

**A COMPARATIVE EVALUATION OF THE CRIME OF GENOCIDE IN TERMS OF
INTERNATIONAL LAW AND TURKISH LAW**

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ÖZET

Soykırım, ulusal, etnik, ırksal veya dinsel bir grubu, kısmen veya tamamen ortadan kaldırmak amacıyla, ilgili grubun üyelerinin öldürülmesi, grubun mensuplarına ciddi surette bedensel veya zihinsel zarar verilmesi ve soykırıma ilişkin yasal düzenlemede açıkça belirtilen diğer fiillerin işlenmesi yoluyla ortaya çıkan uluslararası bir suçtur. Farklı grup ve toplulukların bir arada yaşaması ve en önemlisi, tüm insan gruplarının var olma hakkının inkârı olarak değerlendirilen soykırım, mevcut olan en vahşi ve ağır suç olarak görülmektedir.

Soykırım suçunun, insanlık tarihi kadar eski olduğu ifade edilmekle birlikte, uluslararası hukuk alanında 20. yüzyılın ortalarına kadar bu suçu cezalandıran herhangi bir düzenleme yapılmamıştır. Soykırım ilk defa 1948 yılında kabul edilen ve 12 Ocak 1951 tarihinde yürürlüğe giren Soykırım Suçunun Önlenmesi ve Cezalandırılması Sözleşmesi ile uluslararası bir suç olarak kabul edilmiştir. Türkiye bu Sözleşme'ye katılma yoluyla taraf olmuş ve Sözleşme Türkiye bakımından 31 Temmuz 1951 tarihinde yürürlüğe girmiştir. Bununla birlikte, 2005 yılında yürürlüğe giren 5237 sayılı Türk Ceza Kanunu'na kadar Türkiye, kendi iç hukukunda soykırımı cezalandıran bir yasal düzenleme yapmamıştır. Bu da soykırım suçunun, Türkiye açısından ancak 2005 yılından itibaren cezalandırılabilir hale geldiği anlamına gelmektedir. Soykırım suçu, Türk Ceza Kanunu'nun 76. maddesinde, "Uluslararası Suçlar" başlığı altında hükme bağlanmıştır. Anılan hüküm, büyük ölçüde Soykırım Sözleşmesi'nin soykırım suçunu tanımlayan 2. maddesi ile aynıdır. Bununla birlikte, Soykırım Sözleşmesi'nin aksine, 76. maddede suçu oluşturan fiillerin "bir planın icrası suretiyle" gerçekleştirilmesi gerektiği ifade edilmiştir. Soykırım Sözleşmesi'nde ise, soykırım suçunun bir plan dahilinde işlenmesi şartı aranmamaktadır. 76. maddede ortaya konulan bu şart, ilk bakışta, hükmün uygulanması açısından sınırlayıcı görünmekle birlikte, suçun manevi unsurunu ispat açısından yararlı görülmektedir.

Sonuç olarak, yukarıda belirtilen farklılık dışında, soykırım suçu hem uluslararası hukuk hem de Türk hukuku açısından temelde aynı şekilde düzenlenmiştir. Tarih, sosyoloji, psikoloji, siyaset bilimleri ve uluslararası ilişkiler gibi disiplinlerle oldukça ilişkili olan soykırımın hukuki tanımının anlaşılmasının, uluslararası arenada sıklıkla tartışılan soykırım temelli konuların daha net kavranmasına katkı sağlayacağı düşünülmektedir.

Anahtar Kelimeler: Uluslararası Hukuk, Soykırım, Soykırım Suçunun Önlenmesi ve Cezalandırılması Sözleşmesi, Soykırım Suçunun Unsurları

ABSTRACT

Genocide is an international crime, needs to be committed with the aim of destroying, in whole or in part, a national, ethnic, racial or religious group; by killing members of that group, causing serious bodily or mental harm to members of the group, and by committing other acts expressly specified in the legal definition of genocide. Considered as a violation of the coexistence of different groups and communities, and most importantly, a denial of the right of existence of entire human groups, genocide is seen as the most brutal and serious crime that ever existed.

Although it is stated that the crime of genocide is as old as the history of humanity, no legislation was made in the field of international law to punish this crime until the mid 20th century. Genocide was acknowledged as an international crime for the first time with the Convention on the Prevention and Punishment of the Crime of Genocide, which was first adopted in 1948 and entered into force on 12 January 1951. Turkey became a party to this Convention through accession, and the Convention entered into force in Turkey on 31 July 1951. However, until the Turkish Penal Code No. 5237, which came into force in 2005, Turkey did not make any legislation in order to punish genocide in its domestic law. This means that the crime of genocide has only become punishable in Turkey since 2005. The Article 76 of the Turkish Penal Code sets forth the crime of genocide, which is placed under the title of "International Crimes". The aforementioned provision is substantially alike with the Article 2 of the Genocide Convention, which defines the crime of genocide. However, contrary to the Genocide Convention, it is stated in the Article 76 that the acts constituting the crime must be carried out "by the execution of a plan". In the Genocide Convention, however, there is no requirement that the crime of genocide be committed within a plan. Although this condition in the Article 76 seems restrictive in terms of the implementation of the provision, it is considered useful with regards to proving the moral element of the crime.

In conclusion, except the difference mentioned above, the crime of genocide is basically legislated in the same way both in international law and Turkish law. It is believed that understanding the legal definition of genocide which is highly related to disciplines such as history, sociology, psychology, political sciences and international relations, contributes to a clearer understanding of genocide-based issues that are frequently discussed in the international arena.

Keywords: International Law, Genocide, Convention on the Prevention and Punishment of the Crime of Genocide, Elements of the Crime of Genocide

**SÜREKLİ KARBON FİBER TAKVİYELİ POLİPROPİLEN KOMPOZİTLERDE
ÇATLAKLARIN JOULE ETKİSİ İLE KENDİ KENDİNE İYİLEŞME ÖZELLİĞİNİN
İNCELENMESİ**

INVESTIGATION OF SELF-HEALING OF CRACKS BY JOULE EFFECT IN CONTINUOUS
CARBON FIBER REINFORCED POLYPROPYLENE COMPOSITES

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ÖZET

Mühendislik malzemelerinin yapısal özellikleri incelenirken ve araştırmalar yapılırken genellikle doğadan ilham alınır. Doğada, insan, hayvan ve bitkiler fiziksel hasarlar aldıktan sonra kendi kendine iyileşme gösterebilmekte ve böylece hayatta kalma ve yaşam sürelerini arttırmaktadırlar. Bu fikirle yola çıkılan kendi kendine iyileşen polimer malzeme çalışmaları da malzemelerin güvenliğini ve hizmet ömrünü önemli şekilde arttırmakta ve bakım maliyetini azaltmaktadır. Kendi kendine iyileşme herhangi bir dış uyaran (örneğin, ısı, ışık, UV), iyileştirici ajan, plastikleştiriciye ihtiyaç duyabilmektedir. Termoplastiklerin tekrar tekrar ısıtılabilmesi sebebiyle, termoplastik kompozitlerin kendi kendine iyileşme süreçlerinde ısı kolaylıkla kullanılabilir. Isı veya ışık ısıması ile kırık/hasarlı bölgelerdeki dinamik bağlar yeniden kurulabilir, böylece polimer zincirlerin cam geçiş sıcaklığının (T_g) üzerinde temas etmeye, dağılmaya ve yeniden karışmaya zorlar. Çatlak içine hareket etme ve hasarlı kısımları doldurma sonucu kendi kendine iyileşme gerçekleşir. Bu çalışma kapsamında sürekli karbon fiber ile güçlendirilmiş polipropilen matrisli kompozit malzemelerin yanal ve yüzey çatlaklarının, elektrik akımının sağladığı joule ısıtmasıyla kendi kendine iyileşme özelliği incelenmiştir. Plaka şeklinde hazırlanan numunelerin yüzey ve yanal kısımlarında çatlaklar oluşturulmuş, farklı volt değerlerinde ve farklı sürelerde elektrik akımı verilerek en iyi iyileşmenin olduğu değerler belirlenmiştir. Üretilen kompozit malzemelerin kendi kendini iyileştirme özelliğini belirlemek için üç nokta eğme testi kullanılmıştır. Numuneler ilk olarak hasarsız olarak eğme testine tabi tutulmuştur. Ardından numunelerde çatlaklar oluşturulmuş ve eğme testi tekrarlanmıştır. Son olarak numunelere elektrik akımı verilmiş ve çatlakların kendi kendine iyileşmesi sağlanmıştır. İyileşme sonrası numunelere tekrar eğme testi yapılmıştır. Hasarlı, hasarsız ve hasar sonrası kendi kendine iyileşmesi sağlanan numunelerin eğme testi sonuçları karşılaştırılarak PP/SCF kompozitinin kendi kendine iyileşme davranışı incelenmiştir.

Anahtar Kelimeler: Kendi kendini iyileştirme, Termoplastik kompozit, Karbon Elyaf, Polipropilen, Joule ısıtması

ABSTRACT

Nature is frequently used as inspiration when examining the structural properties of engineering materials and conducting research. In nature, humans, animals, and plants all have the ability to self-heal following physical injury, thereby extending their survival and lifespan. Self-healing polymer material studies based on this concept have demonstrated a significant increase in material safety and service life, as well as a decrease in maintenance costs. External stimuli (e.g., heat, light, UV), a curing agent, or a plasticizer may be required for self-healing. Because thermoplastics can be heated repeatedly, heat can be easily used in thermoplastic composites' self-healing processes. Heat or light irradiation can be used to reestablish dynamic bonds in broken/damaged areas, forcing the polymer chains to interact, disperse, and re-mix above the glass transition temperature (T_g). Self-healing occurs as a result of the melted thermoplastic matrix flow inside the crack and repairing the damaged areas. The self-healing properties of lateral and surface cracks in polypropylene matrix composites reinforced with continuous carbon fiber were investigated in this study using joule heating provided by an electric current. Cracks were created on the surface and lateral sides of plate-shaped samples, and the values with the best healing properties were determined by applying electric current at various voltage values and times. The self-healing properties of the produced composite materials were determined using a three-point bending test. The samples were first bent without causing any damage. The samples were then cracked and the bending test was repeated. Finally, electrical current was applied to the samples, which self-healed the cracks. Following recovery, the specimens were bent and tested again. By comparing the bending test results of damaged, undamaged, and self-healing samples, the self-healing behavior of PP/SCF composite was investigated.

Keywords: Self Healing, Fiber Reinforced Composites, Thermoplastic Composite, Carbon Fiber, Polypropylene, Joule Heating

**DESIGNING A SELF HEALING ALUMINUM HONEYCOMB CORE SANDWICH PANEL
WITH PLACING POLYMER RESIN IMPREGNATED FOAM INTO CORE CELLS**

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ABSTRACT

This study is about experimentally the dynamic compressive impact response and properties of aluminum honeycomb filled with foam and thermoset polymer resin for self-healing. Dynamic tests were conducted under the 10 J energy level and 3.35 m/s velocity. Specimens were subjected to multiple impacts to measure healing performance. In order to evaluate the healing efficiency, three different types of aluminum sandwich control samples were produced as Empty Core Cells (EC), Only Foam placed core cells (OFC), and Self Healing Resin Impregnated foam placed core cells (SHRC). The crashworthiness and healing efficiency criteria were used to present the test results, and the impact characteristics of the samples were compared in relation to these criteria. Following testing, it was determined that the SHRC specimens exhibited significantly less buckling deformation and displacement than their counterparts. Healing efficiencies and crashworthiness evaluation criteria were significantly improved. The SHRC samples achieved values of 29.7 % and 12.9 %, respectively, and 140 % and 34.9 %, respectively, when compared to the EC and OFC control samples. Crushing strain (CS) characteristics of the same samples ranged between 50% and 66%, indicating less displacement than counterparts. In general, the results indicated that a practical aluminum sandwich structure capable of self-healing and recovering remarkable impact characteristics could be manufactured.

Keywords: Self-healing, Sandwich Panel, Impact Behavior, Resin Impregnated Foam

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TÜRKİYE’DE YAYILIŞ GÖSTEREN *MUS* TÜRLERİNİN GELENEKSEL MORFOMETRİ AÇISINDAN DEĞERLENDİRİLMESİ

EVALUATION OF *MUS* SPECIES DISTRIBUTED IN TURKEY IN TERMS OF TRADITIONAL MORPHOMETRICS

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ÖZET

Kemirici hayvanlar çok çeşitli ortamlarda yaşamaktadırlar. Bunlardan en ilginç olanlarından biri insanla yakın temas halinde yaşayan *Mus* (Linnaeus, 1758) cinsi türleridir. *Mus* cinsi içinde yer alan türlerin insanlarla iç içe yaşaması farklı coğrafi alanlardaki gen havuzlarının farklılaşmasını engellemektedir. Bunun sonucu olarak da cinsin taksonomisi ve sistematigi karışık hale gelmektedir. Türkiye’de *Mus* cinsine ait *Mus domesticus* ve *Mus macedonicus* türlerinin yayılış gösterdiği bilinmektedir. Bu çalışmada Ankara Üniversitesi Fen Fakültesi Biyoloji Bölümü Zooloji Anabilim Dalı’ndaki memeli hayvan koleksiyonuna ait 1991-2013 yılları arasında toplanan örnekler geleneksel morfometri yöntemiyle değerlendirilmiştir. Geleneksel morfometride örneklerin dört standart dış ölçüsü ve kafatasındaki otuz üç karakter ölçüsü kullanılmıştır. Geleneksel morfometri analizlerinde kanonik analiz sonuçlarına göre gruplar belirlenmiştir. Ayrıca elde edilen bu sonuçlardan dendrogramlar oluşturulmuştur. *Mus domesticus* ve *Mus macedonicus*’un coğrafi bölgelere göre analiz sonuçlarına dayanan geleneksel morfometri analizinde toplam varyasyonun %73’ünün birinci kanonik değişken ekseninde, %12’sinin ikinci kanonik değişken ekseninde açıklandığı görülmüştür. Birinci eksene göre *Mus macedonicus* örnekleri pozitif değerlere sahip bulunurken, *Mus domesticus* örnekleri ise negatif değerlere daha yakın bulunmuştur. İkinci eksene göre her iki grup da hem pozitif hem de negatif değerler arasında yer almıştır. *Mus domesticus* ve *Mus macedonicus*’un Marmara Bölgesi örnekleri ikinci eksende pozitif değerlerde yer alırken; diğer bölgelere göre en yüksek kanonik değere sahip olduğu görülmüştür. Her iki türün geleneksel morfometri analizine dayalı coğrafi bölge ortalamalarına göre oluşturulan dendrogramda ise *Mus domesticus*’un Karadeniz Bölgesi ve İç Anadolu Bölgesi örnekleri ile Marmara Bölgesi, Ege Bölgesi ve Akdeniz Bölgesi örneklerinin iki grup oluşturduğu görülmüştür. *Mus macedonicus*’ta ise Karadeniz Bölgesi örneklerinin diğer bölgelerden daha uzakta gruplandığı ve *Mus domesticus*’un Akdeniz Bölgesi’ne daha yakın bağlandığı tespit edilmiştir.

Anahtar Kelimeler: Geleneksel morfometri, *Mus* cinsi, Rodentia.

ABSTRACT

Rodents live in a wide variety of environments. One of the most interesting of these is the *Mus* (Linnaeus, 1758) species that live in close contact with humans. The coexistence of species in the genus *Mus* with humans prevents the differentiation of gene pools in different geographical areas. As a result, the taxonomy and systematics of the genus become confused. It is known that *Mus domesticus* and *Mus macedonicus* species belonging to the *Mus* genus are widespread in Turkey. In this study, samples collected between 1991 and 2013 belonging to the mammalian collection in Ankara University, Faculty of Science, Department of Biology, Department of Zoology, were evaluated by traditional morphometrics method. In traditional morphometrics, four standard external measurements of the specimens and thirty-three character measurements on the skull were used. In traditional morphometrics

analysis, groups were determined according to the results of canonical analysis. In addition, dendrograms were created from these results. In the traditional morphometrics analysis based on the analysis results of *Mus domesticus* and *Mus macedonicus* according to geographical regions, it was seen that 73% of the total variation was explained in the first canonical variable axis and 12% in the second canonical variable axis. According to the first axis, *Mus macedonicus* samples were found to have positive values, while *Mus domesticus* samples were found closer to negative values. According to the second axis, both groups were placed between both positive and negative values. While samples of *Mus domesticus* and *Mus macedonicus* from the Marmara Region have positive values on the second axis; it was seen that it has the highest canonical value compared to other regions. In the dendrogram created according to the geographical region averages of both species based on the traditional morphometrics analysis, it was seen that the Black Sea Region and Central Anatolia Region samples of *Mus domesticus* and the Marmara Region, Aegean Region and Mediterranean Region samples formed two groups. In *Mus macedonicus*, on the other hand, it was determined that the samples from the Black Sea Region were grouped further away from the other regions and *Mus domesticus* was more closely connected to the Mediterranean Region.

Keywords: Traditional morphometrics, Genus *Mus*, Rodentia.

**SÜRDÜRÜLEBİLİR TEDARİK ZİNCİRİNDE TEDARİKÇİ SEÇİMİ: SEZGİSEL BULANIK
EDAS YÖNTEMİ**

**INTUITIONISTIC FUZZY EDAS METHOD FOR SUPPLIER SELECTION IN SUSTAINABLE
SUPPLY CHAINS**

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ÖZET

Günümüzde, çevre koruma ve sosyal sorumluluk bilincinin artmasıyla birlikte, sürdürülebilir tedarikçi seçimi giderek daha fazla ilgi görmektedir. İşletmeler, uygun tedarikçilerle yakın iş birliği olmadan tüm tedarik zincirinde sürdürülebilirliği gerçek anlamda sağlayamazlar. İyi bir sürdürülebilir tedarikçi seçimi ekonomik fayda, çevresel etki ve kurumsal sosyal sorumluluğun optimizasyonu ile sağlanabilir. Bu amaçla bu çalışmada, sezgisel bulanık ortamda sürdürülebilir tedarikçi seçimi için ekonomik, sosyal ve çevre kriterleri içeren bir seçim modeli önerilmiştir. Önerilen modelin uygulanabilirliğini ve etkililiğini göstermek için gerçek dünyadan bir vaka çalışması sunulmuştur. Bu çalışmanın sonuçları, önerilen modelin, sürdürülebilir tedarikçi seçim problemini, kriterler arasındaki bağımlılıkları ve uzmanların kararlarıyla ilişkili belirsizlikleri dikkate alarak iyi bir şekilde çözebileceğini kanıtlamıştır.

Anahtar Kelimeler: Sürdürülebilirlik, Tedarikçi seçimi, Sezgisel bulanık EDAS

ABSTRACT

Today, with the increasing awareness of environmental protection and social responsibility, sustainable supplier selection attracts more and more attention. Businesses cannot achieve true sustainability in the entire supply chain without close cooperation with appropriate suppliers. A good sustainable supplier selection can be achieved by optimizing economic benefit, environmental impact and corporate social responsibility. For this purpose, in this study, a selection model including economic, social and environmental criteria in an intuitionistic fuzzy environment is proposed for sustainable supplier selection. In order to show the applicability and effectiveness of the proposed model, a real-world case study is presented. The results of this study proved that the proposed comprehensive model could solve the sustainable supplier selection problem well by considering the uncertainties associated with the decisions of experts.

Keywords: Sustainability, supplier selection, intuitionistic fuzzy EDAS

ENZYMATIC ANTIOXIDANTS IN THE PREVENTION AND DIAGNOSIS OF CANCER: A SHORT LITERATURE REVIEW*Derya ALTINTAS¹*¹Trakya University, Arda Vocational College, Department of Pharmacy Services, Edirne, Turkey.¹ORCID ID: <https://orcid.org/0000-0001-5374-0123>*Yesim YESILOGLU²*²Trakya University, Faculty of Pharmacy, Department of Biochemistry, Edirne, Turkey.²ORCID ID: <https://orcid.org/0000-0002-1733-4790>**ABSTRACT**

During aerobic respiration in metabolism; reactive oxygen species (ROS) and reactive nitrogen species (RNS) are produced which can attack important biological molecules namely nucleic acid, protein, carbohydrate, DNA and lipid. These species include singlet oxygen ($^1\text{O}_2$), hydrogen peroxide (H_2O_2), hydroxyl (OH^\cdot), superoxide anion ($\text{O}_2^{\cdot-}$) radical, nitric oxide (NO^\cdot) and peroxynitrite (ONOO^-) (Demirci-Çekiç, et al., 2022). Oxidative damage generated by reactive oxygen species. Antioxidants have beneficial effects such as protecting cells from this damage. Also, antioxidants play a significant role in antioxidant defense system. This system including the endogenous and exogenous antioxidants. Endogenous antioxidants are two different types namely non-enzymatic (β -carotene, ascorbic acid, α -tocopherol, uric acid, glutathione, flavonoid, vitamin A, lipoic acid, phenols) and enzymatic (catalase, superoxide dismutase, glutathione peroxidase and reductase) (Lacerda Barbosa, et al., 2020). The enzymatic antioxidants are well known to scavenge ROS. For instance, catalase (CAT); which decomposes hydrogen peroxide into oxygen and water molecule. There are four types superoxide dismutase (SOD) enzymes in the organism: Cu/Zn-SOD, Ni-SOD, Mn-SOD and Fe-SOD which involves in the reaction of catalysis of superoxide anion ($\text{O}_2^{\cdot-}$) radical into oxygen (O_2) and hydrogen peroxide (H_2O_2). Because of the production of H_2O_2 , SOD plays role in reactions with CAT and glutathione peroxidase (GPx) to remove H_2O_2 . Glutathione reductase (GR) participates in the reaction of oxygen (O_2) detoxification and founds in cytosol. Furthermore, various diseases such as cancer (lung cancer, breast cancer, prostate cancer, skin cancer and kidney cancer), diabetes and allergy have been associated with levels of enzymatic antioxidants. Numerous research studies on cancer; have demonstrated that cancer cell has a low SOD, GPx, GR and CAT activities. Therefore, these enzymes can be an essential biomarkers for diagnosing cancer because cells have higher concentrations of reactive oxygen species compared to normal cells in this disease (Cecerska-Heryc, et al., 2021). The aim of this review to summarize the importance and roles of enzymatic antioxidants in cancer such as leukemia, breast, kidney, lung, liver, prostate and skin cancer.

Keywords: Antioxidant, cancer, catalase, enzymatic antioxidants, oxidative stress, superoxide dismutase.

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GELENEKSEL GIDALARDAN

“ BADEM EZMESİ ”

FROM TRADITIONAL FOODS

“ALMOND PASTE”

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ÖZET

Tüm dünyada olduğu gibi ülkemizde de kanser, kardiyovasküler hastalıklar, obezite, hipertansiyon, diyabet ve çeşitli alerjik vakalar ciddi sağlık sorunlarını oluşturmaktadır. Ortaya çıkan sağlık sorunları gıda tüketiminde endişeyi de beraberinde getirmiştir. Bununla birlikte gıda güvenliğine olan hassasiyet ve geleneksel gıdalara olan eğilim artmıştır (Kocatepe & Tırıl, 2015). Geleneksel gıdalar bulundukları bölge/yöreyle özgüdür. Tat, aroma ve bileşenler üretildikleri bölge ile özdeşleşmiştir (Tan, 2004). Geleneksel gıdaları pazarda taklitlerine karşı korumak ve meydana gelebilecek haksız rekabeti ortadan kaldırmak amacıyla ürünler Coğrafi İşaret ile koruma altına alınmaktadır (Tekelioğlu & Demirer, 2008). Coğrafi işaret sayesinde tüketiciler ürünün karakteristik özellikleri hakkında bilgi sahibi olur. Ürünlerin bu karakteristik özellikler ile üretildikleri coğrafi alan arasındaki ilişkiyi öğrenirler. Coğrafi işaretler ürünün gelenekselliğini, kalitesini ve yöreye ait hammaddenin niteliklerini tesciller. Ürünlerin ulusal ve uluslararası düzeyde üne kavuşmasını sağlar. Böylelikle kültürel değerlerimize sahip çıkar ve bu değerleri bizden sonraki nesillere aktarabiliriz (<http://ci.turkpatent.gov.tr>, 2022). Ülkemizde geleneksel gıdaya olan talep her geçen gün artmakta ve kadınlarımız içinde istihdam alanları oluşmaktadır. Özellikle Osmanlı döneminde başkentlik yapmış olan şehirlerimizde saray gelenekleri etkisini hala sürdürmektedir. Zengin mimarisi ve geleneksel ürünleri ile Edirne bunlardan biridir. Bulgaristan ve Yunanistan'ın buluşma noktası olması dolayısıyla yerli ve yabancı turistlerin ilgi odağıdır. Edirne ilimiz aynı zamanda “Sultanlar Şehri” olarak bilinir. “Selimiye Camii” Edirne ilinde bulunmaktadır ve Mimar Sinan'ın ustalık eseridir. Selimiye Camii aynı zamanda UNESCO Dünya Kültür Mirası Listesi'nde yer alır. Edirne kültür kavramının yoğun yaşandığı bir şehirdir. Edirne kültürü, tarihi, mimarisi ve doğasının yanı sıra gastronomi alanında da geçmişin izlerini günümüze aktarmaktadır. Edirne Beyaz Peyniri, Edirne Tava Ciğeri ve Edirne Badem Ezmesi coğrafi işaret almış gıda ürünlerindendir. Badem ezmesi Osmanlı Saray Mutfağından kalan tarihi bir tatlıdır. Badem Ezmesi 14. Yüzyılda Sarayda çalışan şeker ustaları tarafından keşfedilmiştir. Ustalar Saray halkına ve gelen konuklara badem ezmesini sevdirmişlerdir. Bu lezzet etkisini günümüze kadar sürdürmüş ve üzerine çok fazla çalışma yapılmıştır. Bu incelemenin amacı geleneksel gıdanın önemini vurgulamak ve badem ezmesi hakkında yapılan çalışmaları özetlemektir.

Anahtar Kelimeler: Geleneksel Gıda, Edirne, Badem Ezmesi, Saray Mutfağı, Coğrafi İşaret, Sağlık.

ABSTRACT

As with all over the world, cancer, cardiovascular diseases, obesity, hypertension, diabetes and various allergic cases are serious health problems in our country. The resulting health problems have also raised concern for food consumption. However, the tendency to food safety and traditional foods have increased (Kocatepe & Tırıl, 2015). Traditional foods are specific to their region/location. Taste, aroma and components are associated with the region in which they are produced (Tan, 2004). Products are protected by Geo Marks to protect traditional foods against counterfeits in the market and to eliminate unfair competition (Tekelioğlu & Demirer, 2008). Thanks to Geo Marks, consumers have information

about the characteristic features of the product. They learn about the relationship between these characteristics and the geographical area where they are produced Geo Marks confirm the tradition, quality and nature of the region's raw material. So we can take our cultural values and pass them on to the next generation (<http://ci.turkpatent.gov.tr>, 2022). In our country, demand for traditional food is increasing daily and there are areas of employment within our women. In our cities, especially during the Ottoman period, the palace traditions still have a hold on them. With its rich architecture and traditional products, Edirne is one of them. It is the focus of local and foreign tourists, as Bulgaria and Greece are meeting points. Our province of Edirne is also known as the “City of Sultans”. The “Selimiye Mosque” is located in Edirne and is the masterpiece of Mimar Sinan. The Selimiye Mosque is also on the UNESCO World Heritage List. Edirne is a city where culture is intense. In addition to its culture, history, architecture and nature, Edirne has been able to present traces of the past in the field of gastronomy. Edirne White Cheese, Edirne Fried Liver and Edirne Almond Paste are geographically marked food products. Almond paste is a historical dessert from Ottoman Palace cuisine. Almond paste was discovered by the sugar masters who worked at the palace in 14 centuries. The masters have made the people of the Palace and the guests who come to love the almond paste. This flavor has been effective to date and has been studied too much. The purpose of this review is to highlight the importance of traditional food and summarize the work done on almond paste.

Keywords: Traditional Food, Edirne, Almond Paste, Palace Cuisine, Geo Mark, Health.

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**AKADEMİSYENLERİN ÖRGÜTSEL BAĞLILIKLARINA YÖNELİK NİTEL BİR
ARAŞTIRMA**

ON THE ORGANIZATIONAL LOYALTY OF ACADEMICIANS A QUALITATIVE RESEARCH

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ÖZET

Bir örgütün uzun süreli faaliyet göstermesi, çalışanların örgüt çatısı altından ayrılmamaları ile doğrudan ilişkilidir. Çünkü çalışanların örgütsel bağlılıklarıyla örgüt daha da güçlü hale gelmektedir. Akademisyenler bilgi çağına ışık tutan ve gelecek nesillerin tutum ve davranışlarına etki eden kişilerdir. Bu araştırmanın amacı, akademisyenlerin örgütsel bağlılık ile ilgili düşüncelerinin belirlenmesidir. Nitel araştırma deseni ile yürütülen bu çalışmada Siirt Üniversitesi'nde görev yapan araştırmaya katılmaya gönüllü 15 akademisyenden veriler toplanmıştır. Verilerin toplanmasında görüşme tekniği kullanılarak elde edilen veriler içerik içerik analizi yöntemi ile çözümlenmiştir. Araştırma sonucunda, örgütsel bağlılığın yaş, cinsiyet, medeni durum gibi demografik özelliklere göre değişkenlik gösterdiği, örgüt içerisinde çalışanlara yönelik özel bir politika ve kural olmadığı, daha çok yemek organizasyonları, doğum, evlilik tarzı gibi etkinliklerle kaynaşmanın sağlandığı ortaya çıkarılmıştır. Ayrıca amirin, güçlü bir iletişim becerisinin olmasının kurum içerisinde motive edici etkinliklerin düzenlenmesinin, kurum içerisinde demokratik ve adil bir yönetim anlayışı sergilenmesinin örgütsel bağlılığı arttırdığı ancak amirin, adaletli olmamasının, birim içerisinde çalışanlara mobing uygulamasının ise örgütsel bağlılığı zayıflatacağı ifade edilmiştir.

Anahtar Kelimeler: Örgütsel Bağlılık, Akademisyen, Bağlılık

ABSTRACT

The long-term functioning of an organization is directly related to the fact that employees do not leave the organization. Because with the organizational commitment of the employees, the organization becomes even stronger. Academics are people who shed light on the information age and influence the attitudes and behaviors of future generations. The aim of this research is to determine the thoughts of academicians about organizational commitment. In this research, which was carried out with a qualitative research design, data were collected from 15 academicians working at Siirt University who volunteered to participate in the research. The data obtained by using the interview technique in the collection of data were analyzed by content analysis method. As a result of the research, it has been revealed that organizational commitment varies according to demographic characteristics such as age, gender, marital status, there is no special policy and rule for employees in the organization, and it is mostly provided with activities such as food organizations, birth, marriage style. In addition, it has been

stated that the supervisor's strong communication skills, organizing motivating activities within the institution, and displaying a democratic and fair management approach within the institution increase organizational commitment, but the supervisor's unfairness and the mobbing of employees within the unit will weaken organizational commitment.

Keywords: Organizational Commitment, Academician, Commitment

PIROLİZ YÖNTEMİ İLE ELDE YENİ NESİL ORGANİK GÜBRELERİN ÇİLEK BİTKİSİNİN BAZI FENOLOJİK PARAMETRELERİ VE TOPRAKTAKİ NEMATOD TROFİK YAPISINA ETKİLERİNİN ARAŞTIRILMASI

INVESTIGATION OF EFFECTS OF NEW GENERATION ORGANIC FERTILIZERS BY PYROLYSIS METHOD ON SOME PHENOLOGICAL PARAMETERS OF STRAWBERRY PLANT AND NEMATODE TROPHIC STRUCTURE IN SOIL

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ÖZET

Bu çalışma kapsamında; organik sirke katkılı bitki büyüme ve toprak düzenleyicisi ürünlerin çilek bitkisinde nematod trofik yapısına etkileri incelenmiştir. Bu amaçla saksıda yetiştirilen çilek bitkilerine 5 farklı organik menşeli gübrenin farklı dozları uygulanmış, uygulama sonrasında toprakta bulunan nematod trofik yapısı ile çilekteki bazı fenolojik parametrelere bu gübrelerin etkisi belirlenmiştir. Çalışma sonucuna göre; Bitki Paraziti Nematod sınıfı açısından en çok Tavuk ve Fındık sirke katkılı gübrelerin sayıca fazla birey içerdiği belirlenmiştir. Buna bağlı olarak bu gübrelerin faydalı nematod varlığı açısından da diğer gruplara göre daha fazla nematod yoğunluğuna sahip olduğu tespit edilmiştir. A ve B karışımlarında yaklaşık olarak faydalı nematod grupları, bitki paraziti nematod gruplarına göre sayıca iki kat fazla olması dikkat çekmiştir. Tavuk ile fındık sirke katkılı ve Evomax ticari sıvı gübre uygulamalarında ise bu sayı eşit gerçekleşmiştir. Tüm grupların nematod total trofik içerikleri Evomax ticari gübresi hariç, tür sayısı açısından farklı olduğu, bu durum yeni nesil karbonizasyon atığı ve piroliz gübrelerinin topraktaki mikroorganizma faaliyetini desteklediğini, verim parametreleri açısından ise, özellikle A ve B formülasyonlarının uygulamanın 3.gününden itibaren yeni filiz oluşumu, yaprak renginin koyu yeşile dönmesi ile yeni çiçek oluşumu açısından diğer gübrelere oranla olumlu açıdan farklılık arz ettiği tespit edilmiştir. Yapılacak olan bu çalışmanın tarla koşullarında uygulamalarının yapılarak A ve B formülasyonlarının ticari formülasyon haline getirilmesi için çalışmaların detaylandırılması gerekmektedir. Özellikle bu husus ülke organik tarım, yenilikçi yeşil tarım uygulamaları için önem taşımaktadır.

Anahtar Kelimeler: Çilek, Piroliz, Organik Sıvı Gübre, Nematod, Fenolojik Verim Parametreleri

ABSTRACT

This scope of work; The effects of organic vinegar added plant growth and soil conditioner products on nematode trophic structure in strawberry plant were investigated. For this purpose, different doses of 5 different organic origin fertilizers were applied to strawberry plants grown in pots, and the effects of

these fertilizers on the trophic structure of nematodes in the soil and some phenological parameters in strawberry were determined after the application. According to the results of the study; In terms of Plant Parasite Nematode class, it was determined that the chicken and hazelnut vinegar-added fertilizers contain the highest number of individuals. Accordingly, it has been determined that these fertilizers have higher nematode density than other groups in terms of beneficial nematode presence. Nematode groups approximately useful in mixtures A and B, It was noteworthy that the number of plant parasitic nematodes was twice as high as the groups. This number was equal in chicken and hazelnut vinegar-added and Evomax commercial liquid fertilizer applications. The nematode total trophic contents of all groups are different in terms of the number of species, except for Evomax commercial fertilizer, this situation supports the activity of microorganisms in the soil with new generation carbonization waste and pyrolysis fertilizers. It has been determined that the leaf color turns dark green and has a positive difference compared to other fertilizers in terms of new flower formation. It is necessary to detail the studies in order to make the A and B formulations commercial formulations by applying this study under field conditions. This issue is especially important for the country's organic farming and innovative green farming practices.

Keywords: Strawberry, Pyrolysis, Organic Liquid Fertilizer, Nematode, Phenological Yield Parameters

**AÇIK TİP ENDÜSTRİYEL TEŞHİR SOĞUTUCULAR İÇİN HAVA PERDESİ TASARIM
PARAMETRELERİNİN SAYISAL ANALİZİ**

NUMERICAL ANALYSIS OF AIR CURTAIN DESIGN PARAMETERS FOR OPEN TYPE
REFRIGERATED DISPLAY CABINETS

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ÖZET

Gıdaların raf ömrünün uzun olması, sağlık koşullarına uygun muhafazası ve bu sayede ürün israflarının azaltılabilmesi, üzerinde çalışılması gereken önemli konulardandır. Soğuk zincir olarak adlandırılan yapı çok kapsamlı olup içerisinde birçok soğutucu çeşidi bulundurmaktadır. Süpermarketlerde yaygın olarak bulunan endüstriyel teşhir tipi soğutucular soğuk zincirin bir halkasını oluşturmaktadır. Açık tip endüstriyel teşhir soğutucuları ise sıcak ortam havasıyla olumsuz etkileşimleri nedeniyle fazla miktarda elektrik enerjisi tüketmektedirler. Bu nedenle, enerji verimli bir teşhir soğutucu tasarımı önemli bir araştırma konusudur. Bu tip soğutucularda yaygın olarak, şartlandırılmış ortam (kabin içi) ve çevreleyen ortam (kabin dışı) arasındaki havanın ısı ve nem transferini azaltmak için hava perdeleri kullanılmaktadır. Bu çalışmada, ticari bir Hesaplamalı Akışkanlar Dinamiği (HAD) kodu ile dikey, açık tip bir teşhir soğutucu modellenmiş ve farklı üfleme hava hızlarının mevcut hava perdesi performansına etkilerinin sayısal analizi yapılmıştır. Bu gerçekleştirilen analizler ile dört farklı durumun kabin içi hava sıcaklığı ve soğutma yükleri karşılaştırılmıştır. Farklı hava hızlarında yapılan analizler sonucunda 275,91 K ile en iyi kabin içi hava sıcaklığına ve 1,67 m/s üfleme hava hızı ile Durum-3 göstermiş ve bu durumun soğutma yükü ise 1466 W olarak bulunmuştur. En düşük soğutma yükü 1421 W ve hava hızı 1,5 m/s olan Durum-2 bulunmuştur. Durum-2'nin kabin içi hava sıcaklığı ise 280 K'dir. Yapılan analizler neticesinde soğutma yükü ve kabin içi hava sıcaklığı karşılaştırmalarına dayanılarak en iyi performansın Durum-3 olduğu görülmektedir. Elde edilen bulgular akış, soğutma yükü ve sıcaklık açısından tasarımcılara ışık tutacaktır.

Anahtar Kelimeler: Endüstriyel teşhir tipi soğutucu, Enerji verimliliği, HAD, Hava perdesi

ABSTRACT

It is important to work on the long shelf life of foods, their preservation in accordance with health conditions, and thus reducing product wastage. The structure called the cold chain is rather comprehensive and contains many types of coolers. Industrial display coolers, which are commonly used in supermarkets, form a ring of the cold chain. Open type refrigerated display cabinets, on the other hand, consume large amounts of electrical energy due to their negative interactions with the hot ambient air. Therefore, design of an energy efficient cabinet seems an important research topic. Air curtains are commonly used in this type of cabinets to reduce the heat and moisture transfer of the air between the conditioned environment (inside the cabinet) and the surrounding environment (outside the cabinet). In this study, a vertical, open type refrigerated display cabinets has been modeled through a commercial Computational Fluid Dynamics (CFD) code, and various blowing air velocity effects on the current air curtain performance have been numerically analyzed. Through these analyzes, the cabin air temperature and cooling loads for four different situations were compared. As a result of the analyzes carried out at different air velocities, the best indoor air temperature of 275,91 K was determined at the blowing air velocity of 1,67 m/s, and the cooling load of this situation was found to be 1466 W. The lowest cooling load of 1421 W at the air velocity of 1,5 m/s was found under Case-2. The cabinet air temperature for Case-2 was 280 K. As a result of the analyzes made, it is seen that the best performance has been Case-3 considering comparison of the cooling load and the air temperature in the cabinet. The findings obtained will provide more informations to designers in terms of flow, cooling load, and temperature.

Keywords: Air curtain, CFD, Energy efficiency, Refrigerated display cabinets

**YEŞİL ÜRÜN TÜKETİMİ VE GÖNÜLLÜ SADE HAYAT İLİŞKİSİNİN BELİRLENMESİNE
YÖNELİK AMPİRİK BİR ARAŞTIRMA**

AN EMPIRICAL RESEARCH ON THE DETERMINATION OF THE RELATIONSHIP BETWEEN
GREEN PRODUCT CONSUMPTION AND VOLUNTARY SIMPLE LIFE

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ÖZET

Araştırma yeşil tüketim ve gönüllü sade tüketim arasındaki ilişkiyi belirlemeyi amaçlamaktadır. Batı Karadeniz illerinde 575 tüketici ile yüz yüze ve bir kısmı da internet üzerinden anket yöntemi ile veriler toplanmıştır. Analizlerde; güvenilirlik, frekans, katılım düzeyi, faktör analizi, korelasyon ve regresyon analizleri sonuçlarına yer verilmiştir. Yeşil ürün ile ilgili ölçek değerlendirildiğinde en önemli olan ifadeler; “İki eşit ürün arasında seçme şansım olduğunda daima çevreye ve diğer insanlara daha az zararlı olanı satın alıyorum”, “Daha az elektrik kullanan ev cihazları markalarını satın alırım”, “Çevreye zarar vereceğini anladığım ürünleri satın almıyorum” ve “Mümkün olduğunca tekrar kullanılabilir kaplarda paketlenmiş ürünler satın alırım” şeklinde sıralanmıştır. Gönüllü sade hayat ölçeğine göre en önemli olan ifadeler; “Çevreye zarar veren ev ürünlerini satın almıyorum”, “Toplumun ürünün fiyatı konusundaki düşüncesine aldırmadan, her zaman en ucuz fiyatlı ürünü satın alıyorum”, “Petrole bağımlılığımızı azaltmak için arabamı olabildiğince az kullanırım”, “Sadece geri dönüşümü mümkün olan ürünler satın almaya çalışıyorum”, “Asit yağmurunun ne olduğunu biliyorum”, “Ozon incilmesi probleminin ne olduğunu biliyorum” ve “Plastik poşetlerin doğada yok olmasının uzun yıllar aldığını ve kirliliğe neden olduğunu biliyorum” şeklinde sıralanmıştır.

Anahtar Kelimeler: Yeşil Tüketim, Gönüllü Sade Hayat, Tüketim Şekli.

ABSTRACT

The objective of the research is to determine the relationship between green consumption and voluntary simple consumption. The data were collected from 575 consumers residing in the provinces at the Western Black Sea coast partly by face-to-face and the rest by online questionnaires. The reliability, frequency, participation level, factor analysis, correlation and regression analysis were conducted and the results were revealed accordingly. The most important statements when evaluating the scale about the green product are; “When I have a choice between two equal products, I always buy the one that is less harmful to the environment and other people”, “I buy brands of household appliances that use less electricity”, “I do not buy products that I consider would harm the environment” and “Packed in reusable containers whenever possible” I buy products”. The most important expressions according to the voluntary simple life scale; “I don't buy household products that harm the environment”, “I always buy the cheapest product regardless of what the society thinks about the price of the product”, “I use my car as little as possible to reduce our dependence on oil”, “I only try to buy products that can be recycled” ,

“I know what acid rain is”, “I know what the ozone depletion problem is” and “I know that plastic bags take many years to disappear in nature and cause pollution”.

Keywords: Green Consumption, Voluntary Simple Life, Consumption Type

**TÜKETİCİNİN REKLAM ALGISININ MARKA TERCİHİNE ETKİSİNİN KİŞİLİK
ÖZELLİKLERİ AÇISINDAN DEĞERLENDİRİLMESİ**

**EVALUATION OF THE EFFECT OF CONSUMER'S ADVERTISING PERCEPTION ON BRAND
PREFERENCE IN TERMS OF PERSONALITY TRAITS**

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ÖZET

Değişen ve gelişen dünyada, bir faaliyet ya da üründen kâr elde etmek için reklam ve tüketici gibi iki önemli unsurun doğru yönetilip iyi irdelenmesi gerekmektedir. Reklam ürüne veya hizmete simgesel bir anlam yükleyerek tüketiciyi satın almaya ikna edici bir unsur olarak düşünüldüğünde bireyin sahip olduğu kişilik özellikleri reklam ve marka tercihi ilişkisinde şekillendirici bir unsur olabileceği düşünülmektedir. Bu bakımdan araştırmanın amacı, tüketicilerin reklam algısının marka tercihinin etkisi üzerinin beş faktör kişilik özelliklerine göre farklılık gösterip göstermediğinin belirlenmesidir. Veri toplama tekniği olarak anket tekniği ile Batı Karadeniz bölgesinde 439 katılımcıya ulaşılmıştır ve veriler üzerinde nicel araştırma tekniklerinden regresyon analizi ve process analizi gerçekleştirilerek çalışma sonuçlandırılacaktır. Elde edilen bulgular ile sonuçlar hem tüketicilerin kişiliği açısından hem de işletmelerin marka ve reklam konusundaki tüketicilere bakış açıları bakımından literatüre katkı sağlayacağı düşünülmektedir.

Anahtar Kelimeler: Reklam Algısı, Marka Tercihi, Kişilik Özellikleri, Tüketici Davranışları

ABSTRACT

In a changing and developing world, to profit from an activity or product, two important elements such as advertisement and consumer need to be managed and examined well. When the advertisement is considered as an element that persuades the consumer to buy by attributing a symbolic meaning to the product or service, it is thought that the personality traits of the individual may be a shaping role in the relationship between advertisement and brand preference. In this respect, the aim of the research is to determine whether the effect of consumers' advertisement perception on brand preference differs according to the five-factor personality traits. As a data collection technique, 439 participants were reached in the Western Black Sea region with the survey technique, and the study will be concluded by performing regression analysis and process analysis, which are quantitative research techniques, on the data. It is thought that the findings and the results will contribute to the literature both in terms of the personality of the consumers and the perspectives of the businesses on the consumers about the brand and advertisement.

Keywords: Advertisement Perception, Brand Preference, Personality Traits, Consumer Behavior

ANATOMİ TEZLERİNDE KADAVRA ÇALIŞMALARININ YERİ
THE IMPORTANCE OF CADAVER STUDIES IN ANATOMY THESIS

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ÖZET

Giriş ve Amaç: Tıp ve sağlık bilimleri eğitiminin temel disiplinlerinden olan Anatomi, insan vücudunun yapısını incelemektedir. Anatomi eğitimi ve çalışmalarında organ ve ilişkili olduğu komşuluklarının iyi bir biçimde öğrenilmesi, anatomik yapıların daha detaylı olarak incelenebilmesi ve klinik anatominin organa spesifik olarak daha iyi anlaşılabilmesi açısından kadavra çok önemlidir. Derlememizin amacı son yıllarda anatomi tezlerinde yapılan çalışmalarda kadavranın yerini ve önemini tespit etmektir.

Method: Derlememizde ‘Ulusal Tez Merkezi’ veri tabanında 2012-2022 tarihleri arasında Anatomi Ana Bilim Dalında yapılmış olan yüksek lisans ve doktora tezleri tarandı ve 668 çalışmaya ulaşıldı. Bu çalışmalarda ‘kadavra’ anahtar kelimesi taranarak 668 çalışmadan 641’inin çıkarılmasıyla 27 makale değerlendirildi.

Bulgular: 27 çalışmadan 1’i tıp öğrencilerin kadavraya yaklaşımını, 1’i kadavra-doku koruma tekniklerini içeriyordu. Diğer çalışmalardan 15 fetal, 2 yenidoğan, 4 yetişkin, 1 hem fetal hem yetişkin, 2 yaş bildirilmemiş, 1 ortalama yaşın 50 olarak belirtildiği kadavra çalışmaları vardı. Bu 25 çalışmanın 16’sı morfometrik-antropometrik, 3 stereolojik, 2 anatomik varyasyon, 4 anatomik yapıların oluşumu, seyri ve dallanmalarıyla ilgili yöntemlerden oluşuyordu. Çalışmaların konuları 3 iç organ, 5 cranium, 17 kas-iskelet sistemi ile ilgiliydi.

Tartışma ve Sonuç: Kadavra ulaşma problemi ve farklı teknolojilerin gelişimi kadavra ile yapılan çalışmaları etkilemektedir. Anatomide gerçek dokuyu ayrıntılı incelemek ancak kadavra ile sağlanabilmektedir. Hem eğitim hem de klinikte hibrit çalışma modeli açısından kadavra ile farklı yaşlarda vücudumuzun her bölümüyle ilgili farklı tekniklerle çalışmalar yapılması her zaman kıymetlidir. Bu sebeple özellikle akademide kişinin kimliği olarak nitelendirebileceğimiz tez çalışmalarında kadavra ile ilgili çalışmalara ağırlık verilmesi önem arz etmektedir.

Anahtar Kelimeler: Anatomi, Tez, Kadavra

ABSTRACT

Introduction and aim: Anatomy, one of the basic disciplines of medicine and health sciences education, examines the structure of the human body. The cadaver is very important in anatomy education and studies in order to learn the organ and its related neighborhoods well, to examine the anatomical structures in more detail, and to better understand the clinical anatomy specific to the organ. The aim of this review is to determine the place and importance of the cadaver in studies conducted in anatomy theses in recent years.

Methods: In our review, master's and doctoral theses made in the Department of Anatomy between 2012-2022 were scanned in the database of the 'National Thesis Center' and 668 studies were reached. In these studies, 27 articles were evaluated by scanning the keyword 'cadaver' and removing 641 out of 668 studies.

Results: Of the 27 studies, 1 included medical students' approach to cadavers, and 1 included cadaver-tissue preservation techniques. From other studies, there were cadaver studies reported as 15 fetal, 2 newborn, 4 adult, 1 both fetal and adult, 2 years undeclared, 1 mean age 50 years. Of these 25 studies, 16 consisted of morphometric-anthropometric, 3 stereological, 2 anatomical variations, 4 methods on the formation, course and branching of anatomical structures. The subjects of the studies were 3 visceral, 5 cranium, 17 musculoskeletal systems.

Dissuccion and Coclusion: The problem of reaching the cadaver and the development of different technologies affect the work done with cadavers. Examining the real tissue in detail in anatomy can only be achieved with a cadaver. It is always valuable to work with cadavers with different techniques on every part of our body at different ages, both in education and in terms of the hybrid working model in the clinic. For this reason, it is important to focus on studies related to cadavers, especially in thesis studies, which can be described as the identity of the person in academia.

Keywords: Anatomy, Thesis, Cadaver

İNME FİZİYOTERAPİSİNDE TELEREHABİLİTASYONUN ETKİSİ

EFFECT OF TELEREHABILITATION IN STROKE PHYSIOTHERAPY

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ÖZET

Giriş ve Amaç: İnme hastalarındaki telerehabilitasyon (TR), nöroloji servislerinde uygulanan rehabilitasyonun telefon, internet veya eş zamanlı video danışmanlığı ile desteklenmesidir. Bu sistemik derlemenin amacı, inme hastalarında TR uygulamasının etkinliğini, literatürdeki güncel kanıtlar ışığında belirlemektir.

Method: Çalışmamızda PUBMED üzerinden başlık ve özetinde ‘‘telerehabilitation’’, ‘‘telemedicine’’, ‘‘telerehabilitation’’, ‘‘stroke’’ anahtar kelimeli ve telerehabilitasyon uygulamasının yapıldığı randomize kontrollü yayınlar tarandı. Taramada **1012 çalışma görüntülendi. Filtreleme kısmında son 5 yıldaki ve randomize kontrollü çalışmalar seçilerek 27 çalışma elde edildi bu çalışmalardan da konu ile direkt ilişkili 16 çalışma derlemeye alındı.**

Bulgular: Derlemede incelenen çalışmalarda motor fonksiyonlarda etkili olduğunu bildiren 9, denge fonksiyonlarında etkili olduğunu bildiren 5, yaşam kalitesinde etkili olduğunu bildiren 2, hasta/bakıcı memnuniyetinde etkili olduğunu bildiren 6, psikolojik duygudurumda etkili olduğunu bildiren 4, inme anketlerinde etkili olduğunu bildiren 2 çalışma varken, 1 çalışma da TR’nin yaşam kalitesi ve hasta memnuniyetinde etkili olmadığını bildirmektedir.

Tartışma ve Sonuç: Derlememizde inme hastalarında uygulanan TR’nin; yaşam kalitesinde, hasta ve hasta yakınlarının memnuniyet ve psikolojisinde, denge ve fonksiyonel yeterlilik gibi motor becerilerde, konvansiyonel tedaviler kadar etkili olduğu ve inme sonrası rehabilitasyonda TR ile tedavi uygulamasının, hasta iyileşmesinde etkili olacağı sonucuna ulaştık.

Anahtar Kelimeler: Telerehabilitasyon, Teletıp, Telebakım, İnme, Rehabilitasyon

ABSTRACT

Introduction and aim: Telerehabilitation (TR) in stroke patients is the support of rehabilitation applied in neurology services with telephone, internet or simultaneous video counseling. The aim of this systemic review is to determine the effectiveness of TR application in stroke patients in the light of current evidence in the literature.

Methods: In our study, randomized controlled publications with the keywords "telerehabilitation", "telemedicine", "telerehabilitation", "stroke" in the title and abstract and in which telerehabilitation was applied were searched through PUBMED. 1012 studies were viewed in the scan. In the filtering part, 27 studies were obtained by selecting randomized controlled studies in the last 5 years and 16 studies directly related to the subject were included in the review.

Results: In the studies reviewed in this review, there are 9 studies reporting that it is effective on motor functions, 5 studies in balance functions, 2 studies in quality of life, 6 studies in patient/caregiver satisfaction, 4 studies in psychological mood and 2 studies reporting that it is effective in stroke questionnaires. In contrast one study reports that TR is not effective in quality of life and patient satisfaction.

Discussion and Conclusion: In this review, we concluded that TR applied to stroke patients is as effective as conventional treatments in quality of life, satisfaction and psychology of patients and their relatives, motor skills such as balance and functional competence, and that TR treatment in post-stroke rehabilitation will be effective in patient recovery.

Keywords: Telerehabilitation, Telemedicine, Telecare, Stroke, Rehabilitation

BAĞLAM TEMELLİ ÖĞRENME HAKKINDA ÖĞRETMEN GÖRÜŞLERİ

TEACHER'S OPINIONS ON CONTEXT-BASED LEARNING

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ÖZET

Eğitimde yeni yaklaşımlar öğrenci merkezli olarak daha kalıcı ve anlamlı öğrenmeyi desteklemektedir. Bu yeni yaklaşımlardan biri de bağlam temelli öğrenmedir. Bağlam temelli öğrenme dersin başlangıcında öğrencilere konu ile ilgili temel kavramların günlük hayattaki uygulamalarına yönelik örnekler içeren bağlamlar vermeye dayanır. Günlük hayattan alınan örneklerin öğrenci seviyesine uygun olarak öğrenmeyi ve sınıf içi etkinlikleri gerçek dünyadaki problemlerle ilişkilendirerek konuların anlaşılmasını sağlayan öğretim yaklaşımıdır. Bu çalışma fen bilimleri öğretmenlerinin bağlam temelli öğrenme yaklaşımı ile ilgili görüşlerini belirlemek için yapılmıştır. Çalışmada durum çalışması yöntemi kullanılmıştır. Bu çalışmada çalışma grubu 2020-2021 yılında farklı illerde görev yapan fen bilimleri öğretmenleri arasından amaçlı örneklem yöntemlerinden olan kolay ulaşılabilir örneklem yöntemi ile seçilmiştir. Veri toplama aracı olarak yarı yapılandırılmış görüşme formundan yararlanılmıştır. Yarı yapılandırılmış görüşme formunda yedi soru ve formun sonunda üç tane bağlam senaryosu verilmiştir. Öğretmenlere bu bağlamlarla ilgili sorular yöneltilmiştir. Form geliştirilirken fen eğitimi uzman görüşleri alınarak gerekli düzeltmeler yapılmıştır. Bu araştırmada toplanan veriler, nitel araştırma yöntemlerinde kullanılan analiz tekniklerinden betimsel analiz tekniğine göre çözümlenmiştir.

Öğretmenler bağlam temelli öğrenme yaklaşımı ile ilgili bilgi seviyelerini orta düzey olarak ifade etmişlerdir. Bağlam temelli öğrenme yaklaşımını açıklayan öğretmenler günlük hayatla ilgili olduğunu ifade etmişlerdir. Bağlam temelli öğrenmeyi örneklemeler yapmak için kullandıklarından bahsetmişlerdir. Bağlam temelli öğrenmenin günlük hayatla ilgili konulara daha uygun olduğu belirtmişlerdir. Fen bilimlerinin günlük yaşamla yakınlığının fazla olmasından dolayı fen bilimleri konularının bağlam temelli ile işlenebileceğini belirtmişlerdir. Katılımcılar fen bilimleri dersinde bağlam temelli öğrenmeyi kullanmanın feni günlük yaşama daha fazla yaklaştıracığını, derse karşı ilgiyi artıracığını ve dersin işleyişini kolaylaştıracığını belirtmiştir. Bağlam temelli öğrenmenin fen bilimleri dersine kalıcılık, bilişsel gelişim, fene karşı tutum ve somutlaştırma gibi öğrenme çıktıları katacağını belirtmişlerdir. Bağlam senaryoları incelemelerinde öğretmenler bağlamın hangi konu ile ilgili olduğu ve hangi ön bilgileri ortaya çıkardığına ilişkin yeterli düzeyde görüş belirtmiştir. Öğretmenlere fen bilimleri dersi için bağlam senaryoları örneklerini içeren rehber materyal hazırlanabilir. Bağlam temelli öğrenme uygulama örnekleri ile eğitimler düzenlenebilir.

Anahtar Kelimeler: Bağlam Temelli Öğrenme, Yaşam Temelli Öğrenme, Öğretmen Görüşleri

ABSTRACT

The new approaches in education support more permanent and meaningful learning in a student-centered manner. One of these new approaches is context-based learning. Context-based learning is based on giving examples of the concepts related to their daily life applications. It is a teaching approach that enables students to understand the subjects by associating in-class activities with real-world problems and learning in accordance with the level of students from examples taken from daily life. This study

was conducted to determine the views of science teachers about the context-based learning approach. Case study method was used in the study. In this study, the study group was selected from among science teachers working in different provinces in 2020-2021, with the easily accessible sampling method, which is one of the purposeful sampling methods. A semi-structured interview form was used as a data collection tool. In the semi-structured interview form, seven questions and three context scenarios were given at the end of the form. Teachers were asked questions about these contexts. While developing the form, necessary corrections were made by taking the opinions of science education experts. The data collected in this study were analyzed according to the descriptive analysis technique, which is one of the analysis techniques used in qualitative research methods.

Teachers expressed their knowledge level about the context-based learning approach as medium level. The teachers who explained the context-based learning approach stated that it was related to daily life. They mentioned that they used context-based learning to make examples. They stated that context-based learning is more suitable for issues related to daily life. They stated that due to the closeness of science to daily life, science subjects can be studied with a context-based approach. Participants stated that using context-based learning in science lessons will bring science closer to daily life, increase interest in the lesson, and facilitate the course of the lesson. They stated that context-based learning would add learning outcomes such as permanence, cognitive development, attitude towards science and concretization to the science course. In examining the context scenarios, the teachers expressed a sufficient level of opinion about which subject the context is about and what preliminary information it reveals. Guidance material including examples of context scenarios can be prepared for teachers for science lessons. Trainings can be organized with context-based learning application examples.

Keywords: Context-Based Learning, Life-Based Learning, Teacher Views

HAYAT BİLGİSİ DERSİNİN DİĞER DERSLERLE İLİŞKİSİNE YÖNELİK ÖĞRETMEN GÖRÜŞLERİ

TEACHERS' VIEWS ON THE RELATIONSHIP OF LIFE STUDIES COURSE WITH OTHER COURSES

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ÖZET

Hayat Bilgisi dersi; öğrencinin ruhunu dikkate alarak doğal ve toplumsal çevresiyle uyumunu sağlayan, yaparak yaşayarak öğrenme yoluyla öğrenciyi doğal yaşamla ilgili yararlı bilgilerle donatan, öğrenciyi hayata ve bir üst öğrenim basamağına hazırlayan, öğrenci merkezli, disiplinler arası bir derstir. İlkokulda mihver ders olan Hayat Bilgisi dersi çocuğa içinde bulunduğu doğal ve toplumsal çevreyi ve kendini tanımasına imkân sunmaktadır. Bu araştırma Hayat Bilgisi dersinin farklı disiplinlerle ilişkisine yönelik öğretmen görüşlerini belirlemek amacıyla yapılmıştır.

Araştırmada özel durum yöntemi kullanılmıştır. Nitel araştırma yaklaşımı çatısında incelenen özel durum yönteminde, bir problemi farklı bakış açılarıyla tanımlama, anlama ve değerlendirmek mümkündür. İzlenen nitel sürecin sonunda, algılar ve olaylar, doğal ortamlarında bütüncül bir biçimde ortaya konmaya çalışılır. Araştırmada veri toplama aracı olarak yarı yapılandırılmış görüşme formu ve kontrol listeleri kullanılmıştır. Araştırma 2021-2022 öğretim yılı güz döneminde Amasya merkezde bulunan bir ilkokuldaki 6 sınıf öğretmeni ile gerçekleştirilmiştir. Veriler Hayat Bilgisi öğretim programı kazanımlarının diğer disiplinler ile ilişkisi kontrol listesi ve yarı yapılandırılmış mülakat formu kullanarak toplanmıştır. Veri toplama araçlarının geliştirilmesinde uzman görüşüne başvurulmuştur. Veri analizinde içerik analizi yapılmıştır.

Araştırma sonucunda sınıf öğretmenleri hayat bilgisi dersinin sınıflara ve ünitelere göre farklılık göstermekle birlikte en fazla Türkçe, Sosyal bilgileri, Fen Bilimleri dersleri ile ilişkilendirmektedir. En az İngilizce ve Resim dersi ile ilişkilendirmektedir. Diğer derslerle ilişkisinin oyunlaştırma, kural öğrenme, sosyalleşme boyutlarında olduğu belirtilmiştir. Hayat bilgisi dersini diğer derslerle ilişkilendirirken anlatım, görseller, benzetmeler, grafikler yaparak yaşayarak öğrenme etkinliklerinden yararlanıldığı ifade edilmiştir. Öğretmenler Hayat bilgisi dersinin duyuşsal, bilişsel ve psikomotor alanlarda birbirini desteklediği düşünmektedir. Öğretmen görüşlerinden farklı derslerin ilişkilendirilerek çocuğun bir üst kademeye hazırlamasında dersin öneminin anlaşıldığı söylenebilir. Hayat Bilgisi öğretim programında kazanımların farklı disiplinlere uyarlamasına yönelik öneriler verilebilir. Sınıf öğretmenlerine disiplinler arası ilişkileri öğretimde kullanmalarına yönelik rehber materyaller hazırlanabilir.

Anahtar Kelimeler: Hayat bilgisi, disiplinler arası ilişki, öğretmen görüşleri, Hayat bilgisi dersi öğretim programı.

ABSTRACT

Life Science course; it is a student-centered, interdisciplinary course that takes into account the spirit of the student and adapts to its natural and social environment, equips the student with useful information about the natural life through learning by doing it, prepares the student for life and a higher education

step. Life Science course, which is a axis course in primary school, allows the child to get to know the natural and social environment and himself. This research was carried out in order to determine the teacher's opinions regarding the relationship of Life Science course with different disciplines.

Case study method was used in the research. In the case study method, which is inced under the roof of qualitative research approach, it is possible to identify, understand and evaluate a problem from different perspectives. At the end of the qualitative process, perceptions and events are tried to be presented holistically in their natural environment. Semi-structured interview form and checklists were used as data collection tools in the research. The research was carried out with 6 classroom teachers at an elementary school in the center of Amasya during the fall semester of the 2021-2022 academic year. The data were collected using a Life Science curriculum acquisitions, a checklist of their relationship with other disciplines, and a semi-structured interview form. Expert opinion has been consulted in the development of ver itoplasming tools. Content analysis was performed in data analysis.

As a result of the research, classroom teachers are most interested in Turkish, Social Studies and Science courses, although the life knowledge course varies according to the classes and units. It relates to at least English and Painting courses. It is stated that its relationship with other courses is in the dimensions of gamification, rule learning, socialization. It has been stated that learning activities are used by living by making lectures, visuals, analogies, graphics while associating the life knowledge course with other courses. Teachers believe that the Life Science course supports each other in the sensory, cognitive and psychomotor fields. It can be said that the importance of the course is understood in preparing the child to the next level by associating different courses from teacher opinions. In the Life Science curriculum, recommendations can be given for adapting the gains to different disciplines. Guidance materials can be prepared for classroom teachers to use interdisciplinary relations in teaching.

Keywords: Life knowledge, interdisciplinary relationship, teacher opinions, Life knowledge course curriculum.

SİVAS EKOLOJİK KOŞULLARINDA BAZI DOMUZ AYRIĞI (*Dactylis glomerata ssp. glomerata* L.) GENOTİPLERİNİN AGRO-MORFOLOJİK ÖZELLİKLER BAKIMINDAN DEĞERLENDİRİLMESİ

THE EVALUATION OF AGRO-MORPHOLOGICAL CHARACTERISTICS OF SOME COCKSFOOT (*Dactylis glomerata ssp. glomerata* L.) GENOTYPES IN SİVAS ECOLOGICAL CONDITIONS

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ÖZET

Hayvan beslemede ihtiyaç duyulan kaba yemlerin en önemli kaynakları çayır-meralar ve yem bitkisi yetiştiriciliğidir. Ancak yem bitkisi kaynaklarından elde edilen üretim miktarı ne yazık ki istenilen düzeyde değildir. Hayvan beslemede baklagil ve buğdaygil yem bitkileri olmak üzere iki temel kaynak kullanılmaktadır. Doğada bol miktarda bulunan ve hayvanlar tarafından severek tüketilen domuz ayrığı (*Dactylis glomerata ssp. glomerata* L.) kurağa, otlatma ve biçime oldukça dayanıklıdır. Araştırmada, buğdaygil yem bitkilerinden domuz ayrığı bitkisinin Sivas ili ekolojik koşullarında bazı tarımsal özelliklerin yanında kaba yem verimlerinin değerlendirilmesi amaçlanmıştır. Deneme tesadüf blokları deneme desenine göre 4 tekerrürlü olacak şekilde yürütülmüştür. Araştırmada salkım çıkarma gün sayısı (SÇGS), ana sap uzunluğu (ASU), ana sap kalınlığı (ASK), boğum arası uzunluğu (BAU), ana saptaki boğum sayısı (ASBS), bayrak yaprak boyu (BYB), bayrak yaprak eni (BYE), yaş ot verimi (YOV) ve kuru ot verimi (KOV) özellikleri incelenmiştir. Ana sap uzunluğu, ana saptaki boğum sayısı, bayrak yaprak boyu ve kuru ot verimi haricinde diğer bütün özellikler istatistiki olarak önemli bulunmuştur. Çalışma sonucunda ortalama salkım çıkarma gün sayısı 127.88 gün, ana sap uzunluğu 74.35 cm, ana sap kalınlığı 2.93 mm, boğum arası uzunluğu 14.25 mm, ana saptaki boğum sayısı 3.79 adet, bayrak yaprak boyu 13.03 cm, bayrak yaprak eni 4.98 mm, yaş ot verimi 3078.31 kg/da ve kuru ot verimi 1074.19 kg/da olarak saptanmıştır.

Anahtar Kelimeler: Domuz ayrığı, yem bitkisi, agromorfolojik özellikler

ABSTRACT

The most important sources of roughage needed in animal nutrition are meadow-pastures and forage crop cultivation. However, the amount of production obtained from forage plant sources is unfortunately not at the desired level. Two main sources are used in animal nutrition, namely legumes and grasses. Pigweed (*Dactylis glomerata ssp. glomerata* L.), which is abundant in nature and consumed fondly by animals, is highly resistant to drought, grazing and form. In the study, it was aimed to evaluate the roughage yields as well as some agricultural characteristics of the porcine weed plant, which is one of

the grass forage crops, in the ecological conditions of Sivas province. The experiment was carried out in a randomized block design with 4 replications. In the study, number of days to cluster emergence (NDCE), main stem length (MSL), main stem thickness (MST), internode length (IL), number of nodes on the main stem (NNMS), flag leaf length (FLL), flag leaf width (FLW), green grass yield (GGY) and hay yield (HY) characteristics were investigated. Except for main stem length, number of nodes on main stem, flag leaf length and hay yield, all other characteristics were found to be statistically significant. As a result of the study, the average number of cluster removal days was 127.88 days, main stem length 74.35 cm, main stem thickness 2.93 mm, internode length 14.25 mm, number of nodes on the main stem 3.79, flag leaf length 13.03 cm, flag leaf width 4.98 mm, fresh forage yield. 3078.31 kg/da and hay yield were determined as 1074.19 kg/da.

Keywords: Cocksfoot, fodder crop, agromorphological traits

**SİVAS EKOLOJİK KOŞULLARINDA BAZI KORUNGA (*Onobrychis sativa*) ÇEŞİTLERİNİN
AGRO-MORFOLOJİK ÖZELLİKLER BAKIMINDAN PERFORMANSININ
DEĞERLENDİRİLMESİ**

EVALUATION OF THE PERFORMANCE OF SOME SAINGA (*Onobrychis sativa*) VARIETIES
IN TERMS OF AGRO-MORPHOLOGICAL PROPERTIES IN SİVAS ECOLOGICAL
CONDITIONS

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ÖZET

Korunga (*Onobrychis sativa*), yeşil otu ve kuru ot hayvan beslenmesinde yem kaynağı olarak kullanılan, ekildiği alanın toprağını organik madde bakımından zenginleştiren ve cezp edici çiçekleri ile arıcılık açısından önemli bir nektar ve polen kaynağı olan çok yıllık bir yem bitkisidir. Proteince zengin ve yem kalitesi iyi olan korunga otu kalsiyum, fosfor ve diğer mineral maddelerce zengindir. Bu araştırma, farklı orijinli dört adet korunga çeşidinin Sivas ekolojik koşullarında bazı agronomik özelliklerinin belirlenmesi amacıyla 2020-2021 yılları arasında yürütülmüştür. Araştırmada, korunga çeşitlerinin çiçeklenme gün sayısı (gün), ana sap uzunluğu (cm), ana sap kalınlığı (mm), ana sap sayısı (adet), kışa dayanıklılık (%), kuru ot verimi (kg/da) ve yeşil ot verimi (kg/da) özellikleri incelenmiştir. Araştırma sonucunda, incelenen çeşitlerin Sivas şartlarındaki performanslarında önemli farklılıklar olduğu belirlenmiştir. Çeşitler arasında çiçeklenme gün sayısı 108.40-110.40 gün arasında değişim göstermiştir. Çalışmadan elde edilen verilere göre, çeşitler arasında yeşil ot verimi 3028.80-3173.80 kg/da arasında değişim gösterirken, kuru ot verimi 360.40-539.20 kg/da arasında değişim göstermiştir. Ana sap uzunluğu ve ana sap kalınlığı özellikleri sırası ile incelenen çeşitler arasında 75.80-79.20 cm ve 4.38-4.60 mm arasında değişim göstermiştir. Çeşitler arasında kışa dayanıklılık ortalama %97.25, ana sap sayısı ise 9.9 adet olarak saptanmıştır. Korunga bitkisi 5-6 yıl hiç bozulmadan aynı tarladan ot alınabilen, çoğu bitkinin yetişmediği verimsiz, taşlık, meyilli araziler ekilerek değerlendirilebilen önemli bir yem bitkisi olup, kaba yem ihtiyacının karşılanması noktasında değerlendirilmesi ve yetiştirilmesi gereken bir yem bitkisidir. Yetiştirildiği bölgeye özgü uyum sağlamış, verimi yüksek çeşitlerin geliştirilmesi büyük önem arz etmektedir.

Anahtar Kelimeler: Korunga, kuru ot verimi, yeşil ot verimi

ABSTRACT

Sainfoin (*Onobrychis sativa*) is a perennial forage plant that is used as a fodder for green grass and dry grass animal nutrition, enriches the soil of the planted area in terms of organic matter, and is an important source of nectar and pollen for beekeeping with its attractive flowers. Sainfoin, which is rich in protein

and has good feed quality, is rich in calcium, phosphorus and other mineral substances. This research was carried out to determine some agronomic characteristics of four sainfoin cultivars of different origins in Sivas ecological conditions between the years 2020-2021. In the study, the number of flowering days (days), main stem length (cm), main stem thickness (mm), main stem number (pieces), winter hardiness (%), hay yield (kg/da) and green grass yield of sainfoin cultivars were determined. (kg/da) properties were examined. As a result of the research, it was determined that there were significant differences in the performance of the examined cultivars under Sivas conditions. The number of flowering days among the cultivars varied between 108.40 and 110.40 days. According to the data obtained from the study, green grass yield varied between 3028.80-3173.80 kg/da, while dry grass yield varied between 360.40-539.20 kg/da. The main stem length and main stem thickness characteristics varied between 75.80-79.20 cm and 4.38-4.60 mm among the cultivars examined, respectively. Among the cultivars, the average winter hardiness was 97.25% and the number of main stems was 9.9. The sainfoin plant is an important forage plant that can be used for 5-6 years without spoiling, by planting in unproductive, stony and sloping lands, where most plants do not grow. It is of great importance to develop varieties that are adapted to the region in which they are grown and high yielding.

Keywords: Sainfoin, hay yield, green grass yield.

**SENDİKAYA ÜYE OLMAMA NEDENLERİ: BANKACILIK SEKTÖRÜNDE BİR
ARAŞTIRMA**

REASONS FOR NOT BEING A MEMBER OF A UNION: A RESEARCH IN THE BANKING
INDUSTRY

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ÖZET

Sendikalar, işgörenlerin ekonomik, sosyal, kültürel hak ve menfaatlerini koruyan, haksızlığa ve adaletsizliğe maruz kaldığı durumlarda üyelerinin başvurabileceği çalışma yaşamının en temel unsurlarındandır. İşgörenlerin çalışma koşullarının iyileştirilmesi ve ücretlerinin hak ettikleri seviyeye çıkarılması için mücadele eden sivil toplum kuruluşlarıdır.

Bankacılık sektöründeki örgütlenmeler incelendiğinde ve çalışan sayısı en çok olan 10 banka üzerinden bir değerlendirme yapıldığında sendikalaşma oranının %62 olduğu görülmektedir. Bu 10 bankanın toplam çalışan sayısı 162.254'tür. Toplu sözleşme yapılan bankalar Ziraat Bankası, Halk Bank, Vakıflar Bankası, İş Bankası, Yapı ve Kredi Bankası olup toplum çalışan sayıları 100.128'dir. Toplu sözleşme yapılma oranı da %54 olarak gerçekleşmektedir. Sektörün %33'ünü oluşturan 5 bankada (Ak Bank, TEB, Garanti, Denizbank, Finansbank) 62.126 çalışan olup toplu sözleşme yapılamamaktadır.

Bu çalışmanın amacı, ülke ekonomilerinde önemli yer tutan ve insan kaynakları yaklaşımlarında öncülük eden, yaklaşık 185.000 çalışanı olan, üst düzey yöneticilerinin Türkiye'de saygın yöneticiler olduğu, çalışanların ise %87'sinin lisans ve lisansüstü (Yüksek lisans ve doktora) mezunu olduğu bir sektördeki çalışanların sendikaya üye olmama nedenlerini belirlemektir.

Bu amaç doğrultusunda bankacılık sektöründeki çalışanların ilgi gösterdiği bir web sayfasının yardımıyla bir anket çalışması gerçekleştirilmiştir. Böyle bir yöntemin seçilmesiyle hem daha çok katılımcıya ulaşılması hem de daha doğru sonuçlar elde edilmesi hedeflenmiştir. Zira sendikalaşma ile ilgili yapılan yüz yüze anket çalışmalarında kişilere kimlik bilgilerinin gizli tutulacağı söylense de düşüncelerini ifade etmekten kaçınacakları ihtimali olduğu bilinmektedir.

Anket cevaplayıcılar için kolaylık teşkil etmesi açısından 4 seçenekli hazırlanmış ve bu seçenekler ilgili literatür incelenerek oluşturulmuştur. 1.944 kişinin katılım gösterdiği anket sonuçlarına göre işgörenlerin sendikaya üye olmama nedenlerinin başında %31 ile "Sendikaya üye olduğumda üst yönetimden baskı gelebilir" seçeneği ilk sırada yer almaktadır. Bunu "Sendikalara güvenmiyorum", "İşyerindeki durumum sendika üyeliği ile değişmez" ve "Arkadaşlarım da sendika üyesi değil" seçenekleri izlemektedir.

Çalışma sonuçlarının bankacılık sektöründe örgütlenme faaliyetleri konusundaki yapılacak çalışmalara yardımcı olması umulmaktadır.

Anahtar Kelimeler: Bankacılık, Sendikalaşma, Çalışanlar

ABSTRACT

Unions are one of the essential elements of working life, which protect the economic, social, cultural rights and interests of the employees and which their members can apply in cases where they are exposed

to inequity and injustice. They are non-governmental organizations struggling to improve employees' working conditions and raise their wages to the level they deserve.

When the organizations in the banking sector are analyzed, and an evaluation is made on the ten banks with the highest number of employees, it is seen that the unionization rate is 62%. The total number of employees of these ten banks is 162.254. The banks with which collective agreements are made are Ziraat Bank, Halk Bank, Vakıflar Bank, İş Bank, Yapı ve Kredi Bankası and the number of community employees is 100,128. The rate of making collective agreements is 54%. There are 62,126 employees in 5 banks (Akbank, TEB, Garanti, Denizbank, Finansbank), which make up 33% of the sector, and collective agreements cannot be made.

This study aims to determine why employees in an industry with an important place in national economies, pioneers in human resources, has approximately 185,000 employees, also their top managers are respected in Turkey, and 87% of the employees are undergraduate and postgraduates (Master and Doctorate) do not become union members.

For this purpose, a survey study was carried out with the help of a web page that employees in the banking sector were interested in. By choosing such a method, it aims to reach more participants and obtain more accurate results. It is known that even though people are told that their identifiable information will be kept confidential in face-to-face surveys on unionization, there is a possibility that they will avoid expressing their thoughts.

In terms of convenience for the respondents, the questionnaire was prepared with four options, and these options were created by examining the relevant literature. According to the survey results, in which 1,944 people participated, the option "When I become a member of a union, pressure may come from the senior management" is the leading reason for the employees not to become a union member with 31%. This option is followed by the options "I do not trust the unions," "My situation at work does not change with union membership," and "My friends are not union members either."

It is hoped that the study results will help the studies to be carried out on organizational activities in the banking industry.

Keywords: Banking, Unionization, Employees

ECZACILIK ETİĞİNİN LİTERATÜRDEKİ YERİ

THE PLACE OF PHARMACEUTICAL ETHICS IN THE LITERATURE

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ÖZET

Bu çalışmada, Eczacılık Etiği konusunun, literatürde nasıl yer aldığı ve olması gerekenler ve beklenenler üzerinde öneriler verilecektir.

Etik, bir bireyin veya bir grubun davranışlarının altında yatan ahlaki ilkeleri, nedenleriyle birlikte inceleyen bir felsefe disiplini.

Eczacılık etiği ise genel etik kurallarının ve ilkelerinin eczacılık faaliyetlerine uyarlandığı, etiğin eczacılık mesleği içindeki farklılaşmış, ortaya çıkan değer problemlerinin tartışıldığı, uygulamalı bir dalıdır.

Google akademik ve pub med arama motorlarına “Eczacılık “Etiği” anahtar sözcüğü verilerek yapılan taramada, Google akademik de 9910, Pub med de ise 464 makaleye rastlanmıştır. Ancak, makalelere sistematik olarak incelendiğinde, yönetim, tarih, sosyal sorumluluk konuları içinde eczacılık etiği konusunun çok az geçtiği, klinik eczacılık uygulamaları çalışmalarının da yetersiz olduğu görülmüştür. Ayrıca spesifik bir eczacılık etiği dergisi de yoktur.

Eczacılık etiği literatüründe en sık tartışılan yapılan konulardan biri, gizlilik ve hasta bilgilerinin kullanımına ve ifşa edilmesine ilişkin rıza kavramıyla bağlantılıdır.

Literatürde eczacılar için etik zorlukların ortaya çıktığı durumların iki açıdan ele alınması gerektiğinden bahsedilmektedir:

- Başlı başına eczacılık hizmeti sunumunda karşılaşılan zorluklar
- Bir pazar ortamında eczacılık hizmetinin sunulmasının getirdiği zorluklar

2003'te Birleşik Krallıkta başlatılan APLET (Advancing the Provision of Pharmacy Law and Ethics Teaching) projesi ile ülkedeki tüm eczacılık fakültelerinde standart bir eczacılık etiği müfredatı geliştirilmesi ve öğrencilerin pratikte karşılaşılabileceği etik karmaşaları keşfetmelerini sağlamak amaçlanmıştır.

ABD'de ise etik eğitimi üzerine çalışmalar daha bireysel ve küçük gruplar halinde yapılmaktadır. Türkiye de 45 Eczacılık Fakültesinin sadece 13 tanesinde alanında uzman kişiler tarafından etik eğitimi yapılabilmektedir. Eczacılık fakültelerinde verilen etik dersleri yalnızca dikte edici tarzda değil, interaktif ve uygulamaya yönelik olmalıdır.

Anahtar Kelimeler: Eczacılık, Eczacılık etiği, Literatür

ABSTRACT

In this study, suggestions will be given on how the subject of Pharmacy Ethics takes place in the literature and what should be and what is expected.

Ethics is a discipline of philosophy that examines the moral principles underlying the behavior of an individual or a group, together with their reasons.

Pharmacy ethics, on the other hand, is an applied branch of ethics in which general ethical rules and principles are adapted to pharmacy activities, and the differentiated and emerging value problems within the pharmacy profession are discussed.

In the search made by giving the keyword "Pharmacy Ethics" to "Google Scholar and Pub Med" search, 9910 articles were found in Google Scholar and 464 articles in Pub Med. However, when the articles were examined systematically, it was seen that the subject of pharmacy ethics was very little in management, history and social responsibility issues, and clinical pharmacy practice studies were insufficient. There is also no specific journal of pharmacy ethics.

One of the most frequently discussed issues in the pharmacy ethics literature is related to the concept of confidentiality and consent regarding the use and disclosure of patient information.

In the literature, it is mentioned that situations where ethical difficulties arise for pharmacists should be addressed from two perspectives:

- Difficulties encountered in the provision of pharmacy services per se
- Challenges of pharmacy service delivery in a market environment

With the APPLET (Advancing the Provision of Pharmacy Law and Ethics Teaching) project, which was launched in the United Kingdom in 2003, it was aimed to develop a standard pharmacy ethics curriculum in all pharmacy faculties in the country and to enable students to discover the ethical complexes that they may encounter in practice.

In the USA, studies on ethics education are carried out more individually and in small groups. Ethics training can be provided by experts in only 13 of 45 Pharmacy Faculties in Turkey. Ethics courses given in pharmacy faculties should not only be dictated, but also interactive and practical.

Keywords: Pharmacy, Pharmacy ethics, Literature

**TAŞKIN KORUMA PROJELERİNDEKİ YAKLAŞIK MALİYET BELİRSİZLİKLERİNİN
YAPAY ZEKA TEKNİKLERİ KULLANILARAK TAHMİNİ**

**ESTIMATION OF APPROXIMATE COST UNCERTAINTIES IN FLOOD PROTECTION
PROJECTS USING ARTIFICIAL INTELLIGENCE TECHNIQUES**

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ÖZET

Taşkınlar, aşırı yağışların meydana getirdiği ve yıkıcı etkileri olan doğa olaylarıdır. Taşkınların olumsuz etkilerinin azaltılması amacıyla dere yatakları ve akarsu havzalarında taşkın koruma tesisleri inşa edilmektedir. Taşkın koruma tesislerinin yapımı için oluşturulan projelerde, hem planlama hem de uygulama aşamasında çok fazla sayıda belirsizlik mevcuttur. Bu belirsizlikler; uygulanan projenin tipi, özellikleri, yapımının bilgisi, tecrübesi, işin kalite hedefleri ve bilgi eksikliklerinden kaynaklanmaktadır. Literatür incelemesinde, kamu veya özel sektör aracılığı ile yapılan taşkın koruma tesisi gibi altyapı projelerinde, ihale öncesi yetersiz verilerin bulunduğu, kısa sürede yaklaşık maliyetin tespit edilmesi gerektiği durumlarda yapay zeka teknikleri ve matematiksel modeller kullanılarak yüksek doğruluk oranlarında tespit edilebileceği görülmüştür. Bu çalışmada, Türkiye’de 4734 sayılı Kamu İhale Kanunu kapsamında 2012 ile 2018 yılları arasında ihalesi gerçekleştirilen 88 adet taşkın koruma projesi incelenmiş ve yaklaşık maliyete etki eden faktörler tespit edilmiştir. Yaklaşık maliyetin belirlenmesi amacıyla, maliyeti etkileyen faktörler kullanılarak 5 farklı yaklaşım geliştirilmiş ve oluşturulan bu yaklaşımlar doğrusal, üstel ve kuadratik regresyon modelleri ile test edilmiştir. Yapılan regresyon modellerindeki ağırlık oranları çiçek polenleme algoritması kullanılarak tespit edilmiştir. Yapılan bu çalışma sonucunda; kamu veya özel sektör aracılığı ile yapılan özellikle taşkın koruma gibi altyapı projelerinde ihale öncesi yetersiz verilerin bulunduğu ve kısa sürede yaklaşık maliyetin tespit edilmesi gerektiği durumlarda matematiksel modeller ile yüksek doğruluk oranlarında tespit edilebileceği bulunmuştur.

Anahtar Kelimeler: Taşkın Koruma Tesisleri, Kamu İhale Kanunu, Yaklaşık Maliyet, Çiçek Polenleme Algoritması

ABSTRACT

Floods are natural events caused by excessive rainfall and have devastating effects. In order to reduce the negative effects of floods, flood protection facilities are being built in stream beds and river basins. There are many uncertainties in the projects created for the construction of flood protection facilities, both at the planning and implementation stages. These uncertainties; the type of project implemented, its features, the knowledge and experience of the producer, the quality objectives of the work and the lack of information. In the literature review, it has been seen that in infrastructure projects such as flood protection facilities made by the public or private sector, in cases where insufficient data is available before the tender and the approximate cost needs to be determined in a short time, it can be determined

with high accuracy using artificial intelligence techniques and mathematical models. In this study, 88 flood protection projects that were tendered between 2012 and 2018 within the scope of the Public Procurement Law No. 4734 in Turkey were examined and the factors affecting the approximate cost were determined. In order to determine the approximate cost, 5 different approaches were developed using the factors affecting the cost and these approaches were tested with linear, exponential and quadratic regression models. The weight ratios in the regression models were determined using the flower pollination algorithm. The results of this study; it has been found that there is not enough data available before the purchase of infrastructure projects made through the public or private sector, especially flood protection, and mathematical models can be determined when the approximate cost needs to be determined with high accuracy in a short time.

Keywords: Flood Protection Facilities, Public Procurement Law, Approximate Cost, The Flower Pollination Algorithm

GEMİ ADAMLARI VE TIR ŞOFÖRLERİNİN PSİKOLOJİK DAYANIKLILIK VE STRESLE BAŞA ÇIKMA DÜZEYLERİNİN İNCELENMESİ

A STUDY OF RESEARCH FOR DETERMINING THE LEVEL OF COPING WITH STRESS AND PSYCHOLOGICAL RESILIENCE OF SEAMEN, LONG DISTANCE TRUCK DRIVERS AND THEIR SPOUSES

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ÖZET

Dünya ticaretinin çok önemli bir bölümü deniz ve kara yolu taşımacılığı ile sağlanmaktadır. Uluslararası deniz ticaret bahriyesinde görev yapan gemiadamları ve uluslararası karayolu taşımacılığında görev yapan tır şoförleri bu taşımacılığın operasyonel alanında faaliyet göstermektedir.

Gemi adamlığı ve tır şoförlüğü çalışma koşulları nedeniyle gerek fiziki olarak gerekse psikolojik olarak yapılması zor olan mesleklerden biri olarak ön planı çıkmaktadır.

Her iki meslek de proaktif bir şekilde emniyet önelimleri almayı gerektirmekte, yapılabilecek küçük hatalar ve dikkatsizlikler, can ve mal kaybı gibi entropik sonuçlar doğurabilmektedir.

Her iki iş kolunda da görev yapan bireyler iş kimlikleri nedeniyle uzun süre evlerinden uzak kalmakta, görevin süresi ve niteliği ile ilgili belirsizlik, uzun çalışma saatleri, düzensiz uyku ve beslenme, stres, yorgunluk, hareketsizlik, elektromanyetik kirlilik yaşam alanının daralması, sınırlı sosyal yaşam gibi faktörler de çalışma koşullarını zorlaştırmaktadır.

Ayrıca gürültü, zaman baskısı, meteoroloji/yol şartlarının neden olduğu zor koşullara adaptasyon ihtiyacının gemi adamları ve tır şoförleri ve eşlerinin psikolojik dayanıklılık ve stresle başa çıkma düzeylerine yansımalarının olduğu düşünülmektedir.

Bu kapsamda araştırmada iş kimlikleri nedeniyle uzun süre evden uzak kalan gemi adamları ve eşleri ile tır şoförleri ve eşlerinin psikolojik dayanıklılık ve stresle başa çıkma düzeylerinin incelenmesi amaçlanmıştır.

Amaç doğrultusunda kişisel bilgi formu; psikolojik dayanıklılık ölçeği ve stresle başa çıkma ölçeği 2021 yılı Ekim-2022 yılı Ocak ayları arasında 150 gemi adamı ve eşi, 150 tır şoförü ve eşi olmak üzere toplamda 600 kişiye uygulanmıştır. Elde edilen veriler bilgisayar ortamında SPSS 22.0 istatistik programı aracılığıyla analiz edilmiştir.

Araştırmada psikolojik dayanıklılık, kendini adama, kontrol ve meydan okuma ile bu boyutların toplamını ifade eden psikolojik dayanıklılık toplam boyutlarında ele alınmıştır. Tüm boyutlarda gemi adamlarının psikolojik dayanıklılık düzeylerinin tır şoförlerinden anlamlı olarak yüksek olduğu belirlenmiştir. Diğer bir ifade ile gemi adamlarının psikolojik dayanıklılık düzeyleri tır şoförlerinden yüksektir. Araştırmada katılımcıların stresle başa çıkma düzeyleri; problem çözme, pozitif değerlendirme, mantıksal analiz, profesyonel destek arama, çevre desteği arama ve bu boyutların toplamını ifade eden stresle başa çıkma toplam boyutları ile incelenmiştir. Gemi adamları ve tır şoförlerinin mantıksal analiz boyutu dışında stresle başa çıkma düzeylerinin istatistiksel olarak farklılık göstermediği belirlenmiştir. Gemi adamlarının tır şoförlerine göre mantıksal analiz düzeylerinin daha yüksek olduğu, diğer stresle başa çıkma düzeylerinin birbirlerine benzerlik gösterdiği sonucuna ulaşılmıştır.

Gemi adamları ve tır şoförlerinin eşlerinin psikolojik dayanıklılık düzeyleri tüm boyutlarda farklılık göstermiştir. Tüm boyutlarda gemi adamlarının eşlerinin psikolojik dayanıklılık düzeyleri tır

şoförlerinin eşlerinden daha yüksek düzeyde olduğu belirlenmiştir. Gemi adamları ve tır şoförlerinin eşlerinin stresle başa çıkma düzeylerine bakıldığında; mantıksal analiz dışında stresle başa çıkma düzeylerinde farklılaşma olmadığı belirlenmiştir. Gemi adamlarının eşlerinin mantıksal analiz düzeyleri tır şoförlerinin eşlerinden daha yüksektir.

Anahtar Kelimeler: Psikolojik Dayanıklılık, Stresle Başa Çıkma, Gemi Adamı, Tır Şoförü.

ABSTRACT

A very important part of world trade is provided by sea and land transportation. Seafarers working in the international merchant marine and truck drivers working in international road transport operators in the operational area of this transport. Seafaring and truck driving is some of professions that are difficult to do both physically and psychologically due to the working conditions. Both professions require taking safety precautions proactively, and minor mistakes and carelessness that can be made can lead to entropic consequences such as loss of life and property. Individuals who have served in both branches of the business, staying away from home for long periods because of their identity, uncertainty about the duration and nature of the task, long working hours, irregular sleep and nutrition, stress, fatigue, inactivity, narrowing of the living space of electromagnetic pollution, working conditions, such as limited social factors also complicates life. It is also thought that the need for adaptation to difficult conditions caused by noise, time pressure, meteorology/road conditions has repercussions on the psychological resilience and stress coping levels of seamen and truck drivers and their spouses. In this context, it is aimed to examine the psychological resilience and stress coping levels of seamen and their spouses and truck drivers and their spouses who have been away from home for a long time due to their work identities in this research.

In line with this objective, the personal information form; psychological resilience scale and stress coping scale were applied to a total of 600 people, including 150 seamen and their wives, 150 truck drivers, and their wives between October 2021- January 2022. The data obtained were analyzed in a computer environment using the SPSS 22.0 statistical program.

In the research, psychological resilience, dedication, control and challenge were considered in the total dimensions of psychological resilience, which refers to the sum of all these dimensions. It was determined that the psychological resilience levels of seafarers were significantly higher than those of truck drivers in all aspects of the study. In other words, the psychological resilience levels of seamen are higher than those of truck drivers. The study consists of researching the levels of overcoming the stress; problem-solving, positive evaluation, logical analysis, professional search support, environmental support, and search, which refers to the sum of these dimensions in the aspect of overcoming the stress of survey respondents. It was determined that level of ability to overcome the stress of seamen and truck drivers did not differ statistically except for the logical analysis dimension. It has been concluded that the logical analysis levels of the seamen are higher than the truck drivers and that the other stress coping levels are similar to each other.

The psychological resilience levels of the wives of seamen and truck drivers differed in all dimensions. It has been determined that the psychological resilience levels of the wives of seamen of all sizes are at a higher level than the wives of truck drivers. When the spouses of seamen and truck drivers' stress coping levels were examined, it was determined that there was no differentiation in stress coping levels except for logical analysis. The level of logical analysis of the wives of seamen is higher than that of the wives of truck drivers.

Keywords: Psychological Resilience, Coping with Stress, Seamen, Truck Driver

THORSTEIN VEBLEN: TEKNOLOJİ VE “ÇALIŞMA İÇGÜDÜSÜ”NE YABANCILAŞMA

THORSTEIN VEBLEN: TECHNOLOGY AND ALIENATION TO “THE INSTINCT OF WORKMANSHIP”

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ÖZET

“Aylak sınıfın” eleştirmeni Thorstein Veblen (1857-1929), Amerika’da toplumsal analiz alanında ortaya çıkan ilk ufuk açıcı ve çarpıcı bir düşünürdür. Bir ekonomi teorisyeni olan Veblen, teorilerini ekonomi dışındaki diğer sosyal ve hatta doğa bilimleriyle de harmanlayarak oluşturmuştur. Düşününün temel kaygısı ekonomik-toplumsal alandaki kümülatif değişim süreçlerini açıklamaktır. Veblen, çalışma içgüdüsünün nüvesinde olan üretken erkek nitelikleri ile teknoloji ve makine sürecinin sonucu olan maddi ve parasal kültür arasındaki dikatomiye dikkat çekmiştir. Veblen, çalışma içgüdüsüyle çelişen kapitalist kültürün uyumsuz motivasyonlarının baskın hale geldiğini belirtmiştir. Kapitalist sistem, topluma yararlı üretkenlikten ziyade maddi ve finansal kazanca yönelik faaliyetleri teşvik etmiştir. Bu bağlamda, Veblen, kapitalizmin doğurduğu maddi kültür ile üretim sürecindeki “çalışma içgüdüsü” ile donanmış erkeklerin gösterdiği gerekli özen ve titizlik arasında bir çatışma görmüştür. Kapitalizmdeki üretkenlik ise bir dereceye kadar “çalışma içgüdüsüyle” sürdürülebilmiştir. Veblen, “çalışma içgüdüsünün” kapitalistleşme süreci ile bastırıldığını vurgulamıştır. Kültürel ve teknolojik gelişmenin zorunlu bir sonucu olarak insanın ilkel komünal yaşam evresini terk etmesinin aynı zamanda insanın kendi özgürlük araçları üzerindeki özgürlüğünü kaybetmesine neden olduğunu savunmuştur. Aynı zamanda Veblen’e göre, kapitalist sistemin para kazanmaya ve finansal faaliyetlere yönelik kültürü teşvik etmesi, üretken ve faydalı endüstriyel çalışma koşullarının da altını oymuştur. Sonuç olarak “çalışma içgüdüsü” ile donanmış erkekler ticari toplumun gelişmesi ile birlikte bir tür yabancılaşma yaşamışlardır. Veblen Marksist yabancılaşma kavramını doğal hakları içeren siyasi bir mirastan yoksunluk anlamında kullanmıştır. Biz bu çalışmada teknolojinin ve makine sürecinin insanın toplumsal durumu üzerindeki yabancılaştırıcı etkisinin Marxist gelenekten farklı olarak Veblen tarafından nasıl betimlendiğini açıklamaya çalışacağız.

Anahtar Kelimeler: Kurumsal İktisat, Radikal İktisat, Yabancılaşma, Thorstein Veblen.

ABSTRACT

Thorstein Veblen (1857-1929), the critic of the "leisure class", was the first seminal and striking thinker to emerge in the field of social analysis in America. Veblen, who is an economic theorist, created his theories by blending them with other social and even natural sciences other than economics. The main concern of the thinker is to explain the cumulative processes of change in the economic-social field. Veblen drew attention to the dichotomy between the productive male qualities at the core of “the instinct of workmanship” and the material and monetary culture as a result of the technology and machine process. Veblen stated that the maladaptive motivations of the capitalist culture, which conflict with “the instinct of workmanship”, become dominant. The capitalist system has promoted activities for material and financial gain rather than productivity beneficial to society. In this context, Veblen saw a conflict between the material culture engendered by capitalism and “the instinct of workmanship” in the production process and the due care and diligence shown by equipped men. Productivity in capitalism, on the other hand, was to some extent sustained by “the instinct of workmanship”. Veblen emphasized that “the instinct of workmanship” was suppressed by the capitalization process. He argued that as a necessary consequence of cultural and technological development, man's abandonment of his primitive communal life stage also causes man to lose his freedom on his means of freedom. At the same time, according to Veblen, the capitalist system's promotion of a culture of making money and financial

activities has undermined productive and beneficial industrial working conditions. As a result, men equipped with “the instinct of workmanship” experienced a kind of alienation with the development of commercial society. Veblen used the Marxist concept of alienation to mean the absence of a political legacy that includes natural rights. In this study, we will try to explain how the alienating effect of technology and machine process on human social situation is described by Veblen, unlike the Marxist tradition.

Keywords: Institutional Economics, Radical Economics, Alienation, Thorstein Veblen, Karl Marx.

**MAKİNE ÖĞRENMESİ İLE COVID-19 SONRASI TWİTTER ÜZERİNDEN DEPRESYON
VE ANKSİYETİTE BELİRTİLERİNİN TESPİTİ**

DETECTION OF DEPRESSION AND ANXIETY SYMPTOMS VIA TWITTER AFTER
COVID-19 WITH MACHINE LEARNING

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ÖZET

Anksiyete ve depresyon, son dönemde artış gösteren önemli psikiyatrik hastalıklardandır. Çoğunlukla teşhisi zordur. Erken ve doğru zamanda tespit edilmesi ve uygun yöntemin kullanılması başarılı sonuçlar vermektedir. Covid-19 ile birlikte sağlık çalışanlarının üzerindeki yük artmıştır. Doktorların artan hastalara karşı teşhislerinde zorluklar yaşadıkları bu dönemde görülmektedir. Bu çalışmanın amacı, Covid-19 sonrası twitter kullanıcıları arasında oluşan yazılı etkileşim üzerinden makine öğrenimi teknolojisi kullanılarak, depresyon ve anksiyete'ye yakalanma potansiyeli taşıyan kullanıcıları teşhis etmek, uygun bir öngörücü bir model oluşturmaktır. Bunun için anksiyete ve depresyon hastalarının yazımlarında en çok kullandıkları kelimeler tespit edilmiş ve bu kelimeler üzerinden analiz aşaması tamamlanmıştır.

Anahtar Kelimeler: Anksiyete, depresyon, psikiyatrik, zor, teşhis, Covid-19, makine öğrenimi

ABSTRACT

Anxiety and depression are critical psychiatric diseases that have increased recently. It is often difficult to diagnose. However, early and correct detection and use of the appropriate method give successful results. With Covid-19, the burden on healthcare workers has increased. It is seen in this period that doctors have difficulties in diagnosing patients against growing numbers of patients. This study aims to identify users who can suffer from depression and anxiety and to create a suitable predictive model by using machine learning technology through the written interaction between Twitter users after Covid-19. For this, the words that anxiety and depression patients use most in their writing were determined, and the analysis phase was completed based on these words.

Keywords: Anxiety, depression, psychiatric, difficult, diagnose, Covid-19, machine learning

**METaverse EVRENİNDE ARSA FİYATLARININ KARŞILAŞTIRILMASI VE MAKİNE
ÖĞRENMESİ İLE GELECEK TAHMİNİ**

**PREDICTION WITH MACHINE LEARNING AND COMPARISON OF LAND PRICES IN THE
METaverse UNIVERSE**

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ÖZET

Yeni sanal dünyanın tanımı olan Metaverse, yeni nesil internet hayatı olarak tanımlanmaktadır. İnternet üzerinden oluşturulan sanal dünyalara geçiş yapmayı sağlayan, bununla birlikte, her bireyin dijital avatarlar vasıtası ile kendini ifade edebildiği sanan yerdir. Kullanıcılar fiziksel dünya içerisinde kendilerini nasıl ifade edebiliyorsa, bu yeni sanal dünyada da iletişim kurabildikleri gibi, işbirliğinde yapabilmektedirler. Artık bireylerin dışarıda yüzyüze gelip etkinlikler yapmasına gerek bulunmamaktadır. Covid-19 sonrası yeni dünya düzeni artık sanal birlikteliklerin ve sanal etkileşimlerin en üst düzeye çıktığı dönemdir. Bununla birlikte Metaverse evreni sadece insanların birbirleri ile etkileşim içerisinde oldukları bir yer değil, ayrıca sanal olarak toprak satın alabildikleri bir yerdir. Her ülkenin belli platformlarda satılan sanal toprakları bulunmaktadır. Bu çalışmada, dünya üzerindeki toplam 194 ülkenin minimum yer alanı fiyatları tespit edilmiş ve 2022 sonrası artış oranlarının tahmini makine öğrenmesi algoritmalarından olan K-NN ile analiz edilmiştir.

Anahtar Kelimeler: Metaverse, sanal dünya, internet yaşamı, makine öğrenimi, iletişim, ülke, fiyat

ABSTRACT

Metaverse, the definition of the new virtual world, is defined as the new generation of internet life. It is a place that allows transitioning to virtual worlds created over the Internet; however, it is where each individual can express himself through digital avatars. Just as users can express themselves in the physical world, they can communicate and collaborate in this new virtual world. There is no longer a need for individuals to come face to face and do activities outside. The new world order after Covid-19 is now the period when virtual associations and virtual interactions reach the highest level. However, the Metaverse universe is a place where people interact with each other and a place where they can buy land virtually. Each country has virtual lands sold on specific platforms. In this study, the minimum floor area prices of 194 countries around the world were determined, and the estimation of the increase rates after 2022 was analyzed with K-NN, one of the machine learning algorithms.

Keywords: Metaverse, virtual world, internet life, machine learning, communication, country, price

ПСИХОЛОГІЧНІ ОСОБЛИВОСТІ ВІРТУАЛЬНИХ КОМУНІКАЦІЙ*Поліщук Дарина*

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Віртуальні комунікації стали невід'ємною частиною нашого сучасного життя. Використання Інтернету як засобу комунікації справляє значний вплив на функції та структуру звичного для нас стилю спілкування. Окрім надання інформації, емоцій, презентації та саморепрезентації, існує особлива тенденція до побудови життєво-ідеального контексту. Людина у соціальній мережі часто намагається створити образ ідеального, на її думку, персонажу, з бажаними рисами характеру та наповненості життя. З одного боку, таке відбувається, як знак захисту своєї особистості – виступаючи анонімом, з абсолютно інakшою історією життя, ніхто ніколи не зможе скривдити та пізнати тебе справжнього. З іншого боку, така проекція «ідеальності» служить як самообман задля втіли своїх мрій про те, що є світ, в якому ти можеш бути ким хочеш, світ в якому твої мрії «реальні» і всі інші можуть за цим спостерігати.

Віртуальне спілкування стало невід'ємною частиною суспільної діяльності сучасної людини. Зростання популярності електронних мереж зумовило необхідність перегляду феноменології публічного використання з огляду на нові технологічні можливості. Опитування дослідників висвітлюють особливості загальної комунікації в віртуальних мережах та їх вплив на користувачів[2].

Наприклад, Н. Н. Богомоллова виділяє ряд особливостей загальної комунікації в контексті масової комунікації, які вона забезпечує: посередництво загальної бесіди, обговорення великих соціальних груп, відсутність прямого зворотного зв'язку, наявність мас, анонімність, різноманітна аудиторія тощо. Л. Н. Мун зазначає, що в інтернеті існують «комунікаційні помилки» сприйняття; Відсутність емоцій, адекватних поведінкових реакцій призводять до ряду труднощів у взаємному вихованні інтерв'ю та побудові його іміджу[4].

Серед причин доступу до Інтернету як інструменту спілкування – незадоволеність спілкуванням у реальному житті; невдоволення справжньою соціальною ідентичністю і бажання позбутися від неї; здатність усвідомлювати особистісні якості, грати ролі, переживати емоції, які з тих чи інших причин недосяжні в реальному житті.

Анонімність виступає одним із головних плюсів інтернет-комунікації, адже заохочує гру в особисту самопрезентацію і дозволяє контролювати враження про себе, сприяє психологічній емансипації, ненормативній лексики, більшій свободі вираження і дій, розігріву нереалізованої діяльності за межами комунікації в мережі, необмеженості соціальних ролей і сценаріїв.

Особливість процесів міжособистісного сприйняття: територіальна доступність і фізична привабливість партнера втрачають свою нормативну цінність і спілкування будується через збіг інститутів, переконань, інтересів та цінностей. Добровільність і бажання контактів, можливість їх переривання в будь-який момент. Труднощі емоційної складової спілкування і, водночас, стійке бажання емоційно наповнити текст[2].

Особливістю віртуальної комунікації, що привертає увагу вже не тільки молоді, а й представників більш старших поколінь — є своєрідний статус, який людина надає емоціям у ньому. З одного боку письмові повідомлення – унеможлиблює передачу та зчитування природних емоційних сигналів, що формуються у сфері невербальної поведінки. Однак якщо подивитися з іншого боку виявляється, що оголошувати мережу беземоційним середовищем неправильно[4]. Для надавання написаному в повідомленні тексту емоційного забарвлення часто використовують графічні символи (смайли) та орфографію для компенсації відсутніх

забарвлених невербальних засобів комунікації: великі літери інтерпретуються як підвищення голосу або курсив, крапки, спеціальні прийоми - наприклад, повторення букв, а також спеціальні кодові назви для певних емоційних станів.

Важливим є зазначити таку особливість віртуальної комунікації як фізична недопредставленість. У поєднанні з анонімністю це відкриває необмежений простір для подання недостовірної інформації, з одного боку, і фантазій про співрозмовника з іншого. Внаслідок цього для партнерів з'являються кордони, обмеження та особливі комунікаційні бар'єри, обумовлені такими характеристиками, як стать, вік, соціальний статус, зовнішня привабливість і комунікативна компетентність особи.

У зв'язку з розглянутими характеристиками можна зробити висновок, що анонімність спілкування тягне за собою ряд наслідків. Незважаючи на те, що в текстовому спілкуванні є можливість висловити свої почуття за допомогою «смайликів», фізична відсутність учасників в акті спілкування означає, що почуття можна не тільки висловити, але й приховати в даний момент відчуття. Таким чином з розглянутих особливостей віртуального спілкування, впливає проблема віртуальної ідентичності[3].

Важливим є розглядання елементу безпеки у такому спілкуванні. По-перше, за умов суб'єктивної безпеки зникає детермінізм дії, людина робить не те, що їй належить, а те, що вона хоче; По-друге, образ партнера стає загадковим, адже незрозуміле завжди притягує; По-третє, безвідповідальність, відсутність випадкових зустрічей і можливість в будь-який момент відключитися і назавжди зникнути в безмежній мережі, дозволяє людям бути більш відкритими, ніж вони є насправді. Психологічно існує дві властивості комунікаційного середовища в мережі – це анонімність та емоційність, які виявляються причиною та наслідком у контексті спілкування.

Інтернет-середовище суттєво менш суворе, ніж зовнішня реальність, вимоги до оптимізму, комунікації та швидкості в психомоторній та інтелектуальній сфері та вимоги до готовності переживати свої та чужі емоційні стани яскраво й інтенсивно. Іншими словами, віртуальне середовище дозволяє людям з різними енергетичними, комунікативними та швидкісними здібностями висловлюватися в непрямому спілкуванні.

Ще однією особливістю онлайн-спілкування є пристрасть користувачів до обговорення та дискусії, що в першу чергу впливає на розвиток впевненості в собі. Л. С. Виготський зазначав, що «виникнення суперечок спонукає дитину до систематизації власних думок» [2].

Такі особливості соціальних мереж, як автокомунікація, розмовна практика та традиційні псевдоніми, створюють стимули для інтенсивної роботи над іміджем себе реального. Інтернет як культурне середовище надає людині додаткові інструменти для розвитку самооцінки як вищої психологічної функції.

Завдяки віртуальній комунікації відбуваються наступні процеси:

Подолання комунікативного дефіциту, формування широкого кола загального сприйняття, пробудження усвідомлення обговорюваних питань;

розширюється психологічний досвід, розвиваються соціальні навички, розвиваються вміння обмінюватися ситуативними емоційними станами та установками, засоби захисту від грубих маніпулятивних дій;

реалізується прагнення виділитися з натовпу та прагнути приєднатися до референтної групи, розділяти групові цінності та відчувати себе захищеним;

існує можливість компенсувати реальні чи інші недоліки зовнішніх даних, речей, деяких рис характеру (наприклад, слабкість) або психічних захворювань (наприклад, аутизм) [4].

Звичайно, не всі створюють в Інтернеті образ, який відхиляється від реального іміджу та стилю поведінки людини. Ілюзія віртуальних «облич» може залежати від віку та передбачати самовизначення. Багато авторів відзначають існування кризи ідентичності в підлітковому віці, коли справжнім «Я» є розмитий підліток. У цьому випадку віртуальні особи можуть взяти на

себе функцію самоперевірки. Створення віртуальних особистостей в Інтернеті відображає зміну структури людської ідентичності та тенденцію до різноманітності ідентичності в реальному житті, що є відображенням суспільних змін.

Отже, як ми вже визначили, інтернет є тим місцем, де людина може перейняти на себе будь-яку комфортну для нього роль, адже не всі можуть притримуватися однієї ролі все своє життя. Часто буває, що людині набридло день за днем, рік за роком грати ці ролі в сім'ї, вона хоче вирватися з цього кола, але сімейні та соціальні зобов'язання не дають їй такої можливості, тому відбувається міжособистісний конфлікт в сім'ї, а це часто є причиною розпаду сімейних стосунків[5]. Тут на допомогу може прийти Інтернет, де, конструюючи віртуальну особистість, людина може відірватися від притаманної їй ролі в буденному житті та втекти від нормативної реальності.

Щоб побудувати віртуальну особистість, потрібно не тільки вміти бачити себе виконавцем різних ролей, а й хотіти грати ці ролі. Можна припустити, що прагнення конструювати віртуальну особистість зумовлене тим, що реальність не дає можливостей для реалізації різних аспектів «Я», або що реальність може бути занадто «рольовою», надто нормативною. З цього виникає прагнення людини вийти за межі нормативності, що веде до конструювання ненормативних віртуальних особистостей[4]. У реальному суспільстві існують певні норми, які наказують, щоб особа певної статі поводитися відповідно до цієї статі. У віртуальному суспільстві людина можна позбутися необхідності демонструвати соціально бажану поведінку для своєї статі, представляючи себе в Інтернеті як людину протилежної статі.

Тобто, якщо реальне суспільство обмежує можливості людини для самоактуалізації, у неї з'являється мотивація виходити в Інтернет і конструювати віртуальні особистості, або просто шукати підтримки та розуміння серед таких же користувачів. Коли людина повністю усвідомлює всі аспекти себе в реальному спілкуванні, їй, швидше за все, бракує мотивації для створення віртуальної особистості. Тож, у цьому випадку, спілкування у віртуальному світі дає додатковий характер до основного спілкування. Однак він може мати і компенсаційний, замісний характер.

Отже, як висновок за розглянутою темою, можна сказати, що віртуальна комунікація – це невід'ємна основа нашого сучасного життя. Ми спілкуємося через повідомлення кожного дня, сидимо на різних комунікативних сайтах, де шукаємо однодумців, вираження емпатії, підтримки або просто розважливо підіймаємо настрій веселими картинками. Тож можна сказати, що Інтернет – це явище соціальної реальності, яке має свої переваги та недоліки. Всесвітня мережа стала новим способом інтелектуальної діяльності людини та новою сферою досліджень психологів та інших фахівців. Використання різноманітних можливостей Всесвітньої павутини призводить до структурно-функціональних змін у психічній діяльності особистості.

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**THE VALIDITY AND RELIABILITY OF THE TURKISH VERSION OF THE
INFLAMMATORY ARTHRITIS FACILITATORS AND BARRIERS TO PHYSICAL
ACTIVITY QUESTIONNAIRE**

**İNFLAMATUAR ARTRİTTE FİZİKSEL AKTİVİTENİN KOLAYLAŞTIRICILARI VE
ENGELLERİ ÖLÇEĞİ'NİN TÜRKÇE GEÇERLİLİK VE GÜVENİRLİĞİ**

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ÖZET

Çalışmanın amacı İnflamatuar Artritte Fiziksel Aktivitenin Kolaylaştırıcıları ve Engelleri (İFAKE) Ölçeği'nin Türkçeye dil uyarlamasının yapılması ve Türkiye'deki inflammatuar artritli (romatoid artrit (RA), aksiyal spondiloartrit (aksiyal SpA), psöriatik artrit (PsA)) bireylerde geçerliliğinin ve güvenilirliğinin incelenmesiydi. Ölçeğin Türkçeye dil uyarlaması sırayla çeviri, geri çeviri, uzman görüşü alınması ve pilot uygulama adımları izlenerek yapıldı. Ölçeğin psikometrik özelliklerinin (geçerlik ve güvenilirlik) incelenmesi aşamasında, çalışmaya, Başkent Üniversitesi Ankara Hastanesi'ne başvuran 20-65 yaş arası, RA, aksiyal SpA, PsA tanısı almış 131 gönüllü hasta dahil edildi. İlk uygulamada geçerliği test etmek için hastalardan, Türkçeye dil uyarlaması yapılan İFAKE Ölçeği ile aynı zamanda hastaların sosyodemografik ve klinik özelliklerinin sorgulandığı hasta değerlendirme formunu, Sağlık Değerlendirme Anketi (SDA)'ni, Korku-Kaçınma İnanışlar Anketi (KKİA)'ni, Tampa Kinezyofobi Ölçeği (TKÖ)'ni ve Kısa Form-36 (KF-36)'yı Google Forms aracılığıyla doldurmaları istendi. Çalışmaya katılan 131 olgudan basit rastgele seçilen gönüllü 35 olgu, ilk uygulamadan iki hafta sonra test-tekrar test güvenirliliği için İFAKE Ölçeği'ni tekrar doldurdu. Ölçeğin iç tutarlılık (Cronbach alfa) katsayısı 0.804 bulundu ve ölçek maddelerinin madde-toplam korelasyonları 0.407 ile 0.620 arasında değerler aldı. Test-tekrar test güvenirlilik korelasyon katsayısı 0.703 idi. Kaiser-Meyer-Olkin değeri 0.729; Bartlett Küresellik testi ise anlamlı ($p<0.001$) bulundu. Ölçek, açıklayıcı faktör analizi sonucunda üç faktörlü yapısal model oluşturdu. Tüm faktörler ölçeğin toplam varyansının %65,17'sini açıkladı. Doğrulayıcı faktör analizi sonucunda modelin kabul edilebilir uyum gösterdiği belirlendi (CMIN/DF: 2.095; IFI: 0.925; CFI: 0.921; RMSEA: 0.092). İFAKE Ölçeği toplam puanı ile SDA skoru arasında negatif yönde ilişki ve KF-36 Ölçeği'nin emosyonel rol güçlüğü dışındaki tüm boyutları arasında pozitif yönde ilişki saptandı ($p<0.05$). İFAKE Ölçeği toplam puanı ile KKİA ve TKÖ puanları arasında istatistiksel olarak anlamlı ilişki bulunmadı ($p>0.05$). Sonuç olarak, inflammatuar artritli hastalarda fiziksel aktivitenin algılanan engellerini ve kolaylaştırıcılarını değerlendirmek için geliştirilen İFAKE Ölçeği, Türkçe konuşan inflammatuar artritli bireyler için kendi kendine uygulanabilir, pratik, maliyetsiz, geçerli ve güvenilir bir ölçektir. Bu ölçeğin Türkçe konuşan inflammatuar artritli hastalarda fiziksel aktiviteyi kolaylaştıran unsurları destekleyen, engelleyen unsurları iyileştiren bütüncül fiziksel aktivite programlarının planlanmasında ve sürdürülmesinde sağlık profesyonellerine yol gösterici olacağı kanısındayız.

Anahtar Kelimeler: Fiziksel Aktivite, İnflamatuar Artrit, Ölçek, Geçerlik, Güvenirlilik

ABSTRACT

The aim of this study was to adapt the questionnaire of Inflammatory arthritis Facilitators And Barriers to Physical activity (IFAB) questionnaire to Turkish and to examine its validity and reliability in

individuals with inflammatory arthritis (rheumatoid arthritis (RA), axial spondyloarthritis (axial SpA), psoriatic arthritis (PsA)) in Turkey. The language adaptation of the questionnaire to Turkish is done by following: translation, back-translation, expert opinion, and a pilot study in order. In the phase of examining the psychometric properties (validity and reliability) of the scale, 131 volunteer patients aged between 20-65 years, diagnosed with RA, axial SpA, PsA who were admitted to Başkent University Ankara Hospital, are included in the study. In order to test the validity in the first application, the patients were asked to fill out the patient evaluation form in which the sociodemographic and clinical characteristics of the patients are questioned, the Health Assessment Questionnaire (HAQ), the Fear-Avoidance Beliefs Questionnaire (FABQ), the Tampa Scale of Kinesiophobia (TSK) and the Short Form-36 (SF-36) at the same time as IFAB questionnaire which is adapted to Turkish via Google Forms. 35 randomly selected volunteers out of 131 subjects who participated in the study refilled the IFAB questionnaire for test-retest reliability two weeks after the first application. The internal consistency (Cronbach's alpha) coefficient of the scale is found to be 0.804, and the item-total correlations of the scale items are ranged from 0.407 to 0.620. The test-retest reliability correlation coefficient is 0.703. The Kaiser-Meyer-Olkin value is 0.729; the Bartlett Test of Sphericity is found to be statistically significant ($p < 0.001$). The questionnaire formed a three-factor structural model as a result of explanatory factor analysis. These factors account for 65.17% of the total variance of the questionnaire. As a result of confirmatory factor analysis, it was determined that the model showed an acceptable fit (CMIN/DF: 2.095; IFI: 0.925; CFI: 0.921; RMSEA: 0.092). The negative correlation is found between the total score of the IFAB questionnaire and the HAQ score, and a positive correlation is found between all dimensions of the SF-36 scale except for emotional role difficulty ($p < 0.05$). No statistically significant correlation was found between the total score of IFAB questionnaire and the scores of FABQ and TSK ($p > 0.05$). In conclusion, IFAB questionnaire, which was developed to evaluate perceived barriers and facilitators of physical activity in patients with inflammatory arthritis, is a self-administered, practical, cost-free, valid and reliable scale for Turkish-speaking individuals with inflammatory arthritis. We believe that this questionnaire will guide health professionals in the planning and maintenance of holistic physical activity programs that support the factors that facilitate physical activity and improve the factors that hinder physical activity in Turkish-speaking patients with inflammatory arthritis.

Keywords: Physical Activity, Inflammatory Arthritis, Questionnaire, Validity, Reliability.

KETEN (*LINUM USITATISSIMUM* L.) TOHUMLARININ ÇİMLENMESİNE ETKİSİ OLAN FARKLI YETİŞME ORTAMLARI

DIFFERENT GROWTH CONDITIONS AFFECTING THE GERMINATION OF FLAXSEEDS
(*LINUM USITATISSIMUM* L.)

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ÖZET

Tohum ekimi ve çimlendirilmesi, bitki yetiştiriciliğinin ilk adımlarıdır. Çimlenme üzerinde yapılan birçok araştırma mevcuttur ve bu çalışmalarda da ifade edildiği üzere, tohumların çimlenmesinde karakteristik olan ekolojik şartlar vardır. Tohum çimlenmesinin başlaması sonrasında devam etmesi, bitki tür ve çeşitlerinde tohumların niteliğine göre değişmekte ve bazı faktörlerin (sıcaklık, su, oksijen, ışık ve bazen gerekli ise iyileştirici kimyasallar) istenen seviyede ortamda bulunmasına bağlı olduğu bilinmektedir. Ayrıca bitki büyüme ve gelişmesini etkileyen tüm faktörler optimal düzeyde olsa da daha yüksek verim alınması tohum kalitesine ve canlılığına bağlıdır. Bununla birlikte, ektiğimiz tohum ne olursa olsun; toprak çeşidi, yapısı ve içeriği çimlenmede önemli bir etkidir. Bitkilerin gelişimi üzerindeki en büyük kısıtlayıcılardan biyotik ve abiyotik stres faktörlerin olduğu bilinmektedir; ayrıca tohum çimlenmesi de iç, dış veya çevresel faktörlerden etkilenebilen komplike bir olaydır. Aynı zamanda, stres faktörlerine hassasiyetli olan birçok bitki ve tohum bulunmaktadır. Endüstriyel anlamda dünya ve ülkemiz için önemli bir yere sahip olan keten (*Linum usitatissimum* L.) tohumu soğuk ve sıcak iklimlerde yağlık ve liflik tipi olarak yetiştirilen bir bitkidir. Keten tohumu, omega-3, omega-6, lignan, protein ve diğer biyoaktif bileşiklerin en zengin tohum kaynaklarından biridir. Keten tohumu üzerine yapılan çalışmalarda, yağlık olarak ekilen tohumların toprak ve ekolojik istekleri liflik özellikteki keten tohumlarından farklı olduğunu göstermiştir. Çimlenme yeteneğini kaybetmemiş tohumlar için çimlenme koşulların çoğunlukla farklı olmasının yanında; aslında doğrudan gerekli koşulların esas olarak yeterli nem, hava ve uygun sıcaklık verildiğinde tamamen çimlenebilmekte oldukları bilinmektedir.

Anahtar Kelimeler: *Linum usitatissimum* L., Keten Tohumu, Çimlenme, Abiyotik Stres

ABSTRACT

Planting and seeds germination are crucial process that of plant breeding. There are many studies on germination, and as expressed in these studies, there are various environmental conditions characteristic of the germination of seeds. It is known that the continuation of seed germination after the start varies according to the nature of the seeds in plant species and varieties and depends on the presence of some factors (temperature, water, oxygen, light and sometimes, if necessary healing chemicals) in the environmental factors at the desired level. In addition, although all factors affecting plant growth and

development are at an optimal level, higher yields depend on seed quality and viability. At the same time, whatever seed we sow; soil type, structure and content are an important factor to germination. It is known that biotic and abiotic stress factors are the biggest constraints on the development of plants; in addition, seed germination is a complicated event that can be affected by internal, external or environmental factors. There are also many plants and seeds that are susceptible to stress factors. Flax (*Linum usitatissimum* L.) seed, which has an important place in the industrial sense for the world and our country, is a plant grown as oil and fiber type in cold and hot climates. Flaxseed is one of the seed rich sources of omega-3, omega-6, lignans, protein and other bioactive compounds. Studies on flax seeds have shown that the soil and ecological requirements of seeds planted as oil are different from fibrous flax seeds. In addition to the fact that the germination conditions are mostly different for the seeds that have not lost their germination ability; in fact, it is known that they can germinate completely when the directly required conditions are given mainly sufficient humidity, air and appropriate temperature.

Keywords: *Linum usitatissimum* L., Linseed, Germination, Abiotic stress

TÜKETİCİ DAVRANIŞLARI SATIN ALMA SÜRECİ VE MOTİVASYON

CONSUMER BEHAVIOR PURCHASING PROCESS AND MOTIVATION

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ÖZET

Neo klasik iktisat insanı her daim rasyonel kararlar alan bir canlı olarak incelerken, davranışsal iktisat bu anlayışa karşı çıkar. Davranışsal iktisat insanın ekonomik kararlarını incelerken her daim rasyonel olmadığını söyler ve psikoloji biliminden yararlanır. Bu çalışmada tüketicilerin satın alma kararları ve satın alma kararlarını etkileyen motivasyon modelleri açıklanmış ve örneklendirilmiştir. Bu modeller ışığında tüketici davranışlarının her zaman rasyonel olamadığı anlaşılmaktadır. Bireyler ekonomik kararlar alırken duygular, reklamlar, sosyal çevre, ve ürüne karşı tutum gibi pek çok farklı etkenden etkilenmektedir. Çalışmada incelenen motivasyon modelleri sonucu firmaların tüketicileri etkilemek için izleyebilecekleri reklam fikirlerine de yer verilmiştir.

Anahtar Kelimeler: Neo Klasik İktisat, Davranışsal İktisat, Tüketici Davranışları

ABSTRACT

While neoclassical economics examines human beings as a living creature that always makes rational decisions, behavioral economics opposes this understanding. Behavioral economics says that people are not always rational when examining their economic decisions and makes use of psychology. In this study, consumers' purchasing decisions and motivation models that affect their purchasing decisions are explained and exemplified. In the light of these models, it is understood that consumer behavior is not always rational. While making economic decisions, individuals are affected by many different factors such as emotions, advertisements, social environment, and attitude towards the product. As a result of the motivation models examined in the study, the advertising ideas that the companies can follow to influence the consumers are also included.

Keywords: Neo Classical Economics, Behavioral Economics, Consumer Behavior.

DROUGHT STRESS MEMORY AND NANOPARTICLES IN PLANTS

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ABSTRACT

Drought stress has become an important problem due to the increasing world population, nutritional needs, and product and yield losses due to global warming. Various physiological and molecular changes such as deterioration in plant germination and seedling formation, decrease in leaf size and number, limitation of cell growth (due to decreased turgor), slowdown in mitosis (delay in S phase), deterioration in protein, lipid and DNA structure (ROS accumulation), suppression of enzymes (Nitrate reductase, ADP, UDP etc.), disruption of photosynthesis reactions (ion imbalance), biomembrane adhesion and cell death, occur in the plant due to drought stresses. On the other hand, plants tries to combat these negative situations with two basic defense mechanisms: stress avoidance (moderate drought resistance) and stress tolerance (severe drought resistance). Although plants do not have brains with neural networks, as a result of these interactions, plants can create memory(s) through various biochemical or epigenetic mechanisms. Drought stress memory can be considered as the storage capacity of plants exposed to stress so that they can respond improved when they encounter the stress factor again, or the structural, genetic and biochemical changes that make the plant more resistant to the effect of the same factor. Plants that cannot escape from environmental factors can transfer this resistance to future generations by changing their gene expression patterns and morphology. Although it is widely accepted that plants can acquire a stress memory, memories can be stabilized by resetting (forgetting) during recovery and subsequent growth. At this point, nanoparticle applications can be beneficial in the effective use of the pathways used in response to stress by the plant and in memory acquisition. Various studies have shown that various nanoparticles such as SrO, ZnO, SiO₂, CuO, ZnO, TiO₂, CeO₂ are effective in the response of plants to stress and memory improvement depending on the dose and duration. However, the number of studies investigating the effect of nanoparticles on drought stress memory is negligible. Stress memory mechanism and nanoparticle interactions emerge as an interesting area that needs to be clarified. Considering that plants are exposed to different stress factors in varying amounts and times at the same time in the external environment, it is thought that the studies to be carried out may be effective in illuminating the memory mechanisms of these living things, which are indispensable for life.

Keywords: Water stress, Abiotic stress, Nano-engineered materials, Plant intelligence

**TÜRKİYE'DE GÖRSEL-İŞİTSEL MEDYA SAHİPLİĞİNİN DEĞİŞİM SÜRECİ ÜZERİNE
BETİMSSEL BİR ARAŞTIRMA**

A DESCRIPTIVE STUDY ON THE CHANGE PROCESS OF AUDIOVISUAL MEDIA
OWNERSHIP IN TURKEY

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ÖZET

Türkiye’de görsel-ışitsel politikaların oluşum sürecinde yayıncılık sektörü, ilk on yıllık ticari radyo yayıncılık döneminin ardından devlet tekeline geçmiş, 1964 yılında TRT’nin kurulmasıyla bu kurum özerklik ve tarafsızlık tartışmaları altında yaklaşık otuz yıl devletin bu alandaki yegâneliğini sürdürmüş, 1990’lara gelindiğinde değişen dünya düzeni, liberalleşme, deregülasyon ve özelleştirme politikalarının etkisiyle tecimsel radyo ve televizyon yayıncılığı başlamıştır. Ticari yayıncılığın başlangıcından bugüne kadar geçen yaklaşık otuz yıllık süre içinde anayasa ve yasalarda yapılan değişikliklerle görsel ışitsel alan düzenlenmeye çalışılmış; önceleri sektörü ve çağı geriden takip eden düzenlemeler, bugün büyük ölçüde iyileştirilmiştir. Şüphesiz, Avrupa Birliği görsel-ışitsel politikasının ve Türkiye’nin bu mevzuata uyum konusunda istekli veya zorunlu olarak gerçekleştirdiği düzenlemelerin bu süreçte büyük etkisi olmuştur.

Türkiye’de görsel-ışitsel medya sahipliği konusu, 1990’lı yıllara kadar nispeten tartışmasız bir süreç geçirmiştir. Bu yıllara kadar yazılı basın sahipliği üzerinde nispeten çeşitlilik bulunmakla birlikte görsel-ışitsel alanı temsil eden televizyon yayıncılığının devlet tekeline olması, özel sektörün yayıncılık alanında hiçbir hakkı bulunmaması nedeniyle görsel-ışitsel medya sahipliği konusu da basit bir değerlendirme alanı olarak kalmıştır. 1980-1990 arası dönemde yaşanan ekonomik, siyasi ve sosyal değişimler içinde ortaya çıkan Türkiye’nin ilk özel televizyonu, 1 Mart 1989’da Magic Box Incorporated AG ismiyle Lichtenstein’da kurulan Star 1 olmuştur. Yurt dışında kurulan bu yayıncılık şirketi, uydu üzerinden Türkçe olarak televizyon yayınlarına başlamış ve Türk halkı ilk kez devlet eliyle hazırlanmayan bir televizyon içeriği ile tanışmıştır. Bu ilk başlangıç, Türk görsel-ışitsel mevzuatında ve medya sahipliğinde köklü ve radikal değişimlere yol açacaktır. Star 1 yayınlarının tutmasıyla aynı şirket eğlence ağırlıklı Teleon kanalını da yayına sokmuştur. 1990 yılından itibaren bu iki kanalı takip eden Show Tv, Kanal 6, Kanal D, HBB Tv, Flash Tv ve TGRT gibi birçok özel televizyon kanalı, haberleşme uydularından kanal kiralamak suretiyle yayın yasağını delmişlerdir. 1992 sonlarında, 300’ün üzerinde özel radyo, yayın yapmaya başlamıştır. Özel radyo ve televizyon furyası öyle hızlı gelişmiştir ki, sadece 1994’ün Eylül ayında 25 il ve 18 ilçede 70 adet radyo ve televizyon şirketi kurulmuştur.

Hızla gelişen özel yayıncılık sektörü neticesinde medya ve siyaset ilişkisi sıkça tartışmalara konu olmuş, Türkiye’de medyanın sahipliği meselesi sektörel bir faaliyetten çok daha büyük anlamlar içermiştir. 2000’li yıllarda internetin ve sosyal medyanın yaygınlaşması ile görsel-ışitsel medya sahipliği çok daha grift yapısı bulunan bir alan haline gelmiştir.

Çalışma kapsamında, Türkiye’de yayıncılık sisteminin ve sektörünün gelişimi; medya sahipliğinin nasıl oluştuğu tarihsel süreç bağlamında betimsel yöntemle ele alınarak günümüz Türkiye’sinin görsel-ışitsel medya sahipliği yapısı üzerine genel bir projeksiyon ortaya konulacaktır.

Anahtar Kelimeler: Medya, Televizyon, Görsel-İşitsel, Medya Sahipliği, Türk Medyası.

ABSTRACT

In the process of formation of audio-visual policies in Turkey, the broadcasting sector passed to the state monopoly after the first ten-year commercial radio broadcasting period. With the effect of the changing world order, liberalization, deregulation and privatization policies, commercial radio and television broadcasting started. In the thirty-year period that has passed since the beginning of commercial broadcasting, the audio-visual field has been tried to be regulated with the amendments made in the constitution and laws; The regulations, which formerly followed the industry and the era, have been greatly improved today. Undoubtedly, the audio-visual policy of the European Union and the arrangements that Turkey has made willingly or necessarily to comply with this legislation have had a great impact in this process.

The issue of audio-visual media ownership in Turkey had a relatively undisputed process until the 1990s. Although there was a relatively diversity in the ownership of the print media until these years, the issue of audiovisual media ownership remained a simple area of evaluation because the television broadcasting representing the audio-visual field was under the monopoly of the state and the private sector had no rights in the broadcasting field. Turkey's first private television, which emerged in the economic, political and social changes between 1980-1990, was Star 1, which was established on March 1, 1989 under the name Magic Box Incorporated AG in Lichtenstein. This broadcasting company, which was established abroad, started television broadcasts in Turkish via satellite, and the Turkish people were introduced to a television content that was not prepared by the state for the first time. This initial start will lead to fundamental and radical changes in Turkish audiovisual legislation and media ownership. With the release of Star 1 broadcasts, the same company also launched the entertainment-oriented Teleon channel. Many private television channels such as Show Tv, Kanal 6, Kanal D, HBB Tv, Flash Tv and TGRT, which have been following these two channels since 1990, broke the broadcast ban by renting channels from communication satellites. In late 1992, over 300 private radios started broadcasting. The private radio and television industry has developed so rapidly that in September 1994, 70 radio and television companies were established in 25 provinces and 18 districts.

As a result of the rapidly developing private broadcasting sector, the relationship between media and politics has been the subject of frequent debates, and the issue of media ownership in Turkey has a much greater meaning than a sectoral activity. With the widespread use of the internet and social media in the 2000s, audiovisual media ownership has become an area with a much more complex structure.

In this study, the development of the publishing system and sector in Turkey; In this study, a general projection on the audiovisual media ownership structure of today's Turkey will be put forward by dealing with the descriptive method in the context of the historical process.

Keywords: Media, Television, Audiovisual, Media Ownership, Turkish Media.

LOOSENING THR, STUDY OF THE EVOLUTION OF STRESS INTENSITY FACTOR IN THE ORTHOPEDIC CEMENT

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ABSTRACT

Breaking cement is practically the main cause of this loosening. The behaviour of a crack initiated in the bone cement (polyméthylmétacrylate PMMA) is a great need for understanding the phenomena of loosening of total hip prostheses. In this study we analysed bi-dimensionally numerically by the method of finished elements interacting cracks from a defect, in order to know the effect of the interaction on the evolution of the stress intensity factor in the three zones of femur hip. This distribution was made in the three areas (distal, medial and proximal) of its components. With a distributed over the femoral head of a femur with an average weight of 90 kg for a human being supported. The direction of crack is in the axis of loading [1]. The results obtained show that the bone cement is subjected to compressive forces under the effect of load.

Keywords - crack, Cement, Stress intensity factor, Finite element method, Acétabulum

ONE-STEP SYNTHESIS OF NiCoS@rGO AS FUNCTIONAL ELECTRO-CATALYST FOR OXYGEN EVOLUTION REACTION (OER)

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ABSTRACT

The objective of our work is to synthesize new materials for electrochemical applications. Indeed, two materials families were synthesized, such as rGO, and TMS. The first family of synthesized materials is graphene oxide. The GO material family was developed from the graphite nanoparticles by hydrothermal process using the HUMMERS method. The graphite was oxidized to have graphite oxide then reduced by NaBH₄ as a reducing agent to have reduced graphene oxide rGO. The second material is TMS, transition metal sulfide, such as NiS, CoS, NiCoS that were developed with hydrothermal methods in a one synthesis step, then characterized by DRX and SEM techniques. All developed materials were applied in oxygen evolution reaction OER. The NiS, CoS, NiCoS do not exhibit any electrocatalytic activity or stability to OER reaction. Whereas, other materials coupled with the transition metal sulfide TMS with reduced graphene oxide rGO (NiCoS@rGO) present excellent electrocatalytic activity and stability towards the oxygen evolution reaction OER. The activated of NiCo₂O₄@rGO material showed excellent catalytic ability towards the OER reaction, it exhibits an overpotential as low as 350 mV at a current density of 10 mA.cm⁻².

Keywords: cobalt–nickel-sulfide, graphene oxide GO, OER reaction.

DERS KİTAPLARI ÜST DÜZEY DÜŞÜNME BECERİLERİNİ GELİŞTİRİYOR MU?: 7. SINIF TÜRKÇE DERS KİTABI ÖRNEĞİ

DO TEXTBOOKS DEVELOP HIGH-LEVEL THINKING SKILLS?: SAMPLE OF 7TH GRADE TURKISH TEXTBOOK

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ÖZET

Bu araştırma, 7. sınıf Türkçe ders kitabındaki etkinliklerin üst düzey düşünme becerileri açısından değerlendirilmesi amacıyla yapılmıştır. Çalışma kapsamında 7. sınıf Türkçe ders kitabındaki etkinlikler eleştirel düşünme, yansıtıcı düşünme, yaratıcı düşünme ve problem çözme becerisi gibi üst düzey düşünme becerileri açısından ele alınmıştır. Nitel araştırma yöntemine göre gerçekleştirilen çalışmada veri toplama yöntemi olarak doküman incelemesi kullanılmıştır. Araştırmanın güvenilirliğini sağlamak için kodlayıcılar arası güvenilirlik kullanılmış ve % 92 oranında anlaşma sağlanmıştır. Elde edilen veriler, betimsel analiz yöntemi ile analiz edilmiştir. Çalışmada Özgün Yayıncılık'a ait ve 2019-2020 eğitim-öğretim yılında okutulmaya başlanan 7. Sınıf Türkçe ders kitabındaki toplam 202 etkinlik değerlendirilmiştir. Değerlendirme sonucunda bu etkinliklerin eleştirel düşünme, yansıtıcı düşünme, yaratıcı düşünme ve problem çözme becerisi açısından dağılımı irdelenmiştir. Çalışmada ulaşılan bulgular alanyazın bağlamında tartışılmış ve çeşitli önerilerde bulunulmuştur.

Anahtar Kelimeler: Üst düzey düşünme becerileri, ders kitabı, etkinlik.

ABSTRACT

This research was conducted to evaluate the activities in the 7th grade Turkish textbook in terms of high-level thinking skills. Within the scope of the study, the activities in the 7th grade Turkish textbook were discussed in terms of high-level thinking skills such as critical thinking, reflective thinking, creative thinking and problem solving skills. In the study, which was carried out according to the qualitative research method, document analysis was used as the data collection method. To ensure the reliability of the research, the inter-coder reliability was used and an agreement was reached at the rate of 92%. The obtained data were analyzed by descriptive analysis method. In the study, a total of 202 activities in the 7th grade Turkish textbook of Özgün Publishing, which was started to be taught in the 2019-2020 academic year, were evaluated. As a result of the evaluation, the distribution of these activities in terms of critical thinking, reflective thinking, creative thinking and problem solving skills was examined. The findings of the study were discussed in the context of the literature and various suggestions were made.

Keywords: Higher-order thinking skills, activity, textbook.

**“KÜTÜPHANEYE DÜŞEN ÖKÜZ” İSİMLİ ESERİN ÇOCUK EDEBİYATINA
UYGUNLUĞU AÇISINDAN İNCELENMESİ**

AN INVESTIGATION OF THE WORK TITLED “THE OX FALL INTO THE LIBRARY” IN
TERMS OF SUITABILITY FOR CHILDREN'S LITERATURE

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ÖZET

Bu çalışmada, çocuk edebiyatı yazarlarından biri olan Üzeyir Gündüz'ün “Kütüphaneye Düşen Öküz” isimli eserinin çocuk edebiyatı açısından uygunluğu incelenmiştir. Çalışma betimsel nitelikte bir olup doküman incelemesi metodu esas alınarak gerçekleştirilmiştir. İlgili eser, Karatay (2011) tarafından geliştirilen “Çocuk Kitaplarını Değerlendirme Ölçeği” bağlamında analiz edilmiştir. Bu ölçek “İçerik Özellikleri” ve “Görsel Tasarım” alt başlıklarından oluşmaktadır. Ölçekte toplam 56 madde bulunmaktadır. Ölçekte bir çocuk kitabının nitelikleri görsel tasarım ve içerik özellikleri bakımından iki farklı biçimde değerlendirilebileceği gibi her iki özellik bir arada da değerlendirilebilir. Ölçekte kitapların görsel tasarımı ile ilgili sahip olması gereken 23; içerik özellikleri ile ilgili sahip olması gereken 34 ölçütü incelenmiştir. Her özelliğin yeterliliği ölçekte 1 (hayır), 3 (kısmen uygun) ve 5 (evet) puan üzerinden puanlanmıştır. Ölçek, eşit aralıklı puanlama ölçeğidir. Buna göre ölçekte çocuk kitaplarında bulunması gereken özelliklerin bulunma durumuna göre verilen puanların toplanıp madde sayısına bölünmesinden elde edilen aritmetik ortalama eğer “1-2.9 puan” arasında çıkıyorsa, 3 puandan düşük çıkıyorsa, incelenen kitabın çocuklara uygun olmadığı; “3-5 puan” arasında çıkıyorsa kitabın çocuk edebiyatı ve/veya çocuklara uygun olduğu söylenebilir. Çalışma sonucunda Gündüz'ün “Kütüphaneye Düşen Öküz” isimli eserinin çocuk edebiyatı açısından yararlanılması gereken bir kaynak olduğu sonucuna ulaşılmıştır.

Anahtar Kelimeler: Çocuk Edebiyatı, Çocuk Kitapları, Kütüphaneye Düşen Öküz.

ABSTRACT

In this study, the suitability of one of the children's literature writers, Üzeyir Gündüz's work named "The Ox Fall Into The Library" in terms of children's literature was examined. The study is descriptive and was carried out based on the document analysis method. The related work was analyzed in the context of the "Children's Books Evaluation Scale" developed by Karatay (2011). This scale consists of "Content Features" and "Visual Design" subheadings. There are 56 items in total in the scale. The qualities of a children's book in the scale can be evaluated in two different ways in terms of visual design and content features, or both features can be evaluated together. The 23 must-haves for the visual design of the books in the scale; It was examined with 34 criteria that should be related to content features. The adequacy of each feature was scored on the scale over 1 (no), 3 (partially appropriate) and 5 (yes) points. The scale is an evenly spaced scoring scale. Accordingly, if the arithmetic mean obtained by adding the scores given according to the presence of the features required in children's books and dividing them by the number of items in the scale is between "1-2.9 points", if it is lower than 3 points, it is stated that the examined book is not suitable for children; If it is between “3-5 points”, it can be said that the book is suitable for children's literature and/or children. As a result of the study, it was concluded that Gündüz's work named "The Ox Fall Into The Library" is a source that should be benefited from in terms of children's literature.

Keywords: Children's Literature, Children's books, The Ox Fall Into The Library

**SHAPE EFFECTS ON THE MIXED CONVECTIVE HYBRID NANOLIQUID FLOW OVER
A ROUGH SLENDER CYLINDER WITH CONVECTIVE BOUNDARY CONDITION**

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ABSTRACT

This paper presents the shape effects of a mixture of two nanoparticles on the heat and flow characteristics over a rough slender cylinder. Despite this, the impacts of MHD and convective boundary constraints are included in this analysis. There would be many applications of this study in various industries, including heat transfer control during coating of wires, fiber coating, etc. The physical problem is formulated as a set of highly nonlinear partial differential equations with suitable boundary constraints. The non-similar transformations have been utilized to convert these dimensional equations into non-dimensional forms. Further, the implicit finite difference scheme and the technique of Quasilinearization are employed for mathematical simplification. The so obtained results are depicted with the assistance of graphs and tables. Moreover, Hamilton and Crosser's model is utilized to define the effective viscosity and thermal conductivity of the hybrid nanoliquid. It is noticed that heat transfer rate is pronounced to more for brick shape nanoparticles followed by cylinder, platelet, and blade shape nanoparticles. The magnetic parameter is more favourable to the heat transfer rate than the drag coefficient for the positive values of the Eckert number, i.e. fluid heating case. The higher values of the Biot number enhances the temperature profile and rate of heat transfer significantly. The so obtained numerical values are validated with previously reported works, and they were found to have an excellent correlation.

Keywords: Mixed convection, MHD, Shape effect, Convective boundary conditions, Finite-difference scheme, Quasilinearization.

**SPOR BİLİMLERİ FAKÜLTESİ ÖĞRENCİLERİNİN ATILGANLIK DÜZEYLERİNİN
İNCELENMESİ**

**EXAMINATION OF ASSERTIVENESS LEVELS OF SPORTS SCIENCES FACULTY
STUDENTS**

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ÖZET

Atılganlık, bireylerin kendilerini ifade etmelerinde gerekli olan önemli bir yaşam becerisidir. Ergenlikle erişkinlik arasında yer alan gençlik dönemi, hem fizyolojik hem de psikolojik değişikliklerin olduğu duygusal iniş çıkışlarla dolu stresli bir dönemdir. Dolayısıyla, bu araştırmanın amacı Spor Bilimleri Fakültesi öğrencilerinin atılganlık düzeylerinin incelenmesidir. Kesitsel tipteki tanımlayıcı araştırmanın örneklemini 2020-2021 Eğitim-Öğretim yılında İnönü Üniversitesi Spor Bilimleri Fakültesinde eğitim-öğretim gören 156 üniversite öğrencisi oluşturdu. Veri toplama aracı olarak A.S. Rathus (1977) tarafından geliştirilen ve Acar (1980) tarafından Türkçe uyarlaması yapılan Rathus Atılganlık Envanteri kullanıldı. Verilerin değerlendirilmesinde IBM SPSS 25.0 istatistik paket programı kullanıldı. Verilerin normallik dağılımları Kolmogorov-Smirnov, varyansların homojenliği de Levene's testi ile sınıandı. Katılımcıların atılganlık düzeyleri ile sosyo-demografik özellikleri arasında istatistiksel olarak anlamlı bir fark olup olmadığını belirlemeye yönelik parametrik olmayan testlerden Mann-Whitney U ve Kruskal Wallis H testleri kullanıldı. İstatistiksel anlamlılık düzeyi $p<.05$ olarak kabul edildi. Araştırma bulguları incelendiğinde Spor Bilimleri Fakültesi öğrencilerinin %88.5'inin atılganlık düzeylerinin orta %11.5'inin de yüksek düzeyde olduğu tespit edildi. Erkeklerle kadınlar arasında atılganlık düzeyleri arasında istatistiksel olarak anlamlı fark olduğu bulundu. Erkeklerin orta düzey atılganlıkta kadınlardan daha yüksek sıra ortalamalarına sahip oldukları tespit edilmişken, yüksek düzey atılganlıkta ise kadınların daha yüksek sıra ortalamalarına sahip oldukları bulundu. Ayrıca, öğrencilerin atılganlık düzeylerini lisanslı olarak spor yapma durumu dışında diğer değişkenlerin etkilemediği tespit edildi. Sadece kadınlarda lisanslı olarak spor yapmayanların atılganlık düzeylerinin lisanslı olarak spor yapanlara göre daha yüksek olduğu görüldü. Sonuç olarak, spor bilimleri fakültesi öğrencilerinin atılganlık düzeylerini etkileyen faktörlerin daha iyi anlaşılması için kapsamlı araştırmalara ihtiyaç vardır.

Anahtar Kelimeler: Atılganlık düzeyi, Spor, Spor bilimleri, Üniversite öğrencileri.

ABSTRACT

Assertiveness is an important life skill that is necessary for individuals to express themselves. The teenage period, dec is located between adolescence and adulthood, is a stressful period filled with emotional ups and downs, during which there are both physiological and psychological changes. Therefore, the purpose of this study is to examine the assertiveness levels of students of the Faculty of Sports Sciences. The sample of the descriptive type cross-sectional study consisted of 154 randomly selected university students studying at Faculty of Sports Sciences of İnönü University in the 2020-2021 academic year. Rathus Assertiveness Inventory, developed by A.S. Rathus (1977) and adapted to Turkish by Acar (1980), was used as data collection tool. IBM SPSS 25.0 statistical package program was used to evaluate the data. The normality distributions of the data were tested by Kolmogorov-Smirnov, and the homogeneity of variances was tested with Levene's test. Mann-Whitney U and Kruskal Wallis H tests, which are non-parametric tests, were used to determine whether there was a statistically significant difference between the assertiveness levels of the participants and their socio-demographic characteristics. Statistical significance level was accepted as $p<.05$. It was determined that the assertiveness levels of 88.5% of the Faculty of Sports Sciences students were moderate and 11.5% of

them were high. It was found that there was a statistically significant difference between the assertiveness levels between men and women. It was found that men have higher rank averages than women in moderate assertiveness, while women have higher rank averages in high-level assertiveness. Moreover, it was determined that other variables did not affect the assertiveness levels of the students, except for licensed sports. It was observed that the assertiveness levels of those who do not do sports under license are higher than those who do sports under license. As a conclusion, comprehensive studies are needed to better understand the factors affecting the assertiveness levels of sports science faculty students.

Keywords: Assertiveness level, Sports, Sports sciences, University students.

**SPOR BİLİMLERİ FAKÜLTESİ ÖĞRENCİLERİNİN İNTERNET BAĞIMLILIK
DÜZEYLERİNİN İNCELENMESİ**

**EXAMINATION OF THE INTERNET ADDICTION LEVELS OF SPORTS SCIENCES FACULTY
STUDENTS**

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ÖZET

Kısa süre içerisinde hayatımızın en önemli bilgi paylaşım araçlarından biri haline gelen internet bağımlılık yaratmaktadır. İnternet bağımlılığı bireylerin eğitim-öğretim sürecinde ve günlük yaşam aktivitelerinde ciddi sorunlara sebep olabilmektedir. Bu nedenle bu araştırmanın amacı Spor Bilimleri Fakültesi öğrencilerinin internet bağımlılık durumlarını incelemektir. Tarama yönteminin kullanıldığı kesitsel tipteki araştırmanın örneklemini 2020-2021 eğitim-öğretim yılında İnönü Üniversitesi Spor Bilimleri Fakültesinde eğitim-öğretim gören 300 üniversite öğrenci oluşturdu. Veri toplama aracı olarak K.S. Young (1998) tarafından geliştirilen, M. Pawlikowski ve arkadaşları (2013) tarafından kısa forma dönüştürülen ve Kutlu ve arkadaşları (2015) tarafından da Türkçeye uyarlanan İnternet Bağımlılığı Testi Kısa Formu kullanıldı. Verilerin normallik dağılımları Kolmogorov-Smirnov, varyansların homojenliği de Levene's testi ile sınıandı. Katılımcıların atılganlık düzeyleri ile düzeyleri ile sosyo-demografik özellikleri arasında istatistiksel olarak anlamlı bir fark olup olmadığını belirlemeye yönelik parametrik olmayan testlerden Mann-Whitney U ve Kruskal Wallis H testleri kullanıldı. İstatistiksel anlamlılık düzeyi $p<.05$ olarak kabul edildi. Araştırma bulguları incelendiğinde spor bilimleri fakültesi öğrencilerinin cinsiyetleri, uyku durumları, yaşları, kiloları, bölümleri ve aylık gelirleri ile internet bağımlılık düzeyi arasında istatistiksel olarak anlamlı bir fark olduğu tespit edildi. Katılımcıların %57'sinin erkek, %60,3'ünün düzenli uyku uyuduğu, öğrencilerin yaşları ve vücut ağırlıkları arttıkça internet bağımlılık düzeyinin de arttığı tespit edildi. Spor yöneticiliği bölümü öğrencilerinin internet bağımlılık düzeylerinin diğer bölümlerden daha yüksek olduğu, aylık geliri düşük olan öğrencilerin internet bağımlılık düzeylerinin de aylık gelir düzeyi yüksek olan öğrencilerden daha yüksek olduğu görüldü. Ancak öğrencilerin sınıfları, ebeveynlerinin eğitim durumu, yaşadıkları ve yetiştikleri yer ve aile tipleri ile internet bağımlılık düzeyleri arasında istatistiksel olarak anlamlı bir fark olmadığı bulundu.

Anahtar kelimeler: İnternet Bağımlılığı, Bağımlılık, Spor, Spor Bilimleri, Üniversite öğrencisi

ABSTRACT

The internet, which has become one of the most important information sharing tools in our lives in a short time, creates addiction. Internet addiction can cause serious problems in the education process and daily life activities of individuals. Therefore, the aim of this study is to examine the internet addiction status of the students of the Faculty of Sports Sciences. The sample of the cross-sectional study, in which the survey method was used, consisted of 300 university students studying at the Faculty of Sports Sciences of İnönü University in the 2020-2021 academic year. The Internet Addiction Test Short Form, developed by K.S. Young (1998), converted into short form by M. Pawlikowski et al. (2013) and adapted into Turkish by Kutlu et al. (2015) was used as data collection tool. IBM SPSS 25.0 statistical package program was used to evaluate the data. The normality distributions of the data were tested by Kolmogorov-Smirnov, and the homogeneity of variances was tested with Levene's test. Mann-Whitney U and Kruskal Wallis H tests, which are non-parametric tests, were used to determine whether there was a statistically significant difference between the internet addiction levels of the participants and their socio-demographic characteristics. Statistical significance level was accepted as $p<.05$. When the study findings were examined, it was determined that there was a statistically significant difference between

the gender, sleep status, age, weight, department and monthly income of the students of the faculty of sports sciences and the level of internet addiction. It was determined that 57% of the participants were male, 60.3% slept regularly, and the level of internet addiction increased as the age and body weight of the students increased. It was seen that the internet addiction levels of the students of the sports management department were higher than the other departments, and the internet addiction levels of the students with low monthly income were higher than those of the students with high monthly income. However, it was found that there was no statistically significant difference between the grade of the students, the educational status of their parents, the place where they lived and grew up, their family types and their internet addiction levels.

Keywords: Internet addiction, Sports, Sports sciences, University students.

ELECTRO-OSMOTIC IMPLEMENT FOR SOIL ADHESION REDUCTION

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ABSTRACT

Today, the development of high-efficiency tillage implements which can meet the requirements of modern agriculture in energy consumption is a matter of great importance. Therefore, using bionic electro-osmosis technology inspired from the body surface of soil burrowing animals in design and construction of soil-engaging tillage implements for soil adhesion reduction has gathered the attention of researchers in the last two decades. In this study, a soil-engaging plate with optimized operational parameters is introduced. Experimental results showed that reduction of soil adhesion was the most for the plate with 1/4 positive/negative electrode area ratio, and applying 24 V for 30 s to the electrodes. Results also revealed that by using bionic electro-osmosis technology, plates' soil adhesion reduced by 29.8% to 90% compared with conventional plates. Results of this study can be used for the design and development of high-efficiency soil-engaging implements for power-consuming agricultural field operations.

Keywords: bionic tillage implements; soil adhesion; electro-osmotic plates; soil.

**CHARGE CARRIERS DYNAMICS IN LOW VISCOSITY IONIC LIQUID DOPED
POLYMER ELECTROLYTES**

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ABSTRACT

Low viscosity ionic liquid doped polymer electrolytes samples have been prepared by solution cast method for fixed weight% of polymer and sodium salt with different content of ionic liquid 1-ethyl 3-methylimidazolium thiocyanate. The prepared samples have been characterized by different techniques like optical microscopy, differential scanning calorimetry and impedance spectroscopy in detail. The measurement of ionic conductivity shows the enhancement due to the doping of ionic liquid in polymer matrix which is supported by increase in number of charge carriers per unit volume of electrolytes.

ARMENIA'S POLICY OF FALSE GENOCIDE AGAINST AZERBAIJAN**ERMƏNİSTANIN AZƏRBAYCANA QARŞI SAXTA SOYQIRIM SİYASƏTİ****ПОДДЕЛЬНАЯ ПОЛИТИКА ГЕНОЦИДА АРМЕНИИ ПРОТИВ АЗЕРБАЙДЖАНА***Kamal Salayev*

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ABSTRACT

The article examines the fake genocide policy pursued by Armenia against Azerbaijan. From this point of view, it should be noted that in the works of a number of armenian authors purposeful hatred of the population of Armenia against Azerbaijanis and Turks is instilled. Examples of such works are the will of Nalbandian to armenian youth, the novel "Iron Ashot", the will of Silva Kaputikyan to "Hayk sons" and the work of Zori Balayan "Ojag". The article analyzes the so-called "armenian genocide" of armenians. Noting the events of 1915 in a false way, armenians are propagating the fictitious "armenian genocide". However, despite the so-called armenian propaganda, researchers reveal the lies of the armenian nationalists. So, American historian Stanford Shaw, armenian historian Valiy, etc. they expose the fake "armenian genocide" in their records. The article also talks about the genocide committed by Armenia against Azerbaijan – the Khojaly tragedy in February 1992. The Khojaly tragedy is one of the hardest blows of Armenia to humanity. During the genocide committed by armenians in February 1992, in Garadagly village 146 children lost their families, 43 families remained fatherless. During the occupation of Garadagly village 320 educational institutions, 25 hospitals, 200 houses, historical monuments and cemeteries were destroyed, while 800 local people became internally displaced persons. The Khojaly tragedy was not left out of the attention of the world media. Thus, on the day of the tragedy, french newspaper "Libardion" employee Jul Gen Weiner, who was sent to Khankendi, witnessed the tragedy, took notes and noted that what happened in Khojaly was a pre-prepared scenario in the article entitled "I witnessed armenian terrorism" published in Libardion newspaper.

Keywords: Armenia, Armenian fraud, Armenian propaganda, 1915, 1992, Khojaly, genocide, media

РЕЗЮМЕ

В статье исследуется политика геноцида, проводимая Арменией против Азербайджана. С этой точки зрения следует отметить, что в произведениях ряда армянских авторов целенаправленно прививается ненависть армянского населения к азербайджанцам и туркам. В качестве примеров таких произведений можно привести завещание Налбандяна армянской молодежи, Роман армян "Железный Ашот", завещание Сильвы Капутикяна армянам "сынам Хайка" и произведение Зори Балаяна "Очаг". В статье анализируется так называемый ложный "геноцид армян". Армяне неправильно фиксируют события 1915 года и ведут пропаганду вымышленного "геноцида армян". Но, несмотря на так называемую армянскую пропаганду, исследователи разоблачают ложь армянских националистов. Так, американский историк Стэнфорд Шоу, армянский историк Валий и др. в своих записях они разоблачают ложный "геноцид армян". В статье также говорится о геноциде, совершенном Арменией против Азербайджана, – о Ходжалинской трагедии, произошедшей в феврале 1992 года. Ходжалинская трагедия - один из самых тяжелых ударов Армении по человечеству. Во время геноцида, совершенного армянами в феврале 1992 года, только в селе Гарадаглы 146 детей потеряли свои семьи, 43 семьи остались без отца. Во время оккупации села Гарадаглы были уничтожены 320 учебных заведений, 25 больниц, 200 домов, исторические памятники и кладбища, а 800 местных жителей оказались в положении вынужденных переселенцев. Ходжалинская трагедия не осталась без внимания мировых СМИ. Так, сотрудник французской газеты "Libardion" Жюль Ген Вайнер, направленный в Ханкенди в

день трагедии, стал живым свидетелем трагедии, сделал свои записи, в опубликованной в газете “Libardion” статье под названием “Я стал живым свидетелем армянского терроризма” отметил, что произошедшее в Ходжалы - заранее подготовленный сценарий.

Ключевые слова: Армения, армянская фальсификация, армянская пропаганда, 1915 год, 1992 год, Ходжалы, геноцид, медиа

XÜLASƏ

Məqalədə Ermənistanın Azərbaycana qarşı yürütdüyü saxta soyqırım siyasəti tədqiq olunur. Bu baxımdan qeyd etmək lazımdır ki, bir sıra erməni müəlliflərinin əsərlərində azərbaycanlılara və türklərə qarşı Ermənistan əhalisinə məqsədyönlü şəkildə nifrət aşılanır. Bu cür əsərlərə misal olaraq, Nalbandyanın erməni gənclərinə vəsiyyəti, ermənilərin “Dəmir Aşot” romanını, Silva Kaputikyanın “Hayk oğullarına” adlı ermənilərə ünvanlanmış vəsiyyətini və Zori Balayanın “Ocaq” adlı əsərini göstərmək olar. Məqalədə ermənilərin qondarma saxta “erməni soyqırımı” təhlil olunur. Ermənilər 1915-ci ilin hadisələrini yalnız şəkildə qeyd edərək uydurma “erməni soyqırımı”nın təbliğatını aparırlar. Lakin ermənilərin qondarma təbliğatına baxmayaraq tədqiqatçılar erməni millətçilərinin yalanlarını üzə çıxarırlar. Belə ki, Amerikan tarixçisi Stenford Şou, erməni tarixçisi Valiy və s. öz qeydlərində saxta “erməni soyqırımı”nı ifşa edirlər. Məqalədə həmçinin, Ermənistanın Azərbaycana qarşı törətdiyi soyqırımdan – 1992-ci ilin fevralında baş verən Xocalı faciəsindən bəhs olunur. Xocalı faciəsi Ermənistanın bəşəriyyətə vurduğu ən ağır zərbələrdən biridir. Ermənilərin 1992-ci fevralında törətdikləri soyqırım zamanı təkcə Qaradağlı kəndində 146 uşaq ailəsini itirmiş, 43 ailə atasız qalmışdır. Qaradağlı kəndinin işğalı zamanı 320 təhsil ocağı, 25 xəstəxana, 200 ev, tarixi abidələr və qəbiristanlıqlar məhv olunmuş, 800 nəfər yerli əhali isə məcburi köçkün vəziyyətinə düşmüşdür. Xocalı faciəsi dünya mediasının diqqətindən kənarda qalmamışdır. Belə ki, faciənin olduğu gün Xankəndinə ezam olunmuş Fransanın “Libardion” qəzetinin əməkdaşı Jul Gen Vayner faciənin canlı şahidi olmuş, öz qeydlərini aparmış, “Libardion” qəzetində çap etdirdiyi “Erməni terrorizminin canlı şahidi oldum” sərəlvhəli yazıda Xocalıda baş verənlərin qabaqcadan hazırlanmış bir ssenari olduğunu qeyd etmişdir.

Açar sözlər: Ermənistan, erməni saxtakarlığı, erməni təbliğatı, 1915-ci il, 1992-ci il, Xocalı, soyqırım, media

ANOTHER 17.126 TRILLION NAIRA AND 100 MILLION PEOPLE IN EXTREME POVERTY*Babatunde, Shakirat Adepeju, Ph.D., FCA, FIPA, FIFA*

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ABSTRACT

This study contributes to the debate on poverty reduction strategy in emerging markets. It relies on secondary data extracted from the Nigerian annual budget covering 2018 to 2022. The data scrutiny is through arithmetical ratio analysis. Findings show that despite increasing budget size from ₦9.12, ₦8.92, ₦10.81, ₦14.06 and ₦16.39 trillion for 2018, 2019, 2020, 2021 and 2022 respectively, coupled with increasing debt financing at ₦2.204, ₦2.254, ₦2.951, ₦3.344, and ₦3.901 trillion or a debt percentage of revenue ratio at 24%, 25%, 27%, 25% and 24% for 2018, 2019, 2020, 2021 and 2022 respectively, Nigeria continues to worsen in extreme poverty due to its high debt profile and corruption. Poverty rate rises from 39% in 2018 to 53% in 2022. This study exposes the adverse implications of corruption and rising debt on the government's poverty reduction efforts. This study argues that the joint IMF-World Bank Debt Sustainability rating for emerging economies is misleading and counter-productive to the actualization of the zero poverty focus of the UNDP Sustainable Development goals 2030, as it is inimical to meaningful progress in poverty eradication. Hence, this study buttresses that more than 100 million people will live in abject poverty of \$1.90 or about ₦1000 in 2022 if corruption and borrowing continues to escalate. Relying on Public value theory, government should therefore improve on public debt management through borrowing and corruption eradication strategy. The IMF-World Bank duo should caution on mounting lending to emerging economies. IMF-World Bank should incorporate the lending impact on poverty as a main debt sustainability criterion. Hence, to show the true strength of a borrower, this study suggests a new IMF-World Bank debt sustainability formula equal to Present Value (PV) of total public debt in per cent of revenue (5% discount factor) less poverty rate.

That is $DSR = \left(\frac{PV(TPD)}{TR} \right) - PR$

Key words: Corruption, Debt financing; Debt sustainability; Extreme poverty, IMF-World Bank