

# ABSTRACT BOOK



BATUMI-GÜRCİSTAN  
13 - 15 EKİM 2023

## KARADENİZ 14. ULUSLARARASI UYGULAMALI BİLİMLER KONGRESİ



### KARADENİZ 13th INTERNATIONAL CONFERENCE ON APPLIED SCIENCES OCTOBER 13 - 15, 2023 BATUMI

ISBN : 978-625-6830-36-3

ACADEMY GLOBAL PUBLISHING HOUSE





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*14TH INTERNATIONAL CONFERENCE ON APPLIED SCIENCES*  
*OCTOBER 13 - 15, 2023*  
*BATUMI*

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Issued: 25.10.2023  
ISBN: 978-625-6830-36-3

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Salon	Moderator		Bildiri No ve Başlığı / Paper ID and Title	Authors
SALON 1	Dr. Öğretim Üyesi Filiz YILDIZ	1	INCREASING THE SCIENTIFIC POTENTIAL OF STUDENTS IN EDUCATION SYSTEM IN UKRAINE (FOR EXAMPLE NULES)	Lavryk RUSLAN Volodimirovich Galimova VALENTINA Mihalovna
		2	TEACHERS' POINT OF VIEW ON ICT USE IN ELEMENTARY CLASSES	Rina MUKA Pranvera KRAJA
		3	SELF-EFFICACY OF HIGHER EDUCATION STUDENTS DURING ONLINE LEARNING	Pranvera Kraja Rina Muka
		4	WHAT IS THE PLACE OF DIFFERENT LEARNERS IN VOCATIONAL MUSIC EDUCATION?: "IN THE CHALLENGE OF A LATE PROBLEM IN THE 21TH CENTURY"	Prof. Dr. Uğur TÜRKMEN Dr. Öğretim Üyesi Filiz YILDIZ
		5	DETERMINATION OF TEACHERS' VIEWS ON THE DEVELOPMENT OF NUMBER SENSE SKILLS OF STUDENTS WITH MATHEMATICS LEARNING DIFFICULTIES	Öğretmen Serdal BAKAN Dr. Öğr. Üyesi Tuğba PÜRSÜN
		6	STUDIES CONDUCTED ON THE GENERAL COMPETENCIES OF THE TEACHING PROFESSION	Doç. Dr. Bünyamin HAN Emine AKÇAL
		7	ÖĞRETMEN ADAYLARININ TEKNOLOJİ KULLANIM EĞİLİM VE NİTELİKLERİNİN BELİRLENMESİ	Dr. Öğr. Üyesi Barış AYAZ
		8	ÖZEL EĞİTİM ÖĞRETMENLERİNİN ÇALIŞMA TERCİHLERİ VE ÇALIŞILAN ALAN ZORLUK DURUMLARI	Yüksek Lisans Öğrencisi, Rümeysa ÇALAZ Dr. Öğr. Üyesi, Süleyman DEMİR



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SALON 2	Öğr. Gör. Dr. Erkan DENK	1	Study for Digital Transformation Management Models: A Comprehensive Analysis	Prof. Sameer Jain
		2	TÜKENMİŞLİK VE İŞ YÜKÜNÜN İŞTEN AYRILMA NİYETİNE ETKİSİ: TÜRKİYE'DEKİ SAĞLIK BAKANLIĞINA BAĞLI HASTANELERDE ÇALIŞAN DOKTORLAR ÜZERİNE BİR ARAŞTIRMA	Husam saad DARWESHFADHIL Dr. Öğr. Üyesi, Vasfi KAHYA
		3	Döngüsel İşgücü Hareketliliğinin Mekanı Olarak Doğu Karadeniz Kentleri	Doktora öğrencisi, Kerim Taşkın Prof. Dr. Selver Özözen Kahraman
		4	THE EFFECT OF DEMOGRAPHICAL VARIABLES ON DIGITALISATION AND JOB SATISFACTION: AN EMPIRICAL STUDY ON PROFESSIONAL ACCOUNTANTS	Dr. Öğr. Üyesi, Fatih BIYIKLI Arş. Gör., Ömer Orbay ÇETİN
		5	AUTEUR CRITICISM OF ONCE UPON A TIME IN ANATOLIA: ANALYZING NURI BİLGE CEYLAN'S DISTINCTIVE FILMMAKING	Öğr. Gör. Dr. Fatma Serdaroğlu
		6	GÖSTERGEBİLİM YÖNTEMİYLE REKLAM ANALİZİ: SNCF (FRANSIZ ULUSAL DEMİRYOLLARI ŞİRKETİ) REKLAM KAMPANYASI	Doç. Dr., Buket ALTINBÜKEN KARSLI
		7	PERSUASIVE COMMUNICATION: A BIBLIOMETRIC ANALYSIS	Dr. Öğr. Üyesi, HAVVA NUR TARAKCI
		8	RANKING OF TOURISM POTANTIAL IN TURKEY (RİZE) WITH ANALYTIC HIERARCHY METHOD	Dr. Öğr. Üyesi İrfan YAŞAR
		9	EVALUATION OF THE TOURISTIC POTENTIAL OF MEDICINAL AND AROMATIC PLANTS GROWING NATURALLY IN THE PLATEAUS IN SULTANMURAT REGION	Lecturer, Bilgin GÜNER PHD Student, Emrah KARA Assoc. Dr. Taner DALGIN Prof. Dr., Hüseyin ÇEKEN
		10	KIŞ KORİDORU GASTRONOMİ KORİDORUNA DÖNÜŞEBİLİR Mİ? BİR GASTRONOMİ ROTA DENEMESİ	Öğr. Gör. Dr. Erkan DENK

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SALON 3	Dr. Öğretim Üyesi Abdülkadir Özdemir	1	İYİ YAŞAMA (VIVIR BIEN/BUEN VIVIR) HAKKI ÇERÇEVESİNDE EKVADOR ANAYASASINDA ÇEVRE HAKKI	Ar. Gör. Gülnihal Ahter YAKACAK
			PROBLEMS, CURRENT EVOLUTION, AND SOLUTION SUGGESTIONS IN INDIVIDUAL LABOR DISPUTES RELATING TO ALTERNATIVE DISPUTE RESOLUTION METHODS	Assoc. Prof. Dr., Yeliz BOZKURT GÜMRÜKÇÜOĞLU
		2	THE DOMINATION TYRANNY OF THE DELUSION OF OWNERSHIP IN NOBODY'S CITIES	Dr. Öğr. Üyesi Emine KEF
		3	OSMANLI'DAN CUMHURİYET'E ULUS-DEVLETLEŞME SÜRECİNİN EKONOMİ POLİTİĞİ	Dr. Şaban ÖZTÜRK
		4	DEVLET, İKTİDAR VE OTORİTE KAVRAMLARI ÇERÇEVESİNDE SİVİL TOPLUM-SİYASET İLİŞKİSİ	Dr. Şaban ÖZTÜRK
		5	FINDINGS OF THE COURT OF ACCOUNTS IN REGULARITY AUDITS: AN ANALYSIS BASED ON PUBLIC UNIVERSITIES' REVOLVING FUND ENTERPRISES	Dr. Öğr. Üyesi Süleyman DİKMEN
		6	ANAYASAL MONARŞİNİN DÜNYA, BUGÜNÜ VE GELECEĞİ ÜZERİNE BİR DEĞERLENDİRME	Dr. Öğretim Üyesi Abdülkadir Özdemir
		7	THE NEGATIVE EFFECT OF 19TH-CENTURY TRAVELERS ON THE WEST'S PERCEPTION OF THE EAST: THE CASE OF THE OTTOMAN STATE	Öğr. Gör. Dr., Bahar KARATAŞ
		8	GEOGRAPHICAL DISTRIBUTION OF HUMAN CAPITAL BETWEEN DIFFERENT RELIGIOUS GROUPS IN THE 19 TH CENTURY OTTOMAN EMPIRE	Kazım BAYCAR
			DETAILED ANALYSES OF SEDIMENTOLOGICAL IDENTIFICATION IN PALAEOECOLOGY STUDIES	Dr. Öğr. Üyesi Aziz ÖREN

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SALON 4	Dr. Öğr. Üyesi, Hamza SADAN	1	ISTİLÂHÎ VE İÇTİMÂÎ BAĞLAMDA İSÂR	Yüksek Lisans Öğrencisi, Melike ŞENTÜRK
		2	Abdulhamid al-Shirvani's Work "Hashiyatu's-Şirvani" and the Principles of Procedure Its Contained	Assist. Prof. Dr. Mahsum ASLAN
		3	KUR'AN'DA PEYGAMBERLERİN SOSYAL HİZMETLERLE İLGİLİ PRATİKLERİNE DAİR BİR İNCELEME	Dr. Öğr. Üyesi, Hamza SADAN

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SALON 5	Doç. Dr. Talip ÇUKURLU	1	ADI NE OLSUN? BARTIN İŞ YERİ ADLARI ÜZERİNE BİR İNCELEME	Lisans Öğrencisi Elif ÖZTÜRK Lisans Öğrencisi Eslem DOĞAN Lisans Öğrencisi Zehra KAVAS Lisans Öğrencisi Melek TOPTAŞ Doç. Dr. Ömer KEMİKSİZ
		2	OKURUN OKUMA ALIŞKANLARININ SORGULANMASI BAĞLAMINDA AHMET MİTHAT EFENDİ VE KARI KOCA MASALI	Dr. Öğretim Üyesi, Atiye Gülfar GÜNDOĞDU
		3	TANZİMAT DÖNEMİ EDEBİYAT ELEŞTİRİSİNDE EDEBİLİK ALGILARI: DİL, EVRENSELLİK VE FORM	Dr. Öğretim Üyesi, Servet GÜNDOĞDU
		4	THE ART OF “TEKRİR” ONE OF THE HARMONIES OF CLASSICAL TURKISH POETRY AND A POEM OF THE POET PSEUDONYM OF “HAYRÂN”	Doç. Dr. Talip ÇUKURLU
		5	“ŞÂM-I ŞERİF” İN CLASSICAL TURKISH LITERATURE AND VEHBÎ’S “ŞÂM-I ŞERİF” RHYME POETRY	Doç. Dr. Talip ÇUKURLU
		6	A REVIEW ON CEM AKAS’S STORYBOOK NAMED NOKTANIN KESİŞİMLERİ ANTOLOJİSİ	Doç. Dr. Emine AYAN
		7	Ecocritical Analysis of “To Build a Fire” by Jack London	Dr Selin Turan

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SALON 6	Kübra ARDUÇ	1	SECURING BIOMASS ENERGY OPERATING CONTRACT, GOVERNMENT PERMITS AND FINANCIAL CLOSING: FUNDAMENTALS FOR PROCESS IMPROVEMENT	Joselito E. Calip Christopher C. Mantillas, Ph.D.
		2	EVALUATION OF THE SENSITIVITY OF THE REGIONAL CLIMATE MODEL (REGCM) IN SIMULATING SOLAR RADIATION	Msc. Yusuf DURAN Assoc. Prof. Dr. S. Levent KUZU Res. Asst. Elif YAVUZ
		3	Machine Learning in Obesity Research: A Comprehensive Review	Research Assistant, Fatma Hilal Yagin Associate Professor, Ozgur Eken Professor Dr., Cemil Colak
		4	Diabetes and Machine Learning: Revolutionizing Management and Prediction	Research Assistant, Fatma Hilal Yagin Associate Professor, Ozgur Eken Professor Dr., Cemil Colak
		5	MONTMORILLONITE NANOCCLAY AND ITS APPLICATION IN MEDICAL INDUSTRY	Ekrem Kalkan Shahriyar Karimdoust
		6	NANOCCLAY MINERALS AND MEDICAL NANOTECHNOLOGY	Ekrem Kalkan Shahriyar Karimdoust
		7	STRUCTURAL ANALYSIS AND POLARIZABILITY-HYPERPOLARIZABILITY CALCULATIONS FOR RUTHENIUM-BASED DYE SENSITIZER CONFORMERS	Master Student, Kübra ARDUÇ Prof. Dr., Mustafa KARAKAYA

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HALL 1	Dr. Shanthi Thomas	1	COOPERATIVE LEARNING: A CASE STUDY ON TEAMWORK THROUGH COMMUNITY SERVICE PROJECT	Dr. Priyadharshini Ahumugam
		2	CHALLENGES AND OPPORTUNITIES OF UTILIZATION OF SOCIAL MEDIA BY BUSINESS EDUCATION STUDENTS IN NIGERIA UNIVERSITIES	Titus Amodu Umore
		3	MOBILE COLLABORATION LEARNING TECHNIQUE ON STUDENTS IN DEVELOPING NATIONS	Amah Nnachi Lofti, Oyefeso Olufemi, Ibiam Udu Ama
		4	COMPLEXITY LEADERSHIP AND KNOWLEDGE MANAGEMENT IN HIGHER EDUCATION	Assoc. Prof. Prabhakar Venugopal Gantasala
		5	EDUCATIONAL PLAN AND PROGRAM OF THE SUBJECT MAINTENANCE OF ELECTRIC POWER EQUIPMENT	Rade Ciric, Sasa Mandic
		6	TEACHERS' PERCEPTIONS OF THEIR PRINCIPALS' INTERPERSONAL EMOTIONALLY INTELLIGENT BEHAVIOURS AFFECTING THEIR JOB SATISFACTION	Prof. Prakash Singh
		7	DESIGNING SOCIAL MEDIA INTO HIGHER EDUCATION COURSES	Thapanee Seechaliao
		8	TEACHER PROFESSIONAL DEVELOPMENT-CURRENT PRACTICES IN A SECONDARY SCHOOL IN BRUNEI DARUSSALAM	Dr. Shanthi Thomas
		9	CREATING ENTREPRENEURIAL UNIVERSITIES: THE SWEDISH APPROACH OF TRANSFORMATION	Fawaz Saad, Hamid Alalwany

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HALL 2	Hiba Naccache	1	RELATIONSHIP BETWEEN GENDER AND PERFORMANCE WITH RESPECT TO A BASIC MATH SKILLS QUIZ IN STATISTICS COURSES IN LEBANON	Hiba Naccache
		2	VOICES AND PICTURES FROM AN ONLINE COURSE AND A FACE TO FACE COURSE	Eti Gilad, Shosh Millet
		3	LEARNERS' PERCEPTIONS OF TERTIARY LEVEL TEACHERS' CODE SWITCHING: A VIETNAMESE PERSPECTIVE	Hoa Pham
		4	IMPLEMENTING LEARNER-CENTERED TEACHING APPROACH IN HIGHER EDUCATION	Iman Ali Ahmed Al-Rashed
		5	INTEGRATING HOTS ACTIVITIES WITH GEOGEBRA IN PRE-SERVICE TEACHERS' PREPARATION	Wajeeh Daher, Nimer Baya'a
		6	A FLIPPED CLASSROOM APPROACH FOR NON-SCIENCE MAJORS	Nidhi Gadura
		7	THE TECHNO-PEDAGOGICAL PIVOT: DESIGNING AND IMPLEMENTING A DIGITAL WRITING TOOL	Justin D. Olmanson, Katrina S. Kennett, Bill Cope
		8	ANALYSIS OF SUITABILITY OF ONLINE ASSESSMENT BY MAINTAINING CRITICAL THINKING	Mohamed Chabi, Mohammad Shahid Jamil, Mahmoud I Syam
		9	FACTORS OF ENGLISH LANGUAGE LEARNING AND ACQUISITION AT BISHA COLLEGE OF TECHNOLOGY	Khalid Albishi
		10	MOTIVATING THE INDEPENDENT LEARNER AT THE ARAB OPEN UNIVERSITY, KUWAIT	Hassan A. Sharafuddin, Chekra A. Allani



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HALL 3	Haiyan Wang	1	OPEN EDUCATIONAL RESOURCE IN ONLINE MATHEMATICS LEARNING	Haohao Wang
		2	MEANINGFUL GENERAL EDUCATION REFORM: INTEGRATING CORE CURRICULA AND INSTITUTIONAL VALUES	Michael W. Markowitz
		3	APPLICATIONS OF BIG DATA IN EDUCATION	Faisal Kalota
		4	USING FACEBOOK AS AN ALTERNATIVE LEARNING TOOL IN MALAYSIAN HIGHER LEARNING INSTITUTIONS: A STRUCTURAL EQUATION MODELING APPROACH	Ahasanul Haque, Abdullah Sarwar, Khaliq Ahmad
		5	FOCUSING ON THE UTILIZATION OF INFORMATION AND COMMUNICATION TECHNOLOGY FOR IMPROVING CHILDREN'S POTENTIALS IN SCIENCE: CHALLENGES FOR SUSTAINABLE DEVELOPMENT IN NIGERIA	Osagiede Mercy Afe
		6	TRANSNATIONAL HIGHER EDUCATION: DEVELOPING A TRANSNATIONAL STUDENT SUCCESS 'SIGNATURE' FOR PRE-CLINICAL MEDICAL STUDENTS – AN ACTION RESEARCH PROJECT	W. Maddison
		7	COLLABORATIVE TEAM WORK IN HIGHER EDUCATION: A CASE STUDY	Swapna Bhargavi Gantasala
		8	THE ANALYSIS OF TEACHER TALK IN "LEARNER-CENTERED" TEACHING MODE	Haiyan Wang
		9	ON THE CONSTRUCTIVIST TEACHING OF EXTENSIVE READING FOR ENGLISH MAJORS	Haiyan Wang
		10	VIRTUAL SCIENCE HUB: AN OPEN SOURCE PLATFORM TO ENRICH SCIENCE TEACHING	Enrique Barra, Aldo Gordillo, Juan Quemada

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HALL 4	Duangkamol Thitivesa	1	ACCESS TO HIGHER EDUCATION IN NIGERIA: THE UNIVERSITY OF CALABAR PRE-DEGREE PROGRAM EXPERIENCE	Eni I. Eni, James Okon, Ashang J. Ashang
		2	THE COOPERATIVE LEARNING MANAGEMENT IN THE COURSE OF PRINCIPLES OF MATHEMATICS FOR GRADUATE LEVEL	Komon Paisal
		3	RELATIONSHIP OF ARM ACUPRESSURE POINTS AND THAI TRADITIONAL MASSAGE	Boonyarat Chaleephay
		4	RUBRIC IN VOCATIONAL EDUCATION	Azmanirah Ab Rahman, Jamil Ahmad, Ruhizan Muhammad Yasin
		5	DRUG USE KNOWLEDGE AND ANTIMICROBIAL DRUG USE BEHAVIOR	Pimporn Thongmuang
		6	THE USE OF PROJECT TO ENHANCE LEARNING DOMAINS STATED BY NATIONAL QUALIFICATIONS FRAMEWORK: TQF	Duangkamol Thitivesa
		7	A DEVELOPMENT OF ONLINE LESSONS TO STRENGTHEN THE LEARNING PROCESS OF MASTER'S DEGREE STUDENTS MAJORING IN CURRICULUM AND INSTRUCTION AT SUAN SUNANDHA RAJABHAT UNIVERSITY	Chaiwat Waree
		8	COLLABORATIVE ONLINE LEARNING FOR LECTURERS	Lee Bih Ni, Emily Doreen Lee, Wee Hui Yean
		9	A DEVELOPMENT OF PERSONALIZED EDUTAINMENT CONTENTS THROUGH STORYTELLING	Min Kyeong Cha, Ju Yeon Mun, Seong Baeg Kim

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HALL 5	Shireen Panchoo	1	VOICE IN PRE-SERVICE TEACHER DEVELOPMENT	Pintipa Seubsang, Suttipong Boonphadung
		2	DEVELOPING STUDENT TEACHERS TO BE PROFESSIONAL TEACHERS	Suttipong Boonphadung
		3	A TRAINING COURSE DEVELOPMENT TO PROMOTE LEARNING ACTIVITIES OF 2ND YEAR, FACULTY OF EDUCATION STUDENTS USING MULTIPLE INTELLIGENCES THEORY	Chaiwat Waree, Kalanyoo Petcharaporn
		4	LEARNING STYLES OF UNIVERSITY STUDENTS IN BANGKOK: THE CHARACTERISTICS AND THE RELEVANT INSTRUCTIONAL CONTEXT	Chaiwat Tantarangsee
		5	THE LINK BETWEEN DISTRIBUTED LEADERSHIP AND EDUCATIONAL OUTCOMES: AN OVERVIEW OF RESEARCH	Maria Eliophotou Menon
		6	THE EFFICACY OF NEUROLOGICAL IMPRESS METHOD AND REPEATED READING ON READING FLUENCY OF CHILDREN WITH LEARNING DISABILITIES IN OYO STATE, NIGERIA	A. O. Oladele
		7	E- CAMPUS AS AN ENVIRONMENTAL AND PEDAGOGICAL TOOL FOR ONLINE SUPPORT	Shireen Panchoo
		8	CONFIRMING THE IDENTITY OF THE INDIVIDUAL USING REMOTE ASSESSMENT IN E-LEARNING	Olaf Hallan Graven, Lachlan MacKinnon
		9	THE ROLE OF INTRINSIC MOTIVATION IN EXPLAINING STUDENTS- WILLINGNESS TO USE SOFTWARE APPLICATIONS	Anne Sorebo, Oystein Sorebo
		10	ARABIC AND ISLAMIC EDUCATION IN NIGERIA: THE CASE OF AL-MAJIRI SCHOOLS	Abdul Ganiy A. S. Oladosu
		11	KNOWLEDGE SHARING BEHAVIOUR AMONG ACADEMIC STAFF AT A PUBLIC HIGHER EDUCATION INSTITUTION IN MALAYSIA	Noor Asilah Nordin, Normala Daud, Wan Umme Kalsom Meor Osman

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HALL 6	Hélder Spínola	1	THE TENDENCIES OF DEVELOPMENT OF THE MANAGEMENT IN THE EDUCATION SYSTEM OF THE REPUBLIC OF KAZAKHSTAN	Altynai Zhaitapova, Aizhan Satyvaldiyeva
		2	REAL TIME CONTROL LEARNING GAME - SPEED RACE BY LEARNING AT THE WHEEL - DEVELOPMENT OF DATA ACQUISITION SYSTEM	Konstantinos Kalovrektis, Chryssanthi Palazi
		3	ANALYSIS AND CATEGORIZATION OF E-LEARNING ACTIVITIES BASED ON MEANINGFUL LEARNING CHARACTERISTICS	Arda Yunianta, Norazah Yusof, Mohd Shahizan Othman, Dewi Octaviani
		4	EXPLANATORY OF RELATIONSHIP BETWEEN LEARNING MOTIVATION AND LEARNING PERFORMANCE	Chih Chin Yang
		5	TECHNOLOGY INTEGRATED EDUCATION – SHAPING THE PERSONALITY AND SOCIAL DEVELOPMENT OF THE YOUNG	R. Ramli, S. Sameon
		6	THE EFFECT OF CONTRIVED SUCCESS IN CALCULATION TASKS ON THE SELF-EFFICACY OF JUNIOR HIGH SCHOOL STUDENTS	Akitoshi Uchida, Kazuo Mori
		7	IMPROVING TEACHER PROFESIONALISM THROUGH CERTIFICATION PROGRAM: AN INDONESIA CASE STUDY	Triyanto
		8	STRUCTURE OF DOCTORAL STUDENTS- RESEARCH COMPETENCES IN SUSTAINABILITY CONTEXT	I. Bolgzda, E. Olehnovica
		9	SUSTAINABLE DEVELOPMENT CONTRIBUTIONS AMONG UNIVERSITY OF MADEIRA (PORTUGAL) STUDENTS	Hélder Spínola

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HALL 7	Nicoletta Adamo-Villani	1	COMMUNITIES OF INTEREST: THREE UNIQUE CASE STUDIES IN WIDER UNIVERSITY AND SCHOOL PARTNERSHIPS IN AUSTRALIA	M. Zeegers, D. Barron
		2	ENHANCING LEARNING EXPERIENCES IN OUTCOME BASED HIGHER EDUCATION: A STEP TOWARDS STUDENT CENTERED LEARNING	K. Kumpas
		3	KEY FACTORS OF CURRICULUM INNOVATION IN LANGUAGE TEACHER EDUCATION	Liliana Măță
		4	IMPROVING THE QUALITY OF E-LEARNING COURSES IN HIGHER EDUCATION THROUGH STUDENT SATISFACTION	Susana Lemos, Neuza Pedro
		5	THE DEVELOPMENT OF A TEACHERS- SELF-EFFICACY INSTRUMENT FOR HIGH SCHOOL PHYSICAL EDUCATION TEACHER	Yi-Hsiang Pan
		6	CREATIVITY: A MOTIVATIONAL TOOL FOR INTEREST AND CONCEPTUAL UNDERSTANDING IN SCIENCE EDUCATION	Thienhuong Hoang
		7	A VIRTUAL LEARNING ENVIRONMENT FOR DEAF CHILDREN: DESIGN AND EVALUATION	Nicoletta Adamo-Villani
		8	DIGITAL NARRATIVE AS A CHANGE AGENT TO TEACH READING TO MEDIA-CENTRIC STUDENTS	Robert F. Kenny
		9	THE EFFECTS OF THE IMPACT OF INSTRUCTIONAL IMMEDIACY ON COGNITION AND LEARNING IN ONLINE CLASSES	Glenda A. Gunter

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HALL 8	Assis. Prof. Dr. Muniyasamy Kalanchiam	1	ANALYSIS OF DIFFERENT DESIGNED LANDING GEARS FOR A LIGHT AIRCRAFT	Assis. Prof. Dr. Essam A. Al-Bahkali
		2	CONCEPTUAL DESIGN OF AN AIRFOIL WITH TEMPERATURE-RESPONSIVE POLYMER	Mohammed Niyasdeen Nejaamtheen
		3	CONCENTRATED SOLAR POWER UTILIZATION IN SPACE VEHICLES PROPULSION AND POWER GENERATION	Maged A. Mossallam
		4	OPTIMIZATION OF MULTIFUNCTIONAL BATTERY STRUCTURES FOR MARS	Assis. Prof. Dr. James A Foster Guglielmo S Aglietti
		5	MODELING AND CONTROL OF A QUADROTOR UAV WITH AERODYNAMIC CONCEPTS	Dr. Wei Dong, Assis. Prof. Dr. Guo-Ying Gu Xiangyang Zhu Han Ding
		6	TOPOLOGY OPTIMIZATION OF AIRCRAFT FUSELAGE STRUCTURE	Assis. Prof. Dr. Muniyasamy Kalanchiam, Baskar Mannai
		7	TERRAIN EVALUATION METHOD FOR HEXAPOD ROBOT	Tomas Luneckas Dainius Udris
		8	SMALL SATELLITE MODELLING AND ATTITUDE CONTROL USING FUZZY LOGIC	Amirhossein Asadabadi, Amir Anvar
		9	ADVANTAGES OF COMPOSITE MATERIALS IN AIRCRAFT STRUCTURES	Prof. Dr. Muniyasamy Kalanchiam, Moorthy Chinnasamy

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SALON 1	Dr, Meriç YILMAZ SALMAN	1	STEM EĞİTİMİNİN ORTAYA ÇIKIŞ GEREKÇESİ VE KRONOLOJİK DÖNÜŞÜMÜ	Dr. Öğr. Üyesi Barış AYAZ
		2	UZAY ARAÇLARINDA KULLANILAN YÜKSEK MUKAVEMETLİ KOMPOZİT MALZEMELERİN DİNAMİK SÜRTÜNME VE AŞINMA DAVRANIŞLARININ BELİRLENMESİ	Ege Kızılay Prof. Dr. Çınar Emine Yeni
		3	THE IMPORTANCE OF AIR POLLUTION IN CITY AND REGIONAL PLANNING	Dr, Meriç YILMAZ SALMAN
		4	THE EXAMINATION OF VERY CLOSELY SPACED SINUSOIDS IN FREQUENCY- DOMAIN SIGNALS	Dr. Kenan GENÇOL
		5	EFFECT OF SINTERING TEMPERATURE ON SOME MECHANICAL PROPERTIES OF HYDROXYAPATITE MATRIX AG-REINFORCED BIOMATERIALS	Dr.Öğr.Üyesi, Serdar ÖZKAYA Prof.Dr.Aykut ÇANAKÇI Arş.Gör.Müslim ÇELEBİ Arş.Gör.A.Hasan KARABACAK
		6	EFFECT OF SECONDARY PHASES ON THE MECHANICAL AND ANTIBACTERIAL PROPERTIES OF HYDROXYAPATITE MATRIX CNT REINFORCED BIOCOMPOSITES	Dr.Öğr.Üyesi, Serdar ÖZKAYA Prof.Dr.Aykut ÇANAKÇI Arş.Gör.Müslim ÇELEBİ Arş.Gör.A.Hasan KARABACAK
		7	ELEKTROMANYETİK FIRLATICI TASARIMI VE UYGULAMASI	AHMET OKTAY Dr. Öğr. Üyesi, TOLGA ÖZER



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SALON 2	Assoc. Prof. Dr. Mustafa Mert SÖZEN	1	SUSTAINABLE NUTRITION, NUTRITION KNOWLEDGE AND MEDITERRANEAN DIET ADHERENCE LEVELS OF UNIVERSITY STUDENTS	Dyt.Esra IŞIKER Bircan ULAŞ KADIOĞLU
		2	ASSESSING FOOD AND NUTRITION LITERACY IN LATE ADOLESCENTS	Dyt.Esra IŞIKER Dyt.Naime ÇELİK Dyt.Nefise BAHAR Doç.Dr.Bircan ULAŞ KADIOĞLU
		3	BARİATRİK CERRAHİ SONRASI YAŞAM KALİTESİNİN SÜRDÜRÜLMESİNDE HEMŞİRENİN EĞİTİCİ ROLÜ	Dr. Öğr. Üyesi Ezgi YILDIZ Prof. Dr. Şerife KARAGÖZOĞLU
		4	BARİATRİK CERRAHİ SONRASI KİLO ALIMININ ÖNLENMESİNDE HEMŞİRENİN ROL VE SORUMLULUKLARI	Dr. Öğr. Üyesi Ezgi YILDIZ Prof. Dr. Şerife KARAGÖZOĞLU
		5	YAŞLILIKTA AKILCI İLAÇ KULLANIMINA HALK SAĞLIĞI YAKLAŞIMI	Öğr. Gör. Ayşe ÇALMAZ Doç. Dr. Birsan ALTAY
		6	SAĞLIĞI GELİŞTİRME MODELİNE DAYALI OLARAK GELİŞTİRİLEN AKTİF YAŞAM PROGRAMININ YAŞLI KADINLARIN SAĞLIKLI YAŞAM BİÇİMİ DAVRANIŞLARI VE YAŞAM DOYUMLARINA ETKİSİ	Öğr. Gör. Ayşe ÇALMAZ Doç. Dr. Birsan ALTAY
		7	THE SCREENING OF A NRG3 SNP IN TURKISH SCHIZOPHRENIA FAMILIES	Assoc. Prof. Dr. Mustafa Mert SÖZEN Prof. Dr. Şükrü KARTALCI
		8	MEASUREMENT OF ENVIRONMENTAL GAMMA RADIATION IN SOME CHILDREN'S PLAYGROUNDS IN THE PROVINCE OF BİTLİS (TURKEY)	Assist. Prof. Dr. Halime KAYAKÖKÜ

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SALON 3	Dr. Öğr. Üyesi, Vasviye EROĞLU	1	EXPLORING THE PLACE OF YOGA IN PALLIATIVE CARE	Dr. Öğr. Üyesi, Vasviye EROĞLU Dr. Öğr. Üyesi, Demet ÇAKIR Öğr. Gör. Arslan SAY
		2	Perinatal Palliative Care	Dr. Öğr. Üyesi, Vasviye EROĞLU Öğr. Gör. Arslan SAY Dr. Öğr. Üyesi, Demet ÇAKIR
		3	OXYTOCIN MASSAGE IN POSTPARTUM	Dr. Öğr. Üyesi, Demet ÇAKIR Öğr. Gör. Arslan SAY Dr. Öğr. Üyesi, Hilal ÖZBEK
		4	CONTINUING MIDWIVES CARE MODEL	Dr. Öğr. Üyesi, Demet ÇAKIR Dr. Öğr. Üyesi, Hilal ÖZBEK Öğr. Gör. Arslan SAY
		5	NEWBORN HYPERBILIRUBINEMIA AND BREASTFEEDING	Dr. Öğretim Üyesi Hilal ÖZBEK Dr. Öğretim Üyesi Vasviye EROĞLU Dr. Öğretim Üyesi Demet ÇAKIR
		6	ARTIFICIAL INTELLIGENCE IN MIDWIVES AND ITS AREAS OF USE	Dr. Öğretim Üyesi Hilal ÖZBEK Dr. Öğretim Üyesi Demet ÇAKIR Dr. Öğretim Üyesi Vasviye EROĞLU
		7	NEW GENERATION COVID-19 VACCINES AND VACCINE DEVELOPMENT SINCE THE COVID-19 PANDEMIC	Öğr. Gör. Arslan SAY Dr. Öğr. Üyesi, Hilal ÖZBEK Dr. Öğr. Üyesi, Vasviye EROĞLU
		8	INVESTIGATION OF SIDE EFFECTS OF VACCINES USED IN THE COVID-19 PANDEMIC AND VACCINE HESITANCY	Öğr. Gör. Arslan SAY Dr. Öğr. Üyesi, Vasviye EROĞLU Dr. Öğr. Üyesi, Hilal ÖZBEK

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SALON 4	Doç. Dr. Mürşide DARTAY	1	CHARACTERIZATION OF TAXA BELONGING TO <i>Nomisma</i> DC, <i>Thlaspi</i> L AND <i>Pterotropis</i> DC SECTIONS OF <i>Thlaspi</i> L sensu lato (Brassicaceae) GENUS WITH <i>matK</i> MOLECULAR MARKER	Doç. Dr. Mehmet Cengiz KARAİSMAİLOĞLU Doç. Dr. Behçet İNAL Prof. Dr. Osman EROL
		2	NANO SULFUR PRODUCTION BY THE GREEN SYNTHESIS METHOD	Doç. Dr. Ramazan ORHAN Doç. Dr. Ercan AYDOĞMUŞ Yük. Lis. Öğr. Tuğrulhan DEMİR Prof. Dr. M.Deniz TURAN Prof. Dr. İnanç ÖZGEN
		3	RUMİNANTLARDA BESLEMeye DAYALI BAZI METABOLİK PROBLEMLER	Doç.Dr.Levend COŞKUNTUNA
		4	RYEGRASS OTUNUN RUMİNANTLARDA KULLANIMI	Doç.Dr.Levend COŞKUNTUNA
		5	OPTIMIZING SHOOT FLY COUNTS IN RESPONSE TO DIFFERENT CLIMATIC FACTORS USING VARIABLE OPTIMIZING TOOLS	Abdulkadir POLAT Doç. Dr. Muhammad Azhar NADEEM Prof. Dr. Muhammad ASIM
		6	INVESTIGATING THE IMPACT OF DIFFERENT CLIMATIC PARAMETERS ON WHITE FLY COUNTS UNDER GREENHOUSE CONDITIONS	Abdulkadir POLAT Doç. Dr. Muhammad Azhar NADEEM Prof. Dr. Muhammad ASIM
		7	FUNGAL DISEASES CAUSING YIELD LOSSES IN ROSE GROWING	Dr. Öğr. Üyesi, Arzu COŞKUNTUNA
		8	THE USE OF TELEMETRY TECHNIQUE IN FISHERIES	Doç. Dr. Mürşide DARTAY
		9	FISHERIES WITH ACOUSTIC DEVICES	Doç. Dr. Mürşide DARTAY

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SALON 5	Asist. Prof. Dr. Makbule Nur ONUR	1	A Preliminary Study of Miniaturized Antennas for Wearable and IoT Devices	Dr., Duygu Nazan GENÇOĞLAN
		2	AKILLI SAYAÇLAR VE OTOMATİK SAYAÇ OKUMA SİSTEMLERİ	İsmail Hakkı KÖSE Onur ALICI Dr. Öğr. Üyesi Zeynep HASIRCI TUĞCU
		3	BALİNA OPTİMİZASYON ALGORİTMASI TEMELLİ ÖZELLİK SEÇİMİ İLE FUNDUS GÖRÜNTÜLERİNDEN GLOKOM HASTALIĞI TESPİTİ	Özcan YILDIRIM Dr. Öğr. Üyesi Feyza ALTUBEY ÖZBAY
		4	MULTI-RECREATIVE LAKE DESIGN; “JUMEIRAH LAKE TOWER I”	Asist. Prof. Dr. Makbule Nur ONUR Res. Asist. Demet Ülkü GÜLPINAR SEKBAN
		5	CHILD-ORIENTED DESIGN IN COASTAL AREAS	Asist. Prof. Dr. Makbule Nur ONUR Res. Asist. Demet Ülkü GÜLPINAR SEKBAN
		6	RİJİTLİK MERKEZİ HESAP YAKLAŞIMLARININ FAKLİLİKLERİ	Dr. Öğr. Üyesi Fuat KORKUT Enes AKSOY Doç. Dr. Barış ERDİL
		7	INFLUENCE OF CONTAINER TYPE AND GROWTH MEDIUM ON MORPHOLOGICAL ATTRIBUTES OF ULMUS GLABRA SEEDLINGS	Ömer ER Fahrettin TİLKİ

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SALON 6	Assoc. Dr., Gökçen AYDIN AKBUĞA	1	FEATURES OF MINDFULNESS IN JUNIOR AND ADULT BASKETBALL PLAYERS	Ignas Razutis Romualdas Malinauskas
		2	KALP ve DAMAR CERRAHİSİ UYGULANAN HASTALARIN SAĞLIK PERSONELİNE GÜVEN DÜZEYİ VE İYİLEŞME DURUMLARININ DEĞERLENDİRİLMESİ	Cem ATİK
		3	ORTOPEDİ HASTALARINDA SOSYAL DESTEK VE MANEVİYATIN AMELİYAT ÖNCESİ CERRAHİ KORKUDAKİ ROLÜ	Dr. Öğretim Üyesi, Sema KOÇAŞLI Dr. Öğretim Üyesi, Dilek AKTAŞ Hemşire, Tuğçe AKSEL Doç. Dr., Mutlu AKDOĞAN
		4	EVIDENCE-BASED PRACTICES IN THE FOURTH STAGE OF NORMAL BIRTH AND THE POSTPARTUM PERIOD	Assoc. Dr., Gökçen AYDIN AKBUĞA Lecturer See. Serpil TOKER Lecturer See. Dr. Gizem ÇITAK
		5	EVIDENCE-BASED RECOMMENDATIONS FOR GYNECOLOGICAL ONCOLOGIC AND VAGEN / VULVA SURGERY	Assoc. Dr., Gökçen AYDIN AKBUĞA Lecturer See. Dr. Gizem ÇITAK Lecturer See. Serpil TOKER

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HALL 1	Prof. F. Ghaiti	1	ACCOUNTING RESEARCH FROM THE GLOBALIZATION PERSPECTIVE	Paul Diaconu, Assoc. Prof.Nicoleta Coman
		2	DEVELOPMENT, DISPLACEMENT AND REHABILITATION: AN ACTION ANTHROPOLOGICAL STUDY ON KOVVADA RESERVOIR IN WEST GODAVARI AGENCY OF ANDHRA PRADESH, INDIA	Ram Babu Mallavarapu
		3	TRUSTWORTHY IN VIRTUAL ORGANIZATION	Abdolhamid Fetanat, Mehdi Naghian Feshaareki
		4	THE EPISTEMOLOGICAL CRISIS IN THE THEORY OF VITTORIO GUIDANO	Mauricio Otaíza Morales
		5	MARITAL DURATION AND SEXUAL FREQUENCY AMONG THE MUSLIM AND SANTAL COUPLES IN RURAL BANGLADESH: A CROSS-CULTURAL PERSPECTIVE	Md. Emaj Uddin
		6	MOBILITY ANALYSIS OF THE POPULATION OF RABAT-SALÉ-ZEMMOUR-ZAER	Prof. F. Ghaiti
		7	STUDY ON DIVERSIFIED DEVELOPMENTS IMPROVING ENVIRONMENTAL VALUES-IN CASE OF UNIVERSITY CAMPUS -	Kuriko Iwai, Michihiro Kita
		8	SPATIAL THINKING ISSUES: TOWARDS RURAL SOCIOLOGICAL RESEARCH AGENDA IN THE THIRD MILLENNIUM	Eng. Abdel-Samad M. Ali
		9	IN SEARCH OF EXCELLENCE – GOOGLE VS BAIDU	Dr. Linda, Sau-ling LAI
		10	APPRECIATING, INTERPRETING AND UNDERSTANDING POSTERS VIA LEVELS OF VISUAL LITERACY	Mona Masood, Zakiah Zain

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HALL 2	Sumita Chowhan	1	THE PROJECT EVALUATION TO DEVELOP THE COMPETENCIES, CAPABILITIES, AND SKILLS IN REPAIRING COMPUTERS OF PEOPLE IN JOMPLUAK LOCAL MUNICIPALITY, BANG KHONTHI DISTRICT, SAMUT SONGKRAM PROVINCE	Wilailuk Meepracha
		2	INVESTIGATING INTERFERENCE ERRORS MADE BY AZZAWIA UNIVERSITY 1ST YEAR STUDENTS OF ENGLISH IN LEARNING ENGLISH PREPOSITIONS	Aimen Mohamed Almaloul
		3	ENTREPRENEUR UNIVERSAL EDUCATION SYSTEM: FUTURE EVOLUTION	Khaled Elbehieri, Hussam Elbehieri
		4	GUIDELINES FOR DEVELOPING, SUPERVISING, ASSESSING AND EVALUATING CAPSTONE DESIGN PROJECT OF BSC IN ELECTRICAL AND ELECTRONIC ENGINEERING PROGRAM	Muhibil Haque Bhuyan
		5	ON THE ALLOPATRY OF NATIONAL COLLEGE ENTRANCE EXAM IN CHINA: THE ROOT, POLICY AND STRATEGY	Shi Zhang
		6	COMPUTER AIDED LANGUAGE LEARNING SYSTEM FOR ARABIC FOR SECOND LANGUAGE LEARNERS	Osama Abufanas
		7	ACADEMIC PERFORMANCE OF ENGINEERING STUDENTS: THE ROLE OF ABILITIES & LEARNING STYLE	Sumita Chowhan
		8	PAY DIFFERENTIALS AND EMPLOYEE RETENTION IN THE STATE COLLEGES OF EDUCATION IN THE SOUTH-SOUTH ZONE, NIGERIA	Emmanuel U. Ingwu
		9	PRE-SERVICE TEACHERS' ASSESSMENT OF INFORMATION TECHNOLOGY APPLICATION TO INSTRUCTION	Adesanya Anuoluwapo Olusola
		10	E-LEARNING MANAGEMENT SYSTEMS GENERAL FRAMEWORK	Hamed Fawareh



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HALL 3	Chaiwat Waree	1	DETERMINATION OF SKILLS GAP BETWEEN SCHOOL-BASED LEARNING AND LABORATORY-BASED LEARNING IN OMAR AL-MUKHTAR UNIVERSITY	Aisha Othman, Crinela Pislaru, Ahmed Impes
		2	THE HDH MODEL FOR THE DEVELOPMENT OF CREATIVE STRUCTURAL THINKING AND ITS APPLICATIONS TO OTHER SYSTEMS	Mosseri Avraham
		3	TEACHING APPROACH AND SELF-CONFIDENCE EFFECT MODEL CONSISTENCY BETWEEN TAIWAN AND SINGAPORE MULTI-GROUP HLM	PeiWen Liao, Tsung Hau Jen
		4	EFFECTIVENESS OF ICT TRAINING WORKSHOP FOR TUTORS OF ALLAMA IQBAL OPEN UNIVERSITY, PAKISTAN	Muhammad Javid Qadir, Abdul Hameed
		5	A DEVELOPMENT OF THE MULTIPLE INTELLIGENCES MEASUREMENT OF ELEMENTARY STUDENTS	Chaiwat Waree
		6	A FORMATIVE ASSESSMENT TOOL FOR EFFECTIVE FEEDBACK	Rami Rashkovits, Ilana Lavy
		7	ACTIVE LEARNING STRATEGIES AND ACADEMIC ACHIEVEMENT AMONG SOME PSYCHOLOGY UNDERGRADUATES IN BARBADOS	Grace Adebisi Fayombo
		8	A LEARNER-CENTRED OR ARTEFACT-CENTRED CLASSROOM? IMPACT OF TECHNOLOGY, ARTEFACTS, AND ENVIRONMENT ON TASK PROCESSES IN AN ENGLISH AS A FOREIGN LANGUAGE CLASSROOM	Nobue T. Ellis
		9	CURRICULUM OF ETHICAL EDUCATION IN SLOVAKIA	Petra Fridrichová, Eva Balážová
		10	INCREASE SUCCESS BY DECREASING ADMISSION FOR MATHS– FAIRYTALE OR REALITY?	L.A du Plessis

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HALL 4	Chantana Insra	1	COMPUTER GRAPHICS AND UNDERSTANDING SEMIOTICS IN DESIGN	Manoj Majhi, Debkumar Chakrabaty
		2	STUDENT SATISFACTION DATA FOR WORK BASED LEARNERS	Rosie Borup, Hanifa Shah
		3	AN EVALUATION OF THE USABILITY OF IT FACULTY EDUCATIONAL PORTAL AT UNIVERSITY OF BENGHAZI	Nasser M. Amaitik, Mohammed J. El-Sahli
		4	CREATING A SPACE FOR TEACHING PROBLEM SOLVING SKILLS TO ENGINEERING STUDENTS THROUGH ENGLISH LANGUAGE TEACHING	Mimi N. A. Mohamed
		5	HIMMAPAN CREATURES: THE TACTILE TEXTURE DESIGNED FOR THE BLIND	Chantana Insra
		6	TEACHING ENGLISH UNDER THE LMD REFORM: THE ALGERIAN EXPERIENCE	Naouel Abdellatif Mami
		7	METHODS OF FORMING INFORMATIONAL CULTURE STUDENTS	Altynbek Moshkalov
		8	ONLINE COLLABORATION LEARNING: A WAY TO ENHANCE STUDENTS' ACHIEVEMENT AT KINGDOM OF BAHRAIN	Jaflah H. Al-Ammary
		9	MOTIVATION FACTORS IN DISTANCE EDUCATION	Sheila R. Bonito
		10	PHARMACOLOGY APPLIED LEARNING PROGRAM IN PRECLINICAL YEARS – STUDENT PERSPECTIVES	Amudha Kadirvelu, Sunil Gurtu, Sivalal Sadasivan

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HALL 5	Gaysu R. Arvind	1	TOWARD A MODEL FOR KNOWLEDGE DEVELOPMENT IN VIRTUAL ENVIRONMENTS: STRATEGIES FOR STUDENT OWNERSHIP	N.B. Adams
		2	THE PROSPECTS AND CHALLENGES OF OPEN LEARNING AND DISTANCE EDUCATION IN MALAWI	Andrew Chimpololo
		3	BETWEEN POLICY OPTIONS AND TECHNOLOGY APPLICATIONS: MEASURING THE SUSTAINABLE IMPACTS ON DISTANCE LEARNING	Subramaniam Chandran
		4	ACADEMIC STAFF PERCEPTIONS OF THE VALUE OF THE ELEMENTS OF AN ONLINE LEARNING ENVIRONMENT	Stuart Palmer, Dale Holt
		5	USING THE STUDENTS-AS-CUSTOMERS CONCEPT IN TECHNOLOGY DISCIPLINES: STUDENTS- PERSPECTIVES	Boonlert Watjatrakul
		6	USING WEBLOG TO PROMOTE CRITICAL THINKING – AN EXPLORATORY STUDY	Huay Lit Woo, Qiyun Wang
		7	THE EXPERIENCES OF SOUTH-AFRICAN HIGH-SCHOOL GIRLS IN A FAB LAB ENVIRONMENT	Nomusa Dlodlo, Ronald Noel Beyers
		8	EXPLORING SELF-DIRECTED LEARNING AMONG CHILDREN	Mariani Md Nor, Y. Saeednia
		9	THE STATE, LOCAL COMMUNITY AND PARTICIPATORY GOVERNANCE PRACTICES: PROSPECTS OF CHANGE	Gaysu R. Arvind

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<b>HALL 6</b>	<b>Chutarat Boontho</b>	1	INTELLIGENT MOBILE SEARCH ORIENTED TO GLOBAL E-COMMERCE	Abdelkader Dekdouk
		2	IS MANAGEMENT SCIENCE DOING ENOUGH TO IMPROVE HEALTHCARE?	Lalit Garg, Sally McClean, Maria Barton
		3	MCRM-S NEW OPPORTUNITIES OF CUSTOMER SATISFACTION	Cheng Fang Hsu, Shinn-Jong Lin
		4	AN ECONOMIC ANALYSIS OF PHU KRADUENG NATIONAL PARK	Chutarat Boontho
		5	THE INVESTIGATION OF THE ROLE OF INSTITUTIONS IN THE PROCESS OF GROWTH AND DEVELOPMENT OF ECONOMY	Seyed Mohammad Reza Hosseini
		6	PROPOSING A CONCEPTUAL MODEL OF CUSTOMER KNOWLEDGE MANAGEMENT: A STUDY OF CKM TOOLS IN BRITISH DOTCOMS	Mehdi Shami Zanjani, Roshanak Rouzbehani, Hosein Dabbagh
		7	REGINA CONNOLLY, FRANK BANNISTER	Regina Connolly, Frank Bannister
		8	ETAX FILING AND SERVICE QUALITY: THE CASE OF THE REVENUE ONLINE SERVICE	Regina Connolly, Frank Bannister
		9	DESIGN AN ELECTRONIC MARKET FRAMEWORK USING JADE ENVIRONMENT	Mohammad Ali Tabarzad, Caro Lucas

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HALL 7	Sri Suwarsi,	1	THE INTERNET AND SMALL MEDIUM-SIZED ENTERPRISES (SMES) IN JORDAN	Sattam Allahawiah, Haroon Altarawneh, Sameer Alamro
		2	FINANCIAL ANALYSIS ANALOGIES FOR SOFTWARE RISK	Masood Uzzafer
		3	AN EVALUATION OF THE OPPORTUNITIES AND CHALLENGES OF WI-FI ADOPTION IN MALAYSIAN INSTITUTIONS	Subrahmanyam Kodukula, Nurbiya Maimaiti
		4	TOWARDS A SYSTEMATIC, COST-EFFECTIVE APPROACH FOR ERP SELECTION	Hassan Haghighi, Omid Mafi
		5	INFLUENCE OF LOCUS OF CONTROL AND JOB INVOLVEMENT TO ORGANIZATIONAL CULTURE APPLIED BY EMPLOYEES ON BANK X	Sri Suwarsi, Nadia Budianti
		6	DYNAMIC INTERACTION NETWORK TO MODEL THE INTERACTIVE PATTERNS OF INTERNATIONAL STOCK MARKETS	Laura Lukmanto, Harya Widiputra, Lukas
		7	FUTURES TRADING: DESIGN OF A STRATEGY	Jan Zeman
		8	MULTIDIMENSIONAL PERFORMANCE MANAGEMENT	David Wiese
		9	THE IMPACT OF SUBSEQUENT STOCK MARKET LIBERALIZATION ON THE INTEGRATION OF STOCK MARKETS IN ASEAN-4 + SOUTH KOREA	Noor Azryani Auzairy, Rubi Ahmad
		10	INSTITUTIONAL ASPECTS OF INFORMATION SECURITY IN RUSSIAN ECONOMY	Mingaleva Zhanna, Kapuskina Tatiana

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HALL 8	David Wiese	1	THE IMPACT OF STAKEHOLDER COMMUNICATION STRATEGIES ON CONSUMERS- ACCEPTANCE AND FINANCIAL PERFORMANCE: IN THE CASE OF FERTILIZER INDUSTRY IN MALAYSIA	Hasnida Abdul Wahab Shahrina Md Nordin Lai Fong Woon Hasrina Mustafa
		2	ANALYSIS OF RUBBER WASTE UTILIZATION AT PANDORA PRODUCTION COMPANY LIMITED	S. Pechpoothong M. Kopystecki
		3	COMBATING MONEY LAUNDERING IN THE BANKING INDUSTRY: MALAYSIAN EXPERIENCE	Aspalella A. Rahman
		4	HYBRID ENERGY SUPPLY WITH DOMINANTLY RENEWABLE OPTION FOR SMALL INDUSTRIAL COMPLEX	Tomislav Stambolic, Anton Causevski
		5	A STATISTICAL PREDICTION OF LIKELY DISTRESS IN NIGERIA BANKING SECTOR USING A NEURAL NETWORK APPROACH	Prof. Dr. D. A. Farinde
		6	EFFICIENCY IN URBAN GOVERNANCE TOWARDS SUSTAINABILITY AND COMPETITIVENESS OF CITY : A CASE STUDY OF KUALA LUMPUR	Hamzah Jusoh Azmizam Abdul Rashid
		7	A STUDY OF NEURO-FUZZY INFERENCE SYSTEM FOR GROSS DOMESTIC PRODUCT GROWTH FORECASTING	Assoc. prof. E. Giovanis
		8	RISK OF LATE PAYMENT IN THE MALAYSIAN CONSTRUCTION INDUSTRY	Dr. Kho Mei Ye Hamzah Abdul Rahman
		9	THE CURRENT IMPLEMENTATION STATUS OF MANUFACTURING CONTROL SYSTEMS FOR A KEY MANUFACTURING INDUSTRY	Rajab Abdullah Hokoma
		10		

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HALL 9	Assis. Prof. Dr. Jatinder Kumar	1	ONE-POT FACILE SYNTHESIS OF N-DOPED GRAPHENE SYNTHESIZED FROM PARAPHENYLENEDIAMINE AS METAL-FREE CATALYSTS FOR THE OXYGEN REDUCTION USED FOR ALKALINE FUEL CELLS	Leila Samiee Amir Yadehari Saeedeh Tasharrofi
		2	MATERIAL SELECTION FOR FOOTWEAR INSOLE USING ANALYTICAL HIERARCHAL PROCESS	Assis. Prof. Dr. Mohammed A. Almomani, Dr. Dina W. Al-Qudah
		3	EFFECTS OF TEST ENVIRONMENT ON THE SLIDING WEAR BEHAVIOUR OF CAST IRON, ZINC-ALUMINIUM ALLOY AND ITS COMPOSITE	Mohammad M. Khan Gajendra Dixit
		4	PREDICTION OF CUTTING TOOL LIFE IN DRILLING OF REINFORCED ALUMINUM ALLOY COMPOSITE USING A FUZZY METHOD	Assis. Prof. Dr. Mohammed T. Hayajneh
		5	MATERIAL SELECTION FOR A MANUAL WINCH ROPE DRUM	Moses F. Oduori Enoch K. Musyoka Thomas O. Mbuya
		6	UV-CURED COATINGS BASED ON ACRYLATED EPOXIDIZED SOYBEAN OIL AND EPOXY CARBOXYLATE	Assis. Prof. Dr. Alaaddin Cerit Assis. Prof. Dr. Suheyla Kocaman Assoc. Dr. Ulku Soydal
		7	EXPERIMENTAL INVESTIGATION ON OVER-CUT IN ULTRASONIC MACHINING OF WC-CO COMPOSITE	Assis. Prof. Dr. Ravinder Kataria Assis. Prof. Dr. Jatinder Kumar B. S. Pabla
		8	INDUCTION MELTING AS A FABRICATION ROUTE FOR ALUMINUM-CARBON NANOTUBES NANOCOMPOSITE	Muhammad Shahid, Muhammad Mansoor
		9	INFLUENCE OF MILLED WASTE GLASS TO CLAY CERAMIC FOAM PROPERTIES MADE BY DIRECT FOAMING ROUTE	A. Shishkin V. Mironovs D. Goljandin A. Korjamins
		10	RELATING INTERFACE PROPERTIES WITH CRACK PROPAGATION IN COMPOSITE LAMINATES	Tao Qu Assis. Prof. Dr. Chandra Prakash Vikas Tomar



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SALON 1	Dr. Öğr. Üyesi Cihan TABAK	1	ELECTRONIC MUSIC AND THE EVOLUTION OF ART	Dr. Öğr. Üyesi Cihan TABAK
		2	F. CHOPİN'İN OP. 64 NO.1 RE BEMOL MAJÖR VALS'İNİN EŞLİK YÖNÜNDEN İNCELENMESİ	Dr. Derya Neslihan ÖZKELEŞ
		3	TÜRK MAKAM MÜZİĞİ'NDE ÇOKSESLİLİK DENEMESİ: NİHAVEND MAKAMI ÖRNEĞİ	Dr. Derya Neslihan ÖZKELEŞ
		4	DİYARBAKIR' DA YAŞAYAN DOMLAR'IN MÜZİK EĞİTİMLERİ İLE SUZUKİ MÜZİK EĞİTİMİNİN KARŞILAŞTIRILMASI	Zozan YILDIZ
		5	TEKSTİL /MODA TASARIM SÜRECİNİN OPTİMİZASYONU VE YAPAY ZEKA	Dr. Öğr. Üy. Fatma BULAT
		6	EXAMINATION OF SIDEWALK-PEDESTRIAN OVERPASS RELATIONSHIP IN THE CONTEXT OF WALKABILITY: NO SIDEWALK IF THERE IS A PEDESTRIAN OVERPASS	Dr., Sinem KIZILASLAN
		7	DOĞA VE KENT ARASINDA UYUM SAĞLAMAYA YÖNELİK YENİ BİR KENT MODELİ: BIODIVERCITIES	Dr. Öğretim Üyesi, Duygu YILDIZ KARAKOÇ
		8	TÜRKÇE ISLIK DİLİ VE ÇOK YÖNLÜ KULLANIMI ÜZERİNE DÜŞÜNCELERİMİZ	Prof. Dr. Musa GENÇ, Yunus Emre GENÇ,

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SALON 2	Doç. Dr., Beyza ERKOÇ	1	THE IMPORTANCE OF PSYCHOLOGICAL RESILIENCE AND TOLERANCE LEVELS TO UNCERTAINTY AND IDENTITY PERCEPTIONS IN COPING WITH THE EFFECTS OF THE EARTHQUAKE	Psikolojik Danışman Beste ÖĞREK Dr. Öğr. Üyesi Süleyman BALCI
		2	SELF DIFFERENTIATION, COPING FLEXIBILITY AND LEVELS OF MEANING IN LIFE IN ADULT INDIVIDUALS	Psikolojik Danışman Sevde ÜÇÜNCÜOĞLU Dr. Öğr. Üyesi Süleyman BALCI
		3	THE BIG RISK FOR YOUTH: SOCIAL EXCLUSION	Doç. Dr., Beyza ERKOÇ
		4	WOMEN, VIOLENCE AND SOCIAL WORK	Doç. Dr., Beyza ERKOÇ
		5	Ergenlerin Yaşadıkları Eğitim Stresi, Akademik Yaşam Doyumu ve Akademik Ertelemeleri Arasındaki İlişkilerin İncelenmesi	Dr. Öğr. Üyesi Meva DEMİR KAYA
		6	SOSYAL SORUN ALANI OLARAK PSİKİYATRİ ve SOSYAL HİZMET UYGULAMALARI	Doktor, ESİN TÜCCAR

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<b>SALON 3</b>	<b>Doç.Dr. Raziye PEKŞEN AKÇA</b>	1	İSTATİSTİKLERLE ÇOCUKLARDA DİJİTAL OYUN ARŞTIRMASI, 2021	Dr. Öğr. Üyesi Rukiye ARSLAN Doç. Dr. Raziye PEKŞEN AKÇA
		2	LEARNING FROM NATURE: USING THE BIOMIMICRY AS LEARNING STRATEGY	Doç.Dr. Raziye PEKŞEN AKÇA Dr. Öğr. Üyesi Rukiye ARSLAN
		3	YABANCI DİL ÖĞRETİMİ VE ANA DİL: YERİ, ÖNEMİ VE ÖLÇÜSÜ	Dr. Öğr. Üyesi Eyüp ZENGİN
		4	INVESTIGATION OF POSITIVE THINKING SKILLS OF SPORT SCIENCES FACULTY STUDENTS AFFECTED BY EARTHQUAKE	Araştırma Görevlisi, Mehmet AKARSU Araştırma Görevlisi, Hakan BÜYÜKÇELEBİ Profesör Doktor, Mahmut AÇAK
		5	EXAMINATION OF PHYSICAL EDUCATION AND SPORTS TEACHERS' CURRICULUM LITERACY	Araştırma Görevlisi, Mehmet AKARSU Doçent Doktor, Yahya DOĞAR Yüksek Lisans Öğrencisi, Fulya SEVİM
		6	AN INVESTIGATION OF SPORTS SCIENCES FACULTY STUDENTS' INTEREST IN SPORTS STARTUPS	Öğr. Gör., Abdullah ŞİMŞEK Prof. Dr., Sebahattin DEVECİOĞLU
		7	THE RELATIONSHIP BETWEEN THE LIFE MEANINGS AND HOPE LEVELS OF STUDENTS RECEIVING SPORTS EDUCATION	Diyar Farooq Ahmed DALO Assoc Prof. Dr. Yunus Emre KARAKAYA
		8	Brain Function and Interval Exercise: An In-Depth Review	Associate Professor, Ozgur Eken Fatma Hilal Yagin
		9	Irisin and Interval Exercise: A Comprehensive Review	Associate Professor, Ozgur Eken Fatma Hilal Yagin

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SALON 4	Doç. Dr. Orhan KANDEMİR	1	THE EFFECTS OF ECONOMIC, POLITICAL AND SOCIAL GLOBALIZATION ON ECONOMIC GROWTH: A COINTEGRATION ANALYSIS FOR TURKEY	Arş.Gör. Dr. Onur DEMİRCİ
		2	YOKSULLUK VE SOSYAL DIŞLANMA SORUNUNDA YÜKSEK KİRA FİYATLARININ ÖNEMİ	Doç. Dr. Orhan KANDEMİR
		3	THE RELATIONSHIP OF TOURISM REVENUES WITH SOCIAL, POLITICAL AND ECONOMIC INDICATORS: THE CASE OF SELECTED OECD COUNTRIES	Dr. Öğr. Üyesi, Ramazan SAYAR Dr. Öğr. Üyesi, Duygu BAYSAL KURT
		4	TAXATION OF THE DIGITAL ECONOMY UNDER THE BEPS ACTION	100/2000 YÖK PhD Student Bahar ÖZBEK Assoc. Prof. Sefa ÖZBEK
		5	THE EFFECT OF TAX WEDGE AND MINIMUM WAGE ON UNEMPLOYMENT IN TURKEY	100/2000 YÖK PhD Student Bahar ÖZBEK Assoc. Prof. Sefa ÖZBEK
		6	THE EFFECT OF INFLATION ON EXTERNAL PUBLIC DEBT: NEW EMPIRICAL EVIDENCE FOR TÜRKİYE	Arş. Gör. Dr. Seher GÖKPINAR
		7	NAVIGATING INTERNATIONAL NORMS: ISRAEL'S APPROACH TO LIMITING THE USE OF DANGEROUS WEAPONS	Seyyed Hadi Borhani
		8	The Great March of Return in the Gaza Strip in 2018	Doç. Dr. Diren ÇAKMAK
		9	The Israeli Lobby in the USA and Antisemitism	Doç. Dr. Diren ÇAKMAK
		10	THE CONTROL VARIABLE IN NEO-CLASSICAL REALISM: THE CASE OF THE ARMENIAN DIASPORA	Öğr. Gör. Dr. Dilek CANYURT

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HALL 1	Mohd Iskandar bin Ilyas Tan	1	A SURVEY ON SUPPLY CHAIN MANAGEMENT AND E COMMERCE TECHNOLOGY ADOPTION AMONG LOGISTICS SERVICE PROVIDERS IN JOHOR	Mohd Iskandar bin Ilyas Tan, Iziati Saadah bt Ibrahim
		2	FROM MICRO TO NANOSYSTEMS: AN EXPLORATORY STUDY OF INFLUENCES ON INNOVATION TEAMS	Norbert Burger, Thorsten Staake
		3	SUPPLY CHAIN MANAGEMENT AND E-COMMERCE TECHNOLOGY ADOPTION AMONG LOGISTICS SERVICE PROVIDERS IN MALAYSIA	Mohd Iskandar bin Ilyas Tan, Iziati Saadah bt Ibrahim
		4	THE IMPACT OF PRODUCT PACKAGE INFORMATION ON CONSUMER BEHAVIOR TOWARD GENETICALLY MODIFIED FOODS	Yu-Syuan Chang, Li-Chun Huang
		5	ECOLABELING AND GREEN CERTIFICATION FOR EFFECTIVE FISHERIES MANAGEMENT – AN ANALYSIS	A. Ramachandran
		6	APPLICATION OF FEED-FORWARD NEURAL NETWORKS AUTOREGRESSIVE MODELS IN GROSS DOMESTIC PRODUCT PREDICTION	E. Giovanis
		7	DETERMINING THE ONLINE PURCHASING LOYALTY FOR THAI HERBAL PRODUCTS	Chummanond Natchaya, Rotchanakitumnuai Siriluck
		8	A STUDY OF PANEL LOGIT MODEL AND ADAPTIVE NEURO-FUZZY INFERENCE SYSTEM IN THE PREDICTION OF FINANCIAL DISTRESS PERIODS	E. Giovanis
		9	A NEW DIMENSION IN SOFTWARE RISK MANAGEMENT	Masood Uzzafer
		10	PRIORITIZING SERVICE QUALITY DIMENSIONS:A NEURAL NETWORK APPROACH	A. Golmohammadi, B. Jahandideh

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HALL 2	Trish O'Sullivan	1	DURATION ANALYSIS OF NEW FIRMS IN THE BANKING INDUSTRY	Jesus Orbe, Vicente Nunez-Anton
		2	ENHANCING CUSTOMER LOYALTY TOWARDS CORPORATE SOCIAL RESPONSIBILITY OF THAI MOBILE SERVICE PROVIDERS	Wichai Onlaor, Siriluck Rotchanakitumnuai
		3	THE SERVICE FAILURE AND RECOVERY IN THE INFORMATION TECHNOLOGY SERVICES	Jun Luo, Weiguo Zhang., Dabin Qin
		4	OPERATIONAL RISK – SCENARIO ANALYSIS	Milan Rippel, Petr Teply
		5	THE APPLICATION OF REAL OPTIONS TO CAPITAL BUDGETING	George Yungchih Wang
		6	ROLE OF INVESTMENT IN THE COURSE OF ECONOMIC GROWTH IN PAKISTAN	Maqbool Hussain Sial, Maaidda Hussain Hashmi, Sofia Anwar
		7	A FRAMEWORK OF MONTE CARLO SIMULATION FOR EXAMINING THE UNCERTAINTY-INVESTMENT RELATIONSHIP	George Yungchih Wang
		8	THE EXCLUSION OF CONSUMER RIGHTS IN E-AUCTIONS – IS AN E-AUCTION REALLY AN AUCTION AT ALL?	Trish O'Sullivan
		9	A HYPERMAP FOR SUPPLY CHAIN MANAGEMENT	James K. Ho
		10	THE PATH TO WEB INTELLIGENCE MATURITY	Zeljko Panian

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HALL 3	Aries Susanty	1	E-COMMERCE ADOPTION AND IMPLEMENTATION IN AUTOMOBILE INDUSTRY: A CASE STUDY	Amitrajit Sarkar
		2	STOCHASTIC MIXED 0-1 INTEGER PROGRAMMING APPLIED TO INTERNATIONAL TRANSPORTATION PROBLEMS UNDER UNCERTAINTY	Y. Wu
		3	THE ROLE OF INTERNAL FUNCTION OF ORGANIZATION FOR THE SUCCESSFUL IMPLEMENTATION OF GOOD CORPORATE GOVERNANCE	Aries Susanty
		4	CORPORATE FRAUD: AN ANALYSIS OF MALAYSIAN SECURITIES COMMISSION ENFORCEMENT RELEASES	Raziah Bi Mohamed Sadique, Jamal Roudaki, Murray B. Clark, Norhayati Alias
		5	INDUSTRIAL DEVELOPMENT, ENVIRONMENT AND OCCUPATIONAL PROBLEMS: THE CASE OF IRAN	Ghaffari, H., Changi Ashtiani, A., Younessi,
		6	BENCHMARKING CLEANER PRODUCTION PERFORMANCE OF COAL-FIRED POWER PLANTS USING TWO-STAGE SUPER-EFFICIENCY DATA ENVELOPMENT ANALYSIS	Shao-lun Zeng, Yu-long Ren
		7	STRATEGY ANALYSIS AND CREATION BY SIMULATION IN THE GENERAL GAME	Gábor Szűcs, Gábor Neszveda, Xin Fang
		8	A SIMULATION MODEL FOR BID PRICE DECISION MAKING	R. Sammoura

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<b>HALL 4</b>	<b>Bostjan Antoncic</b>	1	DECISION SUPPORT FRAMEWORK IN MANAGERIAL LEARNING ENVIRONMENT FOR ORGANIZATION	M. Mazhar Manzoor, Nasar.A, A. Sattar
		2	BARRIERS AND OPPORTUNITIES FOR THE ADOPTION OF E-GOVERNANCE SERVICES	Haroula N. Delopoulos
		3	OPTIMIZATION OF TRANSFER PRICING IN A RECESSION WITH REFLECTION ON CROATIAN SITUATION	Jasminka Radolović
		4	OVERCOMING BARRIERS TO OPEN INNOVATION AT APPLE, NINTENDO AND NOKIA	Erik Pontiskoski, Kazuhiro Asakawa
		5	EXPLORING THE PROFESSIONAL COMPETENCY CONTENTS FOR INTERNATIONAL MARKETER IN TAIWAN	Shu-Ning Liou
		6	SIMULTANEOUS TERM STRUCTURE ESTIMATION OF HAZARD AND LOSS GIVEN DEFAULT WITH A STATISTICAL MODEL USING CREDIT RATING AND FINANCIAL INFORMATION	Tomohiro Ando, Satoshi Yamashita
		7	THE ENTREPRENEUR'S GENERAL PERSONALITY TRAITS AND TECHNOLOGICAL DEVELOPMENTS	Bostjan Antoncic
		8	CORPORATE SOCIAL RESPONSIBILITY IN CHINA APPAREL INDUSTRY	Zhao Linfei, Gu Qingliang
		9	THE IMPACT OF SEMANTIC WEB ON E-COMMERCE	Karim Heidari



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<b>HALL 5</b>	<b>Tunjo Peric, Zoran Babic</b>	1	EVALUATION OF URBAN LAND DEVELOPMENT DIRECTION IN KABUL CITY, AFGHANISTAN	Ahmad Sharif Ahmadi Yoshitaka Kajita
		2	INFLUENCE OF PLACE IDENTITY ON WALKABILITY: A COMPARATIVE STUDY BETWEEN TWO MIXED USED STREETS CHAHARBAGH ST. ISFAHAN, IRAN AND DEREBOYU ST. LEFKOSA, NORTH CYPRUS	Assis. Prof. Dr. R. Rafiemanzelat
		3	RENEWED URBAN WATERFRONT: SPATIAL CONDITIONS OF A CONTEMPORARY URBAN SPACE TYPOLOGY	Assis. Prof. Dr. Beate Niemann, Fabian Pramel
		4	URBAN ECOLOGICAL INTERACTION: AIR, WATER, LIGHT AND NEW TRANSIT AT THE HUMAN SCALE OF BARCELONA'S SUPERILLES	Philip Speranza
		5	PERFORMANCE EVALUATION OF A 'PRIORITY-CONTROLLED' INTERSECTION CONVERTED TO SIGNAL-CONTROLLED INTERSECTION	Prof. Dr. Ezenwa Chinenye Amanamba
		6	DISCUSSION ABOUT FREQUENT ADJUSTMENT OF URBAN MASTER PLANNING IN CHINA: A CASE STUDY OF CHANGSHOU DISTRICT, CHONGQING CITY	Sun Ailu Zhao Wanmin
		7	HYBRID LIVING: EMERGING OUT OF THE CRISES AND DIVISIONS	Yiorgos Hadjichristou
		8	EFFECTS OF URBANIZATION ON LAND USE/LAND COVER AND STREAM FLOW OF A SUB-TROPICAL RIVER BASIN OF INDIA	Satyavati Shukla Lakhan V. Rathod Mohan V. Khire
		9	RAPID URBANIZATION AND THE CHALLENGE OF SUSTAINABLE URBAN DEVELOPMENT IN PALESTINIAN CITIES	Assis. Prof. Dr. Lubna Shaheen

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HALL 6	Assis. Prof. Dr. Paul Osmond	1	EVALUATION OF SHEAR STRENGTH PARAMETERS OF AMENDED LOESS THROUGH USING COMMON ADMIXTURES IN GORGAN, IRAN	Seyed Erfan Hosseini Mohammad K. Alizadeh, Amir Mesbah
		2	A STUDY ON THE DEVELOPING METHOD OF THE BIM (BUILDING INFORMATION MODELING) SOFTWARE BASED ON CLOUD COMPUTING ENVIRONMENT	Assis. Prof. Dr. Byung-Kon Kim
		3	SIMULATION AND PARAMETERIZATION BY THE FINITE ELEMENT METHOD OF A C SHAPE DELECTROMAGNET FOR APPLICATION IN THE CHARACTERIZATION OF MAGNETIC PROPERTIES OF MATERIALS	Assis. Prof. Dr. A. A Velásquez J.Baena
		4	YASER REZAPOUR, ARMIN JABBARIEH, FATEMEH BEHFAR, AHADOLLAH AZAMI, AIDIN SHAMSALGHORAYI	Yaser Rezapour Armin Jabbarieh Fatemeh Behfar Ahadollah Azami Aidin Shamsalghorayi
		5	CONVECTION THROUGH LIGHT WEIGHT TIMBER CONSTRUCTIONS WITH MINERAL WOOL	J. Schmidt O. Kornadt
		6	THE ESTABLISHMENT OF CAUSE-SYSTEM OF POOR CONSTRUCTION SITE SAFETY AND PRIORITY ANALYSIS FROM DIFFERENT PERSPECTIVES	Shirong Li Xueping Xiang
		7	STABILITY OPTIMIZATION OF FUNCTIONALLY GRADED PIPES CONVEYING FLUID	Karam Y. Maalawi Lecture Hanan E.M EL-Sayed
		8	OPTIMUM DESIGN OF LAUNCHING NOSE DURING INCREMENTAL LAUNCHING CONSTRUCTION OF SAME-SPAN CONTINUOUS BRIDGE	Weifeng Wang Hengbin Zheng Xianwei Zeng
		9	APPLICATION OF “STREAMLINED” MATERIAL ACCOUNTING TO ESTIMATE ENVIRONMENTAL IMPACT	Assis. Prof. Dr. Paul Osmond

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HALL7	Dr. L. Brenda	1	DEVELOPMENT OF MOLECULAR IMPRINTED POLYMERS (MIPS) FOR THE SELECTIVE REMOVAL OF CARBAMAZEPINE FROM AQUEOUS SOLUTION	Bianca Schweiger, Lucile Bahnweg, Barbara Palm, Ute Steinfeld
		2	PENTACHLOROPHENOL REMOVAL VIA ADSORPTION AND BIODEGRADATION	Assis. Prof. Dr. Rakmi Abd.-Rahman Assis. Prof. Dr. Nurina Anuar
		3	FORMULATION AND EVALUATION OF VAGINAL SUPPOSITORIES CONTAINING LACTOBACILLUS	Sanae Kaewnopparat Nattha Kaewnopparat
		4	ASAD ULLAH MADNI, MAHMOOD AHMAD, NAVEED AKHTAR, MUHAMMAD USMAN	Asad Ullah Madni Mahmood Ahmad, Naveed Akhtar, Muhammad Usman
		5	SERICIN FILM: INFLUENCE OF CONCENTRATION ON ITS PHYSICAL PROPERTIES	N. Namviriyachote N. Bang, P. Aramwit
		6	VALIDATION AND APPLICATION OF A NEW OPTIMIZED RP-HPLC-FLUORESCENT DETECTION METHOD FOR NORFLOXACIN	Mahmood Ahmad Ghulam Murtaza Sonia Khiljee Muhammad Asadullah Madni
		7	ANTIBACTERIAL CAPACITY OF PLUMERIA ALBA PETALS	Assis. Prof. Dr. M. H. Syakira Dr. L. Brenda
		8	PROACTIVE IDENTIFICATION OF FALSE ALERT FOR DRUG-DRUG INTERACTION	Hsuan-Chia Yang, Yan-Jhih Haung, Yu-Chuan Li
		9	COMPARISON BETWEEN ANTIBACTERIAL EFFECTS OF ETHANOLIC AND ISOPROPYL: HEXAN (7:3) EXTRACTS OF ZINGIBER OFFICINALE ROSE	Tahereh Naji Mahsa Jassemi

## 24. Uluslararası “Gelenekselden Çağdaş Sanat Serüveni”

### Karma Sergi

Salon / Hall	Oturum Başkanı / Session Chair		Eser Adı / Art Work	Artist	Tema / Theme
		1	Helmet of Athena	Dr.Öğretim Üyesi, Elçin Şener	
		2	İnanış / Belief	Dr. Öğr. Üyesi Sevgi KILINÇ	
		3	Troya	Öğr.Gör Seyfullah Büyükçapar	
		4	ÖTEKİ DÜŞ	Gülray Beyzanur ALTUNBAŞ	
		5	No. 33	Arş. Gör. Ömür Göktepeliler	
		6	“Dört Mevsim”/ “Four Season”	Asist. Prof. Dr. Minara GULİYEVA JAMSHIDI	
		7	Melankoli/Melancholia	Doç. Dr. Mehmet Akif KAPLAN	
		8	Atölye Günlükleri II	Dr. Öğretim Üyesi Mustafa TUNÇ	
		9	Barcode Bozunumu	Dr. Öğr. Üyesi Amine Refika	
		10	Maziden Rumiler	Doç. Dr. Nermin ÖZCAN ÖZER	
		11	Gülistan	Doç. Dr. Nermin ÖZCAN ÖZER	
		12	Keçeden bebek ev ayakkabısı	SAYARA YERGESHOVA	
		13	Mavi /Blue	Doç. Hatice KETEN	
		14	Hep daha fazla/Always more	Doç.Dr. Fırat Çalkuş	
		15	Gönül	Prof. Dr. Feryal BEYKAL ORHUN	
		16	balıklar	Uzm.Öğrt. Aysel sevgi ÖZTEN	
		17	İsimsiz 47	Mehmet Arif KARAMANOĞULLARI	
		18	bengütaş	Ali KAYA	
		19	Yolculuk	Doç.Dr. Bengü Batu Ertung	

20	İletişimsizlik Serisi/Non-Communication Series	Doç. Dr. Ali KOÇ
21	Yemek Kaligeafisi	Doç. Ayşegül Türk
22	Kuytu Orman/ Secluded Forest	Kader BEDİRCAN ALTIN
23	2'ye 1 / 2 to 1	Dr. Handan NARİN KIZILTAN
25	Uzak, Yakın XII	Dr. HAVA KÜÇÜKÖNER
26	Life Cycle (Hayat Döngüsü)	Meltem Özkaya Sarul
27	Dönüşüm	Öğr. Gör. Halide AKKUŞ
28	Geçmiş&Gelecek	Doç. Murat Çeliker

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## STEM EĞİTİMİNİN ORTAYA ÇIKIŞ GEREKÇESİ VE KRONOLOJİK DÖNÜŞÜMÜ

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### ÖZET

Öğrenme ortamları çağın gereklerini yerine getirebilmek için birtakım değişikliklere tabi olmaktadır. Böylelikle öğrenme performansında ve öğrenen motivasyonunda artış hedefi oluşturulmaktadır. Ancak bu değişikliklerin gerekçesi, süreç takibi ve sonuçları büyük öneme sahiptir. Tüm dünya genelinde eğitim alanlarında önemli reformlar geçtiğimiz yüzyılda sıklıkla gözlenmiştir. Bu dönüşümlerin zaman zaman yalnızca eğitsel düzenlemeler olmadığı da anlaşılmaktadır. STEM eğitimi olarak ABD merkezli uygulamaların dezavantajlı öğrenci gruplarını eğitim sistemlerinde aktif kılma ve fırsat eşitliğini yaratma amacı dikkat çekmiştir. Sonrasında uygulamaların daha çok bilimsel ve teknolojik ekonomiye katkı sunacak ürün geliştirme sürecine evrilmesiyle politika düzenlemesinin bir diğer gerekçesi anlaşılmıştır. Küresel anlamda fen ve matematik disiplinlerini temel alan teknoloji ve mühendislik alanını uygulama alanı olarak değerlendiren sayısız çalışma olmuştur. Bu çalışmaların küçük ve büyük ölçekli katkıları bulunmaktadır. Bu bağlamda incelendiğinde eğitim sistemlerinde yaşanan değişimlerin birey ve ülke katkısının da birlikte değerlendirilebileceği durumların olduğu anlaşılmıştır. Ancak temel hedefin ve beklentinin ileri teknoloji ihracatı, önemli biyolojik, kimyasal ürünler ve medikal cihazlar gibi ülke ekonomisine katkı sağlayabilecek süreçler olduğu açığa çıkmaktadır.

**Anahtar Kelimeler:** STEM, Öğrenme, Eğitsel Reform

### ABSTRACT

Learning environments are subject to some changes in order to meet the requirements of the age. Thus, the goal of increasing learning performance and learner motivation is established. However, the justification, process monitoring and results of these changes are of great importance. Significant reforms in the fields of education have been frequently observed throughout the world in the last century. It is sometimes understood that these transformations are not just educational regulations. The aim of US-based STEM education applications to make disadvantaged student groups active in education systems and to create equality of opportunity has attracted attention. Later, as the applications evolved into a product development process that would contribute to the scientific and technological economy, another justification for the policy regulation became clear. There have been numerous studies evaluating the field of technology and engineering, which is based on science and mathematics disciplines globally,

as an application area. These studies have small and large scale contributions. When examined in this context, it is understood that there are situations where the changes in education systems can be evaluated together with the contribution of the individual and the country. However, it becomes clear that the main target and expectation are processes that can contribute to the country's economy, such as advanced technology exports, important biological, chemical products and medical devices.

**Keywords:** STEM, Learning, Educational Reform

## UZAY ARAÇLARINDA KULLANILAN YÜKSEK MUKAVEMETLİ KOMPOZİT MALZEMELERİN DİNAMİK SÜRTÜNME VE AŞINMA DAVRANIŞLARININ BELİRLENMESİ

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### ÖZET

Yüksek mukavemetli malzemeler gelişen son teknolojiler ile birlikte, havacılık ve uzay alanında sıklıkla karşımıza çıkmaktadır. Bu malzemelerin geliştirilmesi ve iyileştirilmesi ile ilgili yapılan araştırmaların sayısı ise gün geçtikçe artmaktadır. Bu kapsamda yapılan değerlendirmelerde, atmosfer tabakasında yüksek sürtünmeye maruz kalma sonucu oluşan yüksek sıcaklığa ve yüksek sürtünme kuvvetine dayanım gibi kavramlar önem kazanmaktadır. Bu değerler kapsamında ise araştırılması gereken konuların başında yüksek ısı seramikleri gelmektedir. Yapılan bu çalışmada bu konuda öne çıkan Titanyum, Bor Karbür, Zirkonyum Karbür, Tantal Karbür, Titanyum Nitrür, Tantalyum, Zirkonyum, Bor Karbür, Silisyum Karbür ve Zirkonyum Silikat tozları ve Etil Silikat Reçine karışımı Seramik Elyaf Plaka Üzerine kaplama yapılarak, tribometre yardımı ile dinamik sürtünme katsayıları incelenmiştir. Ortaya çıkan sonuçlar karşılaştırılarak dinamik sürtünme katsayıları ile ısınma davranışları arasında bağlantı kurulmaktadır. Testler sonucunda yukarıda bahsedilen yüksek ısı seramik tozlarının arasından  $\mu_d$ , dinamik sürtünme katsayısı değeri en düşük çıkan malzeme, sürtünme kuvvetinin alt tabakaya uyguladığı ısı bakımından daha avantajlı bir hale gelmektedir. Öne çıkan iki toz olan Silisyum Karbür ve Bor Karbür karşılaştırıldığında Bor Karbürün daha avantajlı olduğu yani  $\mu_d$ , dinamik sürtünme katsayısı değerinin daha düşük çıktığı sonucuna ulaşılmıştır. Yapılan incelemeler, ball on disc mekanizmasında çalışılmış olup, çıkan sonuçlar değerlendirilmiştir.

**Anahtar Kelimeler:** yüksek ısı seramikleri, dinamik sürtünme katsayısı, ball on disc mekanizması

## THE IMPORTANCE OF AIR POLLUTION IN CITY AND REGIONAL PLANNING

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### ABSTRACT

Air pollution is an important element of environmental pollution that causes serious health problems and death. Although it is thought that the main actors in air pollution in cities are population growth, industrial development, traffic and industrial activities, the region where the settlement is located plays an important role in air pollution. The provinces that breathe the most polluted air according to PM<sub>10</sub> in Turkey in 2021 are Batman, Iğdır, Ağrı, Şırnak and Malatya, respectively. The ranking of provinces breathing polluted air varies from year to year, but Iğdır is in the top five on the list every year. Considering the low population density of the city of Iğdır and its underdeveloped industrial activities, the region where the city is located draws attention as the leading cause of air pollution. At this point, a multidisciplinary study involving urban planners, in addition to environmental engineering methods, is required to minimize air pollution in the city. In this study, the area where Iğdır city was established was examined in terms of air pollution and Based on National Air Quality Monitoring Network data, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and O<sub>3</sub> air pollution parameters between 2017 and 2023 were examined. Additionally, using statistical calculations, the death rates attributed to air pollution in Iğdır province were examined and the effect of air pollution parameters on the death rate was determined.

**Keywords:** Environmental engineering, City and regional planning, Air pollution

## THE EXAMINATION OF VERY CLOSELY SPACED SINUSOIDS IN FREQUENCY-DOMAIN SIGNALS

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### ABSTRACT

In digital signal processing (DSP) applications such as spectral analysis time-domain windows are of great importance due to their properties making designs realizable. In real-time DSP applications, any type of signals is multiplied with a finite time-domain window so as to obtain a finite-length signal due to limited bandwidth and memory issues. This truncation of the original signal causes spectral leakage. Moreover, the processed signal would have reduced spectral resolution due to frequency sampling in discrete Fourier transform (DFT). Taking account these tradeoffs, in this study, we examine the situations in which very closely spaced sinusoids in frequency exist in the signals. We investigate the window parameters such as window length and window shape and also the usage of the windows with nonparametric spectral estimation methods such as periodogram. It should be highlighted that selection criteria including window parameters and spectral estimation methods are very significant in resolving closely-spaced sinusoids encountered in real-life applications of radar and communications. After the simulations, some conclusions are drawn.

**Keywords :** Digital signal processing, spectral analysis, time-domain windows, discrete Fourier transform.

## **EFFECT OF SINTERING TEMPERATURE ON SOME MECHANICAL PROPERTIES OF HYDROXYAPATITE MATRIX AG-REINFORCED BIOMATERIALS**

### **HİDROKSİAPATİT MATRİS AG TAKVİYELİ BİYOMALZEMELERİN BAZI MEKANİK ÖZELLİKLERİ ÜZERİNE SİNTERLEME SICAKLIĞININ ETKİSİ**

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#### **ABSTRACT**

The objective of this research is to investigate the effect of different sintering temperature of Hydroxyapatite (HA) matrix Ag powder reinforced biocomposites using powder metallurgy techniques. The Ag powder concentration was varied within the range of 0 to 2 wt.% to assess its impact on the characteristics of HA/Ag biocomposites. To achieve a uniform distribution of Ag particles, the composite powders were mixed in a planetary ball mill for 30 minutes. Subsequently, the mixed powders were subjected to cold pressing under a pressure of 600 MPa. Afterward, the green samples underwent separate sintering processes at temperatures of 1000°, 1100°C, 1200°C, and 1300°C to examine the influence of sintering temperature on the mechanical properties of the samples. In this context, hardness, density, fracture toughness and brittleness index values were examined in terms of mechanical properties. The findings revealed that the sintering temperature is effective on the mechanical behaviours of HA matrix materials. Moreover the formation of secondary phases with changing sintering temperature as  $\alpha$ -TCp and  $\beta$ -TCP affected the structural and mechanical properties of HA based materials.

**Keywords :** Bioceramics, Hydroxyapatite, Sintering

#### **ÖZET**

Bu araştırmanın amacı, toz metalurjisi tekniklerini kullanarak Ag tozu ile güçlendirilmiş bir Hidroksiapatit (HA) matrisinden oluşan biyokompozitlerin özelliklerini üretmek ve analiz etmektir. Ag tozu konsantrasyonu, HA/Ag biyokompozitlerinin özellikleri üzerindeki etkisini değerlendirmek için ağırlıkça %0 ila 2 aralığında değiştirilmiştir. Ag partiküllerinin homojen

bir dağılımını elde etmek için, kompozit tozlar 30 dakika boyunca gezegensel bir bilyalı değirmende karıştırılmıştır. Daha sonra, karıştırılan tozlar 600 MPa basınç altında soğuk preslemeye tabi tutulmuştur. Daha sonra yeşil numuneler, sinterleme sıcaklığının numunelerin mekanik özellikleri üzerindeki etkisini incelemek için 1100°C, 1200°C ve 1300°C sıcaklıklarda ayrı sinterleme işlemlerinden geçirilmiştir. Bu kapsamda sertlik, yoğunluk, kırılma tokluğu ve gevreklik indeksi değerleri mekanik özellikler açısından incelenmiştir. Elde edilen bulgular, sinterleme sıcaklığının HA matris malzemelerin mekanik davranışları üzerinde etkili olduğunu ortaya koymuştur. Ayrıca, değişen sinterleme sıcaklığı ile  $\alpha$ -TCp ve  $\beta$ -TCP gibi ikincil fazların oluşumu HA bazlı malzemelerin yapısal ve mekanik özelliklerini etkilemiştir.

**Anahtar Kelimeler:** Biyoseramik, Hidroksiapatit, Sinterleme



**EFFECT OF SECONDARY PHASES ON THE MECHANICAL AND  
ANTIBACTERIAL PROPERTIES OF HYDROXYAPATITE MATRIX CNT  
REINFORCED BIOCOMPOSITES**

**HİDROKSİAPATİT MATRİS CNT TAKVİYELİ BİYOKOMPOZİTLERİN  
MEKANİK VE ANTİBAKTERİYEL ÖZELLİKLERİNE İKİNCİL FAZLARIN  
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**ABSTRACT**

The aim of this research is to fabricate biocomposites composed of a Hydroxyapatite (HA) matrix reinforced with CNT powder using powder metallurgy techniques and to investigate their properties. In order to see the effects of secondary phases formed at different sintering temperatures, the amount of CNT reinforcement was varied within the range of 0 to 2 wt.% to assess its impact on the characteristics of HA/CNT biocomposites. In order to ensure homogeneous distribution of hydroxyapatite powders and CNT powders, the mixed powders were mixed in ball mills for 30 minutes. The mixed powders were then cold pressed under a pressure of 600 MPa. These samples were then subjected to separate sintering processes at temperatures of 1100°C, 1200°C and 1300°C, where secondary phases are reported to form in the literature. The phase transformations, compressive strength and antibacterial effects of the samples produced in this context were examined and the effects of  $\alpha$ -TCP and  $\beta$ -TCP phases on these properties were investigated. As a result of the tests, it was revealed that both phases have a significant effect on both mechanical properties and antibacterial behavior.

**Keywords :** Biocomposite, Hydroxyapatite, Sintering, Carbon nanotube

**ÖZET**

Bu araştırmanın amacı, toz metalurjisi teknikleri kullanılarak CNT tozu ile güçlendirilmiş bir Hidroksiapatit (HA) matrisinden oluşan biyokompozitler üretmek ve özelliklerini araştırmaktır. Farklı sinterleme sıcaklıklarında oluşan ikincil fazların etkilerini görmek amacıyla, HA/CNT biyokompozitlerinin özellikleri üzerindeki etkisini değerlendirmek için CNT takviye miktarı ağırlıkça %0 ila 2 aralığında değiştirilmiştir. Hidroksiapatit tozlarının ve CNT tozlarının homojen dağılımını sağlamak için, karışık tozlar 30 dakika boyunca bilyalı değirmenlerde karıştırılmıştır. Karıştırılan tozlar daha sonra 600 MPa basınç altında soğuk preslenmiştir. Bu

numuneler daha sonra, literatürde ikincil fazların oluştuğu bildirilen 1100°C, 1200°C ve 1300°C sıcaklıklarda ayrı sinterleme işlemlerine tabi tutulmuştur. Bu kapsamda üretilen numunelerin faz dönüşümleri, basınç dayanımları ve antibakteriyel etkileri incelenmiş,  $\alpha$ -TCP ve  $\beta$ -TCP fazlarının bu özellikler üzerindeki etkileri araştırılmıştır. Yapılan testler sonucunda her iki fazın da hem mekanik özellikler hem de antibakteriyel davranış üzerinde önemli bir etkiye sahip olduğu ortaya çıkmıştır.

**Anahtar Kelimeler:** Biyokompozit, Hidroksiapatit, Sinterleme, Karbon Nanotüp

## ELEKTROMANYETİK FIRLATICI TASARIMI VE UYGULAMASI

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### ÖZET

Bu çalışmada, girişi 400 volt ile 450 Volt aralığında bir şarj devresi kullanılarak mikrogenetleyici tabanlı bir anahtarlamalı elektromanyetik fırlatıcı tasarımı yapılmıştır. Elektromanyetik fırlatıcı devre topolojileri araştırılarak bu topolojiler arasından Coil gun (Solenoid Fırlatıcı) elektromanyetik fırlatıcı topolojisi seçilmiş ve devrede tasarlanarak uygulaması gerçekleştirilmiştir. Kullanılan topolojinin kısaca çalışma mantığı şu şekildedir; Fırlatıcı devresinde, özel sarım bobin, diyot, tristör, kapasitör ve anahtar kullanılmaktadır. Şarj devresinde; 220 Volt'tan 5 Volt'a dönüştüren trafo, tristör, kapasitör, diyot kullanılmaktadır. Şarj devresinde giriş gerilimi olarak 6 Volt ile 7,4 Volt arasında uygulanan giriş gerilimi 220 Volt AC değere yükseltilmektedir. Elde edilen AC voltaj tam dalga doğrultucu temelli bir gerilim katlayıcı devre ile 400 Volt ile 450 Volt arasına yükseltilmektedir. Elde edilen 450 Volt şarj gerilimi ile kapasitörler şarj edilmektedir. Şarj edilen kapasitörler birinci bobin üzerinden geçerken oluşturduğu manyetik alan Hall Effect sensör ile algılanıp akımın anında ikinci bobine aktarılmasını sağlamaktadır. Bu sayede fırlatılacak olan cisimin geri yönlü manyetik alan nedeni ile ivme kaybetmeden hızlanması sağlanmaktadır.

**Anahtar Kelimeler:** Elektromanyetik Fırlatıcı, Mikrogenetleyici, ESP8266

### ABSTRACT

In this project, a microcontroller-based electromagnetic launcher was designed using a charging circuit operating within the range of 400 to 450 Volts. Electromagnetic launcher circuit topologies were investigated, and among these topologies, the Coilgun (Solenoid Launcher) electromagnetic launcher topology was selected and implemented in the circuit. The basic operation of the chosen topology is as follows: In the launcher circuit, a custom-wound coil, diode, thyristor, capacitor, and switch are utilized. In the charging circuit, a 220V to 5 Volt transformer, thyristor, capacitor, and diode are employed. The input voltage applied in the charging circuit, ranging from 6 Volts to 7.4 Volts, is elevated to 220 Volts AC. The obtained AC voltage is further increased to a range between 400 Volts and 450 Volts using a voltage multiplier circuit based on a full-wave rectifier. The capacitors are charged with the resulting 450 Volt charge voltage. When the charged capacitors pass over the first coil, the magnetic field they create is detected by a Hall effect sensor, enabling the instantaneous

transfer of current to the second coil. This ensures that the object to be launched accelerates without losing momentum due to the reverse magnetic field generated.

Keywords: Coil Gun, Microcontroller, ESP8266

## ASSESSING FOOD AND NUTRITION LITERACY IN LATE ADOLESCENTS

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### ABSTRACT

Food and nutrition literacy includes individuals having the correct knowledge, attitude and skills on issues such as food, nutrition, food selection, food consumption, healthy nutrition, food safety and security, making the right decisions and showing appropriate behavior on this issue. The aim of this research was to evaluate the food and nutrition literacy levels of late adolescents. The cross-sectional study was carried out online with 162 university students in November and December 2022. Data were collected from an online survey using Google forms. Food and Nutrition Literacy scale for late adolescents was used to evaluate knowledge, attitude and skills on food and nutrition. The scale is a self-report scale includes a total of 36 questions/items. Descriptive statistics were used to analyze the data. 79.6% of the participants, whose ages range from 18 to 21, were female, 40.7% were in the second year, and 55.6% stay in dormitory. 14.2% of the participants were in a bad economic situation, 17,3% were unhealthy, and 11.1% were dieting. According to the education level of the participants' mother and father, the rate of primary school graduates was 42.0% and 29.0%, respectively. According to body mass index (BMI) values, 72.2% of the participants have normal body weight. When the scale was examined according to the scores obtained from the knowledge, attitude and behavior sub-dimensions; It was determined that 50% of the participants were inadequate in the knowledge, 30.2% in the attitude, and 15.4% in the behavior sub-dimensions. There was no statistically significant relationship between the participants' gender, place of residence, health status, mother's education level, BMI values and the subscale scores ( $p>0.05$ ). There was statistically significant relationship between the participants' class levels, father's education level, economic status, dieting status and the behavior subscale of the scale ( $p<0.05$ ).

**Keywords:** Food and nutrition literacy, Knowledge, Attitude, Behavior

## GEÇ ADOLESANLARDA GIDA VE BESLENME OKURYAZARLIĞININ DEĞERLENDİRİLMESİ

### ÖZET

Gıda ve beslenme okuryazarlığı bireylerin gıda, beslenme, besin seçimi, besin tüketimi, sağlıklı beslenme, gıda güvencesi ve güvenliği gibi konularda doğru bilgi, tutum ve beceri sahibi olmalarını, bu konuda doğru karar almalarını ve uygun davranışlar göstermelerini içermektedir. Bu çalışmada geç dönem adolesanların gıda ve beslenme okuryazarlığı düzeylerinin saptanması amaçlandı. Kesitsel tipte olan araştırma yaşları 18-21 arasında değişen 162 kişi ile Kasım-Aralık 2022 tarihlerinde çevrimiçi olarak yapıldı. Gıda ve Beslenme Okuryazarlığı (GBOY) ölçeği kullanıldı. Ölçek 18-21 yaş kişilerde bilgi, tutum ve davranışları değerlendirmek amacıyla geliştirilmiş öz bildirim ölçeğidir. Ölçekte 36 soru/madde yer almaktadır. Verilerin analizinde tanımlayıcı istatistikler kullanıldı. Yaşları 18-21 arasında değişmekte olan katılımcıların %79,6'sını kız öğrenciler oluşturma, %40,7'si ikinci sınıfa gitmekte, %55,6'sı devlet yurdunda kalmaktadır. Katılımcıların %14,2'si ekonomik durumunun kötü olduğunu, %82,7'si herhangi bir sağlık sorunu olmadığını, %11,1'i diyet yaptığını ifade etti. Katılımcıların anne ve baba eğitim durumuna göre ilkokul mezunu olanlar sırasıyla %42,0 ve %29,0'dır. Vücut kitle indeksi (VKİ) değerlerine göre katılımcıların %72,2'si normal vücut ağırlığına sahiptir. GBOY ölçeği bilgi, tutum ve davranış alt boyutlarından alınan puanlara göre; katılımcıların %50'sinin bilgi, %30,2'sinin tutum, %15,4'ünün davranış alt boyutu puanlarının yetersiz olduğu saptandı. Katılımcıların cinsiyetleri, kaldıkları yer, sağlık durumları, anne eğitim durumları ve VKİ değerleri ile ölçek alt boyut puanları arasında istatistiksel olarak anlamlı bir ilişki saptanmadı ( $p>0,05$ ). Katılımcıların sınıf düzeyleri, baba eğitim durumları, ekonomik durumları ve diyet yapma durumları ile ölçeğin davranış alt boyutu arasında anlamlı farklılık saptandı ( $p<0,05$ ).

**Anahtar Kelimeler:** Gıda ve beslenme okuryazarlığı, Bilgi, Tutum, Davranış

## **SUSTAINABLE NUTRITION, NUTRITION KNOWLEDGE AND MEDITERRANEAN DIET ADHERENCE LEVELS OF UNIVERSITY STUDENTS**

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### **ABSTRACT**

Mediterranean diet; It is a diet in which processed foods are consumed less and the focus is on plant-based, seasonal and local nutrition. The aim of this research was to evaluate the level of sustainable nutrition and nutritional knowledge of university students and their level of adherence to the Mediterranean diet, which is accepted as a sustainable nutritional model. The cross-sectional study was carried out online with 96 students studying at the Faculty of Health Sciences, Department of Nutrition and Dietetics, in April-May 2023. Data were collected from an online survey using Google forms. The students' 'Basic nutrition and food-health relationship' knowledge and 'Food preference' levels were evaluated by using the Nutrition Knowledge Level Scale for Adults. The Mediterranean Diet Adherence Scale (MEDAS) was used to evaluate adherence to the Mediterranean Diet (MD). Descriptive statistics were used to analyze the data. The mean age of the students was  $20.9 \pm 1.6$ . 95.8% of students were female, 86.5% were staying at home with their families, 9.4% were in a bad economic situation, 87.5% of the students were healthy, 55.2% skipped at least one meal, 3.1% were on a diet to lose weight, and 25% were physically active. The mean score on MEDAS was  $6.7 \pm 1.9$  among the students. The rate of those with poor basic nutrition and food preference knowledge was 4.2% and 7.3%, respectively. Those who stated that the Mediterranean diet as a sustainable nutritional model were 79.2%. %24.0 of the students had low MD adherence level. There was no statistically significant relationship between the students' age, gender, place of residence, economic status, health status, skipping meals, dieting status, physical activity status, nutrition knowledge level and MD adherence level ( $p > 0.05$ ). According to the results of this study, basic nutrition and food-health relationship knowledge and food preference knowledge levels of students have no effect on adherence to the MD.

**Keywords:** Sustainable Nutrition, Mediterranean Diet, University Students

## ÜNİVERSİTE ÖĞRENCİLERİNİN SÜRDÜRÜLEBİLİR BESLENME, BESLENME BİLGİSİ VE AKDENİZ DİYETİNE UYUM DÜZEYLERİ

### ÖZET

Akdeniz diyeti; işlenmiş besinlerin az tüketildiği daha çok bitkisel kaynaklı, mevsiminde ve yerel beslenmenin hedeflendiği bir beslenme şeklidir. Bu çalışmada üniversite öğrencilerinin sürdürülebilir beslenme ve beslenme bilgi düzeyi ile sürdürülebilir beslenme modeli olan Akdeniz diyetine uyum düzeyinin saptanması amaçlanmıştır. Kesitsel tipte olan araştırma, Sağlık Bilimleri Fakültesi, Beslenme ve Diyetetik Bölümünde öğrenim gören 96 öğrenci ile Nisan-Mayıs 2023 tarihinde çevrimiçi olarak yapılmıştır. Veriler çevrimiçi anket formu ile toplandı. Yetişkinler İçin Beslenme Bilgi Düzeyi Ölçeği kullanılarak öğrencilerin ‘Temel beslenme ve besin-sağlık ilişkisi’ bilgisi ve ‘Besin tercihi’ düzeyleri değerlendirilmiştir. Akdeniz diyetine (AD) uyum düzeyinin saptanmasında Akdeniz Diyetine Bağlılık Ölçeği (MEDAS) kullanılmıştır. Verilerin analizinde tanımlayıcı istatistikler kullanılmıştır. Yaş ortalaması  $20,9 \pm 1,6$  idi. %95,8’i kız olan öğrencilerin, %86,5’i ailesi ile evde kaldığını, %9,4’ü ekonomik durumunun kötü olduğunu, %87,5’i herhangi bir sağlık sorunu olmadığını, %55,2’si en az bir öğün atladığını, %3,1’i zayıflamak amaçlı diyet yaptığını, %25’i de fiziksel olarak aktif olduğunu ifade etti. Öğrencilerin MEDAS puan ortalaması  $6,7 \pm 1,9$ ’dur. Temel beslenme ve besin tercihi bilgi düzeyleri kötü olanların oranı sırasıyla %4,2 ve %7,3 idi. AD’nin sürdürülebilir bir beslenme modeli olduğunu belirtenlerin oranı %79,2 idi. AD’ye düşük uyum gösterenlerin oranı %24,0 idi. Öğrencilerin yaşı, cinsiyeti, yaşadığı yer, ekonomik durumu, sağlık durumu, öğün atlama durumu, diyet yapma durumu, fiziksel aktivite durumu ve beslenme bilgi düzeyi ile AD uyum düzeyi arasında istatistiksel olarak anlamlı bir ilişki saptanmadı ( $p>0,05$ ). Bu çalışmanın sonuçlarına göre, öğrencilerin temel beslenme ve besin-sağlık ilişkisi bilgisi ile besin tercihi bilgi düzeylerinin Akdeniz diyetine uyuma etkisi yoktur.

**Anahtar Kelimeler:** Sürdürülebilir Beslenme, Akdeniz Diyeti, Üniversite Öğrencileri



## BARİATRİK CERRAHİ SONRASİ KİLO ALIMININ ÖNLENMESİNDE HEMŞİRENİN ROL VE SORUMLULUKLARI

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### ÖZET

Günümüzde bariatrik cerrahi, obezite ile ilişkili komorbiditelerin iyileştirilmesi veya çözülmesinin yanı sıra klinik olarak anlamlı uzun vadeli kilo kaybı sağlaması nedeni ile obezite için en etkili tedavi yöntemi olarak kabul edilmektedir. Obezite prevelansının artmasıyla birlikte yapılan obezite ameliyatlarının sayısı ve beraberinde kilo alımı da dahil olmak üzere cerrahi komplikasyonları da artmaya devam etmektedir. Bariatrik cerrahi sonrası geri kilo alımı komorbiditelerin tekrarlaması ve yaşam kalitesinin olumsuz etkilenmesi nedeniyle ciddi bir sorun oluşturabilmektedir. Bariatrik cerrahi sonrası geri kilo alım nedenleri endokrin/metabolik değişiklikler, anatomik/cerrahi başarısızlık, düzensiz beslenme, yetersiz aktivite, ruhsal sorunlar olmak üzere çok faktörlüdür. Obezite cerrahisi sonrası hastalarda kilo alımının arkasındaki en önemli faktörlerden biri, obeziteyi ve tedaviyi destekleyen yaşam tarzı değişikliklerini tam olarak benimseyememesidir. Bu noktada hemşirelerin amacı, sağlığını geliştirmesi ve sürdürmesi için bireylerin üzerine düşen sorumluluklarının farkına varmasına ve bağımsız bir şekilde kendi yaşamlarının sorumluluğunu almasına yardımcı olarak bireylerden beklenen uygun davranışları yerine getirmelerini sağlamaktır. Hemşirelerin, bariatrik cerrahi sonrası geri kilo alımı olan bireylerin hemşirelik bakımı sırasında eğitici rolü, araştırmacı rolü, rehabilite edici rolü, danışmanlık ve bakım verici rolü ön plana çıkmaktadır.

**Anahtar Kelimeler:** Bariatrik cerrahi, hemşire kilo alımı

## BARİATRİK CERRAHİ SONRASİ YAŞAM KALİTESİNİN SÜRDÜRÜLMESİNDE HEMŞİRENİN EĞİTİCİ ROLÜ

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### ÖZET

Obeziteye bağlı hastalıkların çoğu kroniktir ve bireyin fizyolojik, sosyolojik, psikolojik durumunu, yaşam süresini ve yaşam kalitesini olumsuz yönde etkilemektedir. Bariatrik cerrahide amaç sadece kilo vermek değil, verilen kiloyu korumak, kilo alımına katkıda bulunan faktörlerden uzak durmak ve kalıcı yaşam tarzı değişimi yapmak olmalıdır. Bu nedenle bariatrik cerrahi sonrası yaşamın etkili olabilmesi için hastaya uygun cerrahi tipinin seçilmesi, bireyin düzenli aralıklarla multidisipliner bir ekip ile bütüncül takip edilmesi, cerrahi tedavi sonrası hasta eğitimlerinin ve etkili hemşirelik bakımının yapılması son derece önem arz etmektedir. Pek çok hasta ameliyat sonrasında önemli ölçüde kilo kaybeder ve bu kilo kaybını sürdürür. Bu durum hem hasta mortalitesini azaltmakta hem de fiziksel ve ruhsal eşlik eden hastalıkları azaltarak yaşam kalitesini olumlu yönde etkilemektedir. Ne yazık ki bu olumlu sonuçları elde edemeyen hastalar da olabilmektedir. Bariatrik cerrahi sonrası uzun ve kalıcı başarı ve yaşam tarzı değişiklikleri elde etmek için bireylere multidisipliner ekip tarafından verilen eğitim önemlidir. Bu bağlamda da, uzun vadeli hasta takibi ve eğitimlerinin sürdürülmesinde hemşirelerin kilit noktada yer alan sağlık profesyonelleri olduğunu söyleyebiliriz.

Anahtar Kelimeler: Bariatrik cerrahi, hemşirenin eğitici rolü, yaşam kalitesi

## YAŞLILIKTA AKILCI İLAÇ KULLANIMINA HALK SAĞLIĞI YAKLAŞIMI

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### ÖZET

**Giriş:** Yaşlılık, doğumla birlikte bir organizmanın yaşam sürecinin ilerlemesiyle meydana gelen doğal bir süreç olarak karşımıza çıkmaktadır. Yaşlılık sürecinde yaşanan fiziksel değişiklikler, hücresel değişiklikler, bilişsel değişiklikler, sosyal değişikliklerle birlikte istenmeyen yaşam tarzı davranışları yaşlı sağlığı olumsuz etkilemektedir. Bu nedenlerle meydana gelen hastalıklara karşı yaşam kalitesini artırmaya yönelik kullanılan ilaç kullanımı halk sağlığı yaklaşımı gerektiren bir sorun olarak değerlendirilmektedir.

**Amaç:** Bu literatür çalışması yaşlılıkta akılcı ilaç kullanımına yönelik riskleri tanımlamak ve halk sağlığı yaklaşımını belirlemek amacıyla yapıldı.

**Yöntem:** Derleme türünde hazırlanan çalışma son beş yılda yayınlanan literatür taranarak araştırmacılar tarafından hazırlanmıştır.

**Bulgular:** Araştırma kapsamına alınan çalışmalar yaşlıların fiziksel, psikolojik ve sosyal değişimler sonrasında meydana gelen sağlık sorunları boyutları ve akılcı ilaç kullanımını ortaya koyan önemli sonuçlar içermektedir. Bu derlemede, yaşlı bireylerin ilaç kullanımına yönelik verilecek danışmanlık hizmetleri konusunda rehber olacak yöntemler ele alınmıştır. Literatürde yapılan çalışmalarda yaşlı bireylerin akılcı ilaç kullanımı etkileyen faktörlerin; bellek sorunları, karmaşık ilaç rejimleri, ilaç etkileşimleri, ilacın yan etkileri, doz aşımı, ilaç maliyetleri, ilaç kullanımını anlamada yaşanan görme ve işitme sorunları, sağlık hizmetlerine erişim sorunları olarak belirlenmiştir. Aynı zamanda sağlık okuryazarlığı düşük olan yaşlıların ilaçları almayı unutma ve iyi hissettiğinde doktora sormadan ilacı bırakma davranışlarının görüldüğü belirlenmiştir.

**Sonuç:** Çalışmada yaşlılıkta ilaç kullanımına yönelik yaşlı bireylerin akılcı ilaç kullanımını benimsememeleri majör sorundur. Bu nedenle yaşlı bireylerin tedavilerinde; bireyselleştirilmiş eğitim verilmesi, görsel ve işitsel yardımcılar kullanılması, açık/basit bir dil kullanımı,

kullanılması gerekli tüm ilaçların bilinmesi, doz talimatları/yan etkiler hakkında bilgi verilmesi, ilaç kullanma eğitiminin düzenli olarak yenilenmesi, ilaç kullanımına yönelik soruların cevaplanması akılcı ilaç kullanımında önemli halk sağlığı yaklaşımı olarak karşımıza çıkmaktadır.

**Anahtar Kelimeler:** Yaşlılık, Akılcı İlaç, Halk Sağlığı Yaklaşımı

#### **PUBLIC HEALTH APPROACH TO RATIONAL DRUG USE IN OLD AGING**

##### **Abstract**

**Introduction:** Aging appears as a natural process that occurs as the life process of an organism progresses from birth. Physical changes, cellular changes, cognitive changes, social changes and undesirable lifestyle behaviors during the aging process negatively affect the health of the elderly. The use of drugs to improve the quality of life against diseases caused by these reasons is considered a problem that requires a public health approach.

**Purpose:** This literature study was conducted to identify risks for rational drug use in old age and to determine the public health approach.

**Method:** The study, which is a compilation type, was prepared by the researchers by scanning the literature published in the last five years.

**Findings:** The studies included in the research contain important results revealing the extent of health problems of the elderly that occur after physical, psychological and social changes and the rational use of drugs. In this review, methods that will guide the counseling services regarding drug use of elderly individuals are discussed. In studies conducted in the literature, factors affecting the rational drug use of elderly individuals; Memory problems, complex drug regimens, drug interactions, side effects of the drug, overdose, drug costs, vision and hearing problems in understanding drug use, and problems in accessing health services. It has also been determined that elderly people with low health literacy tend to forget to take medications and stop taking medication without asking the doctor when they feel well.

**Conclusion:** In the study, the major problem regarding drug use in old age is that elderly individuals do not adopt rational drug use. For this reason, in the treatment of elderly individuals; Providing individualized education, using visual and auditory aids, using clear/simple language, knowing all the drugs that need to be used, providing information about dosage instructions/side effects, regularly renewing drug use training, answering questions about drug use are important public health issues in rational drug use. appears as an approach.

**Key Words:** Old Age, Rational Medicine, Public Health Approach

## SAĞLIĞI GELİŞTİRME MODELİNE DAYALI OLARAK GELİŞTİRİLEN AKTİF YAŞAM PROGRAMININ YAŞLI KADINLARIN SAĞLIKLI YAŞAM BİÇİMİ DAVRANIŞLARI VE YAŞAM DOYUMLARINA ETKİSİ

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### ÖZET

**Giriş:** Yaşlılık, son yıllarda tüm dünyada hızla artmakta olan ve yaşlı bireyler için risk faktörü oluşturabilecek doğal ve tek yönlü ilerleyen bir süreçtir. Bu nedenle hemşirelerin; yaşlı bireylerin sağlığını geliştirme sorumluluğunun temelinde önleme, yaşlı bireylerin sağlıklarına ilişkin olumsuz davranışları değiştirme ve yaşlı bireylere uygun sağlığı geliştirme programları geliştirme kapsamında öncü olmaları gerekmektedir. Sağlığın geliştirilmesi için yapılan her bir davranış değişikliğinin modellerle desteklenmesi, programların modeller çerçevesinde düzenlenmiş olması ve uygulanması bireylerin sağlığı geliştirme durumlarının artmasına sebep olmaktadır.

**Amaç:** Bu çalışma ile sağlığı geliştirme modeline dayalı olarak geliştirilen aktif yaşam programının yaşlı kadınların sağlıklı yaşam biçimi davranışları ve yaşam doyumlarına etkisini belirlenmek amaçlanmaktadır.

**Gereç ve Yöntem:** Bu araştırma randomize kontrollü tek kör (bağımsız istatistikçi, katılımcılar) öntest-sontest kontrol gruplu deneysel modele göre tasarlanmıştır. Araştırmanın evrenini Çorum İli belediye sınırları içinde bulunan Hititevler ve Buharaevler Aile Sağlığı Merkezleri bölgesinde yaşayan 65 yaş ve üzeri 313 yaşlı kadın oluşturmuştur. Araştırmanın yürütülebilmesi için Hitit Üniversitesi etik kurulundan izni alınmıştır. Çalışmanın yürütüleceği Çorum İli Aile Sağlığı Merkezlerine (Hititevler ASM, Buharaevler ASM) için Sağlık Bakanlığı Halk Sağlığı Genel Müdürlüğü'nden izin alınmıştır. Araştırma Aralık 2022- Mart 2023 tarihlerinde Çorum İli Aile Sağlığı Merkezlerine (Hititevler ASM, Buharaevler ASM) kayıtlı, 65 yaş ve üzeri araştırma kriterlerine uyan kadınlarla planlanmıştır. Minimum örneklem büyüklüğü (70), örneklem gücünü artırmak ve çalışma sırasında olabilecek kayıplar dikkate alınarak %34 oranında arttırılarak deney ve kontrol grupları için 47 yaşlı kadın; toplamda 94 katılımcıyla 6 hafta süren Aktif Yaşam Programı'na katılımlarıyla tamamlanmıştır. Araştırmanın öntest-sontest verileri için araştırmacı tarafından literatür doğrultusunda

geliştirilen kişisel bilgi formu, Sağlıklı Yaşam Biçimi Davranışları Ölçeği II (SYBD II) ve Yaşlılar İçin Yaşam Doyum Ölçeği (YAYDÖ) kullanılmıştır. Veriler IBM SPSS V23 ile analiz edilmiştir. Önem düzeyi  $p < 0.05$  olarak alınmıştır.

**Bulgular:** Deney grubundaki kadınların, yaş ortalaması  $66.82 \pm 1.46$ , %72.3'nün ev kadını olduğu, %17'sinin gelirin giderden az olduğu, %76.6'sinin evli olduğu, %12.8'inin yalnız yaşadığı, %74.5'nin kronik bir hastalığı olduğu belirlenmiştir. Kontrol grubundaki kadınların; yaş ortalaması  $67.06 \pm 1.74$ , %89.4'nün ev kadını olduğu, %21.3'ünün gelirin giderden az olduğu, %57.4'ünün evli olduğu, %27.7'inin yalnız yaşadığı, %78.7'sinin kronik bir hastalığı olduğu belirlenmiştir.

Girişim öncesi deney grubunun sağlıklı yaşam biçimi davranışları ölçeği II toplam puanı ortalama değeri  $126.79 \pm 26.65$  iken, girişim sonrası  $158.83 \pm 18.56$  olduğu belirlenmiştir. Deney grubu öntest-sontest puan ortalamaları arasında istatistiksel olarak anlamlı fark olduğu bulunmuştur ( $p < 0.05$ ). Girişim öncesi kontrol grubunun sağlıklı yaşam biçimi davranışları ölçeği II toplam puanı ortalama değeri  $126.51 \pm 29.22$  iken, girişim sonrası  $122.19 \pm 29.01$  olduğu belirlenmiştir. Kontrol grubu öntest-sontest puan ortalamaları arasında istatistiksel olarak anlamlı fark olduğu bulunmuştur ( $p < 0.05$ ).

Girişim öncesi deney grubunun yaşlılar için yaşam doyumu ölçeği toplam puanı ortalama değeri  $43.96 \pm 12.90$  iken, girişim sonrası  $59.60 \pm 6.35$  olduğu belirlenmiştir. Deney grubu öntest-sontest puan ortalamaları arasında istatistiksel olarak anlamlı fark olduğu bulunmuştur ( $p < 0.05$ ). Girişim öncesi kontrol grubunun yaşlılar için yaşam doyumu ölçeği toplam puanı ortalama değeri  $44.55 \pm 10.62$  iken, girişim sonrası  $43.34 \pm 9.81$  olduğu belirlenmiştir. Kontrol grubu öntest-sontest puan ortalamaları arasında istatistiksel olarak anlamlı fark olmadığı belirlenmiştir ( $p > 0.05$ ).

**Sonuç ve Öneriler:** Yaşlı kadınların sağlığının geliştirilmesine yönelik bu çalışmanın hemşirelik modeline temellendirilmesi önemlidir. Çalışma sonucuna göre deney grubunda bulunan yaşlı kadınların SYBD II ve YAYDÖ puanlarının girişim sonrası daha yüksek olduğu görülmüştür. Modelle dayalı hemşirelik programlarının oluşturulması, yaşlı kadınların SYBD ve yaşam doyumları üzerine etkilidir.

**Anahtar kelimeler:** Sağlığı geliştirme, yaşlı sağlığı, aktif yaşam, sağlıklı yaşam biçimi davranışları, yaşam doyumu

## THE SCREENING OF A NRG3 SNP IN TURKISH SCHIZOPHRENIA FAMILIES

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### ABSTRACT

Neuregulin-3 is one of the protein components of neuregulin signaling pathway (NSP) and encoded by the NRG3 gene which is one of the genes reported to affect schizophrenia. One of the SNPs suspected to be associated with schizophrenia is rs17101193 located in the NRG3 gene as well.

In the present study, we screened rs17101193 in a group of family trios consisting of 18 schizophrenia patients and their parents. Our samples were collected from a local Turkish population. The SNP genotypes were determined by a real-time PCR based method. The genotyping results were used for carrying out a TDT (Transmission Disequilibrium Test) by Haploview Software.

Our analysis showed the A allele was transmitted more than the common C allele (Transmitted: Untransmitted Ratio was 6:2).

The results of this study indicated the potential of rs17101193 A allele to be associated with schizophrenia. The small sample size of our group, or the narrow geographical region we have collected our sample could be limited our study. Because of that, the results we have reported have to be confirmed by further studies in different populations with more family trios.

(Acknowledgement: This study has been supported by Inonu University BAP project Number: FCD-2021-2552 to Mustafa Mert SÖZEN.)

**Key Words :** Schizophrenia, NRG3, Genetic, Association.

## MEASUREMENT OF ENVIRONMENTAL GAMMA RADIATION IN SOME CHILDREN'S PLAYGROUNDS IN THE PROVINCE OF BİTLİS (TURKEY)

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### ABSTRACT

Gamma radiation is emitted into the environment from naturally occurring radionuclides such as  $^{238}\text{U}$ ,  $^{232}\text{Th}$  and  $^{40}\text{K}$  and their decay products found in environmental materials such as soil, rock, water, granite, building materials, etc. Soil is used for many purposes, such as raw material in building materials, filling material in children's playgrounds, etc. and is an important environmental material containing naturally occurring radionuclides that contribute to indoor and outdoor radiation exposure. Environmental gamma radiation measurements are very important for determining the amount of change in ground level radiation over time as a result of any radioactive release. In this study, it was tried to determine the gamma dose rates absorbed in the open air by measurements made in the air at a height of about 1 m above the ground in children's playgrounds with soil floors in Bitlis province. The measurements were carried out with the help of a portable device containing a scintillation detector with a 2"×2" NaI (TI) crystal. In order to see the impact of the results on the environment and living beings (especially children), annual effective dose rate and lifetime cancer risk values were calculated. The average of the measured values for absorbed gamma dose rates was calculated as 164 nGy/h. This value is above the world average value (60 nGy/h) recommended by UNSCEAR (2000). The average values obtained for the annual effective dose rate and lifetime cancer risk were calculated as 201  $\mu\text{Sv/y}$  and  $0.71 \times 10^{-3}$ , respectively. These values are also above the recommended world average values. It can be said that this situation poses an inhalation risk for the people living in these areas and especially for children who spend time in playgrounds. In order to reduce this risk, the soil in playgrounds can be covered with materials with low radiation content. Also, the time spent in these parks can be reduced.

**Keywords:** Scintillation detector, Radiation, Environmental gamma, Absorbed dose, Cancer risk, Playgrounds



## BİTLİS İLİNDE BULUNAN BAZI ÇOCUK OYUN PARKLARINDA ÇEVRESEL GAMA RADYASYONU ÖLÇÜMÜ

### ÖZET:

Gama radyasyonları  $^{238}\text{U}$ ,  $^{232}\text{Th}$  ve  $^{40}\text{K}$  gibi doğal olarak oluşan radyoçekirdeklerden ve bunların toprak, kaya, su, granit, yapı malzemeleri vb. gibi çevresel malzemelerde bulunan bozunma ürünlerinden çevreye yayılırlar. Toprak, yapı malzemelerinde ham madde, çocuk parklarında doldurma malzemesi vb. gibi birçok amaç için kullanılmakta olup, iç ve dış mekan radyasyon maruziyetine katkıda bulunan doğal radyoçekirdekleri içeren önemli bir çevresel malzemedir. Çevresel gama radyasyon ölçümleri, herhangi bir radyoaktif salınımın sonucu olarak, temel seviye radyasyonunun zamanla değişim miktarını belirlemek için çok önemlidir. Bu çalışmada, Bitlis ilinde bulunan toprak zemine sahip çocuk oyun parklarında, yerden yaklaşık 1 m yükseklikte, havada yapılan ölçümlerde, açık havada soğurulan gama doz oranları belirlenmeye çalışılmıştır. Ölçümler 2"×2" NaI (TI) kristaline sahip sintilasyon detektörü içeren taşınabilir bir cihaz yardımıyla gerçekleştirilmiştir. Elde edilen sonuçların çevreye ve canlılara (özellikle çocuklara) etkisini görebilmek için yıllık etkin doz oranı ve ömür boyu kanser riski değerleri hesaplanmıştır. Soğurulan gama doz oranları için ölçülen değerlerin ortalaması, 164 nGy/h olarak hesaplanmıştır. Bu değer, UNSCEAR (2000) tarafından önerilen dünya ortalama değerinin (60 nGy/h) üzerindedir. Yıllık etkin doz oranı ve ömür boyu kanser riski için elde edilen ortalama değerler ise, sırasıyla, 201  $\mu\text{Sv/y}$  ve  $0,71 \times 10^{-3}$  olarak hesaplanmıştır. Bu değerler de önerilen dünya ortalama değerlerinin üzerindedir. Bu durumun, bu bölgelerde yaşayan halk ve oyun parklarında zaman geçiren özellikle çocuklar için inhalasyon kaynaklı bir risk oluşturduğu söylenebilir. Bu riski azaltabilmek amaçlı, oyun parklarındaki toprak zeminin üzeri radyasyon içeriği az olan malzemelerle kaplanabilir. Ayrıca, bu parklarda geçirilen süre de azaltılabilir.

**Anahtar Kelimeler:** Sintilasyon detektörü, Radyasyon, Çevresel gama, Soğurulan doz, Kanser riski, Oyun parkları

## PERİNATAL PALYATİF BAKIM

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### ÖZET

Yeni doğacak bebeğin hayati tehlikesi veya doğum kusuruna sahip olduğunu öğrenmek aile için beklenmedik ve yıkıcı bir olaydır. Yeni doğacak bebeğin kaybına hazırlanmak veya takip eden süreçte acıyla ve bebeğin bakımı ile baş etmek ailenin dayanabileceği en zor deneyimlerden biridir. Bu zor zamanlarda gebeliği sürdürmeyi seçen ailelerin ihtiyaçlarını karşılamada ve ailelere destek hizmetleri sunmada son yıllarda Perinatal Palyatif Bakım (PPB) giderek önem kazanmaktadır.

PPB, yaşamı sınırlayıcı olduğu düşünülen çeşitli koşullara sahip yenidoğan için yaşam kalitesini ve konforunu en üst düzeye çıkarmaya odaklanan obstetrik ve yenidoğan bakım seçeneklerini içeren koordineli bir bakım sürecidir. Acıyı hafifletmeye ve hasta değerlerine saygı göstermeye odaklanan PPB, yaşamı uzatma amacı olmaksızın yalnızca palyatif bakımın sağlanmasını içermektedir. Multidisipliner bir ekiple sunulması gereken bu bakımda ebeler önemli ve kritik bir yere sahiptir. Bu süreçte ebeler, hastaların kültürel inanç ve değerlerine saygılı, etkili ve şefkatli bir iletişimle holistik bir bakımla gebe ve ailesine karar alma sürecinde eşlik etmeli ve yeterli danışmanlığı vermelidir.

Gebelikte tanı sürecinden başlayıp bebeğin ölüm dönemini içeren, ebeveynlerin ihtiyaçlarının haritalandırılması, standartların geliştirilmesi ve bu ihtiyaçların karşılanmadığı ortamların belirlenmesi önemli bir hizmet alanıdır. Ebelik bakımını da içeren multidisipliner PPB müdahalelerin ülkemizde de geliştirilmesi ve bu alanda ileri çalışmaların yapılmasının insan onuruna yakışır bir yaşam ve ölüm geçirilmesi açısından son derece önemli bir hizmet alanı olduğu düşünülmektedir.

**Anahtar Kelimeler:** Palyatif Bakım, Perinatal Bakım, Ebelik

## EXPLORING THE PLACE OF YOGA IN PALLIATIVE CARE

### ABSTRACT

Learning that a newborn baby has a life-threatening or birth defect is an unexpected and devastating event for the family. Preparing for the loss of a newborn baby or coping with the pain and care of the baby in the following period is one of the most difficult experiences a family can endure. Perinatal Palliative Care (PPC) has become increasingly important in recent years in meeting the needs of families who choose to continue pregnancy in these difficult times and in providing support services to families.

PPB is a coordinated care process that includes obstetric and neonatal care options focused on maximizing quality of life and comfort for newborns with a variety of conditions considered life-limiting. Focused on relieving suffering and respecting patient values, PPC involves the provision of only palliative care without the aim of prolonging life. Midwives have an important and critical place in this care, which must be provided by a multidisciplinary team. In this process, midwives should accompany the pregnant woman and her family in the decision-making process and provide adequate counseling, with holistic care, effective and compassionate communication, respecting the cultural beliefs and values of the patients.

Mapping the needs of parents, developing standards and identifying environments where these needs are not met, starting from the diagnosis process during pregnancy and including the period of death of the baby, is an important care service. It is thought that the development of multidisciplinary PPC interventions, including midwifery care, in our country is an extremely important area in terms of ensuring a life and death worthy of human dignity.

**Key Words:** Palliative Care, Perinatal Care, Midwifery

## PALYATİF BAKIMDA YOGANIN YERİNİ KEŞFETMEK

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### ÖZET

Her insanın sağlıklı, uzun bir yaşam sürmeye ve onurlu bir şekilde ölmeye hakkı vardır. Palyatif bakımın amacı hayatın sonuna gelen bireylerin acılarını dindirmek ve yaşam kalitesini arttırmaktır. Yaşamı tehdit eden hastalıkları olan palyatif bakım hastalarının ağrılarının ve diğer fiziksel, psiko-sosyal ve ruhsal sorunlarının giderilmesi için tedavi sürecine bütünsel yaklaşım gerekmektedir. Bunun için geleneksel önlemlerin yanı sıra yoga da ideal bir bütünleşme yoludur. Yoga bedeni, zihni, duyguları ve ruhu uyumlu ve dengeli hale getirir; tatmin ve mutluluk duygusu yaratır; hastaların ve bakım verenlerin yaşam kalitesini artırır. Yoga, palyatif bakımı desteklemek için potansiyel bir araçtır. Yapılan çalışmalarda yoganın palyatif bakım hastalarının uyku kalitesinde, genel yaşam kalitesinde, ruh halinde, yorgunluk, ağrı, anksiyete ve depresyon yönetiminde iyileşmeler gösterdiği vurgulanmaktadır.

**Anahtar Kelimeler:** Palyatif, Bakım, Yoga

## EXPLORING THE PLACE OF YOGA IN PALLIATIVE CARE

### ABSTRACT

Every person has the right to live a healthy, long life and die with dignity. The purpose of palliative care is to relieve the suffering of individuals at the end of life and improve their quality of life. A holistic approach to the treatment process is required to relieve the pain and other physical, psychosocial and spiritual problems of palliative care patients with life-threatening diseases. In addition to traditional measures, yoga is also an ideal way of integration. Yoga harmonizes and balances the body, mind, emotions and spirit; creates a feeling of satisfaction and happiness; It improves the quality of life of patients and caregivers. Yoga is a potential tool

to support palliative care. Studies emphasize that yoga shows improvements in palliative care patients' sleep quality, general quality of life, mood, fatigue, pain, anxiety and depression management.

**Key Words:** Palliative, Care, Yoga

## BAŞLIĞIN TAMAMI KOYU (BOLD), ORTALI, 12 PUNTO, TIMES NEW ROMAN

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### ÖZET

Bebeklik döneminde yeterli beslenme, hızlı büyüme ve gelişmeyi artırmaktadır. İyi beslenme desteği, ebeveynler ve bebekleri arasındaki sosyal, psikolojik ve eğitimsel etkileşim fırsatlarıyla desteklenmelidir. Erken yaşlardan itibaren optimal beslenme anne sütü sağlanabilir. Doğumdan hemen sonra başlanması gereken emzirme süreci hem bebek hem de anne için önemli bir dönemdir. Psişik uyarı, kadının gözünden beyne oksitosin üreten bir reflekstir. Böylece anne sütü salınır ve yan etki olarak uterus kasılmaya başlar. Oksitosin, uterus kaslarının kasılmasına ve geri çekilmesine neden olarak kan damarlarını baskılayarak, uterusa giden kan akışını azaltır ve kanamayı azaltmaya yardımcı olur. Oksitosin masajı ve meme bakımının anne sütü üretimini artırmanın yanı sıra memenin ve çevresindeki cildin sıkılığını artırmak, memeyi ve meme bölgesini rahatlatmak, meme kanserini önlemek, laktif kanallarda tıkanıklığın oluşmasını önlemek ve özellikle meme uçlarında meme hijyenini sağlamak gibi daha birçok faydası bulunmaktadır. Oksitosin masajı, anne sütünün salınmasını ve anne sütü üretiminin artmasını etkileyebilecek faktörlerden biridir. Oksitosin masaj tekniklerini uygulamadaki doğruluk, anne sütü üretimini kolaylaştırmada verilen etkiyi belirlemektedir. Anne sütü üretiminde gebelikteki meme bakımı, emzirme tekniği, emzirme sıklığı, formül mama kullanımı, annenin tükettiği besinler ve anne psikolojisinin etken olduğu bilinmektedir. Oksitosin masajının gevşemeyi artırdığı, daha rahat ve kaliteli uyku sağladığı, ağrıyı ve stresi azalttığı, oksitosin ve prolaktin hormonlarını yükselterek emzirmeyi ve süt üretimini kolaylaştırdığı kanıtlanmıştır. Oksitosin masajı uterus involüsyonunda postpartum egzersizden daha etkilidir. Bu nedenle ebelerin oksitosin masajını uygulamalı ve annelere öğretmeleri beklenmektedir.

**Anahtar Kelimeler:** Oksitosin, Masaj, Emzirme

### OXYTOCIN MASSAGE IN POSTPARTUM

#### ABSTRACT

Adequate nutrition during infancy promotes rapid growth and development. Good nutritional support should be supported by opportunities for social, psychological and educational interaction between parents and their infants. Optimal nutrition from an early age can be provided by breastfeeding. Breastfeeding, which should start immediately after birth, is an important period for both the baby and the mother. Psychic stimulation is a reflex that produces

oxytocin from the woman's eye to the brain. This releases breast milk and, as a side effect, causes the uterus to contract. Oxytocin causes the uterine muscles to contract and retract, depressing blood vessels, reducing blood flow to the uterus and helping to reduce bleeding. In addition to increasing breast milk production, oxytocin massage and breast care have many other benefits, such as increasing the firmness of the breast and surrounding skin, relaxing the breast and breast area, preventing breast cancer, preventing blockage of the lactating ducts and ensuring breast hygiene, especially in the nipples. Oxytocin massage is one of the factors that can influence the release of breast milk and increase breast milk production. Accuracy in the application of oxytocin massage techniques determines the effect in facilitating breast milk production. It is known that breast care during pregnancy, breastfeeding technique, breastfeeding frequency, formula formula use, nutrients consumed by the mother and maternal psychology are factors in breast milk production. Oxytocin massage has been proven to increase relaxation, provide more comfortable and quality sleep, reduce pain and stress, and facilitate breastfeeding and milk production by increasing oxytocin and prolactin hormones. Oxytocin massage is more effective than postpartum exercise in uterine involution. Therefore, midwives are expected to practice oxytocin massage and teach it to mothers.

**Keywords:** Oxytocin, Massage, Breastfeeding

## SÜREKLİ EBELİK BAKIM MODELİ

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### ÖZET

Anne ve çocuk sağlığı hizmetlerinin sağlanmasında ve özellikle doğum bakımı modellerine ilişkin reformlara son yıllarda daha çok önem verilmektedir. Ebeler, bakımın ebe liderliğinde sürekliliğini sağlamak için giderek daha fazla gruplar halinde birlikte çalışmaktadır. Gebelerin bakımına yönelik ebelik ve tıp bakım modelleri, gebelik ve doğuma ilişkin belirli perspektiflere dayanmaktadır. Bu bakış açılarından kaynaklanan yaklaşımlar birbirini tamamlayıcı niteliktedir ve ebeler ile hekimlerin birlikte çalışmasının bir sonucu olarak modellerde önemli ölçüde birleşme olmuştur. Doğumu yönetmenin birbirini dışlayan iki yolu yerine, geniş bir çeşitlilik vardır. Bununla birlikte, modeller arasında felsefe ve odaklanma, bakım sağlayıcı ile gebe arasındaki ilişki, doğum öncesi bakımın ana odağı, obstetrik müdahalelerin kullanımı ve doğum sırasında bakımın diğer yönleri ve bakımın amaç ve hedefleri gibi önemli farklılıklar vardır. Sürekli ebelik bakım modelinin kadınlar için birçok avantajları bulunmaktadır. Ebeler, sürekli bakım modellerini uyguladığında doğum sırasında gereksiz müdahalelerden kaçınır, sürecin normal kalmasına yardımcı olur ve genellikle tıbbi yönetim modeli tarafından yeterince desteklenmeyen ihtiyaçları karşılar. Ebelik bakımının sürekliliği, daha iyi sonuçlara ve memnuniyete katkıda bulunabilecek birçok unsuru içeren çok yönlü bir modeldir. Ancak kadınların bu bakım modeli kapsamında neye değer verdiğine dair çok az bilgi bulunmaktadır. Sürekli ebelik bakımı “bağımsız ebelik birimlerinde” de sağlanabilir. Bu birimlerde birinci basamak bakım, tıbbi personelin rutin müdahalesi olmaksızın, belirlenen bir ebe tarafından sağlanmaktadır. Birimler, gerektiğinde obstetrik, pediatrik veya uzmanlaşmış tıbbi konsültasyonlar sağlayan sevk merkezlerinden ayrı görev yapmaktadır. Küresel olarak, ebelik bakım modellerinin tüm kadınlar için en iyi uygulama olduğu anlaşıyor giderek artmaktadır.

**Anahtar Kelimeler:** Ebelik, Bakım, Model

## CONTINUING MIDWIVES CARE MODEL

### ABSTRACT

In recent years, more importance has been given to reforms in the provision of maternal and child health services and especially in maternity care models. Midwives are increasingly working together in groups to ensure midwife-led continuity of care. Midwifery and medical care models for the care of pregnant women are based on specific perspectives on pregnancy and birth. The approaches resulting from these perspectives are complementary and there has been significant convergence of models as a result of midwives and physicians working together. Instead of two mutually exclusive ways to manage labor, there is a wide variety. However, there are important differences between the models, such as philosophy and focus,



the relationship between the care provider and the pregnant woman, the primary focus of prenatal care, the use of obstetric interventions and other aspects of care during birth, and the goals and objectives of care. The continuing midwifery care model has many advantages for women. When midwives apply the continuous care model, they avoid unnecessary interventions during birth, help keep the process normal, and meet needs that are often not adequately supported by the medical management model. The midwifery continuum of care is a multifaceted model that includes many elements that can contribute to better outcomes and satisfaction. However, there is little information about what women value within this model of care. Continuing midwifery care can also be provided in “independent midwifery units”. In these units, primary care is provided by a designated midwife without routine intervention from medical staff. The units operate separately from referral centres, providing obstetric, pediatric or specialized medical consultations as needed. Globally, there is a growing understanding that midwifery models of care are best practice for all women.

**Key Words:** Midwifery, Care, Model

## YENİDOĞAN HIPERBİLİRUBİNEMİSİ VE EMZİRME

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### ÖZET

Erken dönemde görülen yenidoğan sarılığı hastane yatışlarının en sık nedenleri arasındadır. Görülme sıklığı term yenidoğanlarda %60 oranlarındayken bu oran preterm yenidoğanlarda %80'lere kadar çıkmaktadır. Yenidoğan hiperbilirubinemi kandaki bilirubin düzeyinin yüksekliği ile kendini göstermektedir. Genellikle term ve posterm yenidoğanlarda doğumdan sonraki ilk 5 günde görülmektedir ve 6. günde zirveye ulaşmaktadır. Eğer erken dönemde fark edilmez ise ensefalopati, kernikterus, işitme bozukluğu gibi ciddi komplikasyonlara neden olabilmekte hatta yenidoğanın tüm yaşamını etkileyecek ciddi sakatlılara yol açabilmektedir. Yenidoğan hiperbilirubineminin yarıdan fazlasının nedeni bebeğin erken dönemde anne sütünü yetersiz almasıyla ilişkilidir. Doğum sonrası dönemde anne sütü alımı ile bağırsaklardan atılması gereken bilirubin yetersiz beslenme nedeniyle bağırsaktan atılamaz. Yetersiz beslenme bağırsak motilitesini azaltır. Azalan bağırsak motilitesi bilirubinün tekrar bağırsaktan emilimine neden olur. Bunun sonucunda da bilirubin kanda yükselmeye başlar. Yenidoğanda bilirubin seviyesinin yükselmesiyle hipoktivite, deride ve gözlerde sarılığa neden olmaktadır. Literatürde de yetersiz emzirmenin yenidoğan sarılığı için bir risk faktörü olduğu bildirilmiştir. Ayrıca bilirubin serum konsantrasyonu açısından yaşamının ilk 5 gününde anne sütü alan yenidoğan ile formül mama ile beslenen yenidoğanlar arasında fark olmaması da hiperbilirubinemi de beslenmenin önemine dikkat çekmektedir. Özellikle doğumdan sonra durumu stabil yenidoğanların 30 dakika içerisinde beslenmesi ve ilk iki haftalık süreçte yeterli beslenmeyle yenidoğan sarılığı önlenir. Bu nedenle ebelerin, yenidoğan için önemli olan ilk haftalarda beslenmeyi desteklemesi önemlidir. Ayrıca anne ve yenidoğanla çalışan tüm sağlık personelleri hiperbilirubineminin önlenmesi, takip ve tedavisi konularında bilinçlendirilmeli ve risklerin erken önlenmesi sağlanmalıdır. Bu derlemenin amacı yenidoğan sağlığı için önemli bir durum olan hiperbilirubinemi de yenidoğan beslenmesinin önemine dikkat çekmektir.

**Anahtar Kelimeler:** Yenidoğan, hiperbilirubinemi, ebe, emzirme

### NEWBORN HYPERBILIRUBINEMIA AND BREASTFEEDING

#### ABSTRACT

Early neonatal jaundice is among the most common causes of hospitalization. While its incidence is 60% in term newborns, this rate rises to 80% in preterm newborns. Neonatal

hyperbilirubinemia manifests itself with high bilirubin level in the blood. It is generally seen in term and postterm newborns in the first 5 days after birth and reaches its peak on the 6th day. If it is not detected in the early period, it can cause serious complications such as encephalopathy, kernicterus, hearing impairment, and even lead to serious disabilities that will affect the newborn's entire life. More than half of the causes of neonatal hyperbilirubinemia are related to the baby's insufficient intake of breast milk in the early period. Bilirubin, which must be eliminated from the intestines through breast milk during the postpartum period, cannot be eliminated from the intestines due to malnutrition. Malnutrition reduces intestinal motility. Decreased intestinal motility causes bilirubin to be reabsorbed from the intestine. As a result, bilirubin begins to rise in the blood. Increased bilirubin levels in newborns cause hypoactivity and jaundice in the skin and eyes. It has been reported in the literature that inadequate breastfeeding is a risk factor for neonatal jaundice. In addition, the fact that there is no difference in bilirubin serum concentration between breast-fed newborns and formula-fed newborns in the first 5 days of life draws attention to the importance of nutrition in hyperbilirubinemia. Newborn jaundice can be prevented, especially by feeding newborns in stable condition after birth within 30 minutes and adequate nutrition in the first two weeks. Therefore, it is important for midwives to support nutrition in the first weeks that are important for the newborn. In addition, all healthcare personnel working with mothers and newborns should be made aware of the prevention, follow-up and treatment of hyperbilirubinemia, and early prevention of risks should be ensured. The aim of this review is to draw attention to the importance of newborn nutrition in hyperbilirubinemia, which is an important condition for newborn health.

**Key Words:** Newborn, hyperbilirubinemia, midwife, breastfeeding

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### Özet

1900’lü yılların ortalarında tartışılmaya başlayan yapay zekâ (YZ) bilgisayar sistemlerinin insanların algılama, mantık yürütme, problem çözme ve karar verme gibi bilişsel işlevlerini taklit ederek insan gerektirecek görevleri yerine getirebildiği yöntemdir. Dijital tıbbın dönüşümünde kilit nokta oluşturmaya aday olan YZ bu kapsamda gelişmiş algoritmalar, bilgi işlem gücündeki iyileştirmelerle sağlık sorunlarına yönelik klinikteki hizmetlerin verimliliğinin ve performansının artmasına destek olmaktadır. YZ, içerdiği makine öğrenimi veya derin öğrenme teknolojileriyle tüm tıbbi işlemlere ve disiplinlere uygulanabilir. Sağlık alanında da artan nüfusla birlikte sağlık sistemi verilerinin artmasıyla verilere ulaşılabilirlik sağlığın teşvikini, geliştirilmesini ve hastalıkların önlenmesini sağlayacak bir teknoloji olarak görülmektedir. Ebelikte de son yıllarda kullanılmaya başlanmıştır. Jinekoloji ve obstetrik alanda sorunları tahmin etmede, teşhis etmede ve öncelik belirlemede kullanılmaktadır. Gebelikte, doğumda, üreme sağlığında ve jinekolojik kanserlerde erken tanı, tedavi ve komplikasyonların erken dönemde fark edilebilmesini sağlamaktadır. Normal doğum sürecinde doğumda oluşabilecek risklerin erken fark edilmesi ile distosiler nedeniyle oluşabilecek mortalite ve morbidite oranları azaltılacaktır. Böylece anne ve bebekte oluşabilecek mortalite ve morbidite oranlarının da azaltılmasında destek sağlayacaktır. Erken dönemde risklerin önlenmesiyle annelerin hastanede kalış süreleri azalacaktır. Bununla birlikte zamandan tasarruf edilirken ağır komplikasyonlar önceden engellendiği için maliyette azalacaktır. Bu derleme ebelik mesleğinde önemli rolü olmaya başlayan yapay zekaya ve kullanım alanlarına dikkat çekmeyi amaçlamıştır.

### ARTIFICIAL INTELLIGENCE IN MIDWIVES AND ITS AREAS OF USE

#### ABSTRACT

Artificial intelligence (AI), which started to be discussed in the mid-1900s, is a method by which computer systems can perform tasks that require humans by imitating people's cognitive functions such as perception, reasoning, problem solving and decision-making. AI, which is a candidate to be a key point in the transformation of digital medicine, supports increasing the efficiency and performance of clinical services for health problems with advanced algorithms and improvements in computing power. AI can be applied to all medical functions and

disciplines through its machine learning or deep learning technologies. In the field of health, with the increasing population and the increase in health system data, accessibility to data is seen as a technology that will enable the promotion and development of health and the prevention of diseases. It has also started to be used in midwifery in recent years. It is used to predict, diagnose and prioritize problems in gynecology and obstetrics. It enables early diagnosis, treatment and complications in pregnancy, birth, reproductive health and gynecological cancers to be noticed at an early stage. Mortality and morbidity rates that may occur due to dystocia will be reduced by early recognition of the risks that may occur during normal birth. Thus, it will provide support in reducing the mortality and morbidity rates that may occur in the mother and baby. By preventing risks in the early period, the hospital stay of mothers will decrease. In addition, time will be saved and costs will be reduced as severe complications are prevented in advance. This review aims to draw attention to artificial intelligence and its areas of use, which has begun to play an important role in the midwifery profession.

**Key Words:** artificial intelligence, midwife, technology

## COVID-19 PANDEMİSİNDE KULLANILAN AŞILARIN YAN ETKİLERİNİN VE AŞI TEREDDÜDÜNÜN İNCELENMESİ

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### ÖZET

Küresel bir sağlık sorunu olarak 2019 yılından beri Dünya gündeminde olan Covid-19'un önlenmesinde kullanılan aşıların yan etkileri ve aşı tereddüdünün nedenleri hakkındaki bu araştırmada aşıların kullanıma başlandığı günden bu yana Covid-19 semptomlarının aşı kaynaklı olduğu gibi bir yanlış inancın yaygınlığı olarak karşımıza çıkmaktadır. Günümüzde aşının yan etkilerinden korkma, aşıya ilişkin önyargılar, sağlık okuryazarlığı eğitimlerinin eksikliği gibi nedenler aşı karşıtlığı veya tereddüdü ortaya çıkartmıştır. Aşılamanın kısa bir süre için bile ertelenmesi morbidite ve mortaliteyi artırabileceğinden, aşı tereddüdünde kültürel farklılıkları anlamak, sağlık okuryazarlığı eğitimlerini arttırmak ve sağlık ile ilgili dogmaları yıkmak sorunun çözümü olabilir.

**Anahtar Kelimeler:** Covid-19, İstenmeyen Etkiler, Sars-CoV-2, Aşı tereddüdü, Aşı

## INVESTIGATION OF SIDE EFFECTS OF VACCINES USED IN THE COVID-19 PANDEMIC AND VACCINE HESITANCY

### ABSTRACT

In this research on the side effects of vaccines used in the prevention of Covid-19, which has been on the world agenda since 2019 as a global health problem, and the reasons for vaccine hesitancy, the prevalence of a false belief that Covid-19 symptoms are vaccine-induced since the day the vaccines started to be used. Today, one of the side effects of the vaccine

Fear, prejudices against vaccination, and lack of health literacy education have all contributed to anti-vaccination or vaccine hesitancy. Since delaying vaccination even for a short period of time may increase morbidity and mortality, understanding cultural differences in vaccine

hesitancy, increasing health literacy education and breaking down health-related dogmas may be the solution to the problem.

**Keywords:** Covid19, Unintended Effects, Sars-CoV-2, Vaccine hesitation, Vaccine

## COVID-19 PANDEMİSİNDEN BU YANA YENİ NESİL COVID-19 AŞILARI VE AŞILARIN GELİŞİMİ

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### ÖZET

Koronavirüse karşı kullanılan aşılar pandeminin başından bugüne kadar milyarlarca insanda kullanılmış 20 milyondan fazla hayatı kurtarmış, hastalığı daha az etkili atlatmalarına neden olmuştur. Buna rağmen virüsünün bugüne kadar ulaştığı farklı viral varyantlar bu aşılardan koruyucu etkilerinden kaçabilmiştir. Bunun için dünya üzerinde aşı üreticileri yeni varyantlara da etki edecek aşılar geliştirmek için çalışıyorlar. Bu sistemde aşılardan tamamen değişimi ve yeni nesil diye adlandırabileceğimiz bir aşı üretimi olmamakla birlikte, ilk aşı üretimlerinin güncellenmesi ile daha iyi direnç ve koruma sağlamaları düşünülmektedir. Bu düşünce yeni bir aşının bulunması anlamında yeni nesil Covid-19 aşılardan anlamında değil, aşılardan ilk şekillerinin güncellenmeleri şeklinde düşünülmektedir. Aşı güncellenmelerinin gerekliliğinin en önemli nedeni spikesentrik monovalan aşılardan enjeksiyonu esnasında oluşan yanıtlardan çoğunlukla aşının aktarıcı respiratuar mukozada bulunan humoral ve T-hücrelerinden oluşan portala erişememe ve tutunamama şeklinde görülebilmektedir.

**Anahtar Kelimeler:** Covid-19, Yeni Nesil Aşılardan, Sars- CoV-2.

## NEW GENERATION COVID-19 VACCINES AND VACCINE DEVELOPMENT SINCE THE COVID-19 PANDEMIC

### ABSTRACT

Vaccines used against coronavirus have been used in billions of people since the beginning of the pandemic, saving more than 20 million lives and causing them to survive the disease less effectively. Despite this, different viral variants that the virus has reached so far have been able to escape the protective effects of these vaccines. For this reason, vaccine manufacturers around the world are working to develop vaccines that will also affect new variants. While this system does not involve a complete change of vaccines and the production of a new generation vaccine, it is thought to provide better resistance and protection by updating the first vaccine productions. This idea is not in the sense of a new generation of Covid-19 vaccines in terms of finding a new vaccine, but in the form of updating the first forms of vaccines. The most important reason for the necessity of vaccine updates is that the responses that occur during the injection of spikecentric monovalent vaccines can be seen as inability to access and adhere to the portal of humoral and T-cells in the transmissive respiratory mucosa.

**Keywords:** Covid-19, Next Generation Vaccines, Sars- CoV-2.



**CHARACTERIZATION OF TAXA BELONGING TO SECTIONS *Nomisma* DC,  
*Thlaspi* L AND *Pterotropis* DC OF THE GENUS *Thlaspi* L sensu lato (Brassicaceae) BY  
THE matK MOLECULAR MARKER**

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**ABSTRACT**

*Thlaspi* L. sensu lato (s.l.) has problems taxonomically at both the genus level and the subgenus level. After making the transfer of taxa from the genus, a study covering the whole of taxa in Turkey has not done and in particular the situation of endemic taxa in Turkey has remained uncertain. Made in 2018 'Systematic investigations on some taxa of genus *Thlaspi* L. (Brassicaceae); sections *Nomisma* DC., *Thlaspi* L., *Pterotropis* DC.' named doctoral thesis (Karaismailoğlu 2018); the taxa have primarily taken from their natural populations as individuals with flowering, mature fruits and seeds, detailed descriptions have made and morphologically studied in detail. However, the study lacks molecular studies due to the limited duration of the thesis and the amount of resources used. This situation has been seen as a deficiency in the thesis; In the studies proposed after the thesis, it has been suggested that "studying the matK region of the genus molecularly will reveal the phylogenetic relationships between taxa more clearly.

In this study, matK gene from chloroplast DNA sequences of 22 taxa belonging to *Nomisma*, *Thlaspi* and *Pterotropis* sections of *Thlaspi* s.l. genus has been analyzed for the first time using nucleotide sequences. In molecular studies, dissimilarity matrix of nucleotide sequences have been obtained, % GC contents and nucleotide lengths of regions have been determined, and dendrogram showing phylogenetic relationships among taxa have been obtained. In addition, the final systematic result has been proposed by comparing the molecularly obtained data with the taxonomic data previously obtained within the scope of the thesis for the specified sections of the genus.

**Keywords:** *Thlaspi*, sensu lato, Phylogeny, matK, Turkey

## YEŞİL SENTEZ YÖNTEMİ İLE NANOKÜKÜRT ÜRETİMİ<sup>1</sup>

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### ÖZET

Nanobilim, modern bilimdeki en önemli araştırma ve geliştirme alanlarından biridir. Son yıllarda, nanoteknoloji araştırması, fizik, kimya, biyoloji, malzeme bilimi, eczacılık ve tıpla ilgili disiplinler arası bir teknoloji olarak ortaya çıkmaktadır. Geleneksel yöntemlere alternatif olarak ortaya çıkan Yeşil Sentez yöntemi, verimli, ucuz, çevre dostu ve kolay uygulanabilir bir yöntemdir. Yeşil sentez metodunda metal iyonlarının indirgenmesinde de bitkinin polifenol içeriği etkilidir. Bu yüzden mevcut çalışmada polifenol içeriği yüksek ve kolay temin edilebilen Melisa yaprağı (*Melissa officinalis* L.) özütü tercih edilerek nano kükürt üretimi gerçekleştirilmiştir. Üretimi yapılan nano kükürt parçacıklarının yapılan analizinde ortalama nano boyutunun 21.4-126.8 nm arasında olduğu tesbit edilmiştir.

**Anahtar Kelimeler:** Melisa yaprağı, Bitki özütü, Yeşil sentez, Nanokükürt

### NANO SULFUR PRODUCTION BY THE GREEN SYNTHESIS METHOD

### ABSTRACT

Nanoscience is one of the most important research and development areas in modern science. In recent years, nanotechnology research has emerged as an interdisciplinary technology related to physics, chemistry, biology, materials science, pharmacy and medicine. The Green

<sup>1</sup>This study is supported as project number TOVAG-2220198 within the scope of TÜBİTAK-1002-A Rapid Support Program.

Synthesis method, which emerged as an alternative to traditional methods, is an efficient, inexpensive, environmentally friendly and easily applicable method. The polyphenol content of the plant is also effective in the reduction of metal ions in the green synthesis method. Therefore, in the present study, nano-sulfur production was carried out by preferring lemon balm leaf (*Melissa officinalis L.*) extract, which has a high polyphenol content and is easily available. In the analysis of the produced nano sulfur particles, it was determined that the average nano size was between 21.4-126.8 nm

**Keywords:** Melissa leaf (*Melissa officinalis L.*), Plant extract, Green synthesis, Nanosulfur

## RUMİNANTLARDA BESLEMESİNE DAYALI BAZI METABOLİK PROBLEMLER

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### ÖZET

Ruminantların beslenmesinde değişik dönemlerde bazı rahatsızlıklar veya metabolik bozukluklar görülebilmektedir. Bu gibi durumlar, hayvanlarda verimin düşmesine ve ilerleyen aşamalarda ölümlere kadar giden kayıplara neden olmaktadır. Hayvanların çeşitli fizyolojik dönemlerdeki ihtiyaçlarının tam olarak karşılanamaması, uygun yem karışımlarının hazırlanamaması, yemleme hatalarının yapılması hayvanların verimlerinin düşmesine, sağlıklarının bozulmasına neden olmaktadır.

Özellikle Süt ineklerinde, doğumdan önceki beş haftayı da içine alan ve doğumdan sonra devam eden laktasyonun ilk dönemini önemini arttıran birçok neden bulunmaktadır. Bu dönemde ineklerin süt verimi sürekli olarak artarak pik seviyeye ulaşmaktadır. Hayvanların artan besin maddesi ihtiyaçlarını karşılamak için rasyonda kaba yem oran miktar olarak azaltılırken, kolay çözünebilir karbonhidratlarca zengin konsantre yem oranı artmaktadır. Bu durumda süt sığırlarda bazı metabolik problemlerin ortaya çıkmasına neden olabilmektedir. Bu rahatsızlıklardan bazıları şunlardır; Ketozis; Genellikle laktasyonun başında yetersiz besin madde (enerji) alımı sonucu görülen metabolik bir rahatsızlıktır. Şişme, retikulo-rumende fermentasyon gazlarının yüksek düzeyde birikmesi ile kendini gösterir. İlerleyen dönemlerde, yüksek düzeyde ölümlere ve dolayısıyla büyük ekonomik kayıplara neden olmaktadır. Asidosiz; Ruminantlara kolay çözünebilir karbonhidratlarca zengin yemlerin yüksek oranda verilmesi sonucu ortaya çıkan bir metabolik rahatsızlıktır. Bununla beraber, fazla miktarda kesif yem, buna karşın düşük düzeyde sellüloz verilmesi sonucu ortaya çıkmaktadır. Süt humması, doğum humması, milk fever, doğum felçi, hipokalsemia gibi adlarla da anılan bu metabolik bozukluk süt ineklerinde görülen en önemli bir metabolik aksaktır. Hayvanlarda büyük ölçüde besleme hatalarına bağlı olarak meydana gelen metabolik hastalıklar, işletmelerde ekonomik kayıplarda artışlara neden olmaktadır. Bu durum süt üretimini de olumsuz etkilemektedir. Bu nedenle metabolik rahatsızlıklar nedeniyle oluşabilecek sağlık sorunları ve ekonomik kayıpların önüne geçilmesi gerekmektedir. Bunun için için süt sığırlarında düzenli olarak gözlem yapılmalıdır. Bu durumu önleyici ve etkilerini azaltıcı yemleme pratikleri uygulanması gerekmektedir.

**Anahtar Kelimeler :** Ruminant, asidoz, ketosis, süt humması

## RYEGRASS OTUNUN RUMİNANTLARDA KULLANIMI

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### ÖZET

Ryegrass, ılıman ve nispeten çok soğuk olmayan bölgelerde yetiştiriciliği yapılan önemli bir yem bitkilerinden bir tanesi olmaya başlamıştır. Ryegrass, üreticiler arasında süt otu ve İtalyan çimi olarak ta bilinmektedir. Ryegrass, bölgenin iklim şartlarına göre, değişik tarihlerde ekimi yapılmaktadır. Geniş yapraklı ve çok lezzetli tek yıllık bir yem bitkisidir. Olan Ryegrass değişik hayvan gruplarına farklı miktarlarda tüketimine sunulmaktadır. inek, koyun, keçi ve at gibi hayvanların beslenmesinde kullanılmaktadır. Genellikle, hayvan beslemede yeşil ot olarak değerlendirilen Ryegrass, kuru ot olarak veya silajı yapılarak kullanılmaktadır. İtalyan çimleri, otlatma yoğunluğuna ve sıklığına karşı oldukça toleranslıdır. Ancak bitki uzunluğu 8,3 cm'den daha kısa olduğunda dönemlerde otlatma önerilmemektedir. Otlatmanın en uygun olduğu şekil, otlakların kuru iken 3-4 günde bir, nemli iken ise 2-3 günde bir otlatılması olarak önerilmektedir. İtalyan çimi nispeten yüksek N ve düşük nötral detergent fiber NDF içeriğine sahip bir bitkidir. Bitkinin nispeten düşük, NDF içeriğinin düşük olmasına ve otun daha hızlı fermentasyonuna sebep olur. Rumende daha kısa süre kalmasına bağlı olarak, yem tüketimini arttırmaktadır. Farklı biçim dönemlerinde hasat edilen İtalyan çimi kuru otu ve silajının besin madde içeriklerinin değerlendirmeye alınan bir çalışmada, bitkinin olgunlaşmasına bağlı olarak İtalyan çim kuru otlarında ham protein ve kuru madde sindiriminin azaldığı, buna karşın lignifikasyona bağlı olarak hücre çeperi fraksiyonlarının arttığı gözlemlendiği bildirilmektedir. Diğer taraftan, kaba yem kaynağı olarak İtalyan çiminin tüketilebilirliği, yüksek oranda yapısal olmayan karbonhidrat içeriğinden dolayı daha lezzetli olmasına da bağlanabilir. Bitki boyunun ortalama 73.84 cm olduğunu, yeşil ot veriminin 3150 kg/da, kuru ot veriminin 823,31 kg/da, ham protein, (NDF), acid detergent fiber (ADF) değerlerinin sırasıyla %12,85-17,13; 55,82-59,66; 26,13-29,23; olduğu bildirilmektedir.

**Anahtar Kelimeler :** Ruminant, ryegrass, besleme, NDF, ADF

## OPTIMIZING SHOOT FLY COUNTS IN RESPONSE TO DIFFERENT CLIMATIC FACTORS USING VARIABLE OPTIMIZING TOOLS

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### ABSTRACT:

Optimization of different input factors for a specific output parameter using various statistical tools is an efficient way to optimized optimum conditions. Different statistical tools like contour plots and surface plots are powerful tools for optimizing two input factors in visualized form by distributing the data into small sub-units. Contour plots displays the data into 2-D form, and surface plots into 3-D form by placing one input factor on x-axis, and other on y-axis. On the other hand, response optimizer tool allows to get the single or multiple solutions by setting the desired target or adjusting to minimum or maximum target. Keeping in view, Minitab statistical software was used for constructing both plots and response optimizer. The target for response optimizer was adjusted at zero, 100, and 200 whitefly per week. The input factors used in this study were external temperature, internal greenhouse temperature, relative humidity (RH-%), HD and radiation that were recorded for tomato greenhouse for continuous 52 weeks. Results of contour plots and surface plots distributed the data from -5000 to 5000 whitefly per week. Whereas, different variables were optimized for respective set target of white fly using response optimizer. It is concluded that statistical tools can be employed successfully for optimizing any type of numerical data related to insect pest infestation.

**Key Words:** Response optimizer, optimization, contour, surface, whitefly

## INVESTIGATING THE IMPACT OF DIFFERENT CLIMATIC PARAMETERS ON WHITE FLY COUNTS UNDER GREENHOUSE CONDITIONS

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### Abstract

Climatic conditions like temperature, relative humidity, and radiation are significant factors regulating the insect pest infestation under natural and green house conditions. Whitefly is one of the most economic insect pests affecting the plant yield of major crops. The infestation of white fly to tomato plant under green house conditions is a regular event. In this study, climatic conditions like external temperature, internal green house temperature, relative humidity (RH-%), HD and radiation were recorded on the weekly basis for 1 year (52 weeks). Whereas, traps mounted in the greenhouse were used for whitefly count on weekly basis. Results were analyzed through factorial regression analysis using Minitab statistical program. Results were also analyzed through Pareto chart and normal plot analysis. Results revealed the nonsignificant impact of linear regression analysis and also for 2-way, 3-way, 4-way, and 5-way analysis. The Pareto chart revealed the highest impact of 5-way interaction followed by 3-way interaction of ABD (external temp., internal temp., and HD). The normal plot analysis illustrated the distribution of all input factors close to the fitted line on both left and right side. It is recommended that to optimize the conditions for white fly infestation using optimizing tools.

**Key words:** white fly, climatic factors, temperature, relative humidity, radiation

## GÜL YETİŞTİRCİLİĞİNDE VERİM KAYIPLARINA NEDEN OLAN FUNGAL HASTALIKLAR FUNGAL DISEASES CAUSING YIELD LOSSES IN ROSE GROWING

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### ÖZET

Türkiye’ de gül bitkisi karanfil ve gerberadan sonra kesme çiçek olarak yetiştirilen bitkiler arasında 3. sırada yer alan çok eski bir kültür bitkisidir. Parfüm ve kozmetik sanayinin en önemli hammaddelerinden biri gül yağıdır. Bu iki sektör dışında ilaç sanayinde, likör, pasta, sakız, reçel, katkı maddesi vb. olarak da gıda sanayinde kullanılmaktadır. Üretimin % 80’ine yakını Isparta ve çevresinde, geri kalan kısmı ise Afyon, Denizli ve Burdur illerinin belli bölgelerinde yapılmaktadır. Ülke ekonomisindeki önemli paya sahip bu bitkiden yılda ortalama 1,5 ton gülyağı ve 4 ton kadar da gül konkriti üretimi ile dünya gülyağı üretiminin yaklaşık % 50’sini karşılamaktadır. Türkiye’de sera ve açıkta yapılan gül yetiştiriciliğinde bazı önemli fungal hastalıklar verim kayıplarına neden olmaktadır. En çok sorun olan fungal hastalıklar arasında Gül Küllemesi (*Sphaerotheca pannosa* var. *rosae*) ve Gül Pası (*Phragmidium mucronatum*, *P. rosae-pimpinellifoliae*, *Phragmidium* spp.) başta olmak üzere bunları Gül Kara Lekesi (*Diplocarpon rosae*), Alternaria Lekesi (*Alternaria* spp.), Kurşuni Küf (*Botrytis cinerea*), Mildiyö (*Peronospora sparsa*) ve Septoria Yaprak Lekesi (*Septoria rosae*) gibi hastalıklar takip etmektedir.

**Anahtar Kelimeler:** Gül, fungus, hastalık, verim kaybı

### ABSTRACT

In Turkey, rose plant is a very old cultivated plant which 3rd among the plants grown as cut flowers after carnation and gerbera. Rose oil is one of the most important raw materials of perfume and cosmetics industry. Apart from these two sectors, it is also used in the pharmaceutical industry and in the food industry as liquor, cake, chewing gum, jam, additive etc. Nearly 80 per cent of the production is carried out in Isparta and its surroundings and the rest in certain regions of Afyon, Denizli and Burdur provinces. This plant, which has an important share in the country's economy, meets approximately 50% of the world rose oil production with an average of 1.5 tonnes of rose oil and 4 tonnes of rose concretes per year. Some important fungal diseases cause yield losses in greenhouse and in the field rose cultivation in Turkey. Rose powdery mildew (*Sphaerotheca pannosa* var. *rosae*) and rose rust (*Phragmidium mucronatum*, *P. rosae-pimpinellifoliae*, *Phragmidium* spp.), followed by Rose Black Spot (*Diplocarpon rosae*), Alternaria Spot (*Alternaria* spp.), Grey Mould (*Botrytis cinerea*), Mildew (*Peronospora sparsa*) and Septoria Leaf Spot (*Septoria rosae*).

**Key Words:** Rose, fungi, disease, yield loss



## TELEMETRİ TEKNİĞİNİN BALIKÇILIKTA KULLANIMI

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### ÖZET

Balıkçılıkta; stok tespit çalışmalarında, balık göçlerinin izlenmesinde, balık davranışlarının incelenmesinde, balıkların hangi yaşam alanlarını tercih ettiği, yaşadıkları suyun sıcaklığı, tuzluluğu gibi fiziksel özelliklerinin tespit edilmesinde telemetri tekniğinin kullanımı söz konusu olmaktadır. Telemetri tekniği prensip olarak, canlıya yerleştirilen markanın radyo veya ses sinyallerini kullanarak gönderdiği sinyallerin bir alıcı tarafından alınması ile markalanmış olan balığın konumunun tespit edilmesi ilkesine dayanmaktadır. Bu tekniğin kullanımı, diğer markalama çalışmalarına göre çok daha detaylı ve güvenilir kabul edilmektedir. Ayrıca bu teknik ile insan gücüne bağlı çalışmayı azaltmak, zaman tasarrufu sağlamak, zaman kayıplarını minimum düzeye indirmek, düşük maliyetler ile rantabiliteyi yükseltmek gibi avantajları sıralamak mümkündür. Balıkçılıkta telemetri tekniğinin başarılı olabilmesi için kullanılan markaların ve markalama yöntemlerinin uygun olması gerekmektedir.

**Anahtar Kelimeler:** Stok, Markalama, Telemetri, Balıkçılık

### THE USE OF TELEMETRY TECHNIQUE IN FISHERIES

#### ABSTRACT

In fisheries, telemetry techniques are used in stock assessment studies, monitoring fish migrations, examining fish behavior, determining which habitats fish prefer, and determining the physical properties of the water they live in such as temperature and salinity. In principle, the telemetry technique is based on the principle of determining the location of the marked fish by receiving the signals sent by a receiver using radio or sound signals. The use of this technique is considered much more detailed and reliable than other marking techniques. In addition, with this technique, it is possible to list advantages such as reducing manpower-dependent work, saving time, minimizing time losses, increasing profitability with low costs. In order for the telemetry technique to be successful in fisheries, the brands and marking methods used must be appropriate.

**Keywords:** Stock, Marking, Telemetry, Fishing

## AKUSTİK ALETLERLE BALIK AVCILIĞI

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### ÖZET

Bu çalışmada, akustik aletlerle balık avcılığı konusunda bazı bilgilerin verilmesi amaçlanmıştır. Geleneksel balıkçılık yönetiminde, balıkçılar fiziksel olarak bu faaliyeti gerçekleştirirken, günümüzde ise teknolojik gelişmelerin modernize ettiği av gemileri ve kullanılan makineler yönünden gelişmeler göstermiştir. Bu gelişmeler avcılık operasyonuna pozitif katkı sağlamaktadırlar. Gelişen teknoloji ile balık bulucu cihazlar önem teşkil etmektedirler. Gırgır ve trol teknelerinde kullanılan balık bulucu cihazların en önemlisi sonar ya da diğer adıyla yatay balık bulucular, dikey yönde çalışan cihazlar ise Echo-Sounder ya da dikey balık bulucular olarak bilinmektedirler. Sonar ve Echo-sounder'ın kullanımı, balık avcılığında olduğu kadar, balık av araçlarının geliştirilmesi için; ağın su içindeki deformasyonunu ve balık sürüsünün su içindeki davranışlarını izlemek için de önemlidirler. Aynı zamanda bu cihazların balık avcılığında kullanılmaları, avın çabuk ve kolay bulunmasını sağlamakta ve stoklar üzerindeki av baskısının artmasına, stoklarda azalmalara neden olmaktadır.

**Anahtar Kelimeler:** Balık Bulucu Cihazlar, Sonar, Echo-sounder, Balık Avcılığı

## FISHERIES WITH ACOUSTIC DEVICES

### Abstract

In this study, it is aimed to give some information about fishing with acoustic devices. In traditional fisheries management, fishermen physically carry out this activity, while today, technological developments have shown improvements in terms of modernized fishing vessels and the machines used. These developments contribute positively to the fishing operation. Fish finder devices are important with the developing technology. The most important fish finder devices used in purse seine and trawl boats are known as sonar or horizontal fish finders, while the devices working in the vertical direction are known as Echo-Sounder or vertical fish finders. The use of sonar and echo-sounder is important not only for fishing but also for the development of fishing gear, for monitoring the deformation of the net in the water and the behavior of the fish school in the water. At the same time, the use of these devices in fisheries ensures that the prey is found quickly and easily and causes an increase in fishing pressure on stocks and a decrease in stocks.

**Keywords:** Fish Finder Devices, Sonar, Echo-sounder, Fisheries

## **A PRELIMINARY STUDY OF MINIATURIZED ANTENNAS FOR WEARABLE AND IOT DEVICES**

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### **ABSTRACT**

In our swiftly evolving wireless communication landscape and the burgeoning era of the Internet of Things (IoT), the demand for compact and efficient antennas has surged. Miniaturized antennas have emerged as a pivotal technology, enabling seamless connectivity within wearable devices and IoT applications. This study embarks on a preliminary exploration of antenna design, with a primary focus on miniaturization, and examines its profound impact on wearable technology and IoT devices. Wearable technology, encompassing smartwatches, fitness trackers, and health monitors, has revolutionized our daily lives. These diminutive yet powerful devices heavily rely on miniaturized antennas to maintain connectivity with smartphones, networks, and other devices, often within the confines of limited space. Simultaneously, the Internet of Things has ushered in an era of interconnectedness, where devices spanning from sensors to household appliances communicate seamlessly to enhance convenience, efficiency, and safety. These IoT devices demand antennas that are not just compact but also energy-efficient to extend the operational life of battery-powered devices. This study underscores the paramount importance of miniaturized antennas in the context of wearable technology and IoT devices. It delves into the intricacies of antenna design, simulation, and performance evaluation, addressing the unique challenges posed by these applications. This study succinctly summarizes key findings, notably the capability of miniaturized antennas to maintain high performance, operate across multiple frequency bands, and enhance energy efficiency. It also conscientiously discusses limitations and outlines future research avenues, such as the exploration of higher frequency bands and the integration of user-centric design principles.

**Keywords :** Miniaturized Antennas, Internet of Things (IoT), Wearable Technology

## AKILLI SAYAÇLAR VE OTOMATİK SAYAÇ OKUMA SİSTEMLERİ

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### ÖZET

Günümüzde artan nüfus ve sürekli gelişim gösteren teknolojinin artan enerji ihtiyaçları, var olan enerjinin dağıtımını noktasında yaşanan kayıpların tespitini, önlenmesini ve sınırlı enerji kaynaklarının olabildiğince verimli kullanılmasını günden güne daha önemli bir mesele haline getirmektedir. Şebekenin önemli bir bileşeni olan akıllı sayaçlar üzerinden var olan enerjinin uzaktan etkin kontrolü ve gerçek zamanlı izlenebilirliği çeşitli haberleşme protokolleri vasıtasıyla gerçekleştirilmektedir. Teknolojinin bu alanda imkân verdiği gelişim, tüketici memnuniyeti sağlanmakta ve enerji dağıtım hizmeti sağlayan firmalar odağında da rekabetçi bir ortam hazırlayarak daha kaliteli hizmet sağlama yarışına imkân vermektedir. Akıllı sayaçlar üzerinden anlık olarak enerji tüketimi izlenebilmekte okunan veriler etkin bir biçimde analiz edilmekte, bu sayede tüketim yoğunluğu olan zaman aralıkları için tüketicilerin enerji tasarrufuna yönelik farkındalığının da artırılmasına katkı sağlanabilmektedir.

**Anahtar Kelimeler:** akıllı sayaç, otomatik sayaç okuma sistemi, haberleşme teknolojisi, veri haberleşmesi.

## BALİNA OPTİMİZASYON ALGORİTMASI TEMELLİ ÖZELLİK SEÇİMİ İLE FUNDUS GÖRÜNTÜLERİNDEN GLOKOM HASTALIĞI TESPİTİ

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### ÖZET

Günümüzde, göz hastalıklarından glokomun ilk evrelerde teşhis edilmesi ve tedaviye başlanması görme kaybının önlenmesi açısından son derece önemlidir. Bu çalışmada, genel erişime açık retinal fundus görüntülerinden glokom hastalığı tespiti metasezgisel optimizasyon algoritması ile birleştirilmiş bir derin öğrenme yaklaşımının kullanıldığı bir yöntem önerilmiştir. Önerilen yöntemde, öncelikle retinal fundus görüntülerinden oluşan veri kümesinden Evrişimli Sinir Ağı mimarilerinden DenseNet201 mimarisi ile özellik çıkarımı yapılmıştır. Veri kümesinden ilgisiz özellikleri elemek ve ideal özelliklere ulaşmak için metasezgisel optimizasyon algoritmalarından Balina Optimizasyon Algoritması (BOA) kullanılmıştır. BOA farklı popülasyon büyüklüklerine göre optimal özellik seçiminde kullanılmıştır. Orijinal veri kümesi ve BOA ile özellik seçimi yapıldıktan sonra elde edilen yeni veri kümelerine Destek Vektör Makinesi, K-En Yakın Komşu, Naive Bayes, ve Topluluk Öğrenme sınıflandırıcıları uygulanmıştır. Sınıflandırma algoritmalarının performanslarının değerlendirilmesi aşamasında ise doğruluk, duyarlılık, özgüllük ve f1-ölçütü metrikleri kullanılmıştır. Elde edilen sonuçlara göre BOA ile belirlenen alt veri kümelerinden doğruluk, özgüllük ve f1-ölçütü için sırasıyla 0.9730, 0.9866 ve 0.9763 ile Topluluk Öğrenme sınıflandırıcının, duyarlılık için ise 0.9677 ile Destek Vektör Makinesi sınıflandırıcının en iyi değeri verdiği gözlemlenmiştir<sup>1</sup>.

**Anahtar Kelimeler:** Balina Optimizasyon Algoritması, Derin Öğrenme, Evrişimli Sinir Ağları, Glokom Tespiti.

<sup>1</sup> Bu çalışma, Fırat Üniversitesi, Bilimsel Araştırma Projeleri Koordinasyon Birimi (FÜBAP) tarafından MF.23.40 numaralı proje ile maddi olarak desteklenmiştir.

## CHILD-ORIENTED DESIGN IN COASTAL AREAS

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### ABSTRACT

The design of child-oriented coastal areas is a process that requires care and aims to make positive contributions to children's development. These design decisions aim to support the physical, emotional and mental development of children. While making all these design decisions, every detail in design planning should be specially designed for children. The design of child-oriented areas should be carefully planned in accordance with the needs and age groups of children. These designs aim to enrich children's play, learning and exploring experiences. Design decisions should consider safety and children's comfort. Surface materials and heights accessible to children should be carefully selected to reduce the risk of falls in play areas. Especially the presence of water element in coastal areas makes coastal areas attractive for children. The predominant blue colour, patterns and choice of materials in coastal areas affect children's emotional and mental development. For example, it is important to attract children's attention and encourage their creativity by using vibrant colours and textures. Within the scope of this study, children's playgrounds designed in coastal areas were investigated. Within the scope of this study, the design applications for different age groups for children in the areas investigated were examined. The colours and features of child-oriented designs and equipment were investigated. As a result of the study, child-oriented design decisions were combined with landscape design and suggestions were made on how areas that support children's physical, emotional and mental development should be.

**Keywords :** coastal areas, coastal recreation, child oriented design

## MULTI-RECREATIVE LAKE DESIGN; "JUMEIRAH LAKE TOWER I"

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### ABSTRACT

There may be many alternatives that an artificial lake offers and can offer to people. It can be a multi-purpose area that appeals to different uses in cities and parks. Such a lake can increase user satisfaction by offering various activities and recreation options. Alternatives such as seating units, tennis courts, cafeterias, cycling trails and walking trails can shape the user experience of the lake. The seating units at the lake offer visitors a comfortable rest and the opportunity to watch the view. These areas make it attractive for those who want to have a picnic, read a book or just want to be in touch with nature. As a result, such multipurpose uses of an artificial lake fulfil the different needs of visitors and increase user satisfaction. This type of lake allows people to interact more with nature by offering a variety of activities while promoting the overall health and well-being of the community. Urban planners and designers should consider that such versatile lakes can be a powerful resource to improve the quality of life in cities. In this study, the artificial lake located in the Jumeirah Lake Tower area in Dubai was analysed. Within the scope of this examination, the opportunities and possibilities provided by the lake's usage differences were analysed. As a result of the study, examples are given through the possibilities provided by a multi-recreational pond.

**Keywords:** multirecreational design, landscape design, usage differences

## RİJİTLİK MERKEZİ HESAP YAKLAŞIMLARININ FAKLILIKLARI

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### ÖZET

Deprem yüklemeleri altında betonarme binaların davranışını olumsuz etkileyen en önemli faktörlerden biri de kat seviyesinde gözlenen burulma olayıdır. Burulma rijitlik merkezinin kütle merkezinden uzak olduğu durumda önemli olmakta ve düşey taşıyıcı elemanlarda ilave kesme kuvveti zorlamalarına sebep olmaktadır. Bu ilave zorlamalar sebebi ile binaların özellikle dış çerçevelerindeki elemanlarda ön görülemeyen hasarlar meydana gelmektedir. Dolayısıyla rijitlik merkezinin konumu ve ilave kesme kuvvetlerinin büyüklüğünün gerçeğe yakın olarak hesaplanması önem kazanmaktadır. Bu çalışmada inşaat mühendisliği uygulamalarında sıklıkla kullanılan Sta4CAD, ProtaStructure, ideCAD ve ETABS programlarının kullandığı rijitlik merkezi hesap yöntemleri ile TBDY2018’de belirtilen yöntemin ne kadar farklı sonuçlar verdiği araştırılmaktadır. Araştırma kapsamında 2 adet simetrik bina ve üç adet asimetrik bina 3 boyutlu olarak ilgili programlar ile modellenmiş ve rijitlik merkezi hesaplanmıştır. Yapılan analizler neticesinde simetrik binalarda bütün yaklaşımların rijitlik merkezini benzer noktalarda hesapladığı, asimetrik binalarda ise rijitlik merkezi konumlarında önemli farklılıklar olduğu belirlenmiştir.

**Anahtar Kelimeler:** Rijitlik merkezi, betonarme bina, 3 boyutlu modelleme.



## KAP TİPİ VE YETİŞTİRME ORTAMININ *ULMUS GLABRA* FİDANLARININ MORFOLOJİK KARAKTERLERİ ÜZERİNE ETKİSİ

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### ÖZET

Bu çalışmada, iki farklı kap tipinde farklı orijinli torf materyallerinin dağ karaağacı (*Ulmus glabra* Huds.) fidan morfolojisi üzerine etkisi belirlenmeye çalışılmıştır. İki farklı kap tipinde (sabit ve ayırık enso kap) Patnos (Ağrı), Karaçoban (Erzurum) ve Finlandiya menşei torf materyalleri %25’lik kombinasyonlarda karıştırılarak hazırlanan 15 farklı ortamda 2 yaşındaki fidanların gelişimleri karşılaştırılmıştır. Çalışma sonucunda, kap tipi ve yetiştirme ortamlarının bazı fidan morfolojik karakterleri üzerinde etkili olduğu tespit edilmiştir. Sabit kap tipinin bazı fidan morfolojisi özellikleri (fidan boyu, kök boğaz çapı, dickson kalite indeksi ve fidan kuru ağırlığı) açısından daha iyi sonuç verdiği belirlenmiştir. Gürbüzlük indisi, kuru kök yüzdesi ve katlılık indisi açısından kap tipleri arasında farklılık görülmemiştir. Yetiştirme ortamı dikkate alındığında, sabit ve ayırık enso kap tiplerinde yerli Patnos ve Karaçoban torflarının %25-50 oranlarında ithal Finlandiya torfuna karıştırılarak oluşturulan ortamların dağ karaağacı fidan yetiştirmesinde kullanılabileceği ve bu durumun üretim maliyetlerini önemli ölçüde düşürebileceği sonucuna varılmıştır.

**Anahtar Kelimeler:** Fidan morfolojisi, kap tipi, torf, yetiştirme ortamı

## INFLUENCE OF CONTAINER TYPE AND GROWTH MEDIUM ON MORPHOLOGICAL ATTRIBUTES OF *ULMUS GLABRA* SEEDLINGS

### SUMMARY

In this study, the effects of growing media (Finland’s peat and two different local peat) and two different enso type containers on morphological attributes of container (2-0) grown Wych elm (*Ulmus glabra* Huds.) seedlings were investigated. Both container type and growth medium significantly affected the seedling growth. When two different enso type containers were examined, fixed (adjacent) enso containers are more effective than Rocket (discrete) enso containers in terms of seedling height, seedling diameter, root and shoot dry weights in Wych elm seedlings. Growing medium also significantly affected morphological attributes of container-grown seedlings. According to the results of the study, using local peat moss added to mixtures of growing media (sphagnum moss peat) did not affect negatively seedling morphological parameters. Thus, reducing sphagnum moss peat (25-50%) in growing media can reduce the production cost of seedling production.

**Keywords:** Seedling morphology, container type, peat moss, growing media

## GÜNEŞ RADYASYONUNUN SİMÜLE EDİLMESİNDE BÖLGESEL İKLİM MODELİNİN (REGCM) HASSASİYETİNİN DEĞERLENDİRİLMESİ

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### ÖZET

Bu çalışmada, İstanbul Yıldız Teknik Üniversitesi atık depolama alanının çatısına kurulu gücü 6.6 kWp olan bir GES kurularak radyasyon değerlerinin değişimi incelenmiştir. Üç aylık bir periyot (ocak-mart 2023) için yüzey güneş radyasyonu verileri alınmış ve RegCM bölgesel iklim modeli simülasyon çıktıları ile karşılaştırılmıştır. Çalışmada farklı kümülüs konveksiyon şemalarının modelin hassasiyeti üzerindeki etkisi araştırılmıştır. Bu amaçla çalışma alanında kara ve deniz üzerinde 6 farklı kümülüs şeması kombinasyonu kullanılarak 26 farklı simülasyon gerçekleştirilmiştir. Optimizasyon sonucunda modelin performansı  $R^2$ , MAE ve RMSE metrikleri kullanılarak değerlendirilmiştir. Hesaplamalara göre en uygun kümülüs şeması arazi için Grell, okyanus için ise Emanuel olduğu görülmüştür. Grell ve Emanuel kümülüs şemalarının doğruluğunu tespit etmek için 10 km, 20 km ve 50 km yatay çözünürlük için farklı optimizasyon çalışmaları yapılmıştır.

Sonuç olarak, RegCM5.0 küresel iklim modelinin 2050 yılına kadar toplam ışınsal zorlamanın  $4.5 \text{ W/m}^2$  değerine ulaşacağını varsayan RCP 4.5 senaryo çıktıları kullanılarak çalıştırılması planlanan model için yapılan optimizasyon sonucunda en uygun fiziksel parametre ve kümülüs şeması arazi parametresi için 2-Grell ve okyanus parametresi için 4-Emanuel kümülüs şemaları olduğu belirlenmiş ve en iyi sonucu verebilecek yatay çözünürlüğün ise 50 km olduğu görülmüştür.

**Anahtar Kelimeler:** Güneş enerji sistemi, Kümülüs konveksiyon şemaları, RegCM

## **MACHINE LEARNING IN OBESITY RESEARCH: A COMPREHENSIVE REVIEW**

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### **ÖZET**

Obesity represents a global health epidemic of immense proportions, with profound and far-reaching consequences for individuals and societies alike. Characterized by the excessive accumulation of adipose tissue in the body, obesity is a complex and multifactorial condition influenced by a multitude of genetic, environmental, behavioral, and metabolic factors. As a multifaceted challenge, obesity necessitates innovative and multidisciplinary approaches to comprehend its underlying mechanisms, develop effective interventions, and mitigate its adverse health outcomes. In recent years, the intersection of obesity research and machine learning (ML) has shown great promise in advancing our understanding and management of this critical public health issue. Machine learning, a subset of artificial intelligence, offers the capability to analyze vast and diverse datasets with unprecedented precision and efficiency, unveiling intricate patterns and relationships that were previously concealed. This study endeavors to provide a comprehensive review of the burgeoning field of ML in the context of obesity research.

**Keywords:** Obesity, Machine learning, Artificial intelligence.

## **DIABETES AND MACHINE LEARNING: REVOLUTIONIZING MANAGEMENT AND PREDICTION**

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### **ÖZET**

Diabetes is a global health crisis affecting millions of individuals and placing a substantial burden on healthcare systems worldwide. The management of diabetes, whether it be type 1 or type 2, requires meticulous monitoring, personalized treatment plans, and timely interventions to prevent complications. The emergence of machine learning (ML) techniques has provided a new paradigm for addressing the complexities of diabetes. This comprehensive review explores the transformative impact of ML in diabetes research, diagnosis, management, and prediction, highlighting recent breakthroughs and future directions.

**Keywords:** Diabetes, Machine learning, Artificial intelligence.

## MONTMORILLONITE NANOCLAY AND ITS APPLICATION IN MEDICAL INDUSTRY

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### ABSTRACT

Bentonite clay is a natural phyllosilicate with a layered crystal structure. Montmorillonite is the main mineral forming bentonite and is a mineral with unique properties, such as swelling and absorption. These properties have made montmorillonite widely used in medical and industrial applications. Montmorillonite nanoclay is an abundant and valuable material that is in at least one dimension of nanometers. This unique clay mineral with a specific surface area of about 750 square meters per gram has taken a very valuable position in nanotechnology. The placement of drug molecules in the nanoscale interlayer spaces of clay minerals can change their properties for biological applications. Good suspension, diffusion and dispersion properties, drug protection from degradation, increasing drug distribution from the intestinal membrane are among the positive features of montmorillonite nanoclays, which have distinguished them in the use of nanomedicine drug. Nanoclay extracted from bentonite is the most widely used clay mineral in the pharmaceutical industry. Montmorillonite has adsorbent properties to remove toxic heavy metals and can be used as a therapeutic agent. Natural clays, such as montmorillonite, can absorb metals, and this nanoclay has the ability to detoxify and be anti-viral. Clay materials, including sodium montmorillonite, have the ability to adsorb viruses. Another important medical application of montmorillonite is its use in the drug delivery system inside the body. Montmorillonite increases the rate of dissolution and bioavailability of hydrophobic drugs and causes its release in many formulations.

**Keywords:** Bentonite, Nanoclay, Montmorillonite, Medical industry, Drug delivery system.

## NANOCLAY MINERALS AND MEDICAL NANOTECHNOLOGY

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### ABSTRACT

Clay minerals are one of the most abundant minerals on earth, which, due to their very small dimensions of nanometers (at least in one dimension), have taken a special place under the name of nano-clay in various industries. These materials are a group of hydrated sheet silicate minerals - phyllosilicates and are the product of geochemical processes. Bentonite is a modified volcanic (mostly montmorillonite) that has the highest absorption properties and is one of the most useful modified clay nanoparticles in pharmaceuticals. The existence of a strong negative electrical charge in the atomic structure of clay minerals has made them one of the most important natural absorbers of body toxins. Toxic substances and pathogenic agents accumulate in the body and different tissues as positive charges, so substances with high absorption power and high specific surface can be used as organic absorbents and natural purifiers to clean pathogens of different body tissues. By modifying clay nanocomposites, it is possible to make very useful polymers that are used in the pharmaceutical industry as auxiliary materials for drug synthesis. But pure nanoclay is not only a natural healer and does not have any complications, but it is the most important and richest supplier of cations and essential and vital elements of various body organs. Preparation of medicinal composites based on clay minerals with the help of nanotechnology is a very valuable step in the medical and pharmaceutical industries of the world today.

**Keywords:** Nanotechnology, Clay minerals, Nanoclay, Montmorillonite, Medical industry.

## STRUCTURAL ANALYSIS AND POLARIZABILITY-HYPERPOLARIZABILITY CALCULATIONS FOR RUTHENIUM-BASED DYE SENSITIZER CONFORMERS

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### ABSTRACT

The structural properties, and nonlinear optical properties of ruthenium-based conformers, which are sensitizer materials in dye-sensitized solar cells (DSSC), were examined in this study. Using Density Functional Theory, the most stable possible structures of DSSC sensitizer conformers in terms of metal-ligand interactions were tested. Within the scope of structural features, detailed conformational analysis of the sensitizer was performed and metal–ligand interaction energies were calculated. Structurally, the *C1* conformer has effective metal-ligand binding energies, stronger intra-complex and more hydrogen bonds. In addition, the regions where the receiver and donor groups focus for the DSSC sensitizer are also simulated. Since  $\pi$ -conjugated systems exhibit highly nonlinear optical effects, static/dynamic polarizability and hyperpolarizability analyzes were performed for *C1*, *C2* and *C3* sensitizers. Dynamic calculations are frequency dependent values and calculated at  $\lambda = 532.2$  nm. With the calculation results, the rankings of the sensitizing materials were interpreted in terms of static and dynamic values of the average polarization. The first and second hyperpolarizability gamma results were evaluated in static and dynamic calculations. The values obtained in our study show that the optical effects of ruthenium-based sensitizers can be increased with their structural properties.

**Keywords:** Ru-Based Sensitizers, Hyperpolarizability, Conformational Analysis

## FEATURES OF MINDFULNESS IN JUNIOR AND ADULT BASKETBALL PLAYERS

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### ABSTRACT

**Purpose and background:** Mindfulness training is a set of techniques and strategies that help to regulate negative psychological factors that interfere with training, preparation and competition. Anxiety, psychological strain and frustration have the greatest negative impact on the pursuit of athletic excellence. Many professional athletes (including basketball players) face high psychological strain and experience constant tension or stress, as they are often unable to focus solely on sporting activities, but have to combine sport with other commitments. Therefore, mindfulness skills are considered essential in the process of developing sporting excellence. The aim of the study was to analyze the features of mindfulness in junior and adult basketball players. **Methods and organization of the study:** For the evaluation of mindfulness skills, the Toronto Mindfulness Scale (TMS) has been chosen. The Toronto Mindfulness Scale is a 13-item measure of mindfulness state using a 5-point Likert-type scale. Each item is asked to be rated on a Likert-type scale ranging from 'strongly disagree (0)' to 'strongly agree (4)'. The scale has two subscales: one is curiosity and the second – decentering (external observation). Cronbach's alpha ranges from 0.83 to 0.87 for subscales. There were tested 52 junior players and 51 adult basketball players. **Results:** When examining mindfulness skills among junior and adult basketball players, it was observed that junior players scored significantly higher in both decentering ( $p < 0.05$ ) and curiosity ( $p < 0.05$ ) when compared. **Conclusions:** Adolescents (junior athletes) are often in a stage of personal growth and self-observation, which can naturally lead to increased decentering and curiosity regarding their abilities and potential.

**Keywords:** mindfulness, adult and junior age, basketball.



## KALP ve DAMAR CERRAHİSİ UYGULANAN HASTALARIN SAĞLIK PERSONELİNE GÜVEN DÜZEYİ VE İYİLEŞME DURUMLARININ DEĞERLENDİRİLMESİ

**Cem ATİK**

**Özel Yeni Hayat Hastanesi Kalp ve Damar Cerrahisi Kliniği, Osmaniye, Türkiye**

**Amaç:** Güven duygusunun bakım ve tedavi sürecine olumlu katkı sağlayacağı ve ameliyat sonrası süreçte iyileşmeyi kolaylaştıracağı düşünülmektedir. Bu nedenle bu çalışmada, kalp ve damar cerrahisi uygulanan hastalarda sağlık personeline güven düzeyinin, ameliyat sonrası süreçte iyileşmeye etkisini araştırmak amaçlandı.

**Yöntem:** Çalışma tanımlayıcı niteliktedir. Kalp cerrahisi uygulanan bir sağlık kuruluşundaki çalışmaya katılmayı kabul eden hastalar çalışmaya dahil edilmiştir. Toplam 88 hasta (46 kalp cerrahisi uygulanan hasta, 42 damar cerrahisi uygulanan hasta) çalışmaya dahil edildi. Veri toplamada Genelleştirilmiş Güven Ölçeği (puan arttıkça güven düzeyi artar) ve Ameliyat Sonrası İyileşme İndeksi (puan azaldıkça iyileşme kolaylaşır) kullanıldı. Veriler istatistik paket programında değerlendirildi.

**Bulgular:** Hastaların verdiği cevaplara göre Genelleştirilmiş Güven Ölçeği puan ortalaması  $56 \pm 32,12$  (erkek:  $58 \pm 35,82$ , kadın:  $53 \pm 31,22$ ) olarak oldukça yüksek düzeyde olduğu belirlendi. Ameliyat Sonrası İyileşme İndeksi  $1,6 \pm 0,43$  olarak belirlendi. Genelleştirilmiş Güven Ölçeği ile Ameliyat Sonrası İyileşme İndeksi arasındaki ilişkiye bakıldığında, güven ölçeği puan ortalaması arttıkça, iyileşme endeksi puanının düştüğü görüldü.

**Sonuç:** Elde edilen sonuçlara göre sağlık çalışanlarına güven düzeyi düzeye arttıkça ameliyat sonrası iyileşme sürecinin daha kolay olduğu söylenebilir.

**Anahtar kelimeler:** kalp cerrahisi, damar cerrahisi, güven, iyileşme.

## ORTOPEDİ HASTALARINDA SOSYAL DESTEK VE MANEVİYATIN AMELİYAT ÖNCESİ CERRAHİ KORKUDAKİ ROLÜ

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### ÖZET

**Amaç:** Ortopedi hastalarında, sosyal destek ve maneviyat ile cerrahi korku arasındaki ilişkinin incelenmesi amacıyla yapılacaktır.

**Gereç ve Yöntemler:** Tanımlayıcı kesitsel tipte olan araştırma bir şehir hastanesinin ortopedi kliniğinde, 180 hasta ile yapılmıştır. Araştırmanın verileri “Kişisel Bilgi Formu”, “Cerrahi Korku Ölçeği”, “Çok Boyutlu Algılanan Sosyal Destek Ölçeği”, “Manevi İyilik Hali Ölçeği FACIT-SP 12 Ölçeği ile toplanmıştır. Çalışma verileri değerlendirilirken kategorik değişkenler için sıklıklar (sayı, yüzde), sayısal değişkenler için ise tanımlayıcı istatistikler (ortalama, standart sapma) verilmiştir. İstatistiksel anlamlılık 0,05 düzeyinden yorumlanmıştır.

**Bulgular:** Araştırmada hastaların yaş ortalaması  $56,07 \pm 15,94$ 'tür. Hastaların Çok Boyutlu Algılanan Sosyal Destek Ölçeği puanları  $55,62 \pm 24,31$ , Manevi İyilik Hali Ölçeği FACIT-SP 12 puanları  $33,45 \pm 10,04$  ve Cerrahi Korku Ölçeği puanları ise  $34,13 \pm 20,25$ 'tir. Araştırmada Çok Boyutlu Algılanan Sosyal Destek Ölçeği ve Manevi İyilik Hali Ölçeği FACIT-SP 12 puanlarının Cerrahi Korku Ölçeği puanları üzerinde istatistiksel olarak anlamlı etkisi bulunmaktadır ( $p < 0,05$ ). Manevi İyilik Hali Ölçeği FACIT-SP 12 puanları bir birim arttığında Cerrahi Korku Ölçeği puanları 0,809 azalmaktadır ( $\beta = -0,809$ ).

**Sonuç:** Araştırmada ortopedi hastalarında sosyal destek varlığı ve manevi iyilik hali puanlarının yüksek olmasının cerrahi korkuyu azalttığı tespit edilmiştir.

**Anahtar kelimeler:** Ortopedi, Sosyal destek, Maneviyat, Cerrahi korku, Hemşirelik

## JİNEKOLOJİK ONKOLOJİK VE VAJEN /VULVA CERRAHİSİNE İLİŞKİN KANITA DAYALI ÖNERİLER

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### ÖZET

Cerrahi süreç boyunca verilen perioperatif bakımın kalitesi komplikasyon görülme oranını, iyileşme sürecini ve hasta taburculuk süresini doğrudan etkileyen bir faktördür. Perioperatif süreçte verilen bakım kanıta dayalı uygulamalar takip edilerek gerçekleşirse daha güvenli ve kaliteli bir zeminde hasta çıktılarına yansır. Bu bağlamda; profesyonel bakımın hasta üzerindeki olumlu etkileri göz önünde bulunarak 1990 yılında Prof. Henrik Kehlet tarafından Cerrahi Sonrası Hızlı İyileşme Protokolü/Enhanced Recovery After Surgery/ERAS oluşturulmuştur. Protokol üzerine farklı cerrahi dallarında çalışmalar yapılmış 2016 yılında jinekolojik cerrahi üzerine çalışılmaya başlanılmış, 2019 yılında jinekolojik onkolojik kılavuz güncellenmiştir. Protokol ameliyat öncesinde poliklinik sürecinde başlayan ve taburculuk sonrası evde takip ile biten ve her aşamada tanımlanmış kanıta dayalı önerileri içeren, multidisipliner bir yaklaşımı gerektiren bir süreçtir. Bu çalışmada jinekolojik onkolojik ve vajen /vulva cerrahisine ilişkin kanıta dayalı öneriler, rehberlere yön veren çalışmalar ışığında incelenerek derlenmiştir. Kanıta dayalı öneriler, ERAS perspektifiyle ameliyat öncesi, sırası ve ameliyat sonrası dönemlere kategorize edilerek güncel literatür ile sunulmaya çalışılmıştır. Bu derlemede, sağlık bakım hizmetlerini geleneksel uygulamalar yerine maliyeti, hastanede kalış süresini, komplikasyon ve morbidite oranlarını azaltan, güvenli, etkili ve hasta memnuniyetini arttıran kaliteli bir temele dayandırmak amaçlanmıştır.

**Anahtar Kelimeler:** Jinekolojik Onkoloji, Vulva, ERAS,

## **EVIDENCE-BASED RECOMMENDATIONS FOR GYNECOLOGICAL ONCOLOGIC AND VAGEN / VULVA SURGERY**

### **ABSTRACT**

The quality of perioperative care provided throughout the surgical process is a factor that directly affects the rate of complications, recovery process and patient discharge time. If the care given during the perioperative period is provided by following evidence-based practices, it will be reflected in patient outcomes on a safer and higher quality basis. In this context; Considering the positive effects of professional care on the patient, Prof. Rapid Recovery After Surgery Protocol / Enhanced Recovery After Surgery / ERAS was created by Henrik Kehlet. Studies on the protocol have been carried out in different branches of surgery. Work on gynecological surgery started in 2016, and the gynecological oncology guide was updated in 2019. The protocol is a process that requires a multidisciplinary approach, starting in the outpatient clinic before surgery and ending with home follow-up after discharge, and includes evidence-based recommendations defined at each stage. In this study, evidence-based recommendations regarding gynecological oncology and vaginal/vulva surgery were reviewed and compiled in the light of the studies that guide the guidelines. Evidence-based recommendations have been tried to be presented with the current literature by categorizing the preoperative, intraoperative and postoperative periods from the ERAS perspective. In this review, it is aimed to base health care services on a quality basis that reduces cost, hospital stay, complication and morbidity rates, is safe, effective and increases patient satisfaction, instead of traditional practices.

**Key Words:** Gynecological Oncology, Vulva, ERAS

## NORMAL DOĞUM EYLEMİNİN DÖRDÜNCÜ EVRESİNDE VE DOĞUM SONRASI DÖNEMDE KANITA DAYALI UYGULAMALAR

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### ÖZET

Normal doğumun dördüncü evresi ve doğum sonrası müdahalelerin gerekliliğini doğrulayabilmek için kullanılacak uygulamaların etkinliklerine ilişkin iyi kanıtların olması gerekmektedir. Dünya Sağlık Örgütü (DSÖ) ve National Institute for Health and Clinical Excellence (NICE) gibi kuruluşların yayınladığı rehberlerin göz önünde bulundurulması gerekir. Bu rehberlerinin uygulamaya konulması ve bu kadınlara bakım ve danışmanlığın temelini oluşturması önemlidir. Doğumun dördüncü evresinde kanıta dayalı veriler uterotoniklerin kullanımı ve uterus masajı ile doğum sonu kanamayı önemli ölçüde kontrol altına almaktadır. Doğum sonu enfeksiyonlarla ilgili kanıt temelli uygulamalar maternal sağlığı olumlu yönde etkilemektedir. Yenidoğanda ten tene temas ile anne-bebek bağlanmasının arttığı, anne ve bebeğin anksiyete düzeylerinin düştüğü görülmektedir. Ayrıca etkin emzirme ile yenidoğan morbidite ve mortalite oranlarında ciddi düşüşler sağlandığı da bildirilmektedir. Gebelikler arası sürenin iki yıldan az olmaması, daha sağlıklı ve planlı gebelikler için uygun aile planlaması hizmetlerinin de verilmesi gereklidir. Doğum sonu dönemde yaşanan sorunlar için en iyi çözüm odağı ebe ve hemşirelerdir. Anne ve yenidoğana özgü bakımın planlanması ve uygulanması, ağrı ve komplikasyonların azaltılması, psikososyal uyumun sağlanması gibi pek çok sorumlulukları vardır. Annelere bu süreçte rehberlik edilmesi önemlidir. Rehberliğin ise kanıta dayalı uygulamalarla desteklenmesi gerekir.

**Anahtar Kelimeler: Ebe, Hemşire, Doğum, Kanıt**

## **EVIDENCE-BASED PRACTICES IN THE FOURTH STAGE OF NORMAL BIRTH AND THE POSTPARTUM PERIOD**

### **ABSTRACT**

In order to verify the necessity of interventions during the fourth stage of normal birth and after birth, there must be good evidence regarding the effectiveness of the applications to be used. Guidelines published by organizations such as the World Health Organization (WHO) and the National Institute for Health and Clinical Excellence (NICE) should be taken into consideration. It is important that these guidelines are put into practice and form the basis of care and counseling for these women. In the fourth stage of labor, evidence-based data show that the use of uterotonics and uterine massage significantly controls postpartum bleeding. Evidence-based practices regarding postpartum infections positively affect maternal health. It is observed that mother-baby bonding increases with skin-to-skin contact in the newborn and the anxiety levels of the mother and baby decrease. It is also reported that effective breastfeeding significantly reduces neonatal morbidity and mortality rates. The period between pregnancies should not be less than two years, and appropriate family planning services should be provided for healthier and planned pregnancies. The best solution for problems experienced in the postpartum period is midwives and nurses. They have many responsibilities, such as planning and implementing maternal and newborn-specific care, reducing pain and complications, and ensuring psychosocial harmony. It is important to guide mothers through this process. Guidance must be supported by evidence-based practices.

**Key Words: Midwife, Nurse, Birth, Evidence**

## **Analysis of Different Designed Landing Gears for a Light Aircraft**

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### **Abstract:**

The design of a landing gear is one of the fundamental aspects of aircraft design. The need for a light weight, high strength, and stiffness characteristics coupled with techno economic feasibility are a key to the acceptability of any landing gear construction. In this paper, an approach for analyzing two different designed landing gears for an unmanned aircraft vehicle (UAV) using advanced CAE techniques will be applied. Different landing conditions have been considered for both models. The maximum principle stresses for each model along with the factor of safety are calculated for every loading condition. A conclusion is drawing about better geometry.

**Keywords:** Landing Gear, Model, Finite Element Analysis, Aircraft.

## CONCEPTUAL DESIGN OF AN AIRFOIL WITH TEMPERATURE-RESPONSIVE POLYMER

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### Abstract:

The accelerated growth in aircraft industries desire effectual schemes, programs, innovative designs of advanced systems and facilities to accomplish the augmenting need for home-free air transportation. In this paper, a contemporary conceptual design of a cambered airfoil has been proposed in order to providing augmented effective lift force relative to the airplane, and to eliminating drawbacks and limitations of an airfoil in a commercial airplane by using a kind of smart materials. This invention of an unsymmetrical airfoil structure utilizes the amplified air momentum around the airfoil and increased camber length to providing improved aircraft performance and assist to enhancing the reliability of the aircraft components. Moreover, this conjectured design helps to reducing airplane weight and total drag.

**Keywords:** Collector electrode, corona electrode, Temperature responsive polymer and ultra-faims microchip.



## CONCENTRATED SOLAR POWER UTILIZATION IN SPACE VEHICLES PROPULSION AND POWER GENERATION

Maged A. Mossallam

### Abstract:

The objective from this paper is to design a solar thermal engine for space vehicles orbital control and electricity generation. A computational model is developed for the prediction of the solar thermal engine performance for different design parameters and conditions in order to enhance the engine efficiency. The engine is divided into two main subsystems. First, the concentrator dish which receives solar energy from the sun and reflects them to the cavity receiver. The second one is the cavity receiver which receives the heat flux reflected from the concentrator and transfers heat to the fluid passing over. Other subsystems depend on the application required from the engine. For thrust application, a nozzle is introduced to the system for the fluid to expand and produce thrust. Hydrogen is preferred as a working fluid in the thruster application. Results model developed is used to determine the thrust for a concentrator dish 4 meters in diameter (provides 10 kW of energy), focusing solar energy to a 10 cm aperture diameter cavity receiver. The cavity receiver outer length is 50 cm and the internal cavity is 47 cm in length. The suggested design material of the internal cavity is tungsten to withstand high temperature. The thermal model and analysis shows that the hydrogen temperature at the plenum reaches 2000oK after about 250 seconds for hot start operation for a flow rate of 0.1 g/sec. Using solar thermal engine as an electricity generation device on earth is also discussed. In this case a compressor and turbine are used to convert the heat gained by the working fluid (air) into mechanical power. This mechanical power can be converted into electrical power by using a generator.

**Keywords:** Concentrated Solar Energy, Orbital Control, Power Generation, Solar Thermal Engine, Space Vehicles Propulsion

## OPTIMIZATION OF MULTIFUNCTIONAL BATTERY STRUCTURES FOR MARS

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### Abstract:

Multifunctional structures are a potentially disruptive technology that allows for significant mass savings on spacecraft. The specific concept addressed herein is that of a multifunctional power structure. In this paper, a parametric optimisation of the design of such a structure that uses commercially available battery cells is presented. Using numerical modelling, it was found that there exists several trade-offs about the conflict between the capacity of the panel and its mechanical properties. It was found that there is no universal optimal location for the cells. Placing them close to the mechanical interfaces increases loading in the mechanically weak cells whereas placing them at the centre of the panel increases the stress in the panel and reduces the stiffness of the structure.

**Keywords:** Design Optimization, Multifunctional Structures, Power Storage.

## MODELING AND CONTROL OF A QUADROTOR UAV WITH AERODYNAMIC CONCEPTS

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### Abstract:

This paper presents preliminary results on modeling and control of a quadrotor UAV. With aerodynamic concepts, a mathematical model is firstly proposed to describe the dynamics of the quadrotor UAV. Parameters of this model are identified by experiments with Matlab Identify Toolbox. A group of PID controllers are then designed based on the developed model. To verify the developed model and controllers, simulations and experiments for altitude control, position control and trajectory tracking are carried out. The results show that the quadrotor UAV well follows the referenced commands, which clearly demonstrates the effectiveness of the proposed approach.

**Keywords:** Quadrotor UAV, Modeling, Control, Aerodynamics, System Identification.

## TOPOLOGY OPTIMIZATION OF AIRCRAFT FUSELAGE STRUCTURE

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### Abstract:

Topology Optimization is defined as the method of determining optimal distribution of material for the assumed design space with functionality, loads and boundary conditions [1]. Topology optimization can be used to optimize shape for the purposes of weight reduction, minimizing material requirements or selecting cost effective materials [2]. Topology optimization has been implemented through the use of finite element methods for the analysis, and optimization techniques based on the method of moving asymptotes, genetic algorithms, optimality criteria method, level sets and topological derivatives. Case study of Typical "Fuselage design" is considered for this paper to explain the benefits of Topology Optimization in the design cycle. A cylindrical shell is assumed as the design space and aerospace standard pay loads were applied on the fuselage with wing attachments as constraints. Then topological optimization is done using Finite Element (FE) based software. This optimization results in the structural concept design which satisfies all the design constraints using minimum material.

**Keywords:** Fuselage, Topology optimization, payloads, design optimization, Finite Element Analysis.

## SMALL SATELLITE MODELLING AND ATTITUDE CONTROL USING FUZZY LOGIC

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### Abstract:

Small satellites have become increasingly popular recently as a means of providing educational institutes with the chance to design, construct, and test their spacecraft from beginning to the possible launch due to the low launching cost. This approach is remarkably cost saving because of the weight and size reduction of such satellites. Weight reduction could be realised by utilising electromagnetic coils solely, instead of different types of actuators. This paper describes the restrictions of using only “Electromagnetic” actuation for 3D stabilisation and how to make the magnetorquer based attitude control feasible using Fuzzy Logic Control (FLC). The design is developed to stabilize the spacecraft against gravity gradient disturbances with a three-axis stabilizing capability.

**Keywords:** Fuzzy, Attitude Control, Small Satellite, Fuzzy Logic Control, Electromagnetic, Magnetic Control.

## **THE IMPACT OF STAKEHOLDER COMMUNICATION STRATEGIES ON CONSUMERS- ACCEPTANCE AND FINANCIAL PERFORMANCE: IN THE CASE OF FERTILIZER INDUSTRY IN MALAYSIA**

Hasnida Abdul Wahab, Shahrina Md Nordin, Lai Fong Woon, Hasrina Mustafa

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### **Abstract:**

There has been a growing emphasis in communication management from simple coordination of promotional tools to a complex strategic process. This study will examine the current marketing communications and engagement strategies used in addressing the key stakeholders. In the case of fertilizer industry in Malaysia, there has been little empirical research on stakeholder communication when major challenges facing the modern corporation is the need to communicate its identity, its values and products in order to distinguish itself from competitors. The study will employ both quantitative and qualitative methods and the use of Structural Equation Modeling (SEM) to establish a causal relationship amongst the key factors of stakeholder communication strategies and increment in consumers- choice/acceptance and impact on financial performance. One of the major contributions is a conceptual framework for communication strategies and engagement in increasing consumers- acceptance level and the firm-s financial performance.

**Keywords:** Consumers' acceptance, financial performance, stakeholder communication strategies.

## **ANALYSIS OF RUBBER WASTE UTILIZATION AT PANDORA PRODUCTION COMPANY LIMITED**

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### **Abstract:**

The eco-efficient use of “waste” makes sense from economic, social, and environmental perspectives. By efficiency diverting “waste” products back into useful and/or profitable inputs, industries and entire societies can reap the benefits of improved financial profit, decreased environmental degradation, and overall well-being of humanity. In this project, several material flows at Company Limited were investigated. Principles of “industrial ecology” were applied to improve the management of waste rubbers that are used in the jewelry manufacturing process. complete this project, a brief engineering analysis stream, and investigated eco-efficient principles for more efficient handling of the materials and wastes were conducted, and the result were used to propose implementation strategies.

**Keywords:** Rubber, ecology, waste.

## **THE STUDY OF PUBLIC CONSCIOUSNESS OF UNDERGRADUATE STUDENTS, SUAN SUNANDHA RAJABHAT UNIVERSITY**

Nantida Otakum

### **Abstract:**

The purpose of the study is to study the level of public consciousness of Suan Sunandha Rajabhat University undergraduate students. This study also compares differences in the level of public consciousness among undergraduate students who are different in sex and year of study. The research methodology employed a questionnaire as a quantitative method. The respondents were undergraduate students at Suan Sunandha Rajabhat University. Totally, 400 usable questionnaires were received. Descriptive and inferential statistics were used in data analysis. The results showed that the level of public consciousness of undergraduate students was at a good level in all aspects. The aspect of social participation was at the highest level, while the aspect of shared vision was at the lowest level. The results also indicated that undergraduate students with differences in sex and year of study were not significantly different in public consciousness level.

**Keywords:** Participation, public consciousness, Suan Sunandha Rajabhat University, undergraduate students.



## HYBRID ENERGY SUPPLY WITH DOMINANTLY RENEWABLE OPTION FOR SMALL INDUSTRIAL COMPLEX

Tomislav Stambolic, Anton Causevski

### Abstract:

The deficit of power for electricity demand reaches almost 30% for consumers in the last few years. This reflects with continually increasing the price of electricity, and today the price for small industry is almost 110Euro/MWh. The high price is additional problem for the owners in the economy crisis which is reflected with higher price of the goods. The paper gives analyses of the energy needs for real agro complex in Macedonia, private vinery with capacity of over 2 million liters in a year and with self grapes and fruits fields. The existing power supply is from grid with 10/04 kV transformer. The geographical and meteorological condition of the vinery location gives opportunity for including renewable as a power supply option for the vinery complex. After observation of the monthly energy needs for the vinery, the base scenario is the existing power supply from the distribution grid. The electricity bill in small industry has three factors: electricity in high and low tariffs in kWh and the power engaged for the technological process of production in kW. These three factors make the total electricity bill and it is over 110 Euro/MWh which is the price near competitive for renewable option. On the other side investments in renewable (especially photovoltaic (PV)) has tendency of decreasing with price of near 1,5 Euro/W. This means that renewable with PV can be real option for power supply for small industry capacities (under 500kW installed power). Therefore, the other scenarios give the option with PV and the last one includes wind option. The paper presents some scenarios for power supply of the vinery as the followings: • Base scenario of existing conventional power supply from the grid • Scenario with implementation of renewable of Photovoltaic • Scenario with implementation of renewable of Photovoltaic and Wind power The total power installed in a vinery is near 570 kW, but the maximum needs are around 250kW. At the end of the full paper some of the results from scenarios will be presented. The paper also includes the environmental impacts of the renewable scenarios, as well as financial needs for investments and revenues from renewable.

**Keywords:** Energy, Power Supply, Renewable, Efficiency.

## **A STATISTICAL PREDICTION OF LIKELY DISTRESS IN NIGERIA BANKING SECTOR USING A NEURAL NETWORK APPROACH**

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### **Abstract:**

One of the most significant threats to the economy of a nation is the bankruptcy of its banks. This study evaluates the susceptibility of Nigerian banks to failure with a view to identifying ratios and financial data that are sensitive to solvency of the bank. Further, a predictive model is generated to guide all stakeholders in the industry. Thirty quoted banks that had published Annual Reports for the year preceding the consolidation i.e. year 2004 were selected. They were examined for distress using the Multilayer Perceptron Neural Network Analysis. The model was used to analyze further reforms by the Central Bank of Nigeria using published Annual Reports of twenty quoted banks for the year 2008 and 2011. The model can thus be used for future prediction of failure in the Nigerian banking system.

**Keywords:** Bank, Bankruptcy, Financial Ratios, Neural Network, Multilayer Perceptron, Predictive Model

## **EFFICIENCY IN URBAN GOVERNANCE TOWARDS SUSTAINABILITY AND COMPETITIVENESS OF CITY : A CASE STUDY OF KUALA LUMPUR**

Hamzah Jusoh, Azmizam Abdul Rashid

### **Abstract:**

Malaysia has successfully applied economic planning to guide the development of the country from an economy of agriculture and mining to a largely industrialised one. Now, with its sights set on attaining the economic level of a fully developed nation by 2020, the planning system must be made even more efficient and focused. It must ensure that every investment made in the country, contribute towards creating the desirable objective of a strong, modern, internationally competitive, technologically advanced, post-industrial economy. Cities in Malaysia must also be fully aware of the enormous competition it faces in a region with rapidly expanding and modernising economies, all contending for the same pool of potential international investments. Efficiency of urban governance is also fundamental issue in development characterized by sustainability, subsidiarity, equity, transparency and accountability, civic engagement and citizenship, and security. As described above, city competitiveness is harnessed through 'city marketing and city management'. High technology and high skilled industries, together with finance, transportation, tourism, business, information and professional services shopping and other commercial activities, are the principal components of the nation-s economy, which must be developed to a level well beyond where it is now. In this respect, Kuala Lumpur being the premier city must play the leading role.

**Keywords:** Economic planning, sustainability, efficiency, urban governance and city competitiveness.

## **A Study of Neuro-Fuzzy Inference System for Gross Domestic Product Growth Forecasting**

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### **Abstract:**

In this paper we present a Adaptive Neuro-Fuzzy System (ANFIS) with inputs the lagged dependent variable for the prediction of Gross domestic Product growth rate in six countries. We compare the results with those of Autoregressive (AR) model. We conclude that the forecasting performance of neuro-fuzzy-system in the out-of-sample period is much more superior and can be a very useful alternative tool used by the national statistical services and the banking and finance industry.

**Keywords:** Autoregressive model, Forecasting, Gross DomesticProduct, Neuro-Fuzzy

## **Risk of Late Payment in the Malaysian Construction Industry**

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### **Abstract:**

The purpose of this study is to identify the underlying causes of late payment from the contractors- perspective in the Malaysian construction industry and to recommend effective solutions to mitigate late payment problems. The target groups of respondents in this study were Grades G3, G5, G6 and G7 contractors with specialization in building works and civil engineering works registered with the Construction Industry Development Board (CIDB) in Malaysia. Results from this study were analyzed with Statistical Package for the Social Science (SPSS 15.0). From this study, it was found that respondents have highest ranked five significant variables out of a total of forty-one variables which can caused late payment problems: a) cash flow problems due to deficiencies in client-s management capacity (mean = 3.96); b) client-s ineffective utilization of funds (mean = 3.88); c) scarcity of capital to finance the project (mean = 3.81); d) clients failure to generate income from bank when sales of houses do not hit the targeted amount (mean=3.72); and e) poor cash flow because of lack of proper process implementation, delay in releasing of the retention monies to contractor and delay in the evaluation and certification of interim and final payment (mean = 3.66).

**Keywords:** Underlying causes, late payment, constructionindustry, Malaysia.

## THE CURRENT IMPLEMENTATION STATUS OF MANUFACTURING CONTROL SYSTEMS FOR A KEY MANUFACTURING INDUSTRY

Rajab Abdullah Hokoma

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### Abstract:

Manufacturing, production and service industries within Libya have struggled with many problems during the past two decades due to many difficulties. These problems have created a negative impact on the productivity and utilization of many industries around the country. This paper studies the implementation levels of the manufacturing control systems known as Manufacturing Resource Planning (MRPII) being adapted within some Libyan industries. A survey methodology has been applied for this research, based on the survey analysis, the results pointed out that the system within these industries has a modest strategy towards most of the areas that are considered as being very crucial in implementing these systems successfully. The findings also show a variation within these implementation levels with a respect to the key-elements that related to MRPII, giving the highest levels in the emphasise on financial data accuracy. The paper has also identified limitations within the investigated manufacturing and managerial areas and has pointed to where senior managers should take immediate actions in order to achieve effective implementation of MRPII within their business area.

**Keywords:** Control, Industry, Manufacturing, Survey, System

## ONE-POT FACILE SYNTHESIS OF N-DOPED GRAPHENE SYNTHESIZED FROM PARAPHENYLENEDIAMINE AS METAL-FREE CATALYSTS FOR THE OXYGEN REDUCTION USED FOR ALKALINE FUEL CELLS

Leila Samiee, Amir Yadegari, Saeedeh Tasharrofi

### Abstract:

In the work presented here, nitrogen-doped graphene materials were synthesized and used as metal-free electrocatalysts for oxygen reduction reaction (ORR) under alkaline conditions. Paraphenylenediamine was used as N precursor. The N-doped graphene was synthesized under hydrothermal treatment at 200°C. All the materials have been characterized by X-ray diffraction (XRD), Fourier transform infrared spectroscopy (FTIR), Transmission electron microscopy (TEM) and X-ray photo-electron spectroscopy (XPS). Moreover, for electrochemical evaluation of samples, Rotating Disk electrode (RDE) and Cyclic Voltammetry techniques (CV) were employed. The resulting material exhibits an outstanding catalytic activity for the oxygen reduction reaction (ORR) as well as excellent resistance towards methanol crossover effects, indicating their promising potential as ORR electrocatalysts for alkaline fuel cells.

**Keywords:** Alkaline fuel cell, graphene, metal-free catalyst, paraphenylenediamine.

## **Material Selection for Footwear Insole Using Analytical Hierarchal Process**

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### **Abstract:**

Product performance depends on the type and quality of its building material. Successful product must be made using high quality material, and using the right methods. Many foot problems took place as a result of using poor insole material. Therefore, selecting a proper insole material is crucial to eliminate these problems. In this study, the analytical hierarchy process (AHP) is used to provide a systematic procedure for choosing the best material adequate for this application among three material alternatives (polyurethane, poron, and plastzote). Several comparison criteria are used to build the AHP model including: density, stiffness, durability, energy absorption, and ease of fabrication. Poron was selected as the best choice. Inconsistency testing indicates that the model is reasonable, and the materials alternative ranking is effective.

**Keywords:** Materials selection, biomedical insole, footwear insole, AHP.



## Effects of Test Environment on the Sliding Wear Behaviour of Cast Iron, Zinc-Aluminium Alloy and Its Composite

Mohammad M. Khan, Gajendra Dixit

### Abstract:

Partially lubricated sliding wear behaviour of a zinc-based alloy reinforced with 10wt% SiC particles has been studied as a function of applied load and solid lubricant particle size and has been compared with that of matrix alloy and conventionally used grey cast iron. The wear tests were conducted at the sliding velocities of 2.1m/sec in various partial lubricated conditions using pin on disc machine as per ASTM G-99-05. Base oil (SAE 20W-40) or mixture of the base oil with 5wt% graphite of particle sizes (7-10  $\mu\text{m}$ ) and (100  $\mu\text{m}$ ) were used for creating lubricated conditions. The matrix alloy revealed primary dendrites of  $\alpha$  and eutectoid  $\alpha + \text{h}$  and  $\hat{\text{I}}$  phases in the Inter dendritic regions. Similar microstructure has been depicted by the composite with an additional presence of the dispersoid SiC particles. In the case of cast iron, flakes of graphite were observed in the matrix; the latter comprised of (majority of) pearlite and (limited quantity of) ferrite. Results show a large improvement in wear resistance of the zinc-based alloy after reinforcement with SiC particles. The cast iron shows intermediate response between the matrix alloy and composite. The solid lubrication improved the wear resistance and friction behaviour of both the reinforced and base alloy. Moreover, minimum wear rate is obtained in oil+ 5wt % graphite (7-10  $\mu\text{m}$ ) lubricated environment for the matrix alloy and composite while for cast iron addition of solid lubricant increases the wear rate and minimum wear rate is obtained in case of oil lubricated environment. The cast iron experienced higher frictional heating than the matrix alloy and composite in all the cases especially at higher load condition. As far as friction coefficient is concerned, a mixed trend of behaviour was noted. The wear rate and frictional heating increased with load while friction coefficient was affected in an opposite manner. Test duration influenced the frictional heating and friction coefficient of the samples in a mixed manner.

**Keywords:** Solid lubricant, sliding wear grey cast iron, zinc based metal matrix composites.

## **Prediction of Cutting Tool Life in Drilling of Reinforced Aluminum Alloy Composite Using a Fuzzy Method**

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### **Abstract:**

Machining of Metal Matrix Composites (MMCs) is very significant process and has been a main problem that draws many researchers to investigate the characteristics of MMCs during different machining process. The poor machining properties of hard particles reinforced MMCs make drilling process a rather interesting task. Unlike drilling of conventional materials, many problems can be seriously encountered during drilling of MMCs, such as tool wear and cutting forces. Cutting tool wear is a very significant concern in industries. Cutting tool wear not only influences the quality of the drilled hole, but also affects the cutting tool life. Prediction the cutting tool life during drilling is essential for optimizing the cutting conditions. However, the relationship between tool life and cutting conditions, tool geometrical factors and workpiece material properties has not yet been established by any machining theory. In this research work, fuzzy subtractive clustering system has been used to model the cutting tool life in drilling of  $Al_2O_3$  particle reinforced aluminum alloy composite to investigate of the effect of cutting conditions on cutting tool life. This investigation can help in controlling and optimizing of cutting conditions when the process parameters are adjusted. The built model for prediction the tool life is identified by using drill diameter, cutting speed, and cutting feed rate as input data. The validity of the model was confirmed by the examinations under various cutting conditions. Experimental results have shown the efficiency of the model to predict cutting tool life.

**Keywords:** Composite, fuzzy, tool life, wear.

## **Material Selection for a Manual Winch Rope Drum**

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### **Abstract:**

The selection of materials is an essential task in mechanical design processes. This paper sets out to demonstrate the application of analytical decision making during mechanical design and, particularly, in selecting a suitable material for a given application. Equations for the mechanical design of a manual winch rope drum are used to derive quantitative material performance indicators, which are then used in a multiple attribute decision making (MADM) model to rank the candidate materials. Thus, the processing of mechanical design considerations and material properties data into information that is suitable for use in a quantitative materials selection process is demonstrated for the case of a rope drum design. Moreover, Microsoft Excel<sup>®</sup>, a commonly available computer package, is used in the selection process. The results of the materials selection process are in agreement with current industry practice in rope drum design. The procedure that is demonstrated here should be adaptable to other design situations in which a need arises for the selection of engineering materials, and other engineering entities.

**Keywords:** Design Decisions, Materials Selection, Mechanical Design, Rope Drum Design.

## UV-Cured Coatings Based on Acrylated Epoxidized Soybean Oil and Epoxy Carboxylate

Alaaddin Cerit, Suheyla Kocaman, Ulku Soydal

### Abstract:

During the past two decades, photoinitiated polymerization has been attracting a great interest in terms of scientific and industrial activity. The wide recognition of UV treatment in the polymer industry results not only from its many practical applications but also from its advantage for low-cost processes. Unlike most thermal curing systems, radiation-curable systems can polymerize at room temperature without additional heat, and the curing is completed in a very short time. The advantage of cationic UV technology is that post-cure can continue in the 'dark' after radiation. In this study, bio-based acrylated epoxidized soybean oil (AESO) was cured with UV radiation using radicalic photoinitiator Irgacure 184. Triarylsulphonium hexafluoroantimonate was used as cationic photoinitiator for curing of 3,4-epoxycyclohexylmethyl-3,4-epoxycyclohexanecarboxylate. The effect of curing time and the amount of initiators on the curing degree and thermal properties were investigated. The thermal properties of the coating were analyzed after crosslinking UV irradiation. The level of crosslinking in the coating was evaluated by FTIR analysis. Cationic UV-cured coatings demonstrated excellent adhesion and corrosion resistance properties. Therefore, our study holds a great potential with its simple and low-cost applications.

**Keywords:** Acrylated epoxidized soybean oil, epoxy carboxylate, thermal properties, UV-curing.

## **Experimental Investigation on Over-Cut in Ultrasonic Machining of WC-Co Composite**

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### **Abstract:**

Ultrasonic machining is one of the most widely used non-traditional machining processes for machining of materials that are relatively brittle, hard, and fragile such as advanced ceramics, refractories, crystals, quartz etc. Present article has been targeted at investigating the impact of different experimental conditions (power rating, cobalt content, tool material, thickness of work piece, tool geometry, and abrasive grit size) on over cut in ultrasonic drilling of WC-Co composite material. Taguchi's L-36 orthogonal array has been employed for conducting the experiments. Significant factors have been identified using analysis of variance (ANOVA) test. The experimental results revealed that abrasive grit size and tool material are most significant factors for over cut.

**Keywords:** ANOVA, Abrasive grit size, Taguchi, WC-Co, ultrasonic machining.

## Induction Melting as a Fabrication Route for Aluminum-Carbon Nanotubes Nanocomposite

Muhammad Shahid, Muhammad Mansoor

### Abstract:

Increasing demands of contemporary applications for high strength and lightweight materials prompted the development of metal-matrix composites (MMCs). After the discovery of carbon nanotubes (CNTs) in 1991 (revealing an excellent set of mechanical properties) became one of the most promising strengthening materials for MMC applications. Additionally, the relatively low density of the nanotubes imparted high specific strengths, making them perfect strengthening material to reinforce MMCs. In the present study, aluminum-multiwalled carbon nanotubes (Al-MWCNTs) composite was prepared in an air induction furnace. The dispersion of the nanotubes in molten aluminum was assisted by inherent stirring action of induction heating at 790°C. During the fabrication process, multifunctional fluxes were used to avoid oxidation of the nanotubes and molten aluminum. Subsequently, the melt was cast in to a copper mold and cold rolled to 0.5 mm thickness. During metallographic examination using a scanning electron microscope, it was observed that the nanotubes were effectively dispersed in the matrix. The mechanical properties of the composite were significantly increased as compared to pure aluminum specimen i.e. the yield strength from 65 to 115 MPa, the tensile strength from 82 to 125 MPa and hardness from 27 to 30 HV for pure aluminum and Al-CNTs composite, respectively. To recognize the associated strengthening mechanisms in the nanocomposites, three foremost strengthening models i.e. shear lag model, Orowan looping and Hall-Petch have been critically analyzed; experimental data were found to be closely satisfying the shear lag model.

**Keywords:** Carbon nanotubes, induction melting, nanocomposite, strengthening mechanism.

## **Influence of Milled Waste Glass to Clay Ceramic Foam Properties Made by Direct Foaming Route**

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Riga Technical University, Latvia

### **Abstract:**

The goal of this work is to develop sustainable and durable ceramic cellular structures using widely available natural resources- clay and milled waste glass. Present paper describes method of obtaining clay ceramic foam (CCF) with addition of milled waste glass in 5, 7 and 10 wt% by direct foaming with high speed mixer-disperser (HSMD). For more efficient clay and waste glass milling and mixing, the high velocity disintegrator was used. The CCF with 5, 7, and 10 wt% were obtained at 900, 950, 1000 and 1050 °C firing temperature and they have demonstrated mechanical compressive strength for all 12 samples ranging from 3.8 to 14.3 MPa and porosity 76-65%. Obtained CCF has compressive strength 14.3 MPa and porosity 65.3%.

**Keywords:** Ceramic foam, waste glass, clay foam, glass foam, open cell, direct foaming.

## **Relating Interface Properties with Crack Propagation in Composite Laminates**

Tao Qu, Chandra Prakash, Vikas Tomar

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### **Abstract:**

The interfaces between organic and inorganic phases in natural materials have been shown to be a key factor contributing to their high performance. This work analyzes crack propagation in a 2-ply laminate subjected to uniaxial tensile mode-I crack propagation loading that has laminate properties derived based on biological material constituents (marine exoskeleton-chitin and calcite). Interfaces in such laminates are explicitly modeled based on earlier molecular simulations performed by authors. Extended finite element method and cohesive zone modeling based simulations coupled with theoretical analysis are used to analyze crack propagation. Analyses explicitly quantify the effect that interface mechanical property variation has on the delamination as well as the transverse crack propagation in examined 2-ply laminates.

**Keywords:** Chitin, composites, interfaces, fracture.



## **Development of Molecular Imprinted Polymers (MIPs) for the Selective Removal of Carbamazepine from Aqueous Solution**

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### **Abstract:**

The occurrence and removal of trace organic contaminants in the aquatic environment has become a focus of environmental concern. For the selective removal of carbamazepine from loaded waters molecularly imprinted polymers (MIPs) were synthesized with carbamazepine as template. Parameters varied were the type of monomer, crosslinker, and porogen, the ratio of starting materials, and the synthesis temperature. Best results were obtained with a template to crosslinker ratio of 1:20, toluene as porogen, and methacrylic acid (MAA) as monomer. MIPs were then capable to recover carbamazepine by 93% from a 10<sup>-5</sup> M landfill leachate solution containing also caffeine and salicylic acid. By comparison, carbamazepine recoveries of 75% were achieved using a nonimprinted polymer (NIP) synthesized under the same conditions, but without template. In landfill leachate containing solutions carbamazepine was adsorbed by 93-96% compared with an uptake of 73% by activated carbon. The best solvent for desorption was acetonitrile, with which the amount of solvent necessary and dilution with water was tested. Selected MIPs were tested for their reusability and showed good results for at least five cycles. Adsorption isotherms were prepared with carbamazepine solutions in the concentration range of 0.01 M to 5\*10<sup>-6</sup> M. The heterogeneity index showed a more homogenous binding site distribution.

**Keywords:** Carbamazepine, landfill leachate, removal, reuse

## **Pentachlorophenol Removal via Adsorption and Biodegradation**

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Environment, 43600, Bangi Selangor

Nurina Anuar is with National University of Malaysia

### **Abstract:**

Removal of PCP by a system combining biodegradation by biofilm and adsorption was investigated here. Three studies were conducted employing batch tests, sequencing batch reactor (SBR) and continuous biofilm activated carbon column reactor (BACCOR). The combination of biofilm-GAC batch process removed about 30% more PCP than GAC adsorption alone. For the SBR processes, both the suspended and attached biomass could remove more than 90% of the PCP after acclimatisation. BACCOR was able to remove more than 98% of PCP-Na at concentrations ranging from 10 to 100 mg/L, at empty bed contact time (EBCT) ranging from 0.75 to 4 hours. Pure and mixed cultures from BACCOR were tested for use of PCP as sole carbon and energy source under aerobic conditions. The isolates were able to degrade up to 42% of PCP under aerobic conditions in pure cultures. However, mixed cultures were found able to degrade more than 99% PCP indicating interdependence of species.

**Keywords:** Adsorption, biodegradation, identification, isolated bacteria, pentachlorophenol.

## **Formulation and Evaluation of Vaginal Suppositories Containing Lactobacillus**

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### **Abstract:**

The objective of this study was to develop vaginal suppository containing lactobacillus. Four kinds of vaginal suppositories containing *Lactobacillus paracasei* HL32 were formulated: 1) a conventional suppository with Witepsol H-15 as a base, 2) a conventional suppository with mixed polyethylene glycols (PEGs) as a base, 3) a hollow-type suppository with Witepsol H-15 as a base and 4) a hollow-type suppository with mixed PEGs as a base. The release studies demonstrated that the hollow-type suppository with mixed PEGs as the base gave the highest release of *L. paracasei* HL32 and was microbiological stable after storage at 2- 8°C over the period of 3 months.

**Keywords:** *Lactobacillus paracasei* HL32, vaginal suppository, release study, hollow-type, viability.

## **Sericin Film: Influence of Concentration on its Physical Properties**

N. Namviriyachote, N. Bang, P. Aramwit

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### **Abstract:**

Silk sericin (SS) is a glue-like protein from silkworm cocoon. With its outstanding moisturization and activation collagen synthesis properties, silk protein is applied for wound healing. Since wound dressing in film preparation can facilitate patients- convenience and reduce risk of wound contraction, SS and polyvinyl alcohol (PVA) films were prepared with various concentrations of SS. Their physical properties such as surface density, light transmission, protein dissolution and tensile modulus were investigated. The results presented that 3% SS with 2% PVA is the best ingredient for SS film forming.

**Keywords:** Sericin, silk protein, film, wound healing.

## **Validation and Application of a New Optimized RP-HPLC-Fluorescent Detection Method for Norfloxacin**

Mahmood Ahmad, Ghulam Murtaza, Sonia Khiljee, Muhammad Asadullah Madni

### **Abstract:**

A new reverse phase-high performance liquid chromatography (RP-HPLC) method with fluorescent detector (FLD) was developed and optimized for Norfloxacin determination in human plasma. Mobile phase specifications, extraction method and excitation and emission wavelengths were varied for optimization. HPLC system contained a reverse phase C18 (5  $\mu$ m, 4.6 mm $\times$ 150 mm) column with FLD operated at excitation 330 nm and emission 440 nm. The optimized mobile phase consisted of 14% acetonitrile in buffer solution. The aqueous phase was prepared by mixing 2g of citric acid, 2g sodium acetate and 1 ml of triethylamine in 1 L of Milli-Q water was run at a flow rate of 1.2 mL/min. The standard curve was linear for the range tested (0.156–20  $\mu$ g/mL) and the coefficient of determination was 0.9978. Aceclofenac sodium was used as internal standard. A detection limit of 0.078  $\mu$ g/mL was achieved. Run time was set at 10 minutes because retention time of norfloxacin was 0.99 min. which shows the rapidness of this method of analysis. The present assay showed good accuracy, precision and sensitivity for Norfloxacin determination in human plasma with a new internal standard and can be applied pharmacokinetic evaluation of Norfloxacin tablets after oral administration in human.

**Keywords:** Norfloxacin, Aceclofenac sodium, Method optimization, RP-HPLC method, Fluorescent detection, Calibration curve.

## ANTIBACTERIAL CAPACITY OF PLUMERIA ALBA PETALS

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### Abstract:

Antibacterial activity of *Plumeria alba* (Frangipani) petals methanolic extracts were evaluated against *Escherichia coli*, *Proteus vulgaris*, *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Pseudomonas aeruginosa*, *Staphylococcus saprophyticus*, *Enterococcus faecalis* and *Serratia marcescens* by using disk diffusion method. Concentration extracts (80 %) showed the highest inhibition zone towards *Escherichia coli* (14.3 mm). Frangipani extract also showed high antibacterial activity against *Staphylococcus saprophyticus*, *Proteus vulgaris* and *Serratia marcescens*, but not more than the zones of the positive control used. Comparison between two broad spectrum antibiotics to frangipani extracts showed that the 80 % concentration extracts produce the same zone of inhibition as Streptomycin. Frangipani extracts showed no bacterial activity towards *Klebsiella pneumoniae*, *Pseudomonas aeruginosa* and *Enterococcus faecalis*. There are differences in the sensitivity of different bacteria to frangipani extracts, suggesting that frangipani-s potency varies between these bacteria. The present results indicate that frangipani showed significant antibacterial activity especially to *Escherichia coli*.

**Keywords:** Frangipani, *Plumeria alba*, anti microbial, *Escherichia coli*

## PROACTIVE IDENTIFICATION OF FALSE ALERT FOR DRUG-DRUG INTERACTION

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### Abstract:

Researchers of drug-drug interaction alert systems have often suggested that there were high overridden rate for alerts and also too false alerts. However, research about decreasing false alerts is scant. Therefore, the aim of this article attempts to proactive identification of false alert for drug-drug interaction and provide solution to decrease false alerts. This research involved retrospective analysis prescribing database and calculated false alert rate by using MYSQL and JAVA. Results of this study showed 17% of false alerts and the false alert rate in the hospitals (37%) was more than in the clinics. To conclude, this study described the importance that drug-drug interaction alert system should not only detect drug name but also detect frequency or route, as well as in providing solution to decrease false alerts.

**Keywords:** drug-drug interaction, proactive identification, false alert

## **Comparison between Antibacterial Effects of Ethanolic and Isopropyl: Hexan (7:3) Extracts of *Zingiber officinale* Rose**

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### **Abstract:**

In this investigation, the antibacterial effects of ethanolic and 7:3 isopropyl –hexane mixture extracts of *Zingiber officinale* were evaluated against three Gram positive bacteria, *B. cereus*, *S. epidermidis*, *S. aureus* and three Gram negative bacteria, *E. coli*, *K. pneumonia* and *P. aeruginosa*. Utilizing paper disk diffusion and well methods in-vitro, MIC and MBC were determined by macrodilution. The results showed that ethanolic rhizome extract of ginger had significantly active than Isopropyl –hexan extract. Further work needs to be done in these extracts including fractionation to isolate active constituents and subsequent pharmacological evaluation.

**Keywords:** Antibacterial, Medicinal plant extract, *Zingiber officinale*.



## **Evaluation of Shear Strength Parameters of Amended Loess through Using Common Admixtures in Gorgan, Iran**

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### **Abstract:**

Non-saturated soils that while saturation greatly decrease their volume, have sudden settlement due to increasing humidity, fracture and structural crack are called loess soils. Whereas importance of civil projects including: dams, canals and constructions bearing this type of soil and thereof problems, it is required for carrying out more research and study in relation to loess soils. This research studies shear strength parameters by using grading test, Atterberg limit, compression, direct shear and consolidation and then effect of using cement and lime additives on stability of loess soils is studied. In related tests, lime and cement are separately added to mixed ratios under different percentages of soil and for different times the stabilized samples are processed and effect of aforesaid additives on shear strength parameters of soil is studied. Results show that upon passing time the effect of additives and collapsible potential is greatly decreased and upon increasing percentage of cement and lime the maximum dry density is decreased; however, optimum humidity is increased. In addition, liquid limit and plastic index is decreased; however, plastic index limit is increased. It is to be noted that results of direct shear test reveal increasing shear strength of soil due to increasing cohesion parameter and soil friction angle.

**Keywords:** Loess Soils, Shear Strength, Cement, Lime.

## **A Study on the Developing Method of the BIM (Building Information Modeling) Software Based On Cloud Computing Environment**

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### **Abstract:**

According as the Architecture, Engineering and Construction (AEC) Industry projects have grown more complex and larger, the number of utilization of BIM for 3D design and simulation is increasing significantly. Therefore, typical applications of BIM such as clash detection and alternative measures based on 3-dimensional planning are expanded to process management, cost and quantity management, structural analysis, check for regulation, and various domains for virtual design and construction. Presently, commercial BIM software is operated on single-user environment, so initial cost is so high and the investment may be wasted frequently. Cloud computing that is a next-generation internet technology enables simple internet devices (such as PC, Tablet, Smart phone etc) to use services and resources of BIM software. In this paper, we suggested developing method of the BIM software based on cloud computing environment in order to expand utilization of BIM and reduce cost of BIM software. First, for the benchmarking, we surveyed successful case of BIM and cloud computing. And we analyzed needs and opportunities of BIM and cloud computing in AEC Industry. Finally, we suggested main functions of BIM software based on cloud computing environment and developed a simple prototype of cloud computing BIM software for basic BIM model viewing.

**Keywords:** Construction IT, BIM(Building Information Modeling), Cloud Computing, BIM Service Based Cloud Computing, Viewer Based BIM Server, 3D Design.

## **Simulation and Parameterization by the Finite Element Method of a C Shape Delectromagnet for Application in the Characterization of Magnetic Properties of Materials**

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### **Abstract:**

This article presents the simulation, parameterization and optimization of an electromagnet with the C-shaped configuration, intended for the study of magnetic properties of materials. The electromagnet studied consists of a C-shaped yoke, which provides self-shielding for minimizing losses of magnetic flux density, two poles of high magnetic permeability and power coils wound on the poles. The main physical variable studied was the static magnetic flux density in a column within the gap between the poles, with 4cm<sup>2</sup> of square cross section and a length of 5cm, seeking a suitable set of parameters that allow us to achieve a uniform magnetic flux density of 1x10<sup>4</sup> Gauss values above this in the column, when the system operates at room temperature and with a current consumption not exceeding 5A. By means of a magnetostatic analysis by the finite element method, the magnetic flux density and the distribution of the magnetic field lines were visualized and quantified. From the results obtained by simulating an initial configuration of electromagnet, a structural optimization of the geometry of the adjustable caps for the ends of the poles was performed. The magnetic permeability effect of the soft magnetic materials used in the poles system, such as low-carbon steel (0.08% C), Permalloy (45% Ni, 54.7% Fe) and Mumetal (21.2% Fe, 78.5% Ni), was also evaluated. The intensity and uniformity of the magnetic field in the gap showed a high dependence with the factors described above. The magnetic field achieved in the column was uniform and its magnitude ranged between 1.5x10<sup>4</sup> Gauss and 1.9x10<sup>4</sup> Gauss according to the material of the pole used, with the possibility of increasing the magnetic field by choosing a suitable geometry of the cap, introducing a cooling system for the coils and adjusting the spacing between the poles. This makes the device a versatile and scalable tool to generate the magnetic field necessary to perform magnetic characterization of materials by techniques such as vibrating sample magnetometry (VSM), Hall-effect, Kerr-effect magnetometry, among others. Additionally, a CAD design of the modules of the electromagnet is presented in order to facilitate the construction and scaling of the physical device.

**Keywords:** Electromagnet, Finite Elements Method, Magnetostatic, Magnetometry, Modeling.

## **Cultural Aspects Analyses in Sustainable Architecture**

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### **Abstract:**

Social ideology, cultural values and principles shaping environment are inferred by environment and structural characteristics of construction site. In other words, this inference manifestation also indicates ideology and culture of its foundation and also applies its principles and values and somehow plays an important role in Cultural Revolution. All human behaviors and artifacts are affected and being influenced by culture. Culture is not abstract concept, it is a spiritual domain that an individual and society grow and develop in it. Social behaviors are affected by environmental comprehension, so the architecture work influences on its audience and it is the environment that fosters social behaviors. Indeed, sustainable architecture should be considered as background of culture for establishing optimal sustainable culture. Since unidentified architecture roots in cultural non identity and abnormalities, so the society possesses identity characteristics and life and as a consequence, the society and architecture are changed by transformation of life style. This article aims to investigate the interaction of architecture, society, environment and sustainable architecture formation in its cultural basis and analyzes the results approaching behavior and sustainable culture in recent era.

**Keywords:** Culture, Sustainable Architecture, Environment, Development

## Convection through Light Weight Timber Constructions with Mineral Wool

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### Abstract:

The major part of light weight timber constructions consists of insulation. Mineral wool is the most commonly used insulation due to its cost efficiency and easy handling. The fiber orientation and porosity of this insulation material enables flowthrough. The air flow resistance is low. If leakage occurs in the insulated bay section, the convective flow may cause energy losses and infiltration of the exterior wall with moisture and particles. In particular the infiltrated moisture may lead to thermal bridges and growth of health endangering mould and mildew. In order to prevent this problem, different numerical calculation models have been developed. All models developed so far have a potential for completion. The implementation of the flow-through properties of mineral wool insulation may help to improve the existing models. Assuming that the real pressure difference between interior and exterior surface is larger than the prescribed pressure difference in the standard test procedure for mineral wool ISO 9053 / EN 29053, measurements were performed using the measurement setup for research on convective moisture transfer "MSRCMT". These measurements show, that structural inhomogeneities of mineral wool effect the permeability only at higher pressure differences, as applied in MSRCMT. Additional microscopic investigations show, that the location of a leak within the construction has a crucial influence on the air flow-through and the infiltration rate. The results clearly indicate that the empirical values for the acoustic resistance of mineral wool should not be used for the calculation of convective transfer mechanisms.

**Keywords:** convection, convective transfer, infiltration, mineralwool, permeability, resistance, leakage

## **The Establishment of Cause-System of Poor Construction Site Safety and Priority Analysis from Different Perspectives**

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### **Abstract:**

Construction site safety in China has aroused comprehensive concern all over the world. It is imperative to investigate the main causes of poor construction site safety. This paper divides all the causes into four aspects, namely the factors of workers, object, environment and management and sets up the accident causes element system based on Delphi Method. This is followed by the application of structural equation modeling to examine the importance of each aspect of causes from the standpoints of different roles related to the construction respectively. The results indicate that all the four aspects of factors are in need of improvement, and different roles have different ideas considering the priority of those factors. The paper has instructive significance for the practitioners to take measures to improve construction site safety in China accordingly.

**Keywords:** construction site safety, Delphi Method, structural equation modeling, different perspective.

## Stability Optimization of Functionally Graded Pipes Conveying Fluid

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### Abstract:

This paper presents an exact analytical model for optimizing stability of thin-walled, composite, functionally graded pipes conveying fluid. The critical flow velocity at which divergence occurs is maximized for a specified total structural mass in order to ensure the economic feasibility of the attained optimum designs. The composition of the material of construction is optimized by defining the spatial distribution of volume fractions of the material constituents using piecewise variations along the pipe length. The major aim is to tailor the material distribution in the axial direction so as to avoid the occurrence of divergence instability without the penalty of increasing structural mass. Three types of boundary conditions have been examined; namely, Hinged-Hinged, Clamped- Hinged and Clamped-Clamped pipelines. The resulting optimization problem has been formulated as a nonlinear mathematical programming problem solved by invoking the MatLab optimization toolbox routines, which implement constrained function minimization routine named “fmincon” interacting with the associated eigenvalue problem routines. In fact, the proposed mathematical models have succeeded in maximizing the critical flow velocity without mass penalty and producing efficient and economic designs having enhanced stability characteristics as compared with the baseline designs.

**Keywords:** Functionally graded materials, pipe flow, optimumdesign, fluid- structure interaction

## **Optimum Design of Launching Nose during Incremental Launching Construction of Same-Span Continuous Bridge**

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### **Abstract:**

The launching nose plays an important role in the incremental launching construction. The parameters of the launching nose essentially affect the internal forces of the girder during the construction. The appropriate parameters can decrease the internal forces in the girder and save the material and reduce the cost. The simplified structural model, which is made with displacement method according to the characteristic of incremental launching construction and the variation rule of the internal forces, calculates and analyzes the effect of the length, the rigidity and weight of launch nose on the internal forces of girder during the incremental launching construction. The method, which can calculate the launching nose parameters for the optimum incremental launching construction, is achieved. This method is simple, reliable and easy for practical use.

**Keywords:** incremental launching, launching nose, optimum analysis, displacement method



## Application of “Streamlined” Material Accounting to Estimate Environmental Impact

Paul Osmond

### Abstract:

This paper reports a new application of material accounting techniques to characterise and quantify material stocks and flows at the “neighbourhood” scale. The study area is the main campus of the University of New South Wales in Sydney, Australia. The system boundary is defined by the urban structural unit (USU), a typological construct devised to facilitate assessment of the metabolism of urban systems. A streamlined material flow analysis (MFA) was applied to quantify the stocks and flows of key construction materials within the campus USU over time, drawing on empirical data from a major campus development project. The results are reviewed to assess the efficacy of the method in supporting urban environmental evaluation and design practice, for example to facilitate estimation of significant impacts such as greenhouse gas emissions. It is concluded that linking a service (in this case, teaching students) enabled by a given product (university buildings) to the amount of materials used in creating that product offers a potential way to reduce the environmental impact of that service, through more efficient use of materials.

**Keywords:** Construction materials, material flow analysis, urban metabolism, urban structural unit.

## **SECURING BIOMASS ENERGY OPERATING CONTRACT, GOVERNMENT PERMITS AND FINANCIAL CLOSING: FUNDAMENTALS FOR PROCESS IMPROVEMENT**

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### **ABSTRACT**

This thesis describes the different type of biomass feedstock such as agricultural waste and waste to energy and different biomass technology that are available and being utilized in the Philippines as a source of clean energy that could utilize to increase the power availability in the country and therefore ensuring stable electricity supply possible electricity reserves and addressing the waste disposal problem in the country. Likewise, the Republic Act of 9513 otherwise, known as Renewable Energy Act of 2008, the role of Renewable Energy Management Bureau has been discussed. The researcher discussed the process implemented by Renewable Energy Management Bureau – Biomass Energy Management Division of securing Biomass Energy Operating Contract (BEOC) from submission of letter of intent, conduct of orientation, Legal, Technical, Financial requirements and the process of uploading the application of process in the Energy Virtual One Stop Shop platform, the process of undergoing legal, technical, and financial evaluation until the signing BEOC by the Department Secretary and Company President/CEO of the biomass energy developer/proponent, the different government permits/registration that need to be secured and financial closing needed for the construction of the biomass power plant. The study provides deeper analysis on the issues and challenges being encountered by the biomass proponents/developer on the project conceptualization, securing Biomass Energy Operating Contract, securing government permits and financial closing. When these gaps will be addressed undergoing in this process will not be as tedious that will result to more biomass projects will be constructed and it will address the growing problem with the disposal of agricultural waste, animal waste, municipal solid and other residual waste that could result to reduction of CO<sub>2</sub> emissions and cleaning of the environment. Likewise, it can contribute to addressing the problem of power supply deficiency and can spur economic growth.

Biomass Energy generally utilizes agricultural waste from different food crops and non-food crops such as rice, coconut, corn, sugarcane. Likewise, municipal solid and food wastes are some of the potential sources of biomass to produce electricity. Energy crops such as jatropha, willow, eucalyptus, bamboo, wood crops, napier grass, Bana grass and elephant grass are some

of the good sources of feedstock. This feedstock can be utilized to power potential power plants.

At present, there are many existing biomass technologies that can be adopted using biomass feedstock to generate electricity and contribute to addressing the pressing problems on power shortage. The technologies available are gasification, fermentation, pyrolysis, biogas system for animal waste, food waste, and methane capture for municipal solid wastes and plasma and other new and emerging technologies that can utilize municipal solid waste. The Biomass Energy Management Division is tasked to accelerate development and utilization of the biomass and other emerging technologies and evaluate/grant operating contracts and/or accreditation of biomass/biofuels projects and facilities, suppliers, fabricators, and manufacturers.

The Republic Act No. 9513 otherwise known as Renewable Energy Act of 2008 was signed by President Gloria Macapagal Arroyo in 2008. It enables to promote the development, utilization, and commercialization of renewable energy resources and for other purposes. It also aims to accelerate the exploration, development, and utilization of renewable energy resources but not limited to biomass, solar, wind, hydro, geothermal and ocean energy sources. It includes hybrid systems to achieve energy self-reliance through the adaptation of sustainable energy development by institutionalizing the development of national and local capabilities in the use of renewable energy systems.

As stipulated in the R.A. Act No. 9513, the Renewable Energy Management Bureau is created to oversee and implement policies, plans and programs related to the accelerated development, utilization, and commercialization of renewable energy. In support for this law, the Department of Energy (DOE) has issued the Department Circular No. 2009-07-0011 entitled, “Guidelines Governing a Transparent and Competitive System of Awarding Renewable Energy Service/Operating Contracts and Providing for the Registration Process of Renewable Energy Developers” (Section 1 [q] DC-2009-07-0011). The circular provides the guidelines on the awarding of renewable energy service/operating contracts.

With the new directive to accelerate the development and utilization of biomass energy the Department conducted a massive information campaign to encourage biomass energy proponents to invest in the construction of the biomass power plant. As a result, the Department has received a Letter of Intent and conducted an orientation on the process of securing BEOC and the requirements that need to be submitted. However, after the orientation, many biomass developers failed to complete project conceptualization and failed to submit their application for BEOC. Likewise, some of the submitted applications for Biomass Energy Operating Contracts (BEOC) failed to pass the legal, technical and financial qualifications and were not issued with BEOC. For those who successfully secured BEOC some have been terminated due to failure to secure government permits and financial closing.

It was then the purpose of this paper to determine the root cause of the problems of biomass developers who were not able to proceed with project conceptualization, failure to secure BEOC, government and permits, and financial closing that resulted to termination of the contract issued by the Department.

The study may provide deeper analysis on the issues and challenges being encountered by the biomass proponents/developer on the project conceptualization, securing Biomass Energy Operating Contract, securing government permits and financial closing. When these gaps will be addressed, undergoing in this process will not be as tedious that will result to more biomass projects and address the growing problem with the disposal of agricultural, animal, municipal solid and other residual wastes that could result to reduction of CO<sub>2</sub> emissions and cleaning of the environment. Likewise, it can contribute to addressing the problem in power supply deficiency and can spur economic growth.

The researcher aimed to smoothen the process of project conceptualization, Biomass Energy Operating Contract, government permits and financial closing to encourage more investors and promote the development and utilization of biomass energy that may result in increasing the energy mix of renewable energy and lesser dependent on fossil fuels and addressing the growing problems in waste disposal.

**Key Words: Biomass Energy Operating, Contracts, Biomass Feedstock, Government Permits and Financial Closing.**