

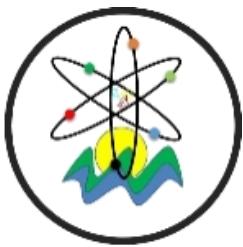
Black Sea Journal of Engineering and Science

Volume 8 | Issue 3



ISSN: 2619 - 8991

 **BS Journals**



**BLACK SEA JOURNAL OF ENGINEERING AND SCIENCE
(BSJ ENGIN SCI)**



Black Sea Journal of Engineering and Science (BSJ Eng Sci) is a double-blind peer-reviewed, open-access international journal published electronically 6 times (January, March, May, July, September, and November) in a year by since January 2018. It publishes, in English and Turkish, full-length original research articles, innovative papers, conference papers, reviews, mini-reviews, rapid communications or technical note on advances in a wide range of scientific disciplines from all fields of engineering and science and from any source.

ISSN 2619 - 8991

Phone: +90 362 408 25 15

Fax: +90 362 408 25 15

Email: bsjsci@blackseapublishers.com

Web site: <http://dergipark.gov.tr/bsengineering>

Sort of publication: Periodically 6 times (January, March, May, July, September, and November) in a year

Publication date and place: May 15, 2025 - Samsun, TÜRKİYE

Publishing kind: Electronically

OWNER

Prof. Dr. Uğur ŞEN

DIRECTOR IN CHARGE

Prof. Dr. Hasan ÖNDER

EDITOR BOARDS

EDITOR IN CHIEF

Prof. Dr. Uğur ŞEN, Ondokuz Mayıs University, TÜRKİYE

Prof. Dr. Hasan ÖNDER, Ondokuz Mayıs University, TÜRKİYE

SECTION EDITORS*

Prof. Dr. Berna KILIÇ, Section Editor of Fisheries Engineering, Ege University, TÜRKİYE

Prof. Dr. Bülent YANIKTEPE, Section Editor of Aerospace Engineering, Osmaniye Korkut Ata University, TÜRKİYE

Prof. Dr. Çiğdem TAKMA, Section Editor of Statistics, Ege University, TÜRKİYE

Prof. Dr. Dilek KUT, Section Editor of Textile Engineering, Uludağ University, TÜRKİYE

Prof. Dr. Erkan YALÇIN, Section Editor of Biology, Ondokuz Mayıs University, TÜRKİYE

Prof. Dr. Ertan BUYRUK, Section Editor of Mechanical Engineering, Sivas Cumhuriyet University, TÜRKİYE

Prof. Dr. Esteban TLELO-CUAUTLE, Section Editor of Electrical and Electronics Engineering, National Institute of Astrophysics, Optics and Electronics, MEXICO

Prof. Dr. Fauziatul FAJAROH, Section Editor of Chemical Engineering, Universitas Negeri Malang, INDONESIA

Prof. Dr. Gökhan CİVELEKOĞLU, Section Editor of Environmental Engineering, Akdeniz University, TÜRKİYE

Prof. Dr. Hasan TANAK, Section Editor of Physics, Amasya University, TÜRKİYE

Prof. Dr. Hasan TEMİZ, Section Editor of Food Engineering, Ondokuz Mayıs University, TÜRKİYE

Prof. Dr. Hojjat SADEGHİ-ALİABADİ, Section Editor of Chemistry, Isfahan University, IRAN

Prof. Dr. Hüseyin PEKER, Section Editor of Forest Engineering, Artvin Çoruh University, TÜRKİYE

Prof. Dr. İbrahim Özgür DENEME, Section Editor of Civil Engineering, Aksaray University, TÜRKİYE

Prof. Dr. Nilüfer YURTAY, Section Editor of Computer Engineering, Sakarya University, TÜRKİYE

Prof. Dr. Özgür Hakan AYDOĞMUŞ, Section Editor of Mathematics, Social Sciences University of Ankara, TÜRKİYE

Assoc. Prof. Dr. Belgin KARABACAKOĞLU, Section Editor of Chemical Engineering, Eskişehir Osmangazi University, TÜRKİYE

Assoc. Prof. Dr. Edit MİKÓ, Section Editor of Agricultural Engineering, University of Szeged, HUNGARY

Assoc. Prof. Dr. Ergün EKİCİ, Section Editor of Industrial Engineering, Çanakkale Onsekiz Mart University, TÜRKİYE

Assoc. Prof. Dr. Helal Uddin MOLLA, Section Editor of Physics, Rajshahi University of Engineering and Technology, BANGLADESH

Assoc. Prof. Dr. Kadırbay CHEKİROV, Section Editor of Biology, Kyrgyz Turkish Manas University, KYRGYZSTAN

Assoc. Prof. Dr. Lukman ABDULRA'UF, Section Editor of Chemistry, Kwara State University, NIGERIA

Assoc. Prof. Dr. Mehmet EBEOĞLUGİL, Dokuz Eylül University, TÜRKİYE

Assoc. Prof. Dr. Mohammad KHAJEH MEHRIZI, Section Editor of Textile Engineering, Yazd University, IRAN

Assoc. Prof. Dr. Silvio DE OLIVEIRA JUNIOR, Section Editor of Mechanical Engineering, University of São Paulo, BRAZIL

Assoc. Prof. Dr. Sinan AKISKA, Section Editor of Geological Engineering, Ankara University, TÜRKİYE

Assoc. Prof. Dr. Ufuk Atmaca, Section Editor of Chemistry, Atatürk University, TÜRKİYE

Assoc. Prof. Dr. Veli İLÇİ, Section Editor of Geomatics Engineering, Ondokuz Mayıs University, TÜRKİYE

Asst. Prof. Dr. Francis INGBEDION, Section Editor of Industrial Engineering, University of Benin, NIGERIA

Asst. Prof. Dr. Jun-wei LIM, Section Editor of Environmental Engineering, Universiti Teknologi Petronas, MALAYSIA

Asst. Prof. Dr. Mehmet ÖZDEMİR, Section Editor of Mining Engineering, Kütahya Dumlupınar University, TÜRKİYE

Asst. Prof. Dr. Muhammad GULİSTAN, Section Editor of Mathematics, Hazara University, PAKISTAN

Asst. Prof. Dr. Sedat KARADAVUT, Section Editor of Agricultural Engineering, Trakya University, TÜRKİYE

Asst. Prof. Ranjith RAJ A, Section Editor of Metallurgical and Materials Engineering, Sri Venkateswara College of Engineering, INDIA

* The ranking is arranged alphabetically within the academic title

STATISTIC EDITOR

Prof. Dr. Mehmet TOPAL, Kastamonu University, TÜRKİYE

ENGLISH EDITOR

Asst. Prof. Dr. Betül ÖZCAN DOST, Ondokuz Mayıs University, TÜRKİYE

TURKISH EDITOR

Prof. Dr. Serkan ŞEN, Ondokuz Mayıs University, TÜRKİYE

REVIEWERS OF THE ISSUE*

Prof. Dr. Adnan ÜNALAN, Niğde Ömer Halisdemir University, Department of Biostatistics and Medical Informatics, Biostatistics, TÜRKİYE

Prof. Dr. Ahmet KABUL, Isparta University of Applied Science, Mechanical Engineering Department, Engineering Economy, TÜRKİYE

Prof. Dr. Arzuhan Burcu GÜLTEKİN, Gazi University, Department of Architecture, Architecture, TÜRKİYE

Prof. Dr. Cenk ÇELİK, Kocaeli University, Department of Mechanical Engineering, Renewable Energy Resources, TÜRKİYE

Prof. Dr. Mehmet Emin ARSLAN, Düzce University, Department of Civil Engineering, Structural Engineering, TÜRKİYE

Prof. Dr. Emine CAN, İstanbul Medeniyet University, Department of Physics Engineering, Fuzzy Computation, TÜRKİYE

Prof. Dr. Ergun ERASLAN, Yıldırım Beyazıt University, Department of Industrial Engineering, Fuzzy Computation, TÜRKİYE

Prof. Dr. İbrahim Ender MÜLAZIMOĞLU, Necmettin Erbakan University, Department of Mathematics and Science Education, Analytical Chemistry, TÜRKİYE

Prof. Dr. Kadriye ERTEKİN, Dokuz Eylül University, Department of Chemistry, Analytical Chemistry, TÜRKİYE

Prof. Dr. Mehmet GÖNEN, Süleyman Demirel University, Department of Chemical Engineering, Chemical Process Design, TÜRKİYE

Prof. Dr. Mustafa AKTAŞ, Gazi University, Department of Energy Systems Engineering, Thermal Power Systems, TÜRKİYE

Prof. Dr. Recep KÜLCÜ, Isparta Applied Science University, Department of Agricultural Machinery and Technologies Engineering, Agricultural Machines, TÜRKİYE

Prof. Dr. Reyhan KARA GÜLBAY, Karadeniz Technical University, Department of Geological Engineering, Geological Sciences and Engineering, TÜRKİYE

Prof. Dr. Selahattin YAVUZ, Erzincan Binali Yıldırım University, Department of Administrative Sciences, Statistical Analysis, TÜRKİYE

Prof. Dr. Sinan APAK, Fenerbahçe University, Department of Industrial Engineering, Multiple Criteria Decision Making, TÜRKİYE

Prof. Dr. Tuncay BAYRAM, Karadeniz Technical University, Department of Physics, Nuclear Physics, TÜRKİYE

Prof. Dr. Turgut ÖZSEVEN, Tokat Gaziosmanpaşa University, Department of Computer Engineering, Information and Computing Sciences, TÜRKİYE

Prof. Dr. Ümit ÖZER, İstanbul University - Cerrahpasa, Department of Mining Engineering, Mining Engineering, TÜRKİYE

Prof. Dr. Zafer ÜSTÜNDAĞ, Kütahya Dumlupınar University, Department of Chemistry, Electroanalytical Chemistry, TÜRKİYE

Assoc. Prof. Dr. Ayben TOP, İzmir Institute of Technology, Department of Chemical Engineering, Chemical Engineering, TÜRKİYE

Assoc. Prof. Dr. Canan CiMŞİT, Kocaeli University, Golcuk Vocational School, Mechanical Engineering, TÜRKİYE

Assoc. Prof. Dr. Ercan AYDOĞMUŞ, Fırat University, Department of Chemical Engineering, Materials Science and Technologies, TÜRKİYE

Assoc. Prof. Dr. Hamid Asadi DERESHGİ, İstanbul Arel University, Department of Biomedical Engineering, Dynamics, Vibration and Vibration Control, TÜRKİYE

Assoc. Prof. Dr. Kemal Çağatay SELVİ, Ondokuz Mayıs University, Department of Agricultural Machinery and Technologies Engineering, Agricultural Machines, TÜRKİYE

Assoc. Prof. Dr. Merve TUNA KAYILI, Karabük University, Department of Architecture, Architecture, TÜRKİYE

Assoc. Prof. Dr. Metin USTA, Hatay Mustafa Kemal University, Department of Physics, Nuclear Physics, TÜRKİYE

Assoc. Prof. Dr. Nimet BÖLGEN KARAGÜLLE, Mersin University, Department of Chemical Engineering, Energy Systems Engineering, TÜRKİYE

Assoc. Prof. Dr. Nuray ÇELEBİ, Ankara Yıldırım Beyazıt University, Department of Energy Systems Engineering, Energy Systems Engineering, TÜRKİYE

Assoc. Prof. Dr. Oğuz ÖZBEK, Tokat Gaziosmanpaşa University, Department of Molecular Biology and Genetics, Analytical Chemistry, TÜRKİYE

Assoc. Prof. Dr. Ömer Faruk COŞKUN, Hatay Mustafa Kemal University, Department of Horticulture, Horticultural Production, TÜRKİYE

Assoc. Prof. Dr. Ömer KASAR, Karadeniz Technical University, Department of Electronics and Communication Engineering, Engineering Electromagnetics, TÜRKİYE

Assoc. Prof. Dr. Selman ULUIŞIK, Burdur Mehmet Akif Ersoy University, Department of Plant and Animal Production, Food Sciences, TÜRKİYE

Assoc. Prof. Dr. Semin TOPALOĞLU PAKSOY, Çukurova University, Department of Econometrics, Econometric and Statistical Methods, TÜRKİYE

Assoc. Prof. Dr. Seracettin ARASAN, Ataturk University, Department of Civil Engineering, Civil Geotechnical Engineering, TÜRKİYE

Assoc. Prof. Dr. Sevilay DEMİRKESEN, Gebze Technical University, Department of Civil Engineering, Project and Production Management, TÜRKİYE

Assoc. Prof. Dr. Seyfullah GÖKOĞLU, Bartın University, Department of Computer Technology and Information Systems, Virtual and Mixed Reality, TÜRKİYE

Assoc. Prof. Dr. Tamer DİRİKGİL, Erciyes University, Department of Civil Engineering, Structural Engineering, TÜRKİYE

Assoc. Prof. Dr. Tolga DEMİRCAN, Kırıkkale University, Department of Mechanical Engineering, Mechanical Engineering, TÜRKİYE

Assist. Prof. Dr. Ahmet İsmail ÖZKAN, Artvin Çoruh University, Medicinal-Aromatic Plants Application and Research Center, Microbiology, TÜRKİYE

Assist. Prof. Dr. Aslı ÖZTÜRK, Çankırı Karatekin University, Department of Office Services and Secretarial, Strategy, Management and Organizational Behaviour, TÜRKİYE

Assist. Prof. Dr. Bahadır ŞENGÜN, Sivas Cumhuriyet University, Department of Civil Engineering, Mining Engineering, TÜRKİYE

Assist. Prof. Dr. Barış Gürcan HAKANOĞLU, Atılım University, Department of Electrical-Electronics Engineering, Engineering Electromagnetics, TÜRKİYE

Assist. Prof. Dr. Betül KAFKASLIOĞLU YILDIZ, Sivas University of Science and Technology, Department of Metallurgical and Materials Engineering, Materials Science and Technologies, TÜRKİYE

Assist. Prof. Dr. Cemil KÖZKURT, Bandırma Onyedi Eylül University, Department of Transportation Engineering, Mechatronics Engineering, TÜRKİYE

Assist. Prof. Dr. Engin BAYSOY, Bahçeşehir University, Department of Biomedical Engineering, Biomedical Diagnosis, TÜRKİYE

Assist. Prof. Dr. Ensar Arif SAĞBAŞ, Muğla Sıtkı Koçman University, Department of Information Systems Engineering, Satisfiability and Optimisation, TÜRKİYE

Assist. Prof. Dr. Erdem ŞAHİN, Muğla Sıtkı Koçman University, Department of Metallurgical and Materials Engineering, Additive Manufacturing, TÜRKİYE

Assist. Prof. Dr. Ertuğrul KARAKAPLAN, Pamukkale University, Department of Mining and Extraction, Mine Design, Management and Economy, TÜRKİYE

Assist. Prof. Dr. Fatih DEMİR, Erzincan Binali Yıldırım University, Department of Mechanical Engineering, Thermodynamics and Statistical Physics, TÜRKİYE

Assist. Prof. Dr. Gürkan AYDEMİR, Bursa Technical University, Department of Electrical and Electronics Engineering, Deep Learning, TÜRKİYE

Assist. Prof. Dr. Hasan Aykut KARABOĞA, Amasya University, Department of Educational Science, Data Mining and Knowledge Discovery, TÜRKİYE

Assist. Prof. Dr. Hilal KUDAY, İstanbul Yeni Yüzyıl University, Department of Pharmacy, Organic Chemistry, TÜRKİYE

Assist. Prof. Dr. İbrahim ÇAVUŞOĞLU, Gümüşhane University, Department of Mining Engineering, Mining Engineering, TÜRKİYE

Assist. Prof. Dr. İbrahim Halil DEGER, Hasan Kalyoncu University, Department of Civil Engineering, Fluid Mechanics and Thermal Engineering, TÜRKİYE

Assist. Prof. Dr. Kayhan DAĞIDIR, Tarsus University, Department of Mechanical Engineering, Mechanical Engineering, TÜRKİYE

Assist. Prof. Dr. Kemal DAVUT, İzmir Yüksek Teknoloji Institute, Department of Materials Science and Engineering, Materials Engineering, TÜRKİYE

Assist. Prof. Dr. Meral KORKMAZ, Munzur University, Department of Civil Engineering, Hydroelectric Energy Systems, TÜRKİYE

Assist. Prof. Dr. Miyase YAYLAGÜL, Aksaray University, Department of Medical Services and Techniques, Plant Biotechnology, TÜRKİYE

Assist. Prof. Dr. Muhammet Anıl KAYA, Giresun University, Department of Mechanical Engineering, Material Design and Behaviors, TÜRKİYE

Assist. Prof. Dr. Muhammed Talha NARCI, İstanbul Aydin University, Department of Management Information Systems, Environmental Engineering, TÜRKİYE

Assist. Prof. Dr. Neslihan ÜNAL KARTAL, Burdur Mehmet Akif Ersoy University, Department of Land Registry and Cadastre, Mineral Stratum and Geochemistry, TÜRKİYE

Assist. Prof. Dr. Olcay ALTINTAŞ, İskenderun Technical University, Department of Electrical-Electronics Engineering, Engineering Electromagnetics, TÜRKİYE

Assist. Prof. Dr. Pınar ÇELEBİ DEMİRARSLAN, Bartın University, Department of Business Administration, Multiple Criteria Decision Making, TÜRKİYE

Assist. Prof. Dr. Reyhan ZENGİN, İnönü University, Department of Biomedical Engineering, Artificial Intelligence, TÜRKİYE

Assist. Prof. Dr. Selden ÇEPNİ, İşık University, Department of Biomedical Engineering, Renewable Energy Resources, TÜRKİYE

Assist. Prof. Dr. Vahattin Cem BAYDOĞAN, Fırat University, Department of Software Engineering, Artificial Learning, TÜRKİYE

Assist. Prof. Dr. Veysi KARTAL, Siirt University, Department of Civil Engineering, Water Resources Engineering, TÜRKİYE

Assist. Prof. Dr. Yusuf Alparslan ARGUN, Karamanoğlu Mehmetbey University, Kazım Karabekir Vocational School, Environmental Engineering, TÜRKİYE

Dr. Abdulhamit SEVGİ, OSTİM Technical University, Department of Electronics and Automation, Artificial Intelligence, TÜRKİYE

Dr. Burak Kürşat GÜL, Erciyes University, Department of Electrical and Electronics Engineering, Electronics, TÜRKİYE

Dr. Cihan SEZER, İstanbul Aydin University, Department of Mechanical Engineering, Thermodynamics and Statistical Physics, TÜRKİYE

Dr. Emine Özlem DENGİZ, Samsun University, Gas and Plumbing Technology Program, Material Design and Behaviors, TÜRKİYE

Dr. Enes GÜNALTILI, Necmettin Erbakan University, Department of Mechanical Engineering, Energy Systems Engineering, TÜRKİYE

Dr. Ezgi GÜRGENÇ, Fırat University, Department of Energy Systems Engineering, Energy Systems Engineering, TÜRKİYE

Dr. Gözde KABAY, Karlsruhe Institute of Technology, Department of Bioengineering and Biosystems, Biomedical Diagnosis, GERMANY

Dr. Gülay TEZEL, Konya Technical University, Department of Computer Engineering, Artificial Intelligence, TÜRKİYE

Dr. Gülşah KARATAŞ, Tokat Gaziosman Paşa University, Department of Food Engineering, Food Engineering, TÜRKİYE

Dr. Hakan ERDURAN, Bahri Dağdaş International Agricultural Research Institute, Dairy Technology, TÜRKİYE

Dr. Hilal AKARKAMÇI, Ankara Yıldırım Beyazıt University, Department of Computer Engineering, Deep Learning, TÜRKİYE

Dr. İbrahim Arda CANKAYA, Suleyman Demirel University, Department of Computer Engineering, Deep Learning, TÜRKİYE

Dr. Kerim ÖZKARA, Sinop University, Department of Electronics and Automation, Biomedical Engineering, TÜRKİYE

Dr. Lakshmanan KASI, Anna University, Department of Mechanical Engineering, Energy Nanomaterials, INDIA

Dr. Mark ALEGBE, Auchi Polytechnic University, Department of Architectural Technology, Sustainable Architecture, NIGERIA

Dr. Mert ONAN, Yıldız Kalıp Company, Research and Development Centre, Materials Science and Technologies, TÜRKİYE

Dr. Muhammed MAHMUDI, Ege University, Department of Civil Engineering, Geotechnical Engineering, TÜRKİYE

* The ranking is arranged alphabetically within the academic title

Table of Contents

Research Articles

- 1. CHANGE OF dmax VALUES OF ELEMENTS WITH Z≤54 FOR ELECTRON BEAMS**
Zeynep YÜKSEL.....569-571
- 2. MANUEL, YARI OTOMATİK VE MOBİL ROBOT TABANLI OTONOM TOPRAK BURGU MAKİNELERİNİN ALAN KAPASİTELERİNİN KARŞILAŞTIRMALI DEĞERLENDİRİLMESİ**
Osman ECEOĞLU, İlker ÜNAL.....572-578
- 3. THE EFFECT OF CURD COOKING TEMPERATURE AND TIME ON CHEMICAL AND MELTING PROPERTIES IN CHEESE PRODUCED WITH THE TRADITIONAL METHOD**
Esen Bilge BİÇER, Nursel DEVELİ İŞIKLI.....579-590
- 4. OPTIMISING 3D PRINT PARAMETERS FOR L-JOINT STRENGTH USING TAGUCHI METHOD**
Aleyna TAŞKIN, Cengiz Görkem DENGİZ.....591-597
- 5. BIBLIOMETRIC ANALYSIS OF COMPUTATIONAL FLUID DYNAMICS (CFD) ON HYDRAULIC ENERGY**
Zeyneb KILIÇ.....598-604
- 6. KÖMÜRÜN UZAKTAN ALGILAMA (UA) YÖNTEMLERİ VE COĞRAFİ BİLGİ SİSTEMLERİ (CBS) ARAÇLARINDA KULLANIMININ BİBLİYOMETRİK ANALİZE DAYALI İNCELENMESİ**
Cevdet Bertan GÜLLÜDAĞ.....605-615
- 7. DETERMINATION OF CRITICAL VARIABLES FOR RESILIENT URBANIZATION**
Mahmut Esat ÇAKMAK, Esra DOBRUCALI.....616-626
- 8. KALP RİTİM BOZUKLUKLARININ ÇOK SINIFLI SINIFLANDIRILMASINDA RELIEFF YÖNTEMİ VE MAKİNE ÖĞRENİMİ TABANLI YAKLAŞIM**
Ciğdem Gülüzar ALTINTOP.....627-641
- 9. SANAL GERÇEKLİK TEKNOLOJİSİ İLE BİR MÜZE TURU UYGULAMASI TASARIMI VE GELİŞTİRİLMESİ**
Doğan YILDIZ, Samad HASANLI, Sercan DEMİRCİ.....642-649
- 10. IDENTIFICATION AND SIMULATION OF FIRE AND EXPLOSION HAZARDS USING HAZOP AND ALOHA, CASE STUDY: THE IGNITION SYSTEM OF A POWER PLANT**
Nafiseh FARAJIRAD, Müge ENSARI ÖZAY.....650-659
- 11. BÜTÜNLÜŞİK AHP VE K-ORTALAMA KÜMELEME TABANLI YEDEK PARÇA TALEP TAHMİNİ: SAĞLIK EKİPMANLARI ALANINDA BİR UYGULAMA**
Doğuakan İlbeş SÜSLÜ, Kumru Didem ATALAY, Tusan DERYA.....660-671
- 12. DESIGN OF A CHAOTIC SPEED-CONTROLLED MIXING DEVICE AND EFFICIENCY ANALYSIS IN BIOGAS**
Muhammed Salih SARIKAYA, Mert Süleyman DEMİRSOY, Mustafa Çağrı KUTLU.....672-679
- 13. YAPAY ZEKÂ UYGULAMALARININ İŞ SÜREÇLERİNE KATKISI**
Songül DEMİRKAN.....680-694
- 14. ŞİZOFREN HASTALARININ TESPİTİNDE YAPAY ZEKA TABANLI PERFORMANS ANALİZİ**
Ali NARİN, Burhan SEZEN.....695-703

15. AĞIZ İÇİ GÖRÜNTÜLERİN DERİN ÖĞRENME İLE ANALİZİ: CNN MODELLERİNİN SINIFLANDIRMA PERFORMANSI	
<i>Sena ÇELİK.....</i>	704-714
16. IN SILICO EXPLORATION OF PLANT EXTRACTS AS ACHE INHIBITORS: INSIGHTS FROM MOLECULAR DYNAMICS AND MM/GBSA ANALYSIS FOR ALZHEIMER'S DRUG DEVELOPMENT	
<i>Başar KURT, Murat EVCİL, Ayşe BARAN.....</i>	715-728
17. PATLATMALI KAZI ÇALIŞMALARINDA TİTREŞİM YAYILIM EŞİTLİKLERİNİN SAHA OLÇÜMLERİYLE KARŞILAŞTIRILMASI, BİR İNŞAAT PROJESİ ÖRNEĞİ	
<i>Tuğçe ÖNGEN.....</i>	729-737
18. DESIGN AND FINITE ELEMENT ANALYSIS OF A HYDRAULIC MOBILE ELEVATING WORK PLATFORM	
<i>Oğuz GUNEV, Omer Bugra SEYMEN, Tolga GÜNEY, Sinan DUZENLİ, Mucahit SOYASLAN.....</i>	738-746
19. PERFORMANCE EVALUATION OF G7 COUNTRIES IN TERMS OF PATENT APPLICATIONS	
<i>Sinan DÜNDAR.....</i>	747-756
20. TECHNOLOGICAL ADVANCES IN AEC: AI, MACHINE LEARNING, BIM, AND THE FUTURE OF SUSTAINABLE BUILDING DESIGN IN A POST-PANDEMIC WORLD	
<i>Aslıhan ŞENEL SOLMAZ.....</i>	757-774
21. THERMAL AND MECHANICAL PROPERTIES OF ETHYL VINYL ACETATE (EVA) / NANO-CLAYS OR SLAKED LIME COMPOSITES	
<i>İlker ERDEM, Şeyma AVCI.....</i>	775-783
22. MECHANICAL STABILIZATION OF GRANULAR SOILS WITH CHICKEN FEATHER FIBER WASTE	
<i>Mitat ÖZTÜRK, Uğur Eren YURTCAN.....</i>	784-792
23. CAM ELYAF/POLİPROPİLEN MELEZ İPLİKLERİNDEN ELYAF SARMA YÖNTEMİYLE KOMPOZİT BORU ÜRETİMİ	
<i>Aylin ALTINBAY, Mustafa DOĞU, Ahmet ÜNAL.....</i>	793-798
24. SİVİL HAVACILIK SEKTÖRÜNDE EMİSYON HESAPLAMA YÖNTEM VE YÖNETİMİ: TRABZON, RİZE-ARTVİN VE ORDU-GİRESUN HAVALİMANLARI ÖRNEĞİ	
<i>Fatih KARAMAN.....</i>	799-813
25. THERMODYNAMIC AND ENVIRONMENTAL PERFORMANCE ANALYSIS OF THE MARIB INTEGRATED POWER AND COOLING CYCLE	
<i>Abdulrazzak AKROOT.....</i>	814-823
26. A COST-EFFECTIVE WIDE-BAND ANTENNA FOR 5G COMMUNICATION SYSTEMS	
<i>Gürkan KALINAY, İremnur DURU, Timuçin Emre TABARU, Fatih KABURCUK.....</i>	824-830
27. ANTIBAKTERİYEL VE AKUSTİK PERFORMANSLI KENEVİR ESASLI STETOSKOP DIYAFRAM MALZEMESİ GELİŞTİRİLMESİ	
<i>Tuğba MUTUK, Selim ARAS, Şevval EREN, Ahmet Anıl TÜMER.....</i>	831-836
28. THERMODYNAMIC AND STRUCTURAL PROPERTIES OF BIOMIMETIC MONOLAYERS CONTAINING CHOLESTEROL AND MAGNETITE NANOPARTICLES	
<i>Nagihan SOYER, Sema SALGIN, Uğur SALGIN.....</i>	837-845

29. TÜRKİYE'DE KAMU OKUL VE HASTANE İNŞAATI PROJELERİNDE FARKLI ÖN MALİYET TAHMİN YÖNTEMLERİNİN PERFORMANSLARININ KARŞILAŞTIRILMASI: GÜNEY MARMARA BÖLGESİ ÖRNEĞİ	
<i>Latif Onur UĞUR.....</i>	846-854
30. BİR ELEKTRİKLİ ARAÇ LİTYUM İYON BATARYASININ DOĞAL TAŞINIM ŞARTLARINDA SOĞUTULMASININ DENEYSEL OLARAK İNCELENMESİ	
<i>Muhittin BİLGİLİ, Yunus Emre GÖNÜLAÇAR, Emre Aşkın ELİBOL.....</i>	855-862
31. COMPARISON OF IN VITRO AND HYDROPONIC SCREENING METHODS FOR NITROGEN EFFICIENCY IN PEPPER (CAPSICUM ANNUUM L.)	
<i>Alim AYDIN, Hasan PINAR, Firdes ULAS, Halit YETİŞİR, Mirac SAHİN, Hamide AYDIN....</i>	863-874
32. PERFORMANCE EVALUATION OF SUPERVISED MACHINE LEARNING CLASSIFIERS FOR TYPE 2 DIABETES MELLITUS PREDICTION	
<i>Onur KURT.....</i>	875-884
33. TRANSFORMATION OF GLUCOSE INTO HMF AND FURFURAL IN HYDROTHERMAL REACTION CONDITIONS	
<i>Koray ALPER.....</i>	885-890
34. INVESTIGATING THE IMPACT OF INSULATION THICKNESS ON CONDENSATION LEVELS: A CASE STUDY IN SİVAS, TÜRKİYE	
<i>Cenker AKTEMUR, Mutlu Tarık ÇAKIR.....</i>	891-898

Reviews

35. PATLAYICI MADDELER: SINIFLANDIRMA, GÜNÜMÜZ UYGULAMALARI VE GELECEĞE YÖNELİK YÖNELİMLER	
<i>Seyhan ATEŞECELOĞLU, Bülent İMAMOĞLU.....</i>	899-909