

Black Sea Journal of Engineering and Science





**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 4 times (January, April, July and October) 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 4 times (January, April, July and October) in a year

Publication date and place: January 01, 2022 - Samsun, TURKEY

Publishing kind: Electronically

OWNER

Assoc. Prof. Uğur SEN

DIRECTOR IN CHARGE

Prof. Dr. Hasan ÖNDER

EDITORIAL DECLARATION

Dear authors and readers,

First of all, we would like to thank you for being our travel companion by writing, evaluating, and reading us about this broadcasting life we started five years ago. With these thoughts, we are especially thankful for researchers and academicians honoring with the articles, valuable scientists involved in editorial boards, and reviewers for their contributions to the evaluation processes through their opinions/ideas/contributions/criticisms. With this article, we wanted to inform you, our valuable stakeholders, about the development of The Black Sea Journal of Engineering and Science (BSJ Eng Sci). The statistics of the BSJ Eng Sci for the last four years are given below. Hope you will be with us in future issues.

Year	Articles	Cites	Cite Index*	CNA	CNC	CCI
2018	20	40	2	20	40	2
2019	22	28	1,27	42	68	1,62
2020	29	7	0,24	71	75	1,06
2021	32	4	0,13	103	79	0,77

CNA= cumulative number of articles, CNC= cumulative number of cite, CCI= cumulative cite index

*: according to Scholar Google

Rejection rate:

- 2020: 9%
- 2021: 18%

Average review time (days): 44

Average time from send to publish (days): 116

EDITOR BOARDS

EDITOR IN CHIEF

Prof. Dr. Hasan ÖNDER, Ondokuz Mayıs University, TURKEY
Assoc. Prof. Uğur ŞEN Ondokuz, Mayıs University, TURKEY

SECTION EDITORS*

Prof. Dr. Erkan YALÇIN, Ondokuz Mayıs University, TURKEY
Prof. Dr. Hasan TANAK, Amasya University, TURKEY
Prof. Dr. Hasan TEMİZ, Ondokuz Mayıs University, TURKEY
Prof. Dr. Mustafa ŞAHİN, Kahramanmaraş Sutcu İmam University, TURKEY
Prof. Dr. Berna KILIÇ, Ege University, TURKEY
Assoc. Prof. Dr. Kadyrbay CHEKİROV, Kyrgyz Turkish Manas University, KYRGYZSTAN
Assoc. Prof. Dr. Özgür Hakan AYDOĞMUŞ, Social Sciences University of Ankara, TURKEY
Assoc. Prof. Dr. Roswanira Binti AB WAHAB, University of Technology, MALAYSIA
Asst. Prof. Dr. Sedat KARADAVUT, Trakya University, TURKEY

* The ranking is arranged alphabetically within the academic title

EDITORIAL - ADVISORY BOARD*

Prof. Dr. Aglaia (Litsa) LIOPA-TSAKALIDI, Institute of Western Greece, GREECE
Prof. Dr. Ercan EFE, Kahramanmaraş Sutcu İmam University, TURKEY
Prof. Dr. Mohammad Masood TARIQ, University of Balochistan, PAKISTAN
Prof. Dr. Mustafa Çağatay TUFAN, Ondokuz Mayıs University, TURKEY
Prof. Dr. Özkan GÖRGÜLÜ, Ahi Evran University, TURKEY
Assoc. Prof. Dr. Taner TUNÇ, Ondokuz Mayıs University, TURKEY
Asst. Prof. Dr. Emil OMURZAK, Kyrgyz-Turkish Manas University, KYRGYZSTAN
Asst. Prof. Dr. Yılmaz KAYA, Ondokuz Mayıs University, TURKEY

* The ranking is arranged alphabetically within the academic title

STATISTIC EDITOR

Prof. Dr. Mehmet TOPAL, Kastamonu University, Turkey

ENGLISH EDITOR

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

TURKISH EDITOR

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

REVIEWERS OF THE ISSUE*

- Prof. Dr. Kubilay Kazım VURSAVUŞ, Çukurova University, TURKEY
- Prof. Dr. Uğur BAŞARAN, Yozgat Bozok University, TURKEY
- Prof. Dr. Zeynel CEBECİ, Çukurova University, TURKEY
- Assoc. Prof. Dr. Ali İhsan ATALAY, İğdır University, TURKEY
- Assoc. Prof. Dr. Erdem GÜLÜMSER, Bilecik Şeyh Edebali University, TURKEY
- Assoc. Prof. Dr. İsa COŞKUN, Kırşehir Ahi Evran University, TURKEY
- Assoc. Prof. Dr. İsmail ÜLGER, Erciyes University, TURKEY
- Assoc. Prof. Dr. Mehmet Arif ÖZYAZICI, Siirt University, TURKEY
- Assoc. Prof. Dr. Yalçın TAHTALI, Tokat Gaziosmanpaşa University, TURKEY
- Assist. Prof. Dr. Emrah KAYA, İğdır University, TURKEY
- Assist. Prof. Dr. Erhan ERGÜN, Ondokuz Mayıs University, TURKEY
- Assist. Prof. Dr. Gökhan KAYHAN, Ondokuz Mayıs University, TURKEY
- Assist. Prof. Dr. Hüseyin DURAN, Ondokuz Mayıs University, TURKEY
- Assist. Prof. Dr. Özer KURT, Muş Alparslan University, TURKEY
- Dr. Cem TIRINK, İğdır University, TURKEY
- Dr. Sevtap TIRINK, İğdır University, TURKEY

* The ranking is arranged alphabetically within the academic title

Table of Contents

Research Article

1. COMPLIANCE ASSESSMENT OF THE REQUEST FOR CHANGE OF ALLOCATION PURPOSE IN RANGELANDS: THE CASE OF KAYI VILLAGE RANGELAND, ÇORUM, TURKEY 

(Meralarda tahsis amacı değişikliği talebinin mevzuata uygunluk değerlendirmesi: kayı köyü merası örneği, Çorum, Türkiye)
Ferat UZUN, Kadir İSPİRLİ, Ömer Faruk UZUN.....1-6

2. ANALYSIS OF ULTRASONIC HORN WITH FINITE ELEMENT METHOD 

(Ultrasonik makinede boynuzların sonlu elemanlar ile analizi)
Cem ALTUNOK, Onur KOÇDEVİREN, Nurettin ŞENYER, İbrahim KELEŞ.....7-10

3. PREDICTION OF RENEWABLE ENERGY CONSUMPTION OF EUROPEAN UNION USING ARTIFICIAL NEURAL NETWORKS 

(Yapay sinir ağları kullanılarak Avrupa Birliği'nin yenilenebilir enerji tüketiminin tahmini)
Asma MOHAMED ELMI, Ayşe Ayçım SELAM, Ahmet Kubilay ATALAY.....11-17

4. INVESTIGATION OF GROWTH IN TURKEYS USING A MULTIPHASIC MODEL 

(Hindilerde büyümeyenin çok evreli bir model yardımıyla incelenmesi)
Ahmet ÇELİK, Yaşar ASLAN, Ercan EFE.....18-25

5. DETERMINATION OF BIODIESEL PRODUCTION VOLUME OF SUNFLOWER AS THE MAJOR OILSEED CROP IN TURKEY 

(Türkiye'de başlıca yağlı tohum ürünü olarak Ayçiçeğinin biyodizel üretim hacminin belirlenmesi)
Hülya KARABAŞ.....26-29

6. USE OF HYDROPONIC BARLEY AS A GREEN FEED SOURCE AND ITS EFFECTS ON RED PARTRIDGES (ALECTORIS CHUKAR) 

(Kinalı kekliklerde (Alectoris Chukar) yeşil yem kaynağı olarak hidroponik arpa kullanımı ve etkileri)
Çağrı Özgür ÖZKAN, Mustafa ALTUNTAŞ, Ali İhsan ATALAY.....30-33

Review Article

7. USE OF FLAVONOIDS AND SAPONINS IN RUMINANT ANIMAL NUTRITION 

(Flavonoid ve saponinlerin ruminant hayvan beslemeye kullanımı)
Mustafa BOĞA, Filiz KOCADAYIOĞULLARI, Müge ERKAN CAN.....34-41

8. ASSESSMENT OF THE GLOBAL ENVIRONMENTAL IMPACTS OF COVID-19 PANDEMIC 

(Covid-19 salgınının küresel boyutta çevresel etkilerinin değerlendirilmesi)
Hülya AYKAÇ ÖZEN, Bahtiyar ÖZTÜRK.....42-53