

IJTPE Journal

International Journal on TECHNICAL AND PHYSICAL PROBLEMS OF ENGINEERING (IJTPE)

<http://www.iotpe.com>
<http://www.iotpe.com/ijtpe.html>
 ijtpe@iotpe.com, ijtpe0@gmail.com

Issue 50

Volume 14

Number 1

March 2022

Serial No: 0050-1401-0322



Founders and Publishers:

International Organization of IOTPE



Taba Elm International Institute
 Tabriz, Iran
www.tabaelm.com



Seraj Higher Education Institute
 Tabriz, Iran
www.seraj.ac.ir



Gazi University
 Ankara, Turkey
www.gazi.edu.tr



Istanbul Technical University
 Istanbul, Turkey
www.itu.edu.tr



Isik University
 Istanbul, Turkey
www.isikun.edu.tr



Van Yuzuncu Yil University
 Van, Turkey
www.yyu.edu.tr



Istanbul Rumeli University
 Istanbul, Turkey
<http://rumeli.edu.tr>



Institute of Physics
 Azerbaijan National Academy of Sciences
 Baku, Azerbaijan
www.physics.gov.az



Azerbaijan Research Institute of
 Energetics and Energy Design
 Azerenerji JSC, Baku, Azerbaijan
www.azenerji.com/en/about/pei.html



Cleaner Production and
 Energy Efficiency Center
 Baku, Azerbaijan
<http://cpee.az>



Nakhchivan State University
 Nakhchivan, Azerbaijan
www.ndu.edu.az



University of Pitesti
 Pitesti, Romania
www.upit.ro



Universidad del País Vasco
 Euskal Herriko Unibertsitatea

University of the Basque Country
 Bilbao, Spain
www.ehu.es



Near East University
 Lefkosa, Northern Cyprus
www.neu.edu.tr



Ostfold University College
 Fredrikstad, Norway
www.hiof.no

IJTPE Journal
International Journal on
TECHNICAL AND PHYSICAL PROBLEMS OF ENGINEERING
(IJTPE)

Published by International Organization of IOTPE

<http://www.iotpe.com>
<http://www.iotpe.com/ijtpe.html>
ijtpe@iotpe.com, ijtpe0@gmail.com

Issue 50

Volume 14

Number 1

March 2022

Serial No: 0050-1401-0322

EDITORS-IN-CHIEF:

- Academician Arif Mamed HASHIMOV
- Prof. Naser MAHDAVI TABATABAEI
- Prof. Nicu BIZON

SCIENTIFIC AND EXECUTIVE SECRETARIES:

- Narges S. BOUSHEHRI, M.Sc. - Nima M. TABATABAEI, B.Sc. - Mostafa Nikbakht, B.Sc.
- Ali JAFARI, M.Sc. - Javad M. TABATABAEI, Ph.D. - Ali PASHAEI, Ph.D.

EDITORIAL BOARD:

- Assoc. Prof. Aytak R. BABAYEVA, Azerbaijan Research Institute of Energetics & Energy Design (*Baku, Azerbaijan*)
- Prof. Javier BILBAO, University of the Basque Country (*Bilbao, Spain*)
- Prof. Nicu BIZON, University of Pitesti (*Pitesti, Romania*)
- Prof. Hazim Tamer DODURKA, Istanbul Rumeli University (*Istanbul, Turkey*)
- Prof. Kamil M. DURSUN, Ostfold University College (*Fredrikstad, Norway*)
- Asst. Prof. Reza EFFATNEJAD, Islamic Azad University, Karaj Branch (*Karaj, Iran*)
- Prof. Naci GENC, Van Yuzuncu Yil University (*Van, Turkey*)
- Acad. Arif M. HASHIMOV, Institute of Physics of Azerbaijan National Academy of Sciences (*Baku, Azerbaijan*)
- Asst. Prof. Hojat HATAMI, Seraj Higher Education Institute (*Tabriz, Iran*)
- Prof. Silviu IONITA, University of Pitesti (*Pitesti, Romania*)
- Prof. Elbrus Saleh ISAYEV, Nakhchivan State University (*Nakhchivan, Azerbaijan*)
- Prof. Ramiz A. ISKANDEROV, Azerbaijan University of Architecture and Construction (*Baku, Azerbaijan*)
- Prof. Ires ISKENDER, Cankaya University (*Ankara, Turkey*)
- Prof. Yorgo ISTEфанOPULOS, Isik University (*Istanbul, Turkey*)
- Prof. Anvar T. KHUDIEV, Institute of Petrochemical Processes of Azerbaijan National Academy of Sciences (*Baku, Azerbaijan*)
- Assoc. Prof. Lyudmila V. KRIVOVA, Tomsk Polytechnic University (*Tomsk, Russia*)
- Prof. Naser MAHDAVI TABATABAEI, Seraj Higher Education Institute (*Tabriz, Iran*)
- Prof. Ozgur C. OZERDEM, European University of Lefke (*Lefke, Northern Cyprus*)
- Assoc. Prof. Kamil B. QURBANOV, Institute of Physics of Azerbaijan National Academy of Sciences (*Baku, Azerbaijan*)
- Prof. Nariman R. RAHMANOV, Azerbaijan Research Institute of Energetics & Energy Design (*Baku, Azerbaijan*)
- Prof. Ali ROSTAMI, University of Tabriz (*Tabriz, Iran*)
- Assoc. Prof. Rustam B. RUSTAMOV, Institute of Physics of Azerbaijan National Academy of Sciences (*Baku, Azerbaijan*)
- Prof. Fahreddin M. SADIKOGLU, Near East University (*Lefkosa, Northern Cyprus*)
- Prof. Heidar Ali SHAYANFAR, Iran University of Science and Technology (*Tehran, Iran*)
- Prof. M. Cengiz TAPLAMACIOGLU, Gazi University (*Ankara, Turkey*)
- Prof. Omer USTA, Istanbul Technical University (*Istanbul, Turkey*)

ADVISORY BOARD:

- Prof. Senol BEKTAS, Near East University (*Lefkosa, Northern Cyprus*)
- Assoc. Prof. Robert BELOIU, University of Pitesti (*Pitesti, Romania*)
- Prof. Eugenio BRAVO, University of the Basque Country (*Bilbao, Spain*)
- Prof. Dominic B.O. KONDITI, Multimedia University College of Kenya (*Nairobi, Kenya*)
- Assoc. Prof. Mihai OPROESCU, University of Pitesti (*Pitesti, Romania*)

SCIENTIFIC BOARD:

- Ahrabian, Gh., Asst. Prof. (*Iran*)
Akcamlar, N., Assoc. Prof. (*Turkey*)
Aksen, A., Prof. (*Turkey*)
Ardehali, M.M., Prof. (*Iran*)
Ari, M., Prof. (*Turkey*)
Banan, Kh., Prof. (*Iran*)
Bay, O.F., Prof. (*Turkey*)
Behjat, V., Assoc. Prof. (*Iran*)
Bektas, S., Prof. (*Northern Cyprus*)
Beloiu, R., Assoc. Prof. (*Romania*)
Bilbao, J., Prof. (*Spain*)
Bizon, N., Prof. (*Romania*)
Boushehri, N.S. (*Iran*)
Bravo, E., Prof. (*Spain*)
Bulut, F., Asst. Prof. (*Turkey*)
Camurcu, A.Y., Prof. (*Turkey*)
Chirlesan, D., Assoc. Prof. (*Romania*)
Costea, M., Assoc. Prof. (*Canada*)
Darabi, A., Prof. (*Iran*)
Demiroren, A., Prof. (*Turkey*)
Dursun, K.M., Prof. (*Norway*)
Effatnejad, R., Asst. Prof. (*Iran*)
Eguia, P., Prof. (*Spain*)
Faiz, J., Prof. (*Iran*)
Farsadi, M., Assoc. Prof. (*Iran*)
Farsangi, M.M., Prof. (*Iran*)
Feizi, M.R., Prof. (*Iran*)
Forrisdal, O.K., Assoc. Prof. (*Norway*)
Genc, N., Prof. (*Turkey*)
Ghanbari, E., Prof. (*Iran*)
Gholami, A., Prof. (*Iran*)
Gonzalez, P., Prof. (*Spain*)
Gozde, H., Assoc. Prof. (*Turkey*)
Hardalac, F., Assoc. Prof. (*Turkey*)
Hasanov, E.R., Prof. (*Azerbaijan*)
Hasanova, S.I., Asst. Prof. (*Azerbaijan*)
Hashimov, A.M., Acad. (*Azerbaijan*)
Hatami, H., Asst. Prof. (*Iran*)
Hernandez, J.R., Prof. (*Spain*)
Huseynov, A., Prof. (*Azerbaijan*)
Ionita, S., Prof. (*Romania*)
Iskanderov, R.A., Prof. (*Azerbaijan*)
Iskender, I., Prof. (*Turkey*)
Istefanopoulos, Y., Prof. (*Turkey*)
Izykowski, J., Prof. (*Poland*)
Jadid, Sh., Prof. (*Iran*)
Jafari, A. (*Iran*)
Kalantar, M., Prof. (*Iran*)
Kazemi, A., Assoc. Prof. (*Iran*)
Kenarangui, R., Prof. (*USA*)
Khalin, M.V., Prof. (*Russia*)
Khalina, T.M., Prof. (*Russia*)
Khudiev, A.T., Prof. (*Azerbaijan*)
Kocaarslan, I., Prof. (*Turkey*)
Kocabas, D.A., Asst. Prof. (*Turkey*)
Konditi, D.B.O., Prof. (*Kenya*)
Krivova, L.V., Assoc. Prof. (*Russia*)
Kuznetsov, V., Prof. (*Ukraine*)
Mamedov, N.A., Prof. (*Azerbaijan*)
Meral, M.E., Prof. (*Turkey*)
Mokhtarpour, A., Asst. Prof. (*Iran*)
Moradzadeh, M., Assoc. Prof. (*Belgium*)
Mordt, H., Assoc. Prof. (*Norway*)
Mustafayev, R.I., Prof. (*Azerbaijan*)
Najafi, S., Prof. (*Iran*)
Nasirzadeh, N., Asst. Prof. (*Iran*)
Nuriyev, M.A., Assoc. Prof. (*Azerbaijan*)
Oprescu, B., Prof. (*Romania*)
Oproescu, M., Assoc. Prof. (*Romania*)
Oraee, H., Prof. (*Iran*)
Ozerdem, O.C., Prof. (*Northern Cyprus*)
Pashaei, A., Dr. (*Turkey*)
Pavlyuchenko, D.A., Prof. (*Russia*)
Qurbanov, K.B., Assoc. Prof. (*Azerbaijan*)
Rahmanov, N.R., Prof. (*Azerbaijan*)
Rebollar, C., Prof. (*Spain*)
Rosolowski, E., Prof. (*Poland*)
Rostami, A., Prof. (*Iran*)
Rzayev, F.T., Dr. (*Azerbaijan*)
Sadikoglu, F.M., Prof. (*Northern Cyprus*)
Saracoglu, R., Assoc. Prof. (*Turkey*)
Sazli, M.H., Prof. (*Turkey*)
Sefa, I., Prof. (*Turkey*)
Senol, M.A., Dr. (*Turkey*)
Serban, G., Prof. (*Romania*)
Sharifian, M.B.B., Prof. (*Iran*)
Shayanfar, H.A., Prof. (*Iran*)
Shayeghi, H., Prof. (*Iran*)
Stanescu, C., Prof. (*Romania*)
Tabatabaei, J.M., Dr. (*Turkey*)
Tabatabaei, Naser M., Prof. (*Iran*)
Tabatabaei, Nejat M., Asst. Prof. (*Germany*)
Taghizadegan, N., Assoc. Prof. (*Iran*)
Taplamacioglu, M.C., Prof. (*Turkey*)
Usta, O., Prof. (*Turkey*)
Varela, C., Prof. (*Spain*)
Vishtibeyev, A. Prof. (*Russia*)

EDITORIAL NOTE

We are pleased to present International Journal on "Technical and Physical Problems of Engineering" (IJTPE) in English and electronic print published seasonal periodically by the partners of International Organization on "Technical and Physical Problems of Engineering" (IOTPE) including Institute of Physics of Azerbaijan National Academy of Sciences (Baku, Azerbaijan), Azerbaijan Research Institute of Energetics and Energy Design (Azerenerji JSC, Baku, Azerbaijan), Cleaner Production and Energy Efficiency Center (Baku, Azerbaijan), Nakhchivan State University (Nakhchivan, Azerbaijan), Seraj Higher Education Institute (Tabriz, Iran), Nakhchivan State University (Nakhchivan, Azerbaijan), Taba Elm International Institute (Tabriz, Iran), Gazi University (Ankara, Turkey), Istanbul Technical University (Istanbul, Turkey), Isik University (Istanbul, Turkey), Van Yuzuncu Yil University (Van, Turkey), Istanbul Rumeli University (Istanbul, Turkey), University of Pitesti (Pitesti, Romania), University of the Basque Country (Bilbao, Spain), Near East University (Lefkosa, Northern Cyprus) and Ostfold University College (Fredrikstad, Norway).

The IOTPE organization is a scientific association, founder and holder of International Conferences on "Technical and Physical Problems of *Power* Engineering" (ICTPE) have been held from 2002 to 2012. The ICTPE Conferences name and topics are improved to International Conference on "Technical and Physical Problems of *Electrical* Engineering" (ICTPE) have been held from 2013 to 2019.

Finally, the ICTPE Conferences name and topics are improved to International Conference on "Technical and Physical Problems of *Engineering*" (ICTPE) in 2020 Conference to cover subjects in all fields and topics of Electrical Engineering and have been held till now.

The IOTPE organization is generally managing and performing a set of scientific-executive affairs to holding International Conference of ICTPE, publishing International Journal of IJTPE and directing International Enterprise of IETPE.

Successful organizing and holding ICTPE conference and publishing IJTPE journal indicates close friendship and scientific collaboration of the scientists and researchers of member countries in engineering field development between the countries. The importance of holding ICTPE conference and publishing IJTPE journal are mutual understanding and recognition between the organizer countries through scientific, social and cultural

development where yields increasing international cooperation in scientific areas.

Furthermore, the importance subjects of ICTPE conference and IJTPE journal are related to the opportunity for researches and scientists from different countries to clarify and discuss the latest and mutual research achievements and improvements as well as generalization of the internationally obtained results in the area of engineering and new technologies.

The conducting of ICTPE conference and IJTPE journal are based on important principle of the cooperative relationship between science and industry. This relationship is a basis for the activity of contemporary engineering companies. It is well known that important technical advance is possible only due to achievements of fundamental science.

Publishing IJTPE journal is getting increasing importance for cooperation of researchers and scientific centers of different countries. We strongly believe the journal provides the establishing scientific relationships and also increase the cooperation of east and west countries on the subject of engineering fields and applying the new technologies on solving technical and physical problems.

By the mean of IJTPE journal publication, the cooperation with the partners from the involved countries and also all of the worlds will be fostered. It is the main objective to enhance the level of multilateral exchanges, the involvement of authors in developing and improving the scientific research.

The issues of IJTPE journal are registered, cited and indexed in some scientific organization and databases such as Elsevier-Scopus.

We will do our best to disseminate the journal's results and forward to the possible technological transfer of the accumulated knowledge of the scientific contributions of the authors.

Finally, we wish to express our gratefulness to all the authors and scientists from all over the world who have scientific reports in preparing the transactions published in the journal.

Editors-in-Chief

Academician Arif Mamed HASHIMOV
Prof. Naser MAHDAVI TABATABAEI
Prof. Nicu BIZON

<u>NO</u>	<u>CONTENTS</u>	<u>PAGES</u>
1	MODEL-BASED OPERATIONAL AND FUNCTIONAL ANALYZES FOR COMPLEX MULTIDISCIPLINARY SYSTEM: A CASE STUDY FOR A MINING PRODUCTION CONTROL SYSTEM A. Semmar, N. Machkour, M. El Ouazguiti, H. Amalik, H. Medromi	1-9
2	OPTIMAL COORDINATION OF DOCRS USING GA WITH INTEGRATION OF DGS IN DISTRIBUTION NETWORKS Z. El Idrissi, T. Haidi, F. Elmariami, A. Belfqih	10-17
3	TOWARDS AN APPROACH BASED ON INTERNAL AUDIT FOR AN INTEGRATIVE THEORETICAL FRAMEWORK OF THE GOVERNANCE OF PUBLIC ORGANIZATIONS H. Hanaty, B.E. Chegri, O. Hniche	18-23
4	ESTIMATION OF DYNAMICS OF LAND SURFACE TEMPERATURE USING TERRA/MODIS LAND SURFACE TEMPERATURE DATA J. Piamdee, T. Laosuwan	24-28
5	HEAT TRANSFER CHARACTERISTICS OF COCONUT OIL AS PHASE CHANGE MATERIALS IN FREEZING PROCESS M. Irsyad, A. Amrizal, M.D. Susila, A. Amrul, T.M. Fransisco	29-33
6	STUDY OF A MOBILE ROBOT'S OBSTACLE AVOIDANCE BEHAVIOR IN A RADIOACTIVE ENVIRONMENT WITH A HIGH LEVEL OF AUTONOMY Y. Haddi, A. Kharchaf, A. Moumen	34-41
7	STRUCTURE OPTIMIZATION OF A HEXAPOD ROBOT M. Atify, M. Bennani, A. Abouabdellah	42-49
8	TEACHING PRACTICES OF SCIENTIFIC AWAKENING RELATED TO MANAGEMENT OF REPRESENTATIONS OF PRIMARY SCHOOL LEARNERS: INSPECTORS VIEWPOINTS N. Jad, K. Raouf, K. Elkababi, M. Radid	50-56
9	OPTIMAL FOTID CONTROLLER DESIGN FOR REGULATION OF DC MOTOR SPEED R. Mohajery, H. Shayeghi, P. Zare	57-63
10	RECONSTRUCTION OF STRUCTURAL ELEMENTS DAMAGED UNDER INFLUENCE OF PRESSURE AND WAVE ON STATIONARY SEA PLATFORMS A.I. Khudiyeva, M.Z. Yusifov	64-70
11	N-DOF DISCRETE MODEL TO INVESTIGATE FREE VIBRATIONS OF CRACKED TAPERED BEAMS AND RESTING ON WINKLER ELASTIC FOUNDATIONS A. Moukhliiss, A. Rahmouni, O. Bouksour, R. Benamar	71-77
12	INTELLIGENT MODELING AND SIMULATION OF THE INVERSE KINEMATICS REDUNDANT 3-DOF COOPERATIVE USING SOLIDWORKS AND MATLAB/SIMMECHANICS A. Bahani, E.H. Ech Chhibat, H. Samri, H.A. El Attar	78-88
13	A PROFIT-DRIVEN STACKING MODEL FOR EFFECTIVE CHURN PREDICTION J.N. Victor	89-94
14	FEATURES OF REGULATIONS AND CALCULATION OF OVERHEATING FROM SOLAR RADIATION BY USING SOLAR MAPS O.V. Sergeychuk, O.V. Andropova, Y.V. Kozak, E.N. Scherbakova	95-102
15	FEATURES OF CALCULATION OF PREFABRICATED STEEL FIBER CONCRETE AIRFIELD SLABS O.D. Zhuravskiy, N.E. Zhuravska, A.M. Bambura	103-107

16	TOWARDS A PRACTICAL CONCEPTUAL MODEL OF DETERMINANTS OF TERRITORIAL COMPETITIVENESS A. Morachid, R. Benabdelouahed	108-115
17	TEACHING OF PHYSICAL SCIENCES IN MOROCCAN COLLEGES: THE OBSTACLES AND DIFFICULTIES ENCOUNTERED M. Ben Boumediane, F. Benabdelouahab, R.J. Idrissi	116-123
18	DESIGN OF ELECTRIC DEVICES WITH INDUCTION LEVITATION ELEMENTS N.M. Piriyeva	124-129
19	CONTAINER MIGRATION AND PLACEMENT IN HYBRID CLOUD-FOG ENVIRONMENT: SYSTEMATIC REVIEW M. Patel, A. Mehta, S. Patel	130-135
20	ANALYSIS OF THERMAL STABILITY OF WALL ENCLOSING STRUCTURE OF BUILDING FOR CLIMATIC CONDITIONS N.Y. Mammadov, S.M. Akbarova	136-141
21	DESIGN OF FRAMELESS GIMBAL MOTOR FOR UAV APPLICATIONS S. Arslan, I. Iskender	142-148
22	HYBRID DISTRIBUTED GENERATION SYSTEMS CONSTRUCTION WITH RENEWABLE ENERGY SOURCES FOR REMOTE CONSUMERS POWER SUPPLY N.R. Rahmanov, N.M. Tabatabaei, R.E. Kerimov, A.Z. Mahmudova	149-155
23	Cu₂ZnSnSe₄ THIN FILMS FOR SOLAR CELL APPLICATIONS N.N. Mursakulov, S.G. Nuriyeva, N.N. Abdulzade, Kh.M. Guliyeva	156-160
24	OPTIC RADIATION OF THIN-FILM STRUCTURE OF FD-RESISTOR WITH ACTIVE Ni_{0.4}Zn_{0.6}Fe₂O₄ LAYER T.R. Mehdiyev, A.M. Hashimov, Sh.N. Aliyeva, I.F. Yusibova, A.A. Sadigova	161-165
25	RESEARCH OF THE ELECTRICAL PROPERTIES OF COMPOSITE VARISTORS BASED ON ZnO-POLYMER Sh.M. Ahadzade, A.M. Hashimov, Sh.G. Khalilova	166-171
26	CIRCAD EFFICIENCY OF LIGHT-EMITTING DIODE RADIATION FOR GENERAL LIGHTING S.A. Baghirov, Sh.S. Baghirova, S.H. Kyslytsia, H.M. Kozhushko, S.Z. Mammadzada	172-176
27	PROGRAMMABLE MOVEMENT OF THE WHEEL ROBOT V.G. Verbitskii, A.I. Bezverkhyi, D.A. Starshekov, I.A. Skrypnyk	177-182
28	HYBRID OPERATION OF A* AND PRM ALGORITHMS FOR EFFICIENT PATH PLANNING IN AUTONOMOUS MOBILE ROBOTS B. Uzun, H. Gozde, M.C. Taplamacioglu	183-189
29	EFFECT OF A VIRTUAL PHYSICS LABORATORY ON STUDENTS ACHIEVEMENT IN LYCEUM G.M. Sharifov	190-195
30	ENHANCEMENTS AND AN INTELLIGENT APPROACH TO OPTIMIZE BIG DATA STORAGE AND MANAGEMENT: RANDOM ENHANCED HDFS (REHDFS) AND DNA STORAGE M. Sais, N. Rafalia, J. Abouchabaka	196-203
31	ANALYSIS OF PARTICULAR COMPLEX NETWORKS USING TOPOLOGICAL INDICES C. Laghrifat, M. Essalih, I. Mounir	204-210

- | | | |
|----|---|---------|
| 32 | PLANT DISEASE RECOGNITION USING OPTIMIZED IMAGE SEGMENTATION TECHNIQUE
A. Dhandayuthapani, J. Lawrence | 211-218 |
| 33 | CHARACTERIZATION OF INDUSTRIAL WASTEWATER PHYSICO-CHEMICAL PROPERTIES
A. Adam, N. Saffaj, R. Mamouni, M. Ait Baih | 219-227 |
| 34 | INSTABILITY IN TWO GaAs VALLEY SEMICONDUCTORS IN ELECTRIC AND MAGNETIC FIELDS
E.R. Hasanov, Sh.G. Khalilova, R.K. Mustafayeva | 228-232 |
| 35 | DIMENSIONAL RADIATION OF A TWO-VALLEY SEMICONDUCTOR IN AN EXTERNAL ELECTRIC AND STRONG MAGNETIC FIELDS
E.R. Hasanov, G.M. Mammadova, E.O. Mansurova | 233-237 |
| 36 | SWITCHED INDUCTOR CAPACITOR BASED DC-AC CONVERTER FOR PV APPLICATIONS
S.N. Tackie, B.K. Kurehwatira | 238-246 |

* **The issues of IJTPE Journal are registered, cited and indexed in:**

Scopus

■ **Scopus / Elsevier**, www.scopus.com

The IJTPE is indexed in Scopus / Elsevier since 2019.

Indexing address:

<https://www.scopus.com/sourceid/21100913338>



■ **Norwegian Directorate for Higher Education and Skills (NDHES)** and **Norwegian Center for Research Data (NSD)**, <https://www.nsd.no/en/>, are under **Norwegian Ministry of Education and Research** since 2013. Indexing address:

https://kanalregister.hkdir.no/publiseringskanaler/KanalTidsskriftInfo.action?id=480511&request_locale=en



■ **Google Scholar**, <http://scholar.google.com/>, for searching, exploring, locating, keeping, checking and citing the publications and authors through the libraries and on the web since 2013.

Search for: IJTPE

<https://scholar.google.com/citations?hl=da&user=gfWxEhEAAAAJ>



I N T E R N A T I O N A L

■ **Index Copernicus International (ICI)**, <https://indexcopernicus.com/index.php/en/>, since 2013.

Indexing address:

<https://journals.indexcopernicus.com/search/details?id=32511>



■ **Research Bible Academic Research Index**, <http://journalseeker.researchbib.com/>, since 2016.

Indexing address:

<http://journalseeker.researchbib.com/view/issn/2077-3528>



■ **Scientific Indexing Services (SIS)**, <http://www.sindexs.org/>, since 2016.
Indexing address:
<http://www.sindexs.org/JournalList.aspx?ID=3176>



■ **Eurasian Scientific Journal Index (ESJI)**, <http://esjindex.org/>, since 2018.
Indexing address:
<http://esjindex.org/search.php?id=438>

SJR

■ **Scimago Journal & Country Rank (SJR)**, <https://www.scimagojr.com/>, since 2018.
Indexing address:
<https://www.scimagojr.com/journalsearch.php?q=2077-3528>



■ **Resurchify**, <https://www.resurchify.com/>
Indexing address:
<https://www.resurchify.com/impact/details/21100913338>



■ **Canadian Institute for Knowledge Development (CIKD)**, <https://cikd.ca/>
Indexing address:
<https://ieconferences.cikd.ca/call-for-papers-3rd-ie-conference/>