

# Balochistan Journal of Engineering & Applied Sciences (BJEAS)

Volume 3, No. 1 June 2020

# Balochistan University of Engineering & Technology, Pakistan

Email: bjeas.journal@buetk.edu.pk

p-ISSN: 2518-2706

Control of the contro

# Balochistan Journal of Engineering & Applied sciences (BJEAS)

BJEAS is a biannual research journal published by the Balochistan University of Engineering and Technology (BUET) Khuzdar, through the Office of Research, Innovation and Commercialization (ORIC). It is dedicated to the dissemination of research among institutions, universities, researchers and students with the promotion of quality on national and international levels as its main objectives.

BUETK is a renowned degree awarding institute of Engineering and Technology dedicated to providing quality education and promoting research activities in Pakistan and on international levels as well. It is a public-sector university established by the Government of Pakistan in 1987 and is approved and recognized by Higher Education Commission (HEC) of Pakistan and Pakistan Engineering Council (PEC).

#### **Guidelines for authors**

BJEAS seeks to publish research papers that identify, extend, or unify scientific knowledge and research pertaining to engineering and applied sciences.

The researchers/ authors are requested to submit well-researched and original unpublished papers, not already submitted to another journal for publication. Papers are accepted after approval through a process of double-blind peer-reviewed by independent reviewers.

#### **Copyright**

All the research papers published in this issue are licensed under the p-ISSN No: 2518-2706. Which permits unrestricted, non-commercial use, distribution and reproduction in any medium, provided the work is properly cited.

\_\_\_\_\_



, orași 2, 10, 1

# Patron-in-Chief's Message

I am delighted to have the opportunity to share a few thoughts at the time of publication of the second issue of BJEAS. In this era of technological advancements, it is necessary that research work carried out in various engineering and sciences disciplines is recognized and propagated properly. BJEAS is a step towards disseminating high-quality research nationally as well as globally while maintaining the unique recognition of Balochistan. I believe that this Journal will become a hallmark of research in the future. As Patron-in-Chief, I will ensure that BJEAS remains in line with rapidly shifting scientific communication landscape, while also maintaining and intensifying the high standards of academic excellence.

I sincerely hope that research articles published by BJEAS will provide insightful and stimulating information to readers and scholars that will shape our future and lead the way to extraordinary discoveries.

**Prof. Dr. Ehsanullah Khan Kakar** Vice Chancellor

Balochistan UET, Khuzdar

,

## **Aims of Journal**

BJEAS is a quality publication of peer-reviewed and refereed journal from diverse fields in sciences, Engineering and Technologies that emphasizes new research, development and their applications. BJEAS provides an open-access forum for scientists, scholars, researchers and engineers to exchange their research work, technical notes & surveying results among professionals through print and online publications.

# **Scope of Journal (but not limited to)**

	•	`	,
•	Applied science	•	Mathematics
•	Electrical engineering	•	Computer engineering
•	Electronic engineering	•	Optical engineering
•	Power engineering	•	Mechanical engineering
•	Acoustical engineering	•	Manufacturing engineering
•	Thermal engineering	•	Vehicle engineering
•	Automotive engineering	•	Aerospace engineering
•	Naval architecture	•	Agricultural engineering
•	Bioprocess engineering	•	Food engineering
•	Aquaculture engineering	•	Applied engineering
•	Automation/Control systems/Robotics	•	Computer-aided drawing and design
•	Construction	•	Electronics
•	Manufacturing	•	Graphics
•	Biological engineering	•	Nanotechnology
•	Genetic engineering	•	Biomedical engineering
•	Biological organisms	•	Biochemical engineering
•	Protein engineering	•	Tissue engineering
•	Energy engineering	•	Building services engineering
•	Manufacturing engineering	•	Industrial engineering
•	Systems engineering	•	Component engineering
•	Textile engineering	•	Construction engineering
•	Reliability engineering	•	Safety engineering
•	Nanoengineering	•	Mechatronics

### **Review Policy of Journal**

Chemical engineering

This journal has zero tolerance against plagiarism. All submitted papers are scanned through an approved Plagiarism detection software as per HEC guidelines. After plagiarism check, the papers are reviewed under double-blind peer review process.

Petroleum engineering

Submission and acceptance of papers depend upon the response of the reviewers. Plagiarism checking, and review process may take from four weeks to eight weeks depending upon the response from the reviewers and compliance from authors. After satisfactory review, the Editorial Board accepts the paper for publication and acceptance letter is issued to the author(s).

Deleghister Jeumel of Engineering & Applied Sciences, Volume 2, No. 1, June 2020

## **MANAGING BOARD**

# PATRON-IN-CHIEF **Dr. Ehsanullah Khan Kakar**

# PATRON

# Dr. Syed Mushtaq Ahmed Shah

#### CHIEF EDITOR

#### Dr. Khair Muhammad Kakar

#### MANAGING EDITORS

Dr. Shabbar Naqvi Dr. Ayaz H. Jarwar

#### **CO-EDITORS**

#### Dr. Khadija Qureshi

Mehran UET, Jamshoro, Pakistan

#### Dr. Amanullah Marri

NED University, Karachi, Pakistan

#### Dr. Safdar Hussain Bouk

DGIST, Daegu, South Korea

#### Dr. Salah Uddin

Balochistan UET, Khuzdar, Pakistan

#### Dr. Saleem Iqbal

University of Balochistan, Quetta, Pakistan

#### Dr. Abdullah Mengal

Balochistan UET, Khuzdar, Pakistan

# Dr. Ali Raza Shah

Balochistan UET, Khuzdar, Pakistan

# Dr. Tipu Sultan

University of M&T, Lahore, Pakistan

#### Dr. Faisal Ahmed

CEME NUST, Islamabad, Pakistan

# Dr. Inayat Ali

Baochistan UET, Khuzdar, Pakistan

# Dr. Imran Sarwar

Baochistan UET, Khuzdar, Pakistan

#### Dr. Inam Ullah Bhatti

Mehran UET, Jamshoro, Pakistan

#### Dr. Nawab Faseeh Qureshi

Sungkyunkwan University, Seoul, South Korea

#### Dr. Dileep Kumar

University of Suwan, Suwan, South Korea

#### Dr. Aamir Zeb Shaikh

NED UET, Karachi,

Pakistan

#### Dr. Faizullah Maher

Balochistan UET, Khuzdar, Pakistan

#### Dr. Jalal Shah

Balochistan UET, Khuzdar, Pakistan

# Dr. Ali Nawaz Mengal

Mir Chakar Khan Rind University, Sibi, Pakistan

#### Dr. Sohrab Bizanjo

Balochistan UET, Khuzdar, Pakistan

# Dr. Waseem Asghar Khan

Balochistan UET, Khuzdar, Pakistan

#### Dr. Raza Haider

Balochistan UET, Khuzdar, Pakistan

#### Dr. Rashid

Balochistan UET, Khuzdar, Pakistan

•

#### INTERNATIONAL EDITORIAL ADVISORY BOARD

#### Dr. Safeeullah Soomro

AMA International University, Salamabad, Bahrain

#### Dr. Osama Yousaf ababneh

Zarqa University, Zarqa, Jordon

#### Dr. M. Mowafaq

Sungkyunkwan University, Suwon, South Korea

#### Dr. Hazlina Binti Hamdan

Universiti Putra Malaysia, Serdang, Malaysia

#### Dr. Imdadullah Thaheem

DGIST, Daegu, South Korea

#### Dr. Muhammad Adil Zehri

P&D, Balochistan, Pakistan

#### Dr. Imran Ali

Datacom (pvt) Ltd, Australia

#### Dr. Emrah Evren kara

Düzce University, Düzce, Turkey

#### Dr. Ahmet Ocak

Ağrı İbrahim Çeçen University, Ağrı, Turkey

# Dr. Ali Kashif Bashir

University of Faroe Islands, Tórshavn, Faroe Island

# Dr. Mustafa Imran Ali

Arm Limited, United Kingdom

#### Dr. Sohail Akhtar

Concordia University, Montreal, Canada

#### Dr. Gul Agha

Illinois University Urbana Champaign, Ili, USA

#### Dr. Syed Zahoor Ul Haque

Caledonian College of Engineering, Muscat, Oman

#### Dr. Javed Ali

Caledonian College of Engineering, Muscat, Oman

#### Dr. Din Muhammad

University of Wollongong, Wollongong, Australia

## Dr. Dileep Kumar

University of Suwon, Suwon, South Korea

#### Dr. Nawab Faseeh Qureshi

Sungkyunkwan University, Seoul, South Korea

#### Dr. Onur Saldir

Van Yüzüncü Yıl University, Van, Turkey

#### Dr. Muhammad Arsalan Shehzad

Georgia Institute of Technoology, Atlanta, USA

#### Dr. Syed Chattan Shah

Hankuk University of Foreign Studies, Seoul, South Korea

#### Dr. Safdar Hussain Bouk

DGIST, Daegu, South Korea

#### Dr. Syed Saad Azhar

Universiti Teknologi PETRONAS, Perk, Malaysia

#### Dr. Daphne Teck Ching Lai

Universiti Brunei Darussalam, Bandar Seri Begawan, Brunei

#### NATIONAL EDITORIAL ADVISORY BOARD

Dr. Ajaz Bashir Janjua

HMC, Taxila, Pakistan

Dr. Usman Azhar

BUITEMS, Quetta,

Pakistan

Dr. Faisal Ahmed

CEME NUST, Islamabad,

Pakistan

Dr. Tipu Sultan

University of M&T, Lahore,

Pakistan

Dr. Ramesh Kumar

Dawood UET, Karachi,

Pakistan

**Dr. Feroz Ahmed Soomro** 

QUEST, Larkana,

Pakistan

Dr. Safiullah Soomro

QUEST, Larkana,

Pakistan

Dr. Imtaiz Ahmed Halepoto

**OUEST**, Nawabshah,

Pakistan

Dr. Aziz Ahmed Memon

Sukkur IBA University,

Sukkur, Pakistan

Dr. Muhammad Asim

Sukkur IBA University,

Sukkur, Pakistan

Dr. Saqib Siddiquie

BUITEMS, Quetta,

Pakistan

Dr. Irfan Ali Bacho

Mehran UET, Jamshoro,

Pakistan

Dr. Aftab Hameed Memon

QUEST, Nawabshah,

Pakistan

Dr. Shakil Ahmed

Sir Syed UET, Karachi,

Pakistan

Dr. Muhammad Asim

University of Karachi, Karachi,

Pakistan

Dr. M. Hussain Mahmood Mann

GC University, Faisalabad,

Pakistan

Dr. Aamir Zeb Shaikh

NED UET, Karachi.

Pakistan

Dr. Muhammad Adil Ansari

QUEST, Larkana,

Pakistan

Dr. Sohail Khokhar

QUEST, Nawabshah,

Pakistan

Dr. Ehsan Ahmed Buriro

QUEST, Larkana,

Pakistan

Dr. Abdul Karim shah

Dawood UET, Karachi,

Pakistan

Dr. Mohsin Shaikh

**OUEST**, Larkana,

Pakistan

Dr. Nazar Hussain Phulpoto

QUEST, Nawabshah,

Pakistan

Dr. Zahidullah

CECOS University of IT and ES,

Peshawar, Pakistan

Dr. Sved Kamran Sami

BUITEMS, Quetta,

Pakistan

Dr. Muhammad Yousef

Gomal University, D. I. Khan,

Pakistan

Dr. Tehseen Jawaid

AERC, University of Karachi,

Karachi, Pakistan

Dr. Ali Raza Shah

Balochistan UET, Khuzdar,

Pakistan

,

# EDITORIAL REVIEWER BOARD

Dr. Osama Yousaf ababneh

Zarqa University, Zarqa,

Jordon

Dr. Muhammad Adil Ansari

QUEST, Larkana,

Pakistan

Dr. Hazlina Binti Hamdan

Universiti Putra Malaysia, Serdang, Malaysia

Dr. Imdadullah Thaheem

DGIST, Daegu, South Korea

Dr. Muhammad Adil Zehri

P&D, Balochistan,

Pakistan

Dr. Imran Ali

Datacom (pvt) Ltd,

Australia

Dr. Emrah Evren kara

Düzce University, Düzce,

Turkey

Dr. Ahmet Ocak

Ağrı İbrahim Çeçen University,

Ağrı, Turkey

Dr. Ali Kashif Bashir

University of Faroe Islands,

Tórshavn, Faroe Island

Dr. Safdar Hussain Bouk

DGIST, Daegu,

South Korea

Dr. Ajaz Bashir Janjua

HMC, Taxila,

Pakistan

Dr. Usman Azhar

BUITEMS, Quetta,

Pakistan

Dr. Faisal Ahmed

CEME NUST, Islamabad,

Pakistan

Dr. Tipu Sultan

University of M&T, Lahore,

Pakistan

Dr. Gul Agha

Illinois University Urbana Champaign,

Ili. USA

Dr. Hafeez-ur-Rehman Memon

Balochistan UET, Khuzdar,

Pakistan

Dr. Safeeullah Soomro

AMA International University,

Salamabad, Bahrain

Dr. Syed Zahoor Ul Haque

Caledonian College of Engineering,

Muscat, Oman

Dr. Javed Ali

Caledonian College of Engineering,

Muscat, Oman

Dr. Din Muhammad

University of Wollongong, Wollongong, Australia

Dr. Dileep Kumar

University of Suwan, Suwon,

South Korea

Dr. Nawab Faseeh Qureshi

Sungkyunkwan university, Seoul,

South Korea

Dr. Onur Saldir

Van Yüzüncü Yıl University, Van,

Turkey

Dr. Muhammad Arsalan Shehzad

Georgia Institute of Technoology,

Atlanta, USA

Dr. Syed Chattan Shah

Hankuk University of Foreign Studies,

Seoul, South Korea

Dr. Muhammad Asim

University of Karachi, Karachi,

Pakistan

Dr. M. Hussain Mahmood Mann

GC University, Faisalabad,

Pakistan

Dr. Aamir Zeb Shaikh

NED UET, Karachi,

Pakistan

Balochistan Journal of Engineering & Applied Sciences, Volume 3, No. 1, June 2020

, ording 5, 1101 2

**Dr. Ramesh Kumar** Dawood UET, Karachi,

Pakistan

Dr. Feroz Ahmed Soomro

QUEST, Larkana,

Pakistan

Dr. Shafiullah Soomro

QUEST, Larkana,

Pakistan

Dr. Imtaiz Ahmed Halepoto

QUEST, Nawabshah,

Pakistan

Dr. Aziz Ahmed Memon

Sukkur IBA University, Sukkur, Pakistan

Dr. Muhammad Asim

Sukkur IBA University,

Sukkur, Pakistan

Dr. Saqib Siddiquie

BUITEMS, Quetta,

Pakistan

Dr. Irfan Ali Bacho

Mehran UET, Jamshoro,

Pakistan

Dr. Aftab Hameed Memon

QUEST, Nawabshah,

Pakistan

Dr. Tehseen Jawaid

AERC, University of Karachi,

Pakistan

Dr. Muhammad Zahid

Dawood UET, Karachi,

Pakistan

Dr. Ghulamullah Kakar

BUITEMS, Quetta,

Pakistan

Dr. Abdul Oudoos

Balochistan UET, Khuzdar,

Pakistan

Dr. Syed Saad Azhar

PETRONAS (UTP),

Perk, Malaysia

Dr. Sohail Khokhar

QUEST, Nawabshah,

Pakistan

Dr. Ehsan Ahmed Buriro

QUEST, Larkana,

Pakistan

Dr. Abdul Karim shah

Dawood UET, Karachi,

Pakistan

Dr. Mohsin Shaikh

**OUEST**, Larkana,

Pakistan

Dr. Nazar Hussain Phulpoto

QUEST, Nawabshah,

Pakistan

Dr. Saeed Ahmed Abro

Sukkur IBA University, Sukkur,

Pakistan

Dr. Syed Kamran Sami

BUITEMS, Quetta,

Pakistan

Dr. Muhammad Ali Abro

Mehran UET, Khairpur Mir's,

Pakistan

Dr. Muhammad Yousef

Gomal University, D.I. Khan,

Pakistan

Dr. Ghazala Nawaz

Kohat University of S&T, Kohat,

Pakistan

Dr. Zahidullah

CECOS University of IT and ES,

Pakistan

Dr. Abdul Malik Tareen

University of Balochistan, Quetta,

Pakistan.

#### SECRETARY BJEAS

Engr. Farhan Ahmed Magsi

# TABLE OF CONTENTS



Volume 3 No. 1 June 2020

1. Effect of Air-Cooled Slag Fine Aggregate on the Mechanical and Physical Properties of Cement Mortar......1 In Kyu Jeon, Atta Ur Rehman, Hong Gi Kim 2. Qualitative Assessment of Freshwater and Comparison with World Health Organization Mohammad Asim, Farhan Ahmed Magsi, Mujeeb ur Rehman, Shaikh Abdullah, Imdad Ali, Zafarullah 3. Market-Oriented Extension Advisory Services for Reduction of Rural Poverty in Ahmed Ali Mengal, Azra Gul Mengal, Tanveer Ahmed Mengal, Zubair Ahmed Mengal 4. Big Data Analytics Capability Impact on Organizational Sustainable Development: Muhammad Arshad, Aneela Qadir, Waqar Ahmad, Muhammad Rafique, Ayesha Shafique 5. Effect of Nano-Silica, Nano-Titania and Carbon Nanotubes on the Fresh and Hardened Atta-ur-Rehman, Hyun Kim 6. Description of Perception of People on Creation of Knowledge Economy and Applied Sajida Parveen, Babak Mahmood, Ayesha Chaudhry, Arshad Hussain Hashmi 7. Impact of Service Quality, Customer Satisfaction and Brand Image on Re-Patronage Muhammad Imran Hanif, Asif imdad, Shakeel Ahmed 8. Investigation of Rheological and Filtration Behavior of Polyanionic Cellulose and Imtiaz Ali, Magsood Ahmad



We will disting the state of th

9.	Impact of Knowledge Management Practices on Organizational Performance in Telecom Sector of Balochistan
	Faiz Muhammad Jaffar, Khair Muhammad Kakar, Aslam Zaib, Inam-Ul-Haq
10.	<b>Experimental Investigation of Modified Asphalt Containing High Density Polyethylene Plastic</b> 70 Shakeel Ahmed, Syed Abdullah Shah Hashmi, Salah Uddin, Gohar Nadeem, Taj Muhammad
11.	Investigation of Mechanical Properties of Concrete with PVC Fibers
12.	<b>Features of Building Modeling Information (BIM) Implementation in Construction Industry</b> 81 Mohammad Asim, Gohr Nadeem, Mujeeb ur Rehman, Imdad Ali
13.	Chlorophyll Content Determination in Different Olive (Olea Europaea)  Cultivars Grown Under Agro-Climatic Condition of Pakistan

\_\_\_\_\_