ISSN Online 2669-2570 2022 | VOL 2 | ISSUE 1



Material Science, Engineering & Applications



Editor in Chief

Raghvendra Kumar Mishra

Shri Mata Vaishno Devi University, India

rkmishra@smvdu.ac.in

Editorial Board Wael A. Altabey

Yogesh K Chauhan

Tapan Kumar Gogoi

Sergey Gorbatyuk Suraj P Harsha

Sabah Khan

Sandeep Kumar

Majid Mokhtari

Srikanta Routroy

Deepal Subasinghe

Indra Narayan Yadav

Alexandria University, (Egypt) Kamla Nehru Institute of Technology, (India) Avanish Kumar Dubey Motilal Nehru National Institute of Technology Allahabad, (India) Annamalai Gnanavelbabu Anna University, (India) Tezpur University, (India) National University of Science and Technology MISIS, (Russia) Indian Institute of Technology, Roorkee, (India) Jamia Millia Islamia University, (India) Indian Institute of Technology, (India) Mohd Kamal Mohd Shah Universiti Malaysia Sabah, (Malaysia) Thiruvalluvar University, (Iran) Birla Institute of Technology and Science, (India) Vishal Santosh Sharma University of the Witwatersrand, (India) National Institute of Fundamental Studies, (Sri Lanka) Srinivas Tangellapalli National Institute of Technology Jalandhar, (India) Tribhuvan University, (Nepal)

wael.altabey@gmail.com chauhanyk@yahoo.com avanish@mnnit.ac.in agbabu@annauniv.edu tapan g@tezu.enet.in gorbatyuk54@bk.ru surajfme@iitr.ernet.in skhan2@jmi.ac.in sandeep.mec@iitbhu.ac.in mkamalms@ums.edu.my m-mokhtari@tvu.ac.ir srikantaroutroy@gmail.com vishal.sharma@wits.ac.za deepal.su@nifs.ac.lk srinivast@nitj.ac.in indra.yadav@pcampus.edu.np

MSEA Material Science, Engineering and Applications

Aims and Scope

MSEA is developed to publish and disseminate original research articles on the latest developments in materials science and engineering. The Journal publishes reviews and full-length papers reporting research results on, or techniques for, studying the relationship between structure, properties, and uses of materials.

- The list of principal topics:Polymer matrix composite
- Metal matrix composite
- Ceramic-matrix composites
- Nano-materials and nanotechnology
- Smart materials/structures
- Advanced energy materials and energy harvesting materials
- Microstructure and mechanical properties, heat treatments, creep, fatigue, fracture, friction and wear, corrosion, coatings, material selection, etc.
- Mathematical modeling, novel applications, and numerical simulation of advanced materials and structures
- Methods of optimum design of materials and structures

All published papers are peer reviewed and crosschecked by plagiarism detection tools.

More information is available online https://www.extrica.com/journal/msea

The journal material is referred:

Google Scholar: https://scholar.google.com JGate: https://jgateplus.com CORE: https://core.ac.uk WorldCat Discovery Services: https://www.oclc.org/en/worldcat-discovery.html MyScienceWork: https://www.mysciencework.com Crossref: https://search.crossref.org

 Internet:
 https://www.extrica.com

 E-mail:
 publish@extrica.com

 Publisher:
 JVE International Ltd., Geliu ratas 15A, LT-50282, Kaunas, Lithuania

Material Science, Engineering and Applications

JUNE 2022. VOLUME 2, ISSUE 1, PAGES (1-35), ISSN ONLINE 2669-2570

Contents

NUMERICAL MODELING OF THE STRESS-STRAIN STATE OF THE ICE BEAM BY SPECIFIED CONSTITUTIVE MODEL QI XIE	1
A STUDY OF NUMERICAL SIMULATION ON EXTREME FLEXURAL STRESS OF ICE PLATE QI XIE	9
EXPERIMENTAL STUDY ON INFLUENCING FACTORS OF ANCHORAGE PERFORMANCE OF CONCRETE BONDED REBARS QICHAO WANG, YINGLI LIU, ZIANG HAN	15
Construction method of strengthening shear walls using prestressed steel bars for a high-rise building Heping Cheng, Wenchi Yao	25

