

IJME

International Journal of
APPLIED MECHANICS



AND

ENGINEERING

2023

Volume 28

Number 4

ISSN 1734-4492
e-ISSN 2353-9003

University of Zielona Góra, POLAND

UNIVERSITY of Zielona Góra

International Journal of
APPLIED MECHANICS
AND
ENGINEERING

2023 Volume 28

Number 4

ISSN 1734-4492
e-ISSN 2353-9003

International Journal of AME is abstracted/indexed in:

<i>Applied Mechanics Reviews</i>	<i>MyScienceWork</i>
<i>Arianta</i>	<i>Naver Academic</i>
<i>Astrophysics Data System (ADS)</i>	<i>Naviga (Softweco)</i>
<i>Baidu Scholar</i>	<i>Norwegian Register for Sci. J., Series and Publishers</i>
<i>BazTech</i>	<i>POL-index</i>
<i>Chemical Abstracts Service (CAS) - CPlus</i>	<i>ProQuest</i>
<i>Chemical Abstracts Service (CAS) - SciFinder</i>	<i>Publons</i>
<i>CNKI Scholar (China Nat. Knowledge Infrastructure)</i>	<i>QOAM (Quality Open Access Market)</i>
<i>CNPIEC - cnpLINKer</i>	<i>ReadCube</i>
<i>Dimensions</i>	<i>Referativnyi Zhurnal (VINITI)</i>
<i>EBSCO</i>	<i>SCImago (SJR)</i>
<i>Engineering Village</i>	<i>SCOPUS</i>
<i>ExLibris</i>	<i>Semantic Scholar</i>
<i>Genamics JournalSeek</i>	<i>Sherpa/RoMEO</i>
<i>GoOA</i>	<i>TDNet</i>
<i>Google Scholar</i>	<i>TEMA Technik und Management</i>
<i>Inspec</i>	<i>Ulrich's Periodicals Directory/ulrichsweb</i>
<i>Japan Science and Technology Agency (JST)</i>	<i>WanFang Data</i>
<i>J-Gate</i>	<i>WorldCat (OCLC)</i>
<i>JournalTOCs</i>	<i>X-MOL</i>
<i>KESLI-NDSL (Korean Nat. Discovery for Sci. Leaders)</i>	

<https://www.ijame-poland.com/>
<https://zbc.uz.zgora.pl/repozytorium/dlibra/publication/77304>
ZIELONA GÓRA, Poland

Contents

H. M. A. Al Mohammed	
Developing a work roll model by analyzing the mechanism influence through analytic calculation.....	1
R.A. Al-Samarai and Y. Al-Douri	
Tribological properties of dlc and glc coating for automotive engine components application under lubrication.....	10
A.I. Anya, C. Nwachioma and H. Ali	
Magnetic effects on surface waves in a rotating non-homogeneous half-space with grooved and impedance boundary characteristics	26
R. Barshikar, P. Baviskar, H. Ghongade, D. Dond and A. Bhadre	
Investigation of parameters for fault detection of worm gear box using denoise vibration signature	43
S. Dechkova	
Elastic properties of tyres affecting car comfort, driving and riding	54
M. Ferdows and S.A. Jumana	
Biomagnetic flow over a flat plate embedded by a magnetic dipole in a porous media.....	69
S. Kambampati, S.P. Emineni, C.K.Reddy M. and P.Kolloju	
Fourth order computational spline method for two-parameter singularly perturbed boundary value problem ..	79
M.O. Oni and U. Rilwan	
Role of suction/injection on electromagnetohydrodynamic natural convection flow in a porous microchannel with electroosmotic effect	94
D.J. Saikia and N. Ahmed	
Impacts of heat source/sink, chemical reaction and thermal radiation on unsteady MHD natural convective flow through an oscillatory infinite vertical plate in a porous medium	114
A.K. Yadav, A. Singh and P. Jurczak	
Memory dependent triple-phase-lag thermo-elasticity in thermo-diffusive medium	137

This work is subject to copyright. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the written permission of the publisher, except as stated below. Single photocopies of single articles may be made for private study or research. Illustrations and short extracts from the text of individual contributions may be copied provided that the source is acknowledged, the permission of the authors is obtained and Editorial Office of IJAME is notified. Authorization to photocopy items for internal or personal use, is granted by Editorial Office of IJAME to libraries and other users, provided that the base fee of US\$ 20.00 per copy is paid directly to Editorial Office of IJAME.