## **Table of Contents**

# International Journal of Manufacturing, Materials, and Mechanical Engineering

Volume 6 • Issue 3 • July-September-2016 • ISSN: 2156-1680 • eISSN: 2156-1672

An official publication of the Information Resources Management Association

#### **Research Articles**

### 1 Effect of Heat Treatment on Microstructure and Tensile Properties of A356/V<sub>2</sub>O<sub>5</sub> Insitu Composites

Amneesh Singla, Department of Mechanical Engineering, University of Petroleum and Energy Studies, Dehradun 248007, India

Rajnish Garg, Department of Mechanical Engineering, University of Petroleum and Energy Studies, Dehradun 248007, India

Mukesh Saxena, University of Technology and Management, Shillong 793003, India

#### 11 Effect of Microstructure Degradation on Fracture Toughness of 20MnMoNi55 Steel in DBT Region

Sumit Bhowmik, Department of Mechanical Engineering, National Institute of Technology, Silchar, India Prasanta Sahoo, Department of Mechanical Engineering, Jadavpur University, Kolkata, India Sanjib Kumar Acharyya, Department of Mechanical Engineering, Jadavpur University, Kolkata, India Sankar Dhar, Department of Mechanical Engineering, Jadavpur University, Kolkata, India Jayanta Chattopadhyay, Reactor Safety Division, Bhaba Atomic Research Centre, Trombay, Mumbai, India

#### 28 Thermal Power Plant Modelling with Fault Coverage Stochastically

Nupur Goyal, Department of Mathematics, Graphic Era University, Dehradun, India Mangey Ram, Department of Mathematics, Graphic Era University, Dehradun, India Akshay Bhardwaj, Department of Mechanical Engineering, Graphic Era University, Dehradun, India Amit Kumar, Department of Mechanical Engineering, Graphic Era University, Dehradun, India

#### 45 The Use of a Robotic Arm for Displacement Measurements in a Cantilever beam

George Lucas Dias, Federal University of Lavras, Lavras, Brazil Ricardo Rodrigues Magalhães, Federal University of Lavras, Lavras, Brazil Danton Diego Ferreira, Federal University of Lavras, Lavras, Brazil Felipe Augusto Vitoriano, University of Minas Gerais, Belo Horizonte, Brazil

### COPYRIGHT

The International Journal of Manufacturing, Materials, and Mechanical Engineering (IJMMME) (ISSN 2156-1680; eISSN 2156-1672), Copyright © 2016 IGI Global. All rights, including translation into other languages reserved by the publisher. No part of this journal may be reproduced or used in any form or by any means without written permission from the publisher, except for noncommercial, educational use including classroom teaching purposes. Product or company names used in this journal are for identification purposes only. Inclusion of the names of the products or companies does not indicate a claim of ownership by IGI Global of the trademark or registered trademark. The views expressed in this journal are those of the authors but not necessarily of IGI Global.

The International Journal of Manufacturing, Materials, and Mechanical Engineering is indexed or listed in the following: ACM Digital Library; Bacon's Media Directory; Cabell's Directories; DBLP; Google Scholar; INSPEC; JournalTOCs; MediaFinder; ProQuest Engineering Journals; ProQuest Illustrata: Technology; ProQuest Materials Science Journals; ProQuest SciTech Journals; ProQuest Technology Journals; SCOPUS; The Standard Periodical Directory; Ulrich's Periodicals Directory