# **Table of Contents**

# International Journal of Manufacturing, Materials, and Mechanical Engineering

Volume 8 • Issue 1 • January-March-2018 • ISSN: 2156-1680 • eISSN: 2156-1672

An official publication of the Information Resources Management Association

### **Research Articles**

#### 1 Tolerance Analysis Supports Tolerance Assignment: The Industrial Case Study of Skillet

Wilma Polini, University of Cassino and Southern Lazio, Cassino, Italy Andrea Corrado, University of Cassino and Southern Lazio, Cassino, Italy Costanzo Cavaliere, CIEM SpA, Cassino, Italy

#### 21 Optimisation of the Bauer Equation Using the Least Squares Method for Thermoplastics Turning

János Farkas, Simonyi Karoly Faculty of Engineering, Wood Sciences and Applied Arts, Jozsef Cziraki Doctoral School of Wood Sciences and Technologies, University of West Hungary, Sopron, Hungary Etele Csanády, Simonyi Karoly Faculty of Engineering, Wood Sciences and Applied Arts, Institute of Woodworking Machinery, University of West Hungary, Sopron, Hungary Levente Csóka, Simonyi Karoly Faculty of Engineering, Wood Sciences and Applied Arts, Institute of Wood and Paper Technology, University of West Hungary, Sopron, Hungary

## 37 An Optimal Image Processing Method for Simultaneous Detection of Weld Seam Position and Weld Gap in Robotic Arc Welding

Amruta Rout, Department of Industrial Design, NIT Rourkela, Rourkela, India Deepak BBVL, Department of Industrial Design, NIT Rourkela, Rourkela, India Bibhuti Bhusan Biswal, Department of Industrial Design, NIT Rourkela, Rourkela, India Golak Bihari Mahanta, Department of Industrial Design, NIT Rourkela, Rourkela, India Bala Murali Gunji, Department of Industrial Design, NIT Rourkela, Rourkela, India

#### 54 Mechanical Strength Of Nafion®/ZrO2 Nano-Composite Membrane

Rudzani Sigwadi, Department of Chemical Engineering, University of South Africa, Florida, South Africa Fulufhelo Nemavhola, Department of Mechanical Engineering, University of South Africa, Florida, South Africa Simon Dhlamini, Department of Physics, University of South Africa, Florida, South Africa Touhani Mokrani, Department of Chemical Engineering, University of South Africa, Florida, South Africa

#### **COPYRIGHT**

The International Journal of Manufacturing, Materials, and Mechanical Engineering (IJMMME) (ISSN 2156-1680; eISSN 2156-1672), Copyright © 2018 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; Web of Science; Web of Science Emerging Sources Citation Index (ESCI)