# Preface

2013 2nd International Conference on Manufacturing Engineering and Process (ICMEP 2013) was held in Vancouver, Canada, April 13-14, 2013. The conference provides a platform to discuss Manufacturing Engineering and Process etc. with participants from all over the world, both from academia and from industry. Its success is reflected in the papers received, with participants coming from several countries, allowing a real multinational multicultural exchange of experiences and ideas.

The present volumes collect accepted papers and represent an interesting output of this conference. This book covers these topics: Materials Engineering and Technology, Mechanical Engineering, Design Technology and Engineering, Applied Thermodynamics, Heat Transfer, Energy Conversion, Electrical Engineering and Electric Machines, Power System and Energy Engineering, Its Applications, Instrumentation, Measurement Technologies, Analysis and Methodology, Electronics and Integrated Circuits, Embedded Technology and Applications, Mechatronics and Robotics, Modern Control, Automation and Reverse Engineering, Civil Engineering, Manufacturing and Industrial Engineering, Management Applications, Mathematics, Signal Processing and Data Mining, Information Technologies and Networks.

This conference can only succeed as a team effort, so the editors want to thank the international scientific committee and the reviewers for their excellent work in reviewing the papers as well as their invaluable input and advice.

**Prof. Bale V. Reddy**
**University of Ontario**
**Institute of Technology (UOIT)**
**Canada**

# Committees

## Honorary Chair

IEEE Fellow, Prof. Wang Jun, The Chinese University of Hong Kong

## Conference Chairs

Prof. Bale V. Reddy, University of Ontario Institute of Technology (UOIT), Canada

## Program Committee Chairs

Prof. Vinod Kumar, Carleton University, Canada

Prof. S. E. Oraby, PAAET, Kuwait

Prof. Nukman Bin Yusoff, University of Malaya, Malaysia

Prof. Suash Deb, Principal, Cambridge Institute of Technology, India

## Publication Co-Chair

Ms. Amanda Wu, SCIence and Engineering Institute, U.S.A, amanda@sciei.org

## Technical Committee

Prof. Chuan-Ming Liu, National Taipei University of Technology, Taiwan, China

Prof. Cezar Botezatu, Romanian-American University, Romania

Prof., Tushar Hrishikesh Jaware, R.C.Patel Inst. of Tech. Shirpur, India

Prof. Tsung-Chih Lin, Feng-Chia University, Taiwan, China

Prof. Vasile Mosneaga, Fukuoka University, Japan

Dr/Senior Lecturer, Zulnaidi Yaacob, Universiti Sains Malaysia, Malaysia

Senior Software Engineer, Buqi Cheng, Intel Corp, US

Prof. Ganesh Vaidyanathan Subramanian, Sri Venkateswara College of Engineering, India

Prof, Narasimham Challa, Professor of Information Technology, India

Prof. Lakshmic, SRM University, India

Prof. Hafiz Md. Hasan Babu, " University of Dhaka, Bangladesh

Dr. Sepideh Adabi, Islamic Azad University, North Tehran Branch, Iran

Prof. Hitesh Wandra, C U Shah Engg. College (Gujrat University ahmedabad), India

Prof. GERMANO LAMBERT-TORRES, Itajuba Federal University, Brazil

Prof. Hariton Costin, ”Gr.T. Popa” University of Medicine and Pharmacy, Romania

Prof. Tayebeh Zandipour, Azzahra University, Iran

Dr, Muhammad Imran, University of Surrey, UK

# Sponsors

Science and Engineering Institute
University of Ontario Institute of Technology (UOIT), Canada