Preface

Engineering machines are subjected to various conditions in automotive, shipbuilding, railway, and power and chemical plants. The recent technology of machine design results in an increasing awareness of advanced materials. The first International Conference on Machine Design and Manufacturing Engineering(ICMDME 2012) was held in Jeju Island, South Korea, May 11-12th, 2012. The periodical international conference for multiple approaches in advanced materials and material processing technology in Asia was established by the committee. The respective sections of 'Design of Machines, Mechanisms and Industrial Devices,' 'Computational Technologies and Computer-Aided Design in Mechanical Engineering,' 'Researches, Modeling and Analysis of Machines and Mechanisms,' ' Automotive Engineering,' ' Technologies and Organization of Production in Mechanical Engineering, ' 'Sensors, Detection and Measuring Technologies,' 'Robotics, Automation and Control System,' 'Applied Materials Science and Chemical Engineering, ' 'Product Design' and ' Other Themes of Research 'appeared in the 2nd conference (ICMDME2013). In these conferences, several approaches including all levels from material processing to machine design were discussed.

The conference ICMDME2013 has successfully carried out. We congratulate the organizer and all contributors from all over the world that help to make this event as one of the most memorable conference in ICMDME calendar. In collaboration with the international advisory board, the organizers have asked to Prof. Sachiko Nakagawa (Okayama University of Science, Japan) to prepare a keynote speech. In these volumes, more than 270 papers were included by a peer-reviewed procedure.

It is my pleasure to thank the editorial board of the journal Applied Mechanics and Materials for the readiness to publish these volumes devoted to ICMDME2013. We would also like to thank all members of the Technical Program Committee, International Program Committee, session chairpersons as well as many colleagues who helped with the preparation of the conference, and especially with the preparation of the Proceedings. Thanks are also given to Dr. Anne, Tanja, Dorthe and all the editors from Trans Tech Publications for their great support to ICMDME2013. Without their excellent editorial work, ICMDME2013 will not be published so timely and successfully.

May 2013 Katsuyuki Kida

Committees and Sponsors

Editorial Chair

Professor Katsuyuki Kida, University of Toyama, Japan

International Program committee Chair(China)

Yangmin Li, University of Macau, China

International Conference Chair(USA)

Singiresu S. Rao, University of Miami, USA

International Program committee Chair(Korea)

Soon-Geul Lee, Kyung Hee Univ, Korea

International Program committee Chair (Japan)

Sachiko Nakagawa, Okayama University of Science, Japan

International Conference Chair(Malaysia)

Zunaidi Ibrahim, TATI University College, Malaysia

International Conference Chair(Spain)

Luis Angel, Universidad Politecnica de Madrid, Spain

International Conference Chair(Mexico)

Carlos Alberto Cruz-Villar, CINVESTAV-IPN, Mexico

Program Committee

Shizhi Qian, Old dominion university, USA

Jong Hyeon Park, Hanyang University, Korea

Chyon Hae Kim, Honda Research Institute Japan, Japan

Bibhuti Bhusan Biswal, National Institute of Technology, Rourkela, Orissa

Dr.S.Arungalai Vendan, Veltech Technical University, Avadi, Chennai

Chin-Yin Chen, National Sun Yat-Sen University, Taiwan

Navdeep Malhotra, YMCA University of Science and Technology, India

Ana Almerich Chuliá, Universidad Politecnica de Valencia, Spain

Yu-Sheng Lu, National Taiwan Normal University, Taiwan

Hugo Lopez, University of Wisconsin-Milwaukee, USA

Dr.P.SIVAPRAKASH, Karpagam Institute of Technology. India

Yung Ting, Chung Yuan Christian University, Taiwan

Na Jin Seo, University of Wisconsin-Milwaukee, USA

Lingfeng Wang, The University of Toledo, USA

Ou Ma, United States of America, USA

Juntao Fei, The University of Akron, USA

Quan Zhou, Helsinki University of Technology, Finland