

Preface

Dear Distinguished Authors and Guests,

The Organizing Committee warmly welcomes you to 2014 the 3rd International Conference on Mechanical Engineering, Materials Science and Civil Engineering (ICMEMSCE2014) (<http://www.scientific.net/conference-1161.>), held on 25-26 Oct., 2014 in Phuket, Thailand.

The aim of the ICMEMSCE2014 is to present the latest research and results of scientists (professors, students, PhD Students, engineers, and post-doc scientist) related to Mechanical Engineering, Materials Science and Civil Engineering topics. This conference provides opportunities for the different areas delegates to exchange new ideas and application experiences face to face, to establish business or research relations and to find global partners for future collaboration.

After the peer-review process, the submitted papers were selected on the basis of originality, significance, and clarity for the purpose of the conference. The selected papers and additional late-breaking contributions to be presented as lectures will make an exciting technical program. The conference program is extremely rich, featuring high-impact presentation. We hope that the conference results constituted significant contribution to the knowledge in these up to date scientific field.

The proceeding records the fully refereed papers presented at the conference. The main conference themes and tracks are Mechanical Engineering, Mechatronics, Electrical System, Material Engineering and Processing Technologies, Machines, Equipment and Manufacturing Engineering, Information Science, Control and Automation, Biomedical Engineering, Methods, Systems of Modeling and Simulation, Design Technology and Industrial Engineering, Theory and Application of Civil Engineering. Hopefully, all participants and other interested readers benefit scientifically from the proceedings and also find it stimulating in the process.

On behalf of the organizing committee, I would like to especially thank Nguyen, Yvonne and all the editors from Trans Tech Publications for their great support to ICMEMSCE2014. Without their excellent editorial work, ICMEMSCE2014 will not be published so timely and successfully.

Finally we wish all the authors and attendees of ICMEMSCE2014 a unique, rewarding and enjoyable memory at ICMEMSCE2014 in Phuket, Thailand. We look forward to your participation in the 4th ICMEMSCE2015 in HongKong.

With our warmest regards,

Jeremy (Zheng) Li

The ICMEMSCE2014 Conference Guest editor

Oct. 31, 2014

Committees and Sponsors

Committees

Conference Chairs

Jing Guo, Institute of Applied Mechanics and Android Robotics, Hong Kong

Technical Program Committees Chairs

Hyun-Do YUN, Chungnam National University, Korea

THANH-LAM NGUYEN, Lac Hong University, Vietnam

Mou Chen, Nanjing University of Aeronautics and Astronautics, China

Keishi Matsuda, Matsuyama University, Japan

International Program Committee Chairs (America)

Jeremy (Zheng) Li, School of Engineering, University of Bridgeport, America (Guest editor for 3rd ICMEMSCE2014)

International Program Committee Chairs (Japan)

Ikuo IHARA, Nagaoka University of Technology, Japan (Guest editor for 2nd ICMEMSCE2013)

International Program Committee Chairs (Malaysia)

Norhaliza Abdul Wahab, Universiti Teknologi Malaysia, Malaysia

Abdul L Mohd Tobi, Universiti Tun Hussein Onn Malaysia, Malaysia

Aishah Najiah Dahnel, International Islamic University Malaysia, Malaysia

Ahmad Baharuddin Abdullah, Universiti Sains Malaysia, Malaysia

Toh Tien Choon, Universiti Tunku Abdul Rahman, Malaysia

Goh KaiChen, Universiti Tun Hussein Onn Malaysia, Malaysia

Yusri Yusof, Universiti Tun Hussein Onn Malaysia, Malaysia

Mohammad Jawaid, Universiti Putra Malaysia, Malaysia

International Program Committee Chairs (Srilanka)

K.M. Muditha Dassanayake, University of Peradeniya, Srilanka

International Program Committee Chairs (Slovak Republic)

Michal Kelemen, Technical University of Kosice, Slovak Republic

International Program Committee Chairs (South Korea)

Sangyoong Lee, Konkuk University, South Korea

International Program Committee Chairs (Hungarian)

László Horváth, Óbuda University, Hungarian

International Program Committee Chairs (Thailand)

Achanai Buasri, Silpakorn University, Thailand

International Program Committee Chairs (Taiwan)

Ming-Hung Shu, National Kaosiung University of Applied Sciences, Taiwan

International Program Committee Chairs (Iran)

Seyed Hashem Eslami, University of Tehran, Iran

International Program Committee Chairs (Brazil)

Walter Jesus Paucar Casas, Universidade Federal do Rio Grande do Sul, Brazil

International Program Committee Chairs (India)

Sandip Patil, Bharat Forge Ltd,Pune, India

International Program Committee Chairs (Australia)

Jingwei Zhao, University of Wollongong, Australia

International Program Committee Chairs (Turkey)

Osman Adiguzel, Firat University, Turkey