Preface

Dear Distinguished Authors and Guests,

The Organizing Committee warmly welcomes you to 2013 the 2nd International Conference on Mechanical Engineering, Materials Science and Civil Engineering (ICMEMSCE2013) (TTP Conference ID: 919), held on 25-26 Oct., 2013 in Beijing, China.

The aim of the ICMEMSCE2013 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, Materials Science and Civil Engineering: Mechanical Engineering, Material Engineering, Manufacturing and Design Science, Mechatronics, Information and Automation, Modeling, Simulation, 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 Saskia, Anne, Tanja, Dorthe and all the editors from Trans Tech Publications for their great support to ICMEMSCE2013. Without their excellent editorial work, ICMEMSCE2013 will not be published so timely and successfully.

Finally we wish all the authors and attendees of ICMEMSCE2013 a unique, rewarding and enjoyable memory at ICMEMSCE2013 in Beijing,China. We look forward to your participation in the 3rd ICMEMSCE2014.

With our warmest regards,

Ikuo IHARA

The ICMEMSCE2013 Conference Guest editor

Oct. 31, 2013

Committees and Sponsors

Committees

Conference Chairs

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

Technical Program Committeess Chairs

Hyun-Do YUN, Chungnam National University, Korea
THANH-LAM NGUYEN, National Kaohsiung University of Applied Sciences, Taiwan
Mou Chen, Nanjing University of Aeronautics and Astronautics, China
Keishi Matsuda, Matsuyama University,J apan

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

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)

Sangyoon 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