Preface

The MCCE 2014 - 3rd Asian Pacific Conference on Mechanical Components and Control Engineering will be held in Nankai University 20-21 Sep. 2014. The disciplines of Mechanical Components and Control Engineering have witnessed an unprecedented progress impacting our life at work-places, at homes and virtually all around us. These multi-faceted disciplines are converging very fast. International collaborative research requires a vital community of researchers in each of the participating nations and commitment to share the benefits of research among the key stakeholders including developing nations. The universities and professional societies could play a crucial role to ensure the above.

This conference received significant attention all over the World. This volume represents papers accepted which are of good quality and more relevant towards the title of the conference. This conference covers these topics Materials Science and Processing Technologies; General Mechanical Engineering and Mechanics; Mechatronics and Robotics; Control Technologies, Automation and Simulation of Manufacturing; Electrical Engineering and Electric Machines; Power System and Energy Engineering, its Applications; Electronics and Integrated Circuits, Embedded Technology and Applications; Measurements, Testing, Monitoring, Analysis and Methodology; Signal and Image Processing, Data Mining and Computational Mathematics; Communication, Networks and Information Technologies; Traffic and Transportation; Civil, Construction, Mining and Energy; Earth Science and Environmental Engineering; Biomedical Engineering; Product Design, Planning, Projects Management and Industrial Engineering. We would like to thank the Nankai University. The members of Program committee and Reviewers have worked hard in reviewing and making valuable suggestion for the authors which would have certainly helped the authors to further sharpen their technical knowledge. We also sincerely express our whole hearted gratitude to the external reviewers for their support provided in the review process. We thank the authors for submitting their research works to the conference. We also express special thanks to TTP publisher.

Prof. Weimin Ge Tianjin University of Technology China

Committees

Conference Chairs

Prof. Yunliang Wang, Tianjin University of Technology, China

PC Committee

Prof. Xinhua Zhao, Tianjin University of Technology, China

Prof. Tian Huang, Tianjin University, China

Technical Program Committee

Prof. Weimin Ge, Tianjin University of Technology, China

Prof. Ning Xie, Tianjin University of Technology, China

Prof. Wenxian Yu, Shanghai Jiaotong University, China

Prof. Dong Feng, Tianjin University, China

Prof. Jinde Ye, Tianjin University of Technology, China

Prof. Zhaojun Yang, Jilin University, China

Prof. Wenxian Yu, Shanghai Jiaotong University, China

Prof. Shide Xiao, Southwest Jiaotong University, China

Prof. Chengshan Wang, Tianjin University, China

Dr. Ruichong Zhang, Colorado School of Mines, USA

Prof. Jong-Ching Wu, National Changhua University of Education, Taiwan

Prof. Xianmin Zhang, South China University of Technology, China

Prof. Jiqing Han, Harbin Institute of Technology, China

Prof. Te-ho Wu, National Yunlin University of Science and Technology, Taiwan

Prof. Xu Han, Hunan University, China

Prof. Mingpiao Chen, National Formosa University, Taiwan

Prof. Zeqin Liu, Tianjin University of Commerce, China

Prof. Anjaiah Devineni, Manipal University, India

Dr.Ahmed Sarhan, University of Malaya, Malaysia

Prof. Ming-piao Tsai, National Formosa University, Taiwan

Dr. Tan Chee-fai, Universiti Teknikal Malaysia Melaka, Malaysia

Dr. Y.S. Reddy, Chaitanya Bharathi Institute of Technology, India

Dr.Dhananjay M. Kulkarni, Birla Institute of Technology & Science, India

Sponsor

Nankai University