

Preface

It is our pleasure to welcome you to the 2014 International Conference on Mechatronics Engineering and Modern Technologies in Industrial Engineering (MEMTIE 2014) in Changsha, China. MEMTIE 2014 is the first conference dedicated to issues related to Mechanical Engineering, Mechatronics, Manufacturing, Power Systems and Electronics, Measurement, Monitoring and Control, Automation, Information technology, Communication and network, Management Engineering, Computing Methods and Algorithms, Electric Applications, Materials Science and Engineering. A major goal and feature of it is to bring academic scientists, engineers, industry researchers together to exchange and share their experiences and research results, and discuss the practical challenges encountered and the solutions adopted.

MEMTIE 2014 is sponsored by International Informatization and Engineering Associations and Guizhou Institute of Technology, is supposed to be the largest technical event on mechatronics engineering and modern technologies in industrial engineering in Changsha in 2014. The focus of the conference is to establish an effective platform for institutions and industries to share ideas and to present the works of scientists, engineers, educators and students from all over the world. The organizing committee of conference is pleased to invite prospective authors to submit their original manuscripts to MEMTIE 2014.

We hope you will have a technically rewarding experience, and use this occasion to meet old friends and make many new ones. Don't miss the opportunity to explore in Changsha, China. And don't forget to take a sample of the many and diverse attractions in the rest of the China.

The program consists of invited sessions, and technical workshops and discussions with eminent speakers covering a wide range of topics in Mechanical Engineering, Mechatronics, Manufacturing, Power Systems and Electronics, Measurement, Monitoring and Control, Automation, Information technology, Communication and network, Management Engineering, Computing Methods and Algorithms, Electric Applications, Materials Science and Engineering. This rich program provides all attendees with the opportunities to meet and interact with one another. We hope your experience with MEMTIE 2014 is a fruitful and long lasting one. With your support and participation, the conference will continue its success for a long time.

We would like to thank the organization staff, the members of the program committees and reviewers. They have worked very hard in reviewing papers and making valuable suggestions for the authors to improve their work. We also would like to express our gratitude to the external reviewers, for providing extra helps in the review process, and the authors for contributing their research result to the conference. Special thanks go to TTP Publisher.

We wish all attendees of the MEMTIE 2014 an enjoyable scientific gathering in Changsha, China. We look forward to seeing all of you next year at the conference.

Organizing Committee

Conference Committees

General Chairs

Prof. Bangchun wen, Academy of Sciences, Dongbei University
Prof. Hongyi liu Dongbei University
Prof. He li Dongbei University
Prof. Fenjie long Guizhou Institute of Technology
Prof. Jie liang Guizhou Institute of Technology
Senior Engineer, Biao shi-Deputy General Manager of Guizhou Southwest Tool Co., Ltd.
Senior Engineer, Suping tao- Guizhou Southwest Tool Co., Ltd.
Engineer, Dezhi yang- Guizhou Southwest Tool Co., Ltd.
Senior Engineer, Chunbai li-General Manager of AVIC Baiyun Aviation Fasteners Ltd.
Prof. F. Anwar, International Islamic University Malaysi, Malaysia
Prof. T. O. Ahmed Aljabal Algharby University, Libya

Technical Program Committee Chairs

Prof. Fang shao Guizhou Institute of Technology
Prof. Haihong chen Guizhou Institute of Technology
Prof. Xingyong gao Guizhou Institute of Technology
Prof. Ping zeng Guizhou Institute of Technology
Prof. Anjiang tang Guizhou Institute of Technology

Technical Program Committee

Prof. N. K. Nehra, SMVD University, India
Dr. Q. Chen, Columbia University, USA
Prof. X.S. Zhang, Claremont Graduate University, USA
Prof. S. K. Patra, National Institute of Technology Rourkela, India
HOD, Prof. Kung Chih-hsien, Chang-Jung Christian University, Taiwan
HOD, Prof. V.Saravanan, Dept of Computer Applications, Karunya University, India
Prof. R. Zaman, Muffakham Jah College of Engineering and Technology, India
Prof. J. L. Wang, Qingdao Technological University, China
Prof. S J Wagh, Maharashtra Academy of Engineering, India
HOD, Prof. B. Patel, Shah & Anchor Kutchhi Polytechnic, India
Dr. S. Alavandar, Indian Institute of Technology, India
Dr. K.S. Cheung, University of Hong Kong, Hong Kong
Prof. A. Kush, IIT kanpur and Kurukshetra University, India
Prof. R. P. Mahapatra, SRM University, India
Prof. Shishir K. Shandilya, Rukmani Devi Institute of Science and Technology, India
Dean, Prof. G.Selvakumar, School of Electrical Sciences, V.M.K.V. Engineering College, India