

Preface

On the successful basis of APCMCE 2013, 2014 2nd Asian Pacific Conference on Mechatronics and Control Engineering (APCMCE 2014) will be held on August 8-9, 2014, Hong Kong. The conference is an international forum for the presentation of technological advances and research results in the fields of Asian Pacific Conference on Mechatronics and Control Engineering. The conference will bring together leading researchers, engineers and scientists in the domain of interest from around the world. We warmly welcome previous and prospected authors submit your new research papers to APCMCE 2014, and share the valuable experiences with the scientist and scholars around the world.

A balanced, high quality program of invited and contributed papers resulted from the over 60 scientific and technical contributions effectively presented during the three working days to a large international audience coming from 26 countries throughout the world.

All the papers in the conference proceedings have been undergone the intensive review process performed by the international technical committee, and only accepted papers are included.

The subjects covered several areas and were gathered into six chapters for publication:

- (I) Mechatronics, Robotics and Control Systems
- (II) Communication and Information Technologies
- (III) Measurements, Sensors, Data and Signal Processing
- (IV) Researches and Design in Mechanical Engineering
- (V) Materials and Chemical Engineering
- (VI) Engineering Management in Industry

Most of the papers were written by authors whose mother tongue is not English. Therefore, considerable revision of the original texts was often required. The partial reworking of several papers and sometimes even complete rewriting was necessary to make clear work valid as regards the technical content but difficult to understand because of lack of proficiency in the English language. Even so, in order to allow the scientific and technical community to have access to the proceedings volumes within a reasonable length of time, compromise was necessary in regard to the quality of writing, and papers containing language imperfections were considered acceptable provided that their technical content was adequate and easily understandable.

The success of APCMCE 2014 is based on the hard work of many peoples behind the main scene. The International Steering committee and Advisory committee made many valuable suggestions regarding scientific and technical portion of the conference. The Technical Program committee members worked hard to organize the attractive technical program in two parallel oral sessions, and four poster sessions. A number of reviewers contribute greatly to maintain the high scientific standards of this publication. Also the success of the conference is due to the hard work of the members of the Executive including Local Arrangements and Sponsor Committees.

Finally we would like to acknowledge and give special appreciation to our keynote speakers for their valuable contribution, our delegates for being with us and sharing their experiences, and our invitees for participating in APCMCE 2014. We would also like to extend my appreciation to the steering Committee and the International conference Committee for the devotion of their precious time, advice and hard work to prepare for this Conference.

With our warmest regards

Wen Jin

APCMCE 2014 Organizing Committee

Honorary Chair

Yuan Lee, NorthWestern University, USA

General Chairs

Jun Zhang, Huazhong University of Science and Technology, China
Minli Dai, Suzhou University, China

Organizing Chairs

Khine Soe Thaung , Maldives College of Higher Education, Maldives
Biswanath Vokkarane, Society on Social Implications of Technology and Engineering , Maldives

Program Chair

Wen Jin, Chongqing University, China
Dehuai Yang, Huazhong Normal University, China

Program Members

Choucha Abdelghani, Amar Telidji University, Algeria
Alexey Katsurin, Far Eastern Federal University, Russia
Muhammad Naufal Mansor, University Malaysia Perlis, Malaysia
Tahari Abdou El Karim, University of Laghouat, Algeria
Ming Xiong, Beihang University, China
Pingkang Li, Beijing Jiaotong University, China
Liangyi Cui, Beihang University, China
Guohua Wang, Beihang University, China
Xiaomei Hu, Shanghai University, China
Xiaoping Yang, University Town of Shenzhen, China
Qilin Bi, South China University of Technology, China
Juan Zhao, China University of Geosciences, China