# **Preface**

2012 International Conference on Biotechnology, Chemical and Materials Engineering (CBCME 2012) will be held in Xiamen, China during December 28-29, 2012. CBCME 2012 is sponsored by Hong Kong Control Engineering and Information Science Research Association (CEIS), Dalian Polytechnic University, International Frontiers of Science and Technology Research Association (IFST) and Trans tech publications inc. The aim is to provide a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in Biotechnology, Chemical and Materials Engineering.

In this conference, we received more than 700 submissions from email and electronic submission system, which were reviewed by international experts, and about 223 papers have been selected for presentation, representing 9 national and international organizations. This high level of interest truly reflects the worldwide importance of Biotechnology, Chemical and Materials Engineering.

I think that CBCME 2012 will be the most comprehensive Conference focused on the Biotechnology, Chemical and Materials Engineering. The conference will promote the development of Biotechnology, Chemical and Materials Engineering, strengthening the international academic cooperation and communications, and exchanging research ideas.

We would like to thank the conference chairs, organization staff, the authors and the members of International Technological Committees for their hard work. Thanks are also given to Trans Tech Publications.

We hope that CBCME 2012 will be successful and enjoyable to all participants. We look forward to seeing all of you next year at the CBCME 2013.

November, 2012

Conference Chairman

Wen-Pei Sung Wen-Pei Sung, National Chin-Yi University of Technology

> Chun-Zhi Zhang Dalian Polytechnic University

> > Ran Chen

Control Engineering and Information Science Research Association

## **CBCME 2012 Committee**

#### **Conference Chairman**

Wen-Pei Sung, National Chin-Yi University of Technology

Chun-Zhi Zhang Dalian Polytechnic University

Chen Ran, Control Engineering and Information Science Research Association

### **Program Committee**

Hsien-Te Lin, National Cheng Kung University

Xue Chaogai, Zhengzhou University, China

Viranjay M.Srivastava, Jaypee University of Information Technology, Solan, H.P., India

Zhao Weiguo, Hebei University of Engineering, China

He Qing, North China Electric Power University, China

Mir Mahdi Zalloi, Iron

Zhou Liang, Donghua University, China

Liu Yunan, University of Michigan, USA

Wang Living, Institute of Water Conservancy and Hydroelectric Power, China

Chenggui Zhao, Yunnan University of Finance and Economics, China

Hsiang-Chuan Liu, Asia University

Gang Shi, Inha University, South KoreaBhagavathi Tarigoppula, Bradley University, USA

Tjamme Wiegers, Delft University of Technology, Netherlands

Anita Kovač Kralj, University of Maribor, Slovenia

Wei Fu, Chongqing University, China

Ramezan ali Mahdavinejad, University of Tehran, Iran

Chen Chi-Hua, National Chiao Tung University

Mostafa Shokshok, National University of Malaysia, Malaysia

Hong Sheng, Beijing University of Aeronautics and Astronautics, China

Yang Yan, Guangxi University for Nationalities, China

Xu Chungeng, Nanjing University of Science and Technology, China

Liu Zheng, Shangdong Economic University, China

Wen-Sheng Ou, National Chin-Yi University of Technology

Hao-En Chueh Yuanpei University

Li Zhong, North China Electric Power University, China

Lixin Guo, Northeastern University, China

# **Co-Sponsor**

Dalian Polytechnic University

International Frontiers of science and technology Research Association

HongKong Control Engineering and Information Science Research Association

Trans tech publications inc.