

Preface

This journal volume contains the accepted papers from the Second International Conference on Applied Mechanics, Materials and Manufacturing (ICAMMM 2012), held in Changsha, China, November 17-18, 2012. The scientific discipline behind this conference was theoretical and applied mechanics and its applications in materials and manufacturing fields. ICAMMM is concerned with the study of mechanical phenomena: the behavior of solids and fluids under the actions of forces. It has an enormous influence on the industrialized world, enabling technological developments in virtually every area that affects our lives, security, and well being. The aim of this conference was to put together individuals, institutes and countries, interested in cooperative actions for further development.

I would like to extend a warm welcome to all the authors and participants of this 2nd ICAMMM. We hope that this conference will be useful to the research and development in the field and all of you will have a wonderful experience with this fruitful conference, and at the same time enjoy the sights of Changsha in China.

The editors

The Second International Conference on
Applied Mechanics, Materials and Manufacturing
(ICAMMM 2012)

Organized by:

Hunan Province Textile Engineering Center

Conference Organization

General Chairman

Prof. Xungai Wang, Deakin University, Australia

Technical and Organizing Committee

Prof. Deqiang Mu, Changchun University of Technology, China

Prof. Hua Wu, Changchun University of Technology, China

Prof. Xiaogang Dong, Changchun University of Technology, China

Prof. Mingyao Zhang, Changchun University of Technology, China

Prof. Ye Han, Changchun University of Technology, China

Prof. Jiuba Wen, Henan University of Science and Technology, China

Prof. Fuxiao Chen, Henan University of Science and Technology, China

Prof. Jiwei Cai, Hebei United University, China

Prof. Xianjin Yu, Shandong University of Technology, China

Prof. Ming Dong, Shanghai Jiao Tong University, China

Prof. Xiaoxing Feng, Hebei University of Technology, China

Prof. Wenzhi Fu, Jilin University, China

Prof. Zhengping Fang, Zhejiang University, China

Prof. Jian Gao, Guangdong University of Technology, China

Prof. Jingtao Han, University of Science & Technology Beijing , China

Prof. Lin He, Guizhou University, China

Prof. Xiaoming Jia, Hebei United University, China

Prof. Xiaolin Jia, Zhengzhou University, China

Prof. Zhenglian Jiang, Research Institute, Baosteel, China

Prof. Sihai Jiao, Research Institute, Baosteel, China

Prof. Shanqing Li, Research Institute, Baosteel, China

Prof. Xianghua Liu, Northeastern University, China

Prof. Jiacheng Liu, Tianjing University, China

Prof. Kaiqi Liu, Iron&Steel Reserch Institute, China

Prof. Yaqing Liu, North University of China

Prof. Jialu Li, Tianjin University of Technology, China

Prof. Yungang Li, Hebei United University, China

Prof. Dehong Lu, Kunming University of Science and Technology

Prof. Changsheng Li, Northeastern University, China

Prof. Baochun Lu, Nanjing University of Science and Technology

Prof. Chenxu Lu, Insti. of Process Eng., Chinese Academy of Science

Prof. Yongcheng Lin, Central South University, China

Prof. Gaifei Peng, Beijing Jiaotong University, China

Prof. Dianli Qu, University of Science and Technology Liaoning

Prof. Junan Shen, Georgia Southern University, USA

Prof. Wenlei Sun, Xinjiang University, China

Prof. Junyou Shi, Qingdao University of Science&Technology,China

Prof. Zhiming Shi, Inner Mongolia University of Technology, China

Prof. Yi Shen, Hebei United University, China

Prof. Xiaoming San, Hebei United University, China

Prof. Xitang Wang, Wuhan University of Science and Technology

Prof. Jun Wang, Northeastern University, China

Prof. Qiang Wang, University of Jinan, China

Prof. Pengcheng Wang, Inner Mongolia University of Technology, China

Prof. Kaiming Wu, Wuhan University of Science and Technology

Prof. Shao Hui Yin, Hunan University, China

Prof. Rong Zhu, University of Science & Technology Beijing , China

Prof. Daoyuan Yang, Zhengzhou University, China

Prof. AKM Nurul Amin, International Islamic University, Malaysia

Prof. Geun Jo Han, Dong-A Univeristy, Korea

Dr. Gui Wang, The University of Queensland, Australia

Prof. Jong Kook Lee, Chosun University, Korea

Prof. Ken-ichi Manabe, Tokyo Metropolitan University, Japan

Prof. Jeng-Haur Horng, National Formosa University, Taiwan

Prof. Jia-Horng Lin, Feng Chia University, Taiwan

Prof. Indra Putra Almanar, Universiti Sains Malaysia

Prof. Kyung-Man Moon, Korea Maritime University, Korea

Dr. Mark Fong, Hong Kong Industrial Technology Research Centre

Prof. P. S. Pa, National Taipei University of Education, Taiwan

Prof. Sagar Kamarthi, Northeastern University, USA

Prof. Shahrum Abdullah, University Kebangsaan Malaysia, Malaysia

Prof. Toshio Haga, Osaka Institute of Technology, Japan

Prof. Walid Mahmoud Shewakh, Beni Suef university, Egypt

Prof. Yun-Hae Kim, Korea Maritime University, Korea

Dr. Yuantong Gu, Queensland University of Technology,

Local Organizing Committee

Chair

Prof. Huawu Liu, Tianjin Polytechnic University, China

Members

Prof. Yongxin Yang, Central Res. Insti. of Building and Construction Co., LTD

Prof. Shijie Shen, Beijing Forestry University, China

Prof. Zhili Zhong, Tianjin Polytechnic University, China

Prof. Yinhua Zhang, Hunan Province Textile Engineering Center