

## PREFACE

2012 International Conference on Mechatronic Systems and Automation Systems (MSAS 2012) is launched by Information Technology & Industrial Engineering Research Center. It is the most international academic conference per year in mechatronic systems and automation systems area. The main aim is to provide an academic platform to exchange experience and production for researchers in the fields of mechatronic systems and automation systems. The conference will be held on July 21, 2012 in Wuhan, China. The book title of this conference is “Review of Modern Engineering Solutions for Industry”.

In this conference, we had received about 300 submissions from 5 countries and regions. Each of the papers was reviewed carefully by two famous specialists in this field. After received the revised papers on the basis of the specialists' advice, finally we collected about 100 papers into the proceedings. In addition to the regular publications of the papers, we have also invited several specialists and scholars in this field to make keynote speech at the conference.

We would like to take this opportunity to express our thanks to the individuals and organizations for their efforts to serve the conference. We'd like to extend our thanks to members of academic committee for their effort to the conference; especially, we'd like to thank to members of organizing committee for their hard working; finally, we would like to express our appreciations to the participants of this conference.

**Bin Liu**

Chairman of MSAS2012

**Zhenyu, Du**

Chairman of Publication Committee

# Committees

## General Chair

Bin Liu, Shaanxi University of Science & Technology , China

## Program Chairs

X.G. Zhang, Nanyang Normal University , China

## Publication Chair

Zhenyu Du, Information Technology and Industrial Engineering Research Center, Hong Kong

## Program Committee

X.P.Zhou, University of Canberra , Australia  
D. Zhou, Wuhan College of Industrial Technology , China  
Brad Wyatt, Capella University , Minneapolis , USA  
C. Raoof, Dublin City University , Ireland  
E.R. Zheng , Shaanxi University of Science & Technology , China  
Sevaux Marc, University of Joseph Fourier, France  
W.H. Wang, National University of Defense Technology , China  
J.H.Zhou, Nanyang Technological University , Singapore  
Michal Wozniak, Wrocsaw University of Technology, Poland  
Lifeng Wu, Beijing University of Posts & Telecommunications, China  
B.H Yao, Wuhan University of Technology , China  
Steve Thatcher, University of South Australia, Australia  
Sofa S. Mahmoud, Ain Shams University, Egypt  
S.Wu , University of Macau , Macau  
Vlacic Ljubo, Florida Atlantic University, USA  
Ch.P, South-Central University for Nationalities, China  
X.S Zhang, Claremont Graduate University, USA  
F. Tan, University of Bath , Uk  
S.H He, California state University, USA  
Munawar Hafiz, University of Illinois, USA  
Charles B. Haley, University College of Technology and Innovation Kuala Lumpur, Malaysia  
Jaejoon Lee, Lancaster University, UK  
Raimundas Matulevicius, University of Namur, Belgium  
Haris Mouratidis, University of East London, UK  
Liang Xiao, Royal College of Surgeons Ireland, Ireland  
José D.P. Rolim, University of Geneva, Switzerland  
Per Stenström, Chalmers University, Sweden  
Joseph JaJa, University of Maryland, USA  
Y.Deng, Shanghai Jiao Tong University, China

## Conference Secretariat

Mr. Wu, Information Technology and Industrial Engineering Research Center, Hong Kong

# Sponsors

Information Technology & Industrial Engineering Research Center