

# Preface

We are glad to announce that the 3rd International Conference on Applied Mechanics and Mechanical Engineering (ICAMME 2012) will be held in Macau on November 14-15, 2012. The conference is jointly organized by the Asia Pacific Environmental Science Research Center, Hong Kong, and Information Engineering Research Institute, USA. We aim to bring all researchers working in the area of Applied Mechanics and Mechanical Engineering and people who are interesting in Applied Mechanics and Mechanical Engineering together to share their latest achievements and discussing the directions and possible applications in the field of Applied Mechanics and Mechanical Engineering in the future.

Mechanical engineering emerged as a field during the industrial revolution in Europe in the 18th century, now it has been a mature discipline. Mechanical engineering involved in many frontiers, because any modern industry and engineering are related to Mechanical engineering. Mechanics have a relationship with many engineering science. Applied Mechanics, as a part of Mechanics, has a prominent place in all kinds of machinery, vehicles, ships, aircraft, spacecraft and weapons systems and so on. Applied Mechanics and Mechanical Engineering include many topics. There are many topics in Applied Mechanics, such as Acoustics, Analytical mechanism, contact mechanics, mechanics of materials, mechanics of structure, experimental mechanics etc. The final proceedings of ICAMME 2012 are composed of any comprehensive and up-to-date papers.

After the previous two conferences were held successfully, a number of authors express their support and praise to our conference by E-mail or other ways that make us very happy. When we start the conference ICAMME 2010, the first Conference on Applied Mechanics and Mechanical Engineering, we hope the conference will continue as soon as possible and more authors can benefit from the conference. We have still in the efforts for this goal. After the previous two conferences, many authors and people who pay attention to our conference also give their suggestions, thank your attentions and support, we wish ICAMME 2012 will meet you requirements.

Macau is one of the two special administrative regions of the People's Republic of China. Known as 'Oriental Las Vegas', the gambling industry in Macau is booming and has already become an important feature of the local economy. You can see different kinds of casinos in Macau, and it is a must to go to casinos and take a gamble. Macau is extremely rich in attractions and oozing with atmosphere, thanks to hundreds of years of fusion between European and Chinese cultures. So Macau is deserving of a visit and a stay here is sure to revitalize the weary traveler. We wish every attendee can enjoy the conference as well as enjoy the city.

Just as a Chinese proverb said “no pains, no gains”, many persons devote themselves to the conference on Applied Mechanics and Mechanical Engineering 2010 and 2011. ICAMME 2012 is inseparable from everybody's efforts. Lots of persons contribute to ICAMME 2012 from collection of thesis to publication of proceedings. The editors are

responsible for selections of reviewers of papers and communication between authors and referees, whom we thank for their works. We express our appreciation to all members of association for the preparation of the conference and the proceedings. Thanks also are given to all authors, thanks for your support.

Finally, we hope the contents of the proceedings will prove useful for all researchers in Applied Mechanics and Mechanical Engineering fields.

We look forward to meeting you next year.

Xiong Zhou and Honghua Tan

# **ICAMME2012 Organizing Committee**

## **Keynote Speakers**

Chin-Chen Chang from Feng Chia University, Taiwan

Jun Wang from Chinese University of Hong Kong, Hong Kong

## **Scholarship Committee Chairs**

Zhi Hu, IEEE IAS Nanchang Chapter, China

Changhu Xu, IEEE IAS Nanchang Chapter, China

## **Organizing Chairs**

Dehuai Yang, Huazhong Normal University, China

Jun Zhang, Huazhong University of Science and Technology, China

## **Program Committee Chair**

Ying Zhang, Wuhan University, China

## **Publication Chair**

Xiong Zhou, Wuhan University, China

Honghua Tan, Wuhan University of Technology, China

## **International Committees**

Bogdan Gabrys, UK

Graham H. Galbraith, UK

Zhao-qiang Ge, China

Angel Marin Gracia, Spain

Constantin Zopounidis, Greece

Teresa Noronha, PORTUGAL

Efigenio da Luz Rebelo, PORTUGAL

Luis Chicharo, PORTUGAL

Jon Bryan Burley, USA

Tomas Boski, PORTUGAL

Lea Orlovsky, ISRAEL

C. Helmis, GREECE

F. Rigas, GREECE

N. Afgan, PORTUGAL

F. Akgun, TURKEY

Omar Badran, JORDAN

Y. Baudoin, BELGIUM

A. Bitoleanu, ROMANIA

L. Boch-Andersen, BELGIUM

P. Casero, SPAIN

E. Frey, GERMANY

M. Heiermann, GERMANY

Livia Madureira, PORTUGAL

Nuno Pinto, PORTUGAL

Carlos Guerrero, PORTUGAL

Claudine Metral, SWITZERLAND

Ioannis Tsalikidis, GREECE