

Preface

2016 International Conference on Energy Materials and Applications was held during May 5-7, 2016 in Seoul, South Korea. And this volume contains some of the contributions presented at the conference.

ICEMA provides a scientific platform for both local and international scientists, engineers and technologists who work in all aspects of energy materials and applications, In addition to the contributed papers, internationally known experts from several countries are also invited to deliver Plenary and Keynote speeches at ICEMA 2016.

The proceedings introduce to the readers with newest researches results and findings in the field of nanomaterials and nanotechnologies, materials and production technologies of concrete structures, functional materials, engineering solutions and chemical technologies of renewable energy production.

Much of the credit of the success of the conference is due to topic coordinators who have devoted their expertise and experience in promoting and in general co-ordination of the activities for the organization and operation of the conference. The coordinators of various session topics have devoted a considerable time and energy in soliciting papers from relevant researchers for presentation at the conference.

The chairpersons of the different session played important role in conducting the proceedings of the session in a timely and efficient manner and the on behalf of the conference committee, we express sincere appreciation for their involvement. The reviewers of the manuscripts, those by tradition would remain anonymous, have also been very helpful in efficiently reviewing the manuscripts, providing valuable comments well within the time allotted to them. We express our sincere and grateful thanks to all reviewers.

Prof. Haider F. Abdul Amir, Prof. Xu Jie, Prof. Yifei Chen and Prof. Dr.-Ing. Axel Sikora

May 20, 2016

Committees

Advisory Committee

Prof. Yanglong Hou, Office of Scientific Research, Peking University, China

Conference Chairs

Prof. David Lin, National University of Tainan, Taiwan

Prof. Yifei Chen, China Agricultural University, China

Prof. Dennis Leung, The University of Hong Kong, Hong Kong

Technology Program Co-chairs

Prof. Haider F. Abdul Amir, University Teknologi Mara, Malaysia

Prof. Xu Jie, Shanghai Ocean University, China

Technical Committee

Prof. Abdelkrim Chemseddine, Helmholtz-Zentrum Berlin, Germany

Prof. Lin King-Fu, National Taiwan University, Taiwan

Prof. Tung-Han Chuang, National Taiwan University, Taiwan

Prof. Wen-Cheng J Wei, National Taiwan University, Taiwan

Prof. Pavlo Selyshchev, University of Pretoria, South Africa

Prof. Ampar Hegde, National Institute of Technology Karnataka, India

Prof. Mao-Yu Wen, Cheng Shiu University, Taiwan

Assoc. Prof. Dr. Sridharbabu Y., Gwangju Institute of Science and Technology, BML Munjal University, India

Assoc. Prof. Dr. Noor Asmawati Mohd Zabidi, Universiti Teknologi PETRONAS, Malaysia

Assoc. Prof. Dr. Abdulah Al-Musa, King Abdulaziz City for Science and Technology, Saudi Arabia

Assoc. Prof. Dr. Weiwei Cai, China University of Geosciences Wuhan, China

Assoc. Prof. Dr. Yunfeng Zhang, China University of Geosciences Wuhan, China

Assoc. Prof. Dr. Ngoc-Chung Le, Da Lat University, Viet Nam

Dr. Kathrin Aziz-Lange, Helmholtz-Zentrum Berlin, Germany

Dr. Koteeswara Reddy N., Gwangju Institute of Science and Technology, BML Munjal University, India

Dr. Yubao Sun, China University of Geosciences Wuhan, China

Dr. Seok-Keun Koh, GL Materials, Korea

Dr. Marwan Marwan, Syiah Kuala University, Indonesia

Dr. Hasnah Mohd Zaid, Universiti Teknologi PETRONAS, Malaysia