

## Preface

The 2014 International Conference on Advanced Engineering and Technology (ICAET 2014) will take place in Incheon, at Incheon National University (INU), South-Korea, December 20-21, 2014. This conference is sponsored by Incheon Disaster Prevention Research Center (IDPRC) in INU. The ICAET 2014 is an annual international conference aimed at presenting current research being carried out in the fields of materials, structures and mechanical engineering. The idea of the conference is for the scientists, scholars, engineers and students from universities, research institutes and industries all around the world to present on-going research activities. This allows for the free exchange of ideas and challenges among the conference participants and encourages future collaboration between members of these groups. The conference will also foster cooperation among organizations and researchers involved in the merging fields and will provide in-depth technical presentations with abundant opportunities for individual discussions with the presenters.

The book is a collection of accepted papers. All these accepted papers were subjected to strict peer-reviewing by 2-3 experts referees including preliminary review process conducted by conference editors and committee members before there publication by Trans Tech Publication (TTP). This book is separated into twelve main chapters including 1. Metal and Alloy Materials and Technologies 2. Advanced Materials Engineering and Applications, 3. Materials Testing, Analysis and Processing Technology, 4. Structural Engineering, Dynamics and Applied Mechanics, Building Materials and Building Management 5. Mechanical Engineering and Design, Manufacturing Technology 6. Automation, Robotics and Control 7. Measurement, Monitoring and Detection, Identification and Advanced Systems 8. Communication, Graphic and Image Processing, Information Technologies Applications 9. Energy Control and Power Systems, Electrical and Electronic Engineering 10. Disaster Prevention and Mitigation Technology, Environmental Protection and Safety Management 11. Industrial Engineering, Production Quality and Management, The committee of ICAET 2014 should show our sincere thanks to all authors for their high-quality research papers and careful presentations. All reviewers should be also thanked for their careful comments and advices.

Thanks are all finally given to TTP as well for producing this volume.

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