

# Preface

2014 2nd International Conference on Materials Science and Mechanical Engineering (2nd ICMSME 2014) will be held on May 31-June 1, 2014, Taipei, Taiwan.

2013 1st International Conference on Materials Science and Mechanical Engineering (ICMSME 2013) has been held on October 27-28, 2013, Kuala Lumpur, Malaysia and has been indexed by EI Compendex after three months.

The goal of this conference is to bring together the researchers from academia and industry as well as practitioners to share ideas, problems and solutions relating to the multifaceted aspects of Mechanical Materials Science and Mechanical Engineering.

Materials science is an interdisciplinary field involving the properties of matter and its applications to various areas of science and engineering. It includes elements of applied physics and chemistry, as well as chemical, mechanical, civil and electrical engineering. With significant media attention to nanoscience and nanotechnology in the recent years, materials science has been propelled to the forefront at many universities, sometimes controversially. In materials science, rather than haphazardly looking for and discovering materials and exploiting their properties, one instead aims to understand materials fundamentally so that new materials with the desired properties can be created. The basis of all materials science involves relating the desired properties and relative performance of a material in a certain application to the structure of the atoms and phases in that material through characterization.

All the papers have gone through a peer-review process for their originality and quality. The topics covered in this book include:

Chapter 1: Applied Materials Science and Related Industrial Technologies

Chapter 2: Mechanical Engineering

Chapter 3: Applied and Computational Mechanics

Chapter 4: Materials and Technologies in Construction

Chapter 5: Control, Communication and Electronics

Chapter 6: Measurements

Chapter 7: Biomedical Engineering

Chapter 8: Computational Mathematics and Mathematical Modeling

I would like to thank the colleagues for their contributions to ICMSME2014. I would also like to thank the members of the Organizing Committee, IERI, and the corporate sponsors for their efforts and contributions towards making the conference a success. Like keynote speakers Prof. Gerald Schaefer come from Loughborough University. Special thanks go to TTP Publisher.

I express our sincerely acknowledgements to people who contribute to the proceedings and conference. Moreover, my thanks are also due to the sponsors for providing much help for the conference.

Yuanzhi Wang

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