Materials and Manufacturing Engineering

Edited by
Anil K. Bhatnagar

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Materials and Manufacturing Engineering

Selected, peer reviewed papers from the
2015 International Conference on Intelligent Materials
and Manufacturing Engineering
(IMME 2015),
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Preface

In modern society with new technology, not only many new materials are created, like thermoelectric materials, self-healing materials, magnetocaloric materials and shape-memory alloys, many traditional materials have also found new application prospects. With the fast advancing technology, new advanced materials will only become more and more. To more appropriatelyapply them in manufacturing, it is necessary to organize this international conference and introduce to people our recent achievements in this field.

The 2015 International Conference on Intelligent Materials and Manufacturing Engineering, IMME2015, which was held on January 16 and 17, 2015 in Phuket Island, Thailand, by inviting world-renowned scientists and scholars with excellent expertise in these fields, has precisely and successfully served people for this purpose.

On January 17, people from many countries have attended IMME2015. Quite a number of inspiring oral presentations as well as posters are given, offering the participants either some reference to his study, or even a possible answer to his question. Another exciting observation for me is that these presentations at IMME2015 not only covered almost each aspect of our studies in this field, they were also done with relatively in-depth analysis.

Thanks to the help from the press, this book that containing all the papers for IMME2015 is finally published. In this book, 92 papers focusing on material and manufacturing subjects are included. These papers are put under 6chapters, namely:

Chapter 1: Materials, Chemical Processes and Technologies, Biotechnologies
Chapter 2: Nanomaterials and Nanotechnologies
Chapter 3: Composite Materials and Composite Properties of Materials
Chapter 4: Steel and Alloys
Chapter 5: Building Materials and Technologies in Construction
Chapter 6: Biomaterials and Biomedical Engineering

With this classification, this book is more convenient for your consulting.

The accomplishments for IMME2015 are the results of many people's work. Here, I would like to give my thankfulness to the contributors, the TTP Press, the conference committees and the organizers. Both their academic ability and their devotion to science are worth our admiring.

Finally, I hope there would be another chance for us to work together again.

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CHAPTER 1:

Materials, Chemical Processes and Technologies, Biotechnologies