

Preface

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The development of science and technology is the basis of humanity modern civilization. Science and technology are the first productivity. Respect, advocate and grasp science have become the irreversible era theme.

Various contemporary significant progresses in applied sciences have brought a series of revolutionary breakthrough in technology, and have promoted great development of productivity and social progress. Science and technology have become the main factors influencing the national economy development and productivity growth, and also have become the most active decisive forces promoting the productivity development. To solve the macroscopic decision-making problems by using scientific thinking ways, knowledge system and advanced techniques, have really reflected the main function of the science and technology as the first productivity to promote human society development. The worldwide new technology revolutions have constantly inspired the discussions on human, society and nature.

2013 International Forum on Materials Science and Industrial Technology (IFMSIT 2013) provides a platform for various scientists, engineers, academicians and teachers to display their research achievements. This forum provides opportunities for the delegates to exchange new ideas and application experiences face to face, to establish business or research relations and to find global partners for future collaboration.

Since the mid-20th century, a new technological revolution with the core of experimental science has risen up all over the world. New techniques profoundly changed the research methods and tools of the applied science, and promoted rapid development of the whole natural sciences. Human's researches on physics and related chemistry have achieved rapid advancements in the depth of understanding and the breadth of application. Similarly, the material science and biology have achieved revolutionary breakthrough under the influence of physics, chemistry and other new techniques. In this years, the information technology, computer science and technology, manufacturing technology, new energy, management science and other high-tech scientific fields related with these basic disciplines are booming, and the mankind has entered into the new development era of science and technology. When we are enjoying the benefits brought by science and technology, we should care more about the conflicts between the environmental protection and resource utilization, so as to construct our homeland better. The overall trend of modern science and technology shows that the with mutual intersection and penetration of the new scientific disciplines, the boarders among the old disciplines are gradually fading, while various vital important discipline branches are born among the fringes of the old disciplines. Generally, the achievements gained from one discipline could be quickly grafted to other disciplines, and these features are also the consensus of IFMSIT 2013 committee members.

Coordinating with the IFMSIT 2013, we published the proceedings. The book has been divided into seven chapters, which covered material science, chemistry, physics, manufacturing technology, information science, computer technology, bio-science and medicine, management science, ecological protection, etc. These papers are selected from submitted 448 papers, and have received the guidance and help from many experts, scholars and participants in proceedings preparation. Here we would like to give our sincerely thanks to those who have paid great efforts and supports during the publication of the book.

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