

Special Issue

on

***Evolution of Engineering, Technologies and Materials***

**Preface**

The ModTech International Conference (ModTech2013) on Modern Technologies in Industrial Engineering was jointly organized by the Professional Association in Modern Manufacturing Technologies (ModTech, Iasi, Romania), Silesian University of Technology (Gliwice, Poland) and Constanta Maritime University (Constanta, Romania) at the Mara Hotel, Sinaia, Romania during 27-29 June 2013. The main objectives of ModTech International Conference are to bring together representatives of technology manufacturers, institutions, universities, industry and professional associations to debate and exchange experiences on important conference topics and also to provide a good networking opportunity to all these groups.

Technologies and materials are fast emerging as important areas for academic research and industrial applications. Research and development in technologies and materials evolution requires the cooperation of specialized researchers from different fields of materials science, engineering, computer science, chemistry, physics, etc. The scientific sessions of the conference contained invited speakers and oral presentations by contributory authors. The representatives of the universities, business entities, research institutes participated in the conference. The researchers from various countries like Japan, USA, Germany, South Korea, Russia, Italy, Romania, Poland, Portugal, Spain, France, Slovakia, Republic of Moldova, Croatia, Serbia, Turkey, Greece and Tunisia also participated in the ModTech2013. In addition to the authors that were present at the conference, researchers from Switzerland, India, Slovenia, Uzbekistan, Belgium, Finland, Mexico and Vietnam also sent papers. The conference topics were focused on the following research areas: Engineering of Manufacturing Processes, Advances in Composites and Technologies, Characterization, Modeling and Simulation of Mechanical Processes, Robotics and Computer Integrated Manufacturing, Technology Transfer, Micro and Nano Technologies and Maritime Engineering and Navigation.

In this special issue of *Indian Journal of Engineering & Materials Sciences (IJEMS)*, forefront research on various aspects of Evolution of Engineering, Technologies and Materials is illustrated by selected peer-reviewed papers out of a large number of papers received for the conference. All of the papers submitted to the ModTech2013 International Conference were first subjected to examination by at least two independent

reviewers prior to the conference. The selected papers subsequently underwent second round of peer-review. This special issue of IJEMS contains 14 high quality papers selected upon completion of the reviewers comments. The articles included in this special issue cover a large spectrum on current research activities of engineering, technologies and materials. We hope that the readers will find the articles of their interest, and thus pursue a more thorough investigation of the presented problems. We are extremely grateful to the contributors as well as the reviewers for their whole hearted cooperation and help.

We are also thankful to the Director, CSIR-NISCAIR for having agreed to bring out a special issue of IJEMS containing selected papers presented during ModTech2013 International Conference. Finally, we would like to express our special gratitude to Dr R S Beniwal (Editor) and Kanika Malik (Associate Editor) *Indian Journal of Engineering & Materials Sciences*, CSIR-NISCAIR whose active interest and untiring efforts have culminated in bringing out this special issue of IJEMS on “*Evolution of Engineering, Technologies and Materials*”.

*Guest Editors*

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