

## Preface

Dear Distinguished Delegates and Guests,

The Organizing Committee warmly welcomes our distinguished delegates and guests to the 8<sup>th</sup> edition of the IEEE/IACSIT/SCIEI International Conference on Optimization of the Intelligent Systems and Their Applications in Aerospace, Robotics, Mechanical Engineering, Manufacturing Systems, Biomechatronics and Neurorehabilitation (OPTIROB 2013), held on June 20-23, 2013, Neptun-Olimp, ROMANIA ([www.optirob.com](http://www.optirob.com)).

The IEEE/IACSIT/SCIEI OPTIROB 2013 International Conference is organized by University POLITEHNICA of Bucharest, Romania, under the higher tutelage of the Romanian Academy of Technical Sciences- Mechanical Branch in cooperation with: Academy of Scientists from Romania, University Medicine and Pharmacy of Bucharest, Elias University Emergency Hospital of Bucharest, "Henri Coanda" Air Force Academy, Pro Optica Romanian Society, INCDMTM, Land Forces Academy, Military Equipment and Technologies Research Agency and Solid Mechanics Institute of the Romanian Academy.

The conference will be sustained by International Association of Computer Science and Information Technology of Singapore (IACSIT), Science and Engineer Institut of USA (SCIEI) and by International University Association for Science and Technology of Romania (AUSTRO).

The main objective of the conference is to bring together leading researchers, engineers and scientists in the fields of interest from Romania and from around the world in order to: provide a platform for researchers, engineers, academicians as well as industrial professionals to present their latest experiences and developments activities in the field of Smart Systems and their Applications in Aerospace, Robotics, Mechanical Engineering, Manufacturing Systems, Biomechatronics and Neurorehabilitation; provide opportunities for attendees to exchange new ideas and application experiences face to face, to establish business or research relations and to find global partners for future collaboration.

The conference has solicited and gathered technical research submissions related to all aspects of major conference themes and tracks. All the submitted papers in the proceeding have been peer reviewed by the reviewers drawn from the scientific committee, external reviewers and editorial board depending on the subject matter of the paper.

The Proceedings contents the invited papers from around the world recognition specialists in this field and following sessions: Aerospace Engineering and Hydro-Aero Dynamics Applications, Navigation Systems, Data Acquisition and Applications, Robotics and Automation Systems, Control, Mechanical Systems Engineering and Materials Engineering, Manufacturing Systems, Biomechatronics and Neurorehabilitation, Medical Engineering Applications and Civil and Military Applications of Intelligent Systems.

We are grateful to all those who have contributed to the success of the last edition of IEEE/IACSIT/SCIEI OPTIROB 2012 International Conference. We hope that all participants and other interested readers benefit scientifically from the proceedings and also find it stimulating in the process. Finally, I believe in a complete success of the 8<sup>th</sup> edition of the conference.

## **IN GOD WE TRUST!**

With best regards,  
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