

## Preface

### International Conference on Applied Sciences (ICAS2013)



Wuhan, P R China, 26–27 October, 2013

Organizers:



*Military Economics Academy of Wuhan*



*"Politehnica" University of Timișoara*

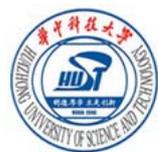
in cooperation with



*Scientific Interdisciplinary Values for Education and Research Society (SCIVERS)*



*Wuhan University*



*Huazhong University of Science and Technology*



*University of Medicine and Pharmacy "Victor Babeș" Timișoara*



The **International Conference on Applied Sciences (ICAS2013)** took place in Wuhan, P R China from 26–27 October 2013 at the Military Economics Academy. The conference is regularly organized, alternately in Romania and in P R China, by "Politehnica" University of Timișoara, Romania, and Military Economics Academy of Wuhan, P R China, with the aim to serve as a platform for the exchange of information between various areas of applied sciences, and to promote the communication between the scientists of different nations, countries and continents. The conference has been organized for the first time in 15–16 June 2012 at the Engineering Faculty of Hunedoara, Romania.

The topics of the conference covered a comprehensive spectrum of issues:

1. Economical sciences
2. Engineering sciences
3. Fundamental sciences
4. Medical sciences

The conference gathered qualified researchers whose expertise can be used to develop new engineering knowledge that has applicability potential in economics, defense, medicine, etc. The number of registered participants was nearly 90 from 5 countries. During the two days of the conference 4 invited and 36 oral talks were delivered. A few of the speakers deserve a special mention: Mircea Octavian Popoviciu, Academy of Romanian Scientist — Timișoara Branch, *Correlations between mechanical properties and cavitation erosion resistance for stainless steels with 12% chromium and variable contents of nickel*; Carmen Eleonora Hărău, "Politehnica" University of Timișoara, *SWOT analysis of Romania's integration in EU*; Ding Hui, Military Economics Academy of Wuhan, *Design and engineering analysis of material procurement mobile operation platform*; Serban Rosu, University of Medicine and Pharmacy "Victor Babeș" Timișoara, *Cervical and facial infections — a real life threat*, among others.

Based on the work presented at the conference, 14 selected papers are included in this volume of IOP Conference Series: Materials Science and Engineering. These papers present new researches in the various fields of materials engineering, mechanical engineering, computers engineering, mathematical engineering and clinical engineering. It's our great pleasure to present this volume of IOP Conference Series: Materials Science and Engineering to the scientific community to promote further researches in these areas. We sincerely hope that the papers published in this volume will contribute to the advancement of knowledge in the respective fields.

All papers published in this volume of IOP Conference Series: Materials Science and Engineering (MSE) have been peer reviewed through processes administered by the editors of the ICAS2013 proceedings, Ludovic Dan Lemle and Yiwen Jiang. Special thanks should be directed to the organizing committee for their tremendous efforts in organizing the conference:

#### *General Chair*

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#### *Co-chairs*

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Serban Viorel-Aurel, "Politehnica" University of Timișoara

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Sun Honghong, Military Economics Academy of Wuhan

Liu Dong, Military Economics Academy of Wuhan

We thank the authors for their contributions and we would also like to express our gratitude everyone who contributed to this conference, especially for the generous support of the sponsor:



*S C Micro-Mega HD S A*

*Ludovic Dan Lemle and Yiwon Jiang*

Coordinators of the Scientific Committee of ICAS2013

The members of the scientific committee who selected and reviewed the papers included in the Proceedings of ICAS2013 are:

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