9TH INTERNATIONAL CONFERENCE ON GLOBAL RESEARCH AND EDUCATION

“INTER-ACADEMIA 2010”

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Riga Technical University, Faculty of Materials Science and Applied Chemistry, Institute of Technical Physics, Research Laboratory of Semiconductor Physics

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Preface

This volume is a collection of papers presented at the 9th international conference on Global Research and Education “INTER-ACADEMIA 2010” held from August 9 to August 12, 2010 in Latvia at the Riga Technical University, Riga.

The first Inter-Academia was held by Comenius University in Slovakia in 2002, followed by Warshaw University of Technology (Poland 2003), Budapest University of Technology and Economics (Hungary 2004), Wupertal University (Germany 2005), Alexandru Ioan Cuza University (Romania 2006), Shizuoka University (Japan 2007), Budapest University of Technology and Economics (Hungary 2008) and Warsaw University of Technology (Poland 2009). It is needless to say that the main purpose of Inter-Academia is to exchange information concerning research and education, but even more important is to promote a better understanding between academic and non-academic staff, researchers and students from participating Universities though substantial social events. Thus, the Double Degree Special Program (DDP), which is a system to grant Doctor Degree from host University and home Universities, was launched between Shizuoka University and Warshaw University of Technology in 2006. This is a new education system for Ph.d. students carried out under supervision of professors from both Universities. From 2007 DDP is extended to Alexandru Ioan Cuza University. This is one example of the fruitful results obtained through Inter-Academia activities.

The present proceedings contain 90 contributions – among them 4 invited papers – from more than 10 different countries. The invited papers, presented by internationally recognized experts in the field, review the state-of-the-art and future trends in their respective research field.

The conference and its proceedings volume are organized in the following sections:

- Physics and Technology
- Chemistry
- Biology and Medicine
- Computer Science and Modeling

Every University contributes with proposals to make the Inter-Academia conferences and collaboration between the Universities more inspiring from the point of view of new science and education. Inter-Academia conferences offer an outstanding opportunity for students and post-doctors to gain unique knowledge in their field of research by meeting famous scientists from Japan and Europe, listening to their lectures and participating in discussions.

Finally, I would like to express our gratitude to the Shizuoka University and the funds and companies kindly giving their financial support to the conference.

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