Preface

It is our pleasure to present you the proceedings of ICTERI 2013, the ninth edition of the International Conference on Information and Communication Technologies in Education, Research, and Industrial Applications: Integration, Harmonization, and Knowledge Transfer, held at Kherson, Ukraine on June 19-22, 2013. ICTERI is concerned with interrelated topics from information and communication technology (ICT) infrastructures to teaching these technologies or using those in education or industry. Those aspects of ICT research, development, technology transfer, and use in real world cases are vibrant for both the academic and industrial communities.

The conference scope was outlined as a constellation of the following themes:
- ICT infrastructures, integration and interoperability
- Machine Intelligence, knowledge engineering, and knowledge management for ICT
- Cooperation between academia and industry in ICT
- Model-based software system development
- Methodological and didactical aspects of teaching ICT and using ICT in education

A visit to Google Analytics proves the broad and continuously increasing interest in the ICTERI themes. Indeed, between November 15, 2012 and May 15, 2013 we have received circa 4 400 visits to the conference web site, http://icteri.org/, from 110 countries (568 cities). These numbers are 1.5 – 2 times higher than those observed in the similar period for ICTERI 2012.

ICTERI 2013 continues the tradition of hosting co-located focused events under its umbrella. In the complement to the main conference this year, the program offered the three co-located workshops, two tutorials, and IT talks panel. The main conference program has been composed of the top-rated submissions evenly covering all the themes of ICTERI scope.

The workshops formed the corolla around the main ICTERI conference by focusing on particular sub-fields relevant to the conference theme. In particular:
- The 1st International Workshop on Methods and Resources of Distance Learning (MRDL 2013) dealt mainly with the methodological and didactical aspects of teaching ICT and using ICT in education
- The scope of the 2nd International Workshop on Information Technologies in Economic Research (ITER 2013) was more within the topic of cooperation between academia and industry

- 2nd International Workshop on Algebraic, Logical, and Algorithmic Methods of System Modeling, Specification and Verification (SMSV 2013) focused on model-based software system development

The IT Talks panel was the venue for the invited industrial speakers who wish to present their cutting edge ICT achievements.

This year we were also accepted the two focused short tutorials to the program: on ontology alignment and the industrial applications of this technology; and on the time model and Clock Constraint Specification Language for the UML profile used in modeling and analysis of real-time and embedded systems.

Overall ICTERI attracted a substantial number of submissions – a total of 124 comprising the main conference and workshops. Out of the 60 paper submissions to the main conference we have accepted 22 high quality and most interesting papers to be presented at the conference and published in our proceedings. The acceptance rate was therefore 36.7 percent. Our three workshops received overall 64 submissions, from which 27 were accepted by their organizers and included in the second part of this volume. Those selected publications are preceded by the contributions of our invited speakers. The talk by our keynote speaker Wolf-Ekkehard Matzke expressed his industrial views on the knowledge-based bio-economy and the "Green Triple-Helix" of biotechnology, synthetic biology, and ICT. The invited talk by Gary L. Pratt was focused on a movement of higher education institutions to forming consortiums for creating a position of strength facing contemporary economic challenges. The invited talk by Alexander A. Letichevsky presented a general theory of interaction and cognitive architectures based on this theory.

The conference would not have been possible without the support of many people. First of all we would like to thank all the authors who submitted papers to ICTERI 2013 and thus demonstrated their interest in the research problems within our scope. We are also very grateful to the members of our Program Committee for providing timely and thorough reviews and also for been cooperative in doing additional review work. We would like also to thank the local organizers of the conference whose devotion and efficiency made this instance of ICTERI a very comfortable and effective scientific forum. Finally a special acknowledgement is given to the support by our editorial assistant Olga Tatarintseva who invested a considerable effort in checking and proofing the final versions of our papers.

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Vadim Ermolayev
Heinrich C. Mayr
Mykola Nikitchenko
Aleksander Spivakovskiy
Grygoriy Zholtkevych
Mikhail Zavileysky
Hennadiy Kravtsov
Vitaliy Kobets
Vladimir Peschanenko