

VALID 2012

Forward

The Fourth International Conference on Advances in System Testing and Validation Lifecycle (VALID 2012), held on November 18-23, 2012 in Lisbon, Portugal, continued a series of events focusing on designing robust components and systems with testability for various features of behavior and interconnection.

Complex distributed systems with heterogeneous interconnections operating at different speeds and based on various nano- and micro-technologies raise serious problems of testing, diagnosing, and debugging. Despite current solutions, virtualization and abstraction for large scale systems provide less visibility for vulnerability discovery and resolution, and make testing tedious, sometimes unsuccessful, if not properly thought from the design phase.

The conference on advances in system testing and validation considered the concepts, methodologies, and solutions dealing with designing robust and available systems. Its target covered aspects related to debugging and defects, vulnerability discovery, diagnosis, and testing.

The conference provided a forum where researchers were able to present recent research results and new research problems and directions related to them. The conference sought contributions presenting novel result and future research in all aspects of robust design methodologies, vulnerability discovery and resolution, diagnosis, debugging, and testing.

We welcomed technical papers presenting research and practical results, position papers addressing the pros and cons of specific proposals, such as those being discussed in the standard forums or in industry consortiums, survey papers addressing the key problems and solutions on any of the above topics, short papers on work in progress, and panel proposals.

We take here the opportunity to warmly thank all the members of the VALID 2012 technical program committee as well as the numerous reviewers. The creation of such a broad and high quality conference program would not have been possible without their involvement. We also kindly thank all the authors that dedicated much of their time and efforts to contribute to the VALID 2012. We truly believe that thanks to all these efforts, the final conference program consists of top quality contributions.

This event could also not have been a reality without the support of many individuals, organizations and sponsors. We also gratefully thank the members of the VALID 2012 organizing committee for their help in handling the logistics and for their work that is making this professional meeting a success. We gratefully appreciate to the technical program committee co-chairs that contributed to identify the appropriate groups to submit contributions.

We hope the VALID 2012 was a successful international forum for the exchange of ideas and results between academia and industry and to promote further progress in system testing and validation.

We hope Lisbon provided a pleasant environment during the conference and everyone saved some time for exploring this beautiful city.

VALID 2012 Chairs

VALID Advisory Chairs

Andrea Baruzzo, Università degli Studi di Udine, Italy
Cristina Seceleanu, Mälardalen University, Sweden
Mehdi Tahoori, Karlsruhe Institute of Technology (KIT), Germany
Mehmet Aksit, University of Twente - Enschede, The Netherlands
Amir Alimohammad, San Diego State University, USA

VALID 2012 Research Institute Liaison Chairs

Juho Perälä, VTT Technical Research Centre of Finland, Finland
Alexander Klaus, Fraunhofer Institute for Experimental Software Engineering (IESE), Germany
Kazumi Hatayama, Nara Institute of Science and Technology, Japan
Alin Stefanescu, University of Pitesti, Romania
Vladimir Rubanov, Institute for System Programming / Russian Academy of Sciences (ISPRAS), Russia
Tanja Vos, Universidad Politécnica de Valencia, Spain

VALID 2012 Industry Chairs

Abel Marrero, Bombardier Transportation Germany GmbH - Mannheim, Germany
Sebastian Wieczorek, SAP AG - Darmstadt, Germany
Eric Verhulst, Altreonic, Belgium