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# AsiaSim 2012

Asia Simulation Conference 2012  
Shanghai, China, October 27-30, 2012  
Proceedings, Part I



# Preface

The Asia Simulation Conference and the International Conference on System Simulation and Scientific Computing 2012 (AsiaSim & ICSC 2012) was formed to bring together outstanding researchers and practitioners in the field of modeling and simulation and scientific computing areas from all over the world to share their expertise and experience.

AsiaSim & ICSC 2012 was held in Shanghai, China, during October 27–30, 2012. It was constituted by AsiaSim and ICSC. AsiaSim is an annual international conference organized by three Asia Simulation Societies: CASS, JSST, and KSS since 1999. It has now become a conference series of the Federation of Asia Simulation Societies (ASIASIM) that was established in 2011. ICSC is a prolongation of the Beijing International Conference on System Simulation and Scientific Computing (BICSC) sponsored by CASS since 1989. AsiaSim & ICSC 2012 was organized by the Chinese Association for System Simulation (CASS) and Shanghai University. In the AsiaSim & ICSC 2012 conference, technical exchanges between the research community were carried out in the forms of keynote speeches, panel discussions, as well as special sessions. In addition, participants were also treated to a series of social functions, receptions, and networking sessions, which served as a vital channel to establish new connections, foster everlasting friendships, and forge collaborations among fellow researchers.

AsiaSim & ICSC 2012 received 906 paper submissions from eight countries. All papers went through a rigorous peer-review procedure including pre-review and formal review. Based on the review reports, the Program Committee finally selected 298 good-quality papers for presentation at AsiaSim & ICSC 2012, from which 267 high-quality papers were then sub-selected for inclusion in five volumes published in the Springer *Communications in Computer and Information Science* (CCIS) series.

This proceedings volume includes 63 papers covering five relevant topics including modeling theory and technology, M&S technology on synthesized environments and virtual reality environments, pervasive computing and simulation technology, embedded computing and simulation technology, and verification/validation/accreditation technology. All of these offer us plenty of valuable information and would be of great benefit to the technical exchange among scientists and engineers in modeling and simulation fields.

The organizers of AsiaSim & ICSC 2012, including the Chinese Association for System Simulation and Shanghai University, made enormous efforts to ensure the success of AsiaSim & ICSC 2012. We hereby would like to thank all the members of the AsiaSim & ICSC 2012 Advisory Committee for their guidance and advice, the members of the Program Committee and Technical Committee and the referees for their effort in reviewing and soliciting the papers, and the members of the Publication Committee for their significant editorial work. In

particular, we would like to thank all the authors for preparing, contributing, and presenting their excellent research works. Without the high-quality submissions and presentations from the authors, the success of the conference would not have been possible.

Finally, we would like to express our gratitude to the National Natural Science Foundation of China, the Japanese Society for Simulation Technology, Korea Society for Simulation, the Society for Modeling and Simulation International, International Association for Mathematics and Computer in Simulation, Federation of European Simulation Societies, Science and Technology on Space System Simulation Laboratory, Beijing Electro-Mechanical Engineering Institute, Shanghai Electro-mechanical Engineering Institute, and Shanghai Dianji University for their support in making this conference a success.

July 2012

Bo Hu Li  
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