

Message from Conference and Program Chairs

Welcome to the 6th IEEE Conference on Service-Oriented Computing and Applications (SOCA 2013) in Kauai, Hawaii, USA. Hawaii is the perfect meeting location for SOCA, which is one of the major annual events sponsored by the IEEE Computer Society Technical Committee on Business Informatics and Systems (TCBIS), to serve as an international forum for researchers to exchange and share their experiences, ideas, and latest research results on all aspects of service-oriented computing. Extensive research and development in the past few years has pushed SOA technology into state-of-the-art application areas such as context-aware, cloud-connected, mobile enterprise systems. However, many critical issues on building reliable, robust, and user-centric sensor-based SOA systems are still open for research. Hence, it is timely to reexamine SOA research opportunities and identify new research challenges for next-generation SOAs.

The theme of SOCA 2013 is "SOA for large-scale CPS". One of the emerging SOA applications is large-scale cyber-physical systems (CPS) that facilitate deep interactions between components on the cyber side and the physical side through massive sensors, actuators, mobile devices, and computing servers connected by heterogeneous networks. Many of the service components are deployed in resource-limited embedded systems and are performance sensitive; others are deployed in cloud servers providing highly parallel services. The services of large-scale CPS have challenging requirements such as accurate timeliness, high reliability, and dynamic adaptability. Thus, SOA must provide effective solutions for managing the ever-increasing complexity while meeting the challenging requirements of CPS services on largely distributed, heterogeneous and dynamic resource environments.

SOCA 2013 has received 73 high-quality paper submissions from 24 countries or regions. After a rigorous review process, the program committee accepted 20 full papers for inclusion in the conference proceedings, together with 17 short research and experience papers. In addition, four papers were submitted to a special track on Business Informatics, two of them accepted as full papers. SOCA 2013 also includes invited four papers in the invited paper session.

SOCA 2013 is honored to have two distinguished keynote speakers, Dr. Hideyuki Tokuda from the Keio University, Japan, and Dr. Link C. Jaw from the Intel Corporation, to share their vision on cyber-physical systems and intelligent computing. There are three co-located workshops, each targeting specific application domains for applying SOA techniques, including Workshop on Knowledge-intensive Business Processes (KiBP), Workshop on Knowledge and Service Technology for Life, Environment, and Sustainability (KASTLES), and Workshop on Energy-smart Services and Applications (WESA). Two prominent keynote speakers have been invited to the workshops, Prof. Jane Hsu of the National Taiwan University and Prof. Massimo Mecella of the Sapienza University of Rome, Italy. Their speeches on connected context computing and knowledge-intensive processes will bring very precious insight to these important research areas.

The excellent program and activities of SOCA 2013 are the results of diligent effort from more than 70 program committee members and conference organizers. Each paper has been reviewed by 3-5 PC members. We thank all PC members, for their careful reviews to make an outstanding technical program, and the Workshop Co-Chairs, Prof. Takayuki Ito of the Nagoya Institute of Technology, Japan and Prof. Alexander Lazovik of the University of Groningen, Netherlands, for coordinating the three satellite workshops. We are very grateful to the Publication Co-Chairs, Prof. Kyungwoo Lee of the Yonsei University, Korea and Mira Kim of the University of California, Irvine, for their great effort in editing the conference proceedings. We also would like to express our gratitude to the Publicity Chair, Prof. Sung-Soo Lim of the Kookmin University, Korea, for making sure the conference events reach many important communities. We also thank the Registration Chair, Sen Zhou of the University of California, Irvine, for his great efforts in handling conference registration, and the Finance Chair, Lina Han of the Tongji University, China, for making detailed conference arrangement and meeting services. Last but not least, we are very grateful to the Web Chair, Dr. Jong-Chan Kim of the Seoul National University, Korea, for preparing the conference website and coordinating many conference decisions.

We sincerely hope you will enjoy SOCA and your stay in Kauai, Hawaii!

General Co-Chairs

Kwei-Jay Lin, University of California, Irvine, USA
Jane Y.J. Hsu, National Taiwan University, Taiwan

Program Co-Chairs

Chang-Gun Lee, Seoul National University, Korea
Albert M.K. Cheng, University of Houston, USA
Massimo Mecella, Sapienza University of Rome, Italy