EDITORIAL MESSAGE
Special Track on Service-Oriented Architectures and Programming (SOAP)

Maurice H. ter Beek, *ISTI-CNR, Pisa, Italy*
Hernán Melgratti, *University of Buenos Aires, Argentina*
Hugo Torres Vieira, *IMT Lucca, Italy*

The SOAP track aims at bringing together researchers and practitioners having the common objective of transforming Service-Oriented Programming (SOP) into a mature discipline with both solid scientific foundations and mature software engineering development methodologies supported by dedicated tools. From the foundational point of view, many attempts to use formal methods for specification and verification in this setting have been made. Session correlation, service types, contract theories, and communication patterns are only a few examples of the aspects that have been investigated. Moreover, several formal models based upon automata, Petri nets and algebraic approaches have been developed. However, most of these approaches concentrate only on a few features of service-oriented systems in isolation, and a comprehensive approach is still lacking.

From the engineering point of view, there are open issues at many levels. Among others, at the system design level, both traditional approaches based on UML and approaches taking inspiration from Business Process Modelling, e.g. BPMN, are used. At the composition level, orchestration and choreography are continuouslsy being improved both formally and practically, with an evident need for their integration in the development process. At the description and discovery level, there are two separate communities pushing respectively the semantic approach (like ontologies and OWL) and the syntactic one (like WSDL). In particular, the role of discovery engines and protocols is not clear. In this respect, adopted standards are still missing. UDDI looked to be a good candidate, but it is no longer pushed by the main corporations, and its wide adoption seems difficult. Furthermore, a recent implementation platform, the so-called REST services, is emerging and competing with classic Web Services. Finally, features like Quality of Service, security, and dependability need to be taken seriously into account.

SOAP in particular encouraged submissions on what SOP still needs in order to achieve the above goals.

The PC of SOAP 2016 was formed by:

- Farhad Arbab — Leiden University and CWI, Amsterdam, NL
- Luís Barbosa — University of Minho, Braga, PT
- Massimo Bartoletti — Università di Cagliari, IT
- Maurice H. ter Beek — ISTI-CNR, Pisa, IT (co-chair)
- Marcello M. Bersani — Politecnico di Milano, IT
- Laura Bocchi — University of Kent, UK
- Roberto Bruni — Università di Pisa, IT
- Marco Carbone — IT University of Copenhagen, DK
- Romain Demangeon — Université Pierre et Marie Curie, FR
- Schahram Dustdar — Vienna University of Technology, AT
- Alessandra Gorla — IMDEA Software Institute, Madrid, ES

- Vasileios Koutavas Trinity College Dublin, IE
- Alberto Lluch Lafuente Technical University of Denmark, DK
- Manuel Mazzara Innopolis University, RU
- Hernán Melgratti University of Buenos Aires, AR (co-chair)
- Nicola Mezzetti University of Trento, IT
- Corrado Moiso Telecom Italia, IT
- Alberto Núñez Universidad Complutense de Madrid, ES
- Jorge A. Perez University of Groningen, NL
- Gustavo Petri Purdue University, USA
- António Ravara New University of Lisbon, PT
- Steve Ross-Talbot Cognizant Technology Solutions, UK
- Gwen Salaün Inria Grenoble - Rhône-Alpes, FR
- Francesco Tiezzi Università di Camerino, IT
- Hugo Torres Vieira IMT Lucca, IT (co-chair)
- Emilio Tuosto University of Leicester, UK
- Massimo Vecchio Università degli Studi eCampus, IT
- Peter Wong Travelex, UK
- Yongluan Zhou University of Southern Denmark, DK

SOAP 2016 received a total of 16 submissions. Each submission was reviewed by at least 4 PC members, the vast majority even by 5 PC members. All papers were subject to an animated general discussion among the PC members (with over 100 posts in the message boards). In the end, the PC decided to select only the following four papers for an oral presentation at the conference (an acceptance rate of 25%):

- JxActinium: a runtime manager for secure REST-ful COAP applications working over JXTA
  by Filippo Battaglia, Giancarlo Iannizzotto, and Lucia Lo Bello
- Improving QoS Delivered by WS-BPEL Scenario Adaptation through Service Execution Parallelization
  by Dionisis Margaris, Costas Vassilakis, and Panagiotis Georgiadis
- QoS-aware Adaptation for Complex Event Service
  by Feng Gao, Muhammad Ali, Edward Curry, and Alessandra Mileo
- Service functional testing automation with intelligent scheduling and planning
  by Lom Messan Hillah, Ariele-Paolo Maesano, Libero Maesano, Fabio De Rosa, Fabrice Kordon, and Pierre-Henri Wuillemin

We would like to thank the PC members, and a few external reviewers, for their detailed reports and the stimulating discussions during the reviewing phase; the authors of submitted papers, the session chairs and the attendees, for contributing to the success of the event; the providers of the START system, which was used to manage the submissions; and in particular all the organizers of SAC 2016, for their invitation to organize this track and for all their excellent assistance and support.