SOCA Keynote I
Elastic Inter-Organizational Processes:
Maintainability, Correctness, and Reliability

Schahram Dustdar
Vienna University of Technology, Austria

Abstract
Within this keynote, selected research topics from the field of IOPs will be discussed, with a focus on the key challenges maintainability, reliability and correctness of such elastic processes. For this, concrete research questions regarding process alignment, variation, validation, development, change propagation, change analysis, monitoring, security & privacy, scaling, and fault tolerance will be presented. A specific focus will be on elasticity of IOPs, i.e., how the changes in IOPs can be reflected in elastic processes, and how IOPs can become the foundation for elastic systems. A system is elastic if it has the capacity to change or to be changed based on its context, taking into account not only resource scalability, but also cost and quality aspects. Elasticity is, therefore, an essential prerequisite for IOPs, which allows to actually enacting changeability in IOPs.

Biography
Schahram Dustdar is Full Professor of Computer Science and head of the Distributed Systems Group at the TU Vienna. From 2004-2010 he was Honorary Professor of Information Systems at the Department of Computing Science at the University of Groningen (RuG), The Netherlands. He is an Associate Editor of IEEE Transactions on Services Computing, ACM Transactions on the Web, and ACM Transactions on Internet Technology and on the editorial board of IEEE Internet Computing. He is the Editor-in-Chief of Computing (an SCI-ranked journal of Springer). He is recipient of the ACM Distinguished Scientist award (2009), the IBM Faculty Award (2012), and an IEEE Senior Member (2009). Dustdar is a member of the Academia Europaea: The Academy of Europe.
SOCA Keynote II
Ontology-Based Data Services

Maurizio Lenzerini
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Abstract
The need of effectively managing the data relevant to an organization, which are often autonomous, distributed, and heterogeneous, and devising tools for designing high-quality data services is widely recognized as one of the challenging issues in modern information systems. Ontology-based data management aims at accessing, using, and maintaining data by means of an ontology, i.e., a conceptual representation of the domain of interest in the underlying information system. This new paradigm provides several interesting features, many of which have been already proved effective in managing complex information systems and addressing the above mentioned challenges. In this talk we provide an introduction to ontology-based data management, illustrating the main ideas and techniques for using an ontology to design data services within an information system, and then discuss several important issues that are still the subject of extensive investigations.

Biography
Maurizio Lenzerini is a Professor of Data Management at the Dipartimento di Ingegneria Informatica Automatica e Gestionale Antonio Ruberti of Sapienza Università di Roma, where is leading a research group working on Database Theory, Data Management, Knowledge Representation and Automated Reasoning, and Ontology-based Data Integration. He is the author of more than 300 publications on the above topics, which received more than 20,000 citations. According to Google Scholar, his h-index is currently 70. He was an invited keynote speaker at many international conferences. He is the recipient of two IBM Faculty Awards, a Fellow of ECCAI (European Coordinating Committee for Artificial Intelligence) since 2008, a Fellow of the ACM (Association for Computing Machinery) since 2009, and a member of the Academia Europaea - The European Academy since 2011.