Preface

We are pleased to welcome you to the special issue on Advanced Information Systems Engineering that includes the best papers of the 24th International Conference on Advanced Information Systems Engineering (CAiSE’12). Since 1989, the CAiSE series of conferences provide a leading venue to researchers and practitioners for presenting and exchanging results of emerging methods and technologies in the field of information systems engineering.

CAiSE’12, held in Gdańsk during June 25–29, 2012, attracted more than 300 participants keen to share their experience, research results, new ideas and prototypes. The theme of the conference was “Information Services”. The notion of service increasingly plays an extensive role in enterprise development. Most of the enterprise management and manufacture is based on the exchange of services: services to the customers and/or citizens, services to support inter-organizational collaboration, as well as services to accomplish intra-organizational activities. Many organizations and companies are sharing services with others, interfacing services from others, or outsourcing their ICT resources to various locations worldwide aided by the Internet. For all of them, the concept of service becomes a cornerstone of their processes of collaboration, innovation, and value creation. In this context, information systems engineering is moving toward the adoption of service-driven architectures where intra- and inter-organizational business activities are carried out with the help of information services. Information services are considered as a new means to deal with the complexity, modularity, and interoperability of the constantly growing information systems.

CAiSE’12 received 297 submissions, from which 42 full research papers where selected by the Program Committee and included in the conference program. Four of these papers were invited to submit revised and extended versions for this special issue given their high evaluation scores and especially positive reviewers’ comments. After an additional round of reviews all of them received positive evaluation and were accepted for the publication in this special issue. In the first paper, “On Modeling Context-Aware and Social Collaboration Processes”, Vitaliy Liptchinsky, Roman Khazankin, Hong-Linh Truong and Schahram Dustdar propose a novel approach for modelling business/collaboration processes taking into consideration their social context. A particular modelling language is provided for this purpose. The second paper, “Validation of User Intentions in Process Orchestration and Choreography” by Gerd Gröner, Mohsen Asadi, Bardia Mohabbati, Dragan Gašević, Marko Bošković and Fernando Silva Parreiras, defines two types of inconsistency, named orchestration inconsistency and choreography inconsistency, that can arise when goal models are mapped to process models, and develops the corresponding algorithms for detecting these inconsistencies. In their paper “Agile Requirements Engineering via Paraconsistent Reasoning”, Neil A. Ernst, Alexander Borgida, John Mylopoulos and Ivan J. Jureta propose a theoretical foundation of paraconsistency in requirement specifications. They define an an approach supporting paraconsistent reasoning on requirements models allowing the existence of conflicting requirements and yet making formal logical reasoning possible. Finally, the paper “Uniform Access to NoSQL Systems” by Paolo Atzeni, Francesca Bugiotti and Luca Rossi presents a SOS (Save Our Systems) platform that provides a uniform interface to heterogeneous non-relational databases, also named NoSQL systems.

We believe that each of these four selected CAiSE’12 papers makes a significant contribution to the field of information systems engineering and will inspire various future research works and applications in the domain.

To end, we would like to thank the CAiSE’12 Program Committee members that reviewed these papers both for the conference and this special issue, the authors, and all people involved in the realization of this special issue.

Barcelona/Geneva, April 2013

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