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Bedir Tekinerdogan · Uwe Zdun Ali Babar (Eds.)

# Software Architecture

10th European Conference, ECSA 2016 Copenhagen, Denmark, November 28 – December 2, 2016 Proceedings



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### **Preface**

Welcome to the European Conference on Software Architecture (ECSA), which is the premier European software engineering conference. ECSA provides researchers and practitioners with a platform to present and discuss the most recent, innovative, and significant findings and experiences in the field of software architecture research and practice. The tenth edition of ECSA was built upon a history of a successful series of European workshops on software architecture held from 2004 through 2006 and a series of European software architecture conferences from 2007 through 2016.

The technical program included a main research track of accepted papers, three keynote talks, an industry track, a doctoral symposium track, and a tool demonstration track. In addition, we also offered several workshops and tutorials on diverse topics related to the software architecture discipline.

The role of women in the computing area has gained more and more importance with the emerging information age. To this end, the first special track on "Women in Software Architecture" collocated with ECSA 2016 brought together students, young and senior researchers, as well as practitioners to present, share, and celebrate their technical accomplishments and experiences making research and/or working in the software architecture field.

For the main research track, we received 84 submissions in the three main categories: full research and experience papers, short papers for addressing emerging research, and education and training papers. Based on the recommendations of the Program Committee, we accepted 12 papers as full papers, and 11 papers as short papers. Hence the acceptance rate for the full papers was 14.28 % and for both full and short papers 27.38 % for ECSA 2016.

The conference attracted papers (co-)authored by researchers, practitioners, and academia from 17 countries (Australia, Brazil, Canada, Czech Republic, Finland, France, Germany, Israel, Italy, The Netherlands, New Zealand, Norway, Spain, Sweden, Turkey, UK, USA).

It was a great pleasure to have prominent keynote speakers at ECSA 2016. The opening day keynote was delivered by Volker Gruhn from the University of Duisburg-Essen. He spoke on "Engineering Cyber-Physical Systems – A Paradigm Shift in Software Architectures?" The second keynote was presented by Mehmet Aksit from the University of Twente, on "9 C's: A conceptual Framework for Understanding the Trends in Software Technology." The third and final keynote was delivered by Flavio Oquendo. He spoke about "Software Architecture Challenges and Emerging Research in Software-Intensive Systems-of-Systems."

We were grateful to the members of the Program Committee for helping us to seek submissions and provide valuable and timely reviews. Their efforts enabled us to put together a high-quality technical program for ECSA 2016. We would like to thank the members of the Organizing Committee of ECSA 2016 for playing an enormously important role in successfully organizing the event with several new tracks and

collocated events. We also thank the workshop organizers and tutorials presenters, who also made significant contributions to the success of ECSA.

Owing to unfortunate events the conference had to be relocated from Istanbul, Turkey, to Copenhagen, Denmark. We are grateful to the local Organizing Committee at Kültür University in Istanbul for the initial organizations. We would like to thank the management of IT University of Copenhagen, Denmark, for taking over the local organization in a smooth way and providing its facilities and professionally trained staff for the organization of ECSA 2016.

The ECSA 2016 submission and review process was extensively supported by the EasyChair Conference Management System. We acknowledge the prompt and professional support from Springer, who published these proceedings in printed and electronic volumes as part of the *Lecture Notes in Computer Science* series.

September 2016

Bedir Tekinerdogan Uwe Zdun Muhammad Ali Babar

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