

# Companion Proceedings 11th European Conference on Software Architecture (ECSA 2017)

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## INTRODUCTION

The European Conference on Software Architecture (ECSA), held this year on 11 - 15 September 2017 at the University of Kent at Canterbury, United Kingdom, is a premier European software architecture conference, providing researchers, practitioners, and educators 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.

In addition to the main track, it features various events and tracks including the ECSA Track on Women in Software Architecture, Doctoral symposium, Tool demos, Poster session, and four workshops. All these are done with the aim to allow exploring new trends and supporting researchers at their early stage of career.

## TRACK ON WOMEN IN SOFTWARE ARCHITECTURE

ECSA 2017 hosted the Second ECSA Track for Women in Software

Architecture, in order to support diversity in the field. Following the success of the same track at ECSA 2016, this special track aims at bringing together students, industry professionals, academics, and other leaders in computing to promote networking and technical discussion to motivate the participation and visibility of women and to discuss the impact of diversity management in the software architecture field. The track presents a mix of technical presentations and a panel to discuss about current and future issues in the field by leading experts from industry and academia. In addition to the technical content, the intertwining theme is the diversity, which plays a key role to have success and be competitive and innovative in software development. It appears in different ways and perspectives and their combinations: gender, culture, religion, allocation of human resources in different countries, domains, etc. Both women and men were invited to collaborate and attend to this track.

## DOCTORAL SYMPOSIUM

The goal of the Doctoral symposium is to encourage PhD students in the field of software architecture to actively participate in and contribute to ECSA 2017. Students are able to present their research goals, methods and preliminary results. They can interact closely with established researchers in their fields, receive feedback on their work and get advice on managing their research. The symposium also helps participants to establish a new research and social network of their peers in the field of software architecture. The technical scope of the Doctoral symposium was that of ECSA 2017.

## TOOLDEMOS

Tool demonstrations track provides an opportunity for both practitioners and researchers to present and discuss the most recent advances, experiences and challenges in the field of software architecture by means of live tool presentations. The Tool demonstration track included contributions addressing any aspect of tool support to help software architects in two major categories:

- Tools used in practice, either from commercial vendors or open source projects. These demonstrations focus on practical applications within the different activities of software architecting and particularly show how they advance the current state of the practice.
- Research tools from academic or industrial research environments. These demonstrations are intended to highlight underlying scientific contributions and show how scientific approaches have been transferred into a working tool.

The tools ranged from early prototypes to in house or pre-commercialized products.

## POSTERS

ECSA 2017 Poster track is meant to provide an opportunity for researchers and practitioners to present, show-case, and discuss their most recent advances, ideas, experiences, and challenges in the field of software architecture. Poster submissions were sought that provide reflections on the past, descriptions of current initiatives, or visions of the future, in addition to presentations of new results in software architecture research and practice.

## WORKSHOPS

ECSA invited researchers and practitioners to submit proposals for workshops to be affiliated with the ECSA main conference. Suggested topics for workshops included quality in software architecture, architectures for mobile and ubiquitous computing, architecture analysis, validation and verification, decision making, adaptive architectures, security, sustainability, safety, architectural erosion and consistency, software architecture education, and crossfertilization between industry and academia. All submitted workshop proposals were reviewed by a Workshops committee based on strict criteria, for example (amongst others), their potential to advance the state of software architecture research and / or practice, their relevance to architecture and ECSA 2017 topics, innovative aspects, timeliness and expected interest in the workshop topics, and a balance between proposed workshops. After the review process, ECSA 2017 accepted 6 workshops. In the end, reflecting the number of incoming submissions, these workshops were merged into the following four.

MeSSa 2017 - 4th International Workshop on Measurability of Security in Software Architectures

CASA 2017 - Workshop on Context-aware, Autonomous and Smart Architecture

SAGRA 2017 - 3rd Workshop on Sustainable Architecture: Global Collaboration, Requirements, Analysis

SAEroCon 2017 - 4th Workshop on Software Architecture Erosion and Architectural Consistency

Workshops ran as “mini tracks” during the two days before the ECSA main conference. Each workshop had its own organizing committee, program committee, and paper solicitation, review and selection process. Participation in workshops was open but papers for proceedings were selected following a peer-review process organized by each workshop separately.

ECSA 2017 webpage:

<https://www.cs.kent.ac.uk/events/2017/ECSA2017/index.html>