

# Research Method Track

Oscar Dieste<sup>1</sup>, Barbara Paech<sup>2</sup>

<sup>1</sup>Universidad Politécnica de Madrid, Spain  
odieste@fi.upm.es

<sup>2</sup>Heidelberg University, Germany  
paech@informatik.uni-heidelberg.de

In 2016 REFSQ hosted for the second time a research method track, organized by the authors. Its aim is to provide a forum for the exchange about research methods and their application to Requirements Engineering (RE). We define research methods broadly, including research designs, quantitative and qualitative data collection and analysis, literature review, and mixed research methods. Of particular interest were papers that review the premises and practice of a research method or technique in order to understand how it can be properly applied to studying RE-related phenomena. Studies that provide novel perspectives on, and examples of, methods to analyze contemporary requirements engineering application areas such as software ecosystems, big data and analytics, social media and online communities, to name a few, were welcomed as well. Finally, the track was interested in papers which focus on the adoption, or adaptation, of methods and theories used in other disciplines such as health sciences, sociology, psychology, and engineering to RE.

The Call for Papers was divided into two parts. The first part called for researched method papers and lessons learned reports. Five submissions were received. All proposals were independently reviewed by 3-4 members of the Program Committee, who provided recommendation for acceptance, shepherding, or rejection. As a result of this process, three submissions were accepted for inclusion in the LNCS proceedings and presentation at the conference.

*Lean Development in Design Science Research: Deliberating Principles, Prospects & Pitfalls* by Umar Ruhi and Okhaide Akhigbe integrates lean principles with design science research phases and outputs to enhance requirements engineering research.

In *How do We Read Specifications? Experiences from an Eye Tracking Study*, Maïke Ahrens, Kurt Schneider and Stephan Kiesling report on lessons learned from an eye-tracking study investigating how specifications are read.

*Common Threats and Mitigation Strategies in Requirements Engineering Experiments with Student Participants* by Marian Daun, Andrea Salmon, Torsten Bandyszak and Thorsten Weyer contributes –based on literature and personal experience– a detailed analysis of the threats to validity to be considered in student experiments, and possible mitigation strategies to avoid these threats.

The second part of the Call for Papers called for interaction contributions in terms of research method mini-tutorials, plans for studies and proposals for live studies to be conducted at the conference. We received three submissions for live studies that

were each reviewed by three members of the Program Committee. We accepted two of them.

In *How do Quality Requirements Contribute to Software Sustainability?* Nelly Condori Fernandez, Patricia Lago and Coral Calero study the relation between quality and sustainability requirements in terms of an online survey.

Dan Ionita and Roel Wieringa provide access to a tool for *Web-Based Collaborative Security Requirements Elicitation* in order to study its usefulness. This study is conducted in parallel to the conference, while the first study is conducted in a special plenary session.

In addition, the Research Method Track contains a plenary discussion session on open issues in requirements engineering research methods.

We would like to thank the members of the Research Method Track Program Committee for their volunteer work:

- Dan Berry (*University of Waterloo, Canada*)
- Travis Breaux (*Carnegie Mellon University, USA*)
- David Callele (*University of Saskatchewan, Canada*)
- Jörg Dörr (*Fraunhofer IESE, Germany*)
- Tony Gorschek (*Blekinge Institute of Technology, Sweden*)
- Andrea Herrmann (*Herrmann & Ehrlich, Germany*)
- Marjo Kauppinen (*Aalto University, Finland*)
- Daniel Mendez (*TU München, Germany*)
- Anna Perini (*Fondazione Bruno Kessler, Italy*)
- Kai Petersen (*Blekinge Institute of Technology, Sweden*)
- Rosilawati Razalim (*Universiti Kebangsaan, Malaysia*)
- Björn Regnell (*University of Lund, Sweden*)

Last, but not least, we gratefully acknowledge the support from the local organizers.