

Preface

The 17th International Conference on Product-Focused Software Process Improvement (PROFES 2016) brought together software researchers and industrial practitioners to Trondheim in Norway, during November 22–24, 2016. The hosting organization was the Department of Computer and Information Science (IDI) from the Norwegian University of Science and Technology. It is notable that this was the first time the PROFES conference was held in Norway, which is a country known for its advanced IT services and infrastructure. Norway is quickly becoming the hotspot of ICT development and innovations in Scandinavia. In the spirit of the PROFES conference series, PROFES 2016 focused on how the challenges of improving software development within the different practice areas such as requirements, design, construction, testing, maintenance, process, methods, management, etc. The conference has always encouraged submissions of research papers based on empirical evidence ranging from controlled experiments to case studies and from quantitative to qualitative studies.

This year we received 82 submissions of which 24 were selected as full papers and 21 as short papers. The scientific works were strictly scrutinized by international Program Committee members. Scientific papers in the PROFES conference received three or four reviews each.

As a novelty for 2016, we introduced a new track for the conference called “Radical Challenge Track.” The intent was to draw ideas from the scientific and professional software communities who are searching ways to build the next paradigm for software development. The contributions in such a track are less scientific in their nature but are argued in a compelling way. We wanted to provide an opportunity for the community to present ideas that generate discussion and have the capacity to push the field forward in an unexpected way. The submissions were still to be peer-reviewed to ensure the quality and they were to be included in the technical conference proceedings. Both full papers and short papers on radical challenges were welcomed. However, it appears that the community is not ready for such track because we did not receive any submissions under the heading of radical challenges. We were able to attract a few papers dealing with the future of computing and were thus able to conclude the conference with these presentations and a panel dealing with issues of tomorrow. We will continue to motivate the community and especially the more senior scientists to begin undertaking ambitious endeavors dealing with tomorrow’s challenges. We are well aware of the fact the digitalization process, Internet of Things, and big data require a lot of software to run them effectively and such issues should be raised under discussion sooner rather than later.

Another topic in the academic circles in the past years, which also includes the PROFES community, is the participation of the industrial community in the discussions, presentations, and experience sharing. Since 10–15 years ago, the development has actually been heading in the opposite direction. Industrial practitioners appear to organize themselves organically among certain topics quite effectively and are less

keen in participating in classic scientific conferences. PROFES 2016 recognized this and organized tutorials on topics and themes of industrial interest. There were nine tutorials held on topics such as regulated software development, DevOps, lean start-ups, innovation, and software security. Scientific software engineering research needs industrial attention to survive and prosper.

The keynote speakers this year were of high quality. Mikko Terho is the CTO for Mobile Software and the site manager of Huawei's R&D center in Finland. As one of the founding board members of Symbian, at the time the leading open mobile operating system, Mikko Terho has had a significant influence on, and made a substantial contribution to, the development of the mobile industry as a whole. He was one of the few persons who were appointed as Nokia Fellow. Dag Sjøberg is Professor in Software Engineering and works at the Department of Informatics in University of Oslo in Norway. He is one the brightest software researchers around and has had a significant impact in the field. Dag Sjøberg sees that software systems form the foundation of the economic, political, social, cultural, and scientific spheres of modern information society. Such systems are, for example, crucial to solving global humanitarian and environmental problems.

We are thankful for having had the opportunity to organize PROFES 2016 in Trondheim. The Program Committee members and reviewers provided excellent support in reviewing the papers. We are also grateful to the authors, presenters, and session chairs for their time and effort that made PROFES 2016 a success. We are especially thankful to Prof. Letizia Jaccheri, the head of the Department of Computer and Information Science at NTNU, for providing the conference with the financial backing and helping in the organization. We would like to thank the PROFES steering group members and organizations (University of Oulu, VTT Technical Research Centre of Finland and Fraunhofer IESE) for the guidance and support in the organization process. Finally, we would like to thank the NTNU IDI's student and staff volunteers for making PROFES 2016 an experience that will live in the memory of the participants for years to come.

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Pekka Abrahamsson
Andreas Jedlitschka
Anh Nguyen Duc
Michael Felderer
Sousuke Amasaki
Tommi Mikkonen

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