

Message from the SEIP Chairs of ICSE 2018

Introduction

Although it is starting to sound like a cliché, software is eating the world. Driven by connectivity, reduction in the cost of hardware and an increasing awareness of the opportunities provided by digital technologies and software, digitalization is taking over industry after industry. The value of the atoms that make up physical products is decreasing and increasingly become a commodity, whereas the value of products, systems and solutions is shifting towards software and services. Digitalization is concerned creating new business opportunities through the use of digital technologies. These new business opportunities of course include adding software to physical products to increase the feature set, but even more it allows for pure software products as well as digital and data-driven services. For instance, the price of a second-hand truck can be based on how the truck has been used during its life with its first owner. Or companies selling factories can offer guaranteed productivity improvements after the initial deployment of the factory by tracking performance using data and using software updates to improve the performance of a factory.

With the digitalization of the industry at large, we see the role of software engineering become increasingly important. Although there are many companies that only sell software as a product or services, the industry at large is still very much in the process of adding software to its physical products. The ability to do so is becoming an important differentiator and consequently the capability of an organization to engineer software is more important than ever.

This is leading to a situation where agile practices, continuous integration, continuous deployment, collecting data from deployed products and their users, data-driven development as well as the adoption of various technologies from the domain of artificial intelligence is increasingly becoming the norm in industry.

Software Engineering in Practice Track

Since its formation more than a decade ago, the Software Engineering in Practice Track (SEIP) has had as a focus to solicit publications that provide novel insights into the use of software engineering technology in industry, rather than within the walls of a university. Although academic research is of importance, especially in the field of software engineering, the industrial validation is critical. Our field is concerned with frameworks, solutions and processes that scale to dozens, if not hundreds or thousands of engineers. Reaching this level of scale is typically impossible in an academic context and where researchers do try to do this, it often involves students who cannot really be considered as representative of experienced software engineers.

From a research lifecycle perspective, the SEIP track has played a role to identify interesting, novel approach to software engineering originating in industry as well as to report on the actual scalability of research results originating from academia.

ICSE SEIP 2018

The Software Engineering in Practice track 2018 received a record number of submissions (131). Of this we selected 31 papers and also we have re-started the category of practitioner-oriented “talks” and have selected 5 of these. Furthermore, we round out the program with several practitioner-oriented keynotes and invited presentations.



Frances Paulisch, SEIP Chair
Siemens Healthineers
Germany



Jan Bosch, SEIP Chair
Chalmers University of Technology |
University of Gothenburg, Gothenburg, Sweden

