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Software Quality

The Complexity and Challenges of Software Engineering and Software Quality in the Cloud

11th International Conference, SWQD 2019
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Proceedings

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Message from the General Chair

The Software Quality Days (SWQD) conference and tools fair started in 2009 and has grown to be the biggest conferences on software quality in Europe with a strong community. The program of the SWQD conference is designed to encompass a stimulating mixture of practical presentations and new research topics in scientific presentations as well as tutorials and an exhibition area for tool vendors and other organizations in the area of software quality.

This professional symposium and conference offer a range of comprehensive and valuable opportunities for advanced professional training, new ideas, and networking with a series of keynote speeches, professional lectures, exhibits, and tutorials.

The SWQD conference is suitable for anyone with an interest in software quality, such as software process and quality managers, test managers, software testers, product managers, agile masters, project managers, software architects, software designers, requirements engineers, user interface designers, software developers, IT managers, release managers, development managers, application managers, and similar roles.

The guiding conference topic of the SWQD 2019 was "The Complexity and Challenges of Software Engineering and Software Quality in the Cloud," as changed product, process, and service requirements, e.g., distributed engineering projects, mobile applications, involvement of heterogeneous disciplines and stakeholders, extended application areas, and new technologies, include new challenges and might require new and adapted methods and tools to support quality assurance activities early.

January 2019 Johannes Bergsmann

Message from the Scientific Program Chair

The 11th Software Quality Days (SWQD) conference and tools fair brought together researchers and practitioners from business, industry, and academia working on quality assurance and quality management for software engineering and information technology. The SWQD conference is one of the largest software quality conferences in Europe.

Over the past years a growing number of scientific contributions were submitted to the SWQD symposium. Starting in 2012 the SWQD symposium included a dedicated scientific program published in scientific proceedings. For the eighth event in the series, we received an overall number of 17 high-quality submissions from researchers across Europe, which were each peer-reviewed by three or more reviewers. Out of these submissions, the editors selected five contributions as full papers, for an acceptance rate of 29%. Further, three short papers, representing promising research directions, were accepted to spark discussions between researchers and practitioners at the conference. This year we had invited two scientific keynote speaker for the scientific program who contributed with two invited papers.

The main topics from academia and industry focused on "Systems and Software Quality Management Methods," "Improvements of Software Development Methods and Processes," "Latest Trends and Emerging Topics in Software Quality," and "Testing and Software Quality Assurance."

This book is structured according to the sessions of the scientific program following the guiding conference topic "The Complexity and Challenges of Software Engineering and Software Quality in the Cloud":

- Multidisciplinary Systems and Software Engineering
- Software Quality and Process Improvement
- Software Testing
- Knowledge Engineering and Machine Learning
- Source Code Analysis
- Software Maintenance

January 2019 Stefan Biffl

Organization

SWQD 2019 was organized by Software Quality Lab GmbH and the Vienna University of Technology, Institute of Information Systems Engineering, Information and Software Engineering Group.

Organizing Committee

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Johannes Bergsmann Software Quality Lab GmbH, Austria

Scientific Program Chair

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Proceedings Chair

Dietmar Winkler Vienna University of Technology, Austria

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Petra Bergsmann Software Quality Lab GmbH, Austria

Program Committee

SWQD 2019 established an international committee of well-known experts in software quality and process improvement to peer-review the scientific submissions.

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Contents