



Lecture Notes in Business Information Processing

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Software Quality

Quality Intelligence in Software and Systems Engineering

12th International Conference, SWQD 2020
Vienna, Austria, January 14–17, 2020
Proceedings

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Message from the General Chair

The Software Quality Days (SWQD) conference and tools fair was first organized in 2009 and has since grown to be the largest yearly conference on software quality in Europe with a strong and vibrant community. The program of the SWQD conference was designed to encompass a stimulating mixture of practice-oriented presentations, scientific presentations of new research topics, tutorials, and an exhibition area for tool vendors and other organizations in the area of software quality.

This professional symposium and conference offers 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 welcomes anyone interested in software quality including: 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 many more.

The guiding conference topic of the SWQD 2020 was “Quality Intelligence: Software Quality in the Absence of Well-Defined Requirements,” 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 2020

Johannes Bergsmann

Message from the Scientific Program Chairs

The 12th 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, we received a growing number of scientific contributions to the SWQD symposium. Starting back in 2012, the SWQD symposium included a dedicated scientific program published in scientific proceedings. In this ninth edition, we received an overall number of 17 high-quality submissions from researchers across Europe which were each peer-reviewed by 3 or more reviewers. Out of these submissions, we selected 5 contributions as full papers yielding an acceptance rate of 29%. Further, we accepted two short papers representing promising research directions to spark discussions between researchers and practitioners on promising work in progress. This year, we have two scientific keynote speakers for the scientific program, who contribute two invited papers.

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 “Quality Intelligence in Software and Systems Engineering”:

- Industry Challenges and Collaborations
- Software Testing Approaches
- Social Aspects in Software Engineering
- Natural Language Processing
- Software Quality Assurance Concepts

January 2020

Stefan Biffl
Dietmar Winkler
Daniel Mendez

Organization

SWQD 2020 was organized by Software Quality Lab GmbH, the Vienna University of Technology, Institute of Information Systems Engineering, and Blekinge Institute of Technology, Sweden.

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SWQD 2020 established an international committee of well-known experts in software quality and process improvement to peer-review the scientific submissions.

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