3rd International Workshop on Testing Extra-Functional Properties & Quality Characteristics of Software Systems (ITEQS)

Co-located with ICST 2019, Xi'an - China

Submission Deadline: January 15, 2019
Notifications: Feb 5, 2019
Workshop: April 22, 2019

Contact: iteqs2019@easychair.org

Full papers: 6 - 10 pages
Work-in-Progress / Position papers: 4 pages
Accepted papers are published by IEEE

Website: http://www.mrtc.mdh.se/ITEQS/2019/

SCOPE

The rapid development towards increased integration of software with the social and physical world that we see today means that quality aspects such as performance, safety, security, and robustness become more important in an increasing number of the systems and devices which we use and depend on. In this context, the success of a software product may not only depend on the logical correctness of its functions, but also on the system quality characteristics. Such system characteristics, which are referred to and captured as Extra-Functional Properties (EFPs) or Non-Functional Properties, are particularly important in resource constrained systems, such as real-time embedded and cyber-physical systems. Therefore, such systems need to be tested with a special attention to the EFPs. Testing EFPs is challenging and often requires different approaches compared to testing normal functionality. ITEQS provides a focused forum with the goal of bringing together researchers and practitioners to share ideas, identify challenges, propose solutions and techniques, and in general expand the state of the art in testing EFPs and quality characteristics of software systems and services. The workshop endorses contributions in a wide range of topics related to testing of EFPs in the form of full papers and short yet solid work-in-progress/position papers.
The workshop does not accept papers that focus purely on functional testing!

We plan to invite selected best papers from the workshop to submit an extended version of their work to the Special Issue on "Testing Extra-Functional Properties" in the Software Testing, Verification and Reliability (STVR) Journal.

TOPICS OF INTEREST

- Model-based testing of EFPs
- Mutation-based testing for EFPs
- Testing of AI and Machine Learning based systems with respect to quality attributes; e.g., safety, security, ethics
- Search-based testing techniques for EFPs
- Testability, observability, and the role of the platform
- Empirical studies and experience reports
- Quality assurance, standards, and their impact on testing EFPs
- Requirements and testing EFPs
- Coverage criteria in testing EFPs
- Processes and their role in testing EFPs; e.g., agile and TDD
- Fault localization for EFPs and debugging
- Formal methods, model-checking, and reasoning about EFPs
- Parallelism, Concurrency, and Testing of multicore applications
- Performance, Robustness, and Security Testing
- Testing real-time, embedded, and cyber-physical systems, and their challenges
- Testing quality characteristics of distributed, mobile, and cloud applications

ORGANIZATION

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