

Message from ITEQS 2021 workshop chairs

Mehrdad Saadatmand
RISE Research Institutes of Sweden
Sweden
Email: mehrdad.saadatmand@rise.se

Dragos Truscan
Åbo Akademi University
Finland
Email: dragos.truscan@abo.fi

Eduard Enoiu
Mälardalen University
Sweden
Email: eduard.paul.enoiu@mdh.se

It is our pleasure to welcome you to the fifth edition of the International Workshop on Testing Extra-Functional Properties and Quality Characteristics of Software Systems (ITEQS), co-located with the IEEE International Conference on Software Testing, Verification and Validation (ICST) 2021. The workshop and the main conference will be run virtually.

Due to the ever-increasing integration of software systems with the physical world, extra-functional aspects such as performance, safety, security, and robustness become more important and play a central role in determining the overall system quality. Such extra-functional characteristics, which are also referred to as non-functional properties, complement the overall system functionality. In fact, reports show that there are bigger chances of systems failing because of non-functional issues rather than because of functional ones.

Testing extra-functional properties has gained significant interest recently, both in research and in practice. This has been accentuated by the fact that the extra-functional properties have become an important part of today's software development processes, where they need not only to be taken into account at early stages of the development process, but also to be verified and validated throughout the process. However, many challenges remain open and further research is needed to address the testing of extra-functional properties.

ITEQS focuses on different aspects of testing extra-functional properties, with an emphasis on advancing such techniques and increasing their applicability to industrial practice, by providing evidence on the validity, efficiency, and effectiveness of the proposed techniques. To this aim, ITEQS brings together Similar to previous years, ITEQS will propose approaches for addressing different types of extra-functional properties, starting from the quality of the decision making process, to performance and head dissipation of cyber-physical systems, and to prediction of defects based on the quality attributes of architecture of the software. Following the current trends in academia and industry, this year's publications approach

practitioners and researchers proposing novel methods for extra-functional testing and provides a framework for discussion and cross-fertilization of new ideas.

the above research issues by employing machine learning and meta-heuristic methods.

The topic of this year's keynote presentation will be Security Testing and Resilience. The presentation will be given by Professor Emeritus Ana Rosa Cavalli from Institut Polytechnique de Paris/Telecom Sudparis, France. The keynote will present the main features of security testing and resilience, and propose some solutions. In addition, the presentation will illustrate how some of the proposed solutions are applied in the H2020 VeriDevOps project.

Last but not least, we would like to thank the ICST 2021 organizers, ITEQS 2021 program committee, the authors and the participants for assuring the quality and continued success of the ITEQS workshop.

Programme Committee:

- Bestoun S. Ahmed - University of Karlstad (Sweden)
- Bernhard Aichernig - Graz University of Technology (Austria)
- Shaukat Ali - Simula Research Laboratory (Norway)
- Zohaib Iqbal - National University of Computer and Emerging Sciences (Pakistan)
- Björn Lisper - Mälardalen University (Sweden)
- Brian Nielsen - Aalborg University (Denmark)
- Fabrizio Pastore - University of Luxembourg (Luxembourg)
- Ali Sedaghatbaf - RISE Research Institutes of Sweden (Sweden)
- Jüri Vain - Tallinn University of Technology (Estonia)
- Mahsa Varshosaz - IT University of Copenhagen (Denmark)
- Franz Wotawa - Graz University of Technology (Austria)

Looking forward to seeing you at ITEQS 2021!