



NEXTA 2018

1ST IEEE WORKSHOP ON NEXT LEVEL OF TEST AUTOMATION

APRIL, 2018, VÄSTERÅS, SWEDEN

CO-LOCATED WITH IEEE INTERNATIONAL CONFERENCE ON SOFTWARE TESTING, VERIFICATION AND VALIDATION (ICST 2018)

[HTTPS://WWW.TESTOMATPROJECT.EU/NEXA2018](https://www.testomatproject.eu/nexa2018)

NEXTA2018@EASYCHAIR.ORG

OBJECTIVE

Test automation has been an acknowledged software engineering best practice for years. However, the topic involves more than the repeated execution of test cases that often comes first to mind. Simply running test cases using a unit testing framework is no longer enough for test automation to keep up with the ever-shorter release cycles driven by continuous deployment and technological innovations such as micro-services and DevOps pipelines. Now test automation needs to rise to the next level by going beyond mere test execution. The NEXTA workshop will explore how to advance test automation to further contribute to software quality in the context of tomorrow's rapid release cycles. Take-aways for industry practitioners and academic researchers will encompass test case generation, automated test result analysis, test suite assessment and maintenance, and infrastructure for the future of test automation.

TOPICS

NEXTA solicits contributions targeting all aspects of test automation, from initial test design to automated verdict analysis. Topics of interest include, but are not limited to, the following:

- ✓ Test execution automation
- ✓ Test case generation
- ✓ Automatic test design generation
- ✓ Analytics, learning and big data in relation to test automation
- ✓ Automatic aspects management in test, progress, reporting, planning etc.
- ✓ Visualization of test
- ✓ Evolution of test automation
- ✓ Test suite architecture and infrastructure
- ✓ Test environment, simulation, and other contextual issues for automated testing
- ✓ Test tools, frameworks, and general support for test automation
- ✓ Testing in an agile and continuous integration context, and testing within DevOps
- ✓ Orchestration of test
- ✓ Metrics, benchmarks, and estimation on any type of test automation
- ✓ Any type of test technologies relying on automation of test
- ✓ Process improvements and assessments related to test automation
- ✓ Test automation maturity and experience reports on test automation
- ✓ Automatic retrieval of test data and test preparation aspect
- ✓ Maintainability, monitoring and refactoring of automated test suites
- ✓ Training and education on automated testing
- ✓ Automated test for product lines and high-variability systems
- ✓ Test automation patterns
- ✓ Automated test oracles

SUBMISSION

NEXTA accepts the following types of original papers:

- ✓ **Technical Papers** (max. 8 pages in IEEE format). Full papers presenting research results or industrial practices related to the next generation of test automation.
- ✓ **Tool Papers** (max. 4 pages in IEEE format). Tool papers introduce tools that implement an approach to support the transition to the next generation of test automation. A tool paper submission must include either 1) a URL to a screencast of the tool in action, or 2) a runnable version of the tool for evaluation by the program committee.
- ✓ **Position and Experience Papers** (max. 4 pages in IEEE format). Short papers introducing challenges, visions, positions or preliminary results within the scope of the workshop. Experience reports and papers on open challenges in industry are especially welcome.
- ✓ **Abstracts w. Video submission** (Not exceeding more than 8 minutes) - These videos will be shown separate - and will not be included in the publications, but as a parallel source of information. The video submission must be linked and visible on open source tools, and can include a presentation, demo or experience on test automation.

ORGANIZATION

Sigrid Eldh, Ericsson, General Chair

Adnan Causevic, Mälardalen University, Co-Chair & Publicity Chair

Markus Borg, RISE SICS, Co-Chair and Publications Chair

Serge Demeyer, University of Antwerp, Co-Chair

SUBMISSION JANUARY 12, 2018

NOTIFICATION FEBRUARY 19, 2018

WORKSHOP APRIL 9, 2018