8th UCAAT User Conference on Advanced Automated Testing

ETSI

19-21 October 2021

## Call for Presentations

The annual ETSI User Conference on Advanced Automated Testing (UCAAT) is the pinnacle of events in the calendar of ETSI's Technical Committee on Methods for Testing and Specification (TC MTS). This well-established event addresses the practical challenges of testing and test automation faced by industry today.

UCAAT is dedicated to all aspects of automated testing and is not limited in scope. Rapid technical advances in IT services, transportation, healthcare, finance, telecommunications, broadcasting, and smart cities, as well as shifting operational landscapes are increasing the demands on testing.

### Important Dates

Submission of title, author & abstract
30 April 2021

Notification of acceptance
4 June 2021

Submission of final presentation
30 August 2021 (online event)
20 September 2021 (physical event)

### CONFERENCE THEME: TESTING TO THE EDGE

Solutions bringing together previously disparate actors and technologies now need to co-exist and interoper-ate to an unprecedented extent, with a need to deliver value to the market with a significant increase of speed and frequency. This, and the increasing presence of AI, whether it be for the use of AI in testing or the testing of AI systems, brings challenges and opportunities to the entire testing community.

Shifting and increasing demands for various IT systems and services during COVID-19 pandemic showed a clear need for stronger interconnection and better ability to scale and adapt to meet the dynamic challenges in a global crisis. Test automation is essential for delivering agile solutions in uncertain times. Share your ex-periences and lessons learned to help everyone be better prepared for the next crisis of global proportions.

UCAAT offers an opportunity for users, vendors, service providers and researchers from many different ap-plication domains to come together to share experiences and learn about the latest advances in the industrial use of test automation. We welcome presentation, poster and tutorial submissions regarding modern test au-tomation approaches, technologies, and strategies applied in practice, by means of case studies or experience reports.

Join us and bring your experience to UCAAT 2021!

UCAAT 2021 is expected to be hosted at Siemens AG in Munich, Germany on 19-21 October 2021. While we are hopeful that physical events will be possible and safe again, we are also preparing for a virtual event as a backup. We continuously monitor the situation and will make the final decision by May 2021 in order to ensure that there is enough time to prepare for a high-quality event, regardless of the format.

## Topics of interest

Topics of interest for submissions to UCAAT 2021 include (but are not limited to):

- Experiences from the **application of advanced test automation techniques** for
  - Cloud technologies, APIs, and micro services
  - Edge, edge-cloud, and mobile edge computing systems
  - IoT, 5G, and radio technologies
  - Softwarized systems, such as virtualized networks, reconfigurable radio systems, fog computing, zero-touch network management, lifecycle management, self-healing, autonomic networks
  - Artificial Intelligence (AI) and Machine Learning (ML) systems
  - Autonomous systems, robots, and physical devices
  - Virtual reality, augmented reality, and gaming systems
  - Blockchain systems
  - Quantum computing systems
  - Systems in different application domains, including healthcare, automotive, aeronautical, finance, IT services and big data analysis, cyber-physical systems, smart cities
  - Evaluating different quality characteristics, such as usability, security, robustness, performance, and maintainability
  - Assessment and management of uncertainty in systems and in testing
  - Security testing and assurance, including penetration testing, fuzzing, but also blockchain securi-ty, library checking, security aspects of open-source projects, etc.
  - Performance evaluation and calibration, including load and stress testing, efficiency and scalability optimisation, etc.
  - Overall software quality and reliability improvements
- Experiences from **long term application of test automation** such as:
  - Best practices related to architecture and design of test automation software
  - Standardization efforts related to advanced test automation (such as test methodologies, test management and standardized test specification)
  - Testing approaches in Open-Source projects and Open-Source testing solutions
  - Experiences and challenges in creating sustainable test automation solutions
  - Documenting, managing, and maintaining assets produced by automated testing
  - The role of test automation in times of uncertainty and crisis and pushing test automation beyond the limits
  - New challenges and opportunities in a pandemic and post-pandemic world
- Experiences from **using new techniques or technology in automated testing** such as:
  - Chaos testing and destructive testing for ensuring resilience
  - Search-based approaches, ML, and other AI techniques
  - Cloud services as enablers of test execution and management
  - Big data methodologies, including data analytics and predictive modelling
  - Static analysis, profiling, technical debt, and test coverage measurement and assessment

- Experiences from the **application of standardized test automation languages and methodologies,** such as:
  - TDL (Test Description Language) or TTCN-3 (Test and Test Control Notation)
  - UTP (UML Testing Profile)
  - Cucumber, Robot, and other DSLs (Domain-Specific Languages)
- Experiences and lessons learned from **applying advanced test automation processes**, such as:
  - Robotic Process Automation (RPA)
  - Acceptance Test Driven Development (ATDD)
  - Behaviour Driven Development (BDD)
  - Model-based Testing (MBT)
  - Test Driven Development (TDD)
  - Requirement based test generation
  - Ethical aspects of introducing a new test automation technology
- Experiences from **test automation in continuous delivery and deployment**, such as:
  - Automated build and software package delivery flows
  - Automated test and optimized software validation
  - Automated deployment, automated acceptance testing, automated provisioning, automated certification, automated everything!
  - Testing operational automation
  - Automation of the feedback cycle from production back to development, as integral part of the DevOps pipeline (closed-loop automation)
  - Ensuring traceability and observability in testing to enable test automation in production
  - Proactive Ops for pre-emptive maintenance

## Submission Details

We are calling for

- proposals for 20-minute conference **presentations** (incl. questions) by test automation users,
- **posters** focusing on practical aspects of test automation, and
- 1,5-hour entry level or advanced **tutorials**.

Submissions should seek to deliver a message for a broader user community and report on experiences of testing technologies and should not focus on tooling details; tools can be promoted in the vendor track orga-nized for event sponsors. A proposal for a conference/poster presentation or tutorial shall be no longer than three A4 pages and shall follow one of the following templates (available from the conference website):

- TemplatePresentationProposalUCAAT2021.doc (for conference and poster presentation proposals)
- TemplateTutorialUCAAT2021.doc (for tutorial proposals)

Please use the following link to upload proposals: https://easychair.org/conferences/?conf=ucaat2021

The independent programme committee, composed mostly from industry stakeholders, will evaluate all proposals and will schedule them to the different sessions of the event programme. Proposals in PDF format shall be submitted via EasyChair. The programme including the slides of accepted presentations and posters will be made available electronically to participants and on the conference website after the event.