



## CALL-FOR-PAPERS

### AST 2018

#### 13<sup>th</sup> IEEE/ACM International Workshop on Automation of Software Test

<http://ast2018.isti.cnr.it/>

In conjunction with ICSE 2018 (<https://www.icse2018.org/>)

Gothenburg, Sweden. May 28 – 29, 2018

#### IMPORTANT DATES:

**Submission deadline:**

Feb. 5, 2018

**Notification of acceptance:**

Mar. 5, 2018

**Camera-Ready version:**

Mar. 19, 2018

**Workshop dates:**

May 28-29, 2018

#### ORGANIZERS:

##### Workshop PC Co-Chairs

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##### Steering Committee

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**Eric Wong**

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Please see workshop website for the  
workshop Program Committee.

In software development practice, testing accounts for as much as 50% of the total development effort. It is therefore imperative to reduce the cost and improve the effectiveness of software testing by automating the testing process which has become an important part of software testing practice. In the past decades, a great amount of research effort has been spent on automatic test case generation, automatic test oracles, etc.

The workshop is the 13<sup>th</sup> edition of the successful AST workshops held at ICSE conferences. It provides researchers and practitioners with a forum for exchanging ideas, experiences, understanding of the problems, visions for the future, and promising solutions to the problems. The workshop also provides a platform for researchers and developers of testing tools to work together and identify the problems in the theory and practice of software test automation and to set an agenda and lay the foundation for future development.

#### TOPICS OF INTEREST

AST 2018 focuses on the special topic of *Artificial Intelligence (AI) for Test Automation (TA) and testing of AI and Machine-Learning Software*. Submissions on this topic are especially encouraged, but papers on other topics are also welcome.

The workshop focuses on bridging the gap between the theory and practice of software test automation. The topics cover all aspects related to software test automation. In particular, papers on the following topics are covered, but are not limited to:

1) *Methodology*: Software test automation in the context of various software development methodologies.

2) *Technology*: Automation of various test techniques and methods for testing related activities, as well as for testing various types of software applications.

3) *Tools and environments*: Issues in the development, operation, maintenance and evolution of software testing tools and environments, and their integration and inter-operation with other types of software development and maintenance tools and runtime support environments and platforms.

4) *Experiments, empirical studies and experience reports*: Experiments, empirical studies of software test automation, as well as reports on real experiences in using automated testing techniques, methods and tools in industry.

5) *Identification of problems and visions of the future*: The identification of problems that hamper wider adoption of automated test techniques, methods and tools and the analysis and specification of the requirements on automated software testing.

#### CHARETTE DISCUSSIONS

The workshop continues the successful charette discussions of the previous years. This year, the topic is on the influence of *Artificial Intelligence on Test Automation and dealing with AI systems in testing*.

#### INDUSTRIAL CASE STUDIES

An *Industrial Case Studies* session is also planned with presentations reporting on the state of practice in the automation of software testing. Practitioners are especially encouraged to contribute their experiences and insights on test automation. Topics for this session include, but are not limited to: tools, new best practices, process innovations related to test automation, gaps in existing tool chains, ideas and visions for near-term research work.

#### SUBMISSIONS

Two types of submissions are invited:

- *Regular papers* (7 pages) from both research and industrial contributions advancing the theory and practice in software test automation and
- *Position statements* short papers (4 pages) presenting ideas of future research directions and ongoing work.

All papers submitted to the workshop must be formatted in the ACM Conference Proceedings Format and represent unpublished original work that is not under review or submitted elsewhere while being under consideration. All submissions must be in English and in PDF format through online upload to the workshop submission website at the following URL:  
<https://easychair.org/conferences/?conf=ast2018>

All submissions will be reviewed by three PC members. They will be judged on the basis of their clarity, relevance, originality, and contribution.

#### PUBLICATION OF PAPERS

Accepted workshop papers including both regular and short papers will be published in the AST 2018 Proceedings and included in the IEEE and ACM Digital Libraries. The workshop organizers attempt to enable publication of extended versions of selected papers in a journal.

Authors of accepted papers are required to register for the workshop and present the paper at the workshop in order to assure publication.