



**AST 2010**  
**Fifth International Workshop on Automation of Software Test**  
<http://www.cs.allegheny.edu/ast2010>

**CALL FOR PAPERS**

*Special Theme Charette Discussion: Integration Testing*  
*Special Session: Business and Industrial Case Studies*

**Cape Town, South Africa, 3–4 May 2010**

part of ACM/IEEE ICSE 2010 (<http://www.sbs.co.za/ICSE2010/>)

**Submission deadline**

27 January 2010

**Notification of acceptance**

17 February 2010

**Camera ready version**

3 March 2010

**Workshop dates**

3–4 May 2010

**Workshop Co-Chairs**

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**Steering Committee**

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*Please see the workshop website  
for more details and the workshop  
Program Committee.*

In software development practice, testing can account 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. In the past decades, a great amount of research effort has been spent on automatic test case generation, automatic test oracles, etc. Test automation is also becoming an important part of software testing practice.

The workshop is the successor of the first four AST workshops held at ICSE 2006–2009. It will provide researchers and practitioners a forum for exchanging ideas, experiences, understanding of the problems, visions for the future, and promising solutions to the problems. The workshop will also provide a platform for researchers and developers to work together to identify the problems in the theory and practice of software test automation, which sets an agenda and lay the foundation for future development.

**TOPICS OF INTEREST**

The workshop focuses on bridging the gap between the theories and practice of software test automation. The topics of interest include, but are not limited to, the following:

- 1) *Methodology*: Software test automation in the context of various software development methodologies, such as in model-driven, component-based, agile, test-driven, product-lines, service-oriented, agent-oriented, evolutionary, and aspect-oriented methodologies.
- 2) *Technology Development and Transfer*: Automation of test techniques and methods used in test-related activities, support for software testing methods, and applications to specific types of software in different application domains.
- 3) *Software Testing Tools and Environments*: Issues in the development, operation, maintenance and evolution of software testing tools and environments.
- 4) *External Confirmation*: Empirical studies and experience reports that evaluate different facets of software test automation and highlight their fundamental trade-offs.

This year, the charette discussion focuses on *Integration Testing* and submissions on this topic are especially encouraged, but papers on other topics are also welcome.

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**CHARETTE DISCUSSION: INTEGRATION TESTING**

The workshop continues the successful charette discussions of the previous year by focusing on *Integration Testing*. Integration testing aims to expose faults due to component interactions, such as the mismatch of the interfaces between those components. It can be applied to different integration steps at various granularities.

The discussion sessions provides opportunities for attendees to identify the key aspects of integration testing that are worth research efforts in the near future, to envision the approaches to address these aspects, and to form collaborations to address the identified problems effectively.

**BUSINESS AND INDUSTRIAL CASE STUDIES**

There will also be an “Business and Industrial Case Studies” session at the workshop, with shorter presentations reporting the real state of the practice in the automation of software testing. Test practitioners are especially encouraged to contribute their experiences and insights on test automation through this session.

Topics for this session include, but are not limited to, the following: new tools, new best practices, process innovations related to test automation, gaps in existing vendor toolsets, ideas and visions for near-term research work.

**POSTER SESSION**

Posters shall present late-breaking results, works in progress, and challenges associated with automated testing of real world software systems. The poster session helps improve interactions and facilitate networking among attendees. This enables opportunities to engage in deeper discussions of your research.

**SUBMISSIONS**

Four types of submission are invited: *research* papers, *case study* papers, *case study* presentations, and *posters*.

Research papers report research and practical experience in the area of software test automation. Both long (8 page) and short (4 page) papers are welcomed.

Submissions in the case study category may be either a short paper with no more than 4 pages, or a slide presentation with no more than 15 slides printed by two slides per page. Case study papers and presentations must report on practical applications of test automation.

All papers submitted to the workshop must be unpublished original work and must not have been submitted anywhere else for publication. The paper submissions must be in English and conform to the *ACM SIG conference proceedings format*. Posters must be in DIN A0 format. All submissions must be submitted in either PDF or postscript format through online upload to the workshop paper submission website.

All submissions will be reviewed by at least three PC members, but using different criteria. Research papers will be judged on the basis of their clarity, relevance, originality, and contribution. Case study papers, presentations, and posters will be judged based on their clarity, relevance, and interest to the workshop attendees.

**PUBLICATION OF PAPERS**

The accepted workshop papers, including both research and case study papers, will be published in the ICSE 2010 Conference Proceedings Volume II in ACM Digital Library. Workshop attendees will receive a memory stick with both proceedings volumes on it. Slide presentations and posters will be published on the AST 2010 website.

Authors of accepted papers and posters are required to register for the workshop and present their contributions at the workshop in order for their contributions to be published.

Authors of the selected best papers will be invited to extend their papers for possible inclusion in a special issue/section of *Software Quality Journal*, Springer. Each paper in the special issue/section must include at least 30% new technical materials, and its overall quality must meet the standard of the journal.