in conjunction with COMPSAC 2006
Chicago, USA, September 18-21, 2006
(http://conferences.computer.org/compsac/2006/)

Important Dates

March 12, 2006: Paper submission due date
April 24, 2006: Decision Notification (electronic)
June 16, 2006: Camera-ready copy due date & pre-registration due
September 18-2, 2006: COMPSAC 2006 and TQACBS 2006

Call for Papers

Widespread development and reuse of software components has been regarded by many as one of the next biggest phenomena for the software industry. Reusing high-quality software components in software construction has the potential of drastically improving the quality and development productivity of component-based software systems. However, widespread reuse of a software component with poor quality may literally lead to disasters. Component-based software engineering involves many unique characteristics, some of which have caused new issues, challenges, and needs in testing and quality assurance of components and component-based software. Testing and quality assurance therefore plays a critical and pivotal role in the construction of software components and component-based software for different types of systems, including enterprise systems, web service technologies, online applications and e-commerce systems, and wireless-based solutions.

Although there have been many published research papers addressing the issues in component construction, reuse and evaluation, as well as engineering of component-based software systems, today’s engineers still encounter many unsolved problems in testing and quality assurance of reusable software components and component-based systems. This workshop is intended to provide an effective forum for researchers and industry practitioners to discuss the issues, challenges, needs, and solutions in validation and quality assurance of reusable software components and component-based systems. The workshop brings together software engineering researchers, software component developers, and industry practitioners to exchange innovative ideas and state-of-the-art research results in testing and quality assurance for reusable components, component-based systems, and share experience and lessons learned from academic research projects as well as real world component-based software projects. The topics for submissions include, but are not limited to, the following:

- Adequate test models, methods, and coverage criteria for reusable components
- Innovative validation methods for reusable software components, such as COTS, safety and critical components, mobile and web service components.
- Design for testability of components and component-based systems, including built-in test or self-test techniques.
- Component integration issues, solutions, and strategies for component-based systems
- Component re-testing techniques, models, and coverage criteria in reuse contexts.
- Regression testing issues, strategies, and techniques for component-based systems
- Test automation issues, solutions, tools, frameworks for components and component-based systems
- Testability analysis, verification and measurement for component-based software and its parts
- Reliability models, measurement metrics, and evaluation for software components
- Performance evaluation models, measurement metrics, and tools for component-based software and its parts
- Component quality certification processes, methods, and standards
- Quality assurance issues, challenges, processes, and methods
- Quality evaluation models, measurement metrics, and quality control systems
- Verification methods, processes, tools and standards
- Validation methods, technologies, and tools
- Testing issues, challenges, needs, solutions, and tools for mobile components in web services and wireless applications
- Industrial and academic case studies and experience reports on testing and quality assurance for reusable components and component-based systems

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**Submission**

Original papers not being submitted to journals or other conferences will be considered. All submitted papers will be evaluated according to its originality, significance, correctness, presentation and relevance. Papers should be submitted electronically at [http://conferences.computer.org/compsac/2006/](http://conferences.computer.org/compsac/2006/). Please follow the instructions given by the web page. Manuscripts will be limited to 8 pages following IEEE conference proceedings style and guidelines. We encourage authors to present novel ideas, critique of existing work, and practical studies and experiments.
Accepted papers will be published in the workshop proceedings of the 29th IEEE Computer Software and Applications Conference (COMPASC2006). At least one of the authors of each accepted paper must register as a full participant of the workshop to have the paper published in the proceedings.

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**General Inquires**

For updated workshop information, please refer to [http://aquila.nvc.cs.vt.edu/compsac2005/](http://aquila.nvc.cs.vt.edu/compsac2005/), or contact jerrygao@email.sjsu.edu, sami.beydeda@bff.bund.de, ewong@utdallas.edu.