

CALL FOR PAPERS

Software Quality Journal

Special Issue on Testing and Repair for Software Engineering Technologies and Applications

Software systems have become ubiquitous, particularly due to the use of smart technologies and pervasive computing. Development of such systems demand effective software testing and repair techniques to cope with the quality standards required. From a software testing perspective, there are still a number of challenges to be overcome so that techniques become widely adopted in industry. Manual program repair is a time consuming and expensive activity, so automated program repair has attracted much interest recently. Moreover, a synergy between software testing and program repair practices may lead to increasing effectiveness on software quality assurance processes. On one hand, a program fix may explain the reason of a failure and reduce debugging effort. On the other hand, test case design can improve effectiveness of program repair techniques by providing information needed for fault localization.

This special issue searches for high-quality papers that address significant research and practical results in the area of software testing and/or program repair. Submissions must provide new ground and provide substantial support for their results.

Topics may include, but are not limited to, the following:

- Automation of Software Testing
- Artificial Intelligence in Software Testing
- Testing for Web Applications
- Testing for Mobile Applications
- Mutation-Based Testing
- Functionality Testing
- Testing Parallel/Concurrent Applications
- Code Mining for Bug Detection
- Test Cases Optimizations
- Software Verification and Repair
- Automated Defect Repair

Submission Format and Guidelines

This special issue accepts two types of submissions. First, we welcome manuscripts that have not been previously published or considered for publication elsewhere. Second, we accept extensions of the invited papers published in COMPSAC/2018 in the Symposium of Software Engineering Technology and Applications (SETA).

All submissions should follow the author guidelines of SQJ in preparing the submission for review. For conference extension submissions, there should be (1) at least 30% new

technical results (other than simply adding more text to explain existing results or adding more literature review), and (2) a discussion to describe the difference between the conference version and the extended version.

Submissions must be written in English and submitted in the PDF format via the Editorial Manager system at <https://www.editorialmanager.com/sqjo/>. When submitting in Editorial Manager, please choose article type **SI: Testing and Repair for Software Engineering Technologies & Applications**.

Important Dates

November 1, 2018: Deadline for paper submission

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