

In this issue

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I would like to wish all readers a very happy and successful 2015.

This issue includes three regular papers and a special section. The regular papers deal with a range of topics related to software quality such as software validation, security, and software reliability growth models.

Software validation is tremendously important and is an essential part of the software development industry. The paper “Automating test-based inspection of design models,” by Anne Rocha, Franklin Ramalho, and Patricia Machado presents an automated guided inspection technique that can reduce the gap between input and output models and help to validate test cases. The technique takes as input natural language test cases and transforms these using a UML tool into executable test cases. The technique uses the sequence diagrams of the test cases to find divergences from the test cases. The authors use three case studies to show that the technique uncovers approximately twice as many defects as other manual techniques.

The second of our regular papers deals with the development of secure software. In “Security quality model: an extension of Dromey’s model,” Saad Zafar, Misbah Mehboob, Asma Naveed, and Bushra Malik propose a quality model for security which can be used to identify security defects. The authors propose an automation of the security quality model using a central repository which could be used for audit purposes.

In “A method for predicting open source software residual defects,” Najeeb Ullah proposes a method to help select the best software reliability growth model for predicting the reliability of an open-source component. The technique was validated empirically using 21 releases of seven open-source software projects. It was found that no particular software reliability growth model consistently outperformed any of the others.

The special section includes extended papers on *Software Quality and Maintainability*. The guest editors, Yijun Yu and Yiannis Kanellopoulos, have worked hard to bring this

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special section to press. They have provided an excellent introduction to the selected papers. I would like to thank the guest editors for all their effort on this issue.

As always, I am interested to hear whether you have any suggestions or comments; please send them to me at rachel.harrison@brookes.ac.uk.