In this issue

Rachel Harrison

Published online: 11 June 2014
© Springer Science+Business Media New York 2014

This issue contains a special section on quality assurance and quality management and three regular papers. I would like to thank the guest editors of the special section, Dietmar Winkler and Stefan Biffl, for all their hard work in managing the selection and reviews of these papers. The guest editors provide an informative introduction to the special section.

The three regular papers in this issue are concerned with software product lines, technical debt and the localization of latent bugs.

In “Quality attribute modeling and quality aware product configuration in software product lines,” Guoheng Zhang, Huilin Ye and Yuqing Lin propose a way to model quality attributes in feature models with the help of the analytical hierarchy process (AHP). The relative impacts of multiple individual features on a quality attribute are estimated by using AHP and then the impacts of the features on the quality attributes are identified to aggregate the result for the configured product. The authors describe how a large-scale case study was used to validate the approach.

Delivering software in Internet time is not easy, and there can be a temptation to deliver software that is only just good enough, even though this may lead to problems in the future. The paper “Comparing Four Approaches for Technical Debt Identification” by Nico Zazworka, Antonio Vetro, Clemente Izurieta, Sunny Wong, Yuanfang Cai, Carolyn Seaman and Forrest Shull discusses the problem of the technical debt that may arise in this situation, when workarounds have resulted in software that is less than perfect.

Testing and debugging are issues that continue to be of great importance to the software industry. In “Hierarchy-Debug: A Scalable Statistical Technique for Fault Localization,” Saeed Parsa, Mojtaba Vahidi-Asl and Maryam Asadi-Aghbolaghi present a way to detect latent bugs. The authors use a combination of a hierarchical clustering technique and the lasso regression method to find faulty subpaths in programs. Four case studies were used to evaluate the proposed approach.

R. Harrison (✉)
Department of Computing and Communication Technologies, Oxford Brookes University,
Oxford OX33 1HX, UK
e-mail: rachel.harrison@brookes.ac.uk