The series of the IEEE International Conferences on Research Challenges in Information Science (RCIS) aims at providing an international forum for scientists, researchers, engineers and developers on a wide range of information science areas to exchange ideas and approaches in this evolving field. In this special issue, we present three papers that are based on the best papers in the system engineering field presented at the eight IEEE International RCIS conference, held in 2014 in Morocco. These best papers of the conference (among 41 long papers selected over 152 submissions) have been asked to submit extended version to a new, and independent review process for IJSMD.

The RCIS conference stimulates exchange of ideas on a wide variety of topics. The three papers in this issue treat topics in software engineering, crowdsourcing and graphical user interface.

Motivation in software engineering is a complex topic and cultural background is reported to be one of the factors moderating software engineers’ motivation and project outcome. Tosun Misirli et al. conducted a survey with software engineers from Finland to explore the relationship between team motivation and project outcome, the factors that motivate Finnish engineers, and how these motivational factors are related. Authors then compared the Finnish motivational factors with those identified in a prior research. This work presents a prediction model to identify the best indicators of team motivation for software engineers in Finland.

Following a previous paper on a taxonomy of the various features describing each of the four pillars of crowdsourcing (the crowd, the crowdsourcer, the crowdsourced task and the crowdsourcing platform), Hosseini et al. study in the work presented in this issue the
inter-relations between these features when configuring a crowdsourcing project. They highlight the need for engineering approaches on setting up a crowdsourcing project and their aim is to help crowdsourcers and crowdsourcing platform developers to better understand the several peculiarities that may arise by combining these features and thus assist them in the configuration of crowdsourcing projects with more awareness.

Bauersfeld et al. present some reports of experience on using TESTAR, an automated approach to test applications at the graphical user interface level (GUI). This tool aims to solve part of the maintenance problem by automatically generating test cases based on a structure that is automatically derived from the GUI. The authors transferred TESTAR in three different industrial contexts with decreasing involvement of the TESTAR developers and increasing participation of the companies when deploying and using TESTAR during testing.

As guest editors of this special issue, we wish to thank all reviewers of the RCIS Program Committee that helps us in the reviewing process of this Special Issue. Finally, we want to thank the support that IJISMD is giving to this publication process.

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