

Preface

Software has a big impact in providing emerging challenge on different and wide range of disciplines. It is overlapped with many research areas, and recently intelligent techniques and methodologies are evolving in how we look to software as important factor in system development and emerging new technologies related, for example to, mobile software systems and big data-related innovations. Conventional software technologies in spite of their high cost were not providing sufficient or reliable services for our evolving demanding needs. Research has participated in providing new better outlook on such technologies and highlighted better awareness in providing new direction using better tools that are more intelligent and adaptable to user needs.

In the early 2000 there was much interest in having software to be involved in an inherent manner in our daily life, in business and economy, thanks to the Internet and other mobile emerging technologies that participated in making users intellectually connected and ubiquitous in integrated virtual environment. Legacy conversion and emerging business models were among these needs. In the early 2000 the SOMET (New Trends in Intelligent Software Methodology Tools, and Techniques) conference series¹ have started to provide researchers and practitioners an up-to-date platform of joint meetings for looking to solution alternatives that could provide better solution to such emerging market needs. The SOMET's platform has provided practical development experience among academia and industries in joint discussions and published conference proceedings and special issues in highly impact journals.

We have in this appealing book the opportunity to publish an extended version of the SOMET proceedings in Springer series: Communications in Computer and Information Science, based on Reviewing Committee which has selected from among 79 published articles these enlisted 27 papers thoroughly revised or enlarged articles.

The book is a collection of best reviewed revised articles selected from the 13th International Conference on New Trends in Intelligent Software Methodology Tools, and Techniques (SoMeT_14), held in Langkawi, Malaysia with the collaboration of Universiti Teknologi Malaysia (Johor Baharu, Malaysia), from September 22 to 24, 2014 (<http://seminar.spaceutm.edu.my/somet2014/>). This round of SoMeT_14 celebrated the 13th anniversary of SoMeT conference series, which is ranked as B+ among other high ranking Computer Science conferences worldwide.

These 27 papers carefully selected in this book were sorted based on their quality and contribution to the subject of the conference. All articles were reviewed and examined by the designated Program Committee and confirmed to have more new

¹ Previous related events that contributed to this publication are: SoMeT_02 (the Sorbonne, Paris, 2002); SoMeT_03 (Stockholm, Sweden, 2003); SoMeT_04 (Leipzig, Germany, 2004); SoMeT_05 (Tokyo, Japan, 2005); SoMeT_06 (Quebec, Canada, 2006); SoMeT_07 (Rome, Italy, 2007); SoMeT_08 (Sharjah, UAE, 2008); SoMeT_09 (Prague, Czech Republic, 2009); SoMeT_10 (Yokohama, Japan, 2010), and SoMeT_11 (Saint Petersburg, Russia), SoMeT_12 (Genoa, Italy), IEEE-SoMeT_13 (Budapest, Hungary, 2013), SoMeT_14 (Langkawi, Malaysia, 2014)

results and updates compared to their previous revision presented in the SOMET_2014. Each article had more than three referees, who carefully reviewed these papers and it was later revised by the respective authors for better soundness, relevance, significance, and clarity.

The book was classified into eight chapters organized in relation to the articles features, covering:

- Chapter 1 “Artificial Intelligence Techniques in Software Engineering”
- Chapter 2 “Requirement Engineering, High-Assurance System”
- Chapter 3 “Intelligent Software Systems Design”
- Chapter 4 “Creative and Arts in Interactive Software Design”
- Chapter 5 “Software Methodologies for Reliable Software Design”
- Chapter 6 “Software Quality and Assessment for Business Enterprise”
- Chapter 7 “Software Analysis and Performance Model”
- Chapter 8 “Software Applications Systems”

On behalf of all authors who contributed to this book, the editors wish to thank the series editors of Communications in Computer and Information Science, in Springer for providing such an opportunity to publish post-proceedings of the 13th SOMET for the year 2014 in their series.

We also wish to express our gratitude to all the reviewers who devoted their time and expertise to validate these selected articles and provide variety of opinions and feedbacks that could assist authors in providing better revision for these articles.

We hope that practitioners and scientists may consider this book as reference to their studies in finding new ideas and simulation for their research and innovations.

Last but not least we would like to thank Springer publisher for allowing us to have the forthcoming SOMET series to be part of Communications in Computer and Information Science series.

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