

Preface

IJSE Special Issue on Software Application Development

This special issue of the International Journal of Software Engineering (IJSE) presents state of the art research on current practices in software application development. It is motivated by a guiding theme on *effort estimation and development cost; resource management; and verification*. This issue presents invited papers that were presented by prominent researchers and professionals in the SE and other related tracks of the 2011 International Conference on Information Technology: New Generation (ITNG). These papers were initially peer reviewed by the tracks' reviewers and the Track Chairs. Extended versions of selected papers were again blindly reviewed by experts in the field. In addition, this issue includes papers, solicited through general call for papers, addressing current issues in effort estimation and the role of quality attributes, and their relationships, in development cost.

The quality of the underlying software processes and methodologies is essential for the success of software development. The 2011 ITNG SE and related tracks provided researchers and practitioners a forum to present and discuss current ideas and experiences in SE. These tracks received a wide range of research papers addressing current practices in SE including experience reports in application development, surveys of methods and techniques, and reports on tool development. The presented work covered different SE research areas and is aimed to improve SE processes, methods, and technologies.

The quality and relevance to current issues and challenges in application development make selected papers of interest to researchers and practitioners. Through their work, the authors have demonstrated valuable contributions to SE research. Their work includes an interactive approach to information resource management; using formal notations for functional program verification; the role of software metrics in application development in small organizations; effort estimation using Voice Response Software model; and using the relationship between quality attributes to gauge the overall application quality and cost development.

We would like to extend our sincere appreciation to the reviewers who contributed to this issue in a timely manner given the tight schedule. The quality of their reviews and feedback are invaluable. We also thank the authors for accepting our invitation and taking the time and effort to extend and revise their submissions for consideration to this issue. We also would like to extend our gratitude to IJSE Editor-in-Chief and the Editorial Office staff for giving us the opportunity to compile this special issue. Their encouragement and support are invaluable.

Guest Editors:



Dr. Hisham M. Haddad - Professor of Computer Science at Kennesaw State University, Georgia, USA. He received his M.S. degree in Computer Science from Northrop University, Los Angeles, California, and Ph.D. degree in Computer Science from Oklahoma State University, Stillwater, Oklahoma. He served at Marshall University, Huntington, West Virginia, as Assistant and Associate Professor. Before joining Kennesaw State University in 2001, he worked in the private sector as Senior Software Architect and Project Manager. At Kennesaw State University, he served as undergraduate CS Program Coordinator and Assistant Chair. He teaches in both the undergraduate and graduate CS programs. He has been involved in the development of computer-based instructional tools for classroom teaching and participates in ongoing curriculum development efforts. His research interests include Software Engineering, Object-Oriented Technology, Software Reuse, and CS education. He is actively working in these and other areas as he involves undergraduate and graduate students in research activities. He is active participant in funded research activities sponsored by government and private agencies. His research work is published in professional journals and refereed International and National conferences. Dr. Haddad is active member of the professional community, regular participant in professional activities, and a member of several professional organizations. He is active participant in conference organization and regular technical reviewer for many conferences and journals.



Dr. Mohammad Eyadat - Mohammad received the Ph.D. in Computer Science/Engineering Mathematics from Claremont Graduate School in Claremont, Master of Science Degree in Computer Science from the University of Southern California, and Bachelor of Science Degree in Computer Science from Yarmouk University - Jordan. He has been serving as professor at different institutions international and domestic. The institutions where he has taught courses in Computer Science, Computer Information Systems, Information Technology, and Mathematics provide graduate and undergraduate degree. His working experience ranges from Software Designer and developer to Business Consultant. As a researcher, he has been a collaborator for organizing several research activities including professional research conferences. His research interests include software engineering and software reliability models, multimedia software security, watermarking algorithms for images and video data, Education and Information Technology, and Web accessibility.