Foreword

It is refreshing to see a book that addresses current issues and topics in the field of software engineering, which has the potential to make significant contribution to the analysis and design of reliable and efficient software.

Modern day software systems are highly complex and their design are exponentially challenging task. Several strategies and techniques have been proposed and applied to develop good quality software - may be in the realm of real-time, parallel and distributed, autonomic, web-space, and so on. Variety of models and architectures, such as, object-, aspect-, component-, agent-oriented, agile approach, and a few others, exist and are being developed. Assuring quality of software systems is a daunting task and is drawing the attention of the leading software specialists in the field.

Prof. Hardeep Singh, himself a renowned teacher and researcher, and Ms. Kulwant Kaur, a senior faculty and one of the prominent contributors in the area of Software Engineering, have assembled a team of leading experts to present the best of current scenario and practices in the field of software engineering. The contents of the book are divided into four sections: (1) Advanced Software Engineering, (2) Systems Analysis, Software Design and Patterns, (3) Advancements in Engineering of Systems, and (4) Case Studies and Emerging Technologies. The various topics covered in these sections, such as, change management, component certification and standards, aspect-oriented multi-agent system, quality assurance of website structure, test-driven architectures, development of secure software systems, usability engineering, and others, are comprehensive and presented in lucid style. The chapters in the book are filled with proven methods, illustrative examples, tools and representative results from working systems in the field. The relevant subject matter is treated with fair details that are of quite significance for an emerging field.

The section on “Case Studies and Emerging Technologies” will prove of immense value to the students of software engineering and researchers.

This book is a must read for all software engineers interested in acquainting themselves with the current developments in the field.

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