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# Evaluation of Novel Approaches to Software Engineering

14th International Conference, ENASE 2019  
Heraklion, Crete, Greece, May 4–5, 2019  
Revised Selected Papers

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# Preface

The present book includes extended and revised versions of a set of selected papers from the 14th International Conference on Evaluation of Novel Approaches to Software Engineering (ENASE 2019), held in Heraklion - Crete, Greece, during May 4–5, 2019.

ENASE 2019 received 102 paper submissions from 40 countries, of which 19% were included in this book. The papers were selected by the event chairs and their selection was based on a number of criteria that included the classifications and comments provided by the Program Committee members, the session chairs' assessment, and also the program chairs' global view of all papers included in the technical program. The authors of selected papers were then invited to submit a revised and extended version of their papers having at least 30% innovative material.

The mission of ENASE is to be a prime international forum to discuss and publish research findings and IT industry experiences with relation to novel approaches to software engineering. The conference acknowledges evolution in systems and software thinking due to contemporary shifts of computing paradigm to e-services, cloud computing, mobile connectivity, business processes, and societal participation. By publishing the latest research on novel approaches to software engineering and by evaluating them against systems and software quality criteria, ENASE conferences advance knowledge and research in software engineering, including and emphasizing service-oriented, business-process driven, and ubiquitous mobile computing. ENASE aims to identify the most hopeful trends and proposes new directions for consideration by researchers and practitioners involved in large-scale systems and software development, integration, deployment, delivery, maintenance, and evolution.

The papers included in this book contribute to the understanding of relevant trends of current research on novel approaches to software engineering for the development and maintenance of systems and applications, specifically in relation to: model-driven software engineering, requirements engineering, empirical software engineering, service-oriented software engineering, business process management and engineering, knowledge management and engineering, reverse software engineering, software process improvement, software change and configuration management, software metrics, software patterns and refactoring, application integration, software architecture, cloud computing, and formal methods.

We would like to thank all the authors for their contributions and the reviewers for ensuring the quality of this publication.

May 2019

Ernesto Damiani  
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Leszek Maciaszek

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