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Slimane Hammoudi · Luís Ferreira Pires ·
Bran Selić (Eds.)

Model-Driven Engineering and Software Development

8th International Conference, MODELSWARD 2020
Valletta, Malta, February 25–27, 2020
Revised Selected Papers

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Preface

The present book includes extended and revised versions of a set of selected papers from the 8th International Conference on Model-Driven Engineering and Software Development (MODELSWARD 2020), held in Valletta, Malta, from 25 to 27 February, 2020.

MODELSWARD 2020 received 66 paper submissions from 26 countries, of which 23% were included in this book. The papers were selected by the event chairs and their selection is based on a number of criteria that include 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 paper having at least 30% innovative material.

The purpose of the International Conference on Model-Driven Engineering and Software Development, MODELSWARD 2020, was to provide a platform for researchers, engineers, academics and industrial professionals from all over the world to present their research results and development activities in using models and model-driven engineering techniques for Software Development. Model-Driven Development (MDD) is an approach to the development of IT systems in which models take a central role, not only for analysis of these systems but also for their construction. MDD has emerged from modelling initiatives, most prominently the Model-Driven Architecture (MDA) fostered by the Object Management Group (OMG). Within the scope of MDA, technologies have been developed that became the cornerstones of MDD, such as metamodeling and model transformations. MDD relies on languages for defining metamodels, such as the Meta-Object Facility (MOF) and Ecore (developed within the scope of the Eclipse Modelling Framework), and transformation specification languages such as QVT and ATL.

We are confident that the papers included in this book will strongly contribute to the understanding of some of the current research trends in Model-Driven Engineering and Software Development, especially of approaches required to tackle current and future software development challenges. Thus, this book covers diverse but complementary topics such as: reasoning about models, provenance of data models, model quality, generative approaches, model execution and simulation, domain-specific modelling, and model-based testing and validation

We would like to thank all the authors for their contributions and also the reviewers who have helped to ensure the quality of this publication.

February 2020

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