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Slimane Hammoudi · Luís Ferreira Pires ·
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Model-Driven Engineering and Software Development

7th International Conference, MODELSWARD 2019
Prague, Czech Republic, February 20–22, 2019
Revised Selected Papers

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Preface

The present volume contains extended versions of selected papers from the 7th International Conference on Model-Driven Engineering and Software Development (MODELSWARD 2019), held in Prague, Czech Republic, during February 20–22, 2019.

The purpose of MODELSWARD 2019 was to provide a platform for researchers, engineers, academics, as well as 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 modeling initiatives, most prominently the Model-Driven Architecture (MDA) fostered by the Object Management Group (OMG). In the scope of MDA, a couple of technologies have been developed that became the cornerstones of MDD, like metamodeling and model transformations. MDD relies on languages for defining metamodels, like the Meta-Object Facility (MOF) and Ecore (developed in the scope of the Eclipse Modeling Framework), and transformation specification languages like QVT and ATL.

This volume contains 16 papers that were selected by the event chairs, based on the evaluation and comments provided by the MODELSWARD Program Committee members, the session chairs' assessments, as well as the program chairs' review of all papers included in the technical program. The authors of the selected papers were then invited to submit a revised and extended version of their papers with at least 30% additional new material. The selected papers address some of the most relevant challenges being faced by researchers and practitioners in this area, and cover topics such as language design and tooling, programming support tools, code and text generation from models, behavior modeling and analysis, model transformations and multi-view modeling, as well as applications of MDD and its related techniques to cyber-physical systems, cybersecurity, IoT, autonomous vehicles, and healthcare.

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

February 2019

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Contents

Integrating UML and ALF: An Approach to Overcome the Code Generation Dilemma in Model-Driven Software Engineering	1
<i>Johannes Schröpfer and Thomas Buchmann</i>	
A Model-Based Combination Language for Scheduling Verification	27
<i>Hui Zhao, Ludovic Apvrille, and Frédéric Mallet</i>	
The Understandability of Models for Behaviour	50
<i>Vladimir Estivill-Castro and René Hexel</i>	
A Role Modeling Based Approach for Cyber Threat Analysis	76
<i>Bastien Drouot, Fahad R. Golra, and Joël Champeau</i>	
Static Data-Flow Analysis of UML/SysML Functional Views for Signal and Image Processing Applications	101
<i>Andrea Enrici, Ludovic Apvrille, Renaud Pacalet, and Minh Hiep Pham</i>	
Umple-TL: A Model-Oriented, Dependency-Free Text Emission Tool	127
<i>Mahmoud Hussein Orabi, Ahmed Hussein Orabi, and Timothy C. Lethbridge</i>	
Dataset Management Using Metadata	156
<i>David Milward</i>	
The Art of Bootstrapping	182
<i>Andreas Prinz and Gergely Mezei</i>	
A Framework for Multi-level Modeling of Analog/Mixed Signal Embedded Systems	201
<i>Daniela Genius, Rodrigo Cortés Porto, Ludovic Apvrille, and François Pêcheux</i>	
Towards Multi-editor Support for Domain-Specific Languages Utilizing the Language Server Protocol	225
<i>Hendrik Bündler and Herbert Kuchen</i>	
Executing Scenario-Based Specification with Dynamic Generation of Rich Events	246
<i>David Harel, Guy Katz, Assaf Marron, Aviran Sadon, and Gera Weiss</i>	
Evaluating the Multi-variant Model Transformation of UML Class Diagrams to Java Models	275
<i>Sandra Greiner and Bernhard Westfechtel</i>	

Modeling and Analysis of Partitions on Functional Architectures Using EAST-ADL.	298
<i>Christoph Etzel and Bernhard Bauer</i>	
A Framework for Flexible Program Evolution and Verification of Distributed Systems.	320
<i>Olaf Owe, Elahe Fazeldehkordi, and Jia-Chun Lin</i>	
Classifying Approaches for Constructing Single Underlying Models	350
<i>Johannes Meier, Christopher Werner, Heiko Klare, Christian Tunjic, Uwe Aßmann, Colin Atkinson, Erik Burger, Ralf Reussner, and Andreas Winter</i>	
TRILATERAL: A Model-Based Approach for Industrial CPS – Monitoring and Control	376
<i>Markel Iglesias-Urkia, Aitziber Iglesias, Beatriz López-Davalillo, Santiago Charramendieta, Diego Casado-Mansilla, Goiuria Sagardui, and Aitor Urbieto</i>	
Author Index	399