

1. Record Nr.	UNISA996465300503316
Titolo	Software Engineering and Formal Methods [[electronic resource]] : SEFM 2017 Collocated Workshops: DataMod, FAACS, MSE, CoSim-CPS, and FOCLASA, Trento, Italy, September 4-5, 2017, Revised Selected Papers // edited by Antonio Cerone, Marco Roveri
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-74781-9
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (X, 592 p. 204 illus.)
Collana	Programming and Software Engineering ; ; 10729
Disciplina	005.1
Soggetti	Computer logic Computer organization Software engineering Artificial intelligence Computers Computer hardware Logics and Meanings of Programs Computer Systems Organization and Communication Networks Software Engineering/Programming and Operating Systems Artificial Intelligence Computing Milieux Computer Hardware
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	DataMod -- Temporal Analytics for Software Usage Models -- Sequential Pattern Mining for ICT Risk Assessment and Prevention -- Student performance prediction and optimal course selection: An MDP approach -- An Algorithm for Simulating Human Selective Attention -- Learning Decision Trees from Synthetic Data Models for Human Security Behaviour -- Controlling Production Variances in Complex Business Processes -- A computational model of Internet addiction phenomena in social networks -- What belongs to context? A definition, a criterion

and a method for deciding on what context-aware systems should sense and adapt to -- Finding all minimum-size DFA consistent with given examples: SAT-based approach -- FAACS -- Intercepting Blackhole Attacks in MANETs: An ASM-based Model -- Formalizing Monitoring Processes for Large-Scale Distributed Systems using Abstract State Machines -- Design-time to Run-time Verification of Microservices Based Applications -- Generalized Oracle for Testing Machine Learning Computer Programs -- MSE@SEFM 2017 -- A Formal Framework for Specifying and Verifying Microservices Based Process Flows -- Towards a Taxonomy of Microservices Architectures -- Towards a reference dataset of microservice-based applications -- Towards a UML Profile for Domain-driven Design of Microservice Architectures -- A Framework for Modelling Variable Microservices as Software Product Lines -- CoSim-CPS -- A Refinement Approach to Analyse Critical Cyber-Physical Systems -- Injecting Formal Verification in FMI-based Co-Simulations of Cyber-Physical Systems -- Integrated simulation and formal verification of a simple autonomous vehicle -- Co-Simulation between Trnsys and Simulink based on Type155 -- Development of a Driverless Lawn Mower using Co-Simulation -- Approximated Stability Analysis of Bi-Modal Hybrid Co-simulation Scenarios -- Towards Resilience-Explicit Modelling and Co-simulation of Cyber-Physical Systems -- Features of Integrated Model-based Co-modelling and Co-simulation Technology -- A Tool Integration Language to Formalize Co-simulation Tool-chains for Cyber-physical System (CPS) -- A Framework for Analyzing Adaptive Autonomous Aerial Vehicles -- Co-simulation of semi-autonomous systems: the Line Follower Robot case study -- A Framework for the Co-Simulation of Engine Controls and Task Scheduling -- Formalising Cosimulation Models -- FOCLASA -- Towards the performance analysis of elastic systems with e-Motions -- From (incomplete) TOSCA specifications to running applications, with Docker -- Combining Trust and Aggregate Computing -- Reasoning about Sensing Uncertainty in Decision-Making for Self-Adaptation -- Lightweight Preprocessing for Agent-Based Simulation of Smart Mobility Initiatives -- Using Coq for Formal Modeling and Verification of Timed Connectors -- An initial user study comparing the readability of a graphical coordination model with Event-B notation. .

Sommario/riassunto

This book constitutes revised selected papers from the five workshops collocated with the 15th International Conference on Software Engineering and Formal Methods, SEFM 2017. The 38 papers presented in this volume were carefully reviewed and selected from a total of 55 submissions. They stem from the following workshops: DataMod 2017 -- 6th International Symposium "From Data to Models and Back"; FAACS 2017 -- 1st Workshop on Formal Approaches for Advanced Computing Systems; MSE 2017 -- 1st Workshop on Microservices: Science and Engineering; CoSim-CPS 2017 -- 1st Workshop on Formal Co-Simulation of Cyber-Physical Systems; FOCLASA 2017 -- 15th International Workshop on Foundations Of Coordination Languages and Self-Adaptive Systems .
