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Descrizione fisica	1 online resource (253 pages)
Collana	Programming and Software Engineering, , 2945-9168 ; ; 12863
Disciplina	004.0151
Soggetti	Compilers (Computer programs) Computer engineering Computer networks Computer science Artificial intelligence Compilers and Interpreters Computer Engineering and Networks Theory of Computation Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Verification -- Verification of Co-Simulation Algorithms Subject to Algebraic Loops and Adaptive Steps -- Automated Verification of Temporal Properties of Ladder Programs -- Spatial Model Checking for Smart Stations: Research Challenges -- Program Safety and Education -- Parametric Faults in Safety Critical Programs -- Modular Transformation of Java Exceptions Modulo Errors -- On education and training in formal methods for industrial critical systems -- (Event-)B Modeling and Validation -- Improving SMT Solver Integrations for the Validation of B and Event-B Models -- Standard Conformance-by-Construction with Event-B -- Formal Analysis -- Randomized Reachability Analysis in Uppaal: Fast Error Detection in Timed Systems -- Verifying the Mathematical Library of an UAV Autopilot with Frama-C -- Formal Analysis of the UNISIG Safety Application Intermediate

Sub-Layer -- Tools -- ProB2-UI: A Java-based User Interface for ProB -- Intrepid: a Scriptable and Cloud-ready SMT-based Model Checker -- Merit and Blame Assignment with Kind 2 -- Test Generation and Probabilistic Verification -- PSY-TaLiRo: A Python Toolbox for Search-Based Test Generation for Cyber-Physical Systems -- Probabilistic Verification for Reliability of a Two-by-Two Network-on-Chip System.

Sommario/riassunto

This book constitutes the proceedings of the 26th International Workshop on Formal Methods for Industrial Critical Systems, FMICS 2021, which was held during August 24-26, 2021. The conference was planned to take place in Pairs, France. Due to the COVID-19 pandemic it changed to a virtual event. The 10 full papers and 6 short papers presented in this volume were carefully reviewed and selected from 31 submissions. The papers are organized in topical sections as follows: Verification, Program Safety and Education, (Event-)B Modeling and Validation, Formal Analysis, Tools, Test Generation and Probabilistic Verification.