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Collana	Lecture Notes in Computer Science, , 1611-3349 ; ; 14181
Disciplina	004.015113
Soggetti	Computer engineering Computer networks Software engineering Application software Robotics Microprogramming Data protection Computer Engineering and Networks Software Engineering Computer and Information Systems Applications Control Structures and Microprogramming Data and Information Security
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Safety Assurance -- Assurance Case Arguments in the Large -- CERN LHC Machine Protection System -- Identifying Run-time Monitoring Requirements for Autonomous Systems through the Analysis of Safety Arguments -- Redesigning Medical Device Assurance: Separating Technological and Clinical Assurance Cases -- Software Testing & Reliability -- A Cognitive Framework for Modeling Coincident Software Faults: An Experimental Study -- A Taxonomy of Software Defect Forms for Certification Tests in Aviation Industry -- Constraint-guided Test Execution Scheduling: An Experience Report at ABB Robotics -- Neural

Networks Robustness & Monitoring -- A low-cost strategic monitoring approach for scalable and interpretable error detection in deep neural networks -- Are Transformers More Robust? Towards Exact Robustness Verification for Transformers -- Model-based Security and Threat Analysis -- Model-based Generation of Attack-Fault Trees -- MBTA: A Model-Based Threat Analysis approach for software architectures -- Attribute Repair for Threat Prevention -- Safety of Autonomous Driving -- Probabilistic Spatial Relations for Monitoring Behavior of Road Users -- Concept and metamodel to support cross-domain safety analysis for ODD expansion of autonomous systems -- Security Engineering -- Pattern-Based Information Flow Control for Safety-Critical On-Chip Systems -- From Standard to Practice: Towards ISA/IEC 62443-conform Public Key Infrastructures -- AI Safety -- The Impact of Training Data Shortfalls on Safety of AI-based Clinical Decision Support Systems -- Data-centric Operational Design Domain Characterization for Machine Learning-based Aeronautical Products -- Online Quantization Adaptation for Fault-Tolerant Neural Network Inference -- Neural Networks & Testing -- Evaluation of Parameter-based Attacks against Embedded Neural Networks with Laser Injection -- Towards Scenario-based Safety Validation for Autonomous Trains with Deep Generative Models.

Sommario/riassunto

This book constitutes the refereed proceedings of the 42nd International Conference on Computer Safety, Reliability and Security, SAFECOMP 2023, which took place in Toulouse, France, in September 2023. The 20 full papers included in this volume were carefully reviewed and selected from 100 submissions. They were organized in topical sections as follows: Safety assurance; software testing and reliability; neural networks robustness and monitoring; model-based security and threat analysis; safety of autonomous driving; security engineering; AI safety; and neural networks and testing.
