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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Invited Talk -- Why Safety and Security Should and Will Merge -- Safety Cases -- The Deconstruction of Safety Arguments Through Adversarial Counter-Argument -- Using Fuzzy Self-Organising Maps for Safety Critical Systems -- Using Formal Methods in a Retrospective Safety Case -- Reliability -- A Highly Fault Detectable Cache Architecture for Dependable Computing -- An Empirical Exploration of the Difficulty Function -- Towards the Integration of Fault, Resource, and Power Management -- Human Factors -- Modeling Concepts for Safety-

Related Requirements in Sociotechnical Systems -- Analysing Mode Confusion: An Approach Using FDR2 -- Invited Talk -- Handling Safety Critical Requirements in System Engineering Using the B Formal Method -- Transportation -- A Hybrid Testing Methodology for Railway Control Systems -- Actuator Based Hazard Analysis for Safety Critical Systems -- Performability Measures of the Public Mobile Network of a Tele Control System -- Software Development -- PLC-Based Safety Critical Software Development for Nuclear Power Plants -- Compositional Hazard Analysis of UML Component and Deployment Models -- Automatic Test Data Generation from Embedded C Code -- Fault Tree Analysis -- State-Event-Fault-Trees – A Safety Analysis Model for Software Controlled Systems -- Safety Requirements and Fault Trees Using Retrenchment -- The Effects on Reliability of Integration of Aircraft Systems Based on Integrated Modular Avionics -- Invited Talk -- Automotive Telematics – Road Safety Versus IT Security? -- Formal Methods and Systems -- Modular Formal Analysis of the Central Guardian in the Time-Triggered Architecture -- Refinement of Fault Tolerant Control Systems in B -- Numerical Integration of PDEs for Safety Critical Applications Implemented by I&C Systems -- Security and Quality of Service -- An Integrated View of Security Analysis and Performance Evaluation: Trading QoS with Covert Channel Bandwidth -- Dependability Benchmarking of Web-Servers -- Hazard and Risk Analysis -- An Approach for Model-Based Risk Assessment -- How Explicit Are the Barriers to Failure in Safety Arguments?.

Sommario/riassunto

Theimportanceofsafetyandsecurityisgrowingsteadily.Safetyisaqualityc-racteristic that traditionally has been considered to be important in embedded systems, and security is usually an essential property in business applications. There is certainly a tendency to use software-based solutions in safety-critical applications domains, which increases the importance of safety engineering te- niques. These include modelling and analysis techniques as well as appropriate processes and tools. And it is surely correct that the amount of con?dential data that require protection from unauthorized access is growing. Therefore, security is very important. On the one hand, the traditional motivations for addressing safety and security still exist, and their relevance has improved. On the other hand, safety and security requirements occur increasingly in the same system. At present, many software-based systems interact with technical equipment and they communicate, e.g., with users and other systems. Future systems will more and more interact with many other entities (technical systems, people, the en-ronment). In this situation, security problems may cause safety-related failures. It is thus necessary to address safety and security. It is furthermore required to take into account the interactions between these two properties.