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	Altri autori (Persone)	ButhBettina
		RabeGerd
		SeyfarthTill
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	Nota di contenuto	Invited Talks -- A Domain-Specific Framework for Automated Construction and Verification of Railway Control Systems -- Medical Systems -- Model-Based Development of Medical Devices -- Why Are People's Decisions Sometimes Worse with Computer Support? -- Industrial Experience -- Safety-Related Application Conditions – A Balance between Safety Relevance and Handicaps for Applications -- Probability of Failure on Demand – The Why and the How -- Establishing the Correlation between Complexity and a Reliability Metric for Software Digital I&C-Systems -- Security Risk Analysis -- Exploring Network Security in PROFIsafe -- Modelling Critical Infrastructures in Presence of Lack of Data with Simulated Annealing – Like Algorithms -- Environment Characterization and System Modeling

Approach for the Quantitative Evaluation of Security -- Safety Guidelines -- Experiences with the Certification of a Generic Functional Safety Management Structure According to IEC 61508 -- Analysing Dependability Case Arguments Using Quality Models -- Experience with Establishment of Reusable and Certifiable Safety Lifecycle Model within ABB -- Automotive -- Automotive IT-Security as a Challenge: Basic Attacks from the Black Box Perspective on the Example of Privacy Threats -- Safety Requirements for a Cooperative Traffic Management System: The Human Interface Perspective -- Aerospace -- The COMPASS Approach: Correctness, Modelling and Performability of Aerospace Systems -- Formal Verification of a Microkernel Used in Dependable Software Systems -- Issues in Tool Qualification for Safety-Critical Hardware: What Formal Approaches Can and Cannot Do -- Verification, Validation, Test -- Probabilistic Failure Propagation and Transformation Analysis -- Towards Model-Based Automatic Testing of Attack Scenarios -- CRIOP: A Human Factors Verification and Validation Methodology That Works in an Industrial Setting -- Fault Tolerance -- Reliability Analysis for the Advanced Electric Power Grid: From Cyber Control and Communication to Physical Manifestations of Failure -- Increasing the Reliability of High Redundancy Actuators by Using Elements in Series and Parallel -- AN-Encoding Compiler: Building Safety-Critical Systems with Commodity Hardware -- Dependability -- Component-Based Abstraction in Fault Tree Analysis -- A Foundation for Requirements Analysis of Dependable Software -- Establishing a Framework for Dynamic Risk Management in 'Intelligent' Aero-Engine Control.

Sommario/riassunto

Computer-based systems have become omnipresent commodities within our - vironment. While for a large variety of these systems such as transportation systems, nuclear or chemical plants, or medical systems their relation to safety is obvious, we often do not re?ect that others are as directly related to risks concerning harm done to persons or matter as, for example, elevator control or mobile phones. At least we are not aware of the risk in our daily use of them. Safecomp as a community and a conference series has accompanied this - velopment for 30 years up to Safecomp 2009, which was the 28th of the series. During this time the topics and methods as well as the community have und- gone changes. These changes re?ect the requirements of the above-mentioned ubiquitious presence of safety-related systems. Safecomp has always encouraged and will further encourage academia and industry to share and exchange their ideas and experiences. After 30 years, we as the organizers of Safecomp 2009, found it imperative to take stock: which methods found their way into the application areas; which new approaches need to be checked for their practical applicability. As di?erent application domains developed their own approaches over the previous decades, we tried to attract people with di?erent backgrounds for this conference. - though the years 2008 and 2009 were not easy with regard to the overall global economic situation, we succeeded with this goal.