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Nota di contenuto	Invited Presentations -- Verification of Embedded Software: From Mars to Actions -- Synchronous Design and Verification of Critical Embedded Systems Using SCADE and Esterel -- Research Papers -- Static Analysis of the Accuracy in Control Systems: Principles and Experiments -- Application of Static Analyses for State Space Reduction to Microcontroller Assembly Code -- Checking the TWIN Elevator System by Translating Object-Z to SMV -- Introducing Time in an Industrial Application of Model-Checking -- Integration of Formal Analysis into a Model-Based Software Development Process -- Formal Verification with Isabelle/HOL in Practice: Finding a Bug in the GCC Scheduler -- Computing Worst-Case Response Times in Real-Time Avionics Applications -- Machine Checked Formal Proof of a Scheduling Protocol for Smartcard Personalization -- An Action/State-Based Model-Checking Approach for the Analysis of Communication Protocols for Service-Oriented Applications -- Model Classifications and Automated Verification -- An Approach to Formalization and Analysis of Message Passing Libraries -- Analysis of a Session-Layer Protocol in mCRL2 -- Automatic Certification of Java Source Code in Rewriting Logic -- Reverse Engineered Formal Models for GUI Testing -- Automatic Interoperability Test Case Generation Based on Formal Definitions.

Sommario/riassunto

This book constitutes the thoroughly refereed post-workshop proceedings of the 12th International Workshop on Formal Methods for Industrial Critical Systems, FMICS 2007, held in Berlin, Germany, in July 2007 - colocated with CAV 2007, the 19th International Conference on Computer Aided Verification. The 15 revised full papers presented together with the abstracts of 2 invited lectures were carefully selected during two rounds of reviewing and improvement from 31 initial submissions. The papers strive to promote research and development for the improvement of formal methods and tools for industrial applications and they are organized in topical sections on control systems, scheduling and time, verification, software, and testing.
