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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index at the end of each chapters.
Nota di contenuto	Prediction of the Performance of Web Based Systems -- Modelling Uncertain Aspects of System Dependability with Survival Signatures -- Improving the Dependability of Distributed Surveillance Systems Using Diverse Redundant Detectors -- Testing-as-a-Service for Mobile Applications: State-of-the-Art Survey -- Agent Approach to Network Systems Dependability Analysis in Case of Critical Situations -- Model Transformation for Multi-objective Architecture Optimisation of Dependable Systems -- Optimization in CIS Systems -- Metascheduling Strategies in Distributed Computing with Non-dedicated Resources -- Improvement of Dependability of Complex Web Based Systems by Service Reconfiguration -- Functional-reliability Model of a Services System with Path Reconfiguration Ability.
Sommario/riassunto	This monograph presents original research results on selected problems of dependability in contemporary Complex Information Systems (CIS). The ten chapters are concentrated around the following three aspects: methods for modelling of the system and its components, tasks – or, in more generic and more adequate interpretation, functionalities – accomplished by the system, and conditions for their correct realization in the dynamic operational

environment. While the main focus is on theoretical advances and roadmaps for implementations of new technologies, a much needed forum for sharing of the best practices is also presented. CIS systems, being the most complex yet most reliable technical structures engineered by man, present many challenges throughout their lifecycle. Difficulties in modelling, design, implementation and maintenance come not only from involved, widely distributed technical and organizational structures (comprising both hardware and software resources), but even more from complexity of the information processes (data processing, monitoring, resource allocation, dynamic reconfiguration, etc.) which are realized in the operational, often hostile environment. Furthermore, all the issues need to be dealt with taking into account a number of additional factors, such as uncertainties of human interactions, safety criteria and security demands, or economic and environmental constraints.
