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Titolo	Resilience of Computer Systems : Resilient and Evolving Computer Systems Design // by Igor Schagaev
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2026
ISBN	3-032-00938-3
Edizione	[2nd ed. 2026.]
Descrizione fisica	1 online resource (307 pages)
Collana	Computer Science Series
Disciplina	004.24
Soggetti	Computers Security systems Telecommunication Hardware Performance and Reliability Security Science and Technology Communications Engineering, Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Resilience -- Dealing with faults: Redundancy -- FT models -- Classification of faults by manifestation, gaft -- Hardware support of resilience -- System software support for resilience -- On interruption -- Implementation: Hardware prototype, simulation and testing -- Conclusions for the book so far -- Vision on evolving system future -- Some further notes: Degree of freedom.
Sommario/riassunto	This book, now in its second edition, presents a paradigm for designing new-generation resilient and evolving computer systems. Book includes key concepts, supporting theory, methods of analysis, and the synthesis of ICT with new properties of evolving functionality, as well as implementation schemes and prototyping. This book explains why new ICT applications require redesign of computer systems to address challenges of extreme reliability, high performance, and power efficiency. The second edition further develops the book's design paradigm of resilient and adaptive computer systems, with a focus on achieving hardware resilience and fault tolerance. The book is revised throughout, with further development of theory of resilience, redundancy classification, and methodologies of application. Most

notably, there is a new chapter on concurrency and parallelism—exploring hardware implementation at the level of interruption. This updated, revised, and expanded edition is of even greater use to industry professionals.
