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Titolo	Reliable Software for Unreliable Hardware : A Cross Layer Perspective / / by Semeen Rehman, Muhammad Shafique, Jörg Henkel
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Background and Related Work -- Cross-Layer Reliability Analysis, Modeling, and Optimization -- Software Program-Level Reliability Modeling and Estimation -- Software Program-Level Reliability Optimization for Dependable Code Generation -- Dependable Code Execution using Reliability-Driven System Software.- Results and Discussion -- Summary and Conclusions.
Sommario/riassunto	This book describes novel software concepts to increase reliability under user-defined constraints. The authors' approach bridges, for the first time, the reliability gap between hardware and software. Readers will learn how to achieve increased soft error resilience on unreliable hardware, while exploiting the inherent error masking characteristics and error (stemming from soft errors, aging, and process variations) mitigations potential at different software layers. · Provides a comprehensive overview of reliability modeling and optimization techniques at different hardware and software levels; · Describes novel optimization techniques for software cross-layer reliability, targeting