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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter 1. NAND Flash Memory Devices Security Enhancement Based on Physical Unclonable Functions -- Chapter 2. ReRAM based Neuromorphic Computing -- Chapter 3. Flash Technology for VLSI Design -- Chapter 4. Non-volatile memory Technologies: Characteristics,Deployment and Research Challenges -- Chapter 5. Data Analytics and Machine Learning for Coverage Closure -- Chapter 6. Cell-Aware Model Generation by Using Machine Learning -- Chapter 7. Neuromorphic Computing: A Path to Artificial Intelligence through Emulating Human Brains -- Chapter 8. AI for Cybersecurity in Distributed Automotive IoT Systems -- Chapter 9. Ultra-low Power Implementation of Neural Networks Using Inverter-based Memristive Crossbars -- Chapter 10. AI based Hardware Security Methods for Internet-of-Things Applications -- Chapter 11. Enabling Edge Computing Using Emerging Memory Technologies: From Device to Architecture -- Chapter 12. IoT Commercial, Industrial Applications and AI-powered IoT -- Chapter 13. Hardware and System Security -

	Attacks and Coun- termeasures Against Hardware Trojans -- Chapter 14. FPGA Security: Security Threats from Untrusted FPGA CAD Toolchain -- Chapter 15. DoS Attack Models and Mitigation Frameworks for NoC-based SoCs -- Chapter 16. Defense against security threats with regard to SoC Life Cycle -- Chapter 17. Defect Diagnosis Techniques for Silicon Customer Returns.
Sommario/riassunto	Quality Electronic Design (QED)’s landscape spans a vast region where territories of many participating disciplines and technologies overlap. This book explores the latest trends in several key topics related to quality electronic design, with emphasis on Hardware Security, Cybersecurity, Machine Learning, and application of Artificial Intelligence (AI). The book includes topics in nonvolatile memories (NVM), Internet of Things (IoT), FPGA, and Neural Networks. Discusses state-of-the-art in electronics design process, semiconductor memories, FPGA, hardware security, and cybersecurity; Highlights trends, challenges and solutions; Explores application of Machine Learning and Artificial Intelligence in design.