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Titolo	Advances in Memristors, Memristive Devices and Systems // edited by Sundarapandian Vaidyanathan, Christos Volos
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Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XII, 511 p. 294 illus., 229 illus. in color.)
Collana	Studies in Computational Intelligence, , 1860-949X ; ; 701
Disciplina	621.384133
Soggetti	Computational intelligence Electronic circuits Electronics Microelectronics Neural networks (Computer science) Computational Intelligence Circuits and Systems Electronics and Microelectronics, Instrumentation Mathematical Models of Cognitive Processes and Neural Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Chapter 1 Memristor Emulators A Note on Modeling -- Chapter 2 A Simple Oscillator using Memristor -- Chapter 3 A Hyperjerk Memristive System with Hidden Attractors -- Chapter 4 A Memristive System with Hidden Attractors and its Engineering Application -- Chapter 5 Adaptive Control, Synchronization and Circuit Simulation of a Memristor-Based -- Chapter 6 Modern System Design using Memristors -- Chapter 7 RF/Microwave Applications of Memristors -- Chapter 8 Theory, Modeling and Design of Memristor-Based Min-Max Circuits -- Chapter 9 Analysis of a 4-D Hyperchaotic Fractional-Order Memristive System with Hidden Attractors -- Chapter 10 Adaptive Control and Synchronization of a Memristor-Based Shinriki's System.
Sommario/riassunto	This book reports on the latest advances in and applications of memristors, memristive devices and systems. It gathers 20 contributed chapters by subject experts, including pioneers in the field such as

Leon Chua (UC Berkeley, USA) and R.S. Williams (HP Labs, USA), who are specialized in the various topics addressed in this book, and covers broad areas of memristors and memristive devices such as: memristor emulators, oscillators, chaotic and hyperchaotic memristive systems, control of memristive systems, memristor-based min-max circuits, canonic memristors, memristive-based neuromorphic applications, implementation of memristor-based chaotic oscillators, inverse memristors, linear memristor devices, delayed memristive systems, flux-controlled memristive emulators, etc. Throughout the book, special emphasis is given to papers offering practical solutions and design, modeling, and implementation insights to address current research problems in memristors, memristive devices and systems. As such, it offers a valuable reference book on memristors and memristive devices for graduate students and researchers with a basic knowledge of electrical and control systems engineering.
