

1. Record Nr.	UNINA9910437918403321
Titolo	Design technologies for green and sustainable computing systems // Partha Pratim Pande, Amlan Ganguly, Krishnendu Chakrabarty, editors
Pubbl/distr/stampa	New York, : Springer, 2013
ISBN	1-4614-4975-8
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (viii, 239) : illustrations (some color)
Collana	Gale eBooks
Altri autori (Persone)	PandePartha Pratim GangulyAmlan ChakrabartyKrishnendu
Disciplina	621.39
Soggetti	Computer systems - Energy consumption Computer industry - Energy conservation Green technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Fundamental Limits on Run-time Power Management Algorithms for MPSoCs -- Reliable Networks-on-Chip Design for Sustainable Computing Systems -- Energy Adaptive Computing for a Sustainable ICT Ecosystem -- Implementing the Data Center Energy Productivity Metric in a High Performance Computing Data Center -- Sustainable Dynamic Application Hosting Across Geographically Distributed Data Centers -- Barely Alive Servers: Greener Datacenters through Memory-Accessible, Low-Power States -- Energy Storage System Design for Green-Energy Cyber Physical Systems -- Sensor Network Protocols for Greener Smart Environments -- Claremont -- A solar-powered Near-Threshold Voltage IA-32 Processor.
Sommario/riassunto	This book provides a comprehensive guide to the design of sustainable and green computing systems (GSC). Coverage includes important breakthroughs in various aspects of GSC, including multi-core architectures, interconnection technology, data centers, high-performance computing (HPC), and sensor networks. The authors address the challenges of power efficiency and sustainability in various contexts, including system design, computer architecture, programming languages, compilers and networking. · Offers

readers a single-source reference for addressing the challenges of power efficiency and sustainability in embedded computing systems;

- Provides in-depth coverage of the key underlying design technologies for green and sustainable computing;
- Covers a wide range of topics, from chip-level design to architectures, computing systems, and networks.
