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Titolo	Wireless Information and Power Transfer: A New Paradigm for Green Communications // edited by Dushantha Nalin K. Jayakody, John Thompson, Symeon Chatzinotas, Salman Durrani
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Soggetti	Electrical engineering Energy harvesting Application software Power electronics Electronics Microelectronics Energy policy Energy and state Communications Engineering, Networks Energy Harvesting Information Systems Applications (incl. Internet) Power Electronics, Electrical Machines and Networks Electronics and Microelectronics, Instrumentation Energy Policy, Economics and Management
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Part I. Emerging Topics of Wireless Information and Power Transfer.- Chapter 1 Introduction, Recent Results and Challenges in Wireless Information and Power Transfer -- Chapter 2 Full-Duplex Wireless-Powered Communications -- Chapter 3 Full-Duplex Wireless-Powered Communications -- Chapter 4 Harvesting Signal Power from Constructive Interference in Multiuser Downlinks -- Chapter 5 Energy

Harvesting for Wireless Relaying Systems -- Chapter 6 Multi-Scale Energy Harvesting -- Part II Energy Harvesting Protocols For Wireless Sensor and Related Areas -- Chapter 7 RF Energy Harvesting Networks: Existing Techniques and Hardware Technology -- Chapter 8 Wireless Powered Sensor Networks -- Chapter 9 Spectrum and Energy Harvesting Protocols For Wireless Sensor Nodes -- Chapter 10 Efficient Wireless Power Transfer Maximization Algorithms in the Vector Model -- Chapter 11 Enabling Green Heterogeneous Cellular Networks via Balanced Dynamic Planning.

Sommario/riassunto

This book presents breakthroughs in the design of Wireless Energy Harvesting (WEH) networks. It bridges the gap between WEH through radio waves communications and power transfer, which have largely been designed separately. The authors present an overview of the RF-EHNs including system architecture and RF energy harvesting techniques and existing applications. They also cover the idea of WEH in novel discoveries of information, the theoretical bounds in WEH, wireless sensor networks, usage of modern channel coding together with WEH, energy efficient resource allocation mechanisms, distributed self-organized energy efficient designs, delay-energy trade-off, specific protocols for energy efficient communication designs, D2D communication and energy efficiency, cooperative wireless networks, and cognitive networks. .
