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Soggetti	Electronics Microelectronics Robotics Automation Biomedical engineering Electronics and Microelectronics, Instrumentation Robotics and Automation Biomedical Engineering and Bioengineering
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	A wireless sensor node for Acoustic Emission non-destructive testing -- FPGA Implementation of a Low-power QRS extractor -- Digital Architecture of Next Generation Spacecraft Tracker Based on Wideband DOR -- FPGA Implementation of a Channelizer with 2048 Channels utilizing USRP-SDR Platform for Satellite Communications -- FPGA based Digital Lock-In Amplifier for fNIRS systems -- A Low-Cost Smart Microwave Radar for Short Range Measurements -- Multi-sensors exhaust gas emission monitoring system for industrial applications -- Challenging CPS Trade-Off Adaptivity with Coarse-Grained Reconfiguration -- A novel wearable sensor system for Multi-lead ECG measurement -- Real-Time In-Line Industrial Fluids Characterization Using Multiple Pulse Repetition Frequency -- Model-Order Reduction Procedure for Fast Dynamic Electrothermal Simulation of Power Converters -- The microarchitecture of a multi-threaded RISC-V compliant processing core family for IoT end-nodes -- Analysis and

simulations of mmW transceiver for System-in-Package communications -- Integrated Microwave Photonics: Overview and Promising Space Applications -- A new recognition procedure for palmprint features extraction from ultrasound images -- Real-time DNN-based Face Identification for the Blind -- Exploring Particle Swarm Optimization to Build a Dynamic Charging Electric Vehicle Routing Algorithm -- A thermoelectric powered system for skiing performance monitoring -- Real-time DNN-based Face Identification for the Blind -- Exploring Particle Swarm Optimization to Build a Dynamic Charging Electric Vehicle Routing Algorithm -- A thermoelectric powered system for skiing performance monitoring.

Sommario/riassunto

This book provides a thorough overview of cutting-edge research on electronics applications relevant to industry, the environment, and society at large. It covers a broad spectrum of application domains, from automotive to space and from health to security, while devoting special attention to the use of embedded devices and sensors for imaging, communication and control. The book is based on the 2017 ApplePies Conference, held in Rome, Italy in September 2017, which brought together researchers and stakeholders to consider the most significant current trends in the field of applied electronics and to debate visions for the future. Areas addressed by the conference included information communication technology; biotechnology and biomedical imaging; space; secure, clean and efficient energy; the environment; and smart, green and integrated transport. As electronics technology continues to develop apace, constantly meeting previously unthinkable targets, further attention needs to be directed toward the electronics applications and the development of systems that facilitate human activities. This book, written by industrial and academic professionals, represents a valuable contribution in this endeavor.
