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| Autore | Alhawari Mohammad |
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| Livello bibliografico | Monografia |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Introduction -- Energy Harvesting Sources, Models and Circuits -- Interface Circuits for Thermoelectric Generator -- Zero Crossing Switching Control for L-based DC-DC Converters -- Polarity Mechanism for Thermoelectric Harvester -- Energy Combiner and Power Manager for Multi-Source Energy Harvesting -- References -- Index. |
| Sommario/riassunto | This book discusses the design and implementation of energy harvesting systems targeting wearable devices. The authors describe in detail the different energy harvesting sources that can be utilized for powering low-power devices in general, focusing on the best candidates for wearable applications. Coverage also includes state-of-the-art interface circuits, which can be used to accept energy from harvesters and deliver it to a device in the most efficient way. Finally, the authors present power management circuits for using multiple energy harvesting sources at the same time to power devices and to enhance efficiency of the system. • Provides a comprehensive overview of the available energy harvesting sources and their usage, model and |

characteristics; • Enables engineers to understand the challenges of using energy harvesting systems and to design proper interface circuits for a particular application; • Presents characterization data of human-body thermal and vibrational energy harvesting, using off the shelf components; • Shows state-of-the-art power management methods for controlling the power harvested, stored and delivered to the load.
