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Titolo	Energy autonomous micro and nano systems [[electronic resource] /] / edited by Marc Belleville, Cyril Condemine
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ISBN	1-118-56183-X 1-118-58750-2 1-118-58782-0
Descrizione fisica	1 online resource (394 p.)
Collana	ISTE
Altri autori (Persone)	BellevilleMarc CondemineCyril
Disciplina	620.5 620/.5
Soggetti	Electric power supplies to apparatus Low voltage systems Direct energy conversion Energy conservation - Equipment and supplies Nanoelectromechanical systems Electronic books.
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 and index.
Nota di contenuto	Sensors at the core of building control -- Towards energy-autonomous medical implants -- Energy autonomous systems in aeronautic applications -- Energy harvesting by photovoltaic effect -- Mechanical energy harvesting -- Thermal energy harvesting -- Lithium micro-batteries -- Ultra-low power sensors -- Ultra-low power signal processing in autonomous systems -- Ultra-low power radio frequency communications and protocols -- Energy management in an autonomous microsystem -- Optimizing energy efficiency of sensor networks.
Sommario/riassunto	Providing a detailed overview of the fundamentals and latest developments in the field of energy autonomous microsystems, this book delivers an in-depth study of the applications in the fields of

health and usage monitoring in aeronautics, medical implants, and home automation, drawing out the main specifications on such systems. Introductory information on photovoltaic, thermal and mechanical energy harvesting, and conversion, is given, along with the latest results in these fields. This book also provides a state of the art of ultra-low power sensor interfaces, digital signal processing a