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Titolo	Remote Powering and Data Communication for Implanted Biomedical Systems / / by Enver Gurhan Kilinc, Catherine Dehollain, Franco Maloberti
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Descrizione fisica	1 online resource (152 p.)
Collana	Analog Circuits and Signal Processing, , 1872-082X ; ; 131
Disciplina	617.956
Soggetti	Electronic circuits Biomedical engineering Circuits and Systems Biomedical Engineering and Bioengineering Electronic Circuits and Devices
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 at the end of each chapters.
Nota di contenuto	Introduction -- Remote Powering -- Magnetic power transfer -- Power management -- Data Communication -- Implantable Monitor Systems -- System Integration and Packaging.
Sommario/riassunto	This book describes new circuits and systems for implantable biomedical applications and explains the design of a batteryless, remotely-powered implantable micro-system, designed for long-term patient monitoring. Following new trends in implantable biomedical applications, the authors demonstrate a system which is capable of efficient, remote powering and reliable data communication. Novel architecture and design methodologies are used to transfer power with a low-power, optimized inductive link and data is transmitted by a reliable communication link. Additionally, an electro-mechanical solution is presented for tracking and monitoring the implantable system, while the patient is mobile. · Describes practical example of an implantable batteryless biomedical system; · Analyzes and compares various energy harvesting and power transfer methods; · Describes design of remote powering link and data

communication of the implantable system, comparing different scenarios for the optimal solution.