

1. Record Nr.	UNINA9910522966503321
Autore	Daneshvar Seyed Hossein
Titolo	Design of Miniaturized Variable-Capacitance Electrostatic Energy Harvesters / / by Seyed Hossein Daneshvar, Mehmet Rasit Yuce, Jean-Michel Redouté
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	3-030-90252-8
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (213 pages)
Disciplina	621.3124
Soggetti	Electronic circuits Telecommunication Electronics Electronic Circuits and Systems Microwaves, RF Engineering and Optical Communications Electronics and Microelectronics, Instrumentation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Kinetic energy harvesting systems overview -- Electrostatic harvesters overview and applications -- Variable capacitors, their implementation flexibility and employed technologies -- Electrostatic switched-capacitor harvesters -- Asynchronous electrostatic harvesters -- Electrostatic harvesters with inductor -- Comprehensive comparison framework and optimization under application's constraints.
Sommario/riassunto	This book provides readers with an overview of kinetic energy harvesting systems, their applications, and a detailed discussion of circuit design of variable-capacitance electrostatic harvesters. The authors describe challenges that need to be overcome when designing miniaturized kinetic energy harvesting systems, along with practical design considerations demonstrated through case studies of developing electrostatic energy harvesting systems. The book also, Discusses the subject of Miniaturized Variable-Capacitance Electrostatic Energy Harvesters from both a theoretical and

practical/experimental point of view. Describes detailed circuit designs for developing miniaturized electrostatic harvesters. Includes a comprehensive comparison framework for evaluating electrostatic harvesters, enabling readers to select which harvesters are best suited for a particular application.
