

1. Record Nr.	UNINA9910337649103321
Autore	Dey Nilanjan
Titolo	Acoustic Sensors for Biomedical Applications // by Nilanjan Dey, Amira S. Ashour, Waleed S. Mohamed, Nhu Gia Nguyen
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-319-92225-4
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XVII, 55 p. 13 illus.)
Collana	SpringerBriefs in Speech Technology, Studies in Speech Signal Processing, Natural Language Understanding, and Machine Learning, , 2191-737X
Disciplina	621.382
Soggetti	Signal processing Image processing Speech processing systems Natural language processing (Computer science) Biomedical engineering Radiology Computational linguistics Bioinformatics Signal, Image and Speech Processing Natural Language Processing (NLP) Biomedical Engineering and Bioengineering Ultrasound Computational Linguistics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter1: Introduction -- Chapter2: Biomedical Signals -- Chapter3: Acoustic Wave Technology -- Chapter4: Acoustic Sensors -- Chapter5: Acoustic Sensors in Biomedical Applications -- Chapter6: Conclusion.
Sommario/riassunto	In this book, application-related studies for acoustic biomedical sensors are covered in depth. The book features an array of different biomedical signals, including acoustic biomedical signals as well as the thermal biomedical signals, magnetic biomedical signals, and optical

biomedical signals to support healthcare. It employs signal processing approaches, such as filtering, Fourier transform, spectral estimation, and wavelet transform. The book presents applications of acoustic biomedical sensors and bio-signal processing for prediction, detection, and monitoring of some diseases from the phonocardiogram (PCG) signal analysis. Several challenges and future perspectives related to the acoustic sensors applications are highlighted. This book supports the engineers, researchers, designers, and physicians in several interdisciplinary domains that support healthcare. .

---