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Descrizione fisica	1 online resource (vii, 204 pages) : illustrations
Disciplina	616.0754 621.3822
Soggetti	Biomedical engineering Signal processing Image processing Medicine - Research Biology - Research Bioinformatics Biomedical Engineering and Bioengineering Digital and Analog Signal Processing Image Processing Biomedical Devices and Instrumentation Biomedical Research
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Restriction Synthesis and DNA Restriction Site Analysis Using Machine Learning -- 2.Human Detection and Biometric Authentication With Ambient Sensors -- 3. Generalization of Deep Acoustic and NLP Models for Large-Scale Depression Screening -- 4. TABS: Transformer Based Seizure Detection -- 5.Automated Pacing Artifact Removal from Electrocardiograms.
Sommario/riassunto	This book provides an interdisciplinary look at emerging trends in signal processing and biomedicine found at the intersection of healthcare, engineering, and computer science. Bringing together expanded versions of selected papers presented at the 2020 IEEE Signal

Processing in Medicine and Biology Symposium (IEEE SPMB), it examines the vital role signal processing plays in enabling a new generation of technology based on big data and looks at applications ranging from medical electronics to data mining of electronic medical records. Topics covered include analysis of medical images, machine learning, biomedical nanosensors, wireless technologies, and instrumentation and electrical stimulation. Biomedical Sensing and Analysis: Signal Processing in Medicine and Biology presents tutorials and examples of successful applications, and will appeal to a wide range of professionals, researchers,and students interested in applications of signal processing, medicine, and biology. Presents an interdisciplinary look at research trends in signal processing and biomedicine; Promotes collaboration between healthcare practitioners and signal processing researchers; Includes tutorials and examples of successful applications.