1. Record Nr. UNINA9910865262303321

Autore	Ballina Fernando Emilio
Titolo	Advances in Bioengineering and Clinical Engineering : Proceedings of the XXIV Argentinian Congress of Bioengineering (SABI 2023), October 3–6, 2023, Buenos Aires, Argentina - Volume 2 / / edited by Fernando Emilio Ballina, Ricardo Armentano, Rubén Carlos Acevedo, Gustavo Javier Meschino
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	9783031619731 9783031619724
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (573 pages)
Collana	IFMBE Proceedings, , 1433-9277 ; ; 114
Altri autori (Persone)	ArmentanoRicardo AcevedoRubén Carlos MeschinoGustavo Javier
Disciplina	610.28
Soggetti	Biomedical engineering Signal processing Medical physics Biomedical Devices and Instrumentation Signal, Speech and Image Processing Medical Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Improved Erd Detection of EEG Sensorimotor Rhythms Through Wavelet Transform -- Optimized Transcranial Brain Stimulation for Tumor Treating Fields -- High Frequency Oscillation in Epilepsy: Review -- Non-invasive Recording of Physiological Variables under Stress Conditions and Aerobic and Anaerobic Physical Activity -- Characterisation of EEG Activity in Stimulation and Rest Periods by Analysis of Steady-state Visual Evoked Potentials -- Predictive Diagnosis of Hypertrophic Cardiomyopathy Using Novel Dynamic Vectorcardiogram Markers -- Algorithm and Validation Method for Spike Sorting Based on Wavelet Analysis and a Genetic Algorithm -- Segmentation of the Human Gait Cycle Using Hidden Markov Models (HMM) -- A Model of Mechanical Dyssynchrony Based on ECG Features

-- Preliminary Study of the Application of Dynamic Speckle Pattern Analysis for Toxicants Detection Based on Bacterial Motility Changes -- Surface EMG Recordings in Freely Moving Rats: A Promising Method for Motor Evaluation and for Minimizing Animal use in Research -- Preliminary Study on the Identification of Electromyographic Patterns Associated with Musical Performance Movements -- Design and Assembly of a 3D Bioprinter And Characterization of 3D Scaffolds Produced by Casting or Printing -- Porosity Analysis in 3D Printed Scaffolds of Collagen and Hyaluronic Acid Using Image Processing of Scanning Electron Microscopy -- Development of a Low Budget 3d Printed Otolaryngology Simulator: The New Advance in Medical Education.

Sommario/riassunto

This book offers a timely snapshot of research, technologies and best practices in the broad area of bioengineering and clinical engineering. Contributions report on advances in biomedical signal processing, biosystem models and 3D printing applications, clinical engineering, and neuromuscolar system analysis and rehabilitation engineering. They also cover developments in bioengineering education. Gathering the second volume of the proceedings of the XXIV Argentinian Congress of Bioengineering (SABI 2023), held on October 3–6, 2023, in Buenos Aires, Argentina - and organised by the Sociedad Argentina de Bioingeniería, this book provides an extensive source of information for both researchers and professionals in biomedical and clinical engineering.