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Descrizione fisica	1 online resource (1042 pages)
Collana	IFMBE Proceedings, , 1433-9277 ; ; 85
Disciplina	610.28
Soggetti	Biomedical engineering Medical informatics Neurotechnology (Bioengineering) Biomaterials Biology - Technique Biomedical Devices and Instrumentation Health Informatics Neuroengineering Biomedical Materials Biological Techniques
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Device to Detect Acupuncture Points in the Feet Soles for Massage Treatment -- Wireless Heart Rate Monitoring Using Sound Sensor -- Equipment for Contact-Free Respiratory Measurement and Obstructive Sleep Apnea Detection -- Non-invasive Pressure Support Ventilator for Patients with Respiratory Failure in Under Resourced Regions -- Implementation of a Drum Collector for Electrospinning Machines Based on Embedded System -- Development of a Low-Cost and Portable Real-Time PCR Machine for Developing Countries -- Design of a Soft Robotic Glove for Hand Rehabilitation Based on Pneumatic Network Method and Low Cost Electro-Pneumatic Device -- Portable Hand Vein

Finder System Based on Near-Infrared Illumination and Morphological Image Processing -- Design of an Automatic System for Bioelectrical Impedance Phase Angle Measurement Using an Analog Multiplier -- A Statistical Approach to Evaluate Beta Response in Motor Imagery-Based Brain-Computer Interface -- Enhancing In Vitro Bioavailability of Berberine by Incorporation of Beta-Cyclodextrin Complex into Solid Dispersion System.

Sommario/riassunto

This book presents cutting-edge research and developments in the field of biomedical engineering, with a special emphasis on results achieved in Vietnam and neighboring low- and middle-income countries. Covering both fundamental and applied research, and focusing on the theme "Healthcare technology for smart city in low- and middle-income countries," it reports on the design, fabrication, and application of low-cost and portable medical devices, IoT devices, and telemedicine systems, on improved methods for biological data acquisition and analysis, on nanomaterials for biological applications, and on new achievements in biomechanics, tissue engineering, and regeneration. It describes the developments of molecular and cellular biology techniques, and statistical and computational methods, including artificial intelligence, for biomedical applications, covers key public/occupational health issues and reports on cutting-edge neuroengineering techniques. Gathering the proceedings of the 8th International Conference on The Development of Biomedical Engineering in Vietnam, BME 8, 2020, Vietnam, the book offers important answers to current challenges in the field and a source of inspiration for scientists, engineers, and researchers with various backgrounds working in different research institutes, companies, and countries. .