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Soggetti	Biomedical engineering Signal processing Image processing Speech processing systems Bioinformatics Robotics Automation Biomedical Engineering and Bioengineering Signal, Image and Speech Processing Computational Biology/Bioinformatics Robotics and Automation
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di contenuto	Using Eye Tracking to Analyze Surgeons' Cognitive Workload During an Advanced Laparoscopic Procedure -- Spatial Cross-correlation to Determine Atrial Fibrillation Recurrence after Ablation -- Automatic Segmentation of Ultrasonic Vocalizations in Rodents -- Combining Objective Response Detectors Using Genetic Programming -- Handwriting Kinematic Differences Between Copying and Dictation -- Linear and Non-linear Analysis of EEG During Sleep Deprivation in Subjects With and Without Epilepsy -- Pilot Study for Estimating Physical Fatigue Based on Heart Rate Variability and Reaction Time -- An Information-theoretical Method for Emotion Classification -- Optical

Metrology of Novel Optically Stimulated Semiconductor Gas Sensor --  
Device for Measuring Protection in Sunglasses Against Harmful Blue  
Light -- Efficacy of Machine Learning in Predicting the Kind of Delivery  
by Cardiotocography -- Smart Shirt for Uncontrolled Movement  
Retraining -- Automatic Lung Reference Model -- Evaluation of an  
Environmental Autism Spectrum Disorder Monitoring Device --  
Electrospun Collagen Variability Characterized by Tensile Testing.

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Sommario/riassunto

This book gathers the proceedings of MEDICON 2019 – the XV Mediterranean Conference on Medical and Biological Engineering and Computing – which was held in September 26-28, 2019, in Coimbra, Portugal. A special emphasis has been given to practical findings, techniques and methods, aimed at fostering an effective patient empowerment, i.e. to position the patient at the heart of the health system and encourages them to be actively involved in managing their own healthcare needs. The book reports on research and development in electrical engineering, computing, data science and instrumentation, and on many topics at the interface between those disciplines. It provides academics and professionals with extensive knowledge on cutting-edge techniques and tools for detection, prevention, treatment and management of diseases. A special emphasis is given to effective advances, as well as new directions and challenges towards improving healthcare through holistic patient empowerment. .

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