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Nota di contenuto	Background Noise Reduction of OCT Images Based on Region Filling -- Monte-Carlo Simulation and Clinical Image Validation for Vessel Size Imaging with Twice and Single Refocus Spin-Echo Diffusion Sequence -- Surgical-tools Tracking based on Convolutional Neural Network and Long Short-Term Memory -- Development of a Novel Laparoscopic Palpation System Using a Wearable Motion-Sensing Armband -- Development of Rehabilitation System with Bilateral Upper Extremity Training Robot and Virtual Reality for Stroke Patient -- Development of an Ultrastructural Model of Cardiomyocytes Based on Electron Microscopy -- Experiment on Flow Estimation of Simulated Urination in a Western Style Toilet with Built-in Image Sensor -- Modeling of Pupillometric Signals for Studying Children's Rare Diseases -- Analyzing the Shear Stress on the Contacting Interface during Ambulation with Transfemoral Prosthesis Socket -- Experimental Analysis of Ankle Foot Orthosis Using Pneumatic Artificial Muscle -- Preliminary Study on the Use of Kinect Camera for Observational Gait Analysis System.

Sommario/riassunto

This book presents cutting-edge research and developments in the field of medical and biological engineering, which a special emphasis on activities carried out in the Asian-Pacific region. Gathering the proceedings of the 11th Asian-Pacific Conference on Medical and Biological Engineering, organized in Japan and held online on May 25-27, 2020, the book both fundamental research and clinical applications relating to medical instrumentations, bioimaging, bioinformatics and computational biomedicine, AI and data science in healthcare, as well as regenerative medicine and rehabilitation. It aims at informing on new trends, challenges and solutions, and fosters communication and collaboration between medical scientists, engineers, and researchers dealing with cutting-edge themes in broad field of biomedical and clinical engineering. .
