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   Nota di contenuto   Connectivity and Radio Propagation -- Providing Connectivity to Implanted Electronics Devices: Experimental Results on Optical Communications over Biological Tissues with Comparisons against UWB -- On the UWB in-body propagation measurements using pork meat -- Detection of brain hemorrhage in white matter using analysis of radio channel characteristics UWB Microwave Imaging for Inclusions Detection: Methodology for Comparing Artefact Removal Algorithms -- BSNCloud: Cloud-centered Wireless Body Sensor Data Collection, Streaming, and Analytics System -- Secure Communication Networks for Smart-Health -- Model-Based Analysis of Secure and Patient-Dependent Pacemaker Remote Monitoring System -- Amplitude Modulation in a Molecular Communication -- Testbed with Superparamagnetic Iron Oxide Nanoparticles and a Micropump -- An Enhanced DNA Sequence Table for Improved Security and Reduced Computational Complexity of DNA Cryptography -- Solving Generic Decision Problems by in-Message -- Computation in DNA-Based Molecular Nanonetworks -- A model for electro-chemical neural communication -- Connected Wearables Sensors for Healthcare

Applications -- Activity Monitoring Using Smart Glasses: Exploring the Feasibility of Pedometry on Head Mounted Displays -- Real-time Human Activity Recognition Using Textilebased Sensors -- Extraction of respiratory signals and respiratory rates from the photoplethysmogram -- An Ultra-Low-Power Integrated Heartbeat Detector for Wearable Sensors -- Anxiety Detection Leveraging Mobile Passive Sensing.

| Sommario/riassunto | This book constitutes the refereed post-conference proceedings of the 15th International Conference on Body Area Networks, BodyNets 2020, held in Tallinn, Estonia, in October 2020. The conference was held virtually due to the COVID-19 pandemic.The 15 papers presented were selected from 30 submissions and issue new technologies to provide trustable measuring and communications mechanisms from the data source to medical health databases. Wireless body area networks (WBAN) are one major element in this process. Not only on-body devices but also technologies providing information from inside a body are in the focus of this conference. Dependable communications combined with accurate localization and behavior analysis will benefit WBAN technology and make the healthcare processes more effective. |