Special Issue Reprint

Sensors for Vital Signs Monitoring

www.mdpi.com/books/reprint/4117

Edited by
Jong-Ryul Yang
Eugin Hyun
Sun Kwon Kim

Sensor technology for monitoring vital signs is an important topic for various service applications, such as entertainment and personalization platforms and Internet of Things (IoT) systems, as well as traditional medical purposes, such as disease indication judgments and predictions. Vital signs for monitoring include respiration and heart rates, body temperature, blood pressure, oxygen saturation, electrocardiogram, blood glucose concentration, brain waves, etc. Gait and walking length can also be regarded as vital signs because they can indirectly indicate human activity and status. Sensing technologies include contact sensors such as electrocardiogram (ECG), electroencephalogram (EEG), photoplethysmogram (PPG), non-contact sensors such as ballistocardiography (BCG), and invasive/non-invasive sensors for diagnoses of variations in blood characteristics or body fluids. Radar, vision, and infrared sensors can also be useful technologies for detecting vital signs from the movement of humans or organs. Signal processing, extraction, and analysis techniques are important in industrial applications along with hardware implementation techniques. Battery management and wireless power transmission technologies, the design and optimization of low-power circuits, and systems for continuous monitoring and data collection/transmission should also be considered with sensor technologies. In addition, machine-learning-based diagnostic technology can be used for extracting meaningful information from continuous monitoring data.

MDPI

Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/4117

MDPI Books
Publishing Open Access Books & Series

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.

Open Access
Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.

Author Focus
Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.

High Quality & Rapid Publication
MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.

High Visibility
Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).

Print on Demand and Multiple Formats
MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.

Learn more ▶ mdpi.com/books