Special Issue

Body Area Networks: Intelligence, Sensing and Communication

Message from the Guest Editors

Body Area Networks (BANs/WBANs) enable intelligent, continuous, non-invasive monitoring via wearables/implantables for health, rehab, sports, assistive tech, co-monitoring, and gaming. This Special Issue highlights advances in intelligent signal processing, sensor/device design, wireless comms, and cross-layer BAN integration. Contributions exploring AI (especially LLMs) and multimodal interaction for BANs are encouraged. Interdisciplinary studies are sought on wearable AI, human activity understanding, and real-time body interaction for personalized health, context-aware computing, co-monitoring, and embodied gaming, where BANs sense/analyze bodies and structures for enhanced monitoring, safety, privacy, and interaction. Original research and reviews welcome. Areas include:

- Intelligent health management & signal processing
- Wearable/implantable sensors for health/motion
- Activity recognition, gesture tracking, behavior analysis
- Structural health & co-monitoring systems
- Assistive/accessibility applications
- BAN in VR/AR, physical computing, exergames
- Fusion of IMU, EMG, EEG, ECG, piezo, optical
- Localization/wireless communication
- BAN apps in sports/rehab/gaming

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Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

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