

Special Issue

IMU-Based Gait Recognition and Analysis: Emerging Methods and Applications

Message from the Guest Editor

Inertial Measurement Units (IMUs) have become widely used tools for gait analysis, enabling accurate, low-cost, and portable assessment of human movement in both controlled and real-world environments. The possibility to obtain continuous kinematic data enhanced applications from clinical gait evaluation to sports performance, rehabilitation, and daily activity monitoring. This Special Issue, “IMU-Based Gait Recognition and Analysis: Emerging Methods and Applications,” aims at collecting original research and reviews focusing on methodological innovations, data-driven approaches, and interdisciplinary applications of IMU technology in the study of human gait. The topic aligns closely with the scope of Biomechanics by addressing quantitative movement analysis and its underlying mechanical principles through wearable sensing technologies. IMU-based gait analysis integrates experimental biomechanics, computational modeling, and data science, promoting new insights into human motion, motor control, and musculoskeletal function.

- IMU sensors
- gait analysis
- biomechanics
- wearable technology
- motion capture
- human locomotion
- gait cycle
- movement recognition

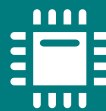
Guest Editor

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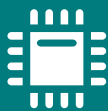


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Message from the Editor-in-Chief

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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