# **Special Issue**

# Recent Advance and Application of Wearable Inertial Sensors in Motion Analysis

## Message from the Guest Editors

Motion analysis has received a forward momentum from widespread of wearable inertial measurement units (IMUs). Moreover, the combination of inertial sensors with artificial intelligence and machine learning techniques is opening the frontiers for new challenges. IMUs are now exploited, for example, in the sports field to improve performance and prevent injuries; in collaborative robotics to optimize the cooperation between the operator and the robot, both in terms of safety and performance; in e-health and wellness applications; and in tele-rehabilitation and activity recognition. The present Special Issue is designed to comprehensively collect new advances and applications of wearable inertial sensors in different fields. Keywords:

- characterization of systems, techniques and methods for motion and gait analysis
- clinical reports using wearable sensors
- wearable sensors, methods and/or techniques for medical decision making and activities modeling
- health monitoring
- fall risk
- rehabilitation
- biomechanics of sport
- machine learning techniques
- gesture recognition
- industry
- human-robot collaboration

### **Guest Editors**

Dr. Laura Gastaldi

Department of Mechanical and Aerospace Engineering, Politecnico di Torino, Torino, Italy

Dr. Elisa Digo

Department of Mechanical and Aerospace Engineering, Politecnico di Torino, 10129 Turin, Italy

## Deadline for manuscript submissions

closed (30 June 2024)



## **Sensors**

an Open Access Journal by MDPI

Impact Factor 3.4
CiteScore 8.2
Indexed in PubMed



mdpi.com/si/91254

Sensors
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
sensors@mdpi.com

mdpi.com/journal/ sensors





## **Sensors**

an Open Access Journal by MDPI

Impact Factor 3.4 CiteScore 8.2 Indexed in PubMed



## **About the Journal**

## 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.

### Editor-in-Chief

### Prof. Dr. Vittorio M. N. Passaro

Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 Bari, Italy

## **Author Benefits**

### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

## **High Visibility:**

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Ei Compendex, Inspec, Astrophysics Data System, and other databases.

### Journal Rank:

JCR - Q2 (Chemistry, Analytical) / CiteScore - Q1 (Instrumentation)

