Special Issue

Advances in Sensing-Based Animal Biomechanics

Message from the Guest Editor

Sensors in animal biomechanics are used for clinical applications as well as for animal monitoring in all areas. In particular, inertial measurement units (IMU) are key elements in lameness evaluation, feedback systems, and motion analysis in animal biomechanics and can be combined with EMG systems (muscle activity) and ultrasound systems to detect muscle activity and tendon strains. This Special Issue aims to highlight advances sensing in animal biomechanics covering the development, testing, and modeling of biomechanical sensors on the component level as well as within biomechanical systems. Topics include but are not limited to:

- Accelerometers;
- Gyroscopes;
- Force sensors (strain gauge, piezo, etc.);
- Pressure sensors (capacitive, optical, piezo, strain gauge, etc.);
- Fibre optic sensors;
- EMG electrodes (surface, needle, array, capacitive);
- Ultrasound sensors;
- Ultra-wide band radar;
- Gonimeters;
- Optical tracking systems;
- Nanomaterial-based sensors;
- Advanced sensor characterization techniques;
- Sensor error modeling and online calibration;
- Pattern recognition algorithm;
- Deep learning.

Guest Editor

Prof. Dr. Christian Peham
Department for Companion Animals and Horses, University of Veterinary Medicine, Veterinärplatz 1, 1210 Vienna, Austria

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

mdpi.com/journal/sensors

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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.

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

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