Special Issue

Sensors, Motor Coordination, and High-Level Cognition in Bio-Inspired Robotics

Message from the Guest Editors

Biomimetics is the development of innovative technologies through the distillation of principles from Nature. Bio-inspired robots are formed by combining at least one biological principle embodied either in their perceptive systems or in their locomotor systems, or both at once. Many animals show remarkable locomotion, navigation, and even high-level cognitive skills to deal with difficult or dynamically changing environmental conditions by efficiently extracting information from their surrounding environment in an attempt to reach their goal. This is sometimes attained through the efficient exploitation of a relatively simple and distributed brain architecture embodied into an extremely resilient and incredibly sensorized body structure. This Special Issue will focus on all aspects related to bio-inspired robotic architectures and their constituents, including sensors, motor coordination, and high-level cognitive functions. **Keywords:** Bio-inspired actuators; Bio-inspired sensors; Bio-inspired navigation; Learning in bio-inspired robots; Sensory-motor coordination; Soft robotics; Legged robotics; Polarized vision; Neural control; Spiking neural networks; Bio-inspired brain models

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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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