Special Issue

Bio-Inspired and Biomimetic Intelligence in Robotics

Message from the Guest Editors

The aim of this Special Issue is to highlight the roles of advanced bio-inspired and biomimetic intelligence for robotics applications and prior knowledge in achieving successes and, especially, how they contribute to the taming of the complexity of the linked domains. It includes but is not limited to the following topics:

- Behavioral and biological learning and control;
- Computational neuroscience;
- Cognitive robotics and computation;
- Evolutionary robotics, multi-robot systems, and swarm intelligence;
- Computational modeling of biological systems;
- Biomechanics, biomechatronics, and bioengineering;
- Smart materials;
- Soft robotics and sensing;
- Human–robot interaction and collaboration;
- Bio-inspired approaches for robot design, control, and optimization;
- Morphological computation and embodied intelligence;
- Bio-inspired spiking neural networks;
- Bio-inspired vision systems;
- Imitation learning, Bayesian/probabilistic learning;
- Bio-inspired legged robotics;
- Bio-inspired/biomimetic underwater robotics;
- Micro- and Nano-robotics;
- Healthcare and rehabilitation;
- Flexible electronics and piezoelectret actuators.

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Deadline for manuscript submissions

closed (31 March 2024)

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About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

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(Biomedical Engineering)

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manuscripts are peer-reviewed and a first decision is
provided to authors approximately 17.1 days after
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the first half of 2025).