

Special Issue

Applications of Neural Networks in Robot Control

Message from the Guest Editors

Neural networks have enhanced the capabilities of robots, enabling them to perform complex tasks, adapt to dynamic environments, and more effectively interact with humans. As a result, the integration between neural networks and robot control has become a key research area with great potential for innovation and impact. However, many aspects still need to be further explored: the computational effort needed for real-time vision-based control applications, the need for custom hardware implementations for specific tasks, the use of continuous learning for efficient adaptation to dynamically changing environments, the problem of dynamic stability when dealing with multi-link robots, and many others. The proposed Special Issue aims to address these and other relevant research topics, as well as to consolidate and present the latest developments in the application of neural networks to robot control in different domains: from traditional wheeled robots to legged robots and from high-level motion planning tasks to single limb movements.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

It is my great pleasure to welcome you to our open access journal, *Robotics*, which is dedicated to both the foundations of artificial intelligence, bio-mechanics and mechatronics, and the real-world applications of robotic perception, cognition and actions. The 21st century is the robotics century and intelligent robots will change our lifestyle forever. Let us work together toward the realization of intelligent robots step by step.

It is great fun to create intelligent robots and imagine their practical applications. *Robotics* is now ready to serve you in the long journey towards such a goal.

Editor-in-Chief

Prof. Dr. Marco Ceccarelli

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