Special Issue

Artificial Intelligence and Intelligent Robots: Challenges and Opportunities

Message from the Guest Editors

As technology continues to advance, the use of robots and other machines in human environments and various aspects of daily life is increasing. By combining artificial intelligence (AI) algorithms with multimodal data, such as visual inputs, robots can better perceive and respond to human states and contexts, improving the quality of its actions and user experience. Similarly, AI-powered vision systems assist individuals in daily tasks by understanding, forecasting, and responding to their needs. By harnessing the power of AI, robots can understand, adapt, and respond to diverse and dynamic environments, thereby enhancing their ability to assist individuals with varying needs. Despite challenges such as data privacy, ethical issues, and accuracy, the potential benefits of AI are substantial, enhancing the capabilities of intelligent systems. Exploring and optimizing the role of AI in human–robot interaction opens new avenues for improving healthcare and assistance. This Special Issue aims to examine and promote recent developments in the applications of AI for enhancing human–robot interaction and its impact on healthcare and assistance.

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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