Applied Intelligent Robot for Uncertain Environments

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Message from the Guest Editors

Dear Colleagues,

Due to rapid technological advancement, industries aim to reduce manpower by incorporating robot. Industrial robots have to be intelligent in the sense of having conscious thought to allow them to make decisions that impact their performance and actions. There are many successful applications of artificially-intelligent algorithms, such as genetic algorithms, neural networks, and fuzzy logic, which have been proposed for environment exploration, surveillance missions, and collaborative object transportation. However, these applications are not necessarily used in a labor-intensive industry, such as railway track maintenance or domestic cleaning, where it is hard to find manpower to work long hours. In addition, the implementation of these robots is still facing numerous challenges, such as uncertainties in operating environment in the fields of control systems design, human–robot interactions, fast computational times, robust communication networks and rapid implementation with ease of future maintenance in mind.

The aim of this Special Issue in Intelligent Robot for Uncertain Environments should contain latest development in intelligent robots across different industries, operating in uncertain environments. Relevant technologies enhancing prototyping, simulation, dexterity, stability, flexibility and user experience are desired. Researchers involved in robotics should find this particular issue extraordinary and it will provide the latest perspective on the state-of-the-art.

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Special Issue

Editor-in-Chief

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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.

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