Special Issue

Applications of Robot Navigation in Autonomous Systems

Message from the Guest Editors

Robot navigation has emerged as a cornerstone of autonomous systems, enabling machines to perceive, plan, and act in complex and dynamic environments. This Special Issue focuses on the applications of robot navigation, covering key topics such as localization, mapping, obstacle avoidance, and decision making strategies. Emphasis will be placed on methods that leverage state-of-the-art technologies like deep learning, reinforcement learning, and multi-agent systems to overcome traditional challenges. This issue invites contributions that address practical implementations in areas such as autonomous driving, indoor service robotics, marine exploration, and industrial automation. By highlighting these advancements, this Special Issue aims to inspire innovative solutions pushing the boundaries of what robots can achieve in real-world settings. Keywords

- Robot navigation
- Autonomous systems
- Localization and mapping
- Path planning
- Sensor fusion
- Multi-agent systems
- Reinforcement learning
- Quantum in robots
- Swarm robots
- Robustness and security

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Message from the Editor-in-Chief

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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