Special Issue

Autonomous Navigation of Mobile Robots in Unstructured Environments

Message from the Guest Editor

The field of autonomous navigation for mobile robots in unstructured environments has gained significant attention in recent years. This Special Issue aims to present the latest research and developments in this field, showcasing innovative approaches, algorithms, and applications that enable mobile robots to autonomously navigate through unstructured environments. This Special Issue welcomes researchers and practitioners to contribute papers on various aspects of the autonomous navigation of mobile robots in unstructured environments. The topics of interest include, but are not limited to: 1. Sensing and perception for autonomous navigation;
2. Mapping and localization techniques;
3. Path planning and obstacle avoidance algorithms;
4. Machine learning and artificial intelligence for autonomous navigation;
5. Multi-robot systems and coordination in unstructured environments;
6. Human-robot interaction in unstructured environments;
7. Robustness and fault tolerance in autonomous navigation;
8. Navigation in challenging terrains (e.g., forests, disaster zones, underwater);
9. Applications of autonomous navigation in industries, agriculture, search and rescue, etc.

Guest Editor

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Deadline for manuscript submissions

closed (31 August 2024)

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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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