





an Open Access Journal by MDPI

Advances in Mobile Robot Navigation in an Unstructured and Dynamically Cluttered Environment

Guest Editors:

Prof. Dr. Yousef Ibrahim

School of Engineering, Information Technology and Physical Sciences, Federation University Australia, Churchill, VIC 3842, Australia

Dr. Gayan Kahandawa

School of Engineering, Information Technology and Physical Sciences, Federation University Australia, Churchill, VIC 3842, Australia

Prof. Dr. Mihoko Niitsuma

Department of Precision Mechanics, Chuo University, Tokyo 112-8551, Japan

Deadline for manuscript submissions:

closed (31 December 2023)

Message from the Guest Editors

In the last few decades, researchers in the robotics field have conducted many investigations on using robots within human-robot coexistent environments to perform complex works such as surveillance, rescue, transportation, and working in underground mines. Due to this fast growth in robots' utilization, the challenge of mobile robots' navigation in unstructured dynamic environments has become a field of interest to many researchers around the globe.

This Special Issue aims to discuss state-of-the-art algorithms and methodologies addressing the challenges facing researchers in the various fields and applications of modern mobile robots' navigation. Those field can be related but not limited to:

- Obstacle tracking and path prediction;
- Optimal path planning;
- Obstacle tracking and path prediction;
- Collision-free and safe motions;
- Manoeuvrability in a high-density dynamic environment.











an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Antonio J. Marques Cardoso

CISE—Electromechatronic Systems Research Centre, University of Beira Interior, Calçada Fonte do Lameiro, P -6201-001 Covilhã, Portugal

Message from the Editor-in-Chief

Machines is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications.

Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided.

There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.

Journal Rank: JCR - Q2 (Engineering, Mechanical)

Contact Us