Special Issue

Trajectory Planning for Autonomous Vehicles: State of the Art

Message from the Guest Editor

Trajectory planning is essential and critical in autonomous driving systems, where safety, comfort, and efficiency must be dynamically balanced. Robust and flexible trajectories should be planned based on onboard environment perceptions and traffic regulations. This Special Issue aims to collect state-of-the-art research and ideas about trajectory planning for all levels of autonomous vehicles. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Trajectory planning for autonomous vehicles;
- Behavior planning;
- Decision making;
- Path planning;
- Speed planning;
- End-to-end model-based trajectory planning;
- Spatial-temporal trajectory planning.

We look forward to receiving your contributions.

Guest Editor

Dr. Yiwen Huang

Department of Mechanical Engineering, School for Engineering of Matter, Transport and Energy, Arizona State University, Tempe, AZ 85281, USA

Deadline for manuscript submissions

30 November 2025

Machines

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 4.7

mdpi.com/si/215338

Machines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
machines@mdpi.com

mdpi.com/journal/machines

Machines

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 4.7

mdpi.com/journal/machines

About the Journal

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.

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

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q2 (Engineering, Mechanical) / CiteScore - Q1 (Control and Optimization)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.9 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).