

Special Issue

Motion Planning and Control in Autonomous Robotic Systems

Message from the Guest Editors

As robotics enters a new era of high intelligence and autonomy, the complex dynamic characteristics exhibited by these systems place higher demands on control theory. Modern robots are not merely assemblies of mechanical structures but are deeply coupled nonlinear systems operating in dynamic environments filled with uncertainties. This Special Issue aims to explore the deep integration of intelligent algorithms and nonlinear control theory in the field of robotics. We focus on leveraging advanced mathematical modeling, intelligent perception, and control strategies to enhance the motion precision, operational flexibility, and environmental adaptability of robotic systems. We cordially invite researchers to share innovative achievements in nonlinear control, system optimization, and control scheme design under complex working conditions.

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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.

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