

Special Issue

Advanced Control Strategies for Autonomous Maritime Systems

Message from the Guest Editors

Autonomous Maritime Systems (AMS) are strongly connected to the maritime industry, with applications ranging from unmanned surface and underwater vehicles to intelligent shipping solutions. Advanced path planning and control algorithms are vital for ensuring that these unmanned vehicles can operate autonomously with high reliability and precision, especially in challenging maritime environments. These control approaches incorporate various elements of adaptive and robust machine learning methods and optimal control schemes, which allow AMS to safely navigate in the presence of external disturbances such as waves, ocean currents, and wind. By using advanced learning-based optimal control strategies, AMS can optimize their trajectory, minimize fuel consumption, and improve overall operational efficiency. These control methods also account for the inherent uncertainties in the maritime domain, ensuring system robustness against disturbances and equipment failures. In addition to basic navigation and collision avoidance, advanced control strategies enable higher-level autonomy for networked autonomous marine vehicles.

Guest Editors

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The *Journal of Marine Science and Engineering* (JMSE, ISSN 2077-1312) is an international peer-reviewed open access journal which provides an advanced forum for studies related to marine science and engineering. The journal aims to provide scholarly research on a range of topics, including ocean engineering, chemical oceanography, physical oceanography, marine biology and marine geosciences. We invite you to publish in our journal sharing your important research findings with the global ocean community.

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