

Special Issue

The Control and Navigation of Autonomous Surface Vehicles

Message from the Guest Editors

With the rapid advancement of modern control and navigation technologies, autonomous surface vehicles (USVs) are evolving into more integrated, interoperable, efficient and adaptive systems, suitable for executing a wide range of complex ocean tasks. The goal of this Special Issue is to enhance the reliability, robustness and accuracy of control and navigation, endowing USVs with autonomous perception, adaptive intelligent decision-making and control capabilities and further facilitating their applications. We invite researchers from both academia and industry to submit original articles in the following areas:

- Advanced sensing technology;
- Multi-source data fusion;
- Autonomous positioning and navigation;
- Obstacle avoidance and path planning in dynamic ocean environments;
- Application of artificial intelligence in USVs;
- Intelligent decision-making framework design in complex ocean environments;
- Adaptive methods and high-precision control in USVs;
- Self-organizing network technology in USVs;
- Heterogeneous USV collaborative control;
- Simulation and modeling of USVs.

Guest Editors

Prof. Dr. Defeng Wu
Dr. Zhiming Yuan
Dr. Haitong Xu

Deadline for manuscript submissions

closed (25 March 2026)



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About the Journal

Message from the Editor-in-Chief

Journal of Marine Science and Engineering (JMSE, ISSN: 2077-1312) focuses on research in the fields of Ocean Engineering, Coastal Engineering, Physical Oceanography, Geological Oceanography, Marine Biology, and Marine Environmental Science. It publishes reviews, regular research papers, and short communications, as well as Special Issues on particular subjects. 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 maximum length of the papers.

Editor-in-Chief

Prof. Dr. Charitha Pattiaratchi

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Author Benefits

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Journal Rank:

JCR - Q2 (Engineering, Marine) / CiteScore - Q2 (Ocean Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.5 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the second half of 2025).