

Special Issue

Health Monitoring and Reliability Assessment of Marine and Offshore Structure

Message from the Guest Editors

As the number of marine and offshore structures increases, safety accidents caused by structural failures also occur. In addition, as the service life increases, the structure will face long-term environmental factors, material aging, design deviations, and other issues, causing serious safety hazards. Therefore, conducting research on structural health monitoring and reliability analysis of marine and offshore structures is crucial to structural safety. Guest editors of this proposed Special Issue believe that surrogate models, artificial intelligence, and optimization algorithms can allow us to develop efficient methods for health monitoring and reliability assessment of marine and offshore structures, and with this in focus. We encourage the submission of high-quality papers including but not limited to the above aspects:

- Structural health monitoring;
- Uncertainty analysis and modeling;
- Surrogate modeling;
- Reliability and sensitivity analysis;
- Machine learning and deep learning;
- Physics-informed neural networks;
- Reliability-based design optimization;
- Data-driven reduced-order model;
- Structural system and parameter identification.

Guest Editors

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Deadline for manuscript submissions

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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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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).