

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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About the Journal

Message from the Editor-in-Chief

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.

Editor-in-Chief

Prof. Dr. Charitha Pattiaratchi
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Engineering)

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the first half of 2025).