



Machine Learning and Optimization for Marine Structure

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Deadline for manuscript
submissions:

closed (30 April 2023)

Message from the Guest Editors

Dear Colleagues,

With the introduction of advanced machine learning techniques, efficient metaheuristic optimization algorithms and high-performance computing, the paradigm shifts from physics-based to big data-driven models. In the light of these developments, we are announcing a Special Issue entitled “Machine Learning and Optimization for Marine Structure”.

The special issue welcomes original and impactful works presenting theoretical, empirical, and numerical studies of engineering applications regarding machine learning and optimization for ships, oil & gas platforms, and offshore renewable energy devices. The review papers, providing a critical view on the latest developments regarding methods, modeling, and analysis, are also encouraged.

The topics relevant to the Special Issue include, but are not limited to, are given as follows:

- Fatigue & Fracture
- Ultimate strength
- Corrosion degradation
- Supervised & Unsupervised Machine learning
- Reinforcement learning
- Deep learning
- Damage detection
- Structural health monitoring
- Reliability-based optimization
- Risk-based design, inspection, and maintenance





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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.

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