

Special Issue

Machine Learning and Optimization for Marine Structure

Message from the Guest Editors

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

Guest Editors

Dr. Baran Yeter

Centre for Marine Technology and Ocean Engineering (CENTEC),
Instituto Superior Técnico-Universidade de Lisboa, Av. Rovisco Pais,
1049-001 Lisboa, Portugal

Prof. Dr. Yordan Garbatov

Centre for Marine Technology and Ocean Engineering (CENTEC),
Instituto Superior Técnico, Universidade de Lisboa, 1049-001 Lisbon,
Portugal

Deadline for manuscript submissions

closed (30 April 2023)



Journal of Marine Science and Engineering

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.0



mdpi.com/si/112885

*Journal of Marine Science and
Engineering*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
jmse@mdpi.com

mdpi.com/journal/

jmse





Journal of Marine Science and Engineering

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.0



[mdpi.com/journal/
jmse](https://mdpi.com/journal/jmse)



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
School of Engineering, The UWA Oceans Institute, The University of
Western Australia, Perth, WA 6009, Australia

Author Benefits

High Visibility:

indexed with Scopus, SCIE (Web of Science), Ei
Compendex, GeoRef, Inspec, AGRIS, and other databases.

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 15.6 days after
submission; acceptance to publication is undertaken in 1.9
days (median values for papers published in this journal in
the first half of 2025).