

Special Issue

Mobile Offshore Drilling Unit

Message from the Guest Editors

Mobile offshore drilling units (MODUs) have been in operation for more than 60 years. They have been designed for a limited nominal life, e.g., 20 years for jack-ups. However, according to DNV GL, 60% of the world's offshore units are kept in operation for well beyond their nominal design life. MODUs can be categorized into jack-up rigs, drilling barges, semi-submersible rigs, and drill ships. Several variables govern the design of MODUs, including water depth, drilling operation, environmental conditions, operational safety, and regulatory requirements. MODUs are transported from one location to another either under their own power, on a barge or by towing. The safety of every stage of operation, transportation, preparation for drilling, and drilling is governed by relevant regulations, thus requiring careful planning. Many accidents, some with fatalities, have been reported for MODU rigs, including structural failure, human error, poor safety procedures and unforeseen environmental conditions. Blowout, punch-through, system failure, rough weather, collisions, and human errors leading to fire and explosion were among them.

Guest Editors

Dr. Roohollah Babaei Mahani

College of Engineering, Design and Physical Sciences, Brunel University London, Uxbridge, UK

Dr. Sirous Yasseri

College of Engineering, Design and Physical Sciences, Brunel University London, Uxbridge, UK

Deadline for manuscript submissions

30 June 2026



Journal of Marine Science and Engineering

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.0



mdpi.com/si/186171

*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

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

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 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).