

## Special Issue

# Advances in Gas Hydrate Development: Experimental and Numerical Simulation

### Message from the Guest Editors

Gas hydrate is a kind of clean energy resource of great importance worldwide. The objective of this Special Issue is to publish ten or more papers on advances in gas hydrate development, such as exploitation methods and corresponding forecast and prevention of geological hazards and environmental effects. This Special Issue aims to collect contributions from different disciplines, including fundamental research of mechanics, physics, geology and applied research of ocean engineering, etc. Contributions and discoveries in experiments, numerical simulations, and monitoring are welcomed. This Special Issue aims to cover, without being limited to, the following topics:

- Modeling on thermal–chemical–mechanical coupling processes and evolution of the moving boundaries
- Physical modeling and numerical simulation of geotechnical problems
- Interaction between soil and structures under various methods of gas hydrate development
- Multiphase flow with gas hydrate phase transition (dissociation or formation)
- Geological hazards, environmental effects, and monitoring techniques relative to gas hydrate development
- New exploitation methods

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### Guest Editors

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### Deadline for manuscript submissions

closed (15 May 2023)



## Journal of Marine Science and Engineering

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Impact Factor 2.8  
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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.

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### Editor-in-Chief

Prof. Dr. Charitha Pattiaratchi

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#### 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).