

# Special Issue

## Advances in Structural and Dynamic Analysis of Ships and Marine Structures

### Message from the Guest Editors

This Special Issue seeks to consolidate research on both conventional and emerging vessel types, including smart ships, autonomous vessels, offshore platforms, and cryogenic carriers for LNG, LCO<sub>2</sub>, and LH<sub>2</sub>. By highlighting innovative design, analysis, and monitoring approaches, this Special Issue aims to provide insights that enhance safety, reliability, and efficiency in modern ship and marine structure operations. The scope of this Special Issue includes structural integrity, fatigue and fracture, collision and grounding effects, fluid–structure interaction, and hydroelasticity under complex loading conditions. Contributions that present advanced methodologies, such as digital twins, real-time structural health monitoring (SHM), and AI-driven design and diagnostics, are highly encouraged. This Special Issue welcomes both theoretical and applied studies, including numerical modeling, experimental validation, and case studies. The aim of this Special Issue is to provide a comprehensive platform for sharing innovative solutions that enhance the safety, performance, and sustainability of contemporary ship and marine structure design.

### Guest Editors

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## Journal of Marine Science and Engineering

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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.

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### Editor-in-Chief

Prof. Dr. Charitha Pattiaratchi  
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