### **Special Issue**

## Numerical Model, Design, and Performance of Ocean Wave Energy Converters

#### Message from the Guest Editors

This Special Issue of the *Journal of Marine Science and Engineering* aims to bring together cutting-edge research on numerical modeling, design optimization, and performance evaluation of ocean wave energy converters. We invite contributions that address key challenges in WEC development, including, but not limited to, the following:

- Numerical methods for modeling wave–structure interactions:
- Computational fluid dynamics (CFD) applications in WEC analysis;
- Optimization techniques for WEC design and control;
- Validation of numerical models through experimental and field data;
- Performance assessment and efficiency improvement of WECs;
- Structural integrity and survivability in extreme ocean conditions:
- Integration of WECs into marine energy systems.

This Special Issue seeks to advance the state-of-the-art in numerical simulations and design methodologies to enhance the efficiency, durability, and feasibility of wave energy converters. By gathering contributions from leading researchers in this field, we aim to provide insights that will support the development of next-generation WEC technologies. We look forward to your submissions.

#### **Guest Editors**

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#### Deadline for manuscript submissions

20 September 2025



# Journal of Marine Science and Engineering

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#### mdpi.com/si/237835

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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.

#### Editor-in-Chief

Prof. Dr. Charitha Pattiaratchi School of Engineering, The UWA Oceans Institute, The University of Western Australia, Perth, WA 6009, Australia

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