

## Special Issue

# Performance of Transportation Systems Subjected to Extreme Hydrodynamic Events

### Message from the Guest Editors

Recent tsunamis, hurricanes, and flash floods have caused extensive damage to bridges and other civil infrastructure around the world. This widespread damage paralyzed entire transportation networks, hindering rescue efforts and recovery of communities. Given the projected increase in the frequency and intensity of storms and floods due to climate change, and the socio-economic importance of transportation systems, the vulnerability of such systems has become a major topic of interest. Therefore, the objective of this special issue is to invite cutting-edge original research that focuses on the performance of transportation infrastructure subjected to extreme flooding. Topics of interest include:

- Hydrodynamic loading on transportation infrastructure;
- Structural performance and failure modes caused by flooding;
- Impulsive and damming effects of debris on structures;
- Hydrodynamic scour of piers, abutments, and roadways;
- Computational fluid dynamics and fluid-structure interaction;
- Risk and resilience assessment methodologies; and
- Mitigation strategies at the structural and network level.

### Guest Editors

Dr. Denis Istrati

Prof. Dr. Ian Buckle

Prof. Dr. Michael Scott

### Deadline for manuscript submissions

closed (15 January 2023)



## Journal of Marine Science and Engineering

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.8  
CiteScore 5.0



[mdpi.com/si/45311](https://mdpi.com/si/45311)

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

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