



## Machine-Learning Methods and Tools in Coastal and Ocean Engineering

Guest Editors:

**Prof. Dr. Jose E. Castillo**

Computational Science Research  
Center, San Diego State  
University, 5500 Campanile Dr,  
San Diego, CA 92182-1245, USA

**Dr. Sara Mizar Formentin**

Department of Civil, Chemical,  
Environmental and Materials  
Engineering, University of  
Bologna, Viale del Risorgimento  
2, 40136 Bologna, Italy

Deadline for manuscript  
submissions:  
**closed (10 February 2021)**

### Message from the Guest Editors

This Special Issue invites authors to submit original articles dedicated to innovative applications of machine learning methods in Coastal and Ocean engineering. These articles can be focused i) on demonstrating innovative solutions to reduce the parameter count and amount of training data (Extreme Learning Methods), simplifying the training step and shortening the computational time; ii) on adaptive machine-learning methods (Genetic Algorithm), to build up analytical formulae; iii) on innovative and advanced applications, such as optimization problems (e.g. the Harmony Search Algorithm for the design of coastal structures), pattern recognition (e.g., for the automatic detection of the free-surface, the estimation of the amount of air entrainment in bi-phase flows, the set-up of alarm systems based on video-monitoring), or cost minimization (e.g., for the setup of decision support systems).





an Open Access Journal by MDPI

## Editor-in-Chief

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

## 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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed with Scopus, SCIE (Web of Science), GeoRef, Inspec, AGRIS, and other databases.

**Journal Rank:** JCR - Q1 (Engineering, Marine) / CiteScore - Q2 (*Civil and Structural Engineering*)

## Contact Us

---

*Journal of Marine Science and  
Engineering* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/jmse  
jmse@mdpi.com  
X@JMSE\_MDPI