

## Special Issue

# Digital Twin Modelling of Wind Turbines

### Message from the Guest Editors

The notion of Digital Twins (DT) has gained increasing popularity within the offshore and wind energy sectors. A DT is a digital representation capable of offering quantitative insights into the fundamental characteristics of a physical asset in real-time or near-real-time. A cost-benefit DT of a wind turbine can be utilized for various purposes such as predictive maintenance, anticipation of structural integrity, optimization of operations, performance monitoring, and even simulation for future design improvements.

Multiple components and processes are involved in the DT modelling of wind turbines, including mathematical modelling, data processing and user interface. This special issue aims to provide a rapid turn-around in publishing the most exciting advances in the following areas: -Data-driven or physical-based modelling of the system/sub-systems (blade, rotor, gearbox and etc.) of a wind turbine;

-Data acquisition, integration and assimilation;

-Predictive analytics of future behaviours;

-Optimization;

-User Interface and visualization framework.

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### Guest Editors

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### Deadline for manuscript submissions

closed (1 September 2024)



## Journal of Marine Science and Engineering

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Impact Factor 2.8  
CiteScore 5.0



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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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#### Journal Rank:

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#### 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).