

## Special Issue

# Recent Advances in Digital Twin Technologies in the Maritime Industry

### Message from the Guest Editors

The rise of the Internet of Things (IoT) has caused digital twin technologies to become more affordable and popular in the industrial sector, especially regarding complex equipment. The integration of digital twins (DTs) in the shipping industry has significantly enhanced the operational efficiency and prolonged the lifespan of vessels. However, the full-scale adoption of digital twins faces many challenges. Among these are the proper combination of data-driven and multi-physics models (which could be used to exploit the most advantageous features of each approach for certain applications), the lack of open and scalable data fusion architectures, cyber security measures, real-time data handling capabilities, and data integrity. Furthermore, extensive research is needed in the areas of sensor technology, signal processing, and machine learning architectures. This Special Issue on the "Recent Advances in Digital Twin Technologies in the Maritime Industry" is currently accepting submissions in this innovative and promising field within the maritime sector.

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### Guest Editors

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### Deadline for manuscript submissions

closed (30 April 2026)



## Applied Sciences

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### Editor-in-Chief

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