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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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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