Special Issue

Advances in Marine Propulsion Systems and Hydrodynamic Performance

Message from the Guest Editors

This Special Issue aims to compile the latest research on marine propulsion systems and hydrodynamic performance, with emphasis on specialized propulsor design and AI applications. With rapid advances in shipping and marine engineering, propulsion efficiency and intelligence have become key topics. As core navigation technologies, propulsors must meet extreme operational demands while achieving high efficiency and adaptability. Promoting innovative design and optimization of propulsion systems is therefore of great importance. Meanwhile, AI offers new opportunities for intelligent control, real-time monitoring, fault diagnosis, and optimization of propulsors. Advanced algorithms such as machine learning and deep learning enable precise hydrodynamic simulations and design optimization, as well as intelligent scheduling and fault prediction during operation, ultimately improving safety, reliability, and energy efficiency. This Special Issue welcomes global contributions that advance marine propulsion technology, with particular focus on the integration of specialized propulsors and AI.

Guest Editors

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Deadline for manuscript submissions

20 April 2026

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/255326

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Message from the Editor-in-Chief

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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