

Special Issue

Renewable Energy Sources: Wind, Tidal, and Wave Power

Message from the Guest Editors

The transition to renewable energy is critical to addressing climate change and meeting global energy needs. Wind, tidal, and wave power are emerging as key players in this transformation, offering sustainable solutions to harness the vast potential of marine and offshore resources. However, their development is challenged by technical, environmental, and economic factors, requiring innovative research and interdisciplinary approaches. This Special Issue aims to highlight advancements in wind, tidal, and wave energy technologies by addressing key topics such as resource assessments, opportunities and challenges in technology development, numerical modeling and simulations of renewable energy devices, design load definitions for marine and offshore structures, control strategies, and grid integration. Additionally, this Special Issue will explore methods for evaluating and managing the risks and uncertainties in marine and offshore renewable energy systems. Contributions should focus on improving the reliability, efficiency, and sustainability of these energy systems while addressing the complexities of operating in dynamic and challenging offshore environments.

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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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