Mathematical Problems in Engineering

Special Issue on
Mathematical Models for Ocean Energy

Hindawi

CALL FOR PAPERS

One of the major challenges facing current society is to transform its energy model, allowing for secure, affordable, and efficient energy. The search for new energy sources with a minimal impact on the environment has brought about new solutions targeting ocean energy. This special issue concentrates on increasing the performance and reliability of ocean energy devices, developing solutions based on alternative approaches, subsystems, and materials. The articles should provide an improved understanding of performance, reliability, or components in current devices and/or develop systems of improved performance for wave energy, tidal energy, or offshore wind energy.

Contributions containing research carried out using mathematical tools for modeling, control design, forecasting, estimation, and so forth, as well as formulations or results related to model validation and applications are welcome, consistent with the journal focus on rigorous engineering research carried out using mathematical tools. Technical solutions for the development of new or advanced ocean energy system designs, power take-off, and control systems (monitoring, control, online communication and integration, etc.) leading to an efficiency improvement will be considered in this issue. Original high-quality research articles related to the topics below will be accepted for review. Review articles may also be submitted.

Potential topics include but are not limited to the following:

- ▶ Mathematical models for ocean energy prediction
- ▶ Mathematical models for short-term wave time series forecasting
- ▶ Optimization of ocean energy devices, such as geometry or array layout optimization
- ▶ Control problems in ocean energy

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/mpe/moce/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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