## **Special Issue**

# Applications of Artificial Intelligence in the Sustainable Operation of Desalination and Renewable Energy Systems

## Message from the Guest Editors

This Special Issue aims to consolidate cutting-edge research on the application of Al techniques for the sustainable operation, optimization, and performance enhancement of desalination and renewable energy technologies. We seek original research articles, review papers, case studies, and perspective pieces that explore the following:

- Al-based operational optimization for desalination systems (all types);
- Performance prediction and enhancement of renewable energy systems using Al;
- Energy consumption forecasting and optimization;
- Hybrid systems that combine renewable energy and desalination powered by AI;
- Development and implementation of ANN, ML, DL, and other Al approaches;
- Smart grid integration of renewable energy with intelligent control;
- Decision-making support systems and real-time operational control using AI;
- Sustainability assessment and life cycle analysis augmented by AI;
- Future trends, challenges, and opportunities at the intersection of Al, desalination, and renewable energy.
- This Special Issue encourages interdisciplinary approaches that bridge the gap between environmental engineering, renewable energy, water desalination, and sustainability studies.

## **Guest Editors**

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## **About the Journal**

## Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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