

## Special Issue

# Sustainable Operation and Control of Renewable Energy Resources

### Message from the Guest Editor

Overusing traditional fossil fuels has caused severe environmental pollution and accelerated the climate crisis in recent decades. Replacing fossil fuels with renewable energy, such as wind and photovoltaic sources, can alleviate this crisis to some extent. This Special Issue aims to present the latest advancements in renewable energy technologies and sustainability, with a particular focus on the operation and control of power grids with the high penetration of renewable energy generations. In this Special Issue, research areas may include (but are not limited to) the following: - Prediction, modeling, and uncertainty analysis of renewable energy generation;

- Optimal design and sizing for off-grid hybrid energy systems;
- Novel renewable energy-dominated hybrid systems;
- Efficient and secure integration of massive renewable energy resources;
- Operation and control of renewable energy resources;
- Sustainable policies for renewable energy development;
- Market structure design for boosting the penetration of renewables;
- Energy trading of renewable energy resources;
- Situational awareness and risk management of renewables-dominated power systems;

### Guest Editor

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### Deadline for manuscript submissions

closed (10 November 2024)



**Sustainability**

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### Editor-in-Chief

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