

Special Issue

Advance in Renewable Energy and Power Generation Technology

Message from the Guest Editor

This Special Issue's scope is broad, covering new materials, renewable energy sources, energy storage systems, smart grid integration, economic viability, policy frameworks, and life-cycle analyses. This Special Issue will supplement the existing literature by synthesizing interdisciplinary research that often remains fragmented, highlighting emerging trends like AI for grid optimization and novel battery chemistries, and creating a forward-looking compendium to address the challenges of a rapidly evolving energy landscape. Papers will define and quantify sustainability using metrics like Levelized Cost of Energy (LCOE) and Life-Cycle Assessment (LCA) and will demonstrate how new technologies allow for more precise measurement and monitoring. The Special Issue will also showcase real-world applications in off-grid communities and urban grids, while dedicating a key section to the policy instruments and legal frameworks most effective in promoting the adoption of these technologies, providing a crucial link between technological potential and societal implementation.

Guest Editor

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Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

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