



Advanced Technologies and Applications of Microgrids

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Message from the Guest Editor

Microgrids are localized grids that can operate independently or in conjunction with the traditional grid. This issue aims to explore the technological innovations that enhance the efficiency, reliability, and sustainability of microgrids. It will cover a range of topics, including but not limited to the integration of renewable energy sources, advanced control strategies, energy storage solutions, and the role of microgrids in smart cities. Additionally, the issue will delve into the challenges and opportunities in the deployment and management of microgrids in various sectors, such as residential, commercial, and industrial. Contributions are sought from researchers, engineers, and practitioners presenting new research, innovations, and case studies.

This Special Issue will publish high-quality, original research papers in the overlapping fields of:

- Innovative design and optimization;
- Renewable energy integration;
- Energy storage and management;
- Smart grid technologies;
- Regulatory and policy frameworks;
- Case studies and practical implementations;
- Resilience and reliability;
- Economic and environmental impacts.





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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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