Special Issue

Innovative Approaches to Optimize Future Multi-Energy Systems

Message from the Guest Editors

This Special Issue invites submissions focused on innovative research and methodologies to optimize Multi-Energy Systems (MESs) for a sustainable and renewable energy future. We welcome papers that showcase cutting-edge solutions through case studies or propose novel optimization approaches for designing future MESs at local, regional, and national levels. Topics of interest include:

- Integrated design and operation optimization of energy conversion and storage units and networks.
- Optimal aggregation of diverse energy end users.
- Demand-side management and demand response programs.
- Multi-objective optimization addressing energy, economic, environmental, and social goals.
- Optimization under uncertainty using methods like stochastic programming and robust optimization.
- Multi-stage optimization frameworks for evolving uncertainties.
- Risk assessment with varying attitudes toward risk.
- Application of machine learning techniques, including unsupervised clustering and supervised neural networks.
- Time series forecasting for energy demand, generation, and pricing predictions.

Guest Editors

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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.

Editor-in-Chief

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