Special Issue

Advanced Control of Thermal Power Plants for Safe, Economic and Flexible Operation under High Penetration of Renewable Energy Sources

Message from the Guest Editors

This Special Issue will contribute a practical and comprehensive forum for exchanging novel research ideas or empirical practices that bridge the modelling, simulation, and control of thermal energy systems. Articles that analyze aspects of thermal energy systems, involving, for example, conventional power plant, innovative thermal power generation, fuel-cell plants, hybrid power and heat energy systems, coupled energy and transportation systems, and battery, flywheel, and pumped-hydro energy storage systems, on the basis of one or more of the following topics, are welcome in this Special Issue:

- Power plant modelling, simulation, and control
- Advanced control and optimization
- Artificial intelligence and machine learning
- Combined heat and power (CHP) generation
- Cyclic operation of thermal power plants
- Modelling and control of thermal networks
- Multi-energy hub modeling and operation
- Integrated operation of thermal power plants with renewable generation and energy storage systems
- Coupled power and transportation systems via electric vehicles
- Carbon capture systems
- Fuel-cell power plants
- Energy storage systems
- Advance pumped-storage hydro plants

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Deadline for manuscript submissions

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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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