Special Issue

Dynamic Simulation and Analysis in Modern Power Systems

Message from the Guest Editor

The modern power system faces significant challenges from the large-scale integration of renewable energy, and its digitization and simulation is being reconstructed with new technologies and tools such as artificial intelligence. The dynamic simulation and analysis of power systems is crucial to Meanwhile, the question of how to apply technologies such as digital twins and AI in the simulation and analysis of power systems to make them fast and accurate needs to be explored in depth with the new characteristics of modern power systems. This Special Issue aims to present and disseminate the most recent advances related to the forecasting, modeling, scheduling, and control techniques in modern power systems. Topics of interest for publication include but are not limited to

- Optimal scheduling of power system operations;
- Renewable energy and load forecasting;
- Renewable energy uncertainty modeling;
- Integrated energy system modeling and simulations;
- AI application in power system simulations;
- Digital twin modeling in power systems;
- Real-time simulations of power systems;
- Power system condition assessments and predictions;
- Stability control of power systems;
- Stability analysis of power systems.

Guest Editor

Dr. Yuefang Du

School of Mechanical and Electrical Engineering, University of Electronic Science and Technology of China, Chengdu 611731, China

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Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

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Message from the Editor-in-Chief

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.

Editor-in-Chief

Prof. Dr. Enrico Sciubba
Department of Mechanical and Industrial Engineering, University Niccolò Cusano, 00166 Roma, Italy

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