Special Issue

Advanced Forecasting Techniques and Methods for Energy Systems

Message from the Guest Editors

The transition towards environmentally friendly power systems is driving an increase in the production of clean energy. Distributed energy resources are increasingly vital in modern power and energy systems, offering benefits such as reduced emissions and enhanced security. However, their variability and uncertainty demand greater flexibility in future energy systems. Consequently, prediction plays a crucial role in asset and resource management across various fields, including energy commodities. This Special Issue aims to showcase forecasting techniques, emphasizing machine learning and artificial intelligence alongside statistical forecasting techniques and hybrid methodologies. Papers that focus on the development and applications of different analysis tools, from microgrids to continental scale systems, and focus on the planning and management of renewable energy systems, energy portfolios, markets and natural resources are welcome. Original research and review articles that contribute to advanced forecasting and optimization in energy systems are welcome.

Guest Editors

Dr. César Berna-Escriche

Department of Statistics, Operational Research and Quality (DEIOAC) & Institute for Energy Engineering (IIE), Universitat Politècnica de València (UPV), Camino de Vera 14, 46022 Valencia, Spain

Dr. Paula Bastida-Molina

Institute of Energy Engineering, Polytechnic University of Valencia, 46022 Valencia, Spain

Deadline for manuscript submissions

10 April 2025

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/si/201616

Applied Sciences
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

mdpi.com/journal/applsci

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.3

mdpi.com/journal/applsci

MDPI

About the Journal

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

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)