

Special Issue

Solar Radiation Prediction

Message from the Guest Editors

The critical depletion of fossil fuels and the global climate change have stimulated many countries to employ ever-larger volumes of renewable energy sources (RESs) to gradually substitute the conventional carbon-based technologies. However, with the larger penetration of RESs, smart grids require further adaptations to face the challenges posed by this kind of energy source. The uncertainty of power supply affects the stability of power grids. Recent findings suggest that the problem of fluctuating power outputs can be solved by adopting smart system operating procedures such as real-time forecasting. The prediction of future energy production can significantly improve the energy management of smart grids. In this Special Issue, we are interested in innovative solutions for the planning, analysis and optimization of solar irradiance and PV forecasting:

- Solar irradiance forecasting;
- Solar forecasting based on satellite imagery;
- NWPM solar forecasting;
- PV power forecasting;
- PV system modelling;
- Parametric and non-parametric PV models;
- Smart grid integration;
- Models for synthetic data generation;
- GIS tools for energy planning and management.

Guest Editors

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About the Journal

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The new open access journal *Forecasting* provides an interdisciplinary forum for all aspects related to the immensely broad field of time series analysis and forecasting. The range of applications in forecasting is enormous, from energy forecasting or economic analysis of stock indices prediction, climate forecasting, chemical or natural process forecasting, etc. It is the aim of the journal to publish relevant topical contributions for the scientific community of forecasting in a timely manner. We would like to invite you to contribute to the journal by sending us your high quality research papers and would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Sonia Leva

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