

Special Issue

Volume 18: Advances in Wind and Solar Farm Forecasting

Message from the Guest Editor

Intermittent electrical power output from grid-connected solar and wind farms increases the difficulty of managing and maintaining electricity grid stability. The difficulty arises from the uncertainty of the electrical power output from the farms, adversely affecting the control of dispatchable power to balance power supply and demand. Given the high rate of growth of these installations, and the majority of research in forecasting focussed on the resource, it is expedient to turn our attention more to the direct forecasting of output from both wind and solar farms. Additionally, it is extremely important to not only hone in on point forecasting, but also to explore robust techniques for probabilistic forecasting. Allied to these topics is the issue of identifying the value of forecasts, both point and probabilistic. Topics will include:

- Point forecasting methods for wind or solar farm output
- Probabilistic forecasting
- Value of forecasting
- Classical time series methods
- Physical forecasting methods
- Satellite image tools
- Machine learning methods
- Numerical weather prediction
- Blended forecasting tools
- Spatiotemporal forecasting

Guest Editor

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