Special Issue

Large Grid-Connected Wind Turbines

Message from the Guest Editors

The renewable energy penetration rate has increased rapidly since the last decade. Among the different renewable sources, such as wind, solar, biomass/biogas, tidal, geothermal, etc., wind energy is playing a vital role in the energy market. 10 MW class wind turbines will be available commercially in the near future and growth will continue.

To maximize the energy production from wind turbines, and transfer this power to the power grid, different types of power electronic converters are being used presently as interfacing devices. Controller and filter design tasks are becoming more complex. System stability is becoming a headache for transmission and distribution operators, when large scale wind farms are connected with existing weak networks. The energy storage system appears as a crucial part of grid tied to large scale wind turbine generator systems. This Special Issue aims to collect important works addressing the stability, variability, and scalability of large-scale, wind-turbine, grid-interfacing techniques and challenges.

Guest Editors

Prof. Dr. S. M. Muyeen

Department of Electrical Engineering, Qatar University, Doha 2713, Qatar

Prof. Dr. Frede Blaabjerg

Department of Energy Technology, Aalborg University, 9220 Aalborg, Denmark

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

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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

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