Special Issue

Control of Renewable Energy Sources in Power Systems and Smart Grids: 2nd Edition

Message from the Guest Editor

To get the low-carbon energy infrastructure, tremendous renewable energy sources are integrated into the modern power grid while reducing conventional fossil power plants. In this transition, the power electronics-based renewable energy system acts as one of the most important role players, which can convert renewable energies to electrical energy. Due to the recent development of power electronics technology and its control, renewable energy supports more efficient, economical, and reliable power than ever before. Recently, various loads (e.g., electrical vehicle, data center, and motor) have been connected to the grid based on power electronics. With the high-penetration level of power electronics-based renewable energy in the power grid, more and more issues are to be challenged, such as performance deterioration, efficiency decrease, and power quality reduction, as well as instability phenomena. Herein, this Special Issue focuses on recent advances and challenges in power electronics-based renewable energy sources integrated into the power grid.

Guest Editor

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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.

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