Special Issue

Smart Grid, Integration of Renewable Sources and Improvement of Power Quality

Message from the Guest Editors

The global energy landscape is transforming, driven by decarbonization and the proliferation of renewable energy. This transition to distributed networks presents challenges. The intermittency of sources like solar and wind requires the power grid to possess intelligence, flexibility, and resilience. Smart grids, using data analytics and control, are a cornerstone of modern energy infrastructure. However, integrating renewables and new loads, such as electric vehicles, can trigger power quality issues (e.g., voltage fluctuations, harmonics) that threaten system reliability. This Special Issue, "Smart Grid, Integration of Renewable Sources and Improvement of Power Quality," aims to showcase advances and research addressing the intersecting challenges across these three domains. We seek to foster multidisciplinary discussion on technologies, strategies, and policies to facilitate renewable energy integration, enhance grid intelligence and resilience, and ensure power quality.

Guest Editors

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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.

Editor-in-Chief

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