Special Issue

Innovative Power System Technologies

Message from the Guest Editors

Innovative power system technologies play a critical role in addressing the challenges associated with the integration of renewable energy sources—such as solar, wind, tidal, and wave energy—into modern power grids. While these renewable sources promise to meet the growing energy demand and support net-zero emission targets, they also introduce new complexities related to grid stability, supply reliability, and operational safety. Emerging solutions span multiple levels, from advanced control strategies at the energy conversion device level to cooperative control among distributed energy resources and the strategic use of energy storage and hybrid systems to mitigate variability in generation. This Special Issue focuses on the latest advancements in power system innovation, including the control and optimization of individual and aggregated renewable units, smart grid integration, novel hybrid and co-located power parks, and advanced energy storage systems. We aim to highlight both theoretical developments and practical implementations that drive the transformation of energy systems worldwide.

Guest Editors

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Technologies, provides a single focus for reporting on developments of all technologies, regardless of their application. It is our intention that *Technologies* becomes the journal of choice for both researchers wanting to publish their work and technologists wishing to exploit the high quality research across a wide range of potential applications. Through its open access policy, its quick publication cycle, *Technologies* will facilitate the rapid uptake and development of the research presented, ultimately providing benefit to the wider society.

Editor-in-Chief

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