Special Issue

Smart Grids: Operation, Planning, and Management

Message from the Guest Editor

The integration of recent and emerging energy technologies in the existing electric grid requires modifications in several aspects of the grid, including its architecture, protection, operation, and control. The micro-grid provides a solution for integrating distributed energy resources, such as renewable energy generation, energy storage systems, electric vehicles, controllable loads, etc. and delivers flexibility, security, and reliability by operating in both grid-connected and isolated modes. The incorporation of a microgrid, based on a cogenerating power station where waste heat is used to provide climate control and hot water, and where power production is supplemented with renewable energy sources, would effectively remove the development from the local grid and greatly reduce greenhouse gas emissions. While much effort is devoted to micro-grid studies, there is a pressing need to innovate and demonstrate technologies to be implemented in this area. This Special Issue is focused on bringing together innovative developments, technologies, and solutions in the field of micro-grid applications, operation, control and protection.

Guest Editor

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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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