Special Issue

Optimal Reliability-Oriented Techniques in Power-Electronic-Based Smart Grids

Message from the Guest Editors

Operating condition issues (e.g., renewable energy resources, various load missions, environment affection) and reliability issues (e.g., power device health management and system-level reliability) are challenging the safe operation of the power electronic-based smart grids. In contrast, the reliability-oriented techniques for the latest smart grid control are flexible and diverse, e.g., system-level energy management and converter-level operation optimization, affecting system reliability profoundly. Therefore, reliability-oriented management techniques for smart grids can be used to intelligently monitor, predict, and manage the health status, realizing the autonomous reliability optimization of the smart grid. This Special Issue will focus on optimal reliability-oriented techniques for improving power quality and system reliability through the reliability management of power electronic-based grids, which aims to safeguard and improve the reliability of the smart grid and lay the foundation for future reliable power electronic-based power grids.

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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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