

Special Issue

Power Electronic System Control and New Energy Power Conversion Technology

Message from the Guest Editor

We welcome original research and review articles on the latest advancements in power electronic system control and new energy power conversion technology. This Special Issue aims to address emerging trends and challenges in areas including, but not limited to, advanced control strategies, high-efficiency power converters, and renewable energy integration. With the growing demand for grid stability, energy efficiency, and power quality, we encourage contributions exploring innovative control techniques such as model predictive control, AI-based optimization, and real-time adaptive algorithms. These approaches enhance the reliability and performance of power converters in applications ranging from solar and wind energy systems to electric vehicles, smart grids, and energy storage. We also seek research on the impact of wide-bandgap semiconductors (SiC and GaN), enabling higher switching frequencies, reduced losses, and more compact designs. Other relevant topics include modular multilevel converters (MMCs), bidirectional power flow control, hybrid AC/DC grids, and microgrid stability.

Guest Editor

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About the Journal

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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