Special Issue

Emerging Converter Topologies and Control for Grid Connected Photovoltaic Systems

Message from the Guest Editors

Dear colleague, The cost and efficiency of PV systems improved significantly, which made them commercially attractive. This special issue aims to concentrate the latest developments and allow researchers to discuss and share experiences to advance this technology. Topics of the Special Issue include but are not limited to:

- Transformerless PV string inverters with a wide MPPT range
- PV string inverter topologies without electrolytic capacitors
- Partial power processing dc-dc converters for distributed PV architectures
- High step-up voltage ratio dc-dc converters
- PV power optimizers and their control
- PV microinverters with an improved MPPT range
- Topologies for increased reliability and warranty extension
- Sub-module PV power converter topologies
- Global MPPT algorithms for PV systems under partial shading conditions
- Advanced control techniques for PV inverters to provide ancillary services to the grid
- Active power control strategies: absolute active power control, delta power control, ramp-rate control, etc.
- Active power decoupling in single-phase PV inverters
- Module-level PV system monitoring and diagnosis
- Efficiency and reliability of PV systems

Guest Editors

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Deadline for manuscript submissions

closed (30 September 2020)

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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.

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