# Special Issue

# Innovations in Power Electronics for Lighting and Smart Grid Applications

### Message from the Guest Editors

This Special Issue aims to present innovative research and developments in power electronics applied to lighting technologies and smart grid infrastructures. Its topics of interest include novel power conversion topologies, digital control techniques, grid-interactive lighting systems, and the role of artificial intelligence in optimizing power electronic applications. This Special Issue will also explore advancements in new materials, high-efficiency power semiconductor devices, energy harvesting techniques, and the integration of renewable energy sources into smart grids and lighting networks. Areas of interest include, but are not limited to, the following applications:

Advanced power conversion for lighting systems ;
Smart grid integration and energy management ;
Digital and AI-based control techniques ;
Emerging power semiconductor technologies ;
Wireless power transfer for lighting and smart grids;
Isolated and multiport converters for power interfacing;
Energy harvesting and self-powered lighting systems;
Cyber–physical security in power electronics for smart grids;

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### Deadline for manuscript submissions

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## Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

## Editor-in-Chief

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