# **Special Issue**

# Microgrids, Electrical Power and Sustainable Energy Systems

### Message from the Guest Editors

This special issue aims to compile cutting-edge research contributions that advance our understanding of hybrid microgrid systems and their integration with emerging energy technologies.

Suggested themes include, but are not limited to:

- Novel control strategies and power management algorithms for hybrid AC/DC microgrids
- Integration of advanced energy storage systems (batteries, supercapacitors, hydrogen) in hybrid configurations
- Power quality enhancement and stability analysis in mixed AC/DC environments
- Fault detection, isolation, and recovery mechanisms for hybrid microgrids
- Vehicle-to-grid integration and bidirectional power flow management
- Standardization and interoperability solutions for hybrid microgrid systems
- Artificial intelligence and machine learning applications in hybrid microgrid control
- Economic and technical feasibility studies of hybrid AC/DC implementations
- Cybersecurity and resilience enhancement in hybrid microgrid architecture
- Real-world case studies and practical implementation experiences

#### **Guest Editors**

Dr. Pengfeng Lin

Dr. Yu-chen Su

Prof. Dr. Chao Zhang

Dr. Junjun Wang

### Deadline for manuscript submissions

28 February 2026



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I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

### Editor-in-Chief

Prof. Dr. Steve W. Lyon

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