Special Issue

Innovative AC/DC Hybrid Microgrids Technology and Its Applications

Message from the Guest Editors

Driven by the development of power electronics and flexible distribution technologies, the adoption of AC/DC hybrid connections addresses supply and demand challenges. AC/DC hybrid systems offer advantages, including flexible topology, diverse modes, coordinated AC/DC interaction, and accommodation of distributed energy resources and DC loads. Through energy management systems and controlled conversion devices, these systems resolve intermittency and randomness from integrating renewable energy and address stability challenges. AC/DC hybrid distribution technologies have emerged as a competitive trend. This Special Issue aims to establish the dynamic response of AC/DC hybrid systems and promote advanced control methods and protections to enhance system stability and flexibility:

- Transient response of AC/DC microgrids
- Grid forming/following converters control
- Power sharing of multi-microgrids
- Inertial control of power electronic systems
- Coordinated protection and control of AC/DC hybrid microgrids
- Optimal operation of AC/DC systems
- Application of artificial intelligence in hybrid microgrids
- Power load forecasting

We look forward to receiving your contributions.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

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