Special Issue

Power System Driven Power Electronics

Message from the Guest Editors

In recent years, with the rapid integration of renewable energy sources, energy storage systems, electric vehicles, and hybrid AC/DC networks, the role of power electronics as the backbone of modern power systems has become increasingly prominent. Power system-driven power electronics not only enable efficient energy conversion but also provide critical functionalities such as grid support, power quality improvement, and system resilience enhancement. To address the emerging challenges in this field, innovations in converter topologies, modulation techniques, and advanced control strategies are essential for achieving higher efficiency, greater power density, enhanced reliability, and cost competitiveness. This Special Issue seeks to gather cutting-edge research and technological advancements in power electronics driven by power system applications. Topics of interest include, but are not limited to, the following: Innovative converter topologies (e.g., AC–DC, DC–DC, DC–AC, and multiport converters) for high efficiency, high power density, and low cost, particularly with wide-bandgap semiconductor devices.

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 guestedited by leading experts in selected topics of interest.

Editor-in-Chief

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