Special Issue

Next-Generation Instrumentation and IoT-Enhanced Monitoring for Advanced Power Electronics Systems

Message from the Guest Editors

This Special Issue focuses on the integration of advanced instrumentation and IoT technologies to enhance monitoring and control in power electronics systems. As power electronics are fundamental to applications such as renewable energy, smart grids, electric vehicles, and industrial automation, the need for precise, real-time monitoring, and diagnostics is growing. This issue explores the role of IoT-enhanced systems, smart sensors, and next-generation instrumentation in improving the efficiency, reliability, and fault detection capabilities of power electronics. The scope of the issue includes cutting-edge research on IoT-based remote monitoring, advanced data acquisition techniques, predictive maintenance, fault diagnostics, and the role of machine learning in enhancing system performance. Contributions focusing on innovations in sensor design, real-time data analytics, and their integration with power electronics across various applications are welcomed.

Guest Editors

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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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