Special Issue

Reliability and Artificial Intelligence in Power Electronics

Message from the Guest Editors

The increasing complexity and variability of power electronics systems present significant challenges to their reliability. Concurrently, the rising interest in Artificial Intelligence (AI) techniques offers promising new tools for design optimization, monitoring, control, and enhancing system life-cycle performance. This topic encapsulates the evolving performance requirements and methodologies in power electronics. This topic will delve into the reliability of power electronics components and systems, as well as the application of AI in power electronics, showcasing cutting-edge academic research and industry innovations. It will also address the challenges and opportunities inherent in this exciting field of research. The Special Issue on Reliability and Artificial Intelligence in Power Electronics invites articles on data gathering, analysis, and improvements in the reliable operation of power electronics, with applications to the smart grid.

Keywords
- power electronics
- artificial intelligence
- reliability of power electronics components and systems

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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.

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