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Machine Learning-Assisted Advanced Power Converter Sensing Technologies and Health Management

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Message from the Guest Editor

Power-converter design is moving toward a new era, utilizing advanced sensors, computing techniques, optimization approaches, and machine learning. Such techniques have led to modern power converters that are more compact, lighter, and more efficient than ever before. Furthermore, with the high proliferation of converters in modern applications, the improvement of reliability and health management among power electronics has come to the forefront in research focus in recent years. Machine learning techniques play a vital role in this aspect.

This Special Issue aims to collect the latest technical advancements and knowledge in research areas related to the subject. We invite researchers to submit original research and survey articles related to power-converter design and health management assisted by modern sensors and machine learning techniques. This Special Issue also accepts related topics in power electronics, including, but not limited to, health analytics, reliability prediction, fault identification, prevention, and diagnosis, the Internet of Things (IoT), and energy harvesting.



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Special Issue



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Message from the Editor-in-Chief

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