

## Special Issue

# Reliability of Power Electronics Devices and Converter Systems: 2nd Edition

### Message from the Guest Editors

Power electronics play a key role in energy conversion and management, being prominent in renewable energy generation systems, electric vehicles, smart grids, etc. However, industrial experience indicates that the power converter is one of the weakest components in the system. Thus, there is a pressing need to improve the reliability of power converters and reduce the system downtime induced by the failure of power converters. The failure mechanism, thermal network model, junction temperature estimation, lifetime prediction, condition monitoring, and thermal control of power electronics systems have become increasingly important. This Special Issue aims to present and disseminate the most recent advances related to the reliability of power electronics system.

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### Guest Editors

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Dr. Kun Tan

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Dr. Hengyu Yu

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### Deadline for manuscript submissions

20 January 2026



## Energies

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### Message from the Editor-in-Chief

*Energies* is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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