

## Special Issue

# Efficiency- and Reliability-Oriented Design of Power Electronic Devices, Converters, and Systems

### Message from the Guest Editor

This Special Issue aims to reveal the current research, challenges, and prospects related to the efficiency- and reliability-oriented design of power electronics. Topics that will be covered include, but are not limited to, the following:

- The modeling, simulation, and assessment of the efficiency and reliability of power components, converters, and systems.
- Control strategies to improve the efficiency of power electronic converters and systems.
- Control strategies to enhance reliability such as voltage and current stress mitigation, power loss and thermal balancing, fault tolerance, and so on.
- Optimal hardware design such as power device selection, topology improvement, protection systems, and so on.
- Prototype demonstration with efficiency- and reliability-oriented design.
- State-of-the-art reviews on efficiency- and reliability-oriented design.

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### Guest Editor

Dr. Chaochao Song  
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### Deadline for manuscript submissions

closed (15 April 2026)



## Electronics

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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.

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### Editor-in-Chief

Prof. Dr. Flavio Canavero

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