





an Open Access Journal by MDPI

# **Modeling and Design of Power Converters**

Guest Editor:

### Dr. Peng Fang

Swenson College of Science and Engineering, University of Minnesota Duluth, Duluth, GA 55812, USA

Deadline for manuscript submissions:

15 November 2024

## **Message from the Guest Editor**

Dear Colleagues,

Highly efficient and reliable power conversion is of paramount importance in many critical applications. This Special Issue intends to collect the latest research on power topologies and architecture leveraging wide bandgap devices and higher switching frequency magnetic cores. Potential topics include, but are not limited to:

- Application of new power conversion topologies and architectures used in high power computing, transportation electrification, and renewable energy grids.
- 2. Advanced control and modulation methods for emerging power topologies and architecture.
- 3. Advanced power conversion topologies and architectures enabling very high-frequency operation and high-power-density design.
- 4. System-level optimization enabled by new power topologies and architectures. For instance, new power conversion architecture enables integrated onboard chargers for electric vehicles.
- 5. Lifespan, reliability analysis, and modeling for new power topologies and architectures.
- 6. EMI optimization through power topology and architecture innovation











an Open Access Journal by MDPI

## **Editor-in-Chief**

#### Prof. Dr. Flavio Canavero

Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy

# **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.

### **Author Benefits**

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), CAPlus / SciFinder, Inspec, Ei Compendex and other databases.

Journal Rank: JCR - Q2 (Physics, Applied) / CiteScore - Q2 (Control and Systems

Engineering)

#### **Contact Us**