## Special Issue

# Challenges and New Trends in Power Electronic Devices Reliability

### Message from the Guest Editors

The area of interest of this Special Issue includes the following topics:

- Risk analysis of power electronic devices;
- Forecasting system for the reliability of the components;
- Statistical methods for power electronics reliability evaluation (Bayesian inference, statistical modeling, nonparametric approaches, etc.);
- Accelerated testing for the failure rate estimation;
- Dielectric and thermal stress strength models of power electronics devices;
- High reliability power electronics architecture for electric powertrain;
- Risk analysis of battery storage system under critical condition;
- Fault-tolerant control algorithms based on RAMS logic;
- Predictive maintenance for the condition monitoring of power electronic devices;
- Reliability challenges in smart grid installations.

Welcome to contribute!

### Guest Editors

Prof. Dr. Elio Chiodo
Dr. Pasquale De Falco
Dr. Luigi Pio Di Noia

### Deadline for manuscript submissions

closed (31 January 2021)

**Electronics**

**an Open Access Journal by MDPI**

**Impact Factor 2.6**
**CiteScore 6.1**

mdpi.com/si/25454

*Electronics*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
electronics@mdpi.com

mdpi.com/journal/electronics

MDPI

# Electronics

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 6.1

mdpi.com/journal/
electronics

MDPI

# 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.

---

## Editor-in-Chief

Prof. Dr. Flavio Canavero
Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy

---

## Author Benefits

### High Visibility:

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

### Journal Rank:

JCR - Q2 (Engineering, Electrical and Electronic) / CiteScore - Q1 (Electrical and Electronic Engineering)

### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).