Special Issue

Reliability of WBG-Based Power Electronic Circuits in Electric Vehicles

Message from the Guest Editors

Dear Colleagues: The emergence of wide bandgap (WBG) technology has provided designers with new features, such as high frequency operation (up to MHz range), more compact design, and higher temperature endurance (up to 150 °C). Considering each of these features, this technology is opening a new era for highfrequency power conversion, new automotive and aircraft technologies, and robust power electronics design in harsh climate environments, respectively. Additionally, reliable and robust performance has become a major pre-requisite in the new application of power electronics. Therefore, characterization of faults and monitoring device health are necessary in order to enable WBG-based power modules and devices to be employed in new power electronics applications. In this regard, reliable performance aspects require deep investigation to enable these technologies to be widely used in a new generation of power conversion. This Special Issue aims to address some of the techniques, methodologies, and trends in characterization, monitoring, and elimination of probable faults in WBGbased power electronics circuits.

Guest Editors

Dr. Kamyar Mehran

Dr. Maher Al-Greer

Dr. Ozan Keysan

Deadline for manuscript submissions

closed (30 December 2021)



Energies

an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 7.3



mdpi.com/si/63424

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

mdpi.com/journal/energies





Energies

an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 7.3



About the Journal

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.

Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and Industrial Engineering, University Niccolò Cusano, 00166 Roma, Italy

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), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q1 (Control and Optimization)

