



an Open Access Journal by MDPI

Robustness and Reliability of GaN Technology in Power Switching Applications

Guest Editor:

Prof. Dr. Annunziata Sanseverino

Department of Electrical and Information Engineering "Maurizio Scarano", University of Cassino and Southern Lazio, 03043 Cassino, Italy

Deadline for manuscript submissions: closed (30 September 2023)



Message from the Guest Editor

Dear Colleagues,

GaN devices are now much more than a promise in modern electronics. Dozens of manufacturers market GaN devices that have found applications in various fields of electronics, from power supplies to RF power amplifiers.

However, in addition to the well-known benefits of using WBG devices, new challenges arise. On the one hand, we have devices whose reliability is linked to degradation phenomena that are very different from those of traditional silicon devices.

On the other hand, to take full advantage of the benefits deriving from the use of GaN devices, it is necessary to rethink the general rules used in the design of circuits based on silicon devices. This requires the careful design of driver circuits, the application of new high-frequency design principles, reliable switching and optimal energy efficiency.

The purpose of this Special Issue is to address the problems of GaN devices together with those of the circuits in which they are inserted, to define the system-level reliability of GaN.

Prof. Dr. Annunziata Sanseverino Guest Editor







an Open Access Journal by MDPI

Editor-in-Chief

Message from the Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

Contact Us

Applied Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/applsci applsci@mdpi.com X@Applsci