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Extreme-Environment Electronics: Challenges and Solutions

Guest Editor:

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Deadline for manuscript submissions:
closed (31 October 2021)

Message from the Guest Editor

In recent years, research and investigations into extreme-environment electronics have been actively conducted. In the initial design phase, accurate predictions and evaluations are critically important because electronics operating in harsh environments can exhibit significant long- and short-term performance degradation.

Successful implementation requires accurate modeling of operating conditions, appropriate calibration methods, degradation simulations, and performance measurement. In addition, due to aggressive technology scaling and system integration, it is essential to develop efficient design and test techniques relevant to extreme-environment electronics.

The topics to be covered in this Special Issue are as follows:

- Investigation of radiation effects in electronics;
- Radiation-hardening design approaches and techniques;
- Design, simulation, measurement, and new applications of extreme-environment electronics;
- Cryogenic/high-temperature operation and related issues;
- Electronic systems for nuclear power plants and facilities;
- Electronics in other harsh conditions such as mechanical and chemical stress.

Welcome to contribute.

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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.

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