



Call for Papers

IEEE Open Journal of Power Electronics (OJ-PEL)



Special Compendium on Wide Bandgap Power Semiconductors for the International Technology Roadmap for Wide Bandgap Power Semiconductors (ITRW)

Scheduled Publication Time: February 2021

Papers that demonstrate the potential of wide-bandgap technology for power applications, address technology bottlenecks and demonstrate potential breakthroughs are particularly welcome. Topics of interest include, but are not limited to:

Materials and Devices (Current state-of-the-art and forecasting)

- SiC Power Devices
- GaN Power Devices (HEMTs, integration, and vertical GaN)
- Ultra-WBG materials

Packaging and integration, including materials, processes, architectures and tools:

- Packaging and integration for high speed switching
- Higher voltage (>10 kV) packaging
- Packaging for operation at higher temperatures and in other harsh environments

System Integration and Application of SiC and GaN

- Novel applications and converter topologies enabled by GaN and SiC
- Design and Simulation methods for GaN and SiC-based system designs
- Converter design, control, and protection
- Passives, cooling and integration for WBG converters

We will be accepting both letter articles and full journal articles. A Letter submission is still expected to include a literature review to establish its relationship to prior work, and present sufficient results to prove the validity and viability of proposed concept, but these parts must be written concisely in order to focus on the new idea and specific contribution. Works dealing with subjects that cannot be presented in this format because of the need for extensive literature review, lengthy analysis and derivation, and/or extensive experimental verification and validation shall be submitted as regular papers to the Transactions.

All manuscripts must be submitted through Manuscript Central at: <https://mc.manuscriptcentral.com/oj-pel>. Submission must be clearly marked “Wide Bandgap Power Semiconductors” on the cover page. When uploading your paper, please select your manuscript type “Special Compendium.” Refer to <https://www.ieee-pels.org/> for general information about electronic submission through Manuscript Central. The guest editorial board noted below will review and handle manuscripts submitted for this special compendium.

Deadline for Submission of Manuscript: December 15, 2020

Guest Editors:

Braham Ferreira, University of Twente, Netherlands
Peter Wilson, University of Bath, UK

Guest Associate Editors:

Andrew Binder, Sandia National Labs, USA
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Proposed Time Line

- 11/04/2020 Call for Papers to IEEE OJ-PEL Editorial Office
- 12/15/2020 Manuscripts Submission Deadline
- 01/08/2020 First-Round Notification (Accept or Major Revision)
- 01/22/2020 Major Revision Deadline
- 02/05/2020 Second-Round Notification
- 02/26/2021 Manuscripts Forwarded to IEEE for Publication
- 03/2021 Special Compendium Appears in IEEE OJ-PEL