

Call for Papers

IEEE Journal of Emerging and Selected Topics in Power Electronics

Special Issue on Power Integration with WBG Devices and Components, 2019

Scheduled Publication Time: Dec. 2019

With the development and application of wide bandgap (WBG) power semiconductor devices, new opportunities are emerging to further increase the efficiency and power density of power converters. New opportunities in power integration are presenting themselves. However, many issues exist that need to be addressed to realize the full potential of this new trend in WBG-enabled power integration, including device modeling, gate drive techniques, device and module packaging, and applications-oriented integration schemes. Magnetics and capacitors also play a key role in power integration. Their power loss, operating temperature and integration scheme with active devices are among the points of interests.

Prospective authors are invited to submit original contributions or survey papers, for review and publication in this special issue on Power Integration with WBG Devices and Components. Topics of interest include, but are not limited to:

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| <ul style="list-style-type: none"> • Characteristics and Modeling of GaN and SiC devices • Packaging of GaN and SiC Power Devices • Gate Drive, Protection and Other Auxiliary Circuits • High Temperature & High Voltage Dielectrics • High Frequency, High Efficiency WBG Converters • Reliability Assessment & Lifetime Prediction • Electromagnetic Interference | <ul style="list-style-type: none"> • Thermal Management • High-Performance Passive Components • Integrated Magnetics • System Integration of Converters • SiC Applications in Transportation and eGrid • GaN Applications in Datacenter, Network, Wireless Charging |
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All manuscripts must be submitted through Manuscript Central at <http://mc.manuscriptcentral.com/jestpe-ieee>. Submissions must be clearly marked “Special Issue on Power Integration Based on Wide Bandgap Power Devices and Components, 2019” on the cover page. When uploading your paper, please select your manuscript type “Special Issue” Refer to <http://www.pels.org> for general information about electronic submission through Manuscript Central. Manuscripts submitted for the special issue will be reviewed separately and will be handled by the guest editorial board noted below.

Deadline for Submission of Manuscript: Jun. 1st, 2019, Jun. 30th, 2019

Guest Editors: Z. John Shen, Illinois Institute of Technology (johnshen@iit.edu)

Laili Wang, Xi’an Jiaotong University (llwang@mail.xjtu.edu.cn)

Guest Associate Editors:

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Proposed Timeline:

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| • Jan. 1st, 2019 | – Call for Papers to IEEE JESTPE Editorial Office |
| • Jan. 1st, 2019 Jun. 30 th , 2019 | – Manuscripts Submission Deadline |
| • Aug. 1st, 2019 | – Final Acceptance Notification |
| • Oct. 1st, 2019 | – Manuscripts Forwarded to IEEE for Publication |
| • Dec. 1st, 2019 | – Special Issue Appears in IEEE JESTPE |