Call for Papers

IEEE Journal of Emerging and Selected Topics in Power Electronics

Special Issue on Emerging Topics of High Frequency High Power Density DC-AC Conversion Technologies

Scheduled Publication Time: July 2022

Recently, high performance inverters are widely adopted in many applications such as in PV system, plasma generation, medical imaging, wireless power transfer, electric vehicle and so on. For these applications, small volume, high power density, and fast response characteristics are greatly expected, to achieve this goal, improving the operating frequency is the fundamental approach. Thus, many high frequency DC-AC converters with frequencies ranging from hundreds of kHz to tens MHz are proposed. However, many technical issues still exist, such as high switching loss, narrow output load range, large value and volume of passive components and so on. Until now, there is still huge room for performance improvement in high frequency DC-AC conversion technologies. Thus, this special issue intends to foster the latest research and demonstrate emerging topics in high frequency high power density DC-AC conversion technologies.
Prospective authors are invited to submit original contributions or survey papers, in which **laboratory scale hardware base experimental results are desired to support proposed ideas**, for review and publication in this special issue on Emerging Topics of High Frequency High Power Density DC-AC Conversion Technology. Topics of interest include, but are not limited to:

- Advanced topologies and modeling of soft-switching inverter for renewable energy applications.
- High power density, light weight and wide load range inverters for medical imaging.
- Fast response control strategies of high frequency inverters for plasma generation, etc.
- High frequency inverters based on wide band-gap devices for electric drive and electric propulsion, etc.
- Multi-MHz High power density inverters for mid and long range wireless power transfer.
- Modular inverter module topology and control for high voltage high voltage gain application.

All manuscripts must be submitted through Manuscript Central at http://mc.manuscriptcentral.com/jestpe-ieee. Submissions must be clearly marked "Special Issue on Emerging Topics of High Frequency High Power Density DC-AC Conversion Technologies" on the cover page. When uploading your paper, please select the manuscript type as "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 listed below.

Deadline for Submission of Manuscripts: July 15, 2021

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Proposed Timeline:

- March 15, 2021 — Call for Papers to IEEE JESTPE Editorial Office
- July 15, 2021 — Manuscript Submission Deadline
- March 1, 2022 — Final Acceptance Notification
- May 30, 2022 — Manuscripts Forwarded to IEEE for Publication
- July 30, 2022 — Special Issue Appears in IEEE JESTPE