

Call for Papers

IEEE Journal of Emerging and Selected Topics in Power Electronics

Special Issue Commemorating 40 years of WEMPEC, 2021

Scheduled Publication Time: June 2021

In the 1970s, a patchwork of pioneering researchers around the world in industries and academic settings were laying the groundwork for the discipline of power electronics as we know it today. Following that nascent period, the Wisconsin Electric Machines and Power Electronics Consortium (WEMPEC) was founded in 1981 by Professors Donald Novotny and Thomas Lipo at the University of Wisconsin-Madison. During its history of 40 years, it has served as a hub for innovation in the field, hosting more than 500 scholars from across the world, who have received their graduate degrees or collaborated among themselves and created a strong network of scholarship that continues to this day. In commemorating the 40th Anniversary of the founding of WEMPEC at UW-Madison and the memory of Late Prof. Lipo, we are announcing a Special Issue of the IEEE Journal of Emerging and Selected Topics in Power Electronics to be published in summer of 2021. The issue will be dedicated to the Founders of WEMPEC, Professors Thomas Lipo and Donald Novotny.

We hope that the Special Issue will carry invited papers and contributed papers to mark the occasion, that focus on current topics of relevance to the Journal. Prospective authors are invited to submit original contributions, or survey papers or tutorials for review and publication in this special issue. Topics of interest include, but are not limited to:

- Power Converters: topologies, modeling, control and design
- Electric Drives: modeling and controls
- Electric Machines: design and integration with converters
- Modeling and simulation of power converter systems
- Self-sensing control in electric drives and power converters
- Thermal models of power devices and power converters
- Thermal management of power converters and electric drives
- Reliable power electronics
- Power semiconductors, characterization, gate drives and protection
- Passive components, optimization and integration with converters
- Integration of electric machines and power converters
- Application issues of power converters, electric drives, and electric machines.
- Non conventional electric machine topologies and their drives
- Magnetic gears, magnetic gear-integrated, and flux modulated electric machines

All manuscripts must be submitted through Manuscript Central at <http://mc.manuscriptcentral.com/jestpe-ieee>. Submissions must be clearly marked “Special Issue Commemorating 40 years of WEMPEC 2020” 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: September 2020

Guest Editors: Prof. Giri Venkataramanan, University of Wisconsin-Madison, USA (giri@engr.wisc.edu)
Prof. Olorunfemi Ojo, Tennessee Technological University, USA (jojo@tntech.edu)
Prof. Thomas Jahns, University of Wisconsin-Madison, USA. (jahns@engr.wisc.edu)

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Proposed Timeline:

- 15 June 2020
- 15 September 2020
- January 2021
- Mar 2021
- June 2021
- Advertise Call for Papers
- Manuscripts Submission Deadline
- Final Acceptance Notification
- Manuscripts Forwarded to IEEE for Publication
- Special Issue Appears in IEEE JESTPE