



Call for Papers

IEEE Journal of Emerging and Selected Topics in Power Electronics

Special Issue on Electric Machine Drives and Converters for Automotive Applications

Scheduled Publication Time: February 2021

Electrified automobiles are expected to become dominant within the next decade, whether it be through hybridization or full electrification, all types and segments of automobiles will have electrified products within this timeframe. This growth is being driven by the need to improve energy efficiency and reduce CO₂ emissions to address concerns over climate change and energy security. With this growth, the automobile industry will foreseeably become one of the largest producers and users of electric machines, power electronic converters and related components. The automotive application of power electronic systems will be broad, whether it be for the primary propulsion of the vehicle (electric motors and drives) or for auxiliary systems that either enable (chargers, DC/DC converters, etc.) or are enabled by electrification (autonomy, accessory systems, V2X exportable power, etc.). This is expected to drive significant amounts of innovation and cost reduction to these systems, enabling their wider application and utility.

This Special Issue is devoted to the latest developments and applications of *electric machine drives and converters for automotive applications*. Prospective authors are invited to submit original contributions, survey papers, or tutorials, for review for publication in this Special Issue. Topics of interest include, but are not limited to:

- Traction drives
- Wide bandgap devices and their application
- Power electronics packaging
- Auxiliary drives
- Chargers and charging systems, including DC fast charging
- Vehicle-to-Grid integration
- Exportable power
- High voltage battery systems
- Modeling and control of power electronic systems
- DC/DC converters

All manuscripts must be submitted through Manuscript Central at <http://mc.manuscriptcentral.com/jestpe-ieee>. Submissions must be clearly marked “**Special Issue on Electric Machine Drives and Converters for Automotive Applications**” 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: June 30, 2020

Guest Editors: Michael Degner, Ford Motor Company, USA (mdegner@ford.com)

Thomas Jahns, University of Wisconsin – Madison, USA (jahns@engr.wisc.edu)

Gianmario Pellegrino, Politecnico di Torino, Italy (gianmario.pellegrino@polito.it)

Guest Associate Editors:

- | | |
|---------------------------|---|
| • Wei Xu | Southeastern University, China |
| • Julia Zhang | Ohio State University, USA |
| • Wenying Jiang | Nanjing University of Aeronautics and Astronautics, China |
| • Lee Empringham | University of Nottingham, United Kingdom |
| • Giulio De Donato | University of Roma La Sapienza, Italy |
| • Shafiq Odhano | University of Newcastle, United Kingdom |
| • Fausto Stella | Politecnico di Torino, Italy |
| • Franco Leonardi | Ford Motor Company, USA |
| • Subhashish Bhattacharya | North Carolina State University, USA |

Proposed Timeline:

- March 1, 2020 – Call for Papers to IEEE JESTPE Editorial Office and Newsletter
- June 30, 2020 – Manuscripts Submission Deadline
- October 31, 2020 – Final Acceptance Notification
- December 31, 2020 – Manuscripts Forwarded to IEEE for Publication
- February 2021 – Special Issue Appears in IEEE JESTPE