Call for Papers

IEEE Transactions on Transportation Electrification (TTE)

Special Issue on Electric Machine Design and Numerical Optimization

Modern transportation systems have seen a considerable increase in electrification. This has led to major advancements in new and improved electric machine designs, optimization techniques, advanced control strategies, and power electronics. Applications such as propulsion systems, pumps, and auxiliary loads present a wide range of requirements that span over the entire torque/speed range. This necessitates machine designs with high torque density and efficiency over a wide range. Furthermore, these motors need to demonstrate high controllability, thermal performance, and good dynamic performance. This special issue aims to publish most recent advancements and original contributions in the field of electric machines design and numerical optimization. Prospective authors are invited to submit manuscripts for review for publication in this special issue. Original research and practical contributions as well as surveys and state-of-the-art tutorials are welcome. Topics of interest include (but are not limited to):

- Electromagnetic design numerical optimization methods
- Thermal management and cooling methods
- Novel machine configurations and topologies
- Noise, vibration, and harshness (NVH) analysis and mitigation
- Machine design using new materials and soft magnetic composites
- Multi-physics traction motor design and analysis
- Automated motor development design and analysis
- Rare-earth alternative machines
- High-performance induction, reluctance, and switched reluctance machines
- High torque and power density designs
- Novel winding configurations
- 3D printed electric machines
- Sub-horsepower machine designs
- Linear electric machines
- Rapid prototyping methods for electric machines
- Integrated motor drives
- High-speed electric machines
- High-voltage traction motor designs

Submission of Manuscripts to the Transactions:

All manuscripts must be submitted through Manuscript Central at http://mc.manuscriptcentral.com/tte-ieee. Submissions must be clearly marked “Special Issue on Electric Machine Design and Numerical Optimization” on the cover page. When uploading your paper, please also select the “Special Issue on Electric Machine Design and Numerical Optimization.” Refer to https://www.ieee-pels.org/publications/ieee-transactions-on-transportation-electrification for general information about electronic submission through Manuscript Central.

Important Dates:

- **Full Paper Submission Deadline: July 31, 2018**
- Expected Publication Date: March 2019

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