

Special Section on:

Optimization of Electric Machine Designs

THIS SPECIAL SECTION shall comprise the state-of-the-art, latest advances and future trends in the field of electric machine design optimization. As the majority of global electrical power consumption is due to electromechanical energy conversion and the electric machine is the centerpiece of any electric drive, maximizing the performance of machine designs takes top priority. Due to multiple requirements imposed on the characteristics of electric machines, e.g., a high torque and power density, low noise, high reliability and a low selling price, electrical engineers usually face tough multi-objective optimization problems. The main objective of this Special Section is to collect ideas of the global community for obtaining the optimal design of electrical machines. Advances and trends in the mathematical modeling, computer simulation, optimization strategies and techniques as well as new machine topologies and new or improved materials are of high interest. Moreover, results of particular optimization scenarios that provide interesting insights are very welcome.

Editors invite original manuscripts presenting recent advances in these fields with special reference to the following topics:

- ✓ New aspects in multi-objective optimization of machine designs
- ✓ Multi-physics optimization scenarios comprising mechanical or thermal aspects
- ✓ New machine topologies and strategies for selecting the best machine topology
- ✓ Optimization scenarios considering control aspects
- ✓ Techniques for speeding up the optimization process (evolutionary algorithms, surrogate modeling, parallel processing, etc.)
- ✓ Sensitivity and tolerance analyses for ensuring robust, insensitive machine designs

Manuscript Preparation and Submission

Check carefully the style of the journal described in the guidelines “Information for Authors” in the IEEE- IES web site: <http://www.ieee-ies.org/pubs/transactions-on-industrial-electronics> .

Please submit your manuscript in electronic form through: <https://mc.manuscriptcentral.com/tie-ieee/> .

On the submitting page, in pop-up menu of manuscript type, select: “**Optimization of Electric Machine Designs**”, then upload all your manuscript files following the instructions given on the screen.

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Timetable

Deadline for manuscript submissions:	Information about manuscript acceptance:	Publication date:
February 28, 2017	Spring, 2017	Fall, 2017