POWER ELECTRONICS AND DRIVES

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Special Section on:

State and Parameter Estimation Methods for Sensorless Drives
2nd part

CURRENTLY, SPEED OR POSITION SENSORLESS DRIVE becomes crucial in industries in order to increase mechanical robustness and reliability of overall system in addition to decrease of its cost, size, and hardware complexity. However, the performance of sensorless control of electrical motors directly depends on the performance of states/parameters estimations, which is still problematic due to uncertainties in model, errors in measurements, variations in model parameters, and losing stability or observability around zero-speed range. Therefore, a great effort is needed in the literature to enhance the estimation performances of the states/parameters. This effort can be classified as deterministic and stochastic based estimator or observer designs utilizing two-phase electrical motor model in addition to non-model based high-frequency signal injection techniques.

Purpose of this Special Section is to reveal the most recent findings to solve the problems associated with the sensorless estimation methods, and thus high-performance and efficient sensorless electrical drives. The papers to be prepared for this Special Section must include original materials that has not been submitted to or published in any other journal. Academicians and Practicing Engineers all over the world are invited to submit their recent original research contributions to this Special Section. Topics are, but not limited to:

- ✓ Deterministic model based methods such as Model Referance Adaptive System (MRAS), Adaptive Flux Observers (AFOs), Extended Leunberger Observers (ELOs), Siliding Mode Observers (SMOs)
- ✓ Stochastic model based methods like Extended Kalman Filters (EKFs)
- ✓ Deterministic/stochastic based estimator or observer utilizing artificial intelligence based techniques
- ✓ Non-model based methods
- ✓ Other linear/non-linear design techniques

Manuscript Preparation and Submission

Check carefully the style of the journal described in the "Guidelines for Authors" in the journal PED web site:
http://www.ped.pwr.edu.pl/Guidelines-for-authors,311.html

Please submit your manuscript in electronic form through: http://www.ped.pwr.edu.pl/

On the submitting page (after log in), in pop-up menu of manuscript type, select: "Special Section", 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:
April 30, 2019	Summer 2019	Autumn 2019