



CALL FOR PAPERS

“Industrial Applications and Implementation Issues of the Kalman Filter”

The Theme: Many industrial applications require to measure a large number of physical variables so as to own a sufficient quantity and quality of information on the system state and to ensure the required level of performance. However, the measurement of some physical quantities may not be possible or desired. Main reasons are the cost reduction and/or the increase of system reliability. In this context, the Kalman filter, whose 50th anniversary will occur in 2010, has played an key role in many industrial applications of the engineering professions since the 70s, ranging, without being exhaustive, trajectory estimation, state prediction for control or diagnosis, data merging,...

Many researches have been dedicated to the implementation and performance improvement of the Kalman filter, namely the numerical stability improvement, the computation time reduction (fast algorithms) or the study of efficient implementation. The main objective of this Special Section dedicated to the **Industrial Applications and Implementation Issues of the Kalman Filter** is to highlight the latest theoretical and experimental advances and practical implementation issues of this state estimator. Topics of interest of this Special Section include, but are not limited to:

- Sensorless control of drives and power converters,
- Distributed energy resources, grid-connected power interfaces,
- Robotics and vision, sensor fusion techniques,
- Diagnosis and fault-tolerant control,
- Instrumentation and signal processing,
- DSP and FPGA real-time implementation,
- Industrial applications and practical examples.

Manuscript Preparation and Submission

Follow the guidelines in “Information for Authors” in the IEEE Transactions on Industrial Electronics <http://tie.ieee-ies.org/tie/>. Please submit your manuscript in electronic form through the Manuscript Central web site: <http://mc.manuscriptcentral.com/tie-ieee>. On the submitting page #1 in popup menu of manuscript type, select: **Industrial Applications and Implementation Issues of the Kalman Filter**.

Timetable

Deadline for manuscript submissions	October 30, 2010
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