



The XXIth International Conference on Electrical Machines
ICEM 2014
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Berlin - Germany

Special Session on

**FPGA/DSP/PLC SYSTEMS FOR CONDITION MONITORING OF
ELECTRICAL MACHINES AND DRIVES**

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Call for Papers

The use of FPGA, DSP and Programmable Logic Controllers (PLCs) for on-line condition monitoring of electrical machines and drives is a new field, which opens new opportunities in the fields of fault diagnosis, fault-tolerant control and efficiency optimization. But, at the same time, the use of these systems presents new challenges due to their limited available resources and the difficulties associated to the processing in real time complex algorithms.

The aim of this session is to present new applications based on FPGA/DSP/PLC systems, including both the development of new diagnostic, fault tolerant control and optimization techniques specifically designed for these equipment, and the practical problems related to their implementation on this kind of devices.

Topics of interest include, but are not limited to:

- On-line fault diagnosis of electrical machines and drives based on FPGA/DSP/PLC systems.
- FPGA/DSP/PLC implementation of fault –tolerant control algorithms for AC Drives.
- FPGA/DSP/PLC based pattern recognition for online diagnostic systems.
- Efficiency driven control algorithms for electrical machines and drives.
- FPGA/DSP based real-time digital simulators to design, test and optimize control and protection systems used in power electronics and motor drives.

Provisional full paper submission deadline: 23 February 2014

(The deadline is the same as for regular papers – check the website for changes)

All the instructions for paper submission are included in the conference website:

<http://www.icem2014.de>