



**The XXI<sup>th</sup> International Conference on Electrical Machines**  
**ICEM 2014**  
September 2-5, 2014  
**Berlin - Germany**

**Special Session on**

**RECENT INDUSTRIAL APPLICATIONS AND CASE STUDIES OF  
ELECTRICAL MACHINE DIAGNOSIS & PROGNOSIS TECHNIQUES**

**organized and co-chaired by:**

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**Call for Papers**

Electrical machines condition monitoring is nowadays an area of crucial interest for many companies. Catastrophic consequences that eventual failures in these machines imply have led to the development of advanced fault diagnosis and prognosis techniques. Most of these techniques have been validated in laboratory conditions leading to satisfactory results with regards to the detection of a wide range of failures in different types of machines. Nonetheless, only few have been successfully validated under real industrial conditions, in which unexpected events or phenomena may be present. This special session is devoted to papers including recent industrial applications of modern electrical machines condition monitoring techniques. The applications can be related to any industrial area (petrochemical, paper, automotive...) and they may deal with any type of rotating electrical machines (either DC or AC) or fault. Applications involving techniques relying on the use of advanced signal processing and pattern recognition tools are especially welcome.

Topics of interest include, but are not limited to:

- Industrial applications of advanced time-frequency condition monitoring techniques.
- Pattern recognition-based approaches applied to industrial electrical machines condition monitoring.
- Industrial Artificial intelligence Advanced signal processing tools and machine modeling.
- Use of time-frequency tools for design and optimization of electrical machines and drives.
- Mathematical optimization of signal processing tools: application to electrical machines.
- Combination between signal processing tools and AI techniques for electrical applications.
- Pattern recognition applications in electrical machines.
- Educational aspects of signal processing tools applied to electrical machines and drives

**Provisional full paper submission deadline: 30 January 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>