

CALL FOR PAPERS

Special Session on Recent applications of signal and image processing techniques and pattern recognition algorithms to condition monitoring of electrical machines and drives

to be held in the frame of
IECON 2013 - The 39th Annual Conference of the IEEE Industrial Electronics Society
10th -13th of November 2013, Austria Center, Vienna, Austria



TOPIC OF THE SPECIAL SESSION

The use of advanced signal processing tools and techniques in the electrical machines condition monitoring area has drawn the attention of many researchers over recent years. Conventional diagnosis techniques relying on classical tools such as the Fast Fourier Transform are being complemented, or even replaced in some cases, by new methods based on modern signal processing tools suited for the analysis of non-stationary signals. These methods can be used for the analysis of transients in electrical machines and are often advantageous compared to traditional techniques. This is partially due to the fact that these modern signal processing techniques provide reliable patterns related to the failure (sometimes under the form of an image), able to be automatically detected by modern pattern recognition algorithms. This fact makes them ideal for their possible implementation in condition monitoring devices.

SPECIAL SESSION ORGANISATION

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Important Dates

Regular Paper submission:	April 01, 2013
Notification of acceptance:	June 15, 2013
Final submission:	August 01, 2013

The organizers look forward to welcoming you to Vienna, Austria from 10th to 13th November 2013.



This special session is intended to attract research papers showing novel applications of these signal analysis techniques in the electric machines condition monitoring area. The scope also covers papers including applications of pattern recognition algorithms or image processing techniques for diagnostic or prognostic purposes both in electrical machines and drives. More specifically, topics that are welcome related to the condition monitoring area are listed next:

- Time-frequency decomposition tools;
- Pattern recognition algorithms;
- Signal analysis techniques;
- Image processing tools;
- Classification methods.

SUBMISSION OF PAPERS

The working language of the conference is English. Submit the full paper as PDF following the IEEE layout requirements by using the templates given at the conference web page. Accepted and presented papers will be published in an IEEE Proceedings volume and will be sent to IEEE Xplore. In addition, selected authors are encouraged to submit their papers for publication in the IEEE Transactions on Industrial Electronics or in the IEEE Transactions on Industrial Informatics.

THE CONFERENCE

IECON 2013 is the 39th Annual Conference of the IEEE Industrial Electronics Society, focusing on industrial and manufacturing theory and applications of electronics, controls, communications, instrumentation and computational intelligence. The objectives of the conference are to provide high quality research and professional interactions for the advancement of science, technology, and fellowship.

Papers with new research results are encouraged for submission. IECON 2013

will be held concurrently with the 7th IEEE International Conference on E-Learning in Industrial Electronics (ICE-LIE 2013). Participation in any of these events just requires a single conference registration fee. The world's industry, research, and academia are cordially invited to participate in the wealth of presentations, tutorials, special sessions and social activities, and furthermore, enjoy beautiful Vienna.