

Special Session on

**“Advanced signal and image processing techniques for condition monitoring
of Electric Machines and Drives”**

Organized by

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Call for Papers

The use of advanced signal processing tools and techniques in the electrical machines and drives 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, by new methods based on modern signal processing tools suited for the analysis of non-stationary signals. This special session is intended to attract research papers showing novel applications of these signal analysis techniques in the electric machines and drives 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.

Topics of the Session:

This technical session aims to address the design and control challenges of next-generation inverters in modern power systems, laying the foundation for future power systems with 100% renewable energies. The Topics of presentations and research papers include but are not limited to:

Topics of interest include, but are not limited to:

- Time-frequency decomposition tools
- Pattern recognition algorithms
- Signal analysis techniques
- Image processing tools



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- Classification methods
- Deep learning