



# ANNUAL CONFERENCE OF THE IEEE INDUSTRIAL ELECTRONICS SOCIETY

Chicago | Illinois, November 3-6, 2024

## Special Session on

### Advanced signal and image processing techniques for condition monitoring of Electric Machines and Drives

#### Organized and co-chaired by:

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#### Call for Papers

##### Technical Outline of the Session and Topics:

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 whatever the application (power generation, drive system, etc.).

##### Topics of the Session include, but are not limited to:

- Time-frequency decomposition tools
- Pattern recognition algorithms
- Signal analysis techniques
- Novel Image processing tools
- Classification methods
- Deep learning
- Artificial intelligence for condition monitoring
- Infrared Thermography for condition monitoring

##### Author's schedule:

Deadline for submission of special session papers	April 15, 2024
Notification of acceptance	June 10, 2024
Deadline for submission of final manuscript	July 01, 2024

Early submission is highly encouraged for early decision notifications!

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

[www.iecon-2024.org](http://www.iecon-2024.org)



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