

CALL FOR PAPERS

Special Session:

Advanced Signal Processing Techniques for Condition Monitoring of Electric Machines and Systems

Area: Computing

Organized and Co-chaired by:

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Dear Colleagues,

It is our pleasure to invite you to participate in ROPEC 2023 by submitting novel and original research papers on any topic related to this special session. In general, condition monitoring consists of detecting changes in the operating conditions of the machines or systems and their components from different physical variables, such as: currents, voltages, vibrations, temperatures, and acoustic emissions, among others. In order to improve the capabilities of condition monitoring systems, the application and development of new methods based on modern and advanced signal processing techniques in this topic are paramount.

The topics of interest include but are not limited to the following, always in the context of condition monitoring and fault detection of electric machines and systems:

- Time-domain and frequency-domain methods.
- Time-frequency decomposition tools.
- Adaptive and modeling techniques.
- Statistical methods.
- Parametric and non-parametric methods.

- Machine and deep learning algorithms.
- Software and/or hardware implementations for online and real time monitoring.

All accepted and presented papers at the conference will be published in the proceedings of ROPEC and they will be indexed by IEEEExplore.

General information regarding manuscript submission, important dates, conference fees, and local accommodation, can be found in the conference website: <http://ropec.org>

Sincerely yours,
Organizer committee

Martin Valtierra-Rodriguez received the Ph.D. degree in mechatronics from the Autonomous University of Queretaro, Queretaro, Mexico, in 2014. He is currently a full-time Professor-Researcher at the Faculty of Engineering, Autonomous University of Queretaro, Campus San Juan del Rio, Queretaro, Mexico.

He is a Senior Member of the IEEE and a Member of the Mexican National Research System (SNI), level 2. His current research interests include bioinspired algorithms and signal processing applied to fault detection in electrical and mechanical systems.

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