CALL FOR PAPERS - SPECIAL SESSION

"Recent Frontiers in Advanced Techniques and Algorithms for the Condition Monitoring of Industrial Processes"

for CODIT 2024
July 01-04, 2023 ▪ Valletta, Malta

Session Co-Chairs:

Prof. Jaouher BEN ALI, University of Tunis, Tunisia - (email: benalijaouher@yahoo.fr)

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Session description:

This special session deals with the problem of critical assets such as machinery and structures that are essential for economic activities across most sectors. Consequently, condition monitoring of these critical assets is essential for optimal usage. Such monitoring processes involve detecting faults at an early stage, diagnosing the fault source and monitoring and predicting the fault progression well known as prognostics and health management (PHM). Achieving these objectives successfully for both machinery and structures requires use of a range of data analysis techniques that are typically developed for the specific application. In the last decade, numerous theoretical data analysis, machine learning and signal processing techniques have evolved.

The goal of this special issue is to explore fusion ideas, algorithms, novel concepts, solutions, and current practices for condition monitoring industrial-application-based which minimizes unscheduled downtime, improves productivity and reduces maintenance costs in the context of Industry 4.0 and beyond.

The topics of interest include, but are not limited to:

- Predictive maintenance and real-time condition monitoring systems
- On-line and remote location monitoring technologies
- Non-invasive techniques for data acquisition
- Robust methodologies for measurement, testing and diagnostics
- Modern methods for signal and image processing
- Enhanced pattern recognition algorithms
- Failure mechanism analysis
- Remaining useful life prediction
- Advanced artificial intelligence
- Interaction between maintenance planning and modelling process

- In internet of things and condition monitoring
- Federate learning and data privacy concerns
- Modelling and Uncertainty quantification

SUBMISSION

Papers must be submitted electronically for peer review through PaperCept by **February 03, 2024:** **http://controls.papercept.net/conferences/scripts/start.pl**. In PaperCept, click on the **CoDIT 2024 link "Submit a Contribution to CoDIT 2024" and follow the steps.**

IMPORTANT: All papers must be written in English and should describe original work. The length of the paper is limited to a maximum of 6 pages (in the standard IEEE conference double column format).

DEADLINES

February 03, 2024: deadline for paper submission

April 14, 2024: notification of acceptance/reject

May 10, 2024: deadline for final paper and registration