



Special Session on

**NEW CHALLENGES ON ELECTROMECHANICAL SYSTEMS MONITORING BASED ON
ARTIFICIAL INTELLIGENCE**

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Call for Papers

In the modern industry framework, the application of condition monitoring schemes over electromechanical systems is being subjected to demanding requirements. On the one hand, industrial electrical machinery implies the consideration of an electric motor, but also, gearboxes, screws, external bearings and couplings among others. Such electromechanical complexity leads to a high risk of fault effects overlapping, even more considering multiple operating. On the other hand, the inference of the future condition is becoming critical. However, the identification of reliable and useful forecasting horizons represents a critical aspect that could lead to models overfitting. Currently, the massive digitalization of industrial assets allows the investigation towards such new monitoring capabilities. This special session invites authors to present their latest research in regard with multi-fault diagnosis and condition prognosis approaches for electromechanical systems based on artificial intelligence. The scope includes, but is not limited to the following topics:

- New information fusion structures for multi-fault diagnosis of electromechanical systems;
- Novelty detection schemes for unexpected electromechanical conditions;
- Condition forecasting of electromechanical systems based on artificial intelligence;
- Incremental learning procedures for electromechanical system condition monitoring;

Deadlines:

Submission of the full paper: October 15th, 2017
Notice of acceptance: November 11th, 2017
Submission of final papers: December 12th, 2017

All the instructions for digests are included in the conference website: <http://icit2018.org/en>