



## "Thermographic analysis technique for monitoring and diagnosis in industrial machines and industrial facilities"

**The Theme:** Thermographic analysis is a technique that can be used in the diagnosis of faults in industrial machines and industrial facilities with the advantage of being non-invasive and having a wide range of analysis. This technique can be used as a specific and isolated method for diagnosis, and also it can be fused with other sensors for improving the detectability of the faults. The fused physical variables can include vibrations, acoustic emission, temperature, motor current, etc. The aim of this special session is to provide the professional of the field a specialized forum for presenting their research advances in thermographic analysis for fault monitoring and diagnosis in industrial machines and industrial facilities according to the following non limited topics:

- Fault detection and monitoring of industrial machines with thermography.
- Fault detection and monitoring of industrial facilities with thermography.
- Fault detection and monitoring of industrial kinematic chains (gearboxes, bearings, shafts, etc.) with thermography
- Improving fault detection with the fusion of thermography and other sensors (vibration, acoustic emission, temperature, current, etc.).
- Thermal image processing for fault detection
- Thermal image segmentation for locating and isolating faults in industrial applications.
- Calibration of thermographic cameras in industrial environments.
- Case studies of thermography application to fault diagnosis.
- Pattern recognition and infrared thermography.
- Educational aspects of infrared thermography

The results included in the submitted papers that are obtained by simulations must be validated in bounds by experiments or analytical results. Papers including real industrial applications of the aforementioned technologies are especially welcome.

### Manuscript Preparation and Submission

Follow the guidelines in "Information for Authors" in the IEEE- IES website: <http://www.ieee-ies.org/pubs/transactions-on-industrial-informatics>. Please submit your manuscript in electronic form through Manuscript Central web site: <https://mc.manuscriptcentral.com/tii> . On the submitting page #1 in popup menu of manuscript type, select: SS on **Thermographic analysis technique for monitoring and diagnosis in industrial machines and industrial facilities**.

Submissions to this Special Section must represent original material that has been neither submitted to, nor published in, any other journal. Regular manuscript length is 8 pages, additional 4 pages may be allowed for a fee.

**Note:** The recommended papers for the section are subject to final approval by the Editor-in-Chief. Some papers may be published outside the special section, at the EIC discretion.

<b>Timetable:</b>	<b>Deadline for manuscript submissions</b>	<b>Nov. 30, 2017 (Extended to Jan. 31, 2018)</b>
	<b>Expected publication date (tentative)</b>	<b>July 2018</b>

### Guest Editors:

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