# IEEE Transactions on Industrial Informatics

# CALL FOR PAPERS

## for Special Section on

## " Digital Holography for Industrial Applications"

**Theme:** The emergence of fast computing devices, high resolution display, and the holographic lithographic technologies have casted the green light on the integration of Digital Holography in modern industrial and bio-engineering applications. In fact modern holographic techniques have been successfully applied in many important areas, such as 3-D remote sensing and inspection, holographic microscopy, augmented and virtual reality, holographic artificial intelligence (AI) assistant, holographic data security and networking, and 3-D holographic display. This Special Section reports selected pieces of cutting edge research works on these important areas, ranging from low level acquisition, to the high level analysis, processing and manipulation of digital holographic signals. Most of these works involve meticulous integration of optical systems, high speed computing technology, as well as vigorous signal processing and computational intelligence algorithms. We anticipated that this Special Section will provide a comprehensive review on the existing state-of-the-art in Digital Holography, as well as a broad insight into the application and future development of the discipline.

**Topics include, but are not limited to, the following research topics and technologies:**
- Computer Generated Holography
- Digital Hologram Acquisition
- Compressive Holography
- Digital Hologram Processing
- Holographic Data Encryption
- Holographic/Optical 2-D Sensing, Non-destructive Evaluation and Inspection Techniques
- Hologram Printing and Display
- Augmented and Virtual Reality
- Holographic Artificial Intelligence (AI) Assistant
- Holographic Data Networking
- Novel and Advance Applications in Industry and Bio-engineering

**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 **Digital Holography for Industrial Applications**.

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.

**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.

**Timetable:** **Deadline for manuscript submissions** ~~November 30, 2018~~ **(Extended to Dec. 31, 2018)**
**Expected publication date (tentative)** **June 2019**

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