IEEE Transactions on Industrial Informatics

CALL FOR PAPERS

for Special Section on

Latest Advances on Industrial Intelligent Video Systems and Analytics

Theme: The Intelligent video systems and analytics have been a substantially growing request in the past ten years driven by applications in surveillance, transportation, healthcare, etc. IMS and MarketsandMarkets research confirm that since 2004 the video analytics market has been a 50% annual compound growth and predicts the sector will worth 8.55 Billion USD by 2023. It challenges both academic researchers and industrial practitioners to timely provide analytics theory and systems solutions to meet the overwhelming global need. Generally speaking, the challenge is twofold: though hardware of video systems have been fast-developing in the past years thanks to the introduced digital signal processors, hardware oriented issues are still demanding and unsolved especially for specific applications, system scalability, capability and real-time performance; on the other hand, algorithms-based analytics have been targeted as the breakthroughs for intelligent video systems and analytics. The state of the art in computer vision, machine learning, computational intelligence has confirmed that algorithms and software will make a substantial contribution to practical solutions to video analysis and applications in the next five years. Hence, it is timely to bring the ideas, solutions of the worldwide research community into common platform, to present the latest advances and developments in embedded video systems design, compression modeling, target localization, behavior understanding, abnormal detection, real-time performance and practical implementation of intelligent video systems and analytics.

This special section will focus on (but not limited to) the following topics:

- Embedded multi-camera system integration/configuration/calibration
- Hardware solutions for real-time video analytics
- Multi-platform capability and scalability
- Methodologies for networked video analytics
- Compression and bandwidth related embedded video solutions
- Object motion pattern understanding, e.g. intrusion
- Scene reconstruction and contextual information recognition
- Abnormal behavior detection
- Detection and tracking of suspicious objects
- Context based image/video retrieval
- Recognizing identity and events for distributed camera networks
- Intelligent robotics with/for video analytics
- Applications such as surveillance, transportation, healthcare

Manuscript Preparation and Submission

Follow the guidelines in "Information for Authors" in the IEEE Transaction on Industrial Informatics 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 **Latest Advances on Industrial Intelligent Video Systems and Analytics**

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** **March 30, 2019 (Extended to May 1, 2019)**
Expected publication date (tentative) **October 2019**

Guest Editors:

- Prof. Honghai Liu, University of Portsmouth, UK honghai.liu@port.ac.uk
- Prof. Shengyong Chen, Zhejiang University of Technology, China sy@ieee.org
- Prof. Naoyuki Kubota, Tokyo Metropolitan University, Japan kubota@tmu.ac.jp