



ACM Transactions on

Multimedia Computing, Communications, and Applications (TOMM)

CALL FOR PAPERS

Special Issue on smart communications and networking for future video surveillance

While future video surveillance applications require massive devices with real-time communication, computation, management and control, the growing complexity of wireless video communications and networking has made monitoring the multitude of elements intractable. This challenge has brought several issues for developing communications and networking methods for large scale and sustainable video data. Recently, smart communications and networking have been investigated to cope with future video surveillance, which have shown their great potentials in real time communications, intelligent processing, reliable understanding and efficient storage of video and multimedia data.

However, traditional network design and performance optimization approaches are not competent anymore and cannot satisfy and serve that future wireless networks regarding operation and cost optimization effectively for video surveillance. Thus, there is a need for a novel paradigm of proactive, self-aware, self-adaptive and predictive design to solve the challenges faced in smart communication and networking. Systematic exploitation of the video data with smart communications and networking helps to make the system smart, intelligent, and facilitates cost-effective design and performance optimization.

Although the studies on wireless communications and networking for video surveillance are valuable for both research and industry, there are many fundamental problems remain unsolved. In order to pursue first-class research outputs along this direction, this special issue aimed at promoting the scaling-up of smart communications for future video surveillance, the development of smart networking models, the design of wireless charging system for video devices, the extension to self-supervised, multi-intelligent, and robust video / image /audio communications, and the applications to video-based Image recognition, social network, multimedia transmission, Intelligent medical treatment, emergency care, etc. This special issue will provide the image/video community with a forum to present new academic research and industrial development in future video surveillance.

Topics of interest include, but are not limited to:

- protocol design and optimization with smart communications
- resource allocation with smart networking
- QoS/QoE provisioning for video surveillance
- self-supervised smart video surveillance
- multi-intelligent and robust smart communications
- smart video-based modeling and optimization
- smart multimedia networking
- Incentive for smart video surveillance system
- Intelligent wireless charging system
- Network analytics with smart video surveillance
- Video-based Intelligent medical treatment and emergency care



Schedule

- Submission deadline: June 30, 2019
- First review decision: September 30, 2019
- Revision due: October 30, 2019
- Acceptance notification: December 31, 2019
- Camera ready version due: January 15, 2020

Submission guidelines

The review process will comply with the standard review process of the ACM Transactions on Multimedia Computing, Communications and Applications (ACM TOMM) journal. Prospective authors are invited to submit their manuscripts electronically after the “open for submissions” date, adhering to the ACM Transactions on Multimedia Computing, Communications and Applications (ACM TOMM) journal guidelines (see <http://tomm.acm.org/authors.cfm>). Please submit your papers through the online system and be sure to select the special issue on smart communications and networking for future video surveillance.

Manuscripts should not be published or currently submitted for publication elsewhere. Submitted manuscripts should not have been published previously, nor be under consideration for publication elsewhere. If the submission is an extended work of a previously published conference paper, please include the original work and a cover letter describing the changes that have been made. According to ACM TOMM publication policy previously published conference papers can be eligible for publication provided that at least 25% new material is included in the journal version.

Guest Editors

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