CALL FOR PAPERS
Special Issue on
Image Understanding for Real-world Distributed Video Networks
Journal: Computer Vision and Image Understanding

Large scale video networks are being deployed by many cities, counties and governments around the world for surveillance and monitoring of objects such as vehicles, humans and their activities at airports, train stations, parks, etc. A large amount of video data is watched by human operators on walls of monitors and the data is stored for forensic purposes and not processed for real-time monitoring. However, the recent incidents such as Boston bombing have shown that it is desired to process live video streams in a network of cameras. The computer vision and pattern recognition techniques can make a significant impact within the context of distributed video networks where the constraints are significantly different from local non-imaging sensors that are commonly used in sensor networks. The challenge is to develop novel algorithms that are efficient and distributable to satisfy real-world requirements.

High-quality original papers are solicited for this special issue. The published papers will focus on computer vision and image understanding algorithms and techniques and evaluate their performance in real-world scenarios. The papers must address challenges to develop automated techniques to integrate and interpret information from distributed multiple live video streams. Potential topics include but are not limited to:

- Computer vision and image understanding techniques for a network of smart cameras
- Camera selection, handoff and control of sensors
- Distributed tracking, recognition and activities across network
- Re-identification of objects such as humans and vehicles
- Calibration free techniques for tracking and recognition
- Calibration of video networks
- Integration of vision and graphics techniques in a video network
- Detection and recognition of humans by their biometrics signatures at a distance in a network
- Systematic handling of overlapped and non-overlapped cameras in a network
- Video surveillance and monitoring
- Fusion of single modality or multi-modality sensors in a network
- Application specific video networks
- Real-world applications of distributed video and distributed RGB-D cameras

Submission guidelines
All papers shall undergo the standard CVIU Journal peer review process and the authors must follow the CVIU guidelines. As per the journal policy, any submitted papers must be SIGNIFICANTLY DIFFERENT from any prior submission. If the paper is an extension of a conference/workshop paper, authors must also submit, as supplementary material, the previous version of the paper.

All the papers will be peer-reviewed by at least three reviewers. Submissions can be made at http://ees.elsevier.com/cviu. Please make sure to select "SI: Image Understanding for Real-world Distributed Video Networks" as the Article Type to ensure that it is correctly assigned.

Guest Editors
- Bir Bhanu, University of California at Riverside (USA), **bhanu@cris.ucr.edu**
- Andrea Prati, University IUAV of Venice (Italy), **aprati@iuav.it**
- Faisal Qureshi, University of Ontario Institute of Technology (Canada), **Faisal.Qureshi@uoit.ca**

Schedule
- Manuscript submission due: January 10, 2014
- First round of reviews due: March 31, 2014
- Revised submission due: June 1, 2014
- Second review due and final decision: August 1, 2014
- Final manuscript due: August 15, 2014