

CALL FOR PAPERS

IEEE SIGNAL PROCESSING MAGAZINE

Special Issue on Video and Signal Processing for Surveillance Networks and Services

Emerging surveillance networks and services increasingly rely on state-of-the-art signal processing methodologies found in a variety of disciplines, such as image and video processing, computer vision, communications systems, speech processing, statistical pattern recognition, and machine learning. In surveillance systems of tomorrow, signals generated by multiple sensors need to be processed, transmitted and presented at multiple levels in order to capture the different aspects of the monitored environment. Multiple level representations can be used to exploit perception augmentation for humans interacting with such systems. Situation awareness techniques that utilize multi-sensor inputs can provide enhanced indexing capabilities needed for focusing human attention on information of interest. Intelligent indexing and alerting functionalities rely on the capability of collecting and presenting relevant information in an efficient way on either fixed or mobile multiple control terminals. Multi terminal mobile and cooperative alarm detection in surveillance is another emerging problem where signal/video processing approaches becomes more and more relevant.

The main goal of this special issue is to illustrate to the SPM readership that video and signal processing methodologies represent a key aspect in the design of efficient and cost effective surveillance networks and services. Prospective contributors are invited to submit high quality tutorial papers that address emerging research issues related to the use of video and signal processing in the context of surveillance networks and services. Contributions offering a technology perspective, focusing on future trends in the area, or discussing business implications of different video and signal processing approaches in this domain, are strongly encouraged.

Topics of interest include but not limited to:

- Low level video processing
- 2D/3D multiple level scene representations
- Multimedia communications in surveillance networks
- Mobile and cooperative surveillance
- Pattern recognition/learning /computer vision
- Audio/speech recognition
- Object tracking /object behavior/situation analysis
- Multi-sensor systems and data fusion issues
- Multi-functional network based surveillance services

Submission Procedure:

Prospective authors should submit white papers via the website <http://www.cspl.umd.edu/spm/>.

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| White paper due: | June 1, 2003 |
| Invitation notification: | June 15, 2003 |
| Manuscript due: | October 1, 2003 |
| Acceptance Notification | January 1, 2004 |
| Final Manuscript due: | February 1, 2004 |
| Publication date: | June, 2004 |

Guest Editors:

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