

# VSSN 2005

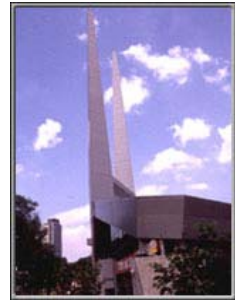
## 3rd ACM International Workshop on Video Surveillance & Sensor Networks



November 11-12, 2005, Singapore

in conjunction with [ACM Multimedia 2005](http://www.acm.org/multimedia)

<http://imagelab.ing.unimo.it/vssn05>



### General chairs

**J. K. Aggarwal**,  
University of Texas,  
USA

**Edward Chang**,  
UC, Santa Barbara,  
USA

### Program chairs

**Rita Cucchiara**,  
University of Modena  
and Reggio Emilia,  
Italy

**Yuan-Fang Wang**,  
UC, Santa Barbara,  
USA

### Program committee

Lisa M. Brown, USA  
Shih-Fu Chang, USA  
Isaac Cohen, USA  
Larry Davis, USA  
Yihong Gong, USA  
Mohan S Kankanhalli, Sg.  
Jang Li, China  
Rainer Lienhart, Germany  
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Stan Sclaroff, USA  
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Mohan Trivedi, USA  
Sergio Velastin, UK  
Ramesh Visvanathan, USA  
Ying Wu, USA

## CALL FOR PAPER

The VSSN Workshop 2005 is the 3rd organized edition in conjunction with ACM Conference of Multimedia. Following the strong interest of the past editions, the workshop will bring together researchers, developers and practitioners from academia and industry to discuss of both theoretical aspects and practical implementations of new generations of video surveillance and sensor networks and novel multimedia applications in the field.

The workshop will cover these two aspects in separate sections:

1. theoretical aspects of video surveillance and sensor networks: new algorithms and models of computer vision and pattern recognition; new paradigms for managing surveillance multimedia data, new architectures of cameras and sensors, novel coordination and communication aspects.
2. innovative project implementation and applications: new civil and military applications, indoor or outdoor surveillance, surveillance of people or other moving objects, ambient intelligence applications

The workshop topics will include, but are not limited to, the following:

- o Video Surveillance and sensor network architecture
  - Multi-Camera, multi-sensor calibration
  - Camera and/or sensor fusion
  - Cameras and/or sensors coordination and synchronization
  - New sensors, new cameras architectures
  - Self-configurable and Scalable Network Architectures
- o Video analysis
  - Deterministic and probabilistic tracking
  - Motion Detection and Tracking
  - Object Detection and Recognition in Unconstrained Environments
  - People behaviour control
  - People posture, gesture, face and interaction analysis
  - Scene recognition
  - Augmented video analysis (with audio and other sensors)
  - Machine Learning Techniques for Event Mining
  - Spatio-temporal Data Mining
- o Sensor (Stream) Multimedia Surveillance Data management
  - Annotation, Indexing and Storage
  - Archival/Retrieval of Sensor Data
  - Query Paradigms and Languages

The one day workshop will open with a special session consisting of three to four papers that will introduce and overview the research area. Oral Presentations will then be organized together with possible demo/poster sessions. The accepted papers will be available electronically from the workshop website, and also as printed workshop notes (published by ACM Multimedia).

Selected papers with substantial extensions (with at least 35% new materials) will be recommended to submit to a **special issue of ACM Journal of Multimedia "Multimedia surveillance systems"**. The deadline for the extension will be at the beginning of January 2006.

### Important Dates

Deadlines Submission: August 17, 2005  
Decision: August 22, 2005  
Camera ready: August 29, 2005

## Algorithm competition

### VSSN 2005 Open Source Algorithm Competition

Organizer: Rainer Lienhart, University of Augsburg, Germany

Committee: Rita Cucchiara, Edward Chang, Eva Hörster [to be finalized]

Web site: [www.multimedia-computing.org/VSSN05\\_OSAC/](http://www.multimedia-computing.org/VSSN05_OSAC/) (online starting June, 6th 2005)

Progress in the field of video surveillance is slowed down by the lack of open reference implementations and fair competition (i.e., open and public benchmarks) on common problems in video surveillance. Starting this year we will select each year a well-defined surveillance aspect, on which researcher and engineers can compete by focusing on the core aspect only. The supporting source code and data infrastructure will be provided by the competition organizers.

This year's algorithm competition is on **background / foreground segmentation** from fixed cameras.

We invite researcher and engineers in the field to submit their algorithm in C/C++ source against a minimal predefined Application Programming Interface (API) consisting of only 3 functions (createBGStatModel(), updateBGStatModel(), releaseBGStatModel()) and one data structure using the OpenCV framework (<http://sourceforge.net/projects/opencvlibrary>). Each submitted algorithm must be accompanied by a 4-page paper describing the algorithm. Training sequences, two source code reference implementations, and the source code of the evaluation procedure using the above defined API are provided starting June, 6th 2005. The submissions (deadline 22. Aug 2005) will be tested against unknown, but similar test cases. All complete and working submissions are given the opportunity to present their algorithm as a poster, while the best performing algorithms will get the chance to present orally. Furthermore, researcher will have the opportunity to include their source code into next OpenCV release.