

Call for Papers

First ACM/IEEE International Conference on Distributed Smart Cameras (ICDSC-07)



Website: <http://www.ICDSC.org/>



September 25-28, 2007 Vienna, Austria

Paper Submission: Abstract: May 21, 2007, Full paper: June 4, 2007 (Extended)

Scope: Distributed smart cameras combine techniques from computer vision, distributed processing, and embedded computing. Technological advances in the design of sensors and processors have facilitated the development of efficient embedded vision-based techniques. Design of scalable, network-based applications based on high-bandwidth data such as images requires a change of paradigm in the processing methodologies, thus creating opportunities for designing distributed and collaborative techniques. As a result, novel smart environment applications can be enabled that are interpretive, context aware, and user centric in nature.

The conference aims to provide an opportunity for researchers working in the areas of smart camera architectures, algorithm design, embedded vision-based processing, and smart environments to exchange their most recent results. Offering insight into the potentials and challenges of distributed vision networks and an outlook of research opportunities ahead are also the objectives of the conference. Presentations accompanied by demonstrations and contributions based on industrial applications are also of interest.

Topics: Papers and demonstrations are solicited in the following areas:

Architecture:

- Smart camera architectures
- Image sensing techniques for smart camera networks
- Image and data fusion techniques
- Embedded vision programming methodologies and libraries
- Audio and vision fusion architectures and techniques
- Methods and tools for modeling, verification, and deployment

Algorithms:

- Distributed vision processing methods in smart camera networks
- Collaborative feature extraction, data fusion, and decision fusion
- Distributed appearance modeling
- Collaborative event interpretation
- Real-time operation and robust design methods, calibration techniques

Vision Networks:

- Architectures and protocols for networked operation of smart cameras
- Wireless and mobile image sensor networks
- Collaborative position discovery and middleware applications
- Shared processing resources for video analysis
- Distributed database management for scene understanding
- Networks of smart cameras and other sensors

Applications:

- Vision-based smart environments, ambient intelligence
- Applications based on fusion of visual and other sensory data
- Multi-view vision for Human-Computer Interaction (HCI)
- 3D scene analysis with distributed sensors
- Surveillance and tracking applications
- Distributed multimedia and gaming applications

Full-length papers of 6 to 8 pages in length reporting on original research are solicited. Detailed submission instructions are available at <http://www.ICDSC.org>. Submitted papers will be peer-reviewed and accepted papers will be assigned to lecture or poster sessions based on content.

Tutorials: Proposals for half-day tutorials on the listed topics are solicited. Instructions for submitting tutorial proposals are available at <http://www.ICDSC.org>. Tutorials will be held on September 25, 2007.

General Chairs:

- Bernhard Rinner (Klagenfurt University, Austria)
- Wayne Wolf (Princeton University, USA)

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- Richard Kleihorst (NXP Research, Netherlands)

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- Sam Kavusi (Bosch RTC, USA)
- Mathias Kolsch (Naval Postgraduate School, USA)
- Xenofon Koutsoukos (Vanderbilt University, USA)
- Suk Hwan Lim (HP Labs, USA)
- Jacky Mallett (MIT Media Labs, USA)
- Johnny Park (Purdue University, USA)
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- Richard Radke (RPI, USA)
- Mohammad Rahimi (UCLA, USA)
- Jim Reich (PARC, USA)
- Senem Velipasalar (Univ. of Nebraska-Lincoln, USA)
- Yuan-Fang Wang (UC Santa Barbara, USA)
- Scott Wills (Georgia Tech, USA)

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- Ben Schueler (NXP Research, Netherlands)

Local Arrangements Chairs:

- Wilfried Elmenreich (TU Wien, Austria)
- Roman Pflugfelder (Austrian Research Centers)

Important Dates:

- **Paper submission:**
 - Abstract: May 21, 2007, Full paper: June 4, 2007
- Notification of acceptance: July 6, 2007
- Camera-ready paper: July 20, 2007
- Conference: September 25-28, 2007