



ISCRAM2009
**The 6th International Conference on Information Systems for
Crisis Response and Management**

Gothenburg, Sweden
May 10-13, 2009
<http://www.iscram.org>

TRACK: OPEN TRACK

CALL FOR PAPERS

FOR A SPECIAL SESSION ON

How to compute situation awareness

Session ID: OPEN3

Motivation

Up to date Situation awareness is essential in crisis situations. Decision makers use information from different modalities and data from different sources to realise what is going on. The last year information has been provided by sensor systems, human observers or information from databases or knowledge based systems. The research challenge is to fuse the heterogeneous data together and compute the situational awareness.

Research Area

Situation awareness is based in the input of sensors systems. Next to automated observation systems by sensors data from human observers is available. Information from observation can be of different modalities: video, sound, radar, sonar. One of the most challenging tasks is to fuse the multimodal data. Fusion can be realised on different levels ranging from the low sensor level up to the high semantic level.

Data from radar will be used to localise, track and classify objects in the air. Data from radars remote in place and time have to be fused. This requires optimal task allocation and job scheduling between different sensor systems.

As mentioned before optimal situation awareness will be based on incoming sensor data. But this data has to be completed with information from other resources. Information from weather forecast, world news and from databases and expert systems has to be used to realise situation awareness.

To process the sensed data a probabilistic approach is commonly used based on HMM (Hidden Markov Models) and DBN (Dynamic Bayesian networks). Adapted image processing tools will be developed.



Topics

- *Fusion of sensor data*
- *Fusion of data on the semantic level*
- *Software tools to fuse data*
- *Computation methods used to compute situation awareness*

Type of contribution:

Each session should allow academic and practitioner contributions

- **Academic contribution:** we invite researchers from academia or research labs to present their research or research-in-progress papers. Prospective presenters submit a regular research (or research-in-progress) paper.
- **Practitioner contribution:** we invite practitioners to present their practice or experiences in information systems development, use or needs. Prospective presenters submit a short practitioner paper or a Powerpoint presentation along with an abstract.

Important Notice:

- All submissions must be formatted according to the ISCRAM 2009 formatting guidelines. Templates and instructions are published on www.iscram.org.
- All submissions must be submitted through the ISCRAM 2009 conference paper submission web page at www.conftool.com/iscram2009. Instructions for the ConfTool system can be found on www.iscram.org.
- All papers and presentations will go through a double-blind review process, leading to a decision of (conditional) acceptance or rejection.
- Accepted papers will be included in the ISCRAM 2009 program and published in the official proceedings if and only if
 - (1) the paper is formatted according to the instructions,
 - (2) the authors sign the copyright transfer form and
 - (3) one of the authors registers for the conference and pays the registration fee before the cut-off date for early registration.
- Authors who have multiple papers accepted can only register for and present one paper at the conference; co-authors need to register separately.

Session Chairs:



Prof.drs.dr. Leon Rothkrantz

L.J.M.Rothkrantz@ewi.tudelft.nl

Delft University of Technology
Netherlands Defence Academy

Important ISCRAM 2009 Dates:

- Submission deadline: January 11, 2009
- Notification of conditional accept: February 16, 2009
- Final submission revised paper: March 1, 2009
- Final author notification: March 9, 2009
- Early registration deadline: March 22, 2009
- Conference: May 10-13 2009

About ISCRAM:

The ISCRAM Community is a worldwide community of researchers, scholars, teachers, students, practitioners and policy makers interested or actively involved in the subject of Information Systems for Crisis Response and Management. At its annual international conference alternating between the US and Europe, the ISCRAM Community gathers to present and discuss the latest research and developments in this growing area during an interactive and stimulating 3 day program. The ISCRAM Community also organizes an International Summer School for PhD students and ISCRAM-CHINA, an annual conference for ISCRAM research in China. All information on ISCRAM can be found at <http://www.iscram.org>

This year the conference will be held from 10-13 May at the Göteborg University located in Gothenburg, Sweden. The conference will be hosted by the Viktoria Institute and the IT-university of Gothenburg. All details on this conference will be made available via the ISCRAM website mentioned above.