

1st Call for Papers

2nd South African International Workshop on Sensor Web Enablement February 5 - 6, 2007

Organized by the

Sensor Web Alliance
(www.sensorweb-alliance.org)

Meraka Institute
(www.meraka.org.za)

Hosted at the

University of Cape Town
(www.uct.ac.za)

Endorsed by the

Open Geospatial Consortium
(www.opengeospatial.org)

IEEE Geoscience and Remote Sensing Society
(www.grss-ieee.org)

South African Environmental Observation Network
(www.saeon.ac.za)

South African Geographic Information Society
(www.gissa.org.za)

WORKSHOP THEME

Fixed and mobile [geo]sensors are able to observe a variety of spatial and temporal phenomena e.g. weather, traffic flow, land cover change, and volcanism. Such sensors produce masses of real time data that somehow need to be integrated into existing networks. Spatial information has to be extracted from raw sensor observations and made accessible to the user in an interoperable way.

Real time data access is facilitated by improved sensor hardware as well as new and more powerful wireless communication systems. The continuing miniaturization of observation devices, accompanied by improvements in the energy supply domain foster the ubiquitous employment of sensors.

These developments pose big challenges for the Geographic Information (GI) community. Firstly to create a publicly accessible open distributed computing infrastructure where heterogeneous sensor resources and complex end-user applications can be deployed, and automatically discovered and accessed. The second is the problem of fusing data from different sensors that have different temporal and spatial resolutions and different data models and formats. The last challenge is to perform context-based information extraction.

OBJECTIVES

The 2nd South African International Workshop on Sensor Web Enablement is a forum that brings together researchers from academia and industry to discuss the latest developments in geosensor network research, sensor-dependent applications, and share ideas on how best to tackle research questions arising from this research.

WORKSHOP FORMAT

The workshop will be run over two days and will feature invited speakers and group discussions on areas of topical interest. The workshop will conclude with a session on a shared science plan for Sensor Web Enablement with emphasis on research collaboration.

Proceedings of the workshop will be published in electronic format. However, the intention is to publish selected papers in a prominent peer-reviewed journal (more information to follow in the 2nd call).

TOPICS OF INTEREST

Relevant topics of interest for the two-day workshop include, but are not limited to the following:

- Sensor Web applications
- Communication technologies
- Distributed computing
- Multi-agent systems as a foundation for Sensor Webs
- Open architectures for Sensor Webs
- Real-time management of sensors/sensor networks
- Semantic aspects and automated knowledge retrieval in Sensor Webs
- Sensor data fusion/modeling/visualization

PROGRAMME COMMITTEE

- Professor Roger King, Bagley College of Engineering, Mississippi State University (rking@engr.mstate.edu)
- Mr Deshendran Moodley, School of Computer Science, University of Kwazulu-Natal (moodleyd37@ukzn.ac.za)
- Dr Ingo Simonis, Institute for Geoinformatics, University of Muenster (simonis@uni-muenster.de)
- Dr Andre Meyer, TNO Defence, Safety and Security (meyer@acm.org)
- Mr Andrew Terhorst, Meraka Institute, Council for Scientific and Industrial Research (aterhorst@meraka.org.za)

ABOUT THE SENSOR WEB ALLIANCE

The Sensor Web Alliance (www.sensorweb-alliance.org) is a global research partnership which aims to promote and coordinate Sensor Web research. Alliance members include the Meraka Institute, Mississippi State University, TNO Netherlands, University of Muenster, University of Kwazulu-Natal and 52°North. Membership of the alliance is open to all *bona fide* researchers/research organizations.

IMPORTANT DATES

Deadline for extended abstracts: 31 October 2006

Invitation to speak at workshop: 1 December 2006

Workshop: 5-6 February 2007

GEO Data and Architecture Committee Meeting: 7 February 2007 (to be confirmed)

Invitation to submit full paper for peer-reviewed publication: 1 March 2007

Deadline for submission of full papers: 1 June 2007

Publication of invited papers: Late 2007

CONTACT DETAILS

Website: <http://www.sensorweb-alliance.org>

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