

2nd International Workshop on Semantic Sensor Networks 2009 (SSN09): First Call for Papers

<http://www.ict.csiro.au/conferences/ssn/ssn09>

A workshop of the 8th International Semantic Web Conference [ISWC 2009](#)

25-29 October 2009, Washington DC, USA

Semantic technologies are often proposed as important components of complex, cross-jurisdictional, heterogeneous, dynamic information systems. The needs and opportunities arising from the rapidly growing capabilities of networked sensing devices are a challenging case.

It is estimated that today there are 4 billion mobile devices that can act as sensors, including active and passive RFID tags. This is complemented by an even larger number of fixed sensors recording observations of a wide variety of modalities. Geographically distributed sensor nodes are capable of forming ad hoc networking topologies, with nodes expected to be dynamically inserted and removed from a network. The sensors are increasingly being connected with Web infrastructure, and the Sensor Web Enablement (SWE) standard developed by the Open GIS Consortium is being widely adopted in industry, government and academia alike. While such frameworks provide some interoperability, semantics are increasingly seen as a key enabler for integration of sensor data and broader Web information systems. Analytical and reasoning capabilities afforded by Semantic Web standards and technologies are considered important for developing advanced applications that go from capturing observations to recognition of events and ultimately developing comprehensive situational awareness. Defence, transportation, global enterprise, and natural resource management industries are leading the rapid emergence of applications in commercial, civic, and scientific operations that involve sensors, web, services and semantics.

The goal of the Semantic Sensor Networks workshop is to develop an understanding of the ways Semantic Web technologies, including ontologies, agent architectures and semantic web services, can contribute to the growth, application and deployment of large-scale sensor networks and their applications. The workshop provides an inter-disciplinary forum to explore and promote these concepts.

The workshop is now seeking paper submissions. Topics include, but are not limited to:

- Semantic support for Sensor Web Enablement
- Semantic integration in large-scale heterogeneous sensor networks
- Semantic web services architectures for sensor networks
- Semantic algorithms for data fusion and situation awareness
- Rule-based sensor systems
- Semantic policy management in shared networks
- Semantic discovery of sensors, sensor data and services
- Semantic approaches to status monitoring and configuration of sensor systems
- Semantic reasoning for network topology management
- Semantic sensor context management and data provenance
- Spatio-temporal reasoning in sensor networks
- Reasoning with incomplete or uncertain information in sensor networks
- Semantic middleware for active and passive sensor networks
- Experience in sensor network applications of semantic technologies
- Ontologies for sensor and RFID networks
- Semantic feedback and control
- Emergent semantics and ambient intelligence in sensor systems
- Scalability, security, trust and privacy in semantic sensor networks
- Semantic web in sensor data mashups
- Citizen sensors, participatory sensing and social sensing

Important Dates

Paper Submission Deadline: 7th August, 2009
Notification of Acceptance: 31st August, 2009
Final Manuscript Deadline: 2nd October, 2009
Workshop: 26th October, 2009

Paper submission

Papers will be reviewed by at least two program committee members for their technical merit, originality, significance, and relevance to the workshop. The papers must be in good English and will be published in a proceedings volume of CEUR-WS <http://CEUR-WS.org>. Instructions for submission will be made available at the workshop web site <http://www.ict.csiro.au/conferences/ssn/ssn09>.

Committee

Chairs:

Kerry Taylor, CSIRO ICT Centre, Canberra, Australia
Arun Ayyagari, The Boeing Company, Seattle, USA
David De Roure, University of Southampton, Southampton, UK

Advisors:

Amit Sheth, Kno.e.sis Center, Wright State University, Dayton OH, USA
Manfred Hauswirth, Digital Enterprise Research Institute, National University of Ireland, Galway, Ireland

Technical Program:

Thomas Meyer, Meraka Institute, CSIR, South Africa
Mark Cameron, CSIRO ICT Centre, Australia
Franz Baader, TU Dresden, Germany
Kevin Page, University of Southampton, UK
Michael Compton, CSIRO ICT Centre, Australia
Cory Henson, Wright State University, USA
Luis Bermudez, Southeastern Universities Research Association, USA
Oscar Corcho, Universidad Politécnica de Madrid, Spain
Boyan Brodaric, Geological Survey of Canada, Canada
Ralf Denzer, University of Applied Sciences, Saarbrücken, Germany
Kirk Martinez, University of Southampton, UK
Ingo Simonis, Meraka Institute, CSIR, South Africa
Sascha Schlobinski, cismet GmbH, Germany

Contact:

Kerry.Taylor@csiro.au or Arun.Ayyagari@boeing.com or dder@ecs.soton.ac.uk