



KEY FACTS

I.1 DATE & TIME

May 21-22, 2009
Thursday 9-16h, Friday 9-16h

I.2 LOCATION

Campus of National Agriculture and Food Research Organization Tsukuba Science. Ibaraki, Japan
Located not far from Narita International Airport (Tokyo). Please see access information on the last page and online at <http://tiny.cc/M8Uq7>.

I.3 REGISTRATION

Please register per email as number of participants is limited to 50. Please send an email **including the name of your hotel** (to allow us organizing transport to the meeting facilities) to geoss-SenV2009@ml.affrc.go.jp

I.4 ACCOMMODATION

We recommend to stay in one of the hotels listed below so that we can arrange transportation between the hotels and the venue.
Okura Frontier Hotel Tsukuba Epochal (US\$100-120/single room)
<http://www.okura-tsukuba.co.jp/eng/>
Hotel Grand Shinonome (US\$70-80/single room)
<http://www.hg-shinonome.co.jp/>

I.5 REGISTRATION FEES

The workshop is free of charge.

I.6 INFORMATION

For further information, please contact Seishi Ninomiya (Local Organization Chair) at geoss-SenV2009@ml.affrc.go.jp or Ingo Simonis (Program Chair) at ingo.simonis@igsi.eu.

GEOSS Task DA 07-04

GEOSS Sensor Web Workshop

GEOSS has the objective to continuously monitor the state of the earth in order to increase knowledge and understanding of our planet and its processes. Being a system of system, GEOSS has to master the challenge of integrating heterogeneous systems across institutional and political boundaries. Timely delivery of earth observation data is a key aspect in identifying potential natural and human threats, such as tornados, tsunamis, wild fires, or algae blooms.

The third workshop of the Sensor Web series invites you to come to Japan to present your current activities and opinions in the context of Sensor Web or Sensor Network applications. Building on the achievements of the first two workshops (see reports on: <http://www.sensorweb-alliance.org>), this workshop continues the very successful discussions and knowledge exchange about interoperable sensor networks.

Data from in-situ or remote sensing devices forms the basis for analyzing gradual processes, such as increasing

drought, water shortages, or rising sea levels. The Sensor Web presents a paradigm in which the Internet is evolving into an active sensing macro instrument. Based on internationally adopted standards, the Sensor Web accomplishes the necessary requirements to ensure interoperability among its various components. Sensor Web software components and services work interactively in arbitrary application domains.

The Workshop is jointly organized by GEO-Task DA07-04, the Center for Spatial Information Science, University of Tokyo, and the European Commission through the integrated project SANY (<http://sany-ip.eu>).

The host of the workshop, National Agriculture and Food Research Organization (NARO), (http://www.naro.affrc.go.jp/index_en.html) is one of the world leading research institutes in practical applications of sensor network and heterogeneous data integration in agricultural and environmental monitoring and decision support. Participants will





have an opportunity to experience its most updated activities during the workshop.

NARO is also planning to hold an international workshop on sensor network and its application on May 20 (details to be announced).

Forming the Foundation Layer

Build the Sensor Web

The aim of the Sensor Web Workshop is to

- ◆ discuss scenarios and use cases to improve interoperability between sensor data providers and consumers
- ◆ identify standards and best practices that should be part of the GEOSS Information Infrastructure Architecture
- ◆ learn about the Sensor Web concept, its potential and role within GEOSS
- ◆ explore the capabilities of a strong Sensor Web within GEOSS
- ◆ discuss about the various approaches, applications, and technologies used within sensor networks.
- ◆ exchange experiences with sensor networks, sensor data and Sensor Web applications in the context of GEOSS
- ◆ discuss the integration of new technologies into the Sensor Web concept, like mass market sensors and tools like Google Earth, Microsoft Virtual Earth, and NASA World Wind.

Endorsed by the GEO Secretariat and the Open Geospatial Consortium (OGC), GEO task DA07-04 with its lead, the Meraka Institute, the Center for Spatial Information Science, University of Tokyo, the National Agriculture and Food Research Organization, the Sensor Web Alliance, and the European Commission invite everybody interested in sensors, sensor networks, information logistics and infrastructures to participate in this event. You are kindly asked to present your current work at the workshop.



Program

	May 21	May 22
8-9	Registration	Registration
9-10.30	Welcome & Introduction Presentation of DA 07-04 and introduction to the basic concepts of the Sensor Web and OGC's Sensor Web Enablement.	Presentations by Participants Participants have the opportunity to give short (15min) presentations about their current work, interesting scenarios or use cases, or identify standards and best practices for the GEOSS Information Infrastructure Architecture.
10.30-11.00	Coffee Break	Coffee Break
11.00-12.30	Sensor Web Research Presentation of Sensor Web research and developments at the National Agriculture and Food Research Organization (NARO) and the National Agricultural Research Center (NARC). Presentation of recent developments in the Sensors Anywhere (SANY) project. Research projects present their ideas, achievements and perspectives of the Sensor Web.	Working Groups We will split in working groups to discuss interoperability issues in sensor networks, new approaches to integrate existing and future Sensor Networks, alignment of Sensor Web and GEOSS.
12.30-14.00	Lunch	Lunch
14.00-16.00	Presentations by Participants Participants have the opportunity to give short (15min) presentations about their current work, interesting scenarios or use cases, or identify standards and best practices for the GEOSS Information Infrastructure Architecture.	Presentation of Results The working group results will be presented and discussed.
16.00-16.45	Tour to the NARO Campus Tour to the NARO campus to explore practical applications of sensor networks.	Adjourn for the Workshop
19.00-21.00	Joint Dinner Join us for a great dinner enjoying several types of local food and drinks! (on your own)	

Access to Tsukuba from Narita International Airport (Tokyo)

Important Travel Information:

Most travelers to Japan arriving in Tokyo will land at Narita International Airport. Once you have cleared customs you will enter the Arrival Hall. Leave the Arrival Hall and proceed to the bus terminal or train stations. From the airport to Tsukuba, we recommend bus transportation, since it is more convenient than train.

BY BUS:

Airport Limousine named "NATT'S" is operated daily. The travel time is approx. 120 min and costs JPY 2,540. Bus tickets are available at the "Keisei Bus" counter on the arrival floor of the Airport. If you cannot find the counter, please ask at the information desk in the arrival hall for guidance.

Note that:

- Tsukuba Center is not the final stop. After Tsukuba center, the buses go to Tsuchiura JR Station.
- There are two terminals at Narita Airport. The buses leave from both two terminals. Allow about 5 minutes time difference for the departure time of the buses. It depends on which of the two terminals is involved.
- Please also see

<http://www.info-tsukuba.org/english/traffic/highwaybus/hyway04.html>

BY TRAIN:

Take the train to Akihabara Station, which is the closest one from which to travel to Tsukuba, which is 58 km north. There are two ways to travel to Akihabara Station:

[1] The first one is more expensive (around 3000 Yen (¥) but perhaps more convenient. Take the JR Narita Express from the airport to Tokyo Station (takes 60 minutes), disembark and transfer to the Yamanote line (identified by the green stripes). Look for the entrance identifying the Ikebukuro station (this will place you on the right platform heading north). Take the JR Yamanote line north to Akihabara Station (two stations away). Get off but stay within the station and look for the entrance to the Tsukuba Express. Take this train north (about 36km) to Tsukuba Station (takes about 45 minutes).

[2] The second train is less expensive (around ¥2000). Take the Keisei Line called the Skyliner from Narita airport to Nippori Station (takes 55 minutes). Look for the entrance identifying the Shinagawa Station (this will place you on the right platform heading south). Then take the JR Yamanote line south to Akihabara Station (also two stations away). From there the route is the same as in [1] above. Once you arrive

at Tsukuba Station, look for the A3 exit. It is an 8 minute walk to both the Okura Frontier Epochal Hotel and Hotel Grand Shinonome.

How to access to the workshop venue

The organizer will arrange transportation between the recommended hotels and the venue. The details will be announced by e-mail. Those who stay in other hotels need to take a taxi to the venue (ca. US\$30, max of 4 passengers).

The name and address of the venue:

**Tsukuba Research Gallery, National Agricultural Research Center,
3-1-1 Kannondai
Tsukuba, Ibaraki**