

Session 6.

HSI'10_SS

Special Session on

Human System Interaction and Wireless Sensor Networks

at the 3rd IEEE International Conference on Human System Interaction

May 13-15, 2009, Rzeszow, Poland

Conference web site: <http://hsi.wsiz.rzeszow.pl/>

Session Abstract

Recent advancements in wireless sensor networks technology have led to their deployment in application domains as diverse as environmental monitoring, logistics management, ambient intelligence, smart spaces, pervasive and ubiquitous computing. Today we meet these networks as wireless sensor networks, cooperating objects, Internet of Things, web of objects, semantic grid, or the real-world web.

With the fast growing deployment of wireless sensor/actor networks and the establishment of the real-

world web, the need for new interaction methodologies between humans and systems consisting of a large number of extensively networking embedded computing devices becomes compelling. In large-scale wireless sensor networks, the trade-off between keeping the interaction mechanism simple for scalability purposes and providing adequate support to all the possible types of interaction and involved entities, either physical (e.g, robots or embedded devices) or virtual (e.g., the services provided by computer programs), has to be tackled. Reliable ubiquitous networked sensor/actor infrastructures are always the base for realizing such systems.

Reliable, scalable and effective Human System Interaction for Wireless Sensor Networks is therefore a key factor and a challenging task to push technology to the background. The final goal is to make networked infrastructures used in the new application areas disappear.

Topics

- New models of interaction with sensor networks
- Visualizing and exploring events from sensor networks
- Sensor web
- Activity recognition
- Sensor networks for observing interactions in environments
- Sensor networks for environmental monitoring
- Gestural control
- Interaction with wireless sensor body area networks
- Monitoring of dynamic phenomena in sensor networks
- Spatial-temporal modelling in sensor networks
- Sensing social networks
- Virtual reality and sensor networks
- Machine learning on sensor data
- Energy-efficient sensor data mining
- Efficient protocols for distributed coordination and control
- Intelligent sensor network querying
- Sensor data interpretation via social web
- Adaptive intelligent filtering for sensor data
- Sensors-enhanced ubiquitous social networking
- Process complexity encapsulation
- Smart data filtering

Authors' Schedule:

Deadline for submission:	December 22, 2009 (will be extended to January 30, 2010)
Notification of papers acceptance:	February 28, 2010
Final manuscripts due:	April 15th, 2010

Submission of Papers:

Papers are to be submitted electronically through the electronic submission system. For further details please consult the conference web pages.

Session Organizers:

Lucia Lo Bello, University of Catania, Italy

Frank Golatowski, University of Rostock, Germany

and the

Technical Committee on Factory Automation, Sub-committee on Wireless Sensor Networks

Falko Dressler, Univ. of Erlangen, GE

Stamatis Karnouskos, SAP Research, GE

Jose Lastra, Tampere University of Technology, FI

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Potential submitters

1. Paolo Pagano, Luca Santinelli, Cristian Nastasi from Scuola Superiore S. Anna, Pisa, and Claudio Salvadori (ISTI_CNR), Italy - intend to submit a paper in the scope of the SS and dealing with vision

paolo.pagano@sssup.it

2. Orazio Mirabella from Univ. of Catania, Italy- intends to submit a paper in the scope of the SS and dealing with gesture recognition

orazio.mirabella@diit.unict.it

3. Claas Richter, Yuzuru Tanaka, Media Laboratory, Hokkaido University, intend to submit a paper dealing with Semantic integration of data from real and virtual world.

kuneun@gmail.com, tanaka@meme.hokudai.ac.jp

4. Philip Gorski, Frank Golatowski, Rostock University, intend to submit a paper dealing with Integration and Interaction of WSN used in Life science automation

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5. Oscar Puyal, Vodafone, Spain, intends to present a paper on integration of sensor networks in orchestration systems

oscar.puyal@vodafone.com

6. Leon Urbas, Jens Ziegler, interested in submitting a paper on Tangible Human Machine Interface

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