

Recent Advances in Sensor Integration

Introduction and Motivation:

Recently, there is a growing interest in the design, development and deployment of sensor systems for applications of high-level inference, which leads to an increasing demand on interconnecting wireless sensor networks with other emerging technologies, such as RFID technology, multimedia based surveillance system, biomedical technology, mobile agent based networks, P2P technology and business process and semantic technology, etc. With sensor technology being incorporated into these technologies, demands from more and more autonomous and intelligent applications can be met.

This special issue is intended to provide a forum for presenting, exchanging and discussing the most recent advances in different aspects of integrating wireless sensor networks with emerging technologies. In particular, this special issue will bring together leading researchers, industry professionals, and research students to study the applications, architectures, protocols, models, evaluation methods, and experimental studies of the advanced sensor integration technology. Topics to be covered in this special issue include but are not limited to:

Sensor Integration with RFID technology:

- Novel architecture for integrating RFID and wireless sensor networks
- RFID based wireless sensor networks
- Ubiquitous RFID and sensor networks
- Intelligent applications for RFID and Wireless Sensor Networks

Sensor Integration with Multimedia based Surveillance System:

- Multi-camera system algorithms and applications
- Multimedia aggregation and fusion in video sensor networks
- Testbed and experimental studies for video sensor networking
- Real-time and reliable video transmission over WSNs
- QoS provisioning for video transmission in WSNs

Sensor Integration with Biomedical Technology:

- Wireless sensor networks in E-healthcare
- Health Care and Medical Applications for wireless body area sensor networks
- Body sensor networks

Sensor Integration with Mobile Agent Technology:

- Middleware design for mobile agent based wireless sensor networks
- Novel itinerary plan for mobile agent in wireless sensor networks

- Agent-based architectures for WSNs
- Agents design issues dealing with reliability, efficiency, and fault tolerance
- Mobile agent based intelligent sensory data fusion

Sensor Integration with P2P Technology:

- P2P based diverse sensor networks integration
- P2P based sensor networks resource discovery
- P2P based worldwide sensor networks sharing

Sensor Integration with Business Process:

- Novel middleware design for sensor networks assisted business process
- Integrating sensor networks with business process
- Sensor networks based context aware business process management Algorithmic methods and tools

Sensor Integration with Semantic Technology:

- Semantic descriptions of sensors and sensor data
- Semantic data integration of heterogeneous sensor network data streams
- Semantic Sensor Web applications, architectures, middleware, and languages
- Sharing, annotation, and (distributed) management of sensor data

Submission Guidelines:

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. All papers are refereed through a double-blind review process. A guide for authors, sample copies and other relevant information for submitting papers are available from <http://www.inderscience.com/mapper.php?id=31> .

You need to send one copy in the form of a PDF file or an MS Word file attached to an e-mail (details in <http://www.inderscience.com/mapper.php?id=31>) to :

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(please Cc the email to: Inderscience Editorial Office, E-mail: editorial@inderscience.com)

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