Call for Papers
Special Issue on Wireless Sensor and Robot Networks: Algorithms and Experiments

Scope

Wireless sensor and robot networks (WSRN) are the confluence point where the two traditional fields of wireless sensor networks (WSN) and robot networks meet, and nodes collaborate to accomplish distributed sensing and actuation tasks. Leveraged by the control and mobility of robots, the networking process and applications embrace a whole new set of possibilities. The objective of this special issue is to bring together state-of-the-art contributions on the design, specification, and implementation of architectures, algorithms and protocols for current and future applications of WSRN. Original, unpublished contributions are solicited in ALL aspects of WSRN and traditional WSN, robot networks, as well as robotics and automation. Possible topics of interest include, but are certainly not limited to the following:

- Autonomous sensor networks
- Emergent behavior in WSRN
- Distributed control and management in WSRN
- Modeling, simulation and experimentation of WSRN
- Autonomic and self-organizing communication and coordination
- Robot task assignment and mobility management
- Biologically inspired communication
- Data management, gathering, aggregation and query processing in WSRN
- Location service, neighborhood discovery and service discovery in WSRN
- Map exploration and pattern formation and flocking of mobile robots
- Localization and time synchronization in WSRN
- Energy efficiency, Quality of Service and robustness issues in WSRN
- Architectures, coverage and topology control in WSRN
- Probabilistic integration in WSRN
- Applications and prototypes of WSRN

Paper submission

- The submitted papers must be written in English and describe original research which is not published nor currently under review by other journals or conferences. Author guidelines for preparation of manuscript can be found at http://www.ees.elsevier.com/comcom.
- The submission website for this journal is located at http://ees.elsevier.com/comcom. To ensure that all manuscripts are correctly identified for inclusion into the Special Issue, the authors have to select "Special Issue: WSRN" when they reach the “Article Type” step in the submission process.

Important Dates

- Paper submission: Jan. 31, 2011
- Author notification: May. 15, 2011
- Expected publication: Fourth Quarter 2011

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