

**The 13th ACM/IEEE International Conference on Information Processing in Sensor
Networks
Preliminary Call for Paper**

The International Conference on Information Processing in Sensor Networks (IPSN) is a leading, single-track, annual forum on research in networked sensing and control, broadly defined. IPSN brings together researchers from academia, industry, and government to present and discuss recent advances in both theoretical and experimental research. Its scope includes signal and image processing, information and coding theory, databases and information management, distributed algorithms, networks and protocols, wireless communications, collaborative objects and the Internet of Things, machine learning, mobile and social sensing, and embedded systems design. Of special interest are contributions at the confluence of a multiple of these areas.

In addition to regular research papers, in IPSN 2014, we also encourage submissions of *Challenge Papers* that lay out visions and future challenges in the field of information processing in sensor networks. Challenge papers are up to 6 page long and the title should start with "Challenge: ..." These submissions are reviewed based on the novelty of the concepts and potential of impacting the field.

The conference features two submission tracks, the Information Processing (IP) track, and the Sensor Platforms, Tools and Design Methods (SPOTS) track. Authors are encouraged to read the foci of the tracks and make indications in the submission site accordingly. However, submission tracks are for review preference only. The program committees work together in the review process.

Topics:

The IP track focuses on algorithms, theory, and systems for information processing using networks of embedded, human-in-the-loop, or social sensors. Topics covered in the IP track include, but are not limited to:

- Sensor data processing, mining, and machine learning
- Data storage, management, and retrieval
- Coding, compression and information theory
- Detection, classification, tracking, reasoning, and decision making
- Sensor tasking, control, and actuation
- Theoretical foundation and fundamental bounds
- Network and system architectures and protocols
- Location, time, and other network services
- Programming models and languages
- Mobile, participatory, and social sensing
- Innovative applications and deployment experiences

The SPOTS track focuses on new hardware and software architectures, modeling, evaluation, deployment experiences, design methods, implementations, and tools for networked embedded

sensor systems. Submissions are expected to refer to specific hardware, software, and implementations. Topics covered in the SPOTS track include, but are not limited to:

- Novel components, devices and architectures for networked sensing
- Innovative sensing and processing platforms including cloud, crowd, and consumer devices
- Embedded software for sensor networks
- System modeling, simulation, measurements, and analysis
- Design tools and methodologies for sensor networks
- Network health monitoring and management
- Operating systems and runtime environments
- User interfaces for sensing applications and systems
- Case studies highlighting experiences, challenges, and comparisons of platforms and tools

Submission:

Submissions must be full papers. Regular submissions are at most 12 pages, including figures, tables, and references. Challenges submissions are at most 6 pages. Notice that page limits are the MAXIMUM lengths. Paper qualities are not judged by length.

Submissions must be in PDF format, on single-spaced 8.5" x 11" (letter) pages of two-column format, using 10-point type on 12-point (single-spaced) leading, with a maximum text block of 7" wide x 9" deep. Left and right margins must be ≥ 0.75 ". Top and bottom margins must be ≥ 1 ". Each column should be 3.33" with a 0.33" gutter. Each column must contain no more than 55 lines of text.

Tentative Key Dates (to be coordinated with other CPS Week conferences):

- Abstract registration: Monday, October 7, 2013
- Submission deadline: Monday, October 14, 2013
- Paper notification: January 17, 2014