



PIMRC 2010

September 26-30, 2010
Istanbul, Turkey

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CALL FOR PAPERS: IEEE International Workshop on Advances in Positioning and Location-Enabled Communications

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Topics of interest include (but are not limited to):

- NLOS identification & mitigation ranging positioning algorithms;
- Field tests of location systems and propagation and modelling studies for indoor ranging (TOA/RSS/AOA);
- PHY/MAC algorithms/procedures for communication and positioning needs;
- Positioning algorithms combined with short range ad-hoc communications;
- Signal processing techniques for (seamless) indoor/outdoor localization;
- Cooperative, cognitive, and machine learning techniques in heterogeneous wireless communication and sensor networks;
- Hybrid positioning using both wireless communications and satellite navigation systems;
- Active and passive localization/communication systems for RFID applications.

Contributions

Papers should be in English, strictly not exceeding 5 double-column pages. Authors should use the relevant IEEE template, ensuring IEEE Explore compatible PDF-format.

Workshop Description

The ability to locate and seamlessly track assets in indoor/dense urban environments without access to GPS is a complex and challenging task mainly due to the harsh multipath environment and the high probability of non-line of sight (NLOS). The value of accurate range/position information is the key requirement for many emerging applications in the public safety, commercial, and residential domains, such as locating firefighters or objects and instruments in warehouses and hospitals. As a result, of interest to the workshop will be NLOS identification and mitigation algorithms that show great promise in identifying troublesome channel conditions that can be mitigated or even eliminated to improve location accuracy. In addition, propagation measurement campaigns and modelling studies as well as testbeds are fundamental to the problem and will be highly valuable to the research community.

While extracting accurate location information is fundamental to the design of positioning systems, cooperative and cognitive positioning algorithms exploiting short range communication links can enhance robustness. Geo-location information can also serve as complementary data to estimate and predict critical parameters for improving wireless communication networks. In cognitive radio networks, geo-location and context-aware algorithms can support sensing methods to overcome e.g. the hidden node problem. Machine learning techniques take advantage of heterogeneous to track mobile nodes using cooperative or non-cooperative sensor networks using the geo-location information.

The goal of the workshop is to solicit the development of new positioning algorithms based both on (indoor) wireless communications and (outdoor) satellite navigation systems as well as new position-aware procedures to enhance the efficiency of communication networks.

This Workshop is organized in part by the EU Research Projects WHERE and NEWCOM++.

Important Dates

Full paper submission: April 16, 2010
Notification of acceptance: May 17, 2010
Final manuscript: June 18, 2010

Please submit contributions through EDAS:
APLEC 2010

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