

**Call for Papers for
Workshop on Advances in Network Localization and Navigation (ANLN)**

Workshop Co-Chairs

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<http://icc2016.ieee-icc.org/cfw>

Scope

Localization, tracking, and navigation (LTN) – for indoor and outdoor environments – have been gaining relevance due to steadily expanding range of enabling devices and technologies, as well as the necessity for seamless solutions for location-based services. The Internet of Things, cyber-physical systems, and 5G communication networks will all benefit from LTN capabilities. A current trend in the design of LTN solutions is to use standard, low-cost, and highly heterogeneous technologies, such as RF signals, inertial measurement units, sonar, laser, IR, or visual light communications. The RF signals typically include WiFi, UWB, RFID, Bluetooth, NFC, 3GPP/LTE, 802.11x, digital TV, or, in general, so-called signals of opportunity. All this entails that the latest challenge in LTN is not only to develop new sensors for LTN but also to design and implement methods that exploit the synergy of existing technologies. Data fusion, cross-layer optimization, and new application environments are therefore key aspects for further advances of the field and present exciting challenges for signal processing practitioners and researchers. The goal of the workshop is to solicit the development of new LTN methods based on short-range wireless communications as well as new location-aware procedures to enhance the efficiency of communication networks.

Topics of Interest

This workshop will bring together academic and industrial researchers to identify and discuss technical challenges and recent results related to localization, tracking, and navigation, as well as its connection to communication networks. Topics of interest include, but are not limited to the following:

- Advanced data fusion schemes for heterogeneous technologies
- Cooperative localization and distributed systems
- Cooperative localization and cloud SLAM
- Cooperative navigation
- Multi-agent control
- Fundamental limits
- Position-dependent parameters estimation techniques
- Learning algorithms for environmental mapping
- Localization via signals-of-opportunity
- Hybrid IMU and magnetic pedestrian navigation
- Ultra-wideband technology
- Passive and active RFID
- Spectrum/Energy efficient positioning systems
- Scheduling techniques for cooperative localization
- Wireless sensor radar
- Localization methods for the Internet of Things and 5G
- Testbeds and experimentation

Important Dates

Paper submission deadline: December 4, 2015
Acceptance notification: February 21, 2016
Camera-ready paper: March 13, 2016