CALL FOR PAPERS:
Second IEEE International Workshop on Localization and Tracking:
Indoors, Outdoors, and Emerging Networks
Co-located with IEEE GLOBECOM 2016, Washington, DC, USA

Localization and tracking technologies for portable devices use a wide variety of networks including cellular, satellite, and WiFi, and are critical for a wide range of applications such as navigation, E911 response, location-based services, location-dependent advertising, and location-based smartphone apps. Technologies for these "conventional" use cases will continue to advance as a result of improved algorithms, better fusion of multiple tracking modes, new network architectures, and improved sensor technologies. In addition, a number of recent events and trends will likely drive changes in the goals of tracking and localization research:

- **Internet of Everything.** Wireless service providers are currently developing services for generating revenue from the upcoming influx of connected objects known as the Internet of Things. Compared to the tracking of mobile phones, tracking for IoT could have significantly different requirements regarding scalability, accuracy, and latency, and more stringent constraints on the complexity and energy resources at the device.
- **Emerging Cellular Paradigms (5G and Heterogeneous Networks).** Standardization for the fifth generation of 3GPP cellular networks is just starting, so 2016 will be an active year for discussing new features and capabilities of these networks. Whereas previous cellular networks were optimized for communication, there is an opportunity to optimize 5G networks jointly for both communication and localization.
- **Three-Dimensional Indoor Localization.** Because the majority of emergency 911 calls are made from cellular phones, the US Federal Communications Commission has recently proposed adding a provision for vertical localization so that first responders can identify the caller's floor level. This requirement would pose significant challenges because the proposed vertical resolution of just a couple meters is an order of magnitude more stringent than the required horizontal resolution of tens of meters.

The workshop aims to attract recent work in all areas of localization, with an emphasis on the recent trends listed above. Additional topics of interest include, but are not limited to:

- Channel measurements and fundamental theory
- Techniques for indoor localization
- Techniques for outdoor localization
- Techniques for wide-area RF networks including satellite and cellular.
- Techniques for short-range RF networks including WiFi and Bluetooth Low Energy
- Non-RF techniques, including visual-based tracking
- Collaborative localization
- Fusion of multiple localization modes
- System design for vertical solutions including healthcare and asset tracking
- Prototypes and implementation

Co-Chairs: R. Michael Buehrer (Virginia Tech, USA), Harpreet S. Dhillon (Virginia Tech, USA), Howard Huang (Bell Labs, Nokia, USA), Klaus Witrisal (Graz Univ. of Technology, Austria)

TPC members (preliminary) Arash Behboodi (RWTH Aachen, Germany), Benoit Champagne (McGill University, Canada), Pau Closas (CTTC, Spain), Luca De Nardis (Univ. Rome La Sapienza, Italy), Benoit Denis (CEA-LETI, France), Francesco Guidi (Univ. Bologna, Italy), Ismail Guvenc (Florida International University, USA), Rick Martin (AFIT, USA), Santiago Mazuelas (Qualcomm Corporate Research and Development, USA), Nader Moayeri (National Inst. of Standards and Technology, USA), Reza Vaghefi (Blue Danube Labs, USA), Ronald Raulefs (DLR, Germany), Yuan Shen (Tsinghua University, China), Henk Wymeersch (Chalmers University, Sweden)

Submission deadline:	July 1, 2016
Notification:	September 1, 2016
Camera-ready deadline:	October 1, 2016
Workshop date:	December 4, 2016
Website:	**http://lion.spsc.tugraz.at**
Paper submissions (EDAS):	**http://edas.info/N22551**