

Workshop on

Dependable Wireless Communications and Localization for the IoT

Sept. 12, 2017

Graz University of Technology, Austria



First Call for Papers (Extended Abstracts)

The Internet of Things (IoT) will represent the backbone of modern society and the next-generation Internet. By integrating heterogeneous service models and devices into a cohesive system, the IoT exhibits tremendous potential to meet the information-processing demands of smart environments, such as Industry 4.0, Smart Cities and Connected Cars. The integration, however, also aggravates the complexity of design and deployment, and brings new challenges with respect to the dependability of IoT systems.

This workshop will place its focus on wireless technologies that play a key role in connecting IoT-devices to the Internet. Wireless technologies can also be used for localization, a critical capability to provide the context between physical devices and the virtual world. Physical and man-made impairments (e.g., multipath propagation and radio interference) have a strong influence on the dependability of these wireless services.

We specifically welcome contributions that aim at making wireless communications and localization more reliable, predictable, safe, and secure to enable safety-critical applications that require guaranteed performance. Both research and practical aspects of dependability considerations in the IoT are of interest.

Topics of Interest

- Dependability measurements, modelling, and validation of IoT systems
- Enabling technologies for dependable IoT networks
- Secure architectures for the IoT
- Secure IoT communication protocols
- Dependable medium access control and routing protocols for the IoT
- IoT testbeds
- Industry 4.0
- Smart cities
- Connected cars
- Robust localization
- Data fusion schemes for localization
- Cooperative localization and SLAM
- Fundamental limits of positioning techniques
- Positioning methods with robust performance
- Position-dependent parameter estimation techniques
- Location-awareness for wireless networks
- Ultra-wideband technology
- Passive and active RFID systems
- Localization applications for the IoT and 5G networks
- Radio channel models for positioning

Contributions

The workshop contributions will be published online under the umbrella of the COST Action IRACON in the form of extended abstracts. Extended abstracts will have 2 – 3 pages and must include (an) exemplary result(s). Submissions will undergo a peer review process. Submission instructions will be posted on the workshop website.

Important Dates

Abstract submission deadline: May 22, 2017; Notification date: July 14, 2017; Workshop date: Sep. 12, 2017.

Organizers

Klaus Witrisal (TU Graz, Austria); Chiara Buratti (Univ. of Bologna, Italy); Carles Antón-Haro (CTTC, Spain); Carlo Alberto Boano (TU Graz, Austria).

About

This workshop will be a single-day, single-track event, organized under the umbrellas of the COST Action IRACON (www.iracon.org) and the Lead Project of TU Graz “Dependable Internet of Things in Adverse Environments” (www.tugraz.at/projekte/dependablethings). Venue: Graz University of Technology, Graz, Austria. The same venue will host a symposium of the Lead Project on Sept. 11 and meetings of COST IRACON on Sept. 13 and 14, 2017. For more information, please visit: www.tugraz.at/go/iracon-ws-2017