



EWG-LT - Meeting in Graz

Sept. 12 - 14, 2017, Graz, Austria

Sept. 12, 2017:

“Workshop on dependable communications and positioning for the IoT”: One-day workshop, organized jointly with the EWG-IoT and hosted and financially supported by the Lead Project of TU Graz “Dependable Internet of Things in Adverse Environments” (www.tugraz.at/projekte/dependablethings).

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

The workshop has been organized as a single-day, single-track event. Fifteen extended abstracts were accepted from an open call, as the result of a thorough review process obtaining at least three reviews for each submission. The accepted abstracts are available online; see <http://www.iracon.org/workshops/>.

In addition to these regular presentations, two outstanding keynotes have been presented: Jean-Marie Gorce (University of Lyon, France) addressed in his talk “Toward reliable, reactive and energy efficient bursty multi-user communications” the network-level challenges of the IoT, especially for services based on bursty traffic of low rates but under strong reliability, security and real-time constraints. Henk Wymeersch (Chalmers University, Sweden) addressed in his presentation “5G mmWave: a unique synergy between positioning and communication?” the technical benefits which 5G systems will offer towards high-precision localization and its mutual benefit for 5G communication systems.

The workshop has been attended by an estimated audience of 80.

Sept. 13 and 14, 2017:

A joint session was held on Sept. 13 with the WG IoT-Health, containing two TDs related to the WG-LT: TD(17)05015 addresses a hybrid IMU and radio positioning system, aiming at less anchors; TD(17)05023 is about localization for capsule endoscopy at UWB frequencies. Four papers were presented on Sept. 14: TD(17)05024 proposing a ray-tracing channel model for RSS-based positioning; TD(17)05049 dealing with the performance limits in a V2I scenario, employing LTE networks; TD(17)05018 analyzing the channel capacity based on a multipath-resolved channel model obtained from a multipath-assisted positioning system; and TD(17)05022 discussing the theoretical performance of a magnetic near-field system for indoor positioning. TD22 was proposed for the newsletter.

Dissemination activities:

- The working group has successfully organized the workshop on dependable communications and positioning for the IoT, (joint event with the EWG-IoT) held in Graz, Austria, on Sept. 12, 2017. (see above)
- Whitepaper „Localization in 5G“ (planned for M24, i.e. April 2018): tentative time plan: structure will be compiled and contributions invited by Oct/Nov 2017; first draft to be ready by end Jan. 2018 (Nicosia meeting)
- Workshops at IEEE conferences:
 - WCNC 2018: two special sessions on localization will be organized under lead of Jose del Peral-Rosado (UAB, Barcelona)
 - ICC 2018: the ANLN workshop will be organized under lead of Yuan Shen (Tsinghua University, Beijing, China)
- The WG-LT would be strongly interested in joining the planned initiative towards a COST IRACON channel model. Spatial consistency and determinism are of great importance to study positioning and location-aware communications.