Call for Papers

The Workshop on "5G trials across multiple vertical industries" will be held on 10 September 2020 in Bangalore, India, in conjunction with the IEEE 5G World Forum (5GWF'20 www.itsc2019.org/), which is the major annual conference of the *IEEE Future Networks - Enabling 5G and Beyond*. The Workshop targets transport (V2X), healthcare, aquaculture, logistics, energy, manufacture and other sectors. It presents most recent R&D results of related projects on 5G for multiple vertical industries. The workshop also features a panel discussion with experts from related vertical industries, which will foster the interactive exchange of academia and industry.

Commercial rollout of 5G systems in 2020 is expected. While the 5G standard is in place, the gap to bring 5G into business remains huge. Currently 5G trials have been conducted intensively around the World. 5G aims to natively support enhanced mobile broadband (eMBB), massive machine type communication (mMTC) and ultra-reliable low latency communication (URLLC) services in a single infrastructure. It brings enormous opportunities for many vertical sectors, such as, automobile, industry automation, media, and health, just to list a few, to expand and renew their business, or make it more efficient. To allow the coexistence of services with a very different nature, 5G has introduced innovations from spectrum access, air interface, system architecture, network function virtualization in radio and core network, end-to-end network slicing, security, privacy, service orchestration etc. All new 5G features and functions need to be extensively verified and optimized before the commercial rollout of 5G networks. It is essential to test 5G features in complex deployed environments, identifying and solving coverage, interoperability, compatibility and service provisioning problems, and to ensure that 5G can meet the requirements of the various vertical sectors. In particular, the support to vertical sector services will need new measurement and test methods. Due to the complexity of 5G systems, many practical and theoretical challenges will need to be verified and solved during 5G trials.

The workshop aims at providing a forum for industry and academics to disseminate new findings on 5G trials in vertical industries, and new business development. The workshop will call for papers presenting test results from trials as well as theoretical results based on realistic deployment schemes and new 5G business models. The target topics of the workshop include, but are not limited to:

- **5G research in multiple vertical industries**
  - Healthcare
  - Energy
  - Aquaculture
  - Automative / Transport
  - Logistics
  - Other sectors
- **Spectrum**
  - 5G spectrum evaluation
  - Spectrum sharing
- **5G trial development**
  - 5G trial cases and results
  - 5G testbed implementation
  - New test technologies
- **Verticals and new services**
  - C-V2X
  - Applications of mMTC
  - Applications of URLLC
  - New/innovative services enabled by 5G

- **Measurement and evaluation**
  - 5G new radio
  - Radio access network
  - Core network
  - Backhaul
  - Fronthaul
  - NFV/SDN implementation
  - Network slicing
  - D2D communications
  - Mobile edge computing
  - Test result analysis
- **Network deployment and optimization**
  - 5G network planning
  - Network deployment optimization
  - End-to-end performance optimization
- **Security and privacy aspects**
- **5G business model evaluation**
- **5G standards and implementation**

Paper submission

Please submit paper via EDAS: https://edas.info/newPaper.php?c=26958&track=101407

Important dates for paper submissions
- Deadline for paper submission: May 1, 2020
- Acceptance Notification: June 30, 2020
- Camera-Ready Submission: July 31, 2020

Papers must be submitted electronically - see above for EDAS link.

Name(s) of organizer(s) / Moderator(s)

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Related projects (to be extended)