

Second International Workshop on Device-to-Device Communication for 5G Systems (WD2DC)



Co-located with European Wireless 2016, 18-20 May 2016, Oulu, Finland

Scope of the workshop

One of the key enabling technologies at the heart of the next generation 5G systems is expected to be Device-to-Device (D2D) communications. Devices being close to each other can activate direct links and bypass the base station (BS) or access point (AP) by either using cellular communications resources (i.e., inband D2D) or using alternative radio technologies such as Wi-Fi (i.e., outband D2D). The D2D communications paradigm holds, indeed, the promise of to overcome the limitations of conventional cellular systems with very high bit rates, low delay, and low power consumption. There are a number of applications where D2D communications can provide significant improvements. For example, it can be useful to provide mobile data offloading for proximity based applications, to extend the network coverage, or supporting content sharing among users and group oriented services. However, there are many issues still waiting for a solution before a widespread use of D2D communications in next 5G systems is granted. These include network and device discovery, radio resource allocation and resource management, non-network-assisted direct links formation, capacity evaluation. Moreover, some research aspects, such as mobility management, multicast and broadcast communications and radio access procedures for D2D received little attention so far. Objective of this workshop is to bring together academic and industrial researchers and discuss recent results and future research issues for design and modeling of D2D communications as enabling technology for future 5G systems.

Topics of interest are (but not limited to)

- Network and device discovery techniques for D2D communications
- Energy efficiency and power control in D2D communications in 5G systems
- Centralized and distributed coordination for D2D communications in 5G systems
- Network assisted and self-organizing D2D implementations for multimedia services
- Radio resource allocation and management for D2D communications in 5G systems
- Optimization and game theoretic approaches for D2D communications
- D2D communications in massive MIMO systems
- Mobility management in single and multi-cell scenarios for D2D communications
- Multi-hop D2D communication for content distribution in Cloud and Internet of Things environments
- Privacy and security issues for D2D communications
- Social-aware D2D communications
- Full-duplex in D2D communications
- Channel estimation techniques for D2D communications
- Impact of HW imperfections and limitations on for D2D communications performance
- Modeling of control plane support for cellular network assisted D2D communications
- D2D as enabler for Human-Type-Communication and Machine-Type-Communications
- D2D communications for vehicular networks
- Physical layer aspects and frequency band analysis for D2D applications
- Current and future standardization activities for D2D technology

Important Dates

Full papers due: March 4, 2016

Acceptance notification: March 22, 2016

Camera ready version: March 29, 2016

Submission Guidelines

The workshop accepts only novel, previously unpublished papers in the area of Device-to-Device Communication. Prospective authors are encouraged to submit a 6-page IEEE conference style paper (including all text, figures, and references) through EDAS submission system (<https://www.edas.info/>). Papers exceeding the maximum length of six pages will be subject to an over-length charge of 100 euro per additional page (a maximum of two pages can be added). The charge shall be paid as an additional fee to ordinary registration by the reference author of the paper. Accepted papers must be presented at the workshop by one of the authors. All papers selected for publication will be published together with European Wireless 2016 proceedings and available on IEEE Xplore database and will be indexed in the abstract and citation database Scopus (approval pending).

Organizers

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