Call for Papers for
2nd International Workshop on Advanced PHY and MAC Technology for
Super Dense Wireless Networks (CROWD-Net)

Workshop Co-Chairs

Yi Ma   *University of Surrey, UK*
Stefano Severi Jacobs   *University Bremen, Germany*
Na Yi   *University of Surrey, UK*

http://icc2016.ieee-icc.org/cfw

Scope
Densely deployed wireless networks provide one of the most important solutions to improve the area spectral efficiency, and to handle the spectrum crunch expected by 2020. They are expected to have a huge economic impact, contributing to 5G technology, wireless sensor networks, machine-to-machine (M2M) communications, vehicular-to-vehicular (V2V) communications, and to public safety networks. However there are many serious technical issues identified in the implementation of these networks, which include optimisation of spectral and energy efficiencies, minimisation of signalling overhead for network planning and link budget allocation, and security issues. One potential solution to these problems is node cooperation with distributed/centralised data fusion. In particular wireless physical layer network coding exploits this route diversity and avoids the congestion that arises in conventional networks. Moreover distributed self-organisation methods are currently being intensively investigated, promising to allow robust and flexible distributed network optimisation. Recent work on physical layer security also provides an opportunity to enhance security in dense wireless networks. This workshop aims to gather researchers, regulators, and users to present and debate advanced PHY and MAC techniques for coordinated or uncoordinated dense wireless networks, with the perspective of current cellular, M2M, and V2V standardisation activities in 3GPP, ETSI, IEEE and IETF.

Topics of Interest
Specifically, but not exclusively, the workshop addresses the following issues related to super dense wireless network:
- Information theoretic limits
- Advanced modulation and coding schemes
- Cooperative communications in large-scale networks
- Centralised/distributed signal processing
- Physical layer network coding
- Uncoordinated multiple-access
- Non-orthogonal waveforms
- Large-scale MIMO
- Backhaul/Front-haul strategies
- Distributed self-organising methods
- Routine and re-transmission protocols
- V2V communication protocols
- Heterogeneous positioning
- Location-aided communications
- Security, trust and privacy issues
- Field trials / test-beds / regulatory issues

Important Dates
Paper submission deadline: December 4, 2015
Acceptance notification: February 21, 2016
Camera-ready paper: March 13, 2016