



Call for Papers
 International Workshop on
Advanced PHY and MAC Layer Design for
5G Mobile Networks and Internet of Things
 in conjunction with European WIRELESS 2016, May 2016, Oulu, Finland

5G is expected to revolutionize the way we communicate now by supporting massive devices and immersive applications, which demand exceptionally high-speed wireless connections, a fully-realized internet of things (IoT), experience lower latency and promote both spectrum and energy efficiency. To realize these benefits, 5G systems are expected to differ fundamentally from their predecessors with a number of ground-breaking innovations. Densely deployed wireless networks provide one of the most important and sustainable solutions and contributing to 5G small-cell technology, wireless sensor networks (WSN), machine-to-machine (M2M) communications and to public safety networks (PSN). However there are many serious technical issues identified in the implementation of these networks need to be investigated.

Scope and objectives:

5G mobile networks and IoT have received tremendous attention worldwide. This workshop aims to gather researchers, regulators, and users to present and debate advanced PHY and MAC techniques for the considered wireless networks and applications, with the perspective of current cellular, M2M, and V2V standardisation activities in 3GPP, ETSI, IEEE and IETF. Specifically, but not exclusively, the workshop addresses the following issues related to 5G mobile networks and IoT:

- Information theoretic limits
- Advanced modulation and coding schemes/ adaptive modulation and coding schemes
- Cooperative communications in large-scale networks
- Centralised/distributed signal processing
- Physical layer network coding
- Uncoordinated random access in time varying channels
- Large-scale MIMO
- Backhaul/Front-haul strategies
- Distributed self-organising methods
- Routing and re-transmission protocols
- V2V communication protocols
- Heterogeneous positioning
- Location-aided communications
- Security, trust and privacy issues
- Channel modelling/ field trials / test-beds
- Cross layer MAC design

Keynotes and Invited Panel Discussion: A high-profile keynote speaker will be invited to share their influential contributions in the field of 5G mobile networks and IoT research. World leading experts will be invited to form a panel discussion during the workshop. The chair will provide a briefing outline the development of such networks, its recent revision and some areas of application. The panel will be invited to comment on the potential value and impact to the whole world and to suggest ways in which it might be utilised for this opportunity. The audience will be invited to take part in the discussion.

Important Dates:

Paper submission:	4 th	March	2016
Acceptance notification:	19 nd	March	2016
Camera-ready:	22 th	March	2016
Workshop:	18 th -20 th	May	2016

Co-Chair:

Na Yi	University of Surrey	UK
Hicham Khalifé	Thales Communications & Security	France
Christian Schneider	Technische Universität Ilmenau	Germany

Organising Committee:

Chair:

Yi Ma University of Surrey UK

Local Chair:

Valtteri Tervo University of Oulu Finland

Publicity Chair:

Jiancao Hou University of Surrey UK

Submission Guidelines:

Papers need to be uploaded to the EW2016 EDAS, should be in English, not exceeding 6 two-column A4 pages, and should follow standard IEEE conference templates available [here](#). Accepted papers will be published in IEEE Xplore. They will be presented either orally or by means of a poster.