



# Collaboration workshop on 5G channel modelling activities and next steps in both Europe and Japan

In conjunction with European Wireless 2016, 18 May 2016,  
Oulu, Finland



## Scope of the workshop

5G communication networks will bring enhanced mobile broadband (eMBB) services to users and vertical markets supporting very wide range requirements from context-dependent applications. This will lead to support extremely large bandwidth, ultra dense deployment of radio access points, aggregation of diverse access technologies, exploitation of new (and unlicensed) spectrum. In recent years, mmWave bands above 6GHz have been emerging as strong candidate spectra for both backhaul and access of 5G systems, owing to the ultra-wide available bandwidth as well as the maturity of related technologies including antenna/beamforming technology (which can compensate path loss attenuation at higher frequency) and integrated circuits. On the other hand, investigation on the propagation characteristics of a channel is crucially important seen from the system design's perspective. For this purpose, this workshop, which includes all invited papers, will highlight recent research progresses of this evolving area by providing a platform to showcase research works and new findings on mmWave propagation. By collaborating between Japan-initiative SmartCom2016 and European-found EW2016, the workshop is also aiming at encouraging further collaboration within the researchers of both Europe and Japan working on these close research paradigm of 5G communications. This workshop is also supported by 5GPPP mmMAGIC project and EU/JP MiWEBA project.

## Topics of interest are (but not limited to)

- + Propagation measurements and channel modeling in mmWave bands (above 6GHz)
- + Channel modeling activities in 3GPP and IEEE
- + Spectrum regulatory and coexistence aspects
- + Hybrid precoding methods for mmWave backhaul and access systems
- + Advanced antenna and radio frequency techniques for mmWave backhaul and access systems
- + Advanced beam forming, training, and tracking schemes for mmWave backhaul and access systems
- + mmW system prototyping

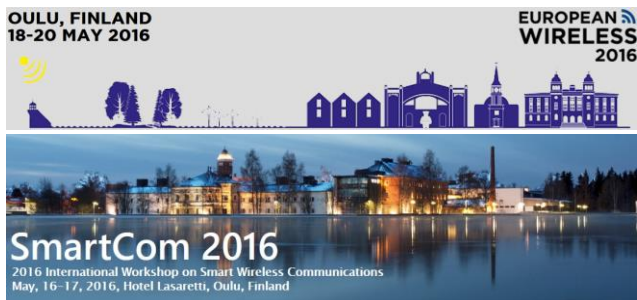
## Important Dates

Full paper due: March 4, 2016

Acceptance notification: March 22, 2016

Camera ready version: March 29, 2016

## Host and Technical Sponsors



## Submission Guidelines (only invited papers)

The workshop accepts only novel, previously unpublished papers in the area of mmWave Communication. Prospective authors are encouraged to submit a 6-page IEEE conference style paper (including all text, figures, and references) through [EDAS](#) submission system. 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). The authors of this workshop should indicate the type of manuscript as "invited paper" under the title part of the paper.

## Organizers

*Kei Sakaguchi*, (Fraunhofer Heinrich Hertz Institute, Germany)

*Gia Khanh Tran*, (Tokyo Institute of Technology, Japan)

## SmartCom2016 liason

*Kenta Umebayashi*, (Tokyo University of Agriculture & Technology, Japan)

## TPC

TBD (to be selected from SmartCom2016, mmMAGIC, and MiWEBA committee members)

## Website

<http://ew2016.european-wireless.org/workshops/>

