ULTRAWAVE

Ultra capacity wireless layer beyond 100 GHz based on millimeter wave Traveling Wave Tubes

Wireless communications toward the 300 GHz

The Kick-off Workshop

10:30 14th September 2017

Management School, Lecture Theatre 2, Lancaster University

10:30 Registration and coffee

10:55 Introduction Claudio Paoloni, ULTRAWAVE Project Coordinator

11:00 Welcome Prof. Peter Atkinson, Dean of the Faculty of Science and Technology

11:10 Claudio Paoloni, Lancaster University, UK
"H2020 ULTRAWAVE for wireless networks toward 300 GHz"

Invited speakers

11:25 François Magne, When-AB, France "5G evolution in millimetre wave spectrum"

11.40 Klaus Moessner, 5G Innovation Centre, University of Surrey.
"Resource Management in 5G"

12.00 Renato Lombardi, Huawei Fellow and Head of Italy Research Centre, VP Microwave Product Line, Huawei (via Webex)
"Wireless backhaul and fixed wireless access evolution trends and spectrum requirements"

12.20 13.30 Lunch

The ULTRAWAVE partners: a technology overview.

13:30 Antonio Ramirez, Fibernova Systems, Spain,
"Millimeter wave wireless demonstration platform"

13:40 Sebastian Boppel, Ferdinand Braun Institute, Germany,
"300 GHz Chipset for wireless communications"

13:50 Ralph Zimmerman, HFSE, Germany
"Millimeter wave micromachining and integration"

14:00 Viktor Krozer, Goethe University of Frankfurt, Germany
"Millimeter wave components for wireless front end"

14:10 Marc Marillier, OMMIC, France
"D-band transceiver chipset fabrication"

14:20 Borja Vidal, Universitat Politecnica de Valencia, Spain, `
"G-band hybrid radio-fibre optic architectures"

14:30 Ernesto Limiti, University of Rome Tor Vergata, Italy
"MMIC modeling and characterization above 140 GHz"

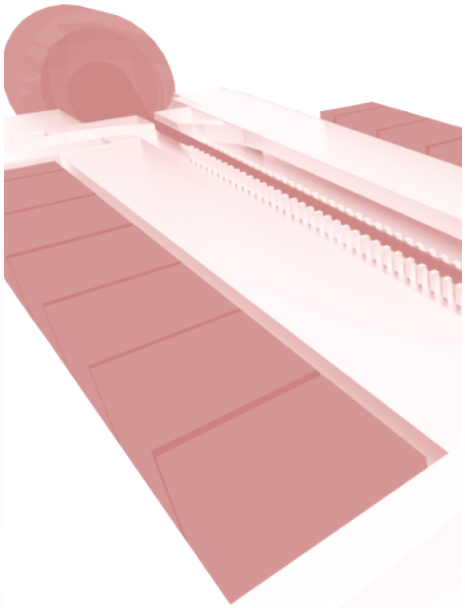
14:40 - 15.30 Panel session - Moderated by Claudio Paoloni.
"Perspectives of high capacity millimetre wave wireless for 5G network and access"
Panellists: Invited speakers and key scientists from industry and academia will be invited to an open discussion with audience.

The event will be broadcasted by Webex, please for info write to the Project Manager Mary English: m.english@lancaster.ac.uk

www.ultrawave2020.eu

ULTRAWAVE
Horizon 2020 for wireless toward 300 GHz

The H2020 ULTRAWAVE project



ULTRAWAVE responds to the challenge of high capacity, high cell density backhaul by proposing, for the first time, the exploitation of the whole millimeter wave spectrum beyond 100 GHz. This will be used to create an ultra capacity layer providing more than 100 Gbps per kilometer square in Point to Multi point at D-band (141 – 174.8 GHz) over 500 m radius of coverage, fed by novel G-band (300 GHz) Point to Point high capacity links with more than 600 m range.

The ULTRAWAVE system is empowered by the convergence of three main technologies: vacuum electronics, solid-state electronics and photonics in a unique wireless system, with transmission power at Watt level at millimeter waves, generated by novel traveling wave tubes.

The ULTRAWAVE consortium includes five top Academic institutions and three high technology SMEs from five European countries. The vast capacity, flexibility and easy deployment of the ULTRAWAVE layer will enable backhaul of hundreds of small and pico cells, no matter the density, and will open scenarios so far not conceivable for new networks paradigms and architectures aiming at a full 5G implementation.

Key facts
Horizon 2020 Framework Programme
Call H2020 – ICT – 2016-2
Budget €2971336
Project number: 762119
Start date: 1st September 2017
Duration: 36 months
Website www.ultrawave2020.eu

The Consortium

· Lancaster University	United Kingdom
· Fibernova Systems	Spain
· Ferdinand Braun Institute	Germany
· Goethe University of Frankfurt	Germany
· HFSE	Germany
· OMMIC	France
· Universitat Politecnica de Valencia	Spain
· University of Rome “Tor Vergata”	Italy

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How to reach Lancaster University

By Rail

There are direct rail links between Lancaster and many of the UK's major cities and airports. For train times, visit National Rail Enquiries. The 3A bus service operates between Lancaster Railway Station and Lancaster University every 30 minutes Monday to Saturday day times. There is a limited hourly service on Sunday evenings in term time. Taxis are available at the station, which is a five minute walk from the city centre. Taxi ranks are also available on campus.
Local taxi services provide accessible vehicles and offer both male and female drivers.

By Air

From Manchester International Airport take the M56 motorway at Junction 5 and join the M6 motorway at Junction 20 (north), then follow the 'By Car' directions below.
Alternatively, take the train - an hourly rail link runs directly between Manchester Airport and Lancaster. For train times, visit National Rail Enquiries.

By Car

Leave the M6 motorway at Junction 33 and take the A6 north towards Lancaster.
For Lancaster University main campus - turn right at the third set of junction traffic lights on the A6 into the University main drive.
Take the first exit left from the roundabout at the top of the main drive, then the first avenue on your right. This brings you to the Security Lodge where staff will direct you to your destination on campus.
You can use either the RAC or AA route planners to view and print directions for your journey.
If using an online route planner or satnav, please note that the University postcode is LA1 4YW.

More info at http://www.lancaster.ac.uk/contact-and-getting-here/maps-and-travel/