Third Towards Terahertz Communications Workshop

An ICT Beyond 5G Cluster Workshop

Friday 12 March 2021 08.30 CET
Virtual

The ICT Beyond 5G Cluster will host the
Third Towards THz Communications Workshop

Future mobile networks and connectivity systems will require ultra-high speed and seamless performance for a huge number of connected devices and applications. Higher frequencies, and more specifically the terahertz range (0.1 THz – 10 THz) is seen as one of the promising ways to address these requirements. But today, many fundamental scientific and technological challenges are still to be explored and overcome.
At the same time, allocation of the bands for THz communication is not yet done. It is thus also important to start, as early as possible, the identification of candidate bands which will be optimal from a technological point of view, while at the same time answering to the needs in the most promising and highly desirable verticals applications and use cases.

Scope

This 3rd workshop aims at bringing together key actors currently working on, or having interest, in THz communications in order to explore future R&I plans for the period beyond 2021. The main goal of the workshop will be to have an overview of the current state of the art of the research in this area, to discuss the main challenges still to be explored, to highlight key research directions for future R&I actions and to share opinions on the foreseen frequency bands which could be good candidate to be supported by the EU in the global allocation exercise.

The workshop will be concluded by a panel session on the "Industrial Future of THz Comms."

Registration free of charge at:
https://wit-ie.zoom.us/meeting/register/tJAqcO2vpzMqHtH2vVKUIiLkN-EgiiwaCc3c

Programme

3rd Towards THz Communications Workshop FRI 12-Mar-2021 ; online				
Time WET	Time CET	Topic	Presenter/lead	Affiliation
08:25	09:25	Log-in to web-meeting		
08:30	09:30	Opening Keynote: *Bringing THz communication to the mass market: no longer an illusion*	Prof. Piet Wambacq	IMEC
09:00	**10:00**	**Session 1: Latest THz comms project results**		
09:00	10:00	TERAPOD *THz comms in a data centre environment*	Dr. Alan Davy	Waterford Institute of Technology
09:15	10:15	ThoR *THz end-to-end ultra-high data rate wireless systems*	Prof. Thomas Kürner	TU Braunschweig
09:30	10:30	DREAM *Integration of THz electronics*	Dr. Vladimir Ermolov	VTT
09:45	10:45	EPIC *6G-era channel coding technology for THz systems: Final outcomes of the EPIC project*	Dr. Onur Sahin	InterDigital
10:00	11:00	TERRANOVA *Project results and introduction to ARIADNE*	Prof. Angeliki Alexiou	University of Piraeus
10:15	11:15	Break and online poster session		
10:30	11:30	Car2TERA *Sub-THz car radar and THz-over-fiber data links*	Prof. Joachim Oberhammer	KTH Royal Institute of Technology
10:45	11:45	*Progress in H2020 ULTRAWAVE* *D-band point-to-multipoint wireless distribution*	Prof. Claudio Paoloni	University of Lancaster
11:00	12:00	WORTECS *Project and proof of concept overview*	Dr. Oliver Bouchet	Orange
11:15	12:15	TERAWAY: *Disruptive technologies for photonics-enabled THz transceivers for ultra-broadband links*	Dr. Muhsin Ali	Universidad Carlos III de Madrid
11:30	12:30	WIPLASH: *Wireless communications in the terahertz band for massive heterogeneous computer architectures*	Dr. Akshay Jain and Dr. Sergi Abadal	Universitat Politecnica de Catalunya
11:45	12:45	Lunch and online poster session		
12:45	**13:45**	**Session 2: Future THz comms challenges**		
12:45	13:45	6G Flagship *The potential role of THz in 6G*	Prof. Matti Latva-aho	University of Oulu
13:05	14:05	THz communication: *A technology enabler for 6G?*	Dr. Valerio Frascolla	Intel
13:25	14:25	Brainstorm session *THz comms challenges*	Dr. Alan Davy	Waterford Institute of Technology
13:45	14:45	Break and online poster session		
14:00	**15:00**	**Session 3: Industry perspective on THz comms**		
14:00	15:00	*The age of the THz - 6G technology and architecture vision to connect the worlds*	Dr. Volker Ziegler	6G Leadership Bell Labs & CTO Nokia Strategy and Technology
14:20	15:20	*Scalable mmW architecture and implementation towards THz solutions*	Eric Mercier	CEA-Leti
14:40	15:40	Panel discussion and questions *Industrial future of THz comms*	Prof. Claudio Paoloni	University of Lancaster
15:15	16:15	Meeting close		

Panel Industrial Future of THz Comms
Panelists:

        Olivier Bouchet, Orange, France
        Valerio Frascolla, Intel , Germany
        Thomas Kuerner, TU Braunschweig, Germany
        Eric Mercier, CEA-Leti, France
        Volker Ziegler, Bell Labs & CTO Nokia Strategy and Technology, Germany

Moderator: Claudio Paoloni, Lancaster University, UK

Organizing Committee

General Chair

Alan Davy, Waterford Institute of Technology, Ireland

Technical Programme Co-Chairs

Thomas Kürner, TU Braunschweig, Germany
Bruce Napier, Vivid Components
Claudio Paoloni, Lancaster University

ICT Beyond 5G Cluster Steering Committee

Alan Davy	Waterford Institute of Technology, Ireland
Angeliki Alexiou	University of Piraeus, Greece
Bruce Napier	Vivid Components Ltd., Germany
Onur Sahin	InterDigital, UK
Vladimir Ermolov	VTT Technical Research Centre, Finland
Claudio Paoloni	Lancaster University, UK
Thomas Kürner	TU Braunschweig, Germany

ICT Beyond 5G Cluster

The following projects have agreed to form an unofficial cluster in order to try to coordinate some dissemination activities to maximise the impact of the projects.

Car2Tera	car2tera.eu
DREAM	h2020-dream.eu
EPIC	epic-h2020.eu
TERAPOD	terapod-project.eu
TERRANOVA	ict-terranova.eu
ULTRAWAVE	ultrawave2020.eu
WORTECS	wortecs.eurestools.eu
ThoR	thorproject.eu

Third Towards TeraHertz Communications Workshop
An ICT-09-2017 Cluster Workshop

Contacts

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