

University of Pavia

**Ph.D. School of Electrical and Electronics Engineering
and Computer Science**

Seminar series

THz Communications: channels and modulations

Dr. Josep M. Jornet

Ass. Prof. @ Northeastern University, Boston (MA)

16:00-18:00 May 10th, 2021: THz propagation and channel modeling

14:00-16:00 May 12th, 2021: THz ultra-broadband modulations

14:00-16:00 May 14th, 2021: Multi-user interference at THz frequencies

[Zoom Link](#)

Meeting ID: 832 1555 2948

Passcode: 642724

Abstract

In this 2nd lecture series, details about communications channel models and modulations for digital communications in the Terahertz (THz) band (100 GHz to 10 THz) will be provided. The THz signal propagation channel will be defined by underlining the peculiar phenomena at these frequencies in various scenarios and comparing them to those typical of systems at lower (microwaves) or higher frequencies (optical wireless). Finally, specific digital transmission techniques will be presented for the hardware capabilities and the transmission channel at these frequencies.

Biography

Josep Miquel Jornet is an Associate Professor in the Department of Electrical and Computer Engineering, the director of the Ultrabroadband Nanonetworking (UN) Laboratory, and a member of the Institute for the Wireless Internet of Things at Northeastern University. He received the Degree in Telecommunication Engineering and the Master of Science in Information and Communication Technologies from Barcelona School of Telecommunications Engineering (ETSETB), Universitat Politècnica de Catalunya, Spain, in 2008. From September 2007 to December 2008, he was a visiting researcher at the Massachusetts Institute of Technology, Cambridge, under the MIT Sea Grant program. He received the Ph.D. degree in Electrical and Computer Engineering from the Georgia Institute of Technology, Atlanta, GA, in August 2013. Between August 2013 and August 2019, he was in the Department of Electrical Engineering at the University at Buffalo, The State University of New York.

Organizer

Prof. Paolo Gamba

Ph.D. Coordinator

Prof. P. Di Barba

Seminar in English

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