

The IoT 6G

Roberto Verdone

DEI, Università di Bologna / WiLab, CNIT

Abstract

The Internet of Things (IoT) paradigm, after two decades of development based on non-3GPP short and long range radio technologies, is entering a new phase with the deployment of 5G networks. 5G will open the door to new IoT applications like in the Industrial domain for predictive maintenance. However, 5G will not be able to cover all requirements posed by the most advanced applications. With the advent of 6G, challenging IoT applications will be boosted further. This talk discusses the evolution from 5G towards 6G under the IoT viewpoint.

Bio



Roberto Verdone got his PhD in Electronic Engineering from the University of Bologna (UniBO). Since 2001 he is Full Professor in Telecommunications at UniBO, where he leads a research group (Radio Networks) working on Radio Resource Management for mobile systems, MAC, routing and topology aspects of wireless sensor networks, architectures and technologies for the IoT. In particular, he is currently active in the field of the integration of the IoT in 5G networks, 6G systems using THz communications, and UAV-aided mobile radio networks. In the past two years, he has been researching the field of psychology, with application to the assessment of soft skills. Since 2020 he is the Director of the CNIT National Laboratory of Wireless Communications, WiLab, participated by more than 50 researchers. He is also co-Director of the WiLab-Huawei

Joint Innovation Center on Intelligent IoT for 6G. He published about 200 research papers, on IEEE journals/conferences. He has been involved/has coordinated more than ten European projects, and acted as responsible for many industrial contracts (with TIM, Microsoft, CEA-LETI, and others) in the past 20 years.