



Optical Wireless Communications

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Lecture 1: Visible Light Communications (Part 1) **25 Apr 2022 – 09-30am (UK time) / 10-30am (CET)**

Lecture 2: Visible Light Communications (Part 2) **26 Apr 2022 – 09-30am (UK time) / 10-30am (CET)**

Lecture 3: Vehicle-to-Vehicle Communications **27 Apr 2022 – 09-30am (UK time) / 10-30am (CET)**

Lecture 4: Optical Wireless Communications: Fundamentals and Potential Applications
with a vision for 5G and Beyond **28 Apr 2022 – 09-30am (UK time) / 10-30am (CET)**

Abstract:

The upcoming fifth and sixth-generation (5G and 6G, respectively) communication systems are expected to deal with enormous advances compared to the existing fourth-generation communication system. The few important and common issues related to the service quality of 5G and 6G communication systems are high capacity, massive connectivity, low latency, high security, low-energy consumption, high quality of experience, and reliable connectivity. Of course, 6G communication will provide several-fold improved performances compared to the 5G communication regarding these issues. The Internet of Things (IoT) based on the tactile internet will also be an essential part of 5G-and-beyond (5GB) (e.g., 5G and 6G) communication systems. Accordingly, 5GB wireless networks will face numerous challenges in supporting the extensive varieties of heterogeneous traffic and in satisfying the mentioned service-quality-related parameters. Optical wireless communication (OWC), along with many other wireless technologies, is a promising candidate for serving the demands of 5GB communication systems. The lectures will discuss about optical wireless technologies such as visible light communication, light fidelity, vehicle-to-vehicle communications, and free-space optics communication solution for successful deployment of 5G/6G and IoT systems.

Short bio:

Prof Anand Srivastava did his M.Tech. and Ph.D. from IIT Delhi and is currently working in IIIT Delhi as Professor in ECE department. Before joining IIIT Delhi, he was Dean & Professor in School of Computing and Electrical Engineering at Indian Institute of Technology Mandi, HP, India and also Adjunct faculty at IIT Delhi. Prior to this, he was with Alcatel-Lucent-Bell Labs, India as solution architect for access and core networks. Before joining Alcatel Lucent, he had a long stint (~20 years) with Center for Development of Telematics (CDOT), a telecom research center of Govt. of India where he was Director and member of CDOT Board. During his stay in CDOT, he provided technical leadership and motivation to a team of engineers engaged in the development of national level projects in the areas of Telecom Security Systems, Network Management System, Intelligent Networks, Operations Support Systems, Access Networks (GPON) and Optical Technology based products. Majority of these projects were completed successfully and commercially deployed in the public network. He was also closely involved with ITU-T, Geneva in Study Group 15 and represented India for various optical networking standards meetings. His research work is in the area of optical core & access networks, Vehicle to vehicle communications, Fiber-Wireless (FiWi) architectures, optical signal processing, and Visible Light Communications.

The Link for participation: <https://eu.bbcollab.com/guest/e10dc3d64239419c826b754aaf80ac71>