

OFDM Based 4G Cellular Standards: LTE and WiMAX

9 May - 11 May 2011

Organized by
BSNL IITK Telecom Center of Excellence & Department of Electrical Engineering IITK



Important Dates

Course Dates

9 May - 11 May 2011

Last Date for Registration

15th April 2011

Venue

*Seminar Hall,
Pioneer Batch Building,
IIT Kanpur*

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Short Course on OFDM Based 4G Cellular Standards: LTE and WiMAX

Orthogonal Frequency Division Multiplexing (OFDM) is the cutting edge physical layer technology slated to be employed in the forthcoming 4G wireless cellular standards such as 3GPP Long Term Evolution (LTE/LTE-A), Worldwide Interoperability for Microwave Access (WiMAX) and high speed WLAN standards. Such 4G cellular standards are envisaged to support data rates in excess of 100 Mbps through MIMO, dynamic carrier aggregation and thus enable a diverse plethora of applications in the wireless ecosystem such as broadcast/multicast video, HDTV on demand, high speed internet access, interactive gaming amongst others. At the same time there is a tremendous effort towards fixed mobile convergence to enable seamless mobility across future WLAN and cellular networks. Such factors are driving the wireless telecommunication designers and operators to invest heavily in the development of OFDM compatible technologies and applications with the aim of tapping into the potentially vast revenue opportunity in futuristic 4G cellular networks.

This course is intended to provide practicing engineers and telecom teachers with an in depth exposure to OFDM in addition to elaborate tutorials on the upcoming wireless standards of LTE, WiMAX. The modular approach provides the participants with a comprehensive treatment of several aspects of latest wireless standards and technologies while emphasizing both the theoretical and practical aspects of such systems. The initial modules will familiarize the participants with an overview of wireless communications and provide a detailed expose of OFDM. This will be followed by individual modules on LTE, WiMAX elaborating each of PHY, MAC and network layers. A subsequent module will provide a detailed analysis of the key differences between LTE and WiMAX. Finally, an interactive MATLAB module will introduce the participants to practical implementation aspects of such systems.

Target Audience

- Practicing wireless system engineers.
- Teachers of engineering colleges.
- Graduate students pursuing research in wireless communications.

For more details and registration information, visit the website

<http://www.iitk.ac.in/ee/ofdm11>