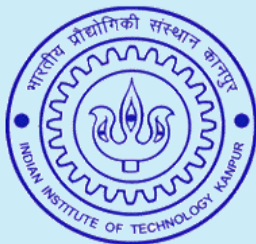
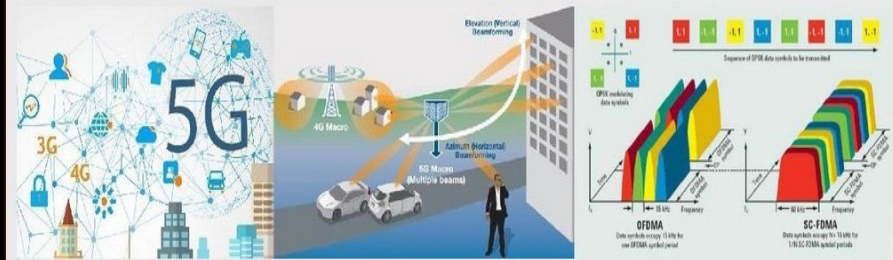


Organized by Prof. Aditya K. Jagannatham, EE Department, IIT Kanpur in association with
ECE Department, Osmania University, Hyderabad
Website: <http://www.iitk.ac.in/mwn/hyderabad>
March 27th - 30th, 2019

Mini-Project Course
in Hyderabad on
MU-MIMO, Massive
MIMO and OFDM
Technologies for
5G Networks



Important Dates

Course Dates

March 27th - 30th, 2019

Last Date for Registration

March 20th, 2019

Venue

Seminar Hall,
ECE Department,
University College of
Engineering,
Osmania University,
Hyderabad
Telangana-500007

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Multi-User (MU) Multiple-Input Multiple-Output (MIMO), Orthogonal Frequency Division Multiplexing (OFDM) and Massive MIMO are the latest wireless technologies, which form the foundation for Long Term Evolution (LTE/ LTEA) systems, high speed WLAN 802.11 ac, 802.11 ax and also future 5G networks. These cutting edge technologies can potentially support data rates in excess of 1 Gbps through MU-MIMO/ OFDM/ Massive MIMO and thus enable high rate applications in wireless systems such as broadcast/ multicast video, HDTV on demand, high speed internet access. This wireless technology revolution is driving engineers and researchers to focus heavily on the research and development of these techniques that have proven to be best suited to meet the throughput and quality demands of 4G/ 5G cellular networks.

This course intends to provide an elaborate and thorough treatment of various concepts in 5G MU-MIMO, Massive MIMO and OFDM wireless systems together with hands on simulation experience for engineers, faculty members and B.Tech/ M.Tech/ Ph.D. students. The modular approach will present a comprehensive treatment of the theory behind these technologies such as Diversity order, Bit-Error Rate (BER) Analysis and other aspects such as Space-Time Block Codes (STBC), Beamforming, Precoding, Receiver Design. The classes will introduce the various theoretical aspects beginning with the fundamentals, followed by problem solving sessions to further enhance understanding. A one-day hands-on MATLAB/ SIMULINK module with several mini projects will also be conducted to simulate the performance of the latest MU-MIMO, Massive MIMO, OFDM wireless systems for 5G.

Target Audience

- Engineers and Industry professionals
- B.Tech/ M.Tech/ Ph.D students
- Faculty members of government and private engineering colleges

For more details and registration information, visit the website
<http://www.iitk.ac.in/mwn/hyderabad/>