Dear HOD/ Professor

A short course titled “Mini-Project Course in Hyderabad on MU-MIMO, Massive MIMO and OFDM Technologies for 5G Networks” is being organized by IIT Kanpur from 27th to 30th March 2019, in association with ECE Department, University College of Engineering, Osmania University, Hyderabad. Multi-User MIMO, Massive MIMO and OFDM are key technologies for the realization of 5G wireless networks. This course is geared towards B.Tech/ M.Tech/ Ph.D. students, faculty members and industry participants. The course program includes detailed lecture/ tutorial modules together with Mini-projects in MATLAB. Lecture notes, tutorial assignments, solutions and MATLAB code will be provided to the participants. A partial list of topics intended to be covered is given below

1. Introduction to MIMO Systems
2. Channel Estimation for MIMO Systems
3. Multi-user MIMO Wireless Systems
4. Introduction to Massive MIMO
5. Generalized Spatial Modulation
6. Rate Scaling/ Spectral Efficiency of Massive MIMO
7. Channel Estimation for Massive MIMO
8. Spectral Efficiency with Imperfect CSI
9. Multi-Cell Massive MIMO, Pilot Contamination
10. Introduction to OFDM Technology
11. IFFT/ FFT Processing for OFDM
12. MIMO OFDM and Transceiver Architecture
13. PAPR Techniques for OFDM Systems
14. Mini Project 1: Channel Modeling and BER Performance
15. Mini Project 2: Multi-Antenna Wireless Systems, Multi-User MIMO
17. Mini Project 4: OFDM, IFFT/ FFT Processing, MIMO-OFDM

I request to kindly display the enclosed course flyer in your institution. More details regarding the course can be found at URL below

https://www.iitk.ac.in/mwn/hyderabad/index.html

Thanking you,

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