A Short-Term Course On

# **Selected Topics in Modern Wireless Networks and Internet of Things**

September 15-21, 2019

**Course Coordinator** 

## Prof. Sudip Misra

Department of Computer Science and Engineering Indian Institute of Technology Kharagpur, India

Guest Lecture

## Prof. Ekram Hossain

Department of Electrical and Computer Engineering University of Manitoba, Canada

Organized by



Department of Computer Science and Engineering Indian Institute of Technology Kharagpur 721302, India

#### Introduction

The advent of IoT has revolutionized connectivity for modern man. The increasing adoption of IoT has resulted in a need for new and more powerful wireless network technologies and protocols which are capable of supporting the ever-growing needs of the population. Hence, researchers worldwide have focused their attention on future generation wireless technologies such as 5G and beyond 5G and their enabling technologies. One such eminent researcher is Prof. Ekram Hossain who is a world-renowned researcher in the field of wireless networks and a fellow of the IEEE. He has a plethora of research experience in the domain of cognitive and cellular radio networks, network economics, software-defined wireless networking and virtualization, and cyber-physical systems. To date, his research works have received 24,000+ citations (in Google Scholar, with hindex = 79). His research includes spectrum/resource management for ultra-dense small cell networks, coexistence, distributed wireless access, scheduling, power control, network selection, fronthauling/backhauling, energy-harvesting/wireless-powered cellular radio systems, cloud radio access networks, cellular massive MIMO and mobility/handoff management in 5G and Beyond 5G cellular networks and game theoretic analysis of wireless/mobile communication networks. Because of his vast knowledge and exceptional research work, Prof. Ekram Hossain has been invited to IIT Kharagpur to deliver a series of lectures on selected topics in modern wireless technologies and IoT.

The objective of this course is to help the researchers and the student community at IIT Kharagpur to:

- 1. Improve their knowledge about the various cutting-edge technologies in the field of wireless networks.
- 2. Learn about the current state-of-the-art in modern wireless technologies and IoT research from the best in the field.
- 3. Interact with a leading researcher and get to know about the research works being done in the top research labs in the world.
- 4. Explore different opportunities for research collaboration

#### **Course Co-ordinator**

Prof. Sudip Misra, Professor, Department of Computer Science and Engineering, IIT Kharagpur & Research Scholars

## **Participants**

Faculty of any university/college are eligible to participate in this short-term course. The students pursuing B.E/ B.Tech/ BCA/ MCA/ M.Tech/ MS/ PhD are eligible to attend the course. Other participants from industries and research labs can attend the course (as seats are limited, the selection will be on first-come-first-serve basis).

### **Registration Fees**

As there are only a few seats available for this course, preference will be given to eligible early bird registrations. Last date for registration is September 10, 2019. The selected participants will be informed through e-mail or by phone on or before September 12, 2019.

The following course fees apply for eligible applicants:

#### **Course Fees:**

College Teachers/Faculty: ₹ 6,000 + 18% GST

Industry/ Research Organizations: ₹ 10,000 + 18% GST

Students: ₹ 4,000 + 18% GST

The above fees do not include TA/DA/Accommodation for the participants. However, accommodation for the participants can be booked on payment basis, based on availability. Such participants should inform their accommodation requirements immediately.

#### Address for Communication

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## **IIT Kharagpur Campus**

Kharagpur is known world over for two landmarks. One, the longest railway platform in the world and the other, the Indian Institute of Technology, more commonly known as IIT. Situated about 120 km west of Kolkata, Kharagpur can be reached in about 2 hours by express trains from Howrah railway station of Kolkata or 3 hours by car from Kolkata Airport. Kharagpur is also connected by direct train services to most major cities of the country. The Institute is about 10 minutes drive (5 km) from the Kharagpur railway station. Private taxi, auto-rickshaw or cycle-rickshaw can be hired to reach the Institute.