

## **IoT and Telecommunications Engineering**

## **Global Education & Training** 2-Week Summer School Program

Global Education and Training (GET) would like to invite you to study at the world-class University of Illinois Urbana-Champaign. The university is consistently ranked as one of the top public universities in the United States and the world. During your two week program, you will experience the teaching methods of U.S. higher education faculty, be introduced to new ways of thinking and problem solving, and learn, first-hand, about academic life and culture at an American university campus.

GET is offering this program in partnership with the Grainger College of Engineering. The Grainger College of Engineering is a global leader in engineering education and research across every discipline. The college emphasizes cutting-edge theory coupled with high-impact engineering research and hands-on learning.

#3

program for undergraduate civil engineering #6

undergraduate engineering program

#10

graduate engineering program

#15

national U.S. public university

#22

Center for World University Rankings



## Classroom Study

Students will learn from top faculty at the University of Illinois Urbana-Champaign. The program will help students understand mathematical concepts and algorithms deployed in wireless applications. All courses will be in English. Students who successfully complete the program will receive a certificate of recognition. Program participants do not receive degrees or academic credit from the university.



### **Business & Cultural Visits**

Students will visit the 3D MakerLab, National Center for Supercomputing Applications, Research Park, and more local area businesses who are prized for their strategies, social responsibility, and employee satisfaction. Global Education and Training staff will also plan cultural events and accompany the group on field trips to famous modern and historical attractions in Chicago and Springfield.

### **Program Courses & Components**

# Wireless and Mobile IoT: From Algorithms to Applications

This course will help students develop essential foundations for wireless networking, mobile computing, and IoT systems. The goal of this course is to balance mathematical algorithms and real world applications. The course takes on real applications (e.g., 5G, AR/VR, autonomous cars, etc.), break them up into technical problems, and see how algorithms can be applied to solve them systematically.

## Wireless Communications: 5G / WiFi 6 & Low Power IoT Communication

The goal of this course is to teach students the fundamentals of wireless communications from basic principles to the current standards for 5G cellular networks, WiFi 6, and Low Power IoT Communication. The course would take a practical systems approach to break up the technical components of a wireless communication system both in terms of analog hardware, digital processing, and software.

### **Teaching Assistant Office Hours**

Graduate students will hold office hours with smaller student discussion groups for question-and-answer sessions to help students understand the content.

#### **Co-Curricular Sessions**

Co-curricular sessions include interactive sessions to support student planning their overseas U.S. education, covering: how to be a successful graduate student, intercultural communication and personal branding, and learning outcomes showcase. The program will also include a program orientation and the program closing ceremony.







### **Submit an Interest Application**

Students who would like to learn more about the program and be informed when the application period opens should complete this form: <a href="https://go.illinois.edu/GETinterest">https://go.illinois.edu/GETinterest</a>

Contact Global Education and Training with questions: get@illinois.edu

