

# Electronics & ICT Academy

## IIT Roorkee

One Week Short Course/FDP

on

"Embedded System & Wireless Sensor Network for Internet of Things(IoT)"

Recognized by AICTE at par with QIP for recognition/credits



In Association with

National Institute of Technology  
Jalandhar



November 08-12, 2019

Experts from Academia/Industry

Dr. Meenakshi  
Rawat  
IIT Roorkee

Mr. V.S. Ramesh  
STEPS Knowledge  
Services Pvt Ltd. (TI  
University Program)

Certificates to participants by E&ICT  
Academy IIT Roorkee

Supported by

Ministry of Electronics & Information Technology  
Government of India



National Institute of Technology  
Jalandhar

## Why IoT?

IoT is next Industrial Revolution which is going to change our lives in ways never imagined before. Made up of millions of sensors and devices that generate unending streams of data, IoT is useful to improve our lives and our businesses in a lot of ways. You can explore many real-life examples of IoT devices that are commercially available, and you will have a glimpse of the future of the Internet of Things. This course will help you to gain adequate knowledge on the Internet of Things. You will learn various IoT cloud platforms available such as AWS IoT, Ubidots and ARTIK and also gets hands-on exposure on various IoT hardware platforms such as CC3200, MSP430, and Raspberry Pi, etc.

## Objective of the Course

- Establishing basic concepts and key components of Internet of Things.
- Hands-on training in handling IoT building blocks using commercially available components.
- Understanding the interaction between cloud computation and sensors.
- Troubleshooting the errors while implementing IoT for practical applications

## Benefits and Outcomes of the Course

- Learning basic building blocks of IoT.
- Learning essential Embedded system basics applicable to IoT.
- Hands-on experience in the wireless interface using RF.
- Hands-on experience in working Wi-Fi certified IoT kit using CC3200ARM Cortex M432 bit microcontroller.
- Hands-on experience in cloud applications.

## Focus Areas

- Overview of IoT and its roadmap, opportunities & challenges in implementing IoT Solutions.
- Connectivity Solutions using CC3200 Wi-Fi accessing HTML page from HTTP web server and interfacing with the microcontroller for control applications.
- Working with MQTT protocol and pushing the sensor data to the IBM cloud.
- Configuring mobile APP in Android / IOS to visualize the data.
- Implementation of Sensor node, Gateway, cloud services including cloud computing.

## Program Features

- The program is split into lectures and labs/hands-on sessions.
- Hands-on experience on basic and advanced-level topics.
- Interaction & learning with experts from academia & industry.
- Certificates to participants by E&ICT Academy IIT Roorkee.



## Coordinators

IIT Roorkee

- Dr. Sanjeev Manhas, PI, E&ICT Academy

NIT Jalandhar

- Dr. A. L. Sangal, NIT Jalandhar
- Dr. K. S. Nagla, NIT Jalandhar
- Dr. Sathiya S, NIT Jalandhar
- Dr. Karan Veer, NIT Jalandhar

## Who Can Attend ?

Program is open to faculty members/research scholars/PG students from colleges/universities and industry personnel working in the concerned/allied discipline.

## Registration Fee

Faculty members: ₹ 1000/-

Research scholars: ₹ 2000/-

Persons from Industry: ₹ 3000/-

Food and Accommodation will be available on self paid basis. No travel allowance will be provided.

## How to make payment

Offline: DD in favor of "Dean SRIC IIT Roorkee" payable at Roorkee

"OR"

Online: (

<https://www.onlinesbi.com/prelogin/collecthome.htm?corpID=365641>)

Read the instruction for payment before filling the online registration form.

## How to Apply

Step 1: Make Payment

Step 2: Participants may fill registration form through Academy website (<http://eict.iitr.ac.in>).

OR

Step 2: Send a duly filled-in registration form along with Demand Draft to Academy address.

Mr. Prateek Sharma, EICT Academy, ECE Department, IIT Roorkee-247667

## Important Dates

**Last Date For  
Registration:  
November 04, 2019**

## EICT Academy IITR

Electronics and ICT Academy (E&ICT) at IIT Roorkee (funded by Ministry of Electronics and Information Technology) aims to enrich and upgrade teaching and research competences of engineering faculties of institutes/colleges by conducting courses and workshops in fundamentals as well as emerging areas of E&ICT and enabled areas. The programs are conducted by well-known industry partners, resource persons from leading academia and experts from renowned R&D organizations.



## Activities of the Academy

- Specialized training on basic and advanced level topics with hands-on experience in the emerging areas of Electronics & ICT.
- Setup the activity centers to conduct one-week short course/FDPs locally at institutes/colleges.
- Curriculum development for the industry.
- Continuing Education Programme for students/working professionals.
- Design, develop and delivery of specialized modules for specific research areas in industry.

One Week Short Course/FDP

on

Embedded System & Wireless Sensor  
Network for Internet of Things(IoT)



Dates: November 08-12, 2019

REGISTRATION FORM

Applicant Name \_\_\_\_\_

Gender: \_\_\_\_\_

Category (GEN/OBC/SC/ST): \_\_\_\_\_

Designation: \_\_\_\_\_

Name and Address of the  
Organization/Institute: \_\_\_\_\_

City/Town: \_\_\_\_\_

Email: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Do you need Accommodation?  
(Yes/No): \_\_\_\_\_

DD Number: \_\_\_\_\_

Date: \_\_\_\_\_

Issuing Bank: \_\_\_\_\_

Payable at: \_\_\_\_\_

Signature of the Applicant

Contact Us

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