

# Electronics & ICT Academy

## IIT Roorkee

### FACULTY DEVELOPMENT PROGRAM

on

## "Internet of Things (IoT) with cloud applications"



In Association with

Department of Information Technology,  
College of Technology, GBPUA&T  
Pantnagar, US Nagar, Uttarakhand



May 07, 2018 - May 11, 2018

Experts from Academia/Industry

Mr. Tharun Kumar  
Xtrans Solutions Pvt.  
Ltd

Guest Lecture  
IIT Roorkee

Supported by

Ministry of Electronics & Information Technology  
Government of India

Venue



Department of Information  
Technology, College of  
Technology, GBPUA&T Pantnagar,  
US Nagar, Uttarakhand

## 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 Cypress, Raspberry Pi, etc.

## Focus Areas

- Introduction to IoT.
- IoT Hardware and Sensors.
- IoT Cloud Protocols and Ubidots (IoT Cloud platform).
- IoT Standards and Hardware Protocols.
- AWS IoT (IoT Cloud platform).
- Data Analytics, Big Data and Data Harvesting.
- Cybersecurity and Privacy.
- Creating your own Cloud platform.
- Raspberry Pi 3 Demo with pH Sensor and Ubidots.
- Demo on Environmental Monitoring System.
- Demo on Cypress WICED IoT hardware platform.
- Demo on Cypress WICED with IBM Bluemix.

## 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.

## Objective of the Course

- Introduction of the Internet of Things (IoT).
- Overview of Embedded Technology, Hardware, and Sensors.
- Understanding of IoT and major machine-to-machine (M2M) communication protocols.
- Learn various IoT cloud platforms available such as AWS IoT, Ubidots and IBM Bluemix.



## Benefits and Outcomes of the Course

- Understand the scope of IoT across various industries.
- Demonstrate various use cases of IoT.
- Design solutions for integrating smart objects into IoT frameworks.
- Design IoT services for applications, evaluate and analyze performances of IoT systems.
- Design an end-to-end IoT project for demonstrating sensor-cloud integration.

## Coordinators

Dr. Sanjeev Manhas  
P.I. E&ICT Academy  
IIT Roorkee

Dr H. L. Mandoria  
HOD, IT Dept,  
GBPUA&T Pantnagar

Er. Ashok Kumar  
Assistant Prof, IT Dept,  
GBPUA&T Pantnagar

## 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: ₹ 2,500/-

Research scholars: ₹ 2,500/-

Persons from Industry: ₹ 3,000/-

## Payment Details

DD in favor of "Dean SRIC IIT Roorkee" payable at Roorkee  
"OR"

Make Online Payment by NEFT/RTGS on given detail

Account Name: Research Project, IIT Roorkee

Account Number: 33012172097

IFSC code: SBIN0001069

## How to Apply

Step 1: Participants may fill the registration form available on the link "Apply Here" for the relevant course on [eict.iitr.ac.in](http://eict.iitr.ac.in)

Step 2: Make Payment

OR

Step 3: 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 Online  
Registration :  
04th May 2018**

## 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 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.

Faculty Development Program

on

## Internet of Things (IoT) with cloud applications

May 07 – May 11, 2018

REGISTRATION FORM



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

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

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

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

Name and Address of the  
Organizatio/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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