



# ELECTRONICS & ICT ACADEMY IIT ROORKEE

Ministry of Electronics  
&  
Information Technology  
Government of India



- Empowering Faculty and Working Professionals
- Building Technical Excellence
- Bridging the Gap Between Industry and Academia



## About Electronics and ICT Academy

The Academy conducts short courses and programs in emerging EICT areas benefiting faculty, working professionals and Govt. employees. The programs focus on conducting industry oriented courses filling the important gap between industry demand and institution's capability to provide proficient talent pool. The trained beneficiaries are expected to have cascading effect, transforming the competencies and standards in the parent institutes.



India is fast emerging as a world power in Information, Communication, Technology, and Electronics (ICTE) sector. To complement its growth, there is an ever increasing demand for competent and proficient talent. We, at IIT Roorkee, are happy to initiate this distinct program with the support from MeitY, Govt. of India. The E&ICT IIT Roorkee programs are aimed at filling the gap between industry and institutes for trained professionals with specialization in emerging areas of E&ICT.

Prof. Ajit Kumar Chaturvedi  
Director, IIT Roorkee

Electronics & ICT Academy IIT Roorkee offers industry oriented hands-on courses in the emerging areas of ICT. In addition to the experts from academia, the Academy has signed MoUs with well-known industry partners in different domains, who collaborate and work with us in conducting the programs. Academy also facilitates the interaction between beneficiaries and industry experts to enable collaboration and finding opportunities for parent institutions.

Prof. M.V. Kartikeyan  
Chairperson E&ICT Academy



The E&ICT courses lay special emphasis on hands-on learning with participation from industry in the emerging areas of E&ICT domain. The programs are conducted by well-known industry partners, resource persons from leading academia, and experts from R&D organizations. Our programs enable the participants and institutes to build industry connects, upgrade lab facilities and create opportunities for collaboration. As of now we have conducted 63 courses and trained over 2500 beneficiaries successfully.

Prof. Sanjeev Manhas  
CI, E&ICT Academy



## COORDINATORS

Prof. M.V. Kartikeyan

Prof. Sanjeev Manhas

Prof. Anand Bulusu

Prof. Meenakshi Rawat

ECE Department, IIT Roorkee

Prof. Sudip Roy

CSE Department, IIT Roorkee



## Features of the Academy

- Offer short term courses in the emerging areas of Electronics & ICT such as AI, ML, IoT, 5G, Embedded Systems, Renewable Energy, etc.
- Emphasis on hands-on learning using the latest tools and hardware with experts from the industry.
- Exposure to industry oriented learning with experts from academia as well as industry and opportunities to interact or connect with industry/R&D experts.
- Enhance teaching and research capabilities by upgrading knowledge and skills in emerging technologies.
- Courses offered both at IIT Roorkee and through activity centers locally at Institutes/Organizations.
- Facilitate creating state of the art facilities in participant's parent institute.
- Continuing Education Programs for engineering graduates and working professionals to transform their knowledge and technical proficiency.



## Lab Facilities:

- Smart Classroom
- Multipurpose Lab
- Advanced Microwave Laboratory
- Solid State Devices Laboratory
- VLSI Design Laboratory
- Information Security Lab
- Network Security Lab
- Data Mining Lab
- Communication Systems Laboratory
- Signal Processing Laboratory
- Wireless Communications Laboratory
- Digital Electronics Laboratory
- Radio Frequency Integrated Circuit Laboratory
- High Performance Computing Lab
- Microelectronics Laboratory
- Institute Computer Center
- Central Library





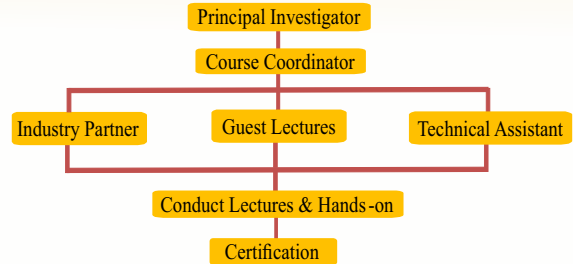
- Artificial Intelligence
- Machine Learning
- Deep Learning
- Cloud Computing
- IoT and its Applications
- HPC and Parallel Programming
- Big Data Developer
- Data Analytics with Python
- Network & Cyber Security
- Ethical Hacking
- Nature-Inspired Optimization Techniques
- 5G Communication
- HDLs and FPGA based Design
- CAD for VLSI
- VLSI Circuit Design
- VLSI Devices and Technology
- IC and Nano Fabrication Techniques
- ARM & Embedded Systems
- Renewable Energy
- Testing & Verification
- Programming
- Mobile app development with iOS, Android, and Windows



## Mode of Conducting Courses

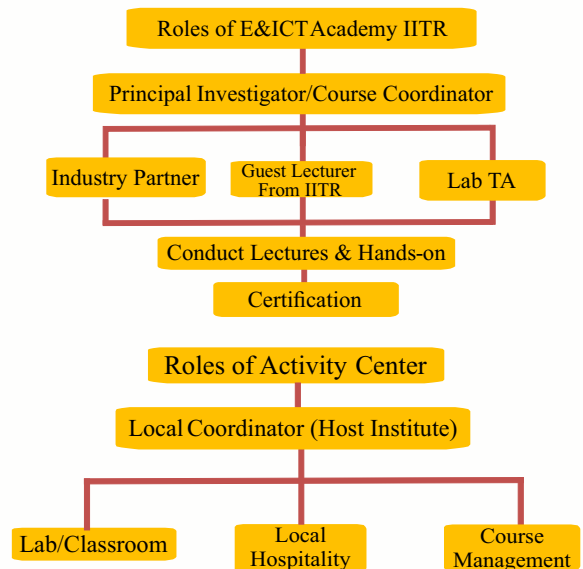
### At IIT Roorkee

- Conventional classroom courses
- Course duration one week (40 Hrs.)
- Program is split into lectures and hands-on sessions equally.
- Certificates to participants by E&ICT Academy IIT Roorkee



### Outside IIT Roorkee (Activity Center)

- Conventional Classroom Courses
- Activity Center should provide minimum 40 participation count
- Lab/Classroom with sitting capacity of 40-45 participants
- Course duration one week (40 Hrs.)
- Certificates to participants by E&ICT Academy IIT Roorkee



## E&ICT AT A GLANCE



Address to the participants for the course on "High Performance Computing, Parallel Programming and Administration" with our industry partner Wipro, at IPEC Ghaziabad.



Valedictory program for short term course on "Wireless and Mobile Communication" at Wirean Institute of Technology Roorkee,



E&ICT Multi-Purpose Lab fully equipped with FPGA, IoT, ARM kits and server facility



E&ICT Smart Classroom with video conferencing , recording and streaming facilities.

## TESTIMONIALS



### Tripti Goel

National Institute of Technology, New Delhi

This was the really good experience of learning in the field of pattern recognition and image analysis. The course content was really very good, starting from the basic to the more innovative research ideas on biometrics and image analysis. Excellent learning in very short time.



### Ashok Kumar

GBPUAT Pantnagar, Uttarakhand

Excellent faculty development program for beginners and scholars too. Good lab demo and excellent instructors in E&ICT IITR. People may join any FDP/ Workshop conducted by E&ICT Academy, they will never disappointed. I personally liked it.



### Sheena Baburaj

School of Engg., Cochin Univ. of Sc. & Tech., Kochi

Really informative learning platform, full of experts. Good course not only for beginners in research but also helpful to meet many image processing research experts. Excellent experience of attending this course.



### Harshal Gunwant

The Doon School, Dehradun

This was wonderful experience of learning in the field of "Machine learning and Deep learning".The course content was very good, I can also implement in my research. Overall program was very good in short duration, thanks to the brilliant team.



### Dr. Jagpal Singh Ubhi

Sant Longowal Institute of Engineering & Technology, Punjab

The hand-on practice on the cadences tool was excellent and complemented what has been taught in the theory session. All the theory sessions were very good and the module on memory organization and peripheral was excellent.

## INDUSTRY PARTNERS



TOTAL INDUSTRY PARTNERS : 23

## ACTIVITY CENTERS



TOTAL ACTIVITY CENTERS : 25

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