Building blocks for 5G communication: IoT, SDR and sensor networks

Organized by Electronics and ICT Academy, IIT Roorkee

Experts from Academia/Industry

- **Texas Instruments, Industry Experts**
- **Keysight Technologies, Industry Experts**
- **MATLAB, Industry Experts**
- **Dr. Meenakshi Rawat (IITR)**
- **Dr. P.M. Pradhan (IITR)**

Eligibility: Faculty members, Scientists, Research Scholars, limited no. of M.Tech, B.Tech (Final Year) in ECE/EE/CS/IT disciplines.

Course Date: April 10-14, 2017
Last Date for Registration: 5th April 2017.
Venue: ECE Dept., IIT Roorkee

सत्यमेव जयते

Supported By
Ministry of Electronics and Information Technology (MeitY), Government of India

About E&ICT Academy

- Electronics and Information Communication Technology (E&ICT) Academy is an initiative of MeitY, Ministry of Communications and IT, Govt. of India for quality improvement of faculty members, research scholars and post-graduate students.
- E&ICT Academy IITR is one of the seven such academies at various IITs and NITs approved by Govt. of India.
- E&ICT Academy IITR aims to bring in depth erudition in the form of theoretical and practical exposure to the trainees.
- Promote development of entrepreneurship adeptness and facilitation of start-ups.

Benefits and Outcomes of the Course

- Job-oriented software defined radio (SDR) applications with the focus on 4G/5G communication.
- Learn basic building blocks of Internet-of-things (IoT) for 5G communication.
- Hand-on-Experience in IoT kits using Wi-Fi environment.
- Distributed signal processing for wireless sensor networks.
- Enhance employability by training individuals in handling commercial equipment's and simulators (**Keysight Technologies)** for software defined radio and hands-on experience in IoT kits **(Texas Instruments).**

Course Program

- The program is split into lectures and labs/hands-on sessions.
- Course evaluation by quizzes and project work.
- Certificates with grades to participants by E&ICT Academy IITR.

Course Contents:

- Concepts and components of transceiver front ends and advanced applications with low-cost SDR implementation.
- Fundamentals of IoT and its hands-on laboratory.
- Distributed signal processing for sensor networks.
- Design and hardware implementation using MATLAB and SDR techniques. Implementation using vector signal analyzer and vector signal generator with commercial power amplifiers.
- **Contact Hours:** Five days (Theory, Hands-on, Tutorials)

How To Apply

Online: The participant may log on to the E&ICT Academy IITR website (http://eict.iitr.ac.in) and fill-up the application form.
By Email: Send scanned copy of the filled-in application form duly endorsed by the forwarding authority to E&ICT Academy IITR (Email: eict@iitr.ac.in, eictiitr@gmail.com).
Registration form in this brochure can also be downloaded from academy website.

Registration Form

Name of the Applicant :
……
Gender: ……..…….

Affix stamp size photograph

Category (Please tick): GEN/OBC/SC/ST
Designation: ……..
Name and Address of the Organization/Institute:
……
City/Town:……...……..…
Email:……..
Phone Number:……
Mobile Number:……..……
Do you need Accommodation? (Yes/No):…….……..
DD Number:……...…….……Date:……
Issuing Bank:…….……Payable at:…….…….
Signature of the Applicant::……..……

Signature and Seal of the Forwarding Authority
Name: .....
Designation:.....

Registration Fee

Rs 2000 (with food and accommodation) for participants from academia, industry and research organisations.
Accommodation will be made in KIH guest house
Mode of Payment: Demand Draft in the name of **"DEAN SRIC IIT ROORKEE"**

Contact Details

E&ICT academy IITR website: http://eict.iitr.ac.in
Course Coordinators:
- Dr. Meenakshi Rawat (IITR)
- Dr. Sanjeev Manhas (PI IITR)

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