



Ministry of Electronics and Information Technology (MeitY)

Govt. of India supports its

Electronics and ICT Academies to organize Faculty Development Programme on

Internet of Things (IoT) during **18th – 22nd June, 2018** at

IIT Guwahati, IIT Roorkee, IIITDM Jabalpur, MNIT Jaipur, NIT Patna and NIT Warangal

About Summer Courses

Faculty Development Programmes in core areas of Electronics and Information & Communication Technology (ICT) streams have been planned by academies for delivery during Summer (i.e., May - June 2018). All these summer courses will be offered through National Knowledge Network (NKN) by inviting experts from IITs, NITs, IIITs and other premier institutes/industries. In addition, local course coordinators at respective academies /identified remote centers will take care of sessions on design oriented/activity linked problems/ assignments/ case studies and quiz test(s).

These courses will be delivered at E & ICT Academies/identified centers through NKN infrastructure. Candidates could apply for training at academy locations or identified centers as per the convenience.

Course 7 : Internet of Things (IoT)

| Principal Coordinator Academy | Support Coordinator - Academy | Participating Academies and Local Coordinator Details |
|--|---|---|
| Dr. Rashmi Ranjan Rout rashrr@nitw.ac.in NIT Warangal | Dr. Bharat Gupta bharat@nitp.ac.in NIT Patna | NIT Warangal - Dr. Raju Bhukya drrajunitw@gmail.com |
| | | NIT Patna - Dr. A. Ghosh & Dr. Bharat Gupta arunangshu.ghosh@nitp.ac.in & bharat@nitp.ac.in |
| | | IIT Guwahati - Dr. Santosh Biswas santosh_biswas@iitg.ernet.in |
| | | IIITDM Jabalpur - Prof. P.N. Kondekar pnkondekar@iiitdmj.ac.in |
| | | MNIT Jaipur - Dr. Arka P. Mazumdar apmazumdar.cse@mnit.ac.in |

Module details of Internet of Things (IoT)

| S.No. | Module Name | Topics |
|-------|--|--|
| 1. | Foundations of Internet of Things | Introduction IoT architectures, Communication Standards, M2M and IoT Technology, Sensor based Solutions and RFIDs in IoT. Assignments on Design and Analysis of IoT Architectures |
| 2. | Protocol Stack in IoT Case Studies/Quiz: 4 hrs) | Data Link Layer Protocols, Network Layer Protocols, Application oriented communication protocols. Assignments on Protocol design by considering resource constraints and context awareness |
| 4. | Data Acquiring, Organizing and Analytics in IoT | Data Acquiring and Storage, Cloud Service models for IoT, Business Models in IoT Assignments/case studies on IoT Data Analytics methods |
| 4. | Designing Software and Hardware for IoT Applications | Prototyping Embedded Device Software, Web APIs, Hardware platforms, Smart Applications. |

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| | | Laboratory Experiments on IoT applications |
| 5. | Privacy and Security in IoT | Vulnerabilities, Security Requirements and Threat Analysis, IoT Security Tomography and Layered Attacker model, Access control methods, Privacy Issues in IoT Architectures. Assignments on Security models and privacy preserving approaches. |

Registration Fee: No Registration fee is charged for attending this programme planned at any designated academies/Remote centers. However, candidate should submit a refundable Demand Draft of Rs.1000/- along with application and the same will be handed over to participant on the last day of the training. Satisfactory Certificate will be given subject to fulfillment of attending all sessions, submission of assignments and clearing the test(s).

Last Date of Registration: 31st May'2018.

Lodging and Boarding will be provided free of cost at the Academy.

Participants can also attend the course at the following Remote Nodal Center

1.Maulana Azad National Institute of Technology (MANIT), Bhopal, Madhya Pradesh.

Remote Center Coordinator: Dr. Lalita Gupta

Email: gupta.lalita@gmail.com

2. Shri Ramdeobaba College of Engineering and Management (RCOEM), Nagpur, Maharashtra.