



MNIT Jaipur

<http://www.mnit.ac.in/eict>

Building IoT applications: Using open source

5th Jul – 11th Aug 2021

<http://academymnit.wordpress.com>



This online internship/training program is designed keeping in mind the need of UG/PG Students as well as PhD scholars and faculty members who are working in this area. This training course shall cover both theoretical as well as the practical aspects which will help participants not only in their coming final year B.Tech. projects but also in their campus interviews by describing these designing parts to Companies and they can show their ability to work on software & hardware platforms. The main theme of training program will be oriented around exploring the state of art methods for Internet of things (IoT), Machine learning and applications including open-source tools and techniques. This internship will cover how to use open-source platforms for designing IoT applications with intensive hands-on sessions (demonstrations). The experts from NIT / IIT / IIIT / Industry & prestigious foreign universities would be conducting the sessions.

Experts/Speakers-

- 1) Dr. C. P. Ravikumar, Texas Instruments Bengaluru
- 2) Prof. Santanu Chaudhury, Director IIT Jodhpur
- 3) Dr. R. Gopalakrishnan, IRTS, General Manager (Data Analytics), Centre for Railway Information System
- 4) Dr. Anshu Gupta, General Manager – ADAS, Continental AG
- 5) Dr. Namita Sharma, Manager, Intel Corporation
- 6) Dr. Saumyabrata Dev, Assistant Professor, University College Dublin Ireland
- 7) Dr. Sivanagaraja Tatinati, PhD (South Korea), Data Analyst, Vedantu
- 8) Dr. Siddhartha Sarma, IIT Mandi
- 9) Dr. Arun Kumar, NIT, Rourkela
- 10) Dr. Shilpa Manandhar Scientist, Astar – Singapore
- 11) Dr. Rajat Bandejiya, Project Officer, Nanyang Technological University Singapore
- 12) Dr. Akhil Ranjan, Scientist, Tamasek Laboratories Singapore

Course Content:

Module 1: IoT networks and wireless technologies
Week-1: 5 th July – 12 th July 2021
Module 2: Machine Learning & IoT
Week-2: 13 th Jul – 17 th July 2021
Module 3: Open source cloud and IoT interfacing
Week-3: 19 th July – 24 th July 2021
Module 4: Open source tools and techniques for real time systems & applications
Week-4: 26 th July – 30 th July 2021
Module 5: Introduction to Python programming
Week-5: 31 st July – 4 th Aug 2021
Module 6: IoT applications with devices and sensors
Week-6: 5 th Aug – 11 th Aug 2021

- Each module has labs with hands on illustrations.
- Participants will require hardware kit which they have to purchase online

Programme Advisor

Prof. A. K. Vyas, IIIT Kota

Programme Coordinators:

Dr. Ankush Vashistha	vash0001@ntu.edu.sg	9549650364 (M)
Dr. Ashish Sharma	ashish@iiitkota.ac.in	9549650767 (M)

Registration:

Registration is open to graduate, postgraduate and doctoral students, faculty and industry persons. Participants will be admitted on first-come first-served basis.

Details of the programme- http://www.mnit.ac.in/eict/acad_training_prg.php

Register online at- <http://online.mnit.ac.in/eict>

Registration Fee:

Rs. 1,500/- for each of the module per week-long programme

Rs. 5,000/- for a month (any 4 modules) long programme

Rs. 8,000/- for the whole 6 week-long programme

(A) Fee once paid will not be refunded back; it may only be adjusted in future courses upon prior request.

(B) The fee covers online participation in the programme, comprehensive tutorials, practice notes & certification charges. It does not include price of hardware kit.

(C) The organizers should receive the fee through online payment gateway provided at the registration portal.

→For any other query, email us at [academy\[AT\]mnit.ac.in](mailto:academy[AT]mnit.ac.in)

Chairman, Advisory Board, EICT Academy & Director MNIT Jaipur

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Chief Investigator, EICT Academy

Prof. Vineet Sahula, ECE

Co- Chief Investigators, EICT Academy

Prof. Lava Bhargava, ECE

Prof. Pilli Emmanuel Shubhakar

Dr. C. Periasamy, ECE

Dr. S. J. Nanda, ECE

Head, ECE (Prof. V. Janyani)

Head, CSE (Dr. D. Gopalani)

Preamble (Electronics & ICT Academy)

Government of India had announced a National Policy on Skill Development, which has set a target of skilling 500 million people by 2022 in the domain of Electronics & IT. Under the plan scheme of “Digital India Manpower Development”. MeitY has set up seven (07) Electronics and ICT Academies as a unit in 03 IITs, 03 NITs and 01 IIIT with an objective of faculty/mentor development/up gradation in the areas related to Electronics & ICT leading ultimately to improved employability of graduates/diploma holders. MNIT Jaipur has set up such an academy for providing specialized training to faculty and industry persons in the states/UTs of Rajasthan, Gujarat, Daman & Diu, Dadra Nagar Haveli.

(A) Issues-

1. IT Hardware and Electronics Manufacturing industry- availability of properly trained, skilled and qualified manpower
2. Number of quality PhDs generated in IT / Computer Science is very low
3. In E & ICT domain- there is a very high degree of obsolescence of existing technologies and faster emergence of newer technologies

(B) Approach-

1. A focused faculty training/updation programme for IT, Electronics and related sectors
2. Spreading up and continuous updation regarding Emerging Technology
3. Training and consultancy services for Industry
4. Design, Develop and Deliver specialized modules for specific research areas and Industry
5. Providing advice and support for technical incubation and entrepreneurial activities