

National Institute of Electronics & Information Technology, Kurukshetra

(An autonomous scientific society of Ministry of Electronics and Information Technology (MeitY), Govt. of India)

Government Polytechnic Campus, Umri, Kurukshetra, Haryana - 136 131

Short Term Training

Course Name : Certificate course in Internet of Things

Duration : 4 Weeks/40 Hrs. (Theory: 16 Hrs. & Practical: 24 Hrs.)

6 Weeks/60 Hrs. (Theory: 16 Hrs., Practical: 24 Hrs. & Project: 20 Hrs.)

Prerequisite : Basic knowledge of any programming language (Desirable)

Eligibility Criteria: Diploma/B.E./B.Tech. in CS/IT/ECE/Instrumentation (Pre-final year/Final

year/Passout candidates)

Objective : This course is designed to make the students familiar with the world of Internet of

Things. The course contains good amount of hands on practicals in which they establish communication between devices/modules from hardware, as well as the software point of view. It provides students a theoretical background with the knowledge of important

libraries of IoT. After completion of this course, the trainees will be able to:

Acquire interest in Arduino, RPi and IoT

• Know about various Hardwares and Softwares available for IoT

• Current ongoing research in the field of IoT/AIoT

• Understand how the things get connected with each other and how they communicate through guided or unguided medium

• How to control the things and ask them to do specific task

• Develop certain IoT based project as per their interest

• Relate use of IoT with their current field of specialization

Topics/Units

- 1. Introduction to Arduino, Arduino IDE
- 2. Arduino Integrated Development Environment
- 3. Basic Arduino Programming
- 4. Interfacing with Sensors and Actuators
- 5. Communication Modules
- 6. Introduction to Raspberry Pi (RPi)
- 7. Programming and interfacing

Trainer Details : Jitesh Kumar Prajapat

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