Courses Details

Courses Title: Certificate Course in IoT using Arduino and Raspberry Pi (RPi)

Eligibility Criteria: Diploma (CS/IT/ECE/Instrumentation) or BTech (CS/IT/ECE/Instrumentation) students (whether pass out or not)

Learning Hours: 40 Hours - (Theory: 16 hrs + Practical: 24 hrs)

Prerequisite: Basic knowledge of C and Python languages preferred (Not mandatory)

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 need to make connections between devices from hardware as well as the software point of view. It provides students a theoretical background as well as knowledge of certain libraries used in Internet of thinks. After completing 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
- How to control the devices 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

Modules/Units:
1. Introduction to Arduin, Arduino IDE & Driver Installation
2. Basic Programming Structure
3. Working with Analog Inputs and Digital Outputs
4. Working with Serial communication
5. Interfacing with Motor Drivers, ULN2003, demonstrating LED Fading & Bluetooth control of devices
6. Raspberry Pi Introduction & Architecture
7. Installation of Noobs
8. Preparation of SD Card
9. Interfacing with peripherals

Registration: First cum First Serve basis

Examination cycle: Last day of the course

Mode of Examination: Online

Registration Fee: NA

Examination cycle: Last day of the course

Courses Fee: Rs. 3500/- + GST (Offline Mode)

Rs. 1900/- + GST (Online Mode)

Examination Fee: Included in Course fee

For more details, please refer qualification file available at https://www.nielit.gov.in/kurukshetra