



Ministry of Electronics & Information Technology **Government of India**

National Institute of Electronics and Information Technology, Haridwar **Certificate Course in** "IoT using Raspberry-Pi"

Course Objective

The Raspberry Pi is a small, affordable single-board computer that you may use to design and develop IoT devices while learning programming and computer hardware. In addition, you will learn how to set up up the Raspberry Pi environment, get a Linux operating system running, and write and execute some basic Python code on the Raspberry Pi. You will also learn how to use Python-based IDE (integrated development environments) for the Raspberry Pi and how to trace and debug Python code on the device.

Duration

4 weeks / 6 weeks* - Online Mode Note:- *Six Weeks Programme includes two weeks project. No additional fee will be charged for Project

Requirement

Software/Hardware required: Raspberry-Pi board and Raspbian OS, open source, Candidate must have latest computer/laptop with preferably 4 GB RAM or higher.

Course Material

e-Content will be provided in form of presentations/e-handouts, links etc. Online assignments will be given to participants. An online quiz will be conducted at the end of the course.

Certificate

e-Certificate will be issued to each participant after completion of the training. Participant needs to maintain minimum 75% attendance during the online classes and is required to score minimum 50% marks in the online test in order to successfully complete the course.

How to Apply Candidate may apply online at following link: http:// nielit.gov.in/haridwar/content/online-courses

Fee is to be submitted to the following account and details to be submitted

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of Commerce

| Account No. 12922122001. IFSC No. ORBC0101292 | | | |
|--|------------------------------|-------------|---------------|
| IFSC No. ORBC0101292 | in online registration form. | Name | NIELIT Haridw |
| | | Account No. | 129221220013 |
| Bank Name Oriental Bank | | IFSC No. | ORBC0101292 |
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For Registration,

CLICK HERE

For any further information/clarification, please contact on 9368349990.

Contact Details: NIELIT Haridwar, 2nd Floor, Government Polytechnic Building, Plot No-6C, Sector-11, Near Pentagon Mall, SIDCUL, Haridwar, Uttarakhand - 249403, Phone:- 01334-235617, 235054, 9368349990 E-Mail: haridwar@nielit.gov.in

Course Contents

| 1 | Introduction to Single Board Computer – Raspberry Pi and other target platforms |
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| 2 | Configuring and Managing Raspberry Pi |
| 3 | Introduction to Python programming, Control structures and Looping concepts |
| 4 | Basic Electronics and components |
| 5 | Raspbian OS concepts |
| 6 | Electronics Components |
| 7 | Hardware interfacing -GPIO programing |
| 8 | Raspberry Pi based IoT application use- cases (Raspberry Pi MySql and PHPMyAdmin) |