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NIELIT
HARIDWAR
रा.इ.सू.प्रौ.सं

Ministry of Electronics &
Information Technology
Government of India

# National Institute of Electronics and Information Technology, Haridwar

## Certificate Course in

## "Arduino based Embedded System Design"

## Course Objective

This course focuses on imparting the basic to advanced level of knowledge and skills in design of Arduino based Embedded systems. It gives an insight to the embedded processor selection, circuit layout, circuit design, circuit debugging, development tools, firmware architecture, firmware design, and firmware debugging. After doing the course, the candidate will get sufficient hands-on skills in order to design and develop Arduino based Embedded solutions.

## Eligibility

Students/Passouts of B.E./B.Tech/Diploma in CS/IT/Electronics or allied branches.

## Duration

04/06* Weeks - *Online Mode*
**Note:**-* Six Weeks Programme includes two weeks project. No additional fee will be charged for Project.

## Requirement

Candidate must have Arduino Board and latest computer/laptop with preferably 4 GB RAM or higher. Software: Arduino (can be downloaded from respective websites).

## 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 the 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.

## Course Contents

| 1 | Basics of Embedded System Design |
|---|---|
| 2 | Arduino Platform |
| 3 | Pushbuttons and Jumper Wires |
| 4 | Keypad and LCD Interfacing |
| 5 | Sensor and Actuators |
| 6 | Motors: Servo and Stepper |
| 7 | HC05-Bluetooth and WiFi modules |
| 8 | Applications of Embedded System Design |
| 9 | Project based on embedded system design using Arduino board. |

## 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 in online registration form.

| Name | NIELIT Haridwar |
|---|---|
| Account No. | 12922122001331 |
| IFSC No. | ORBC0101292 |
| Bank Name | Oriental Bank of Commerce |
| Branch | SIDCUL Haridwar |

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