

NIELIT Chandigarh

NIELIT is an autonomous Scientific Society under the administrative control of Ministry of Electronics & Information Technology (MeitY), Government of India. NIELIT Chandigarh was established in 1978 to provide professional services in the areas of Information, Electronics & Communication Technology (IECT). NIELIT Chandigarh is engaged in development of industry-oriented quality education and training programmes in the state-of-the-art areas. It is an IT and Electronics Organisation with clear cut strategies and its various operations are aimed at giving its customers a total package of IT Solutions and products.

About Course

The explosive growth in the area of "Internet of Things" is changing our world and the rapid drop in price for typical IoT components is allowing people to innovate new designs and products at home. This course is about using basic electronics components- sensors, integrating them using programming skills to develop futuristic applications in IoT domain

Eligibility : *Undergoing Engineering Graduate*

Duration : *six weeks*



Location :

NIELIT Ropar - Permanent Campus
Adj. to IIT Ropar
Bada Phull, Birla Farms, Ropar-140001
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NIELIT Chandigarh Facility
IETE Building, Sector 30-B, Chandigarh



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[Online Registration](#)

for more information on courses

[Short Term Course](#)

[Long Term Course](#)

Course Objective

The practical implementation of the technology will be learnt by developing IoT based applications and to make design trade-offs between hardware and software.

Brief Course Contents

- IoT – Introduction, Applications, Architecture.
- Basic Electronic circuits and Components.
- Arduino IDE and Basics C Programming Structure
- Circuit simulation using **Proteus VSM**
- Working with Digital/Analog Input-output –Interfacing LED, button, LDR, DHT 11, Relay, PIR, ultrasonic sensor.
- PWM – LED fading
- Serial Communication – Bluetooth, LCD, Keypad.
- NodeMCU – introduction, pinout
- Using NodeMCU as Webserver
- Interfacing and posting sensor(s) data to web server
- Introduction to Cloud computing, AI-Machine Learning
- Introduction to PCB designing using **OrCAD**
- Assistance in **Project Work**

Dual Certification Advantage*

