



**NITTTR
BHOPAL**

EEE-4/2025-2026 Arduino IoT Application Design 14-07-2025 to 18-07-2025 NITTTR Bhopal



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Rationale

The Internet of Things (IoT) is a network of physical objects-"things"-embedded with sensors, software and other technologies for connecting and exchanging data with other devices over the internet. Now we can connect everyday objects to the internet via embedded devices, including vehicles, thermostats, Sensors and seamless communication between people, processes, and things is conceivable. This program will help to develop these 21st century IoT skills related with use of different sensors, data acquisition system and various IoT cloud with hands-on learning experience.

Programme Outcomes

- 1.Explain IoT
- 2.Explain Open source software & hardware
- 3.Write 'C' programming for IoT using Arduino IDE.
- 4.Control LCD, Motor and other devices through arduino based microcontroller for IoT application.
- 5.Interfacing of different sensors with arduino based microcontroller.
- 6.Interface IoT Wi-Fi Module with ThinkSpeak.
- 7.Develop simple IOT application.

Programme Content

Introduction to IOT, Open source software & hardware, Different types Sensors. Basic Structure of Arduino Uno Board, Basics of IoT Programming, IoT Devices and their basic functions, LCD, Motor and other devices control with C Programming ,Interface with Temperature sensor, Ultrasonic distance sensor, IR sensor, PIR sensor, Wi-Fi module, Open source cloud, IoT Wi-Fi Module with ThinkSpeak, IOT Application.

Target Group

Faculty of Computer, Electronics and allied Engineering disciplines

Coordinator & Co-Faculty

Prof. Sanjeet Kumar
Asstt. Professor
Department of Electrical and Electronics Engineering Education
skumar@nitttrbpl.ac.in

Dr. Prakash N Hardaha
System Analyst
Department of Computer Science and Engineering Education
pnhardaha@nitttrbpl.ac.in



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National Institute of Technical Teachers' Training and Research (NITTTR)
(Deemed to be university under distinct category), Ministry of Education, Government of India,
Shamla Hills, Shanti Marg, Bhopal-462002 (M.P.)

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