



# Indeyes Infotech Pvt Ltd

## **Internet of things - Training module**

### **INTRODUCTION TO IoT**

- Definition of IoT
- Applications of IoT
- Advantages and disadvantages
- Many name, one concept
- Future prospects

**Outcome: Trainee will learn about IoT and its applications**

### **INTRODUCTION TO DIFFERENT PLATFORMS**

- Introduction to IoT Platforms
- Raspberry Pi, Arduino, Node MCU
- Microcontrollers and processors
- Difference between platforms
- Selection of Controller boards

**Outcome: Trainee will learn about how to select correct boards of IoT Based project**

### **INTRODUCTION TO NODE MCU**

- Introduction to NODE MCU
- Features and applications of NODE MCU
- Pin details
- Driver installation and connecting with computer

**Outcome: Trainee will learn about basics of Node MCU**

### **ARDUINO IDE**

- Downloading and Installing Arduino Ide
- Different tools inside Arduino IDE
- Window for CODE
- Compiling the codes
- Selection different boards in IDE
- COM Port selection

**Outcome: Trainee will learn about Arduino IDE and to write codes and compile them**



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## BASIC INSTRUCTIONS AND PROGRAMMING

- Basic format of code
- Functions
- Instructions
- Syntax and formation of Code
- **Outcome: Trainee will learn about basic concepts of coding**

## INTERFACING OF LED WITH NODE MCU

- Introduction of LED's
- Interfacing Circuit Description of LED's
- Programming of LED's Interfacing
- **Outcome: Trainee will learn about the interfacing of LED with NODE MCU**

## INTERFACING OF 7SEG WITH NODE MCU

- Introduction of 7SEG
- Types of 7seg
- Interfacing Circuit Description of 7seg
- Programming of 7seg Interfacing
- **Outcome: Trainee will learn about the interfacing of 7seg with NODE MCU**

## INTERFACING OF 16X2 LCD WITH NODE MCU

- Introduction of LCD
- Pin details
- Interfacing & Circuit Description of LCD
- Programming of LCD Interfacing
- **Outcome: Trainee will learn about the interfacing of LCD with NODE MCU**

## INTERFACING OF DC MOTOR WITH NODE MCU

- Introduction to DC Motors
- Motor driver IC
- Programming & Controlling of dc motors with NODE MCU
- **Outcome: Trainee will learn about the interfacing of DC Motors with NODE MCU**



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## INTERFACING OF BUZZER WITH NODE MCU

- Introduction to BUZZERS
- Circuit connection
- Programming & Controlling of buzzers with NODE MCU
- **Outcome: Trainee will learn about the interfacing of buzzers with NODE MCU**

## INTERFACING OF RELAY WITH NODE MCU

- Introduction to Relay
- Circuit connection
- Programming & Controlling of AC Appliances with NODE MCU
- **Outcome: Trainee will learn about the interfacing of relays with NODE MCU**

## INTERFACING OF SWITCH WITH NODE MCU

- Introduction to Switches
- Programming & Controlling output peripherals with NODE MCU
- **Outcome: Trainee will learn about the interfacing of Switch and controlling the outputs.**

## INTERFACING OF SENSORS WITH NODE MCU

- Introduction of different types of sensors
- IR,PIR,RAIN,MOISTURE Sensors
- Interface sensors with NODE MCU
- **Outcome: Trainee will learn about the interfacing of Sensors with NODE MCU**

## INTRODUCTION OF BLYNK APP

- Downloading and installing blynk app
- Creating new project on app
- Connecting app with Node MCU
- Controlling the peripherals using APP
- **Outcome: Trainee will learn how to use blynk app and using internet control the devices**



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## EMAIL AND NOTIFICATIONS

- Email handling and getting mails using node mcu
- Coding and sensors detection
- Connecting app with Node MCU
- Getting emails and notifications of the sensors
  - **Outcome: Trainee will learn how to use get email and notifications using APP**

## VIRTUAL PINS

- Creating virtual pins
- Applying virtual pins to connect input output
  - **Outcome: Trainee will learn about using virtual pins**

## THINGSPEAK

- Introduction of Thingspeak website
- Controlling the peripherals
  - **Outcome: Students will learn about thingspeak**

## GOOGLE ASSISTANT

- Introduction of Google Assistant
- Tools explanation
- Controlling the peripherals using voice
  - **Outcome: Students will learn about google assistant**

**Course: Internet of things**  
**Certificate: Training Certificate (ISO Certified)**

## **FOR MORE INFORMATION**

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