

JDNET TECHNOLOGIES

(ISO 9001:2015 CERTIFIED INSTITUTION)

**NO:31, SUBBURAYA CHETTY STREET, THIRUPAPULIYUR,
CUDDALORE-2 (OPP DARLING ELECTRONICS).**

CELL: 9159395080, 6369929654

INTERNET OF THINGS



TRAINING COURSES FOR ALL DEPARTMENTS



IOT COURSE SYLLABUS

1. Introduction to IoT

- What is IoT? History and applications
- Components of IoT: Sensors, actuators, microcontrollers, gateways
- IoT ecosystem & architecture: perception, network, application layers
- IoT vs traditional embedded systems
- Communication protocols: HTTP, MQTT, CoAP, WebSocket

2. IoT Hardware Platforms

- Introduction to Arduino, Raspberry Pi, ESP8266/ESP32
- Microcontrollers vs Microprocessors
- GPIO pins, sensors, actuators, relays
- Power requirements and interfacing

3. Sensors and Actuators

- Digital and analog sensors (temperature, humidity, PIR, light, gas)
- Actuators: motors, relays, buzzers
- Reading sensor data and controlling actuators
- Data conversion (ADC/DAC basics)



4. IoT Communication Protocols

- Wired vs wireless communication
- Wi-Fi, Bluetooth, Zigbee, LoRa, NB-IoT
- MQTT protocol basics: publish, subscribe, broker
- HTTP and REST API communication

5. IoT Programming

- Arduino / ESP32 programming basics
- Python programming for Raspberry Pi
- Reading sensors and sending data
- Controlling actuators through code

6. IoT Cloud Platforms

- Introduction to IoT cloud platforms: ThingSpeak, Blynk, Adafruit IO, AWS IoT
- Data logging and visualization
- Remote monitoring and control via mobile or web apps

7. IoT Security & Data Analytics

- Security in IoT devices and networks
- Basic encryption and secure communication
- Introduction to IoT data analytics



Connect With Us

JDNET TECHNOLOGIES

Address

No.31, SUBURAYA CHETTY STREET,
THIRUPAPULIYUR,
CUDDALORE,
OPP DARLING ELECTRONICS,
TAMILNADU 607002.
(OPP DARLING ELECTRONICS,)

Phone Number

+91 9159395080
+91 6369929654

Technical Support: (24/7 Service)

Jdnetprojects2025@gmail.com

What's Number

+91 9159395080

Contact person

Mr.k.Velmurugan.,M.E.,LLB.,
(FOUNDER AND CEO OF JDNET TECHNOLOGIES)