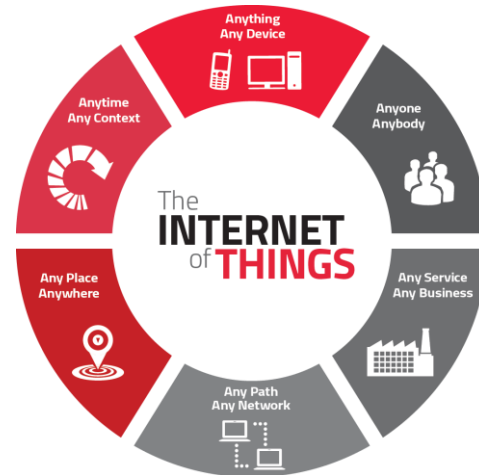




One-weeks Training on Internet of Things(IoT) & Its Applications

Empower your faculty & students with IoT Revolution



ABOUT IOT TRAINING

The training introduces basic & advanced concepts and methodologies of IoT to design, build and deploy IoT solutions. It also discusses various technologies and protocols used for communication including new generation IoT-friendly applications and physical layer protocols.

Participants will be able to get a thorough understanding of widely accepted IoT frameworks and standards.

The training covers popular, service-rich cloud platforms and focuses on how to build and deploy IoT solutions.

Practical use cases and case studies are included to ensure that the candidate develops an ability to work through practical real-life scenarios.

5-Days IoT Training - Course Content

Day1	<h2>Introduction to IOT</h2> <ul style="list-style-type: none">• What is IOT?• Basics of IOT• IOT in home automation• IOT Industrial Applications• How large is the IOT Market• Latest updates in the IOT industry.• Available IOT alliances details and the standards that are getting evolved• Multiple IOT applications and solutions available in market• Multiple IOT platform (hardware) example Ras-pi, Arduino,etc., comparison and usage
	<h2>Introduction to Arduino</h2> <ul style="list-style-type: none">• What is ARDUINO?• What is Open Source Microcontroller Platform?• Arduino GPIO Pins• Basics of Electronics.• Sensors and Actuators. <h2>Hands-on with Arduino</h2> <ul style="list-style-type: none">• Fundamentals of C programming• About Arduino IDE (Your First Arduino Sketch)• Digital Output as LED glow• Digital Input Using Switch• Control Output using Digital Input

5-Days IoT Training - Course Content

Day1	Sensors Interfacing <ul style="list-style-type: none">• Serial Input & Serial Output• Analog Input & Analog Output• What is Sensor & Actuator?• Sensor Feature Types of sensors• Interfacing Sensor With Arduino• Reading From Sensors
Day2	Wifi Module <ul style="list-style-type: none">• Introduction to Esp8266• Interfacing of Arduino with ESP8266• Introduction to Attention Commands for internet access• Connect with WiFi network• Access the IP address assigned to ESP8266 and arduino Hands-on with Arduino <ul style="list-style-type: none">• Fundamentals of C programming• About Arduino IDE (Your First Arduino Sketch)• Digital Output as LED glow• Digital Input Using Switch• Control Output using Digital Input

Day2	Thingspeak apps <ul style="list-style-type: none">• Connect temperature and humidity sensor• Continuously monitor sensor reading through internet• Link your Twitter account with Cloud Server• Generate API and program arduino• How to tweet using Arduino• Get sensor data over twitter
Day3	Bluetooth Module <ul style="list-style-type: none">• Introduction to Bluetooth Module (HC05)• Interfacing of Arduino with HC-05• Attention Commands to know & Change the name and password of HC-05 MIT app inventor <ul style="list-style-type: none">• Introduction to MIT app inventor platform• Create hello world app on MIT app inventor• Create app to control electrical devices in home
	Connections for Home Automation <ul style="list-style-type: none">• Understanding Relay Switch• Making Connections of Relay Switch• Controlling Relay using arduino Output• Connecting AC devices with arduino via relay

Day3	Arduino Programing for Bluetooth <ul style="list-style-type: none">• Program Arduino to read command transferred from app using bluetooth• Home automation using Bluetooth, arduino and relay• Develop the module as voice controlled home automation
Day4	Understanding Some more Sensors <ul style="list-style-type: none">• Ultrasonic Sensor• Mechanism of Ultrasonic Sensor• Program arduino and interface ultrasonic sensor• Measure distance using ultrasonic sensor• MQ2 Gas sensor• Understanding analog sensor• Measure gas or smoke level using MQ2 Gas sensor• Alarm System if smoke value crosses threshold level
	Update reading and controlling <ul style="list-style-type: none">• Update ultrasonic and MQ2 gas sensor reading over cloud• Turn WiFi Module as Station• Connect some devices through WiFi in the given network• Program arduino to receive command as static I.P address• Control devices connected to arduino from address bar of web browser

Day5	Web Page Development <ul style="list-style-type: none">• Introduction to HTML• Create webpage with buttons to control AC units in a network• J QUERY Introduction• Program arduino• Connect ESP8266 and Relay with arduino• Connection of AC devices with Arduino using Relay• Run the complete unit using the web page for controlling of devices
Day5	Review and Recap of whole session <ul style="list-style-type: none">• Doubt Clearing• Question Hour• Project suggestions

Participants Eligibility

The program is open to the Faculty/ Research Scholars/ Students of science & Engineering institutes and other working professionals are also, eligible.

Benefits for Participants

- Learn with Industry expert having broad industry experience.
- Complete Hands-on Based Training
- Training certificate from Eduxlabs in association with Mechanica IIT Madras

Benefits for The Hosting Institutions

- ❖ Authorized Expert will visit your Campus to organize the entire training.
- ❖ Email Promotion will be sent to regional colleges about training program.
- ❖ Soft copy of Posters will be sent to you for effective regional publicity
- ❖ Name and Logo including website link will be published on our official website mentioning that “You are our FDP Center”.
- ❖ We can sign the MOU for long term association with your estimated college as Industry partner for Training & Development.

Requirements for Training program from (Hosting Institutions)

- Seminar hall/classroom having the enough capacity to conduct hands-on-session for all participants
- Good Quality public address system ideally two cordless mic will be required.
- Projector/ Screen along with black/white board for teaching and presentation purposes.
- Minimum 60 participants required to organize This Training
- Accommodation for one training expert.

IOT TRAINING CHARGES

Training Duration	Training Fee
5- Days Training Fee	Rs. 3500/-per attendee (Excluding GST)

The fee includes:

- 5-Days Classroom Training
- Certificate of Training.
- soft copy training material

The fee does not include:

- IoT Hardware Training Kits will be provided During Training. After completion of training iot kits will be taken back from participants

THANK YOU



Team EduxLabs



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