Introduction to Internet Of Things (IOT)

Who we are

Techeduxon has been a platform for global online technology education since 2015. We are now taking it up a notch higher by introducing ways of advanced learning to up-skill and cross-skill your profession with cutting-edge, customized programs. With our Top Tier IT & Enterprise training Courses, We enable you to the forefront & become 'Industry Ready' in this Advancing & Unforeseen Digital World with your upskill Innovations.

Course overview :

Raspberry Pi,Sense HAT and will gain experience with Azure IoT Hub and Alexa Voice. This course will also cover in depth concepts such as IoT Framework, IoT Ecosystem, IoT Solution architecture.

- Introduction to Internet of things (IOT)
- Setting up Raspberry Pi & Sensors (sense HAT Board)
- Creating solutions with Raspberry Pi & sense HAT Board
- IOT Communication Protocol
- IOT with Azure
- Remote Monitoring
- Edge Computing & Analytics

Pre requisites :

No pre requisites are required to take up this course.

Target audience :

Software Professionals, Data Analysts And Anyone Who wants to start their Career in the field of Internet Of Things.

Course Contents :

Introduction to Internet of things (IOT)

- What do you mean by Internet of things and how does it work.
- What are the differences between Embedded Device & IOT Device
- What are the properties of IOT Device
- What do you mean by IOT Ecosystem & IOT Decision framework
- What are IOT Solution Architecture models
- How IOT is transforming business & what are the major IOT boards in market.
- How to explore Raspberry Pi.

Setting up Raspberry Pi & Sensors (sense HAT Board) :

- How to set up raspberry pi & showing functioning of Raspberry Pi using SSH client and team viewer.
- Understand sensing actions, Actuators & MEMS

Creating solutions with Raspberry Pi & sense HAT Board :

- How to build weather station using sense HAT & Python
- Preparing google spreadsheet for weather data collection and understand openCV.

IOT Communication Protocol :

- What are various types of wireless communications
- What are major wireless short range communication devices, properties and comparison of the devices such as Bluetooth, WiFi, Zigbee and 6LoWPAN
- What are major wireless long range communication devices , properties and comparison of the devices such as cellular IOT, LPWAN .

IOT with Azure :

- What is meant by cloud and what are it's infrastructure

- How IOT & Cloud Deployment can create an effective IOT solution
- What are Azure IOT Hub components

Implementing IOT with Azure :

- First register Raspberry pi on Azure IOT hub.
- Send & Receive messages from Raspberry pi over Azure IOT hub.
- Creating Storage account & dock a container and View Data on premises with the help of Azure storage explorer
- Configure web app settings for data visualization

Remote Monitoring :

- Prepare A plan, how to customize a solution to meet specific requirements
- Create a Service bus namespace & add a queue to it & Create Configure and test a logic app
- Add an endpoint & a routing rule to your IOT hub.

Edge Computing and Analytics :

- what do mean by Data Analytics
- You will understand Edge Computing
- How to integrate Azure IOT Edge & Azure IOT Edge Components
- How to integrate Azure IOT Edge Architecture and Real time Analytics.

Projects & Assignments

Our Expert trainers will provide the real time Projects & Assignments.