

Course Description: Join our Professional IoT course training in Dubai and learn to develop IoT solutions from scratch. Whether you're an absolute beginner or experienced in programming, our intensive program will help you gain practical skills in IoT essentials like hardware selection, device protocols, cloud platforms etc. Benefit from both in-person and online training options to excel in the high-growth domain of IoT.

Python with IOT

Module 1: Introduction to Python

- Introduction to Python programming language
- Variables, data types, and basic operations
- Control flow statements
- Functions and modules

Module 2: Interfacing with Sensors and Actuators

- Introduction to common IoT sensors (temperature, humidity, light, motion, etc.)
- Interfacing sensors with microcontrollers (Arduino, Raspberry Pi)
- Collecting sensor data using Python

Module 3: Data Storage and Analytics

- Storing sensor data in databases
- Introduction to data analytics for IoT applications
- Analyzing and visualizing sensor data using Python libraries (Pandas, Matplotlib)

Module 4: IoT Security and Privacy

- Understanding IoT security risks and challenges
- Securing IoT devices and communication channels
- Implementing authentication and encryption in Flask-based IoT applications

Module 5: Edge Computing and Machine Learning in IoT

- Introduction to edge computing in IoT
- Deploying machine learning models on edge devices
- Real-time data analysis and decision making at the edge

Module 6: IoT Project Development

- Working on a hands-on IoT project from start to finish
- Integrating multiple sensors, actuators, and communication protocols
- Building a complete Flask-based IoT application
- Showcasing the project and discussing best practices