



Masterclass: **INTERNET OF THINGS, ADVANCED LEVEL**

INTRODUCTION

This Masterclass provides the advanced concepts of the Internet of Things and its components such as protocol, sensors and actuators. This Masterclass also includes Raspbian and Python programming to setup IoT projects. It offers hands-on experience in the design, development and execution of web-based IoT applications.

COURSE-LEARNING OUTCOMES (CLO)

- Acquire the essential knowledge of various protocols and sensors related to IoT
- Design and execute the programmes in the Python and Raspbian working environment
- Gain hands-on experience in design and develop web-based IoT applications and explore their performances

WHO CAN ATTEND THIS MASTERCLASS?

This is open to all undergraduate students.

CERTIFICATION

Certificate of Completion in Masterclass Internet of Things, Advanced Level.

COURSE OUTLINE

1. Overview of IoT
2. Introduction to Raspberry Pi
3. Setup Raspberry Pi
4. Ethernet Web Servers
5. Raspberry IoT via MQTT
6. Transmitting Environment Data Over LoRa
7. Data Visualization using Node-Red

