

# Embedded Linux Development (LFD450)

**Course Duration : 40 Hours**

**Course code : LFD450**

## 1. Course Overview

The **Embedded Linux Development (LFD450)** course focuses on building and developing Linux-based embedded systems. This course helps learners understand how Linux is used in embedded devices, from system setup to application development.

## 2. What you'll learn?

- Embedded Linux fundamentals
- Linux system architecture
- Cross-compilation and toolchains
- Device drivers basics
- Building and deploying embedded applications

## 3. Target Audience

- Embedded system developers
- Linux developers
- Software engineers
- IoT developers
- Hardware engineers

## 4. Pre-Requisites

- Basic knowledge of Linux
- Understanding of C programming
- Familiarity with embedded systems concepts

## 5. Course Content (Modules)

### **Module 1: Introduction to Embedded Linux**

- Embedded Linux overview
- Use cases and benefits

### **Module 2: Linux System Architecture**

- Kernel and user space
- File systems

### **Module 3: Cross-Compilation and Toolchains**

- Cross-compiling applications
- Toolchain setup

### **Module 4: Device Driver Basics**

- Device driver concepts
- Kernel modules

### **Module 5: Building Embedded Applications**

- Application development
- Deployment on target devices