

Since 2007, Making IT Experts & Products

Course: Embedded Systems & Edge AI

Duration: 1000 Hrs (Changeable) | Fees: Individual / Batch

Since 2007, Nestsoft TechnoMaster has been providing training, internships, and services in IT technologies, both online and offline, with the expertise of **over 250 industry experts**. We have delivered internships, training, and seminars to more than 50,000 students, resulting in numerous success stories. **We offer 100% placement support through JobsNEAR.in**

Our Courses/Internship

- Python/Django Fullstack
- Artificial Intelligence
- Machine Learning
- Data Science
- Software Testing (All)
- Wordpress, Woocommerce
- Digital Marketing, SEO
- Php/MySQL, Laravel
- Flutter, Android, IOS
- Asp.net MVC
- Web Design, Javascript
- Angular JS, React JS
- CCNA, MCSA, CCNP
- AWS, GCP, Azure
- Odoo, Salesforce, Sap
- Microsoft Excel
- Ethical Hacking



Syllabus on the Next Page ..



Our Head Office: Nestsoft TechnoMaster, Infopark, Cochin - 42, Kerala, India

+91 9895490866

+91 8301010866

join@nestsoft.com

www.nestsoft.com

Training by Industry Experts

- * Raspberry Pi Overview

- * GPIO Programming

Month 2: Embedded Programming & Hardware Interfacing

Embedded C Programming

- * Introduction to Embedded C

- * Variables and Data Types

- * Operators and Expressions

- * Conditional Statements

- * Loops and Functions

- * Arrays and Pointers

- * Memory Management

- * Interrupt Programming

Hardware Interfacing

- * LED Interfacing

- * LCD Display Integration

- * Motor Control

- * Servo Motor Programming

Relay Modules

- * Sensor Integration

Camera and Display Modules

Communication Protocols

- * UART Communication

Our Head Office: Nestsoft TechnoMaster, Infopark, Cochin - 42, Kerala, India

 +91 9895490866

 +91 8301010866

 join@nestsoft.com

 www.nestsoft.com

- * SPI Protocol
- * I2C Communication
- * CAN Protocol Basics
- * Bluetooth Communication

Month 3: IoT & Edge Computing

Internet of Things (IoT)

- * Introduction to IoT
- * IoT Architecture
- * IoT Devices and Applications
- * Sensor Networks
- * IoT Communication Models
- * IoT Security Basics

Edge Computing Fundamentals

- * Introduction to Edge Computing
- * Cloud Computing vs Edge Computing
- * Edge Device Architecture
- * Real-Time Data Processing
- * Edge AI Concepts

IoT Development

- * ESP32 IoT Applications
- * MQTT Protocol
- * IoT Cloud Platforms

Our Head Office: Nestsoft TechnoMaster, Infopark, Cochin - 42, Kerala, India

 +91 9895490866

 +91 8301010866

 join@nestsoft.com

 www.nestsoft.com

- * Device Monitoring Systems

- * Remote Control Applications

Month 4: Artificial Intelligence & Machine Learning

AI and Machine Learning Basics

- * Introduction to Artificial Intelligence

- * Machine Learning Fundamentals

- * Supervised Learning

- * Unsupervised Learning

- * Data Collection and Processing

- * Model Training and Evaluation

Computer Vision

- * Introduction to Computer Vision

- * Image Processing Basics

- * OpenCV Fundamentals

- * Image Classification

- * Object Detection

- * Face Recognition

AI Model Deployment

- * Introduction to TensorFlow Lite

- * TinyML Basics

- * AI Model Optimization

- * Model Conversion for Edge Devices

Our Head Office: Nestsoft TechnoMaster, Infopark, Cochin - 42, Kerala, India

 +91 9895490866

 +91 8301010866

 join@nestsoft.com

 www.nestsoft.com

Month 5: Advanced Edge AI & Robotics

TinyML Development

- * Introduction to Tiny Machine Learning
- * Machine Learning on Microcontrollers
- * Neural Networks for Edge Devices
- * Model Compression
- * Quantization Techniques

Edge AI Hardware Platforms

- * NVIDIA Jetson Platform Overview
- * Raspberry Pi AI Projects
- * Google Coral Edge TPU
- * AI Accelerator Concepts

Robotics Integration

- * Robot Control Systems
- * AI-Based Robotics
- * Sensor-Based Automation
- * Autonomous Systems

Month 6: Industry Projects & Applications

Real World Applications

- * Smart Home Automation
- * Industrial IoT Applications
- * Smart Agriculture Systems

Our Head Office: Nestsoft TechnoMaster, Infopark, Cochin - 42, Kerala, India

 +91 9895490866

 +91 8301010866

 join@nestsoft.com

 www.nestsoft.com

- * Healthcare Monitoring Devices
- * AI Surveillance Systems

Final Projects

- * AI-Based Object Detection System
- * Face Recognition Attendance Device
- * Smart IoT Monitoring System
- * Voice Controlled AI Assistant
- * Autonomous Robot Using AI
- * Edge AI Smart Device Project

Tools and Technologies

- * Embedded C
- * Python
- * Arduino
- * ESP32
- * Raspberry Pi
- * TensorFlow Lite
- * TinyML
- * OpenCV
- * Machine Learning
- * IoT Platforms
- * MQTT
- * Linux

Our Head Office: Nestsoft TechnoMaster, Infopark, Cochin - 42, Kerala, India

☎ +91 9895490866

☎ +91 8301010866

✉ join@nestsoft.com

🌐 www.nestsoft.com

Since 2007, Making IT Experts & Products

* Git & GitHub

(Click on Course for more details)

Course: Embedded Systems & Edge AI

Duration: 1000 Hrs (Changeable) | Fees: Individual / Batch

- Thank You -

N.B: This syllabus is not final and can be customized as per requirements / updates.

Our Head Office: Nestsoft TechnoMaster, Infopark, Cochin - 42, Kerala, India

 +91 9895490866

 +91 8301010866

 join@nestsoft.com

 www.nestsoft.com