Emb C + Emb System + IoT + PCB

4 Combo Internship - Limited Time Offer

Internship on Embedded C Programming(EMD C)+ Embedded System Design (ESD) + Internet on Things (IoT) + PCB Design



What You will get?

✅4 Internship E- Certificate

✅Anytime/Anywhere access for videos

✅Online support through forums

✅What we are teaching is a year of experience in the Field, You could reduce your research time and learn in 30 days.

✅1 Year - Validity to access Courses

✅Download source code & PPTs

✅Assignments

Detailed Agenda of 4 Courses below:

Embedded C Programming

✅DAY – 1  Introduction, IDE Installation and Setting the Tone for 30 Days Challenge

✅DAY – 2 Data types and variables, Your first C Program

✅DAY – 3  Address Variables and Storage Classes

✅DAY – 4 How to Write functions

✅DAY – 5 Understanding Microcontroller programming

✅DAY – 6 Build Process and Analyzing Embedded C Code

✅DAY – 7 Floating Point data and Scanf

✅DAY – 8 Pointers and stdint.h

✅DAY – 9 Operators

✅DAY – 10  Decision Making Loops

✅DAY – 11  Bitwise Operators

✅DAY – 12  Blinking LED

✅DAY – 13 Bitwise Shift Operators

✅DAY – 14 Looping

✅DAY – 15 Type Qualifier 'Const'

✅DAY – 16  Pinread and Optimization

✅DAY – 17 'volatile' type Qualifier

✅DAY – 18  Structures and Bit field

✅DAY – 19 Usage of Bitfiled in embedded code

✅DAY – 20 Keypad Interfacing

✅DAY – 21 Arrays

✅DAY – 22 Strings

✅DAY – 23 Pre-procesor Directives in C

✅DAY – 24 LCD Programming in C

✅DAY – 25 UART Programming in C

✅DAY – 26 SPI TFT Display in C

✅DAY – 27 IIC Memory Programming in C

✅DAY – 28 SPI ADC Programming in C

✅DAY – 29 Interview Question in C

✅DAY – 30 Graduation Day and Wrapp up

Embedded System Design & IoT

✅Day 1 - Introduction to Embedded System Design

✅Day 2 - Choosing the Right Processor and Embedded Product Life cycle

✅Day 3 - Challenges and Design Issues in Embedded Systems,

✅Day 4 - Introduction to Real-Time Concepts,

✅Day 5 - IoT Trends, IoT Architecture, IoT Applications, IoT Standards, and Protocols,

*8051*

✅Day 6 - 8051 Architecture-Keil

✅Day 7 - Switch ,Relay,

✅Day 8 - UART,SPI

✅Day 9 - LCD,IIC

✅Day 10 - 8051 Mini Project-Bluetooth based Home automation

*ARM7*

✅Day 11-ARM Architecture-Keil, LED Blinking

✅Day 12- Switch ,Relay,

✅Day 13- UART,SPI

✅Day 14- LCD,IIC

✅Day 15- ARM Mini Project -IoT based weather monitoirng system

*CORTEX M4*

✅DAY 16- CORTEXM4 LPC4088 Architecture-Keil, LED Blinking

✅DAY 17- Switch ,Relay,

✅DAY 18- UART,SPI

✅DAY 19- LCD,IIC

✅DAY 20- Cortex -M4 - Temperature Monitroing using Zigbee and LORA

*PIC*

✅DAY 21- Introduction to PIC Architecture

✅DAY 22- MPLABIDE and LED Blinking

✅DAY 23- Switch ,Relay, PWM

✅DAY 24- UART,SPI

✅DAY 25- LCD,IIC

*NodeMCU/ESP8266*

✅DAY 26- Introduction to NODE MCU

✅DAY 27- Led,switch,relay,UART

✅DAY 28- Iot Temperature Data Logging

✅DAY 29- Build Your Home Automation with ESP8266 and Control Devices from Anywhere in the World

✅DAY 30- Conclusion and Wrap up-Graduation Day

Internet of Things

*IoT Introduction and Architectures*

✅DAY–1 Introduction to IoT

✅DAY–2 IoT Communication Protocols

✅DAY–3 Introduction to ESP32 and NodeMCU

✅DAY–4 Iot Clouds,Analytics & Datascience

✅DAY–5 Sensors for IoT

*IoT using Thingspeak*

✅DAY – 6 Sending Data to Thingspeak -Arduino+Humidity+Air quality(Weather monitoring system)

✅DAY – 7 How to Analyze IoT Data in ThingSpeak

✅DAY – 8 Deploying a Machine learning Model on the Cloud

✅DAY – 9 Thingspeak for IoT in agriculture

✅DAY – 10 Smart Humidity Sensor – ThingSpeak, MATLAB, and IFTTT

*IoT with Microsoft Azure*

✅DAY– 11 Introduction to IoT with Microsoft Azure

✅DAY– 12 Implementing IoT with Azure

✅DAY– 13 Edge Computing and Analytics

✅DAY– 14 Coginitive services,Computer vision API

✅DAY– 15 Weather monitoring station using Microsoft Azure and Arduino

*Iot Projects and Case Study*

✅Day-16 Home automation using Google Assistant

✅Day-17 Industrial Iot using Zigbee and WIFI(Windmill case study)

✅Day-18 Recording sensor data to google sheet using IFTTT with Arduino and sending alerts

✅Day-19 Real time Video surveillance esp32cam and Blynk App

✅Day-20 Predictive Maintenance of a Duct Fan Using Nodemcu, ThingSpeak and MATLAB

*IoT with AWS IoT*

✅Day 21 Introduction to AWS IoT,Setting up Free tier AWS, AWS CLI, Policys, Security Credentials, and Testing

✅Day 22 Raspberry PI3 with AWS IOT SDK

✅Day 23 SNS Push Notifications,AWS IoT Analytics

✅Day 24 AWS Lambda Functions for IoT

✅Day 25 HTTPs Arduino sketch to AWS IoT Core for the ESP8266 and ESP32

✅Day 26 Using Mongoose OS on embedded devices for AWS IoT

✅Day 27 Storing data into the Dynamo Database from the AWS IoT control panel

✅Day 28 AWS Quicksight for data analytics and visulizations

✅Day 29 AWS Device Shadows and multiple Pub/Sub’s

✅Day 30 Weather monitoring station using AWS IOT

PCB Design

✅Day 1- Introduction to PCB Design and Terminologies and Installation of Orcad Trail version

✅Day 2 -Introduction to Schematic Capture

✅Day 3- Introduction to Allegro and Footprint Creation

✅Day 4- Importing Schematics in allegro ,Placement and route

✅Day 5- Gerber Creation, BOM, PDF

✅Day 6- How to Design a 8051 Microcontroller Board

✅Day 7- Library Creation

✅Day 8- Schematics Design

✅Day 9- Footprint Creation

✅Day 10- Design rules check-Import and Placement

✅Day 11- Layout

✅Day 12- Layout Design , Gerber Creation, Recap, schematic design consideration, Layout Design Consideration

Contact Us:

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