



## Summer Training 2020 White Paper Embedded Systems and IoT 30 May 2020 - 19 July 2020

### COURSE DURATION

64 hours Comprehensive Weekend Course (16 classes of 4 hours on Saturday & Sunday) with weekly Project Guidance Session and assured internship in a partner startup.

### LOCATION

SCO - 8, First Floor, Sector 7, Extension Huda Market, Gurgaon - 122001

### OVERVIEW

In this program, prepare for a job as an Embedded Engineer. Design, create, and deploy a fun IoT device using Arduino and Raspberry Pi platforms. This specialisation covers embedded systems, the Raspberry Pi Platform, and the Arduino environment for building devices that can control the physical world. In the final Project, you'll apply the skills you learned by designing, building, and testing a microcontroller-based embedded system, producing a unique final project suitable for showcasing to future employers.

The course starts with the fundamentals. You'll be taught to work quickly and efficiently with Arduino using Embedded C. Once you've got that locked down, you'll learn Python, and work on Raspberry Pi. By then you'll be developing your own IoT Projects and will learn about Alexa Skills & Home Automation using Amazon Alexa.

### CERTIFICATE OF TRAINING COMPLETION

There would be a qualifying examination for the enrolment of the course and in the end of the course each student would have to present their project which they would learn to develop in the course. A physical and E-certificate of summer training would be provided to every student. This Certificate would be Internationally Validated.

The following certifications and awards would be given to scholars of the batch :

1. The best performer of the batch would be honoured with the certification of **'The Best Performer of the Batch'**.
2. There would also be a category for constant improvement in the course and 1 student out of the batch would be honoured with **'Gemba Kaizen'**.

### CLASS STRENGTH

Maximum of 15 students per batch

## COURSE CONTENT

- Introduction to Microcontrollers
- Introduction to Embedded C/Software Installation
- Basic Application of Arduino
- Integrating Digital Sensor With Arduino
- Integrating Analog Sensors with Arduino
- L293D Module and LFR
- Introduction to ESP
- IOT using ESP
- PCB Designing
- Home Automation using ESP
- Introduction to Python
- Introduction to Raspberry Pi
- IOT on Raspberry Pi
- Development of Alexa Skills
- Home Automation using Amazon Alexa

## FEES & ENROLMENT

The fees of the course is ₹20,000/- all inclusive.

### Discounts :

- Students Enrolling for the course before 15th April 2020 would be given a ₹2000/- discount.
- Students having discount voucher of ₹2000/- can redeem it till 20th April 2020 for this course.

\* A student would only be considered for **one** of the discounts from above.

\* A student would have to pay ₹5000/- as a non-refundable registration amount to confirm the enrolment to the course, this amount would be deducted from the total fee of the course and be used to book the student's seat in the office and other expenses that would incur in the course. The remaining fee of the course would have to be paid on the **first day** of the commencement of the course.

## AMENITIES

There are only 15 seats for the program. Students would be given an office space to practice the skills taught and would be given access to:

1. Unlimited 40 MBPS Wifi
2. Personal Desk
3. Doubt session in the weekdays (online and offline)
4. Full study material (E-Books and reference sources)
5. Certificate of Completion of Course validated internationally
6. E-Certificate for your online profiles
7. External Internship of 2 months in a partner company