

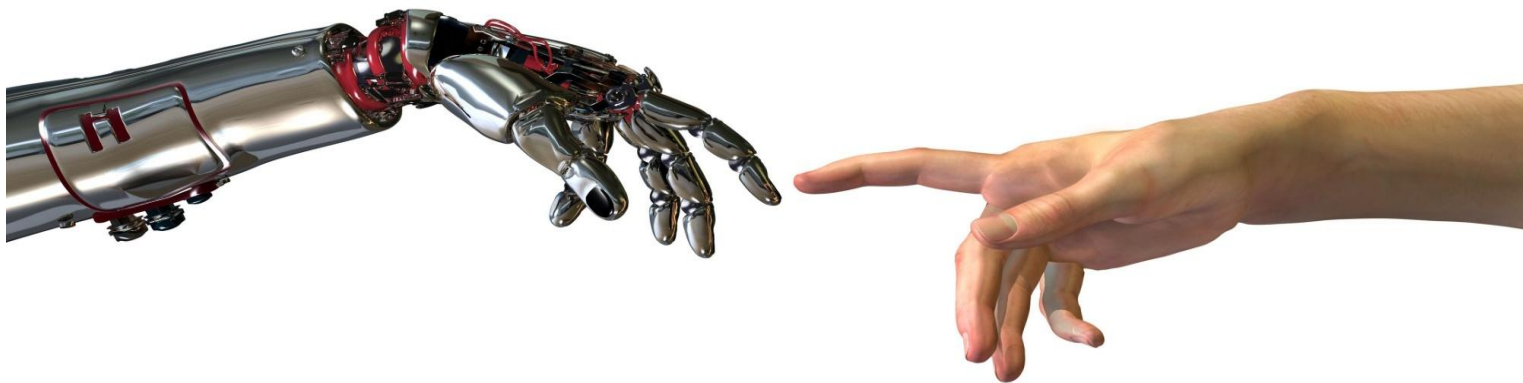


**OLTRON TECHNOLOGY**  
A TECH-SOLUTION COMPANY

**INDUSTRIAL INTERNSHIP**

# **EMBEDDED & ROBOTICS**

**A complete package - Beginner to Expert level**  
**ECE / EE / EEE / CSE**



Visit Us: [www.oltrongroup.com](http://www.oltrongroup.com)

Mail Us: [services@oltrongroup.com](mailto:services@oltrongroup.com)

Contact Us: 7205005344

# EMBEDDED SYSTEM & ROBOTICS

## **Oltron Internship Program**

An internship is a short-term opportunity offered by organisations to students and graduates to gain work experience.

In our industrial internship program, we are offering courses for a limited period of time (ranging from a week to 6 months). Here you'll work on various innovative real-time projects & pick up industry-relevant skills.

## **Mission & Vision**

Through This internship program our aim is to bridge the gap between what is taught in classrooms and what industries look for in recruits.

## **Trainings Vs Internship**

Yes, they're as similar as star and starfish. Wait, what? Exactly! Training and internship are two completely different terms. A training refers to a series of lessons (offline or online) that are aimed at developing a particular skill while an internship is an opportunity to work in an organisation and contribute to its projects.

## **About Embedded System & Robotics**

The system in which dedicated purpose of software is embedded into a hardware design is known as embedded system. This system may be either an independent system or a larger system.

Robotics is a branch of technology which is used for building robots for some specific applications. Robots are now widely used to perform some high-precision jobs and also in some special situations that would be dangerous for humans like working in some toxic environment, diffusing bombs, in nuclear reactors etc. In terms of robotics and the science of robots embedded systems plays a very vital role as it is the backbone of robotics.

## Course at a Glance:

### Embedded System:

- Basic Electronics & Electrical Fundamentals
- Introduction to Embedded system
- Analog and Digital electronics
- AC to DC Conversion
- Study of Power Supply
- Voltage Regulator
- Microprocessor and microcontroller
- Architecture of microprocessor and microcontroller
- Family of microcontrollers
- Introduction to AVR microcontrollers
- ATmega16
- Study of Power supply to ATmega16
- Input/output Ports of ATmega16
- Input/output devices
- Registers in ATmega16
- Pull up and pull down condition
- Memory Devices
- Software for Programming of microcontrollers
- Embedded C programming
- LED Interfacing with ATmega16
- 16X2 Alphanumeric LCD
- ADC (Analog to digital Conversion )
- Sensors Interfacing ( IR, LDR, Temperature, MEMs & Accelerometer Sensor)
- Relay & its Driver Circuit
- Different type of Home Automation
- Industrial Automation Systems

### Wireless

- Radio Frequency
- Bluetooth Communication
- Android Connection
- GSM – SIM 900

## Robotics

- DC motor and its Driver circuit
- H-bridge(L293D)
- Robotics Concepts
- Motion Sensing Robot
- Obstacle Detector Robot
- Edge Detector Robot
- Obstacle Avoider Robot
- Line Follower Robot
- Mobile Controlled Robot
- Gesture Controlled Robot
- Android Controlled Robot
- Voice Controlled Robot
- Multi Input Robot

SHOW STOPPER –WORKING WITH **HUMANOID ROBOT**

## Benefits towards Students from Internship Program

- Skill Development
- Better opportunities in corporate world
- Industrial Type Environment
- Familiar with latest technology
- Internationally Valid Certification -

- **ISO Certified**
- **MSME (Govt. of India) Certified**

Internship Fee: INR 5000/-

Time Duration: 4 - 5 weeks

\*\* Required kit will be provided by the company @ zero cost.