# Embedded ROBOTICS ™

**A 7 days program on**
**Embedded Systems & Robotics Development with**
**Microcontroller Technology & Image Processing**

**Workshop Designed & Conceptualized by**

Robotics | Ethical Hacking | Projects |Educational Trainings | Animation | Automobile
www.go4tech.in | www.facebook.com/go4tech
Call us at +91-99-533-733-63

## *Training Courseware*

We will provide following benefits to the college:-

### Session 1: Embedded System Design

- Introduction to micro controller
- What is a micro controller? What's inside it? What makes it an embedded system?
- What are the different families of microcontroller, its derivatives and its applications in industrial projects?
- Why AVR is the most widely used micro controller family?

### Session 2: Introduction to Microcontrollers and AVR Architecture

- This session includes introduction to the AVR series of micro controller, especially Atmega8/ATMega16/atmega32.
- Introduction to ATMega8/ATMega16/Atmega32 features
- I/O ports.
- Data registers
- Interrupts.
- Timer/Counter.
- External/Internal clocks
- ADC (Analog to Digital Conversion using microcontroller).

### Session 3: Introduction to Embedded C programming

- Embedded C-Programming for Microcontroller.
- Introduction to C, flow control statements, functions.
- Data types, operators and expressions.
- Program structures and debugging.
- Program burning and execution

### Session 4: Interfacing of Peripherals to microcontroller (Atmega8/16)

- Geared DC Motor.
- Stepper Motor.
- Motor Driver
- Relays
- Solid State Drivers.

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### Session 5: Interfacing of various Kind of display Devices

- Display
- LED
- LCD
- Seven Segment Display

### Session 6: Interfacing various human Interface Device With the Microcontroller

- Input Device
- Switches.

### Session 7: Interfacing and Study of Sensors to enable microcontroller to acquire environmental data.

- Sensors
- Colour Sensors
- Light Sensors
- Sound sensors
- Touch sensors
- Temperature Sensors

### Session 8: Project Building and implementation of ideas

- Designing
- Development
- Programming And Customizing
- Debugging
- 

## *Projects done during Training*

- Black/White Line Following Robot
- Sound Operated Robots(Turn when Clap, Stop when clap, start when clap)
- Automated Computer Operated Robots
- Edge Avoider Robot
- GSM/Cell phone Operated Robot
- Photo Phobic Robot / Photo Tropic Robot
- Wall Follower Robot
- Obstacle avoider Robot
- Displaying Information on LCD
- Seven Segment Display.

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# *Training Fees & Discounts*

**Basic Fees**
**RS.4999/- per participant**
(Inclusive all taxes)

**Discounted Fees for Groups**

| | | |
|---|---|---|
| **Rs.4699/- per participant** | **Rs.4500/- per participant** | **Rs. 4399/- per participant** |
| (2-3 participant group) | (4-5  participant Group) | (6+ participant Group) |

Already having Workshop Certification From GO 4 TECH?

**Get Up to 10% Discount instantly!!!**
**Rs. 4500/- per participant**
(Inclusive all taxes)

# *Contact Us*

We ensure that you will find our training programs extremely beneficial for your students. If you have any queries kindly get back to us. We are looking forward to a quick and positive response from you and a long term association with your esteemed organization.

Thanks & Regards,

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