

# **MICRO-CONTROLLER INTERFACING**

## **Training Program**



This Program is pure professional Program. This program completely based on the control system logics and its designing, development and deployment. We are covering the complete microcontroller programming and interfacing and also having the complete state of art real time basis LABS. More we also having the complete software for these systems and you may able to cover up all system software configurations.

**This Program is ideally suited to following individuals who are:**

- **Fresh University Graduates and like to get the knowledge of Micro-Controller.**
- **Already working class who are willing to update and learn the new methodologies of microcontroller.**
- **Who want to be good and reputable jobs in the market and are like to enhance their skills in microcontroller.**

**Program is offered by: 3D Educators – Trainers & Consultants**

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**3D EDUCATORS**

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**TRAINERS & CONSULTANTS**

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# Program Details

## Inauguration

The Training Program will be inaugurated by a senior member of 3DEducators

## Program Structure

Number of classes in a week	Two Class Per Week
Duration of each class	2-Hour
Fee:	<b>Total Rs.5000/- Only</b>

## Other Learning Activities:

Classroom Assignments	2
Presentations by Trainees	1

## About the Program Designer & Instructor

The "Micro-Controller" Program has been designed and will be conducted by Certified Consultant and having the vast experience of training and consulting. They have worked with various large Government, National, and multinational organizations in local and abroad.

The Trainers who are conducting this program are have on the position of the following:

- ✓ Plant Managers
- ✓ Operation Plant Project Manager
- ✓ Plant Engineers

They trainers are foreign qualified and having the degrees of MSc Applied Physics, M.S and certified trainers.

As Consultant & Senior Trainers the team of trainers from Engineering side we **3D Educators – Trainers & Consultants** would not compromise on the faculty.

# Program Syllabus

## **COURSE OUTLINE:**

### **MICROCONTROLLER COURSE CONTENTS**

#### **Week One**

1. Introduction to Computing.
2. Internal Architecture & Hardware Summary of 8051
3. Basics of Programming in Assembly Language

#### **Week Two**

4. First MCS-51 Instructions.
5. Flags, Bit Addressing & PSW
6. JUMP, LOOP & CALL Instructions.

#### **Week Three**

7. Logic Operators & Conditional Jumps.
8. I/O Port Programming.
9. 8051 Addressing Modes.

#### **Week Four**

10. Arithmetic Instructions & Programs.
11. Timer/Counter Programming in the 8051.
12. Analogue Signal Processing.

#### **Week Five**

13. Stack Management.
14. Interrupts Programming.
15. Serial Interface Programming.

#### **Week Six**

16. USB Interface Programming.
17. LCD Interfacing.
18. Keyboard Interfacing.

#### **Week Seven**

19. Real World Programming: Sensors
20. Real World Programming: ADC & DAC
21. Real World Programming: Motors

#### **Week Eight**

22. 8051 Interfacing to External Memory.
23. 8051 Interfacing to the 8255.
24. Final Project.