

## MRL TRAINING WORKSHOP

# Microcontroller Programming Entry Level



**Time: 9.00 am - 5.00 pm (2 Days)**

**MRL Engineering Offis Melaka**

### Overview

The course focuses on micro-controller basics, programming languages and tools, control software structures and programming techniques and applications.

After attending this course the participant will acquire good understanding and skills required for embedded system programming.

During the practical session, participants will have opportunities to familiarise themselves with the general knowledge on products and software's developed by MRL Engineering in embedded system.

### Learning Outcomes

- ✓ Gain in-depth knowledge of the various micro-controllers families
- ✓ Embedded Programming
- ✓ Constructs for embedded systems
- ✓ Debugging
- ✓ Can select the micro-controller for specific task
- ✓ Ability to undertake problem identification

### Who Should Attend?

- ✓ Anyone wanting to enter the field of programming
- ✓ People with an electro technology background or experience in electrical basics and theories
- ✓ Programmers who want to learn the architecture and programming of embedded systems
- ✓ Students Who want to enhance their knowledge in embedded system programming
- ✓ IT professionals and graduates

### Administrative Detail

**Time** : 9.00 a.m – 5.00 p.m (2 Days)

**Venue** : MRL Engineering  
Wisma PPK, Lot 2354, Jalan Sungai Putat,  
Batu Berendam, 75350 Melaka, Malaysia

**Tel No** : +606-3176828

**Fax No** : +606-3176854

**Fees** : RM700/-



# Couse Outline

## DAY 1

### Micro-controllers versus Programmable logic controllers

- ✓ Introduction of micro-controller and PLC, differences, environment considerations reliability with respect to applications

### Microcontroller selection considerations

- ✓ I/O ports, timers, memory, cost and type, interrupts, output drive current, bus speed, programming software

### Programming Languages

- ✓ Assembly, c programming and basic concepts of these languages

### Compiler and editor

- ✓ Basic IDE (Integrated Development Environment) Project creation, Programming tools, compilers, debugging tools

## DAY 2

### Embedded C

- ✓ Basics of embedded system, project creation, program writing, editing and downloading program

### Controlling and receiving inputs

- ✓ Concept of inputs, how to control according to our requirement

### Project Assignments

**\*Detailed course subcontent for above is available at <http://mrlengineering.com.my/training>**

Yes! Please register me/us for the MRL Training Workshop

## Microcontroller Programming Entry Level

Name :

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IC No. :

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Age :

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Email :

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Phone no :

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Fax :

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Currently Working/Student :

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Company/University Name :

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Starting Date :

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Purpose of taking course :

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**Registration  
form**

**Trainers :**

- Dr. Amin Kayani
- Saiful Annuar
- Syed Mudasar ul Hassan
- Shoaib Saleem

## Cancellation and Postponement

If any participant is unable to attend course due to some problem, is given the flexibility to change starting date without extra cost, One have to inform with the new starting date at least 3 days in advance.

75% refund will be made for cancellations received in writing at least 14 days before event.

A 50% of full fee will be refund if cancellation is made 7 days prior to the event.

Organised  
By



**MRL Engineering Sdn Bhd** 626831-T  
*Creative Solutions, Addressing Your Needs*

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