

Mini MBA For Mechanical Engineers 
Interfacing Engineering with Management



Training Course :

**A Practical Mini MBA in
Instrumentation and Automation**

Training Course For One Week In

**Malaysia , Kuala Lumpur , Fraser
Place Kuala Lumpur**

Which Be Held As Under Details :



Abar Solutions Petroleum Consultancy Invite Your Employee To Participate With Us In Special Training Course As Under Details :

Course Name		A Practical Mini MBA in Instrumentation and Automation			
Code	Period	Language	Start	End	Location
ICT 006	5 Days	English	07/08/2017	11/08/2017	Malaysia , Kuala Lumpur , Fraser Place Kuala Lumpur
			04/09/2017	08/09/2017	
			09/10/2017	13/10/2017	
			13/11/2017	17/11/2017	
			18/12/2017	22/12/2017	
			15/01/2018	19/01/2018	
			12/02/2018	16/02/2018	
			12/03/2018	16/03/2018	
			23/04/2018	27/04/2018	
			14/05/2018	18/05/2018	
			11/06/2018	15/06/2018	
09/07/2018	13/07/2018				

**** The Fees Includes : Lecturer , Training Material , Training Room With One Coffee Break Daily , Certificate Of Attendance In Last Day Training Course ****

Course Description

- ⇒ This workshop is aimed at giving you a brilliant overview of the instrumentation industry from a basic and yet practical point of view. You will receive an excellent grounding in the fundamentals of Programmable Logic Controllers, SCADA systems, Process Instrumentation and Process Control. We have distilled the key areas of each of these topics into a two day course. While there is a considerable amount of material it is all covered in a fundamental manner and there is no intention of covering the material superficially.
- ⇒ Although the workshop is primarily aimed at the novice who wishes to acquire the knowledge quickly and effectively, it is also a review of the latest developments and future trends which will be of interest to the more experienced practitioner. Once you

have completed the workshop you will leave with a host of practical tips and tricks that you can immediately apply to your work.

Course Objectives

- ⇒ A Five-day refresher and back to basics workshop going through the critical elements of each of the following topics and highlighting the latest developments in the area.
- ⇒ Covering:
 - Programmable Logic Controllers
 - Process Instrumentation
 - SCADA Systems
 - Process Control
 - Data Acquisition
 - Get the latest tips and tricks from a professional in the area

Course Content & Outlines

- ⇒ **OVERVIEW**
 - Introduction to the course
- ⇒ **PROGRAMMABLE LOGIC CONTROLLERS**
 - Hardware and Software
 - Troubleshooting Tricks with PLCs
 - PID Control Tips on a PLC
 - Installation Tips (esp. Grounding and Noise)
 - New programming standards (1131-3)
 - Good programming habits
 - How to improve software quality
 - PLCs and PID control
 - Safety PLC Developments
- ⇒ **SCADA SYSTEMS**
 - Basic Operation
 - Configuration of Displays & Trending
 - Industrial Ethernet and RS-485 Communications
 - TCP/IP
 - Internet/Intranet based SCADA
 - Wireless based SCADA Systems
 - OPC and XML
 - Web servers
 - Thin clients

⇒ **PROCESS INSTRUMENTATION & VALVES**

- Basic principles and operation of Instrumentation in:
 - Flow
 - Temperature
 - Pressure
 - Level
- Latest developments in Flow (incl. Ultrasonics)
- Smart instruments
- Foundation Fieldbus and instruments
- Profibus and instruments
- Control Valves
 - Types
 - Smart Valves
 - Tips and traps with Valves

⇒ **DATA ACQUISITION**

- Configuration of a Data Logger
- Tips and Traps in collecting data
- Earthing and Isolation Tips
- Ethernet and RS-485 Communications
- Wireless based Data Acquisition
- Latest Developments in
- Data Acquisition

⇒ **PROCESS CONTROL**

- Fundamentals of Process Control
- How to handle Instability of Systems
- Feedback Control
- Basics of PID Tuning
- Cascade Control
- How to handle long dead time processes
- Feedforward Control
- Tuning and cascade control
- Feedback and Feedforward control
- “New” tuning techniques e.g. lambda