



Training Course:

# Electrical Power Distribution Component & Design

Training Course For One Week In

UK - London - Marriott Hotel  
Marble Arch

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		<b>Electrical Power Distribution Component &amp; Design</b>				
Code	Period	Language	Start	End	Location	Fees KD
EL 30	5 Days	English	27/08/2018	31/08/2018	UK – London - Marriott Hotel Marble Arch	1650
			10/09/2018	14/09/2018		
			22/10/2018	26/10/2018		
			05/11/2018	09/11/2018		
<b>** The Fees Includes : Lecturer , Training Material , Training Room With One Coffee Break Daily , Certificate Of Attendance In Last Day Training Course **</b>						

### Introduction

Electric power distribution system plays an important role in the efficient operation of a modern industrial plant, Such a system includes high voltage circuit breakers, switchgear, transformers, motor control centers, electric motors, variable speed drives, etc., A trouble-free electrical system is essential for an interruption-free plant operation, This course will cover all aspects of power distribution, including system planning, equipment selection and application, system grounding, protection and conformity with electrical code requirements, etc., Participants will work under instructor guidance to develop a power distribution system single line diagram for a typical industrial plant.

### Course Objectives

To provide practical understanding of a power distribution system and its protection in an industrial plant , After Participating In The course , You Will Be Able To :

- Plan your system and select equipment for it
- Benefit from a clear understanding of all aspects of power distribution system
- Apply the Electrical Code to your projects
- Deal with the important issues such as load estimating , voltage selection , shortage circuit studies and power protection
- make your distribution system more efficient by applying your new knowledge of the power distribution system and equipment

## **Course Contents & Outlines**

### **System Planning As Applicable To Industrial Plants**

- Load estimates
- Distribution types
- Review of a conceptual single line diagram
- Voltage considerations and flicker
- Substation bus arrangements

### **Short Circuit Studies For Equipment Rating And Relaying**

- Applicable standards
- System and equipment data
- Method of calculations
- An example using hand calculations

### **Load Flow Calculations**

- Importance of load flow
- Voltage instability
- Effect of current limiting reactors
- Voltage drop considerations
- Loss of a source
- Optimization of load flow

### **System Neutral Grounding**

- Ungrounded
- Low resistance
- Cable insulation and system grounding
- High resistance
- Solidly grounded systems
- Generator neutral grounding

### **Review Of Major Equipment**

- Motor control centers, switchgear, power transformers & Application of power cables
- Application of electric motors
- Harmonics in power systems and impact of non-linear loads
- Capacitor applications
- Surge arresters
- Instrument transformers

### **Workshop - Development Of Single Line Diagrams**

### **Protective Devices And Relay Setting**

- Protection and co-ordination principles
- Protection of medium voltage motors
- Generator protection
- Feeder and bus protection
- Transformer protection
- Relay settings and co-ordination curves

### **Concluding Remarks**

*With Best Regards From Abar Solutions Petroleum Consultancy*