



# United Engineering Services

Consultancy, Energy Audit, Instrumentation, Maintenance Management System, Safety Audit, Technical Audit and Trainings

In view of the increasing pace of change, United Engineering Services brings you learning Programs for Improvement of Technical Skills. Individuals who endeavor to improve themselves must attend the events. United Engineering Services, made possible through Learning Bites.



The distinguishing features of Learning Bites are:-

- They are designed to be an easy and learnable material.
- They are highly pocket friendly opportunity, and above all,
- They are digestible, accessible, and affordable.



For more information's and details contact:

**Mr. Asadullah Ejaz**

Cell: 0316-0266495

Ph: (021) 35805163

Fax: (021) 35313968

E-mail: info@ues-electrical.com

Web: www.ues-electrical.com

Address: 2-C, Mezzanine Floor, 15th Commercial Street Phase II (Ext.) DHA. Karachi.



**Pakistan Engineering Council**  
Continuing Professional Development (CPD)  
Approved Training Program

## Electrical Operation and Maintenance

**Wednesday & Thursday 17<sup>th</sup> & 18<sup>th</sup> April 2019**

**Karachi**

**CPD Point "1"**

### Objectives:

- This workshop has been designed to help companies to adopt basic operation and maintenance techniques in order to maximize efficiency and minimize down time of the producing unit.
- Time will be an excellent opportunity for those who one way or the other are involved with electrical operation & maintenance.
- All persons responsible for operation & maintenance of the plant need to understand the basic knowledge of electrical engineering.

### Who Should Attend?

- Engineering Managers, Operations Management Personnel, Electrical Maintenance Personnel, Technical Personnel, Electricians, and all those who are responsible for or are associated with Electrical Operations and Maintenance.

### Workshop Fee:

Fee for program is

**Rs. 21,500/- per participant**

which includes workshop material, certificates, and refreshments.

Please send your nomination(s), along with the workshop fee, before 16<sup>th</sup> April 2019 Payment should be made in favor of "**United Engineering Services.**"

### Timing:

09:30 a.m. to 04:30p.m.

### Workshop Contents:

#### **1 General Principles Of Planning**

- i) Objective
- ii) Alternatives
- ii) Premises
- iv) Evaluation
- v) Decision making
- vi) Implementation

#### **2 HV/LT industrial network management**

- i) HV/LT transmission & distribution
- ii) EHT/LT/HT for industrial network

#### **3 Design Concepts**

- i) Lighting level
- ii) Basic parameters
- iii) Basic components
- iv) Substations
- v) Transformers
- vi) Illumination

#### **4 Switchgear & Control**

- i) Fuse selection
- ii) Contactors selection
- iii) Circuit breakers selection
- iv) Protection of equipment

#### **5 Safety Sconsideration**

- i) Classified area
- ii) Hazardous location
- iii) Tagging
- iv) Safety of personnel
- v) Energy isolation
- vi) Work permit

#### **6 Power Factor**

- i) Power factor & its importance
- ii) Design of power factor improvement plant

#### **7 Grounding / Lightning Design**

- i) Methods
- ii) Design of system
- iii) Selection criteria
- iv) Grounding for static charges

#### **8 Harmonics In Industry**

- i) Basic concept
- ii) Limitations
- iii) Solutions

#### **9 Electrical Software Applications**

- i) Ecodial
- ii) Terasaki

**Early Bird Discount:** 10% per participant (Before 10<sup>th</sup> April 2019)

**Multiple Nominations:** Three or more nominations are entitled for a further discount 10% per participant.