



# United Engineering Services

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



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

## Optimization of Electrical Energy

**Wednesday and Thursday 24<sup>th</sup>-25<sup>th</sup> April 2019**

**Karachi**

**CPD Point "1"**

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:

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### Objectives:

- Awareness in energy conservation to reduce energy bill and increase profitability.
- This workshop has been designed to help companies to adopt conservation techniques.

### Who Should Attend?

- Senior, middle managers, engineers, and all those who are responsible for energy utilization and operations.

### 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 23<sup>rd</sup>. April 2019 Payment should be made in favor of "**United Engineering Services.**"

### Timing:

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

### Workshop Contents:

#### **An Overview of General Energy Utilization**

- Basic philosophy
- Historical analysis
- Preliminary energy survey for future investigation
- Detail technical assessment

#### **Tools and Techniques**

- Lighting system
- Lighting level v/s needs
- Efficient lighting fixtures
- Installation and maintenance
- Efficient lamp and ballast
- Lighting control
- Cost benefits
- Power supply optimization and control
- Power factor
- Distribution
- Losses
- Maintenance
- Electric motor and drive system
- Motor sizing
- Maintenance
- Motor selection
- Effects of harmonics

#### **Developing the Financial Case**

- Financial feasibility methods
- Energy auditing
- Energy costs, rate structures and scheduling
- Energy monitoring and targeting

**Early Bird Discount:** 10% per participant (Before 17<sup>th</sup> April 2019)

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