

## Advanced Electrical Troubleshooting , Repairs and Isolations Techniques

### Course general description:

This training emphasizes the importance of working safely and of measuring your skills based on time and materials standards to save you and your employer money on troubleshooting projects.

### Audience:

This course is designed for:

- 1- Electrical supervisors
- 2- Electrical Engineers
- 3- Anyone involved in the maintenance of repair and isolation specialists

### Course objectives:

At the end of the program participant will:

- Understand the basic principle of typical process sensor
- Acquire troubleshooting skill for 3 phase AC facilities and equipments
- Be able to Measure and test electrical parameter
- Be Acquainted with mechanical faults associated with process facilities and equipments

### Course duration:

5 days

### Course location:

Cairo-Dubai-Istanbul

### Course contents:

#### **Day-1**

- Pretest
  - Introduction to advance troubleshooting
  - Principles of Typical process equipment and facilities
  - Pump, Agitator, Heaters
  - Motors, Transformers
  - Contactors, Overloads
  - Review of basic electrical troubleshooting

#### **Day-2**

- Operate the system remotely or locally
- Take Voltage, Resistance and Current measurements with a multi-meter
- Inspect, Repair and Replace components
- Disconnect and ring out wires.

#### **Day-3**

- Temperature, Float, & Selector Switches
- Relays, Timers, Pushbuttons
- Solenoid Valves, Fuses, Indicators,

#### **Day-4**

- Cross references
- Electrical designator
- Electrical symbols
- Wiring, Terminal Blocks, Wire Connectors

#### **Day-5**

- Practical sessions

**Methodology:**

- 50% lectures & concepts
- 10% Videos
- 10% Case studies
- 10% Exercises
- 10% Discussions
- 10% Software (if applicable or examples)

**Course code: (TEEI015)**