

Electric Power Substation Engineering Training

Description

Course Description

There is considerable interest among people who operate and maintain electrical power systems in a Wide range of topics relating to equipment maintenance and testing. This is because condition and reliability are directly related to maintenance and testing

www.acculearn.co.uk

To obtain maximum life from electrical equipment, maintain its reliability, and minimize repair cost, it is necessary to serve and test it periodically to predict condition.

Proper installation and preventive maintenance of substation will assure continued electrical power supply, it is very important to the consumers specially, for industrial sector where the curtail of electrical power supply is costly.

Course Objectives

To perform proper maintenance on substations Equipment, including transformers, circuit breakers, bus bars, metering, protective devices, batteries…etc.

The attendance will become familiar with substation standards.

Course Outlines

Introduction to Electrical Equipment Maintenance & Testing

- Power System Components
- Sub-Station Components
- Schematic Diagrams
- Overview of Electrical Preventive Maintenance & Testing
- Overview of Testing & Test Methods
- Transformers
- Categories &Types

- Application & Use Fundamentals
- Polarity, Terminal Marking & connections
- Characteristics
- Transformer Diagnostic Guide

Preventive Maintenance of Transformers

Dry Type & Liquid Type Transformers. Installation, Acceptance & Maintenance

Transformer Testing

- AC H.Pot. Test
- TTR Test
- Polarity Test
- Induced Potential Test
- Polarization Recovery Voltage Test
- DC Winding Resistance Test

Instrument Transformers

- Current Transformers
- Potential Transformers
- Polarity of Transformers

www.acculearn.co.uk

Maintenance & Testing of Instrument Transformer

Electrical Switchgear Testing

- Insulation Resistance Test
- AC & DC H.Pot Test
- Power Factor or Dielectric loss test
- CB Contact Resistance Test
- CB Time-Travel Analysis Test

Electric switchgear Maintenance

- Frequently Inspection & Maintenance
- Preventive Maintenance

Protective Relays

- Classification & Construction Principle of Relays
- Relay Application & Operation Principles
- Protective Relay inspection & test
- General Protective Relay Calibration & Checklist
- Relay Test Point & Test Circuit

DC (Battery) Control Power Equipment

- Type of Batteries

- Battery Chargers
- Maintenance & Care of Battery
- Battery Tests

www.acculearn.co.uk