



# LV & MV Switchgear Design, Operation & Maintenance

## Entry Requirement

Candidate should have basic electrical fundamentals knowledge having BE-BSC Electrical Engineering degree

## Description

This training course is strongly recommended for the engineering intends to work as Switchgear design and control Engineer.

## Course contents

- Course introduction and importance
- Power System overview LV-MV
- LV Switchgear and standards
- Form-1 and form-4 design.
- IP30-42-55-65 standards and applications
- Type tested and non-type tested switchgear
- Indoor and outdoor switchgear
- Cubical and copper calculations
- Switchgear components details.
- MCCB- ACB- MCB- MPCB- Over load relays calculations
- Type 1 and Type 2 coordination
- TNS and TNC System
- PFI panels calculations
- Active and passive filters
- MV switchgear
- LSC-2B design
- IP3X and IP4X details.
- Wapda- KE and consumer end switchgear panels.
- KISOK substations
- Solar PV switchgear
- Case studies and discussions.
- Cable sizing – Short circuit – amp – KW load calculations.
- ABB- Siemens, Schneider- GE brands and details.
- Recommended switchgear and their applications.
- Routine testing – Type testing details and check lists.
- Commercial and industrial network design
- Switchgear installations. Check lists and working
- Switchgear operations Check lists and working
- Periodic maintenance Check lists and working

## **Benefits**

- Training by Mr. Sajid Munir. He has rich hands-on experience in electrical projects in the areas of substation, industry, commercial, solar PV, Relay testing, project management, technical trainings
- Trainings flexible face to face or online.
- Real time field base demo and exercise.

## **Course duration**

1 week

8:00pm to 10:00pm

