SmartBrains

Institute of Oil and Energy



Circuit Breakers and Switchgear



What You Will Learn...

- Describe the operation of switchgear components (CTs, VTs, relays and cable terminations)
- Outline practical maintenance strategies for switchgear
- Describe the fundamentals of operating switchgear and circuit breakers
- Select appropriate type and rating of circuit breakers and switchgear

SmartBrains Oil and Energy Institute provides premium training courses for energy industry executives and fresh engineering graduates. Our success and distinguished reputation is thanks to our commitment to provide first-class programmes to our clients. Combining leading professionals from across the industry as lecturers and an interactive, practical format, the lessons learnt in a SmartBrains for Energy course are directly transferable back to the work place.

Our Strategic Objectives

To be recognized by industry and employers as a highly reputable training organization. Provide dynamic leadership, sound management and excellence in training. Continue to improve our services through quality management processes. Invest in and value our people through professional development activities. Grow our business through innovation and to continue to be financially secure. Be influential in the economic development of the industries we serve nation wise

Our Mission

6 To provide quality training and assessment services and to prepare our students for a fulfilling professional career in their chosen industry. We are committed to upholding our values of providing excellence in training ▶ ▶

Course STRUCTURE



66 Would like to thanks T&P Team of Smartbrains who helped me to get skill set on Electrical System Design. The learning experience was good and placement is excellent 9.9

> Zeeshan Ahmad Ankit Electrotech Engineers Pvt Ltd, Noida

Introduction and applications of switch gear

- Single Line Diagrams
- Circuit breakers and switchgear
- Forms of high voltage (HV) switchgear

Circuit breaker design

- Basic circuit breaker design
- Auto re-closing
- Different types of circuit breakers: Oil
- Different types of circuit breakers: Air
- Blast
- Different types of circuit breakers: SF6
- Different types of circuit breakers:
- Vacuum Interrupter
- Operating Mechanisms
- Practical: Virtual Lab Example Arc over levels

Switch gear specifications

- Standards and factors affecting circuit breaker selection
- Special service conditions & Ratings
- Stored energy operation & Locking and interlocking devices
- Degrees of protection
- Gas leakage rates

Operational safety

- Testing for internal fault & Basics of Protection
- Safety in the Context of HV Switchgear
- Switching for safety, policies, and PPE
- Practical: Virtual Lab Example Circuit Breaker Bus



SmartBrains?

SmartBrains is the ultimate choice for all the working & non working engineer's in energy Sector training requirements. Our extensive portfolio of energy training courses are:

- ▶ 100% focused on the Oil and energy industry.
- Guided by the industry's renowned professionals with unprecedented knowledge of the Oil and energy industry.
- Highly interactive program with practical and relevant case studies.
- Training by extensively researched self developed cutting edge techniques.
- Skill development techniques with comprehensive set of documentation, practical skills and tools used in the Industry.

- The perfect opportunity to develop network and experiences with knowledge sharing.
- Internationally acclaimed engineering qualification.
- Designed for both Fresh engineers and working professionals to attain growth in oil and energy industry.
- One of the finest international faculty.
- Interactive, interesting and motivational training sessions.
- Access to enormous reference books and research materials.

Admission

Requirements

- Duly Filled Application Form
- 2 Photographs
- Photo State of Qualifying Examination
- Address Proof
- I.D. Proof
- Latest Resume

Declaration

- This training program is on AUTONOMOUS basis conducted by SmartBrains.
- SmartBrains has right to expel any student at any time for misbehavior, poor attendance without refunding the fees.
- Certification will be issued only after completion of course, submission of all assignments and passing all the examinations.
- SmartBrains has its own rules and regulations about conducting examinations and assessment of examinations



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