KNOWLEDGE
For Training

1. Course Details:

Course Code : EPET-003
Course Title : Electrical Operation and Protection
Course Duration : 5 Days

2. Course Overview:

- Protection of low, medium and high voltage power systems requires an understanding of system faults and their detection, as well as their safe disconnection from the power system. This course presents a comprehensive and systematic description of the concepts and principles of operation and application of protection schemes for various power system elements such as feeders, transformers, motors, buses, generators, etc.
- The course begins with an overview of power system faults and the protection scheme requirements for the detection and coordinated clearance of these faults. Protection requirements for cogeneration and non-utility generation, and interconnection with the utility power system are covered in detail. This course deals with protection systems from a practical perspective and includes important functional aspects such as testing and coordination of protection systems. It is specially designed for industries and utilities, which depend on proper system protection for operational efficiency and minimizing damage to equipment.

3. Learning Outcomes:

- The concepts, principles of operation, and application of H.V. power system protective relaying
- The analysis of relay operations for various power system faults
- The requirements of commissioning and maintenance testing of protection schemes

4. Course Contents:

- Introduction, Overview & Discussion of Objectives
- Power System Faults
- Components of Protection Schemes
- Current Transformers & Voltage Transformers
- Current Transformers & Voltage Transformers
- Power System Neutral Grounding
- Ground Potential Rise During Power System Faults
- Feeder Over current Protection
- Coordination of Electrical Protection Systems
- Bus Protection
- Motor Protection, Starting and Control

- Transformer Protection
- Chapter 7: Transformers Protection. (cont'd)
- Generator Protection
- Cogeneration & Non-Utility Generation Protection
- Transmission Line Protection
- Capacitor Protection
- Open Forum, Discussion & Wrap-Up

5. Our Methodology:

- Make coaching and monitoring innovative and using modern
- Media training also using on the go training by using interactive means and focusing on
- The exercises, practical applications and real situations study.
- Live delivery method, instructor-led training.
- Experienced consultant, trainers, and professional.
- Qualified trainer with high-level experience

6. Attendance Reports:

- Send daily attendance reports to trainingdep
- Send full attendance report to training dep. by the end of thecourse
- Attend 100 % from the course days also providedaily
- Issue attendance certificate for participant who attend minimum 80% from the course duration

7. Pre/Post Reports:

- Pre- assessment before starting training.
- Post assessment after finish training
- Full report for the deferent between Pre-& Post assessment

8. Who Should Attend?

- Engineers, technicians, technologists, control engineers, operators, designers, supervisors
- Managers in the industrial, consulting
- Utility fields involved in design, regulatory inspection, operation and maintenance
- Electrical power system protective relaying techniques
- Technicians