COURSE OUTLINE

INTRODUCTION TO POWER SYSTEM PROTECTION

1. FUNDAMENTALS OF POWER SYSTEM PROTECTION

2. PROTECTION SYSTEM ELEMENTS

    2.1 Current Transformers.
    2.2 Voltage Transformers.
    2.3 Circuit Breakers.
    2.4 Fuses.
    2.5 Equipment Specific Protective Devices.
    2.6 ANSI Protective Device Numbering System C37.2-2008.

3. FUNDAMENTAL PROTECTION SCHEMES.

    3.1 Protection Relay Curves.
    3.2 Feeder Protection.
    3.3 Bus Differential Protection.
    3.4 Transformer Protection.
    3.5 Electrical Asynchronous Motor Performance.

4. PROTECTION CURVES.

    4.1 DT, ANSI, IEC, IDMT, Fuse Curves.

5. PROTECTIVE RELAY COORDINATION.

6. INTEGRATION OF FUSE CURVES INTO PROTECTION SCHEMES.

7. COORDINATION OF PHASE AND GROUND FAULT PROTECTION.

8. PROTECTIVE RELAY TESTING.

9. PRACTICAL EXERCISES.

10. CT RATIO AND MAG CURVE.

11. RELAY TESTING.

12. PROTECTION SCHEME SIMULATION USING ETAP 7.5.2.