

MODULE : TB3

FAULT CURRENT CALCULATIONS & RELAY SETTING & RELAY CO-ORDINATION

COURSE DESCRIPTION:

Fault Current Calculations :

Impedance diagram; per unit and percentage impedance; sequence components; impedance to be considered for different network elements like generator, transformer, transmission line, motor, cable, etc; default figures where data not available; fault calculation procedures; step by step fault level calculation exercise for phase fault and ground faults; input to relay co-ordination exercise.

Relay Setting & Relay Co - ordination :

Primary & back up protection; need for co-ordination; functional characteristics of protection scheme, including sensitivity, selectivity (discrimination by time, current and both time and current), and speed; Discrimination time (co-ordination interval); Criteria for setting pick ups and time dial for DMT and IDMT relays.

Tools available to reduce fault clearance time like instantaneous over-current; Instantaneous earth fault, Pilot wire protection, and Bus bar protection; overload vs overcurrent protection. Step by step relay setting and co-ordination exercise for phase fault and ground fault relays, application checks with conventional and numerical relays.