

MODULE : TB7

BUSBAR PROTECTION

COURSE DESCRIPTION:

Bus fault statistics; Pros and cons of providing bus bar protection; Different bus bar arrangements (One main and transfer, two main, two main and transfer, ring main, one & half breaker scheme);

Protection classification – high, medium and low impedance schemes; High impedance – current based scheme, AC & DC schematics, CT specification, work out for exciting current, KPV and stabilizing resistor, need for non-linear resistor, location of CTs to avoid blind spots; High impedance – Voltage based scheme.

Performance for internal and external faults, voltage setting calculations; Medium impedance scheme, one cycle protection, relay operation and characteristics for internal and external fault conditions; Low impedance schemes, numerical bus bar protection, stabilized differential algorithm & directional current comparison algorithm; Isolator auxiliary contacts – need for reliability.