

**MODULE : TB8**

**GENERATOR - GRID PARALLEL OPERATION AND ISLANDING**

**COURSE DESCRIPTION:**

Grid failure history; Stability classification – voltage and angle stability; Power transfer equation and stability criteria; CCT(Critical Clearing Time); Basic power flow relation; (P-F) loop and (Q-V) loop; Factors influencing stability; Short Circuit Ratio (SCR), H - Inertia Constant; Excitation Systems; Governor control – Isochronous, APR (Constant KW) and Droop; Dynamic stability and PSS; Problems in interconnected operation with grid; GIS (Grid Islanding Scheme) concepts; Symptoms before islanding; Schemes for islanding; Post islanding load shedding schemes; Frequency based load shedding scheme; PLC based load shedding scheme and its advantages; Causes for GIS failures and remedial measures.