**First Term**

Power system elements (prime movers, alternators, power transformers, transmission lines, ..etc.), Power elements (O.H.T. lines: parameters, performance, electrical design, representation of short and medium), Mechanical design of T.L transmission lines, Underground cables (construction, laying, performance), Low voltage distribution systems:(A.C., and D.C. systems, radial feeders, ring feeders

**Second Term**

Performance of Long Transmission Lines and Power Circle Diagram – Corona , Overhead transmission line insulators, - Transients in power systems ( Travelling waves, capacitive and inductive current switching), DC Power Transmission.