

PCCI4304 **STRUCTURAL ANALYSIS -II** (3-0-0)

Module - I

Plastic Analysis: Plastic modulus, shear factor, plastic moment of resistance, Load factor, Plastic analysis of continuous beam and simple rectangular portals, Application of upper bound and lower bound theorems

Module – II

Analysis of redundant plane truss (single degree), analysis of continuous beams and plane frames by slope deflection method and moment distribution method, analysis of Continuous beam and simple portals by Kani's method

Module - III

Analysis of two hinged and fixed arches for dead and live loads, Suspension cables with two hinged stiffening girders, introduction to force and displacement method, matrix, methods of analysis: flexibility and stiffness, methods; Application to simple trusses and beams

Reference Books:

1. Structural analysis by C.S. Reddy TMH Publ
2. Structural analysis a matrix approach by Pandit & Gupta, TMH Publ.
3. Indeterminate Structures: J.S.Kinney
4. Limit Analysis of Structures: Monikaselvam, Dhanpat Ray Publ
5. Indeterminate Structural Analysis: C.K.Wang ,TMH