

## STRUCTURAL ANALYSIS

3-0-0-0-9

Stability and Determinacy of Structures. Review of shear force and bending moment diagrams in beams and frames. Plane trusses: method of joints and method of sections. Deflection of trusses: method of virtual work. Deflection of beams and frames: moment area method, conjugate beam method, method of virtual work. Influence line diagrams and moving loads. Force and stiffness methods of analysis. Plane trusses by using method of consistent deformations. Beams and frames: method of consistent deformations, slope deflection equation, moment distribution method. Plane trusses and beams by using direct stiffness method.