

**Terna Public Charitable Trust's
College of Engineering, Osmanabad
Dept. of Civil Engineering**

LAB MANUAL

Structural Design and Drawing-1 Practical

Class: T.E.(Civil)

Year 2019-20

Sem-II

Design of Roof Truss

Contents:

- 1) Drawing plan of shed, selection of type of truss, Deciding number of trusses and Providing trusses at suitable spacing, Calculations for geometry of truss(Pitch, Rise), Spacing of purlins
- 2) Selection of basic wind speed and calculation of design wind speed
- 3) Calculation of design wind pressure (upward and downward)
- 4) Calculation of loads on panel points
- 5) Calculation of forces in members of truss for different load combinations
By drawing vector diagrams
- 6) Calculation of forces in members for worst load combinations
- 7) Design of members of truss
- 8) Design of purlins
- 9) Design of columns
- 10) Design of foundation
- 11) Drawing details of columns, foundations and connections

Subject Teacher

A.A.CHOUGULE

Asst. Prof. in Civil Engg.