KCE-653 Structural Detailing Lab

S.No.	Name of major equipment/setup
1	Verification of Maxwell theorem apparatus.
2	Two hinged arch apparatus.
3	Three hinged arch apparatus.
4	CAD/STAAD Pro/BIM Software

LIST OF EXPERIMENTS

KCE-653 STRUCTURAL DETAILING LAB

PART -A (To be performed in lab)

1. To verify Maxwell's Reciprocal theorem.
2. To find horizontal thrust in a three-hinged arch and to draw influence line diagrams for Horizontal Thrust end Bending moment.
3. To find horizontal thrust in a two-hinged arch and to draw influence line diagrams for horizontal Thrust and bending moment.
4. Study of SP34/IS13920/IS456:2000 for detailing of structural elements.
5. Preparation of working hand sketches and soft drawings using BIM software (Open source/Commercial) for the following-

a) Simply supported, Continuous and Cantilever RCC Beams (T-beam and l-Beam)

b) RCC Slabs – (Simply supported, Continuous, One way and two way).

c) RCC Columns – (Tied columns and spirally reinforced columns)

d) Isolated and combined footings for RC Columns.

6. Preparation of bar bending schedule.
7. Detailing of buildings with respect to Earthquake Resistant Design
8. Study of a full set of structural drawings of a building as made available by the Institute.

PART B

It is mandatory to perform experiments using a virtual lab wherever applicable.

NOTE:-

1. For open-source software the following link of FOSSEE may be used apart from other available resources: https://fossee.in