STRUCTURAL DESIGN LAB
(CORE LAB-II)

Course Code: 19CE2208

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0	3	1.5

Course Outcomes:
At the end of the course students will be able to
CO1: carryout analysis and design of industrial building
CO2: analyze and design bridge structure for the given loads
CO3: analyze and design the RC multi-storey building systems for gravity loads.
CO4: analyze and design the RC multi-storey systems for gravity and lateral loads
CO5: analyze and design a water tank for the given capacity

LIST OF EXPERIMENTS IN STRUCTURAL DESIGN LAB USING STAAD PRO AND ETABS

1. Analysis and design of roof truss for an industrial building
2. Analysis and design of truss bridge
3. Analysis of Pre-engineered building
4. Analysis and design of RC multi-storey building for gravity and wind loads.
5. Analysis and design of RC multi-storey building for gravity and seismic loads (Linear static analysis).
6. Analysis and design of RC multi-storey building for gravity and seismic loads (Response spectrum method).
7. Analysis and design of RC multi-storey framed building with shear wall for lateral load
8. Analysis and design of flat slab system for multi storey building
9. Analysis and Design of Gantry girders for industrial structures
10. Analysis and design of T-beam RC bridge

11. Analysis and design of Box girder RC bridge
12. Analysis and design of RC elevated water tank

References

1. G.S. Pandit & S.P. Gupta, –Structural Analysis–A Matrixapproach‖,2nd Edition, Tata McGrah Hill Companies, 2011.

2. Devdas Menon, –Structural Analysis‖, 2nd Edition, Narosa Publications, 2012.

3. KrishnamRaju N., –Design of Bridges‖, 4th edition, Oxford and IBH Publishing Co., Ltd., 2008.

4. Ramchandra. –Design of Steel Structures Vol. I & II‖, 3rd Edition, Standard Book House, New Delhi, 1998