

**IV Year I Semester**  
**Code: 17CE712**

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<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>

## **STRUCTURAL ANALYSIS & DESIGN LAB**

### **Course Learning Objectives**

The objectives of this course are:

1. To design 2-D frame analysis and 2-D frame design
2. To design steel tabular truss analysis and steel tabular truss design
3. To design 3-D frame analysis and 3-D frame design
4. To design retaining wall analysis and retaining wall design
5. To design tower analysis and simple tower design

### **COURSE OUTCOMES**

Students will get ability to

1. Design 2-D frame analysis and 2-D frame design
2. Design steel tabular truss analysis and steel tabular truss design
3. Design 3-D frame analysis and 3-D frame design
4. Design retaining wall analysis and retaining wall design
5. Design tower analysis and simple tower design
6. Design Multi storeyed structure

### **EXERCISES:**

1. 2-D Frame Analysis
2. 2-D Frame Design
3. Steel Tabular Truss Analysis
4. Steel Tabular Truss Design
5. 3-D Frame Analysis
6. 3-D Frame Design
7. Retaining Wall Analysis
8. Retaining Wall Design
9. Simple Tower Analysis
10. Simple tower Design
11. Analysis of Multi-storeyed structure
12. Design of Multi-storeyed structure

### **Software:**

1. STAAD Pro or EQUIVALENT