structed Exploring Potential

Staad Pro (Advanced)

CURRICULUM

1. INTRODUCTION

- 1.1 Introduction to Tall Buildings
- 1.2 Critical Aspects to be checked in Tall Building

2. GEOMETRY & LOADING TO TALL BUILDING

- 3. SEISMIC CONCEPTS.
- **3.1** What is Earthquake?
- **3.2** What happens to a building during an Earthquake?
- **3.3** Why does a building fail during an Earthquake?
- **3.3** Failure patterns during an Earthquake
- **3.5** Introduction to IS 1893 Part 1 2016
- **3.6** Types of Earthquake Analysis
- **3.7** Design Lateral Force (Base Shear)
- 3.8 Seismic Zones in India (Z)
- 3.9 Importance Factor (I)
- **3.10** Response Reduction Factor (R)
- **3.11** Design Acceleration Coefficient (sa/g)
- 3.12 Fundamental Natural Time Period

4. SEISMIC LOADING TO A GIVEN BUILDING

- 4.1 Static Earthquake Loading
- 4.2 Dynamic Earthquake Loading
- 4.3 Validation of Seismic Loading

5. STABILITY & DESIGN CHECKS

- 5.1 Loads & Load Combinations
- 5.2 Checking & Solving Story Drift
- 5.3 Checking & Solving Lateral Sway

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- 5.4 Checking & Solving Torsional Irregularity
- 5.4 Scaling Base Shear & Why?
- 6. CONNECTION DESIGN
- 6.1 Column to Column (Shear)
- 6.2 Column to Column (Moment)
- 6.3 Column to Brace (Shear)
- 7. DRAWING GENERATION
- 8. ASSIGNMENTS
- 9. TESTS