structedu
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