

## ***ADVANCED RCC STRUCTURAL DESIGN- 2*** ***- SEISMIC MANUAL, ETABS AND RCDC DESIGN AND DETAILING*** ***[AT006]***

### **SPECIALITIES IN THIS TRAINING**

- **SP INSTITUTE** Since 2011 owned by **SP STRUCTURES** (Civil & Structural Consultancy), Chennai.
- **SP INSTITUTE** Chief Executive  
Er.P.Sabarinathan (Trainer) Student of **Prof. A.R.Santhakumar IIT(M)**
- **Unlimited Period of Training**
- Experience Certificate
- **Govt. of INDIA New UDAYAM MSME Registration UDAYAM- TN-02-0027071**  
Certificate
- Placement reference for Students/Engineers
- **SP STRUCTURES** office environment exposure.

### **ETABS**

- Tips to Tricks on Seismic Analysis interpretation based on **SP STRUCTURES** office environment
- Understand the Seismic behaviour of RCC Elements and Structures as per IS 1893
- Modelling Tricks in Grid Floor Analysis and Design

### **RCDC**

- **SP STRUCTURES** office Design Assignments
- In the blink of eye Magical Experience will be shown
- Shortcuts in the Software

### **SOFTWARE LICENSES**

The Latest software owned by **SP INSTITUTE**

- **ETABS**
- **SAFE**
- **RCDC**



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### **MODE OF TRAINING**

- **At Respective Training Center (Offline)**



- **Online**



### **INSTRUCTIONS**

1. Students/ Engineers must bring their own laptop, pen drive mouse etc.,
2. The Internet Speed must be Good

### **SESSIONS**

#### **SEISMIC CALCULATION AS PER IS 1893 Part -1 2016 ON PRACTICAL PROBLEM**

- a. SEISMIC WEIGHT EXCLUSIVELY AS PER IS 1893
- b. SEISMIC ZONE CLASSIFICATION
- c. TIME PERIOD FOR DIFFERENT BUILDING AND ITS HEIGHT
- d. DESIGN BASE SHEAR
- e. DISTRIBUTION OF BASE SHEAR ON EACH FLOOR

#### **ETABS APPLICATION AS PER IS 1893**

- a. TAKE UP EXISTING NON SEISMIC MODEL (**PRACTICAL PROBLEM**)
- b. DIAPHRAGM ASSIGNMENTS
- c. SEISMIC LATERAL LOAD APPLICATION
- d. DESIGN BASE SHEAR COMPARISON ON MANUAL AND ETABS ASSIGNMENT
- e. DRIFT CHECK ON EACH STOREY
- f. BASE REACTIONS
- g. BEHAVIOUR OF STRUCTURE IN ANIMATED VIEW

#### **ETABS DYNAMIC ANALYSIS USING RESPONSE SPECTRUM METHOD (RSM)**

- a. DEFINE RSM FACTOR
- b. DEFINE LOAD CASES IN RSM



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- c. COMPARISON OF STATIC BASE SHEAR VB VS RSM BASE SHEAR
- d. BEHAVIOURIAL ANALYSIS AND ITS RESULTS DISCUSSION

#### **RCDC AS PER IS 456 AND IS 13920**

- a. PREPRATION OF PRACTICAL ETABS MODEL TO EXPORT RCDC
- b. RCDC DESIGN SETTINGS
- c. RCDC DETAILING SETTINGS
- d. DESIGN RESULTS INTERPRETATION
- e. REINFORCEMENT DETAILING ASSIGNMENTS
- f. EXPORT TO DXF FILE

#### **GRID FLOOR SYSTEM IN ETABS**

- a. MODELLING OF GRID FLOOR SYSTEM
- b. ANALYSIS OF GRID SYSTEM
- c. DESIGN OF GRID FLOOR SLAB SYSTEM