

# **Gujarat Technological University (GTU)**

School of Engineering and Technology (SET)

Department of Civil Engineering (Structural Engineering)

# One-day Workshop on Structural Evaluation Techniques

## **Morning Session:**

Non-Destructive Testing (NDT)

**Topic**: Rebound Hammer Test – Theory and Handson Practice

- Introduction to NDT and field applications
- Rebound Hammer methodology and IS code provisions
- Live demonstration on concrete elements
- Group-wise hands-on practice and data collection
- Estimation of compressive strength from rebound values
- Interactive discussion on results and surface behaviour

# **Afternoon Session:**

Nonlinear Static Pushover Analysis

**Topic**: Seismic Performance Evaluation of RC Frames using SAP2000

- In-depth theoretical session on pushover analysis
- Concepts: displacement control vs. force control, hinge formation, capacity spectrum
- Explanation of nonlinear modelling and nonlinear solver settings
- Hands-on demonstration in SAP2000 software
- Base shear vs. displacement interpretation
- Case study discussion and Q&A

**Date:** August 12, 2025 **Time:** 11:00 AM Onwards

Venue: Lab 330, Block No. 5, GTU-SET, Chandkheda Campus, Ahmedabad

#### • Deliverables:

- Hands-on demonstration of Rebound Hammer testing for structural health monitoring.
- In-depth lecture and SAP2000 demo on Nonlinear Static Pushover Analysis.
- Learn seismic performance evaluation and hinge interpretation techniques.
- E-Certificate of Participation for all attendees.

## **Contact for Queries:**

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# Organized under the guidance of:

Dr. J. A. Amin Professor & Head, School of Engineering and Technology, GTU

## **Student Coordinators - Training & Placement Cell:**

Parth Gediya | Aamirah shaikh | Ashish Rabadiya PG – Civil (Structural Engineering), GTU-SET

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