

## Report on Research Talk on “From Ground Motion Prediction Equations to Critical Orientation for Seismic Design – Exploring the linkages”

**Topic:** From Ground Motion Prediction Equations to Critical Orientation for Seismic Design – Exploring the linkages

**Date:** 25<sup>th</sup> Sept. 2023

**Time:** 01.00 PM - 03.00 PM

**Venue:** Classroom 204 GSET Academic Block – 5, GTU

### Event Summary

The expert gave basic knowledge about the use of IS 1893 for earthquake resistance design of buildings. Then he covered the following topics during the session as:

- 1) frequency curve, intensity of earthquake and its effect, types of motions and their effect during earthquake, types of waves, height of building vs time of response.
- 2) Effect of distance from epicenter and depth of hypocenter of earthquake.
- 3) Type of folds, fault lines and plates . Such as: Eurasian plate and Indian plate and their combination and effect on Himalayan ranges.
- 4) then he talked about his research topic “ ground motion prediction eqn”
- 5) difference betn normal approach and the eqn that he derived .
- 6) error of prediction and occurrence of failure was much less
- 7) steps to be followed after finalizing the construction site such as :identifying nearby fault lines and their return period .

The guidance on the topic was delivered by the expert Mr. Falak Vats, PhD Scholar, IIT Gandhinagar. During the session he has discussed about as:

The session was attended by 31 students of P.G. Civil (Structural Engineering) program. The event was coordinated by Prof. Mridul Seth under the guidance of Prof. (Dr.) J. A. Amin and the direction of Dr. S. D. Panchal, Director GTU GSET.

### Glimpses of Event

