

# Seismic Retrofitting of Multistorey Buildings using ETABS Software

Mr. Srihari Kadale<sup>1</sup> and Dr. B. H. Shinde<sup>2</sup>

P.G. Student, Department of Civil Engineering<sup>1</sup>

Assistant Professor, Department of Civil Engineering<sup>2</sup>

G. H. Rasoni University, Amravati, Maharashtra, India

**Abstract:** *The open ground building, which has only columns in the ground floor and both partitions and columns in the upper floors, as shown in the figure 1, has two clear characteristics. It is relatively flexible in a solid store, i.e. the relative horizontal movement it undergoes in the ground floor is much greater than that of each of the floors above it. This flexible ground floor is also called a soft floor. This document shows the floor displacement and the floor drift for models that have been modeled using ETABS software.*

**Keywords:** Retrofitting, seismic, ETABS & storey drift

## REFERENCES

- [1]. Chandurkar P. P, Dr. Pajgade P. S. (2013). "Seismic Analysis of RCC Building with and Without Shear Wall.", International Journal of Modern Engineering Research (IJMER) (2249-6645).
- [2]. Chavan Krishnaraj R. ,Jadhav H.S. (2014). "Seismic Response of RC Building With Different Arrangement of Steel Bracing System.", International Journal of engineering Research and Applications (2248-9622).
- [3]. Esmaili O. et al. (2008). "Study of Structural RC Shear Wall System in a 56- Storey RC Tall Building.", The 14th World Conference on Earthquake Engineering October 12-17, 2008 , Beijing, China.
- [4]. Akbari R.et al. (2014). "Seismic Fragility Assessment of Steel X-Braced and Chevron- Braced RC Frames.", Asian Journal of Civil Engineering (BHRC), VOL- 16 No.1 .
- [5]. Kappos Andreas J., Manafpour Alireza (2000). "Seismic Design of R/C Buildings with the aid of advanced analytical techniques." Engineering Structures 23 (2001) 319-332.
- [6]. Yamada M. et al. " Multistorey Bracing Systems of Reinforced Concrete and Steel – Rigid Frames Subjected To Horizontal Loads- Proposition of Total Evaluation on the Aseismic Capacity for Design."
- [7]. Viswanath K.G. et al.(2010). "Seismic Analysis of Steel Braced Reinforced Concrete Frames." International Journal of Civil & Structural Engineering (0976-4399).
- [8]. A.E Hassaball, "Seismic analysis of a RC building by RSM", IOSR journal of engineering, volume 3, Issue 9, ISSN:2250-3021, September 2013.
- [9]. Sagar R. Padol, "Review paper on seismic response of multistoried RCC building with mass irregularity" International journal of research in engineering and technology. ISSN: 2321-7308.
- [10]. Girum mindaye, "Seismic analysis of multistory RC frame building in different seismic zone", International Journal of Innovative Research in Science, Engineering and Technology, vol.-05, issue-09, sep.2016.
- [11]. Patil A.S, Kumbhar P.D, "Time history analysis of multistoried RRC building for different seismic intensities", International Journal of Structural and Civil Engineering Research, vol.-02, issue-03, Aug 2013.
- [12]. Bhagwat Mayuri D, "Comparative study of Performance of multistoried building for Koyna and Bhuj earthquake by THM and RSM", International Journal of Advanced Technology in Engineering and Science, vol.no.-02, issue- 07, ISSN:2348-7550, July 2014.
- [13]. Dubey S.K, Sangamnerka Prakash, Agrawal Ankit, "Dynamic analysis of structures subjected to earthquake load", International Journal of Advance Engineering and Research Development, vol.-02, issue-09, ISSN:2348-4470, Sep.2015.
- [14]. Rampure Aarti baburao, "Comparison between Response Spectrum Method and Time History Method of dynamic analysis of concrete gravity dam", Open Journal of Civil Engineering, June 2016.