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An Investigation on Seismic Analysis of High-Rise Building with and Without Floating Columns and Strut

Ms. Aishwarya Rajput[1] and Prof. Vishal Sapate[2]
PG Scholar, Department of Civil Engineering[1]
Assistant Professor, Department of Civil Engineering[2]
G H Raisoni University, Amravati, Anjangaon Bari Road, Amravati

Abstract: *Recently, multi-storey buildings in urban areas should have free space due to lack of space, population, as well as aesthetic and functional requirements. For these buildings there are floating columns in one or more floors. These floating columns are very unprofitable in a building built in seismically active areas. Earthquake forces developing at different floor levels in the building must be transferred to the ground in the shortest way. Deviation or rupture of this load transfer path leads to low productivity of the building. This work consists of an investigation into the seismic analysis of high-rise construction with and without floating columns. The results obtained in terms of maximum horizontal (X) displacement are observed for the model - 9, which has a value of 47.8 mm. The maximum displacement of the result is observed for the model - 1, which has a value of 49.7 mm. The maximum horizontal reaction (Fx) is observed for model-10, which has a value of 62.5 kN.*

Keywords: Base Shear, Equivalent static method, Response spectrum method, Storey Shear

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