

Review Paper Seismic Analysis of High - Rise Building by Response Spectrum Method

Mr. Kiran Chikane¹, Mr. Manoj Kale², Ms. Suchita Katkar³,
Ms. Sameena Mulani⁴, Dr. P. R. Bamane⁵

B.Tech Students, Department of Civil Engineering^{1,2,3,4}

Associate Professor, Department of Civil Engineering⁵

Arvind Gavali College of Engineering, Satara, Maharashtra, India

prashant.bamane@agce.edu.in

Abstract: Reinforced Concrete Frames are the most commonly adopted buildings construction practices in India. With growing economy, urbanization and unavailability of horizontal space increasing cost of land and need for agricultural land, high-rise sprawling structures have become highly preferable in Indian buildings scenario, especially in urban. With high-rise structures, not only the building has to take up gravity loads, but as well as lateral forces. Many important Indian cities fall under high risk seismic zones, hence strengthening of buildings for lateral forces is a prerequisite. In this study the aim is to analyze the response of a high-rise structure to ground motion using Response Spectrum Analysis. Different models, that is, bare frame, brace frame and shear wall frame are considered in Staad-Pro. and change in the time period, stiffness, base shear, storey drifts and top-storey deflection of the building is observed and compared.

Keywords: Reinforced Concrete Frames

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