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Performance-Based Seismic Analysis of Slab Variants in RCC Frames

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Abstract: *This research paper investigates the Flat slabs are commonly used in buildings requiring flexible layouts, such as offices, residential complexes, and parking structures, due to efficient load distribution. According to IS standards, the current study compares and analyses eight-story structures for regular, plan irregular, and vertical irregular structures for conventional slabs with gravity load and lateral stress circumstances. The structures are analyses by using Etabs Software. "Linear static analysis was carried out on regular, plan-irregular, and vertically irregular building designs integrating both standard slab systems and flat slabs with drop panels in compliance with IS 1893 (Part 1):2016. In order to evaluate the structural behavior of each slab system, the study compares seismic performance based on critical response parameters, such as storey drift, storey shear, storey stiffness, and lateral displacement.*

Keywords: Plan Irregularity, vertical irregularity, Linear Static Analysis, Etabs

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