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"ANALYSIS AND DESIGN OF MULTI-STOREYED BUILDING USING STAAD PRO"

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ABSTRACT

High Rise Building have to be designed with more flexibility. There is more chance of external excitation as these Structures are Vulnerable to Earthquake and wind. To protect these structures from such structural damages, seismic response factor is analyzed and the building is designed according to the results obtained. STAAD-Pro analysis is used. Limit State Design conforming to IS Code of Practice is adopted for design. The Primary Objective of this work is to create a structure that is earthquake resistant, using STAAD-PRO analysis. Also designing the components of the structure manually & Using excel program for the results obtained from STAAD. For this purpose 4 Storey commercial building is considered. It Consists of two basements, Ground Floor and First Floor. Seismic calculations are conducted for Earthquake zone 3. considering Response Reduction Factor as 3, for OMRF and importance factor as 1. Load considered for earthquake is $1 \text{ DL} + 0.25 \text{ LL}$.

KEYWORDS: STAAD-Pro., Limit state Method, Raft foundation, Isolated footing, Combined footing.