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Analysis and design of a multi-storey building by using staad pro: A review

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Abstract:

A review of the analysis and design of a multi-storey building with STAAD Pro is carried out. Planning is done by using AutoCAD and load calculations were done manually and then the structure was analysed using STAAD Pro. The dead load, imposed load and wind load with load combination are calculated and applied to the structure. Overall, the concepts and procedures of designing the essential components of a multistory building are described. STAAD Pro software also gives a detailed value of shear force, bending moment and torsion of each element of the structure which is within IS code limits. This review paper provides an in-depth analysis of the use of STAAD Pro software for the analysis and design of multi-storey buildings. STAAD Pro is a widely used structural analysis and design software that offers powerful capabilities for modeling complex structures, applying various loading conditions, and performing structural analysis and design according to international codes and standards. This paper reviews existing literature, methodologies, and case studies related to the application of STAAD Pro in the analysis and design of multi-storey buildings, highlighting its features, advantages, limitations, and best practices. The findings contribute to advancing knowledge and understanding of utilizing STAAD Pro for efficient and reliable structural engineering solutions in multi-storey building projects.

Key words:

Load Combination, Multi-Storeyed Building, Analysis, Design, STAAD Pro