

Design and Analysis of G+6 Building

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Abstract: *This project involves the design, modelling, and construction of a G+6 (Ground plus 6 floors) building using Building Information Modelling (BIM) technology. BIM is utilized to enhance the coordination, collaboration, and efficiency throughout the project lifecycle, from conceptual design through to construction and facility management. The building consists of mixed-use space, including residential and commercial units, and is designed with sustainability in mind. The use of BIM software, such as Autodesk Revit and Navisworks, allows for the integration of architectural, structural, and MEP (Mechanical, Electrical, Plumbing) systems into a single digital model. This facilitates real-time visualization, clash detection, and optimization of designs, leading to reduced errors and project delays. Additionally, the BIM model aids in generating accurate quantity take-offs, cost estimation, and scheduling through the use of tools like Autodesk Navisworks and BIM 360. The project aims to streamline the construction process by improving communication among stakeholders, reducing waste, and ensuring better resource management. With BIM, all project teams—architects, engineers, contractors, and owners—can collaborate efficiently, providing a more integrated and data-driven approach to building design and construction. The G+6 building project represents a significant step towards the adoption of BIM in modern construction, demonstrating how digital tools can create more sustainable, cost-effective, and high-quality structures.*

Keywords: BIM, Software, Design, Modern Construction, Digital Tools

