

Designing Green Building: Sculpture a Sustainable Future for Our Cities

Prof. J. S. Kadagoankar, Pritee Subhash Tate, Rutuja Kisan Saste, Priyanka Nivrutti Pawar

Civil JSPM's Imperial College of Engineering & Research, Wagholi, Pune, Maharashtra India.

BE Civil JSPM's Imperial College of Engineering & Research, Wagholi, Pune, Maharashtra India

Abstract: *CAD and Revit are crucial in India's construction and design industries for enhancing efficiency, accuracy, and collaboration. CAD software, like AutoCAD, facilitates the creation of detailed 2D and 3D drawings, while Revit is a BIM (Building Information Modeling) tool that enables integrated design and documentation.*

The procedure involves using CAD software for initial design and drafting, creating 2D drawings and schematics, while Revit is utilized for Building Information Modeling (BIM), developing detailed 3D models, analyzing energy efficiency, and simulating building performance to optimize green building design and sustainability features.

The integration of CAD and Revit in green building design enables significant improvements in accuracy and efficiency. CAD software allows for precise 2D drafting, creating detailed drawings and schematics that serve as a foundation for the design. This accuracy ensures that all elements of the building are well-planned, reducing errors and enhancing the overall quality of the project.

Revit's Building Information Modeling (BIM) capabilities further enhance green building design by facilitating detailed 3D modeling and analysis. With Revit, designers can simulate building performance, analyze energy consumption, and optimize sustainability features such as natural lighting and ventilation.

The combination of CAD and Revit ultimately leads to better-designed green buildings that minimize environmental impact while maximizing occupant comfort and efficiency.

Keywords: auto-cad, revit, green building, 2D drafting, 3D modeling

