



Building Information Modeling (BIM) Concepts & Revit Architecture

Course Description

This course provides a complete understanding of Building Information Modeling (BIM) concepts along with practical implementation using Autodesk Revit Architecture. Participants will gain knowledge of BIM fundamentals, its role in Industry 4.0 and digital transformation in the construction industry, and practical skills in Revit for architectural modeling, documentation, collaboration, and visualization.

Audience Profile

- Architecture and Civil Engineering students
- Construction professionals and project managers
- BIM coordinators and modelers
- Architects, engineers, and consultants adopting BIM workflows
- Professionals seeking to upgrade from 2D CAD to BIM-based processes

Prerequisite

- Basic knowledge of construction/architectural drawings
- Familiarity with CAD software (AutoCAD preferred)
- Fundamental understanding of building design concepts

Course Objectives

- Understand the role of BIM in Industry 4.0 and digital construction
- Learn BIM dimensions, maturity levels, lifecycle, and LOD standards
- Gain proficiency in Revit Architecture for modeling, detailing, and documentation
- Apply collaboration strategies using Common Data Environment (CDE)
- Develop skills for rendering, scheduling, and managing BIM-based projects

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- 1.7 BIM Maturity Levels
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- 1.9 Lifecycle of BIM
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Module 2: Revit Architecture Fundamentals

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- 2.3 Project Units
- 2.4 Levels: Adding, Modifying, Constraining & Level Head Creation
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- 5.3 Solid Forms: Extrude, Blend, Sweep, Revolve, Swept Blend
- 5.4 Void Forms & Applications
- 5.5 Parametric Modelling with Constraints
- 5.6 Massing & Conceptual Design
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Module 6: Site & Visualization Tools

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- 6.4 Sun Path & Solar Study
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Module 7: Project Documentation & Collaboration

- 7.1 Sheet Creation & View Management in Sheets
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