

Building Information Modeling



BIM – Need of an hour

Project Managers are liable to handle frequent changes in the project scope. Success lies on how best they handle these changes & resolve process clashes. Undoubtedly BIM brings a complete transformation by helping a project move from the design desks to physical reality. It brings operational efficiency by helping prune redundant data, erase communication lag, maintain updated information, improve coordination. In a complex project, BIM is a must.



Building Information Modeling

Revit Architecture	40 hrs
Revit Structure	15 hrs
Revit MEP	15 hrs
MS Project	25 hrs
BIM using Neviswork	15 hrs
BIM for Construction Management	110 hrs



Weekly batches in Pune

Monday to Friday

2 hrs a day

Weekend batch - Sunday

6 hrs a day

Batch timings are flexible as per the availability of trainer / learners.

BIM in the construction industry

With the construction industry being forecast to continually grow over the coming years, BIM has become a vital process which brings together information about every component of a built asset. BIM creates an environment which monitors the construction supply chain to identify opportunities to improve efficiencies. BIM Certification will represent a construction business' ability to replicate the entire life cycle of a built asset through 4D modeling and digital data collection, enabling real time decisions to be made, improving accuracy and saving time and money.

What is Building Information Modelling (BIM)?

Building Information Modeling uses electronic and digital information to manage the process of designing, constructing and operating a built asset. Instead of using paperwork, the BIM process prioritizes the collection and sharing of digital information, which can be used and re-used by an architect, contractor, civil engineer, facilities manager or asset owner. Infrastructure data becomes more accessible and much more accurate.

BIM is a reliable process of building information concerning energy, sustainability and security objects and systems. This data is available in real time and allows individuals to make instant decisions backed by reliable intelligence. The model itself is dimensionally accurate and means that information about a built asset is correct at every stage of the lifecycle.

Benefits of BIM

- Improves productivity and reduces cost
- Decreases reworks
- Enhances customer satisfaction
- Enables easy conflict resolutions
- Helps schedule the construction process
- Allows improved coordination & better management
- Gives visual access to building information
- Gives complete project snapshot
- Repair, renovation and refurbishment becomes easy
- Supports detailed documentation
- BIM can be leveraged for sustainability



GET A CAP OF BIM MODELLER / ANYLYST

Who shall do this course?

The course is suited for all members of the Architecture, Engineering, Construction, Asset Management, Interior designers and Property Development Industry. Basic understanding of project planning, execution and MEP work is necessary for more benefit and quicker learning.

What are the job opportunities?

Individual certification in Revit Architecture / Structure / MEP will open the door of Revit analyst, MEP analysts while full course of BIM helps open door of BIM Modeler, BIM Expert and BIM Analyst.

Is there any placement support?

Yes, infini's student gets placement support after completion of this course. Though the guarantee is not taken to place you, few contacts of job opportunities are definitely shared with you. You can then approach to those companies on your own.

Why should you learn?

BIM is more than just working in a 3D environment. The benefits of BIM can be seen heavily in the operational phase of assets and it is the aim of the course to ensure delegates build their knowledge in regard to all stages of a project. An understanding of BIM can drive greater efficiencies during the design, construction and operation phase is critical to BIM and these notions and ideas. The course will also introduce the relevant technologies that enable and support BIM and how these can be utilized on a project.

How should you learn?

For entire BIM course, one has to undergo all modules of Revit -Architecture, Structure & MEP; MS Project and Neviswork. Concepts of estimate and project budgeting are made clear in training of Revit modules while principles of planning are cleared in MS Project. The course gives you solid and thorough training on Navisworks, it helps professionals to gain control over project outcomes. Integrate, share, and review models and multi-format data.

What are the course objectives?

To prepare a learner to collaborate building design i.e. applications of 3D CAD (for Drawing & visualization), Excel (for basic Estimation), Neviswork (for Planning) and Revit Architecture for estimation and preparing BIM execution plan (BEP). After completion of program, learner can design and build in a virtual environment prior to starting construction, which helps to improve collaboration, increase building quality, and enhance the schedule while lessening opportunities for errors, resolving conflicts of various services.



What is the course syllabus ?

Revit Architecture

- What is the course syllabus?
- Overview of the Revit interface
General drawing tools
AutoCAD file import
- Unit setting, levels and grids
- Working with a project
- Navigation between Views
- Drawing and modifying Walls
- Plastering , Skirting and Dado
- Wall sweep and wall revel
- Working with Curtain wall
- Adding, loading & creating Doors and Windows, Wall opening
- Drawing and modifying structural element-
Footing, Column, Beam, Slab
Creating Floors & Roof
- Site Design & modifying Toposurfaces
- Structural Tools- framing plans and elevations
- Creating building sections
- Cleaning up Wall and Roof intersections
- Creating Stairs, Ramps, Lifts, Railings
- Adding furniture and fixtures to a project
- Creating interior elevations
- Managing Views
- Annotating construction documents
- Adding tags and working with schedules
- Massing studies
- Create Family using Forms
- Working with schedules
- Working in Workset for team collaboration

- Using links and groups
- Sheet composition
- Advanced modeling tools, annotating and view setup
- Space planning & area analysis
- Visualization, perspectives & creating Walkthroughs
Creating custom templates
- Custom Walls, Roofs, & sections
- Creating specific Families
- BIM management

Revit Structure

- Introduction to the Autodesk Revit software
- Basic drawing and editing tools
- Setting up levels and grids
- Working with views
- Starting a structural project based on a linked architectural model
- Adding structural columns and walls
- Adding foundations and structural slabs
- Structural reinforcement
- Beams, trusses, and framing systems
- Construction documents
- Annotating construction documents
- Detailing
- Scheduling
- Project Team Collaboration

Revit MEP

- Working with the Autodesk Revit software
- Inserting and connecting MEP components
- Using the System Browser
- Working with linked architectural files
- Creating spaces and zones for analyzing heating and cooling loads
- Creating HVAC networks with air terminals, mechanical equipment, ducts, and pipes
- Creating plumbing networks
- Creating electrical circuits
- Creating HVAC and plumbing systems
- Testing duct, piping and electrical systems
- Creating and annotating construction documents
- Adding tags and creating schedules
- Detailing in the Autodesk Revit software

MS Project

- Projects: in the beginning
- Planning a project
- Getting to know Microsoft project
- Creating a simple project
- Setting up a project file
- Identifying the work to be done
- Building a schedule
- Building a team for project
- Assigning resources to tasks
- Setting up a project budget
- Reviewing and fine-tuning project plan
- Saving the project plan
- Tracking status & updating

BIM using Neviswork

- Exporting Revit
- Appending and merging files
- The Navisworks interface
- Overriding & finding items
- Creating Sets
- Creating, Importing construction schedules
- Timeliner
- Using clash detective
- Batch
- Rules
- Select
- Results
- Reports

Tutors

B T Ade

M. E. (CM), PMP®, Microsoft Certified Professional, having 17 years experience in project planning, execution & management using software.



Nikhil Agrawal

M. E. (Structures), B. E. Civil with 11 years of professional experience in Design & detailing, Planning and Estimation, Software training. Working as Manager at Rohan Builders. Proprietor - Neev Designers.



What are the learning outcomes?

Upon completion of course, one can

- Prepare 3D and 4D models
- Audit, check and review models
- Manage teams and projects
- Prepare BIM Execution Plan (BEP)
- Design project model
- Space planning & area analysis
- Prepare perspectives
- Create walkthroughs
- Construction scheduling
- Site utilization planning
- Detect internal and external clashes
- Identify time based clashes
- Cost estimation



What is the learning method / pedagogy?: All the fundamentals are taught from the point of view of their practical applications on field. Actual drawings are shared with you to study and learn skills of taking-off quantity & preparing estimates and budgets. Basic concepts of project planning are made clear. Visualization and logical thinking skills are developed possibly through site visit. Assignments are given for study and confirmation of actual learning.

How does assessment take place?: After completion of major learning / topic, there is an assignment to judge your level of understanding of that particular chapter. Overall there can be 8-10 assignments. Your performance is tracked and finally converted into 'Grade' which is reflected on the certificate.

A+: Excellent; A : Very good; B : Good; C: Satisfactory

How to pass and avail certificate?: You need to attend all sessions, complete all assignments, appear for an external viva and pay all fees to be eligible for this certificate.

What are the requirements / pre requisite to undergo this training?

You need to be a positive learner. You shall bring a scientific calculator, a measuring tape and laptop every day. Assignments shall be completed and submitted on time. 100% attendance is compulsory and generally, deliveries are not repeated.

Language of instruction: English (mostly) and Marathi or Hindi (if necessary)

Extra support / benefit: Infini's student gets 3 months extra online support (via phone / mail) after completion of the program to resolve basic issues being faced by the learner on site. 10% discount on fees is available to all Infini's students for registering to 2nd or subsequent programs.

Cash reward / concession in fees after you recommend a good candidate to our course and if he/she registers for the program with Infini.

Guarantee: Infini takes guarantee to imbibe necessary technical, applied and software skills into you to make you more efficient and deserving to handle responsibilities of the respective positions leading to increments and promotions.

Why choose us?



by EAL, UK

We build trust at infini. Along with quality delivery, at infini you are ensured to get



Right
Approach



Right
Curriculum



Right
Trainer



Right Study
Environment



Right Skills
Development

About Infini:

Infini Institute is a companionship of Civil Engineers formed with a motto of imparting value added competency enhancement trainings to the construction personnel, students and faculties at all levels to transform them into professionals. We are EAL, UK recognized center, 1st such center in India.

Our services :

* Short term training programs are -

- QS, Estimation & Billing
- Project Estimation & Planning
- Project planning & scheduling using MS Project / Primavera
- Project Management using MS Project / Primavera
- Building Information Modeling (BIM)
- Revit Architecture, Structural and MEP
- PMP and CAPM certification preparations

* 1 Yr Full time PG program in Construction Project Management (International Certification)

- * Employability Skills testing for institutes and corporate
- * MDPs and FDPs (tailor made)
- * Consultancy in Project Management

infini institute of program management

Address : Shri Shivaji Maratha Campus, 3rd Floor, IMR building,
S. No. 74/1A/1B, Aranyeshwar, (Near Parvati) Pune- 411009



**infini Institute of
Program Management**
Recognised centre of EAL, UK

M +91 94230 03268, +91 77200 75764; **P** +91 20 6532 6535
W www.infinisolutions.in; **E** training.civil@infinisolutions.in; **F** infinisolutionspune