



**Advanced Certification Program in** 

BUILDING
INFORMATION
MODELING







### WHY THIS PROGRAM?

- The Program Equips Students With The Skills And Attributes Required To Be Effective Civil Engineers And Aec Industry.
- Extensive Knowledge In The Field Of Bim Management And AEC Industry Which Is The Need Of Any Construction Company.
- It Makes The Graduates Ready To Develop Applications, Take Appropriate Decisions, And Expand Their Business To Compete With The Existing And Prospective Rivals With The Knowledge Acquired During The Course Period







### WHY THIS PROGRAM?

- LIVE 1 on 1 Training and Doubt solving
- A to Z Program LIVE
- Trainers are having total 10 years experience in India and Europe
- Lowest Price and Placement linked
- Revit, Naviswork, Dynamo and other softwares
- Both offline and Online available
- Recognized certificate and refferals











## COURSE REQUIREMENTS

- Zero to basics knowledge of BIM & AEC industry
- A computer machine with 100 GB free space, 4GB and above, at least 2GB graphics card
- A good internet
- "Learning Will"





# PROGRAM CONTENT







- BIM terminologies & definitions (Theoretical Approach)
- Revit Architecture, Structure & Coordination (Basics to Advanced)
- CAD (Essential training) for CAD to BIM
- Navisworks (Essential training)
- Assignments & project-based





#### **DETAILED COURSE OVERVIEW**

#### **CONCEPT OF BIM - Theoretical (1W-10Days)**

- BIM: What, Why & Where?
- BIM Dimensions
- Over the wall syndrome
- Project lifecycle
- Advantages & Disadvantages

- Collaborations & IPD
- LOD & LOI
- Learn BIM
- Interoperability

#### SOFTWARE TRAINING

#### **AUTODESK REVIT**

- Revit: What, Why, Where?
- Interface
- File Extensions
- Creating new project
- Understanding grids, levels, section, elevations, views massing & site tab
- Covering Revit basic tools
- Assignment for practice 01

- Architecture Tab
- Structure Tab
- Modify Tab
- Assignment for Practice 02
- Manage Tab
- View Tab
- Annotate Tab
- Assignment for practice 03









#### REVIT ADVANCED

- Parameters & Parametric
- Wall assembly & layers
- Filling parameters
- Sheets & Schedules
- Title block

- Visibility graphics
- Overrides
- Sweeps & reveal profile
- Steel detailing



#### THEORY CLASS

- Sheet creation & review placement
- Assignment for practice 04

#### **CAD TO BIM**

- Understanding CAD & layers in AutoCAD
- Why CAD id obsolete?
- Linking & importing with base points
- Working of CAD in Revit
- Creating BIM model G+2 in Revit using Linked CAD Files
- Assignment for practice 05

# BIM MODELLING METHODOLOGIES IN AN ORGANIZATION: HOW?

- CAD to BIM, Scan to BIM, IFC to BIM, PDF to BIM (Basic working process)
- BIM standards & codes
- How to increase pace in Revit projects?





#### REVIT ARCHITECTURE

- Introduction to REVIT
- Creating Walls
- Creation Floors & Ceilings
- Placing Doors, Windows & Furniture
- Railing, Ramp & Stairs
- Modeling of Roofs
- Camera, Render, walkthrough
- View Setup

#### **REVIT STRUCTURE & MEP**

- Drawing and Modifying Structural Elements
- Structural Walls & Columns
- Foundations
- Beams
- Floors
- Framing
- Slabs

#### **ADDITIONAL PLUG-IN**

- Dynamo (User Interface, Basis)
- NavisWorks

- Working On Sheets
- Working on annotations on Sheets
- Annotation of the Documents
- Schedule
- Project Collaboration
- Components Creation Using Model In Place
- Parametric Family Modeling
- Vertical Circulation
- Truss, Bracing, and Steel Connection
- Structural Reinforcement
- Preparing Project for Structural Analysis
- Robo Structural Analysis
- MEP (Energy analysis, HVAC Design, Plumbing)
- Design)









#### RENDERING

- Concept of rendering
- Placing camera and creating view in Revit
- Workaround with Revit graphics & exporting options

- Rendering views
- "Enscape" for real-time rendering & walkthrough



#### **NAVISWORKS**

- Coordination & Collaboration
- What is clash?
- Interdisciplinary model / Master Model
- Navisworks: What, Why?
- Linking a BIM model selection tree

- Timeliner
- Clash Detection
- Extracting Clash report
- Removing clash in Revit using
- Clash report
- Clash less model





#### MIXED LEARNINGS / EXPLAINING CONCEPTS

- Stages of BIM modeling
- Types of drawings
- Scan to BIM
- IFC
- Level of information needed

- Hierarchy in an organization
- Communication with managers
- Process of working in a BIM service providing firm

#### PROJECT PHASE / ASSIGNMENT CUM INTERNSHIP

- CAD to BIM project
  - Residential project
- Commercial / Institutional project
- Structural / Infrastructure project
- Markup / Redevelopment Project

- IFC to BIM
- Residential Commercial project







#### **CAREERS / PORTFOLIOS**

- Jobs and Interview in Partner companies
- Job hunting approach
- Help in portfolio creation
- Further study plan
- Salary & Roadmap for future
- Career
- Designations
- Long tern growth & scope





# PROGRAM OUTCOME







- WILL MAKE STUDENTS SKILLED AND JOB-READY BASICS TO ADVANCED
- KNOWLEDGE ABOUT REVIT ARCHITECTURE AND STRUCTURE
- HANDS-ON TRAINING IN NAVISWORKS AND CAD RECIEVE A CERTIFICATE





# SCHEDULE

- **DURATION 4 MONTHS**
- 1-2 HOURS DAILY/5 DAYS A WEEK
- CLASS TIME AFTER 8 PM IST





# Protrainy recognized by -



































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