

# **BIM MANAGEMENT**



# **INTRODUCTION**

we are designer engineer architecture planner technical specialists and trainer. we operate in the innovation and revolutionary changing field of designer and engineering construction installation and infrastructure educational services rank top in relate with civil/structure/infrastructure



Our corporate training program and engineering educational services ranked top in INDIA and all over the world by most recognized organizations. We provide courses relate with civil/structural/infrastructure engineering.

# **ABOUT PROGRAM**

### **BIM Modeling & Coordination**

PG Program in BIM Modeling & Coordination is a comprehensive training program which enable you to carrier in different technical positions due to technical advancement in design and engineering worldwide professional qualification are not satisfying current MNC company job demand so structurex department of corporate training design this course for professional, fresh Graduate and Technical

Specialist. Real challenge for Engineers and technical specialist are increasing day by day due to project complexity and environment factor by adapting data driven technology this course enable you to accept that challenges

## **Project Management**

Construction project management involves directing and organizing each part of the project life cycle, from ideation to completion. It's a holistic practice with the goal of delivering projects on time and under budget.

Construction project management is a complex discipline that requires addressing many important concerns, including cost control, scheduling, procurement, and risk assessment. Project managers interact with all team members involved in a construction project, from architects to owners to contractors.

Bridge Information Modelling (BIM) is the holistic process of creating and managing information for a built asset. Based on an intelligent model and enabled by a cloud platform, BRIM integrates structured, multi-disciplinary data to produce a digital representation of an asset across its life cycle, from planning and design to construction and operations.

### **PROGRAM PROCESS & OUTLINE**

*STRUCTUREX Pvt. Ltd.* Online program learning providing best project based and career oriented training to fresher and experienced engineer. We focus on core and latest technological approach to provide best career oriented training. Quality management and critical engineering is our backbone. Fresh collage graduate have a great opportunity to start career and get placed in their desire company, With our PGD, MASTER and SKILL Certification Program.



Interview and offer letter



Personal coaching



Group formation



Live session E-Learning



**Technical setup** 



Conceptual and theory



National & International conferences



Software and tools traning



Technical Workshop



Live Projects



**Assesment** 



Certification

# A COMPLETE PROGRAM



# LIVE PROJECT UNDER PROGRAM

### **BUILDING STRUCTURE**





**Airport Terminal** 



**Industrial Steel Structure** 



**Bridge Structure (Only in 4D-5D)** 



# Master 10+ Software and Tool

- Master 10 Software and Tool
- 10+ Live Project
- 200+ hr. of Learning
- 100% Live Session
- Access of Learning Portal for revision



### Module: 01 BIM Research

Module: 01 Research and 3D Modeling Duration:60 hr.

1.1 BIM Research and Study: BIM in AEC industry is new era data driven technology.

#### Steps involved

**Plan:** Inform project planning by combining reality capture and real-world data to generate context models of the existing built and natural environment.



**Design:** During this phase, conceptual design, analysis, detailing and documentation are performed. The preconstruction process begins using BIM data to inform scheduling and logistics.

**Build:** During this phase, fabrication begins using BIM specifications. Project construction logistics are shared with trades and contractors to ensure optimum timing and efficiency.

**Operate:** BIM data carries over to operations and maintenance of finished assets. BIM data can be used down the road for cost-effective renovation or efficient deconstruction too.





Module :02 Autodesk Revit - Architecture

#### Modelling 1.2 BIM: Autodesk Revit

#### **Architecture Data:**

Design to documentation: Place walls, doors, and windows. Generate floor plans, elevations, sections schedules, 2D and 3D views, and renderings quickly and accurately.

#### **Analysis:**

Optimize building performance in early-stage design, run cost estimates, and monitor performance over the lifetime of the project and the building.

#### Visualization:

Generate photorealistic renderings. Create documentation with cutaways, 3D views, and stereo panoramas to extend your design to virtual reality.

#### **Coordination and collaboration:**

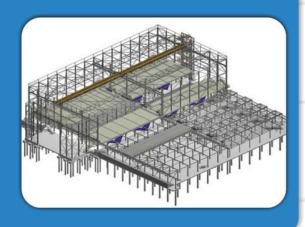
Share, sync, and iterate designs with engineers and contractors in Revit in a unified project environment.

### **Module: 03 Autodesk Revit-Structure**

**Module: 03 Structural Modelling** 

#### **Structure Data**

Concrete reinforcement: Model 3D concrete reinforcement in an advanced BIM environment. Create detailed reinforcement designs and shop drawing documentation with rebar bending schedules.



**Design to detail work flows:** Connect steel design and detailing workflow. Define design intent for a higher level of detail for steel connections in the Revit model.

**Documentation**: Create more accurate, detailed documentation of steel and concrete designs.

**Analysis:** Conduct structural analysis and export to analysis and design applications with the analytical model while you create the physical model in Revit.

### Module: 04 Autodesk Revit-MEP

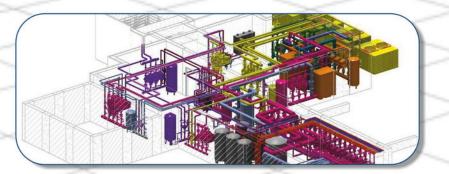
**Integrated design:** Streamline the engineering design process with Revit. Coordinate and communicate design intent in a single model before construction begins.

**Analysis:** Conduct simulations and interference detection early in the design process. Use conceptual energy analysis data for engineering-driven calculations.

**Documentation:** Design, model, and document building systems in the context of a full building information model, including architectural and structural components.

**Fabrication:** Model for MEP fabrication with tools that automate the fabrication model layout. Prepare a model for detailed coordination of fabrication and installation.

#### **Construction Data**



MEP Modeling & Construction Data

**Module: 05 BIM Analysis** 

### **BIM Analysis:**

To optimize structure we need BIM analysis

Software: REVIT and RWIND

#### **SOFTWARE: REVIT and RWIND**

Heat Analysis: With energy optimization techniques, you can analyse your Revit model as you work on the design. The earlier you use optimization techniques,

the more impact you can have on the overall energy performance. Use the analysis tools throughout the design process to refine the building design and make decisions about energy performance.

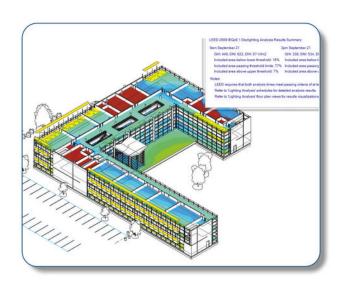
**Solar Analysis:** Solar Analysis provides in context solar radiation analysis results to help you track solar energy throughout your design. The tool provides automated settings for specific study types, as well as customizable options. Solar analysis uses surfaces on the model. A surface can be created from standard architectural elements (walls, roofs, floors, and ceilings) or conceptual masses. Detailed geometry element types are not supported, including many family types grouped objects, components, linked objects, imported surface geometry, and energy analysis model surfaces. Results for these geometry types will often lead to inaccurate results that are close to zero.

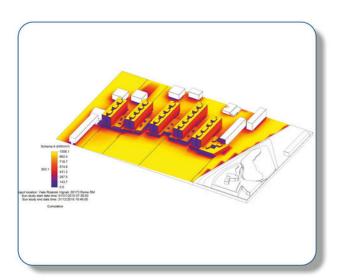
**Load Analysis:** Gravity and lateral systems, Structural steel and reinforced concrete systems, Logical separations in structure, Evaluations of specific elements, Phased construction and design options.

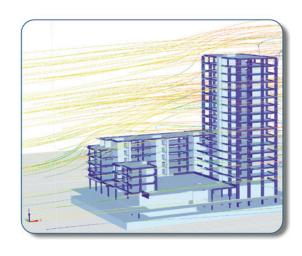
#### Wind Simulation /CFD: DUBAL RWIND

Performing wind simulation (wind tunnel test )









### Module: 06 BIM 4D-54

### Modelling: 06 BIM 4D-54

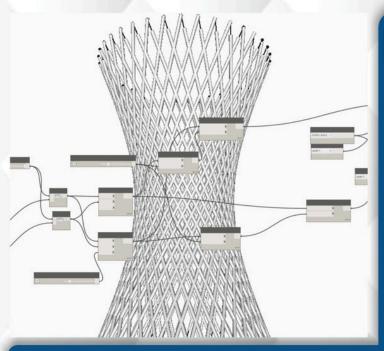
1.1 BIM Simulation: Autodesk Navisworks

Simulating the progress of the construction activity helps the construction team visualize logistical issues or inefficiencies



The virtual simulation exposes details such as out-of-sequence work, scheduling conflicts between multiple trades, 'what if' scenarios, and macro-level construction phasing strategies all in order to achieve the optimization of the construction schedule.

- **1.2 4D Simulation :** Real timeline of project and clash detection
- 1.3 5D Cost Timeline of project (Costing)
- 1.4 6D Project life cycle information



**Module: 07 Visual Programing** 

Software: DYNAMO

**1.1 Visual Programing:** Establishing visual, systemic, and geometric relationships between the different parts of a drawing is key to the design process. Workflows influence these relationships from the concept stage to final design. Similarly, programming allows us to establish a workflow, but through formalizing algorithms.

**1.2 Revit and Dynamo:** Using Dynamo, you can work with enhanced BIM capabilities in Revit. Dynamo and

ther can be utilizRevit togeed to model and analyze complex geometries, automate repetitive processes, minimize human error, and export data to Excel files and other file-types not typically supported by Revit. Dynamo can make the design process more efficient, with an intuitive interface and many pre-made scripting libraries available as well.

# **Module:07 Project Management**

# Construction Project Management

Construction project management involves directing and organizing each part of the project life cycle, from ideation to completion. It's a holistic practice with the goal of delivering projects on time and under budget. Construction project management is a complex discipline that requires addressing many important concerns, including cost control, scheduling, procurement, and risk assessment. Project managers interact with all team members involved in a construction project, from architects to owners to contractors.







Introduction to Project Management,
Introduction to Primavera, Opening a Project,
Introduction to Calendar, Work Breakdown Structure,
Creating Activities, Task Relationships
Scheduling, Constraints, Resources, Reports,
Generating Reports, Project Assessment

# Module:08 Bexel Manager BIM 4D, 5D

BEXEL Manager is a premium BIM solution providing the most comprehensive set of features for advanced 3D visualization, model data management, clash detection, automated QTO, cost management, smart scheduling and progress monitoring. With extensive data analysis and reporting tools BEXEL Manager empowers all project stakeholders to make informed data-driven decisions based on real-time data.



Smart Scheduling: Advanced 4D BIM scheduling engine designed to bring the functionality of creating fully automated construction schedules and alleviate time consuming, manual sequencing. A smart algorithm finds the optimal solution in terms of minimum construction cost and time and resource balancing even for the most complex projects, containing hundreds of thousands of elements.



Cost Management: A fully integrated 5D BIM Cost Management enables various advanced analyses such as model-based Cost Estimation, Schedule creation and optimization, Construction progress monitoring, and Schedule impact analyses. Cost Management enhances project control by integrating spatial and temporal dimensions with cost data, providing a comprehensive platform for analyses and a more holistic project management process.

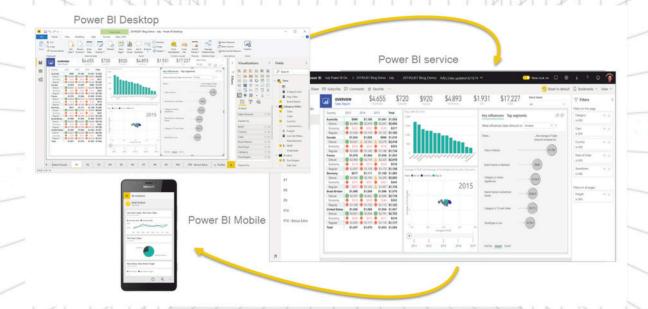


# **Module: 09 Data Visualization**

#### **Business Intelligence: Power BI**

is a Data Visualization and Business
Intelligence tool that converts data from different data sources to interactive dashboards and BI reports.
Power BI suite provides multiple software, connector, and services - Power BI desktop, Power BI service based on Saas, and mobile Power BI apps available for different platforms. These set of services are used by business users to consume data and build BI reports.





# Module: 10 AR-VR

1.1 AR: Arguments Reality

1.2 VR: Virtual Reality

1.2 Scan to BIM: In a Scan to BIM process, a laser scanner is used to capture an accurate 3D scan of the real world conditions on a project. The scan data is then imported into a 3D modelling environment to create either accurate as-built models or to inform the design with the real world conditions.



## **Module: 11 CDE (Common Data Environment)**

The common data environment (CDE), is the single source of information used to collect, manage and disseminate documentation, the graphical model and non-graphical data for the whole project team, says the BIM "Creating this single source of information facilitates collaboration between project team members and helps avoid duplication and mistakes".



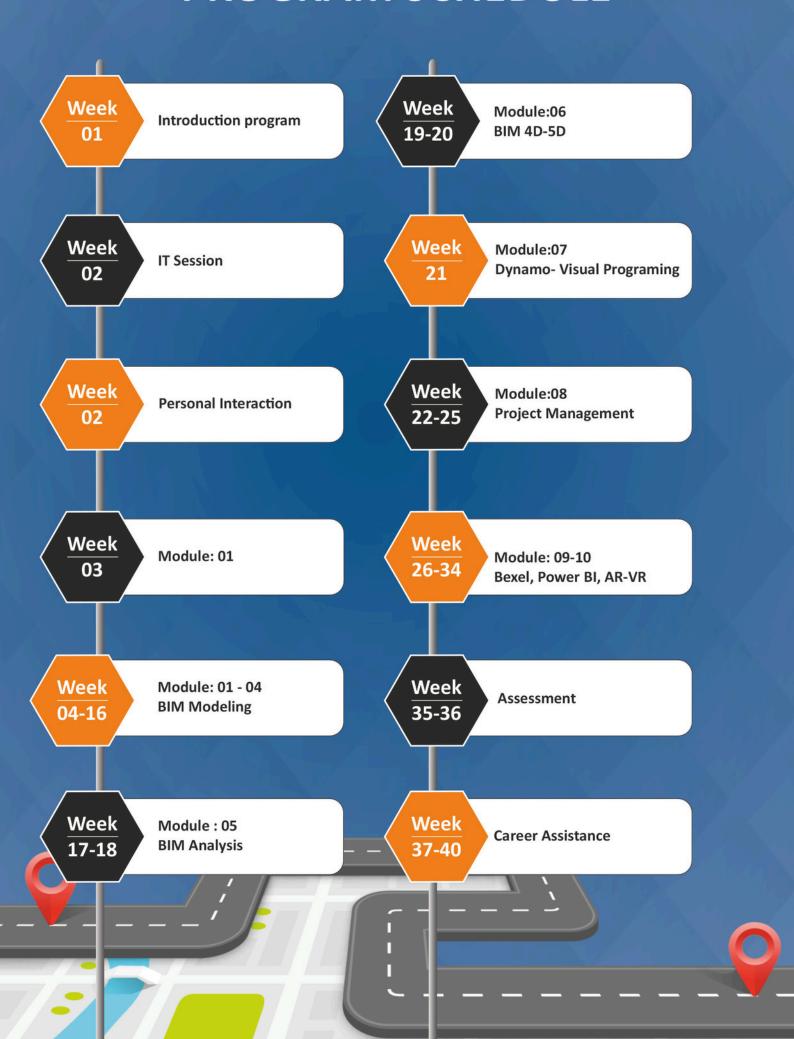
- CDE: Cloud-based space for storing BIM data.
- Access control based on defined roles & responsibilities (referring to ISO:19650 provisions).
- Comparison between model revisions.





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# **PROGRAM SCHEDULE**



# **EXCLUSIVE CAREER SUPPORT**

#### **Live Career-Oriented Webinars**

Live webinar sessions that include curriculum and career services walkthrough to help learners understand their learning objective and expectations of hiring managers.



### **Leadership Skill Development Sessions**

Recurring training sessions with experts to help learners develop Interpersonal and Leadership Skills.



### **1-on-1 Career Mentoring Sessions**

One-on-one Career Mentoring sessions on how to develop the right skills and attitude to secure a dream job.



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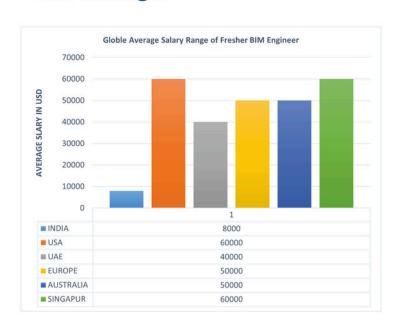
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# **Career Graph**

- BIM Modeler (Structure+Archi+MEP)
- BIM Construction Coordinator
- BIM Project Coordinator
- BIM Manager





# Global Hiring Company

ARUP	ATKINS  Member of the SNC-Lavalin Group	TATA TATA CONSULTING ENGINEERS LIMITED	Stantec
wsp	Kimley » Horn Expect More. Experience Better.	kpff	<b>Balfour Beatty</b> Construction
Honeywell	RAMBOLL	FLUOR.	BECHTEL
♣ INTEGRAL	COWI	M M M MACDONALD	Shapoorji Pallonji
SKANSKA	ARCADIS but notes	Jacobs	VINCI 💠

# **ADMISSION PROCESS**



## Enrolment Form

A one-on-one chat with our SME to understand your basic knowledge, prior work experience, and your expectations from the course. After your interview assessment,



### Interview and offer letter

A one-on-one chat with our SME to understand your basic knowledge, prior work experience, and your expectations from the course. After your interview assessment,



### **Payment**

Based on your interview performance, you would receive an offer letter and an fee payment as per option choosed



### Batch Allotment

After the payment formalities, you will be given course credentials and your learning journey will begin!

# FEATURES, ELIGIBILITY & FEE STRUCTURE

### **Key Features:**

1. Mode of Program: Online Live

2. Platform: Zoom Meeting

3. Duration: 08 Month

4. Recording of live class

5. Access of E-Liberary

6. 1 Year access of www.academy.structure.live for learning

### **Eligibility**

Bachelor/Master/PHD in civil engineering or relevant work experience in AEC Industry

### **Program Fee:**

INR 99,000/- (including 18% GST)

Other then Indian & African subcontinent: USD 1,600/-

Maximum 2 installment applicable

For One Time Payment option: 10% Fee Wavier

#### **Contact Us:**

For further details, please reach out to: +91-9354-7349-46 info@structurex.live www.structurex.live



- 4 PG in BIM MEP Advance
- 5 PG in Bridge Design & BrlM Technology
- 6 PG in Steel Structure & BIM Technology
- 7 PG in RCC Structure & BIM Technology
- 8 PG in High Rise & Tall Structure

For more Information Visit

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