

CAREER IN BUILDING INFORMATION MODELING (BIM)

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Building Information Modeling (BIM) – An Overview

Building Information Modeling (BIM) is not new to construction industry. Its origin and evolution dates back to 1970s known as Building Description System (BDS). In 1985, Simon Ruffle introduced the term “building model” in his paper. Later, in 1992 G.A. van Nederveen and F.P.Tolman published a paper in which the term “Building Information Model” appeared for the first time. But, it was not until 2002, when Autodesk published its whitepaper titled “Building Information Model” that the term started attracting the attention of the whole industry.

With the introduction of ArchiCAD, a revolutionary Computer-Aided Design solution by Graphisoft in 1987, the whole industry turned to a new direction. It became the first commercial BIM product for personal computers to create 2D and 3D geometry. Now, a lot of other prominent software such as Solibri, Tekla, Bentley, Revit, NavisWorks, AutoCAD, CADduct, Innovaya, Rhino, Catia, Vectorworks, EcoDomus, Ecotect and Google SketchUP are used based on project nature and discipline.

The US National Building Information Model Standard Project Committee defines BIM as “a digital representation of physical and functional characteristics of a facility. A BIM is a shared knowledge resource for information about a facility forming a reliable basis for decisions during its life-cycle; defined as existing from earliest conception to demolition.”

In simple terms, BIM is a technologically advanced 3D model-based process that aids the professionals in the Architecture, Engineering and Construction (AEC) industries to plan, build, manage buildings and infrastructures with ease through sophisticated insights and tools.

Becoming a BIM Specialist

Now that we have understood the contribution of BIM technology to the construction industry, it is time that we become aware of the various opportunities to excel as a BIM practitioner. A BIM specialist will have to scale up to the expectations of the industry and work on multiple roles as per project needs.

In a research paper titled “An Overview of BIM specialists” Maria Bernardete Barison identifies and

lists the various roles that BIM specialists can take. For example, a BIM Manager is a person who determines the standards and goals of a particular project from planning, designing and delivery. A BIM Modeler is someone who builds an environment virtually based on the guidelines provided by a BIM Manager. According to Maria, BIM includes a variety of roles such as BIM Analyst, BIM Facilitator, BIM Modeler, BIM Application Developer, BIM Software Developer, Modeling Specialist, BIM Consultant, BIM Researcher, BIM Manager and Chief BIM Officer. The role entirely depends on the nature of the project.

Education & Expertise

The minimum requirement to work as a BIM specialist is to have completed a bachelor's degree in Architecture, Civil or Structural Engineering from a recognized institution. Though satisfying the minimum requirement is essential, this does not guarantee placement in top companies or higher salary package because what is being taught in the colleges is in fact insufficient to prosper as a leading BIM specialist. In order to take your career to next level, it becomes essential for the students to identify the means through which they can enhance their skills both technically and non-technically. A thorough general knowledge of the related concepts, exceptionally good working on various software tools and technologies, hands-on experience on variety of projects, effective business communication and social skills, strong leadership quality, knowledge of trending areas, highly positive and passionate, detail-oriented, ready to travel and learn in new working environments are certain things that a BIM specialist needs to focus and develop.

Salary Package

Salary for a BIM professional in India largely depends on the role he or she is put into and the type of project they work for. A fresher fulfilling the eligibility criteria can earn anywhere between 15k to 20k per month. A beginner with 2 to 3 years of experience with sound knowledge in software can easily make up to 35k per month.

Leading professionals with expertise of more than 5 to 10 years in the industry with real-time experience have the opportunity to earn between 10 to 15 lacs per annum. There are ample opportunities abroad to set a career in BIM. Students can take up a master's programme in any reputed university and gain experience working in international projects. Such experience can bring in valuable opportunities anytime in future. For those who establish their own business, literally, when it comes to earning sky is the only limit. It is advisable for students to considering starting their own venture after few years of experience in the field.