

Introduction to Building Information Modelling (BIM) Applications in construction

Overview

Building Information Modelling (BIM) is an emerging paradigm in the way the life cycle of construction projects is managed. Across the world, the owners in projects are mandating use of BIM as one of the essential requirements for the projects. BIM has proven uses across various facets, right from conceptual design to the facilities management. BIM is set to replace and streamline the siloed and often chaotic information management processes in construction projects. However, in India, there is a lack of understanding of the fundamental concepts involved in BIM. The uses of BIM are often not clearly understood, and as a result the learning curve becomes steep, which is leading to difficulties for project engineers. The present course offers an intensive two week long course in the fundamental concepts underlying BIM and how it should be adopted in construction organizations to reap maximum benefits.

This course covers the fundamental concepts and philosophies underlying the development of BIM. It will give an hands-on experience of the tools and techniques used in BIM. It also deals with the different challenges in adopting BIM in construction organizations and how to overcome them. Course participants will learn these topics through lectures, hands-on experiments and project work over two weeks' time. Also case studies and assignments will be shared to stimulate research motivation of participants.

The topics include Underlying concepts of BIM including parametric modelling, interoperability platforms, performing clash detection, 4D, 5D, nD BIM, generative design using BIM, Using BIM in planning and scheduling, Using BIM in direct fabrication, project control using Reality Capture, BIM in facilities management, BIM execution plans, BIM ecosystem

Modules	<p>A: BIM fundamentals – tools and uses B: BIM in design C: BIM in project planning and control D: BIM in facilities management E: BIM adoption and execution plans in organizations F: BIM ecosystems</p> <p>Number of participants for the course will be limited to fifty.</p>
	<ul style="list-style-type: none"> ▪ You are a construction engineer or research scientist interested in understanding BIM and its applications to construction management. ▪ You are interested in adopting BIM technology in your organization and construction projects of your organization ▪ You are a student or faculty from academic institution interested in learning how to do research on BIM frameworks
Fees	<p>The participation fees for taking the course is as follows:</p> <ul style="list-style-type: none"> • Abroad: INR 155760/- • Industry/ Research Organizations: INR: 51920/- • Government Organizations: INR 19470 • Academic Institutions/ Faculty/ NGO: INR: 12980/- • Students & Research Scholars: INR: 3894/- <p>The above fee include all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges, 24 hr free internet facility. The participants will be provided with accommodation on payment basis.</p>

The Faculty

Foreign Faculty



Dr. Vishal Singh is an Assistant Professor at Civil Engineering Department Aalto University Finland. He is leading the Aalto BIM Collaboration, a multi-disciplinary research group focusing on the BIM ecosystem and the digital transformation of the construction sector. His research lies at the interface of design thinking and computational thinking, with particular interest in the interaction between products, processes, people and policies that constitute the BIM ecosystem.

Host Faculty



Dr. Venkata Santosh Kumar Delhi is an Assistant Professor at Civil Engineering Department of Indian Institute of Technology, Bombay spearheading the Construction Management Specialization in the department. His research interests include information management on large engineering projects, Building Information Modelling and Automation in construction. He is also actively involved in projects that aim at providing policy and strategy guidance to various governmental agencies and private companies.

Course Co-ordinator

Prof. Venkata Santosh Kumar Delhi
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E-mail: venkatad@iitb.ac.in

<http://www.gian.iitkgp.ac.in/GREGN>

GIAN Short Term Course on

Introduction to Building Information Modelling (BIM) Applications in construction

24 July – 05 August 2018

Registration Form

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Name (in block letters): _____

Qualification: _____

Designation: _____

Organization: _____

Mailing Address: _____

Mobile: _____

Fax: _____

Email: _____

Payment: Rs: _____

IIT Guest House/ Hostel accommodation required (will be provided as per availability and on a payment basis): **YES / NO**

(Please contact the course co-ordinator for the availability details).

Signature of Applicant: _____

Date: _____

Venue for Classes

Classes will be held in Seminar Hall, Department of Civil Engineering, IIT Bombay

Lecture Notes

To fully realize the objectives of the course, the lecture notes will be made available at the time of registration at IIT Bombay.

Date & Time of Registration:

24th July 2018, 9.00 AM at Civil Department, IIT Bombay.

COURSE FEE

- Participants from abroad: **INR 155760/-**
- Industry/ Research Organizations: **INR 51920/-**
- Government Organizations: **INR 19470/-**
- Academic Institutions/ Faculty/ NGO: **INR 12980/-**
- Students & Research Scholars: **INR 3894/-**

The above fees include all instructional materials, computer use for tutorials and assignments, laboratory usage charges, free internet facility. Subject to availability, the participants will be provided with accommodation on payment basis. This payment will be made separately by the participant at the accommodation venue.

The course fees have been paid by (Please tick appropriate option)

- (i) Logging in at <https://portal.iitb.ac.in/ceqipapp>. You will have to create a login ID, look up this course and fill up a registration form. After approval of the faculty coordinator, you can pay the fees.

OR

- (ii) Demand draft drawn in favour of "**The Registrar, IIT Bombay - CEP Account**". If payment is by DD, please furnish the following details:

DD No.: _____ Dt: _____

All completed registration forms with bank transaction details may be mailed to:

Prof. Venkata Santosh Kumar Delhi, Civil Engineering Department, IIT Bombay, Powai, Mumbai 400076