Construction Engineering & Management Group (CEMG) in collaboration with Autodesk brings



# **Building Information Modeling**

**4-Week Hands-on Training Workshop** 

Feb 17, 18, 24, 25 & Mar 3, 4, 10, 2017 (Fri - Sat 6:00 pm to 9:00 pm)



## About The program

Building Information Modelling (BIM) is changing the way project teams work and is taking the construction industry into a new era of integrated and more productive processes, higher cost certainty with reduction of risks. BIM has delivered astonishing results at international level and with the growing list of international clientele of local practitioners the need is ever great to embrace and evolve with BIM; which is inevitable and crucial in partice lor for improving performance on increasingly complex projects.

BIM provides a platform for integrated information exchange through a single model. Depending on the data embedded, a model can be 3D graphical model, 4D time model or 5D cost model. With further information stored, buildings can be modeled to include other dimensions such as sustainability aspects, safety etc.

This hands-on training workshop is the third workshop in line, starting with the first workshop (BIM AEC-I) organized in June 2012, followed by 2nd Workshop (BIM AEC-II) organized in June 2015. The earlier workshops aimed at creating awareness amongst the local stakeholders regarding the BIM technology and its possible adoption in the local AEC industry. Moving further, in the third installment of BIM based workshops; this 07 Day hands-on training workshop will train the attendees on getting the 3D models integrated with time and cost estimation to reap multi-faceted benefits from a 5D virtual model.

## Investment: PKR 19,500/-

- Upto 30% Discount Available; Kindly contact for more information.
- Exclusive of Taxes and CPD Fee
- Installment Plans Available
- Participants can avail the opportunity to appear in Revit Autodesk Certification at reduced price Autodesk

## **Learning Methodologies**

The training will delve into hands-on intensive modules for the participants; thereby providing a feel of real life problems and challenges and the ease of solution that is presented by BIM based solutions. The participants will work on a structured sample project to develop its 5D model along with take home exercises to polish their skills further. On the final day, each team (grouped amongst the participants) will prepare 20 minute presentation describing their Cost Plan or Bill of Quantities and highlighting the challenges, benefits discovered while preparing their BoQs using BIM take-off and estimating process.

## **Learning Objectives**

Through international project case studies and hands-on exercises, participants will be able to understand the model-based quantity take-off process in 3D modelling and how it comprises trade-based standards of measurement rules in BIM to:

- a) Improve visualization of projects through 3D BIM Modeling integrated with schedule & cost dimension.
- b) Develop more preeise cost estimates based on productivity aspects.
- c) Allow better coordination of scope, time, resources & cost among stakeholder.



### **Who Should Attend**

Stakeholders and Practitioners of Pakistani Architecture Engineering & Construction. Industry such as Heads of Business Units, Developers, Architects, Engineers/ Consultants, Construction Managers, Project Managers, Quantity Surveyors, Cost Managers, Costing Engineers, Facility Managers, Superintending Officers, Contractors, Sub-contractors and anyone who would like to upgrade his skills in the area of nD modelling and application.





## **Program Brief**

#### 1-VISUALIZATION

 Visualizing areas and spaces in BIM Models.

#### 2-QUANTIFICATION

- BIM aided approximate estimating
- BIM aided Cost Planning
- BIM aided detail estimating
- Using BIM for BOQ production
- Valuations
- Variations
- Re-measurement
- Final accounts

#### 3-SCHEDULING

 Cash flow planning by integrating 4D with 5D within 3D model

#### 4-PROJECT MANAGEMENT

- Collaboration in 3D, 4D and 5D for Integrated Project Delivery.
- Interdisciplinary collaboration for measurement and estimating.



## Special Features

- Customized reference manual and sample project for future study and home practice.
- Practice files to refine your skills in modeling and integration with other dimensions such as Time & Cost.
- Hands on approach for integrating 3D models with Time and Cost for 5D models.
- Multi Instructor led training with focus on one to one attention.
- Real time exposure to Virtual Reality tools and interfaces.

## Key Takeaways

- 1.0 CPD for PEC Registered Engineers.
- Certificate of competence upon successful completion from Autodesk & NED
- Workshop remembrances inclusive of group photo, ready reference material and a bunch of giveaways.
- Hands-on knowledge and exposure regarding integrated approach towards 5D Modeling and applications.
- Networking with professionals for BIM based delivery of projects in Pakistan.

## **Expert Trainers**

Prof. Rizwan U. Farooqui has a Ph.D. degree in Construction Project Management from Florida International University, USA. He has over 18 years of research, teaching and construction industry experience in the USA, Pakistan, Singapore and Ethiopia. In addition to academic activities in cluding curriculum developments at undergraduate and postgraduate levels, Prof. Farooqui has remained actively involved in national and international funded research projects for construction industry improvement in the local and international scenario.

Mr. Muhammad Saqib is pursuing his Ph.D. in Construction Project Management from Florida International University and serving as an Assistant Professor at Department of Civil Engineering, NEDUET. He has over 15 years of experience and is involved in various academic and industrial research projects in the area of construction project management and sustainability in local as well as international industries.

Mr. Muhammad Umer is an Urban Engineer from NED University with a Master's in Construction Management, Currently he is pursuing his PhD degree in the area of BIM and has remained actively involved in various BIM action research projects.





## FOR REGISTRATIONS:

**Focal Person:** 

## Prof. Rizwan U. Farooqui, Ph.D.

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