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

nD Building Information Modeling
4-Week Hands-on Training Workshop

Starting from September 27, 2019 (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 practice 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 cast 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 sixth workshop in line, starting with the first workshop (BIMAEC-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 adoptions 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 21,500/-

BATCH 6

CEMG Advancing Construction Engineering and Management Profession

Learning Methodologies

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

Learning Objectives

Via international project case studies and hands-on exercises, participants will be able to understand the model-based quantity take-off process in 3D modeling and how it comprises trade-based standards of measurement rules in BIM to:
o Improve visualization of projects through 3D BIM modeling integrated with schedule & cost dimension
o Develop more precise cost estimates based on productivity aspects
o Allow better coordination of scope, time, resources and cost among stakeholders

Who Should Attend

Stakeholders and practitioners of Pakistani Architecture Engineering & Construction, industry heads, developers, architects, engineers/ consultants, construction & project managers, quantity surveyors, cost managers & engineers, facility managers, superintending officers, contractors, subcontractors and anyone who would like to upgrade his skills in the area of nD modeling and application.

I would like to thank you for sharing with us the benefits of Revit. Before this course I thought that revit was something like 3D home. But the ease with which plans can be made and 3d is made with very less effort, was amazing. After watching some videos on youtube I now realize that once a model is made in revit, all the required sheets can be setup. The estimation part is a plus point. The most fascinating thing is the environmental modelling, how to use passive methods to cool (heat) the indoors, effect of sunlight, internal lighting, monthly cost of all this. A simple ventilator below ceiling might lower the temperature, now I can check this by a revitalize model.
Thanks again for your enthusiasm in sharing your knowledge. Keep up the good work.

Program Brief

Visualization:
- Visualizing areas and spaces in BIM models

Quantification:
- BIM aided approximate estimating
- BIM aided cost planning
- BIM aided detail estimating
- Using BIM for BOQ production
- Valuations
- Re-measurement
- Final accounts

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

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 cost & time o Hands-on approach for integrating 3D models with time & cost for 5D models
- Multi instructor led training with focus on one-to-one attention

Key Takeaways

- 4.0 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 brunch of giveaways
- Hands-on knowledge and exposure regarding integrated approach towards 5D modeling & applications
- Networking with professionals for BIM based delivery of projects in Pakistan

Expert Trainers:

Prof Rizwan U. Farooqui has a PhD. in construction project management from Florida International University, USA. He has over 20 years of research, teaching and construction industry experience in Pakistan, Singapore, USA and Ethiopia. In addition to academic activities including 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 local & international scenario.

Mr. Muhammad Saqib is pursuing his PhD. in construction project management from Florida International University and serving as an assistant professor at Dept. of Civil Engn., NEDUET. He has over 17 years of experience & is involved in various academic and industrial research projects in the area of construction project management & sustainability in local as well as international industries.

Mr. Muhammad Umer is an urban engineer from NEDUET with masters in construction management. Currently he is pursuing his PhD. in the area of BIM & has remained actively involved in various BIM action research projects.

I attended your lecture delivered at Sir Syed Memorial Islamabad, today.
My interest in Revit has now ignited. Watching a couple of videos on YouTube has shown that once a model is made, how it can be translated / presented in to sheets with all the different drawings. But I am most interested in environmental (inner) of the building. We had wind catchers in Hyderabad, we had Roshandans in our house, we had courtyards, but now all these are not possible due to congestion in cities and lost of knowledge as a far as less populated areas are concerned. The availability of a software that can simulate air circulation, Sun lit areas, monthly bills, etc. is very useful. After today lecture I am planning to improve my abilities in BIM (revit for start) to analyze natural HVAC for our homes.
I am again very grateful for Dr. Rizwan and Mr. Umer for introducing us to BIM. The truth is that it was a technical course presented at PEC after many months.

(Idrees Barlas)

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