

Insight Into the World of Building Information Modelling (BIM)

URBAN ENGINEERING DEVELOPMENT SPECIAL INTEREST GROUP

reported by



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In the quest to meet deadlines, construction projects are often beset with challenges such as unreliable schedules and cost, poor quality, planning errors or inaccurate/incomplete drawings and the lack of cooperation from the various stakeholders.

Effective communication is the key to meeting deadlines. The future of the construction industry is digital and built on a holistic approach that connects all stakeholders. Today, a sustainable framework in a project must be supported by a robust digitalisation plan such as Building Information Modelling (BIM) which can no longer be viewed just as a nice feature for glorification only.

To introduce BIM to IEM members, the Urban Engineering Development Special Interest Group (UEDSIG) and Civil & Structural Engineering Technical Division (CSETD) jointly organised a talk on 7 September, 2017. The speakers were Ir. Sharifah Azlina Raja Kamal Pasmah (Chief Operating Officer of HSS Engineering Sdn. Bhd. and Chief Executive Officer of BIM Global Ventures Sdn. Bhd.) and Puan Norimah Othman (Manager of BIM Global Ventures Sdn. Bhd.).

The talk started with a definition of the BIM process in the lifecycle of a construction project, from its inception and design to the demolition or de-construction of the asset. The benefits highlighted included its role as the key driver for building sustainability and for supporting green initiatives.

The talk also defined the levels of BIM sophistication (Levels 0 to 3), the various BIM dimensions (3D, 4D, 5D, etc.), clash detection & resolution processes and simulation capability.

Also discussed were BIM applications such as space management, asset information management, facility management and tracking asset performance throughout its lifecycle – all in the domain of a built environment. Ir. Sharifah Azlina then touched on the scepticism that came with the idea of transitioning information from AutoCAD to BIM. She pointed out that, uncertainty aside, as with any change from 2D to 3D AutoCAD and from there to BIM, a user would run into some challenges along the way, but knowing the difficulties ahead would help one learn from mistakes.

In the long run, a user will be glad to have made the move. A fundamental part of BIM is the ability to check and ensure appropriate specifications are built in accordance with the contractual, code and standard requirements. It also links up reference bid and design documents to construction for verification purposes and a competitive bid can be provided if BIM is adopted as a project delivery tool.

Drawing on her experiences in Cyberjaya Hospital and Banyan Tree Condominium projects, Puan Norimah Othman discussed BIM's curvature capability in avoiding clashes and providing constructability checks. She said the development and implementation of a robust BIM is not quite as straightforward, because it requires an understanding of the entire design and construction processes. However, more effort must be made to raise the awareness and benefits of BIM because it ensures construction budget is spent in the most efficient way. All in all, the additional effort on BIM ensures the design and construction processes will produce a fit-for-purpose project, meeting the client's intended objectives.

Judging from the enthusiastic questions raised from the floor at the end of the presentation, the talk was a huge success. ■



From left: Ir. Dr Ng Soon Ching, Ir. Ng Sean Lok, Ir. Sharifah Azlina Raja Kamal Pasmah, Dr Wang Hong Kok and Puan Norimah Othman