



CONCRETE FEATURES



MODELLING A BETTER INDUSTRY THROUGH BIM



Southern Sun Newlands was a hub of digital deliberation and discussion on 12 September 2024 in Cape Town, when the cidb and University of Johannesburg Centres of Excellence joined hands to present the third State of South African Construction seminar.

With a packed venue and with hundreds of guests tuned in online from across the country, the event brought the latest news and views on Building Information Modelling (BIM), the concept that has taken global construction by storm and promises great potential for the local industry.

First keynote presenter to the podium, having travelled from the United States of America to share his wisdom, was Prof Chimay Anumba, dean and professor of the College of Design, Construction and Planning, University of Florida. He provided perspectives on the use of BIM States-side and his experiences of projects applying the concept to best advantage. Besides the many documented benefits of BIM, such as greater team collaboration, cost effectiveness and enhanced work quality, Prof Anumba spoke of its ability to capture accurately design intent and provide a holistic analysis of facility functionality before construction.

Next up was Dr Amanda Filtane, researcher and lecturer in digital and virtual construction technologies at the University of Cape Town, who laid bare the current challenges in the South African built environment, not least poor quality, budget overruns, missed deadlines, late or non-payment and

failure to comply with regulations and prescripts.

She delved into the principles of digitalisation, including information and systems theory, sociotechnical systems, diffusion of innovations and platform theory.

'Digitalisation as a science involves the systematic study of how digital technologies transform, data, processes and structures across business, society and industry,' she explained. 'It draws on theories and principles from information science, systems theory, management science and technology innovation.'

Once she had concluded with a glimpse at a digitally enabled world and insights into the integrated way forward, she passed the mic to cidb Construction Industry Performance Manager, Ishmail Cassiem, to steer delegates through the BIM roadmap to 2030 and beyond.

He advised that the cidb Board had identified digital 2D/3D collaboration as a best practice on construction works contracts using a non-proprietary, open-standard format for information exchange.

A BIM perception study is underway among contractors, he added, accompanied by a review of curricula and programmes en route to the development of a BIM education framework.

This is the prelude to finalising standards ahead of deployment of BIM work environment projects through

a pilot with willing and prepared clients in a conducive legislative and data security environment. From then on, the focus will be on continuous improvement of BIM adoption, measurement and maturity assessment.

Appropriately continuing the 'road' theme, Phila Buthelezi, project engineer at Volkswagen Group Africa, tackled the twists and turns of driving successful adoption and implementation of BIM in South Africa.

His presentation was crafted to inspire industry professionals, building contractors and communities to embrace a cooperative and inclusive approach to digital innovation in construction.

Advocating a comprehensive analysis as a prerequisite for an organisation to adopt BIM, he highlighted importance of critical thinking and continuous parallel development to define and review the steps of BIM adoption.

'The process must be deliberate, intentional and inclusive,' he stressed.

The day ended with a spirited panel debate where experts identified some the opportunities awaiting the South African construction sector, which are considerable despite the nature of the local business environment, with its social, technology and employment peculiarities.

Should you wish to explore BIM through the eyes of those who live and breathe it, click here to access the presentations.