



Over



Western Region Centre

Creating Value Ethically

Learn from
Professionals

WEBINAR ON

BIM, Digital Twin, XR & Power BI in Project Management

Thursday 3rd July 2025, 15:00 hrs (IST)

Digitalisation Speeded Up Pace of Planning, Design & Construction

Projects are Bigger, Spread Out and Complex

Completion is Demanded Almost Over Night

Work Processes MUST Change to

Meet the CHALLENGE

Engineers - Transform, Adopt & Be Adept

CEAI consistently leads the way in upskilling engineers with emerging technologies that are transforming both engineering practices and daily life. This webinar highlights key technical advancements.

The webinar will cover the essential digital tools for today's engineering projects: Building Information Modelling (BIM), Digital Twin, Extended Reality (XR) and Power BI.

Building Information Modelling (BIM) referred to as Multi Dimension Modelling in the Process Industry, is a smart, 3D model-based process. It provides architecture, engineering (all disciplines), construction/ erection, operations and maintenance professionals with the insight and tools to boost efficiency to planning, designing, constructing and managing urban areas, buildings, infrastructure, industrial plants.

The integrated BIM model enables cross-disciplinary collaboration on one model. That enhances understanding of inter-disciplinary impacts, helps avoid conflicts and ensures adequate space for construction, erection and maintenance. The system also meticulously records all changes and their originators. Post-completion, the BIM model becomes a comprehensive record for all future maintenance, making it an essential requirement for nearly every engineering project today.

A Digital Twin seamlessly picks up where BIM leaves off. It uses the physical model to provide real-time data for simulation. Beyond simulation, Digital Twins are invaluable for the integration, testing, monitoring, and maintenance of physical assets.

Extended Reality (XR): The merging of technologies of Virtual Reality (VR), Augmented Reality (AR) and Mixed Reality (MR) - all collectively referred to as "Extended Reality (XR)" - have applications in every field including engineering, project management and construction. They are unique due to the immersive experience they provide to the user. Deployment of XR applications helps in achieving enhanced operational efficiencies and effectiveness, better adherence to safety and quality as well as reduced operating costs. Integration of XR with BIM or 3D Models of the facilities to be built brings in innovative benefits for project stakeholders such as immersive visualization of complex design and engineering aspects, enhanced construction workflows, and effective collaboration among project stakeholders, amongst other benefits.

Power BI Desktop seamlessly integrates powerful interactive visualizations with robust data querying and modelling tools. It serves as the primary resource for creating and publishing reports to Power BI, providing crucial insights precisely when and where required.

ABOUT CEAI

Consulting Engineers Association of India (CEAI) is the apex body of consulting engineers in India. CEAI represents the Indian Engineering Consultancy profession at the International Federation of Consulting Engineers (FIDIC). CEAI has, behind it, over 60 years of accumulated knowledge and experience. CEAI Membership comprises of practicing consultants, private and public sector firms engaged in the entire range of engineering consultancy services. CEAI looks after the interests and enhances the status of consulting engineering profession in India and is equally concerned with quality development, productivity enhancement and promotion of ethical practices. CEAI has established linkages and strong bonds with its counter parts in various countries and is a staunch advocate of global networking and co-operation. CEAI Academy arranges events for enhancing the knowledge and skills of engineers.

WHO SHOULD ATTEND?

All those who are involved in engineering and construction of projects across all sectors.

<ul style="list-style-type: none">Managers & Engineers of all Disciplines	<ul style="list-style-type: none">Quantity Surveyors	<ul style="list-style-type: none">Construction Professionals/ Consultants
<ul style="list-style-type: none">Lawyers & Arbitrators,	<ul style="list-style-type: none">Insurance Professionals	<ul style="list-style-type: none">Others who are professionally involved with engineering projects

Programme:

Opening Address Chairman CEAI-WRC Dr. Harshavardhan Subbarao	Chairman CEAI Academy Mr. Alok Bhowmick	President CEAI Mr. Prashant Kapila	15 min
Mr Krishna V Karwa	Transforming Construction with BIM		35 min
Mr Varunkumar K Panchal	Digital Twin in Construction Projects		35 min
Mr Suhas P Bhagwat	Extended Reality for Engineering & Construction Projects		35 min
Mr Tuhin Jana	Power BI and its application in projects		35 min
Mr Charles Simoes & Mr Suhas P Bhagwat	Q & A		15 min
Vote of Thanks:	Mr Chetan Kavdia, Hon Secretary & Treasurer CEAI-Western Region Centre		10 min

Moderators: Mr. Charles Simoes and Mr. Suhas P Bhagwat

Speakers



Krishna V Karwa with over 7+ years of experience in structural, architectural, interior design, and MEPF execution brings a strong foundation of practical expertise in Building Information Modelling (BIM) and multidisciplinary coordination. Proficient in industry-standard tools such as Revit, Navisworks, ACC, and BIM 360, Krishna specializes in developing detailed 3D models for design visualization, project scheduling, and quantity estimation.

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His core strength lies in BIM coordination, where he ensures seamless integration across architecture, structure, and MEP disciplines through effective clash detection, resolution workflows, and stakeholder collaboration. Krishna's responsibilities span across consultant coordination, site supervision, interior modelling, documentation, and overall project delivery.

Known for his solution-oriented mindset and precision-driven approach, Krishna plays a pivotal role in achieving technically sound, visually cohesive, and well-coordinated project outcomes. His deep understanding of BIM workflows and on-site application makes him a valuable voice in advancing digital construction practices.

Krishna is BIM Coordinator at Tecture Structures, Nagpur and will be speaking on **"Transforming Construction with BIM"**.



Varunkumar K Panchal is a seasoned BIM and Digital Engineering Project Manager with over 17 years of global experience across diverse sectors, including high-speed rail, metro infrastructure, stadiums, hospitals, heritage restorations, and high-rise developments. He specializes in 4D/5D BIM implementation, digital twin solutions, scan-to-BIM workflows, and immersive technologies such as AR/VR to drive project excellence.

Known for his strategic leadership and deep technical expertise, Varun has successfully led cross-disciplinary teams, optimized design coordination, and delivered projects in compliance with ISO 19650 standards.

He holds a Master's in Construction Management and is certified by CMI, CIQ, MIT (Data Science & Machine Learning), Autodesk, and BRE. His work reflects a strong commitment to digital innovation, quality delivery, and continuous improvement in the AEC industry.

Varun is Project Manager BIM & Digital Engineering at Sanghvi & Associates Consultants Pvt. Ltd. (SACPL) will talk on **"Digital Twins in Construction projects"**



Suhas P Bhagwat is the Founder & CEO, Avroglide Consultants. He was formerly a Vice President at L&T Hydrocarbon Engineering. His current focus as a Consultant is in deployment of Digital technology-based solutions for Industrial applications. He has professional experience of 37 years with Larsen & Toubro (L&T) and L&T Hydrocarbon Engineering and short stints at Uhde India Limited and Thermax.

He has handled complete range of functions in the field of EPC Project implementation for Oil & Gas and Process industry; steered implementation of Operational Excellence Initiatives of the Organization, and deployment of integrated Digital Solutions for implementation of large-scale Projects, all with the objective to enhance efficiencies and effectiveness.

He did his B. Tech., Chemical Engineering from IIT Madras and M. Tech., Chemical Engineering from IIT Bombay.

He is a Core Committee Member of CEAI-WRC and was an active member of the VR/AR Association, USA (VRARA) as the Co-lead for Oil & Gas for Asia Pacific and a member of their Energy Committee.

Speakers

As part of his activities as a consultant, he has been guiding XR solutions providers for development of applications for a wide range of industry use cases with the objective to bring in associated operational benefits.

He has contributed several articles on the subject of XR for industry including those for CEAI publications. He has co-authored two Energy Whitepapers on VR AR for Energy Sector which were released by VRARA. He has also been conducting sessions and workshops on the above subject for industrial organizations and educational institutions.

Suhas is going to present "**Extended Reality for Engineering & Construction Projects**".



Tuhin Jana, has Over 20 years of experience successfully managing complex, high-value projects across Metals and Minerals (Ferrous, Non-Ferrous), Power sectors. He has proven expertise in Project Planning and Scheduling; Monitoring and Control; Resource Allocation, Stakeholder engagement and Team coordination; Risk identification, analysis, and mitigation.

He has a strong track record in managing full project lifecycles - from proposal, budgeting, and planning to execution, monitoring, and close-out.

He is skilled in deploying and optimizing project control tools, including:

- Wrench – EDMS implementation, metadata setup, progress tracking, and reporting.
- Primavera P6/ MS Project – Scheduling, resource loading, earned value management (EVM), and progress monitoring
- Power BI – Dashboard creation, data visualization, and performance analytics for project insights.

Tuhin is DGM PMO with TATA Consulting Engineers Limited. He will tell us about "**Power BI and its application in projects**".

Moderators



Charles Simoes holds a Bachelor's degree in Civil Engineering from VJTI, Mumbai, a MTech degree in Structural Engineering from IIT Bombay and a Master of Financial Management from Jamnalal Bajaj Institute of Management Studies, Mumbai. He is a Fellow of the Institution of Engineers, India.

He worked at Tata Consulting Engineers (TCE) where he gained experience in the design of several chemical, man-made fibre, nuclear and thermal power projects. He later joined Aker Solutions where he worked his way to Associate Director.

During his professional career of over 35 years, he acquired vast multi-disciplinary technical knowledge, sound management skills and strategic thinking abilities playing leadership roles on prestigious and mega grass root Oil refinery, Gas, Offshore Platforms, Petrochemical, Chemical and Metals Projects for reputed Clients in India, North, Central & South America, Europe, Africa, Middle-East, East Asia and Australia. He has expertise in Project Management, Engineering Management, Operations Management, Systems Management, Quality Management, Construction Management, Problem Solving and Crisis Management.

Mr. Simoes has been actively involved in training, mentoring and coaching Engineers over several years and has a keen interest in academic studies. From 2018, he is an Adjunct Faculty at Sardar Patel College of Engineering for MTech classes in Structural Engineering and Construction Management.

Registration Link: https://us02web.zoom.us/meeting/register/gR9DxXPUTwQayntMr8B_1w

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Contact details

CEAI-WRC: Mr. Chetan Kavdia, Hon. Secretary & Treasurer, CEAI – Western Region Centre, c/o Secure Legal & Associates, Office No. 613, Raheja Centre, Plot No. 214, Free Press Journal Marg, Nariman Point, Mumbai 400021

Email: contact@securelegalfirm.com; Tel: +91 22 31465232; Mob: +91-8655786239, +91 8454042022, +91 9136659948 (Whatsapp)

CEAI: Consulting Engineers Association of India, CEAI Secretariat, OCF Plot No.2, Pocket 9, Sector B, Vasant Kunj, New Delhi 110070
Email: ceai.ceai@gmail.com : +91 9871166102 : www.ceai.org.in