GTC Transforming Emerging Economies

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Digital Twin, BIM, and Smart Construction Technologies

COURSE OVERVIEW

This course explores the transformative impact of Digital Twin, Building Information Modelling (BIM), and smart construction technologies on the built environment. The course emphasizes practical applications, emerging industry trends and the role of digital transformation in creating more efficient, sustainable, and resilient construction practices. Participants will gain insight into how these cutting-edge tools integrate design, engineering and construction processes to optimize project delivery, improve asset management and enable data driven decision making throughout the life cycle of infrastructure and building projects.

WHO SHOULD ATTEND?

The course is designed for construction professionals, project managers, engineers, architects, facility managers and technology leaders who are involved in planning, designing, executing or managing construction projects. It is also valuable for policymakers, consultants and innovators seeking to understand how digitalization is reshaping the construction and infrastructure sectors.

COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Understand the principles and applications of Digital Twin and BIM in construction.
- Apply smart construction technologies to improve efficiency, safety, and sustainability.
- Leverage data and simulation tools for real-time project monitoring and asset management.
- Assess industry case studies and identify best practices for digital transformation in construction.
- Develop strategies to integrate emerging technologies into organizational workflows.
- Evaluate the impact of digital construction technologies on project lifecycle performance and decision-making.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- The basic differences and connections between Digital Twin technology and Building Information Modelling (BIM).
- How Digital Twins use real-time data from sensors to keep models up to date throughout a project's lifecycle.
- BIM's role in designing and managing building projects, supported by standards like ISO 19650.
- How Digital Twins enable real-time monitoring, predictive maintenance, and performance optimization of structures.
- The use of smart construction tools such as 3D printing, GIS, and laser scanning in modern projects.
- Best practices for team coordination, change management, and using Digital Twin and BIM technologies to improve project efficiency and outcomes.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.
1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded

BAC BRITISH ACCREDITATION COUNCIL · Dual Accreditation DUAL PROVIDER: PDC/D1013 2018 - 2020 · Project Management Institute Registered Education Provider · ilm A City & Guilds Group Business · ISO 9001:2015 · CIPR CHARTERED INSTITUTE OF PUBLIC RELATIONS