

Digital Twin Technology for Sustainable Asset Management

COURSE OVERVIEW

This course examines the integration of physical assets with their digital counterparts to enable real-time monitoring, predictive maintenance, lifecycle optimization, and data-driven decision-making. It provides a comprehensive understanding of Digital Twin technology and its transformative role in sustainable asset management. Participants will gain insights into the latest tools, methodologies, and frameworks for leveraging digital twins to enhance efficiency, reduce environmental impact, and drive sustainability in industries such as energy, infrastructure, transportation, and manufacturing.

WHO SHOULD ATTEND?

The course is designed for career professionals interested in the intersection of digital innovation and sustainability. It is particularly valuable for engineers, asset managers, urban planners, sustainability officers, IT professionals, and decision-makers in sectors reliant on large-scale assets. No prior expertise in digital twins is required, but a basic understanding of asset management and digital technologies will be beneficial.

COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Develop a strong conceptual foundation of digital twin technology and its applications.
- Understand how digital twins support sustainable asset lifecycle management.
- Apply digital twin frameworks for predictive maintenance and resource optimization.
- Evaluate case studies of digital twin adoption across industries.
- Gain practical skills in using digital tools and analytics for sustainable asset strategies.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- Comprehensive coverage of digital twin concepts, tools, and platforms.
- Focus on sustainability and circular economy in asset management.
- Real-world case studies from multiple industries.
- Hands-on demonstrations with digital twin models and data analytics.
- Expert-led sessions with industry practitioners and researchers.

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