



AI+ Construction Practitioner™

Certification



Executive Summary

The AI+ Construction Practitioner™ certification is designed to equip professionals with the knowledge and skills to integrate artificial intelligence into construction processes. This certification focuses on the practical application of AI in construction management, project planning, and construction technology. It covers AI tools, automation, data analysis, and machine learning techniques tailored to enhance efficiency, reduce costs, and improve decision-making within the construction industry. Earning this certification demonstrates a commitment to leveraging AI innovations, positioning individuals as leaders in the evolving construction sector, and preparing them to drive transformation in construction operations.

Prerequisites

- **Basic Construction Knowledge:** Understanding of construction processes and terminology.
- **Familiarity with AI Concepts:** Basic knowledge of AI and machine learning principles.
- **Data Analysis Skills:** Ability to interpret and manipulate construction data.
- **Tech-Savvy:** Comfortable with using construction software and tools.
- **Problem-Solving Mindset:** Critical thinking for real-world construction challenges.

Exam Blueprint

Number
of Questions

50

Passing
Score

35/50 or 70%

Duration

90 Minutes

Format

**Online via AI
Proctoring platform**

Question Type

**Multiple Choice/Multiple
Response**

Exam Overview

Module	Weight
Artificial Intelligence – Foundations for Construction Professionals	7%
Foundations of AI in Construction	15%
Generative Design & AI-Driven Planning	15%
Predictive Maintenance & Smart Asset Management	15%
AI Agents for Construction Management	12%
AI in Project Analytics & Risk Forecasting	12%
Responsible & Ethical AI in Construction	12%
Capstone Project — AI-Enabled Smart Construction	12%
	100%

The logo for AI CERTs, featuring a stylized 'AI' in orange and 'CERTs' in black, with a registered trademark symbol.

AI CERTs®

AI⁺
Construction
Practitioner™

Certification Modules

Module 1

Artificial Intelligence – Foundations for Construction Professionals

1.1 Artificial Intelligence (AI)

1.2 Core AI Concepts

1.3 AI in Daily Life & Across Industries

1.4 Ethical & Responsible AI in Construction

1.5 Case Study

1.6 Hands – on Simulation Activity

Module 2

Foundations of AI in Construction

2.1 The Rise of AI in Construction

2.2 The AI Ecosystem in Construction

2.3 Challenges in AI Adoption

2.4 Case Study

2.5 Hands – on Simulation Activity

Module 3

Generative Design & AI-Driven Planning

3.1 Generative Design Concepts

3.2 AI for Sustainable Construction

3.3 Scheduling & Cost Estimation with AI

3.4 Case Study: EcoConstruct Ltd.

3.5 Hands – on Simulation Activity

Module 4

Predictive Maintenance & Smart Asset Management

4.1 Cost and Performance Optimization: The Economic Context Pipeline

4.2 Data Analytics for Asset Management

4.3 Computer Vision for Site Safety

4.4 Case Study: Build Sure Projects

4.5 Hands – on Simulation Activity

Module 5

AI Agents for Construction Management

5.1 Introduction to AI Agents

5.2 Site Management Agents

5.3 Safety & Compliance Agents

5.4 Case Study: Metro Link Builders

5.5 Hands – on Simulation Activity

Module 6

AI in Project Analytics & Risk Forecasting

6.1 AI for Cost and Delay Prediction

6.2 Risk Management using AI

6.3 Data Visualization and Reporting

6.4 Case Study: Skyline Infra

6.5 Hands – on Simulation Activity

Module 7

Responsible & Ethical AI in Construction

7.1 Principles of Responsible AI

7.2 Compliance and Data Protection

7.3 Human Oversight and Bias Prevention

7.4 Case Study: Safe Build Pvt. Ltd.

7.5 Interactive Activity

7.6 Hands – on Simulation Activity

Module 8

Capstone Project — AI-Enabled Smart Construction

8.1 Project Definition

8.2 Solution Development

8.3 Presentation and Evaluation

8.4 Hands-on simulation activity

Certification Outcome

Upon completing the AI+ Construction Practitioner™ certification, we confidently apply AI-driven tools to optimize construction planning, design, and project execution. We analyze data for smarter decision-making, improve safety through predictive insights, and enhance efficiency across project lifecycles. We collaborate effectively using intelligent systems, automate routine tasks, and manage resources with greater precision. This certification empowers us to bridge traditional construction practices with advanced technologies, making us future-ready professionals. We deliver higher-quality projects on time and within budget while adapting to evolving industry demands with innovation, sustainability, and a strong digital-first mindset.



Market Insight

The construction industry is rapidly embracing AI to address cost overruns, delays, and safety risks. Growing adoption of digital twins, predictive analytics, and automation is creating demand for professionals who can integrate AI into modern construction workflows.



Value Proposition

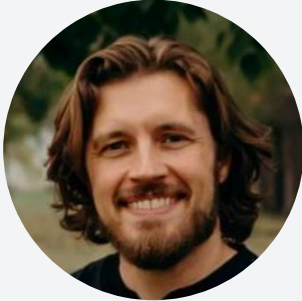
AI+ Construction Practitioner™ equips learners with practical AI skills tailored for construction environments. It enables smarter planning real-time decision-making, and process optimization, helping professionals enhance productivity, reduce risks, and deliver projects efficiently with data-driven confidence.



Additional Features

The certification includes hands-on exercises, real-world case studies, and tool-based learning aligned with industry scenarios. Learners gain exposure to AI applications in safety monitoring, scheduling, and resource management, along with practical insights for immediate workplace implementation.

AI Experts



Jason Kellington

AI Expert

As a consultant, trainer, and technical writer with more than 25 years of experience in IT, I specialize in the development and delivery of solutions focused on effective and efficient enterprise IT.



Justin Frébault

AI Expert

I'm a boutique data consultant specializing in data mesh and lakehouse solutions. I've dedicated my career to helping organizations transform their approach to data, moving beyond mere knowledge.



J Tom Kinser

AI Expert

I have over forty years of experience in software development, data engineering, management, and technical training. I am a Microsoft Certified Trainer and a software developer, holding multiple certifications.



Terumi Laskowsky

AI Expert

Country Manager for Global Consulting Services in Japan, Specialties: Information Security (Compliance, Policy, Application, Host, Network)



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