Risk & Claims Management in Infrastructure Engineering Training Course

Professional Development Training Course Outline

Category	Architectural Engineering	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Risk and Claims Management in Infrastructure Engineering is a critical discipline that ensures the successful delivery of large-scale construction and engineering projects within scope, time, and budget. With increasing complexity in infrastructure development ranging from transport systems, energy projects, smart cities, and mega construction works effective risk identification, mitigation, and claims resolution has become a core competency for engineers, project managers, and commercial professionals. Risk & Claims Management in Infrastructure Engineering Training Course is designed to equip participants with advanced, practical, and industry-aligned strategies to manage contractual risks, delay claims, cost overruns, disputes, and regulatory uncertainties in modern infrastructure environments.

In today’s fast-evolving construction ecosystem, driven by digital transformation, BIM integration, FIDIC contract frameworks, NEC contracts, AI-driven risk analytics, and ESG compliance requirements, organizations demand professionals who can proactively manage uncertainty and safeguard project value. This course provides a comprehensive understanding of risk allocation, claims preparation, dispute avoidance, forensic delay analysis, contract administration, and negotiation techniques, ensuring participants can confidently handle complex infrastructure challenges and improve project outcomes.

Programme Curriculum

Risk & Claims Management in Infrastructure Engineering Training Course

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Course Duration

5 days

Course Objectives

1. Master Infrastructure Risk Management frameworks for mega projects
2. Apply FIDIC & NEC contract claim procedures effectively
3. Conduct quantitative & qualitative risk analysis (QRA)
4. Develop expertise in delay analysis methodologies (CPM, As-Planned vs As-Built)
5. Enhance skills in construction dispute resolution strategies
6. Understand contractual risk allocation principles
7. Manage variation orders and change claims efficiently
8. Implement AI-driven predictive risk assessment tools
9. Strengthen forensic schedule analysis capabilities
10. Improve cost overrun prevention and mitigation techniques
11. Gain proficiency in claims documentation and substantiation
12. Build negotiation skills for settlement of infrastructure disputes
13. Align with ESG-compliant risk governance in infrastructure projects

Target Audience

1. Infrastructure Project Managers
2. Civil & Structural Engineers
3. Contract Administrators
4. Quantity Surveyors
5. Claims Consultants
6. Construction Lawyers
7. Risk Management Professionals
8. Government Infrastructure Officers

Course Modules

Module 1: Fundamentals of Infrastructure Risk Management

- Risk identification in mega projects
- Risk classification
- Risk probability-impact matrix

- Stakeholder risk mapping
- Early warning systems
- **Case Study:** Railway megaproject delay risks due to land acquisition issues

Module 2: Contractual Frameworks

- Overview of FIDIC Red, Yellow, Silver Books
- NEC contract risk-sharing principles
- EPC turnkey contract structures
- Contract risk allocation strategies
- Common contractual pitfalls
- **Case Study:** EPC power plant contract dispute over scope ambiguity

Module 3: Construction Claims Management

- Types of construction claims
- Claim lifecycle process
- Extension of Time (EOT) claims
- Disruption claims
- Claim documentation standards
- **Case Study:** Highway expansion project EOT claim due to weather delays

Module 4: Delay Analysis Techniques

- Critical Path Method (CPM) analysis
- As-planned vs As-built analysis
- Impacted as-planned method
- Window analysis technique
- Concurrent delay assessment
- **Case Study:** Airport terminal construction delay forensic analysis

Module 5: Cost Overrun & Financial Risk Control

- Budget risk forecasting
- Cost escalation management
- Earned Value Management (EVM)
- Change order valuation
- Financial contingency planning
- **Case Study:** Urban metro rail cost overrun mitigation strategy

Module 6: Dispute Resolution & Arbitration

- Negotiation techniques
- Mediation in construction disputes
- Arbitration procedures (ICC, LCIA)
- Litigation risk management
- Dispute Avoidance Boards (DAB)
- **Case Study:** International dam project arbitration settlement

Module 7: Digital Tools in Risk & Claims Management

- BIM-based risk detection

- AI predictive analytics in construction
- Project management software integration
- Digital twin applications
- Data-driven decision making
- **Case Study:** Smart city infrastructure risk prediction using BIM

Module 8: Advanced Claims Strategy & Forensic Engineering

- Forensic delay analysis methods
- Claims negotiation strategy
- Legal evidence preparation
- Multi-party dispute management
- Contract closure optimization
- **Case Study:** Offshore oil platform construction claims settlement

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.com or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to FINESKILL TRAINING CENTER account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
07 Sep 2026	11 Sep 2026	Online	$1,500
14 Sep 2026	18 Sep 2026	Online	$1,500
21 Sep 2026	25 Sep 2026	Online	$1,500
28 Sep 2026	02 Oct 2026	Online	$1,500
05 Oct 2026	09 Oct 2026	Online	$1,500
12 Oct 2026	16 Oct 2026	Online	$1,500
19 Oct 2026	23 Oct 2026	Online	$1,500
26 Oct 2026	30 Oct 2026	Online	$1,500

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