ARTIFICIAL INTELLIGENCE (AI) IN CONTRACT AND PROJECT MANAGEMENT



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Introduction

Contract and project professionals spend much of their time on work that can be structured: reading clauses, comparing bids, checking progress against programme, chasing notices, and assembling reports. Artificial intelligence can take a large share of that work, but only when the data is clean, the process is defined, and someone is accountable for the output. This Artificial Intelligence (AI) in Contract and Project Management Training Course gives project directors, contract managers, and commercial professionals a complete working method for that adoption. Participants learn AI capabilities and limits, contract analytics, project forecasting, governance, and value measurement.

Artificial Intelligence (AI) in Contract and Project Management Course Objectives

- Apply AI capabilities and limits to contract and project work.
- Apply natural language processing to contract review and clause extraction.
- Build contract risk flagging and obligation tracking with AI support.
- Apply AI to bid evaluation, cost estimation, and quantity analysis.
- Apply predictive analytics to schedule, cost, and delay forecasting.
- Apply AI to progress monitoring, inspection, and quality data.
- Apply AI in claims analysis, evidence review, and dispute preparation.
- Design governance for AI use: data, validation, and human oversight.
- Apply AI contract clauses for tools used or supplied.
- Measure performance with cycle time, accuracy, and cost savings.

Course Methodology

- Facilitated sessions built on real contract sets, project data, and AI tool output.

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- Case workshops on AI review errors, forecasting failures, and data quality problems.
- Clause extraction, forecasting, and risk flagging exercises with live data.
- Tool evaluation, validation, and governance design labs.
- Group exercise on an AI adoption plan for a contract or project function.

Who Should Take This Course

- Project directors and project managers.
- Contract managers and commercial staff.
- Quantity surveyors and cost engineers.
- Planning engineers and delay analysts.
- Procurement and bid evaluation teams.
- Digital transformation and project controls leaders.

Artificial Intelligence (AI) in Contract and Project Management Course Outlines

Day 1: AI Capabilities and Limits in Project Work

- Machine learning, NLP, and generative AI fundamentals.
- Structured versus unstructured project and contract data.
- Where AI adds value: extraction, classification, prediction, drafting.
- Model limitations: hallucination, drift, and context gaps.
- Data readiness: quality, structure, and availability.
- Build versus buy versus integrate decisions.
- Business case construction for AI adoption.

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Day 2: Contract Analysis and Obligation Management

- Automated clause extraction and classification.
- Risk flagging against playbooks and fallback positions.
- Obligation, deliverable, and milestone extraction.
- Contract comparison and deviation detection.
- Notice and time bar monitoring support.
- Clause library management and drafting assistance.
- Validation of AI output against source documents.

Day 3: Estimating, Bidding, and Cost Intelligence

- AI-supported quantity take-off and cost estimation.
- Bid evaluation support and anomaly detection.
- Historical cost database construction and use.
- Price and productivity benchmarking with analytics.
- Should-cost modelling assisted by pattern recognition.
- Risk and contingency estimation support.
- Limits of AI in commercial judgement and negotiation.

Day 4: Schedule, Performance, and Forecasting

- Predictive analytics for schedule and cost performance.
- Delay risk identification and early warning signals.
- Progress monitoring with image and sensor data.
- Quality inspection support and defect detection.
- Productivity measurement and anomaly analysis.

- Claims analysis and evidence clustering.
- Integration with project controls and ERP systems.

Day 5: Governance, Risk, and Value Realisation

- AI governance: data ownership, access, and retention.
- Validation, testing, and quality assurance of AI output.
- Human oversight and accountability assignment.
- Confidentiality, privilege, and client data protection.
- AI contract clauses: warranties, liability, and audit rights.
- Change management and capability building for teams.
- KPIs: cycle time, accuracy, and cost savings.
- Building an AI adoption roadmap for contracts and projects.

Conclusion

By successfully completing the Artificial Intelligence (AI) in Contract and Project Management Training Course, participants will have acquired a thorough working knowledge of AI capabilities and limits, contract analysis and obligation management, estimating and bidding support, schedule and performance forecasting, and AI governance and value measurement. They will leave able to adopt AI where the data and process support it, validate output against source documents, and show the benefit in cycle time and cost. Gentex Training Center delivers this programme with project, contracts, and digital practitioners working on live programmes.

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FAQs for the Artificial Intelligence (AI) in Contract and Project Management course

Q1 What is the "Artificial Intelligence (AI) in Contract and Project Management" course about?

It is a five-day programme on applying artificial intelligence to contract administration and project delivery. It covers AI capabilities and limits, contract analysis and obligation management, estimating and bidding support, schedule and performance forecasting, and AI governance.

Q2 What are the key benefits of the "Artificial Intelligence (AI) in Contract and Project Management" course?

Participants adopt AI where data and process genuinely support it instead of buying capability they cannot use, cut review and reporting cycle time with validated output, and forecast delay and cost risk earlier with predictive signals. They also keep accountability and confidentiality intact through governance designed before deployment.

Q3 What skills will I gain from the "Artificial Intelligence (AI) in Contract and Project Management" course?

You will gain AI capability and limit assessment for project work, contract analysis and obligation extraction management, estimating, bidding, and forecasting analytics application, and AI governance, risk, and value realisation management.

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Q4 What tools, methods, or standards are covered in the "Artificial Intelligence (AI) in Contract and Project Management" course?

The course works with machine learning, natural language processing and generative AI fundamentals, structured versus unstructured project data assessment, AI use cases covering extraction, classification, prediction and drafting, model limitation analysis including hallucination and drift, data readiness assessment, build, buy and integrate decisions, automated clause extraction and classification, risk flagging against playbooks and fallback positions, obligation, deliverable and milestone extraction, contract comparison and deviation detection, notice and time bar monitoring, clause library management and drafting assistance, output validation against source documents, AI-supported quantity take-off and cost estimation, bid evaluation support and anomaly detection, historical cost database construction, price and productivity benchmarking, should-cost modelling with pattern recognition, risk and contingency estimation, predictive analytics for schedule and cost performance, delay risk identification and early warning signals, progress monitoring with image and sensor data, quality inspection and defect detection, productivity measurement and anomaly analysis, claims analysis and evidence clustering, project controls and ERP integration, AI governance covering data ownership, access and retention, validation, testing and quality assurance, human oversight and accountability assignment, confidentiality, privilege and client data protection, AI contract clauses covering warranties, liability and audit rights, change management and capability building, and KPIs covering cycle time, accuracy and cost savings.

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Q5 How is the "Artificial Intelligence (AI) in Contract and Project Management" course applied in real-world practice?

Teams apply it when automating clause extraction for a contract portfolio, flagging liability risk against a playbook before signature, supporting a bid evaluation with anomaly detection, predicting delay risk on a critical path, clustering evidence for a claims submission, and reviewing cycle time and accuracy gains at a project controls meeting.