



PM340: Artificial Intelligence in Project Management

Training Description:

This comprehensive five-day training course is designed to empower senior planning engineers with the knowledge and practical skills required to integrate Artificial Intelligence (AI) into modern project management practices. Through real-world examples, case studies, hands-on exercises, and strategic discussions, participants will explore how AI technologies can optimize project planning, enhance decision-making, improve risk management, and drive innovation. The training course bridges the gap between traditional project controls and cutting-edge AI tools, enabling participants to future-proof their roles and organizations.

Learning Outcomes:

By the end of the training, participants will be able to:

- ✓ Understand the core concepts of AI and how they relate to project management
- ✓ Identify and utilize AI tools for improving project scheduling and resource allocation
- ✓ Apply AI-based techniques to enhance risk prediction and mitigation strategies
- ✓ Integrate AI technologies into existing project management methodologies and systems
- ✓ Evaluate the benefits and challenges of AI adoption in project environments
- ✓ Formulate actionable plans to implement AI-driven innovations in ongoing and future projects

Training Designed for:

This training course is intended for Senior Planning Engineers, Project Managers, Project Controllers, PMO Professionals, Construction Managers, IT/Tech Leads in Project Environments and Professionals involved in project scheduling, cost control, or strategic planning.

Training Requirement:

“Hand’s on practical sessions, equipment and software will be applied during the course if required and as per the client’s request.”

Contents can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client’s learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

DAY ONE:

- ❖ **Introduction to Artificial Intelligence in Project Management**
 - What is Artificial Intelligence? Key concepts: machine learning, NLP, deep learning
 - Evolution of AI in engineering and project management
 - AI vs traditional data analytics in planning and control
 - Case studies: AI success stories in project management
 - Group discussion: Current challenges in planning and how AI could help
- ❖ **Objectives:**
 - Understand fundamental AI concepts and their relevance to project management
 - Identify current trends and the role of AI in the project lifecycle

DAY TWO:

❖ AI in Project Scheduling and Resource Optimization

- Smart scheduling tools: AI-based project scheduling platforms
- Predictive vs reactive scheduling
- Machine learning for resource leveling and allocation
- AI tools demo: Examples like ALICE Technologies, nPlan, ClearPlan, etc.
- Hands-on activity: Simulating resource allocation using an AI tool

❖ Objectives:

- Explore AI tools that enhance scheduling and resource utilization
- Learn how predictive analytics can improve time and cost planning

DAY THREE:

❖ AI for Risk Prediction and Mitigation

- Data-driven risk management: using historical data for future predictions
- Natural Language Processing (NLP) to identify project risks from reports/emails
- Risk scoring algorithms and confidence intervals
- AI tools for safety and risk visualization
- Workshop: Building a simple risk prediction model using real-world datasets.

❖ Objectives:

- Apply AI techniques to forecast project risks and uncertainties
- Understand how AI models detect early warning signs

DAY FOUR:

❖ Integrating AI into Existing Project Management Practices

- Integration challenges: tools, systems, and team culture
- Aligning AI insights with PMBOK or PRINCE2 methodologies
- Data infrastructure for AI: cleaning, governance, and pipelines
- Role of PMOs in driving AI adoption
- Group work: Designing an integration plan for AI in an ongoing project

❖ Objectives:

- Learn strategies to embed AI into current project frameworks
- Understand the technological and human aspects of AI integration

DAY FIVE:

❖ Strategic Planning for AI-Driven Project Innovation

- Measuring the success of AI implementation (KPIs, metrics)
- Overcoming resistance to AI adoption: change management strategies
- Future of AI in project delivery: trends and innovations (e.g., generative AI)
- Final project: Each participant presents an AI implementation strategy for their organization

❖ Objectives:

- Evaluate the ROI of AI in project environments.
- Develop a roadmap for implementing AI in strategic planning and innovation

❖ Course Conclusion

❖ POST-ASSESSMENT and EVALUATION

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Gamification, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

CMCT Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

TBA as per the course location - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

For training registrations or in-house enquiries, please contact:

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