AI in Project Management Course Content

Chapter 1: Introduction to Artificial Intelligence in Project Management
➢ Overview of AI and its evolution
➢ Aim and purpose of integrating AI in project management
➢ Scope of research and practice in the field
➢ AI within the corporate and organizational context

Chapter 2: Industry 4.0 and Digital Transformation
➢ Role of Industry 4.0 in shaping modern project management
➢ Emerging technologies: IoT, Blockchain, Big Data, Cloud Computing
➢ Synergy between Industry 4.0 and AI

Chapter 3: Types of AI Systems
➢ Narrow AI, General AI, and Generative AI
➢ Machine Learning, Deep Learning, and Natural Language Processing
➢ Decision-support vs. Autonomous systems in project contexts

Chapter 4: Project Management Fundamentals
➢ iClassical methodologies: Waterfall, Agile, Hybrid
➢ PMBOK framework and knowledge areas
➢ The evolving role of project managers in the AI era

Chapter 5: The Future of Project Management with AI
➢ Predictive project analytics
➢ Intelligent automation in planning, scheduling, and risk management
➢ AI as a co-pilot for project managers

Chapter 6: SWOT Analysis of AI in Project Management
➢ Strengths: efficiency, accuracy, predictive power
➢ Weaknesses: bias, dependency, complexity
➢ Opportunities: innovation, scalability, global adoption
➢ Threats: ethical risks, workforce disruption, data privacy

Chapter 7: Research Methodology for AI-PM Studies

➢ Research strategies and design (qualitative, quantitative, mixed)
➢ Data collection methods (surveys, interviews, case studies)
➢ Research quality: reliability, replicability, validity
➢ Ethical considerations in AI-related research

Chapter 8: Results from Surveys

➢ Survey design & data collection process
➢ Insights on AI adoption in project management
➢ Perceptions of AI in organisational business practices

Chapter 9: Results from Interviews

➢ Interview design & key stakeholder groups (PMs, executives, IT leads)
➢ Themes from project management professionals
➢ Views on AI tools and practical adoption barriers

Chapter 10: Analysis & Discussion – Project Management Community

➢ Requirements and expectations from AI systems
➢ Awareness and maturity of AI adoption in PM
➢ Comparison between survey and interview insights

Chapter 11: Building and Implementing AI Systems for Project Managers

➢ Frameworks for AI adoption in PM offices (PMOs)
➢ AI tool selection, integration, and customization
➢ Change management and organizational readiness

Chapter 12: Governance, Ethics, and the Future

➢ Ethical challenges in AI-driven decision making
➢ Data governance, compliance (GDPR, ISO, PMI guidelines)
➢ Responsible AI adoption in projects
➢ Future roadmap for AI in PM practice

Chapter 13: Capstone Projects

Learners design and present an AI-Augmented Project Management Plan that demonstrates:

➢ AI-assisted planning, scheduling, and resource allocation
➢ Risk and quality management using predictive AI tools
➢ AI-powered communication and reporting dashboards
➢ Consideration of ethics, governance, and change management