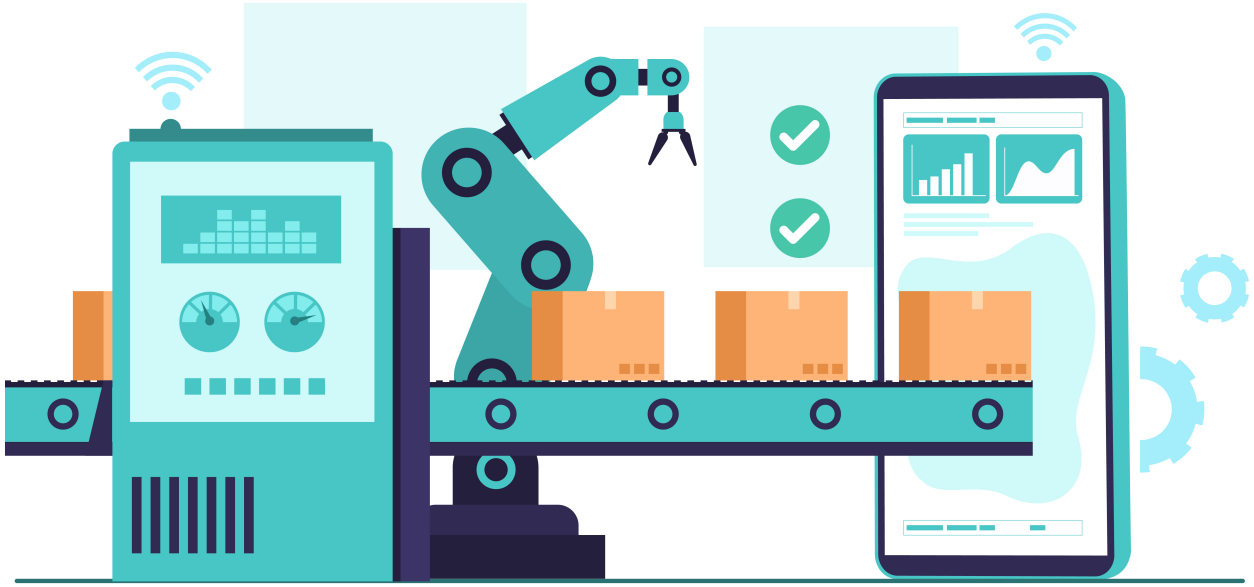

AI and Automation in Supply Chain and Inventory Planning

Duration: 5 Days

Language: en

Course Code: PI2-136

Objective

By the end of this course, participants will be able to:

- Understand the strategic role of AI and automation in modern supply chain management.
- Analyse how predictive analytics improves demand forecasting and inventory control.
- Apply AI tools to enhance warehouse operations and order fulfilment.
- Develop strategies to automate procurement and supplier engagement.
- Leverage intelligent systems to reduce waste, optimise logistics, and support sustainability goals.
- Identify implementation challenges and plan for effective technology integration across the supply chain.

Audience

This course is designed for:

- Supply chain and logistics professionals.
- Inventory planners and operations managers.
- Procurement and sourcing specialists.
- Data analysts and IT teams supporting logistics.
- Business leaders and consultants in retail, manufacturing, and e-commerce.

Training Methodology

This course uses a hands-on approach combining expert-led lectures, real-time analytics demonstrations, case study analysis, and group exercises. Participants will explore AI tools, simulate demand forecasts, and design automation strategies for inventory management. Each session includes feedback, interactive discussion, and implementation mapping to help learners apply concepts directly to their supply chain environment.

Summary

As global supply chains grow more complex and customer expectations rise, AI and automation have become critical tools in reshaping logistics, forecasting, and inventory operations. This course introduces participants to the transformative impact of AI and automation on the supply chain, focusing on demand prediction, warehouse optimisation, real-time monitoring, and intelligent decision-making. Through case studies, applied tools, and interactive sessions, participants will learn how to integrate these technologies to reduce costs, improve service levels, and build more resilient supply chains.

By the end of the course, learners will be equipped with actionable strategies to modernise their supply chain operations using AI-powered systems and automation frameworks.

Course Content & Outline

Section 1: The Future of Supply Chains with AI

- Introduction to AI and automation in logistics and inventory planning.
- The role of AI in creating responsive and resilient supply chains.
- Common challenges in traditional inventory and planning models.
- Key supply chain areas transformed by AI: from forecasting to distribution.
- Case studies of successful AI implementation in retail and manufacturing.

Section 2: AI for Demand Forecasting and Inventory Accuracy

- Machine learning models for demand prediction.
- How AI improves inventory accuracy and minimises stockouts.
- Real-time inventory visibility with AI-powered dashboards.
- Safety stock optimisation using predictive analytics.
- Tools for scenario modelling and demand sensing.

Section 3: Automation in Warehouse and Fulfilment Operations

- Robotics and automated picking systems in smart warehouses.
- IoT and sensors for inventory tracking and shelf monitoring.
- AI-driven order routing and fulfilment systems.
- Reducing manual errors and improving accuracy with automation.
- Integrating warehouse automation into supply chain workflows.

Section 4: Intelligent Procurement and Supplier Coordination

- Automating procurement cycles and supplier selection.
- Using AI for spend analysis and risk profiling.
- Enhancing supplier relationship management through predictive insights.
- Smart contracts and blockchain integration in procurement.
- Real-time collaboration platforms for supply chain transparency.

Section 5: Building a Smart, Sustainable Supply Chain

- Leveraging AI for sustainability and waste reduction.
- Identifying carbon-intensive processes in supply and delivery.
- Dynamic route optimisation and green logistics.
- Challenges in AI implementation: ethics, bias, and system integration.
- Future trends: Generative AI, autonomous supply chains, and digital twins.

Certificate Description

Upon successful completion of this training course, delegates will be awarded a Holistique Training Certificate of Completion. For those who attend and complete the online training course, a Holistique Training e-Certificate will be provided.

Holistique Training Certificates are accredited by the British Accreditation Council (BAC) and The CPD Certification Service (CPD), and are certified under ISO 9001, ISO 21001, and ISO 29993 standards.

CPD credits for this course are granted by our Certificates and will be reflected on the Holistique Training Certificate of Completion. In accordance with the standards of The CPD Certification Service, one CPD credit is awarded per hour of course attendance. A maximum of 50 CPD credits can be claimed for any single course we currently offer.

Categories

AI, Data and Visualisation, Procurement, Warehouse, Logistics & Supply Chain, Retail and Trade

Tags

Artificial Intelligence , Automation in Supply Chain , Intelligent Procurement , Smart supply chain

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