Smart Logistics Systems in Manufacturing Training Course

Professional Development Training Course Outline

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

Course Introduction

Smart Logistics Systems in Manufacturing represent the integration of AI-driven supply chains, IoT-enabled tracking, predictive analytics, and automation technologies to optimize end-to-end production and distribution networks. In today's Industry 4.0 environment, manufacturers are shifting from traditional logistics models to real-time, data-driven, and highly adaptive smart logistics ecosystems that reduce operational costs, improve visibility, and enhance delivery performance.

Smart Logistics Systems in Manufacturing Training Course is designed to equip professionals with advanced competencies in digital supply chain transformation, warehouse automation, intelligent inventory systems, robotics integration, and cloud-based logistics platforms. Participants will gain hands-on knowledge in deploying smart manufacturing logistics frameworks that improve efficiency, resilience, and sustainability across global supply chains.

Programme Curriculum

Smart Logistics Systems in Manufacturing Training Course

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robotics integration, and cloud-based logistics platforms. Participants will gain hands-on knowledge in deploying smart manufacturing logistics frameworks that improve efficiency, resilience, and sustainability across global supply chains.

Course Duration

5 days

Course Objectives

1. Master Industry 4.0 smart logistics integration
2. Understand AI-powered supply chain optimization
3. Apply IoT-based asset tracking systems
4. Implement predictive demand forecasting models
5. Design automated warehouse management systems (WMS)
6. Develop skills in real-time logistics data analytics
7. Explore digital twin logistics simulation
8. Optimize end-to-end supply chain visibility
9. Learn robotics and AGV (Automated Guided Vehicles) deployment
10. Enhance cloud-based logistics coordination systems
11. Improve lean manufacturing and logistics synchronization
12. Apply blockchain for supply chain transparency
13. Build expertise in sustainable smart logistics strategies

Target Audience

1. Supply Chain Managers
2. Logistics and Operations Professionals
3. Manufacturing Engineers
4. Industrial Automation Specialists
5. Warehouse Supervisors
6. ERP System Analysts
7. Procurement and Inventory Managers
8. Engineering and Supply Chain Students

Course Modules

Module 1: Foundations of Smart Logistics in Manufacturing

- Evolution from traditional to smart logistics systems
- Industry 4.0 and digital supply chain overview
- Key technologies: IoT, AI, Big Data
- Smart factory-logistics integration concepts
- Logistics digital transformation roadmap
- **Case Study:** Automotive manufacturer transitioning from manual logistics to IoT-enabled smart tracking system reducing delays by 35%

Module 2: IoT and Real-Time Asset Tracking

- RFID, sensors, and GPS tracking systems
- IoT architecture in logistics networks
- Real-time inventory monitoring

- Data capture and transmission systems
- Smart warehouse connectivity
- **Case Study:** FMCG company using RFID-based tracking to eliminate stock discrepancies and improve accuracy by 40%

Module 3: AI & Predictive Supply Chain Analytics

- Machine learning for demand forecasting
- Predictive maintenance in logistics equipment
- AI-based route optimization
- Risk prediction in supply chains
- Decision intelligence systems
- **Case Study:** Electronics manufacturer reducing overstock by 28% using AI-based demand prediction model

Module 4: Smart Warehouse Automation Systems

- Automated storage and retrieval systems (AS/RS)
- Robotics in warehouse operations
- Conveyor and sorting automation
- Warehouse management systems (WMS) integration
- Efficiency optimization techniques
- **Case Study:** E-commerce fulfillment center achieving 50% faster order processing through robotics automation

Module 5: Digital Twin in Logistics Systems

- Concept of digital twin technology
- Simulation of supply chain networks
- Scenario testing and optimization
- Real-time performance mirroring
- Risk-free operational modeling
- **Case Study:** Aerospace manufacturer using digital twin to reduce logistics downtime by 20%

Module 6: Blockchain in Supply Chain Transparency

- Distributed ledger technology basics
- Secure tracking of goods movement
- Fraud prevention and traceability
- Smart contracts in logistics
- Compliance and auditing improvements
- **Case Study:** Pharmaceutical supply chain improving drug traceability and eliminating counterfeit risks

Module 7: Sustainable Smart Logistics & Green Supply Chains

- Carbon footprint tracking systems
- Energy-efficient logistics operations
- Reverse logistics and recycling systems
- Sustainable packaging solutions
- ESG compliance in manufacturing logistics
- **Case Study:** Retail company reducing emissions by 30% using optimized green logistics routing

Module 8: Integrated Smart Logistics Ecosystems

- ERP and SCM system integration
- Cloud-based logistics platforms
- Cross-border logistics coordination
- Cybersecurity in smart logistics
- Future trends in autonomous supply chains
- **Case Study:** Global manufacturer achieving unified supply chain visibility across 12 countries via cloud integration

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.org 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
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com