Edge Computing in SCM Training Course

Professional Development Training Course Outline

Category	Logistics and Supply Chain Management	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

The rapid evolution of digital technologies has transformed modern supply chain management, creating a pressing need for innovative solutions that enhance operational efficiency and real-time decision-making. Edge computing, a revolutionary paradigm in data processing, enables organizations to process information closer to the source, reducing latency, improving data security, and optimizing resource utilization. This course provides a comprehensive exploration of edge computing applications in supply chain management, integrating advanced analytics, IoT integration, predictive maintenance, and AI-driven insights to ensure seamless supply chain operations. Participants will gain practical knowledge on implementing edge computing solutions to accelerate data-driven decision-making, minimize operational disruptions, and enhance overall supply chain resilience.

With the increasing adoption of smart logistics, autonomous supply chain technologies, and cloud-edge hybrid systems, organizations require professionals skilled in leveraging edge computing to achieve competitive advantages. Edge Computing in Supply Chain Management Training Course is designed for supply chain professionals, IT specialists, and operational managers seeking to bridge the gap between emerging technologies and practical supply chain applications. By blending theoretical frameworks with real-world case studies, participants will develop the capability to implement edge computing strategies that streamline operations, optimize inventory management, enhance supplier collaboration, and increase customer satisfaction. The training emphasizes hands-on experience, analytical thinking, and strategic integration of edge computing technologies across the supply chain ecosystem.

Programme Curriculum

Edge Computing in Supply Chain Management Training Course

Introduction

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Course Objectives

1. Understand the fundamentals of edge computing and its relevance in supply chain management.
2. Explore IoT integration with edge computing for real-time supply chain monitoring.
3. Analyze predictive analytics applications for demand forecasting and inventory optimization.
4. Implement edge computing strategies to reduce latency in logistics operations.
5. Apply AI-driven insights for enhanced supply chain decision-making.
6. Evaluate data security and privacy considerations in edge computing deployments.
7. Develop edge-to-cloud hybrid solutions for efficient supply chain processes.
8. Investigate automation and smart logistics integration using edge technologies.
9. Examine case studies of successful edge computing applications in global supply chains.
10. Identify challenges and risks associated with edge computing adoption.
11. Design a roadmap for implementing edge computing within an organization.
12. Enhance supplier collaboration and communication through real-time data sharing.
13. Improve customer satisfaction and operational efficiency using advanced edge solutions.

Organizational Benefits

1. Faster data processing and decision-making across supply chains.
2. Reduced operational latency and improved logistics efficiency.

3. Enhanced inventory management through predictive analytics.
4. Strengthened data security and privacy compliance.
5. Streamlined supplier collaboration and communication.
6. Real-time monitoring of production and distribution processes.
7. Improved customer satisfaction and service delivery.
8. Cost reduction through optimized resource allocation.
9. Competitive advantage through technology-driven innovation.
10. Increased scalability and adaptability in dynamic market conditions.

Target Audiences

1. Supply Chain Managers
2. Logistics Coordinators
3. IT and Cloud Computing Professionals
4. Operations Managers
5. Data Analysts
6. Manufacturing Engineers
7. Procurement Specialists
8. Business Process Managers

Course Duration: 10 days

Course Modules

Module 1: Introduction to Edge Computing in SCM

- Fundamentals of edge computing technology
- Role of edge computing in modern supply chains
- Key challenges and opportunities in adoption
- Integration with traditional SCM systems
- Case study: Real-time inventory monitoring in retail
- Hands-on exercise: Setting up an edge computing environment

Module 2: IoT Integration and Sensor Data Management

- Overview of IoT in supply chains
- Data acquisition from connected devices

- Edge-based sensor data processing
- Data visualization for real-time insights
- Case study: Smart warehouse IoT implementation
- Hands-on exercise: Configuring edge IoT devices

Module 3: Predictive Analytics and Demand Forecasting

- Fundamentals of predictive analytics in SCM
- Data preprocessing at the edge
- Machine learning models for demand forecasting
- Integration with ERP systems
- Case study: Predictive demand analytics in FMCG
- Hands-on exercise: Building an edge analytics model

Module 4: Edge-to-Cloud Hybrid Solutions

- Cloud computing fundamentals in SCM
- Designing hybrid architectures
- Data synchronization and processing pipelines
- Security and privacy considerations
- Case study: Multi-tier supply chain edge-cloud deployment
- Hands-on exercise: Implementing edge-cloud workflows

Module 5: AI-driven Decision Making

- AI applications in supply chain optimization
- Real-time decision support systems
- Edge AI for logistics route planning
- Reducing human intervention using AI
- Case study: AI-driven warehouse management
- Hands-on exercise: Implementing edge AI algorithms

Module 6: Smart Logistics and Automation

- Autonomous systems in logistics
- Robotics and automated material handling
- Integration of edge computing in transportation

- Real-time route optimization
- Case study: Smart logistics in e-commerce
- Hands-on exercise: Deploying edge-based automation tools

Module 7: Data Security and Compliance

- Cybersecurity challenges in edge computing
- Privacy regulations and compliance frameworks
- Risk assessment and mitigation strategies
- Edge security protocols
- Case study: Data breach prevention in SCM
- Hands-on exercise: Securing edge devices

Module 8: Supplier Collaboration and Visibility

- Real-time supplier data sharing
- Edge-enabled vendor management systems
- Improving supplier performance using analytics
- Transparency in procurement operations
- Case study: Supplier network optimization
- Hands-on exercise: Building a supplier dashboard

Module 9: Inventory Optimization and Warehouse Management

- Edge solutions for inventory tracking
- Automated restocking and demand response
- Reducing stockouts and overstock situations
- Data-driven warehouse layout planning
- Case study: Warehouse efficiency improvements
- Hands-on exercise: Implementing inventory edge solutions

Module 10: Transportation and Fleet Management

- Real-time fleet monitoring using edge devices
- Predictive maintenance for vehicles
- Edge analytics for route planning
- Reducing fuel costs and downtime

- Case study: Fleet optimization in logistics
- Hands-on exercise: Implementing edge fleet solutions

Module 11: Manufacturing Process Optimization

- Edge computing in production monitoring
- Real-time quality control systems
- Reducing machine downtime with predictive analytics
- Integration with MES (Manufacturing Execution Systems)
- Case study: Smart factory implementation
- Hands-on exercise: Deploying edge-based monitoring

Module 12: Risk Management and Business Continuity

- Identifying risks in supply chain operations
- Edge-enabled risk monitoring systems
- Disaster recovery and contingency planning
- Real-time alerts and mitigation strategies
- Case study: Risk reduction in global SCM
- Hands-on exercise: Setting up edge risk monitoring

Module 13: Customer Experience Enhancement

- Real-time tracking for improved customer service
- Personalization using edge analytics
- Proactive issue resolution in logistics
- Improving delivery accuracy and timelines
- Case study: Customer satisfaction improvement
- Hands-on exercise: Customer experience dashboard

Module 14: Emerging Trends in Edge Computing and SCM

- AIoT (AI + IoT) developments
- Blockchain integration with edge computing
- Future of autonomous supply chains
- Industry 4.0 applications
- Case study: Innovative SCM technology adoption

- Hands-on exercise: Exploring new edge tools

Module 15: Capstone Project and Case Study Analysis

- Review of key concepts and applications
- Group project on edge computing deployment
- Data-driven problem-solving exercises
- Case study: End-to-end SCM optimization
- Presentation and peer review
- Hands-on exercise: Implementing a full-edge SCM solution

Training Methodology

- Interactive lectures with real-world examples
- Hands-on workshops and lab exercises
- Case study analyses for practical understanding
- Group discussions and collaborative problem-solving
- Simulation exercises to replicate supply chain scenarios
- Continuous feedback and assessments
- Practical demonstrations of edge computing tools
- Real-time IoT device configurations
- Hybrid learning combining online and in-person modules
- Personalized mentoring for project completion

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	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

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