Datastat Research
Building Capacity in Training and Research

DATASTAT TRAINING IN

OFFICIAL COURSE PROSPECTUS

Center for Advanced Research & Professional Development

Nairobi Training Center • Global Virtual Academy • Corporate On-Site

ENTERPRISE RESOURCE PLANNING (ERP)

Edge Computing and ERP in Manufacturing Training Course

Comprehensive Course Syllabus, Practical Modules & Upcoming Schedules

PROGRAM SPECIFICATIONS & HIGHLIGHTS

DURATION
5 Days Practical Hands-on

DELIVERY MODES
In-Person Class & Live Virtual

CERTIFICATION
Accredited Certificate of Completion

INTAKES / DATES
Multiple Cohort Schedules Included

PREPARED FOR:

Valued Participant

Email: training@datastatresearch.org | Issued: November 21, 2026

Academic & Professional Training Year: 2026

DATASTAT TRAINING INSTITUTE

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Edge Computing and ERP in Manufacturing Training Course

Enterprise Resource Planning (ERP) • 5 Days Intensive • Accredited Certification

Course Overview

Edge Computing and ERP in Manufacturing Training Course empowers participants with in-depth insights into edge-enabled digital transformation, IoT integration, predictive maintenance, and AI-driven supply chain optimization.

Upcoming Training Schedules

Confirmed cohort intakes and venues. Both physical in-person classroom and live virtual online seats are available.

TRAINING DATES	LOCATION / VENUE	FORMAT / DURATION	INVESTMENT (FEE)
29 Dec 2025 – 2 Jan 2026	Nairobi	Classroom / 5d	**$1,500 USD / KES 110,000**
29 Dec 2025 – 2 Jan 2026	Kigali	Classroom / 5d	**$3,000 USD / KES 90,000**
29 Dec 2025 – 2 Jan 2026	Dubai	Classroom / 5d	**$5,000 USD / KES 90,000**
29 Dec 2025 – 2 Jan 2026	Cape Town	Classroom / 5d	**$4,500 USD / KES 90,000**
29 Dec 2025 – 2 Jan 2026	Addis Ababa	Classroom / 5d	**$3,000 USD / KES 90,000**
29 Dec 2025 – 2 Jan 2026	Singapore	Classroom / 5d	**$5,000 USD / KES 90,000**
29 Dec 2025 – 2 Jan 2026	Istanbul	Classroom / 5d	**$5,000 USD / KES 90,000**
29 Dec 2025 – 2 Jan 2026	Bangkok	Classroom / 5d	**$5,000 USD / KES 90,000**
29 Dec 2025 – 2 Jan 2026	Accra	Classroom / 5d	**$4,000 USD / KES 90,000**
5 Jan 2026 – 9 Jan 2026	Nairobi	Classroom / 5d	**$1,500 USD / KES 110,000**
5 Jan 2026 – 9 Jan 2026	Kigali	Classroom / 5d	**$3,000 USD / KES 90,000**
5 Jan 2026 – 9 Jan 2026	Dubai	Classroom / 5d	**$5,000 USD / KES 90,000**

* Corporate discounts and customized cohort scheduling are available for teams of 3 or more participants.

Course Curriculum & Modules

Edge Computing and ERP in Manufacturing Training Course

Introduction

In the era of Industry 4.0, manufacturing organizations are rapidly adopting Edge Computing and Enterprise Resource Planning (ERP) systems to enhance real-time decision-making, data-driven production, and smart factory automation. Edge Computing and ERP in Manufacturing Training Course empowers participants with in-depth insights into edge-enabled digital transformation, IoT integration, predictive maintenance, and AI-driven supply chain optimization. By combining the strengths of edge technology with modern ERP systems, learners will gain hands-on expertise to streamline operations, improve efficiency, and reduce downtime in a competitive manufacturing landscape.

This course bridges the gap between operational technology (OT) and information technology (IT) by providing practical knowledge in edge analytics, cybersecurity, data orchestration, and ERP cloud migration. Through real-world case studies, interactive labs, and expert-led sessions, participants will master how edge-enabled ERP architectures can transform production lines, improve resource utilization, and create smart, resilient, and sustainable manufacturing ecosystems.

Course Duration

5 days

Course Objectives

- Understand the fundamentals of Edge Computing architecture and its role in smart manufacturing.
- Integrate IoT devices and sensors with ERP systems for real-time data processing.
- Analyze AI-powered analytics for predictive maintenance and performance optimization.

- Explore cloud-edge hybrid models for scalable ERP deployments.
- Implement cybersecurity best practices in edge-connected manufacturing systems.
- Optimize supply chain management through edge intelligence and ERP visibility.
- Leverage digital twins and edge AI for production process simulation.
- Improve operational efficiency with edge-enabled automation.
- Design data-driven manufacturing strategies using edge analytics dashboards.
- Assess the ROI and cost-efficiency of edge-integrated ERP solutions.
- Develop smart factory frameworks aligning with Industry 4.0 standards.
- Enhance collaboration and scalability across distributed manufacturing networks.
- Apply machine learning models at the edge for quality control and defect prediction.

Target Audience

- Manufacturing Engineers
- ERP System Administrators
- IoT Solution Architects
- Data Analysts & AI Engineers
- Operations Managers
- IT Infrastructure Specialists
- Supply Chain Professionals
- Industrial Automation Consultants

Course Modules

Module 1: Fundamentals of Edge Computing in Manufacturing

- Overview of Edge Computing Architecture
- Edge vs Cloud and On-Premises Models
- Real-Time Data Processing Techniques
- Integration with Manufacturing Execution Systems (MES)
- Case Study: Siemens Edge Implementation in Automotive Production

Module 2: ERP Systems and Digital Transformation

- ERP Core Functions in Manufacturing
- Cloud ERP and On-Prem ERP
- Data Synchronization Challenges
- Real-Time Decision Support Systems
- Case Study: SAP S/4HANA Deployment in Smart Factory

Module 3: IoT Integration with Edge and ERP

- IoT Device Management and Connectivity
- Data Ingestion and Processing Pipelines
- Protocols
- IoT-ERP Data Synchronization
- Case Study: GE Predix Integration in Energy Manufacturing

Module 4: AI and Predictive Analytics at the Edge

- Machine Learning at the Edge
- Predictive Maintenance Algorithms
- Edge AI Frameworks
- Real-Time Defect Detection
- Case Study: Predictive Maintenance in Aerospace Components

Module 5: Cybersecurity for Edge and ERP Systems

- Edge Device Security Layers
- Data Encryption and Zero-Trust Models
- ERP Access Control Policies

- Secure Data Transmission
- Case Study: Cybersecurity Implementation in Industrial IoT Network

Module 6: Supply Chain Optimization with Edge Intelligence

- Real-Time Tracking and Inventory Management
- Edge-Enabled Demand Forecasting
- Data-Driven Logistics Optimization
- ERP-Integrated Procurement Automation
- Case Study: Edge Analytics for Global Supply Chain Visibility

Module 7: Cloud-Edge Hybrid ERP Architectures

- Hybrid Infrastructure Design
- Edge Node Management and Orchestration
- Cloud Integration and Latency Reduction
- Disaster Recovery and Backup Strategies
- Case Study: Hybrid ERP Implementation in Pharmaceutical Manufacturing

Module 8: Smart Factory Implementation & ROI Analysis

- Building Smart Factory Ecosystems
- Edge Analytics Dashboard Development
- Performance Metrics and KPIs
- ROI Measurement Framework
- Case Study: Digital Twin Deployment in Electronics Manufacturing

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@datastatresearch.org or call +254724527104

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 DATASTAT CONSULTANCY LTD account, as indicated in the invoice so as to enable us prepare better for you.

Certification & Learning Methodology

- Hands-on practical delivery with real-world datasets, case studies, and lab exercises.
- Post-training mentorship, access to class resources, and customized follow-up support.
- Participants who successfully complete the course receive an accredited Datastat Certificate of Completion.

How to Enroll & Reserve Your Seat

1. Online Registration: Visit https://datastatresearch.org/courses/edge-computing-and-erp-in-manufacturing-training-course to register online.
2. Email Booking: Send participant details to training@datastatresearch.org for official invoice & reservation.
3. Support & Assistance: Inquire via phone +254 724 527 104 | +254 734 969 612.