Advanced Warehouse Automation and Robotics Training Course

28 February – 4 March 2027
Muscat

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Training Center

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Ref: 878_166329 **Date:** 28 February – 4 March 2027 **Location:** Muscat **Fees:** 5700 Euro

Overview

Advanced Warehouse Automation and Robotics Training Course is a one-week course for warehouse operations managers, automation engineers, intralogistics planners, maintenance leads, and supply-chain technology specialists who leave with a Warehouse Automation Deployment Pack. Participants connect material flows, conveyors, AS/RS, AMRs, robotic picking, WMS/WCS/WES interfaces, safety, reliability, and throughput decisions. The course turns equipment choices into an integrated operating model. Agile Leaders Training Center develops warehouse automation and robotics practice.

Who Should Attend

- Warehouse operations functions responsible for receiving, storage, picking, packing, and dispatch
- Automation engineering functions responsible for equipment selection and systems integration
- Intralogistics planning functions responsible for material flow, capacity, and layout decisions
- Maintenance functions responsible for availability, fault response, and lifecycle performance
- Supply-chain technology functions responsible for WMS, WCS, WES, and data interfaces

The course assumes participants already work with warehouse processes or automation decisions; it leaves out robot programming, equipment installation, and specialist safety certification.

Departments and Industries

The course supports departments and industries that automate storage, movement, picking, and fulfillment.

- Warehousing, distribution, ecommerce, and retail fulfillment
- Manufacturing, industrial supply, and spare-parts operations
- Food, cold-chain, pharmaceutical, and healthcare distribution
- Ports, freight terminals, logistics providers, and parcel networks
- Automation integrators, equipment suppliers, and maintenance organizations

Learning Objectives

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

- Analyze warehouse flows and identify suitable automation use cases.
- Compare conveyors, AS/RS, AMRs, AGVs, and robotic picking options.
- Build WMS, WCS, WES, equipment, and data interface maps.
- Apply robot safety, exception-handling, and maintenance controls.
- Evaluate throughput, availability, risk, and investment evidence.
- Build a Warehouse Automation Deployment Pack.

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Course Agenda

Day 1: Frame Warehouse Automation

- Warehouse Process and Material-Flow Map
- Automation Use-Case Selection Matrix
- Volume, Order, and SKU Profile
- Manual-to-Automated Operating Boundary
- Warehouse Automation Stakeholder Canvas

Day 2: Select Robotic Technologies

- Conveyor and Sortation Application Grid
- AS/RS Capacity and Access Model
- AMR and AGV Selection Scorecard
- Robotic Picking Task Suitability Matrix
- Equipment Layout and Traffic-Flow Diagram

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Day 3: Integrate Systems and Workflows

- WMS, WCS, and WES Responsibility Model
- Order-to-Task Interface and Data Map
- Automation Command and Confirmation Sequence
- Exception Queue and Recovery Workflow
- Inventory, Location, and Equipment Data Controls

Day 4: Govern Safety and Reliability

- ISO 3691-4:2023 Driverless Truck Safety Review
- Robot Task and Lifecycle Hazard Assessment
- Safeguarding and Access-Control Map
- Failure Mode and Maintenance Priority Register
- Availability, Throughput, and Bottleneck Scorecard

Day 5: Practice Automation Deployment

- Exercise: Diagnose a Material-Flow Bottleneck
- Exercise: Select an AMR and AS/RS Configuration
- Exercise: Resolve a WMS-to-WCS Exception
- Exercise: Evaluate a Robot Safety and Reliability Case
- Capstone: Warehouse Automation Deployment Pack

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Practical Exercises

The course uses suggested activities based on distribution centers, production warehouses, cold-chain facilities, and parcel operations.

- Suggested activity: map orders, material movements, decisions, and automation boundaries.
- Suggested activity: compare technology options against load, route, capacity, and service requirements.
- Suggested activity: trace system messages and recover a failed automated task.
- Suggested activity: defend a deployment roadmap using safety, reliability, and throughput evidence.

FAQs

Who suits warehouse automation and robotics training, and what does it assume?

Warehouse operations, automation, intralogistics, maintenance, and supply-chain technology functions suit the training. It assumes regular involvement in warehouse processes or automation decisions.

How does warehouse automation and robotics training differ from general warehouse management training?

Warehouse automation and robotics training focuses on equipment, mobile robots, system interfaces, safety, reliability, and deployment, while general warehouse management training concentrates on inventory, labor, space, and operating procedures.

How are AMRs and AGVs selected for warehouse automation?

AMRs and AGVs are selected by comparing load, route, navigation, traffic, interface, charging, safety, exception, capacity, and operating-environment requirements.

How do WMS, WCS, and WES interact in automated warehousing?

WMS manages inventory and orders, WCS controls automation equipment, and WES coordinates work and task execution across people, systems, and machines.

How is robotic warehouse reliability evaluated?

Robotic warehouse reliability is evaluated through failure modes, availability, recovery time, maintenance priorities, spare-parts needs, exception history, and throughput effects.

Conclusion

Participants take back a Warehouse Automation Deployment Pack containing process maps, selection matrices, interface views, safety controls, reliability records, performance measures, and a deployment roadmap. It changes isolated equipment proposals into an integrated warehouse operating model. The pack supports traceable selection, coordinated implementation, and accountable operations.