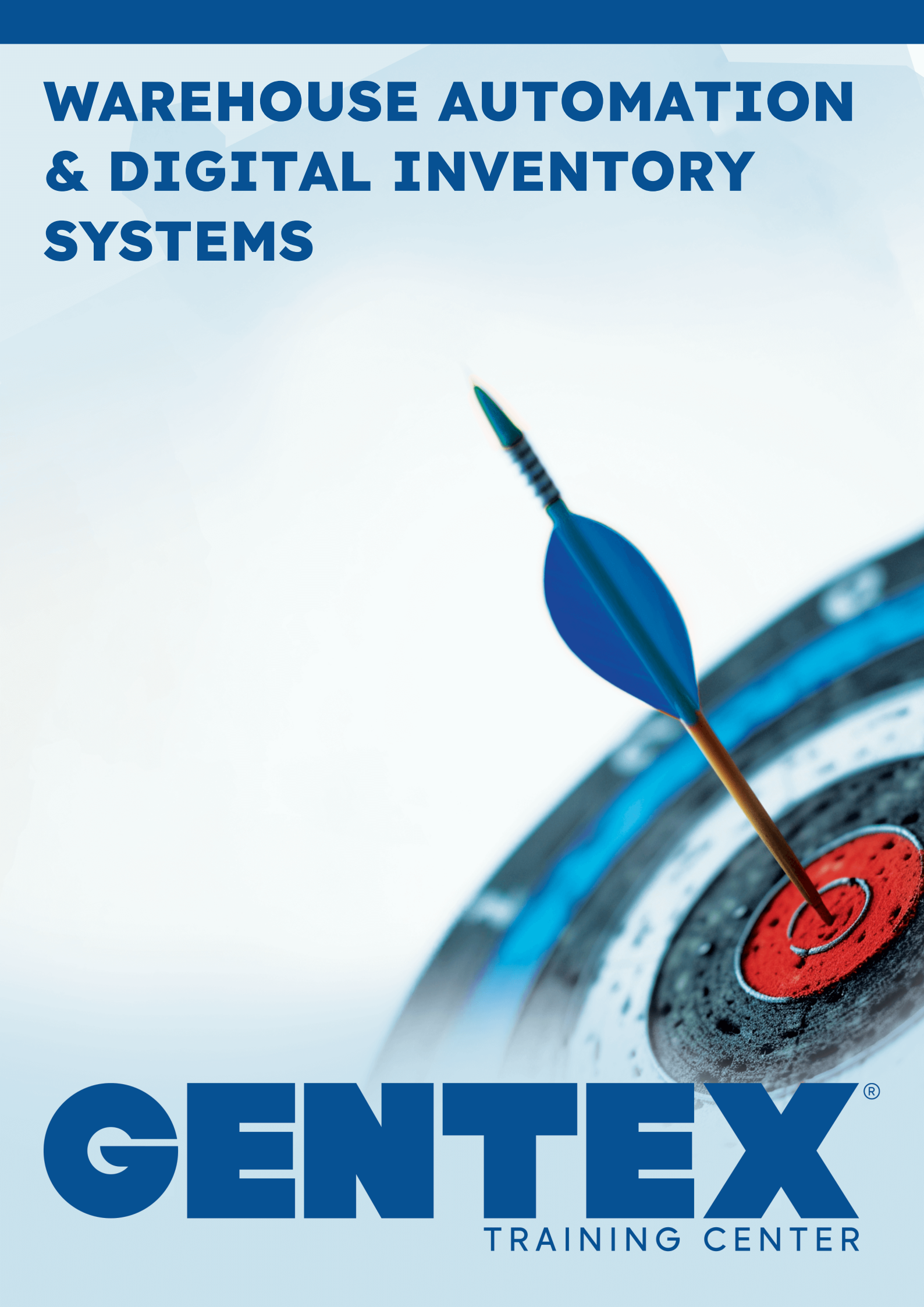
WAREHOUSE AUTOMATION & DIGITAL INVENTORY SYSTEMS



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Introduction

Warehouse automation pays back only when the process, the data, and the people are ready for it. Conveyors, AS/RS cranes, AMRs, and pick-to-light systems solve throughput problems, but they also expose weak master data and poor labelling within days of go-live. This Warehouse Automation & Digital Inventory Systems Training Course gives warehouse, logistics, and systems professionals a practical method to select, justify, implement, and operate automated and digital inventory technology. Participants learn how to assess readiness, build the business case, integrate WMS and ERP data, use barcode and RFID capture properly, and measure whether automation actually delivered. Furthermore, the course covers change management, ramp-up, and system support.

Warehouse Automation & Digital Inventory Systems Course Objectives

- Assess warehouse automation readiness across process, data, and people dimensions.
- Match technology options to the problem: conveyors, AS/RS, AMRs, and pick-to-light.
- Build a business case with payback, labour saving, and accuracy improvement.
- Specify WMS functional requirements and integration points with ERP.
- Design barcode, QR code, and RFID data capture across receiving, storage, and dispatch.
- Plan slotting and layout changes required before automation go-live.
- Manage implementation: vendor selection, user acceptance testing, and cutover.
- Control master data quality so automated systems receive clean inputs.
- Measure automation performance with throughput, accuracy, and uptime indicators.
- Manage change, training, ramp-up, and support after go-live.

Course Methodology

- Facilitated sessions built on real warehouse processes and system configurations.

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- Automation option comparison exercises with cost and throughput data.
- WMS requirement workshops and integration mapping exercises.
- Simulation of a go-live cutover plan with contingency steps.
- Group exercise on a business case and implementation plan for one automation project.

Who Should Take This Course

- Warehouse and distribution centre managers.
- Logistics and operations improvement officers.
- WMS and ERP super users and system owners.
- Supply chain technology and digital transformation staff.
- Automation and industrial engineering project leads.
- IT and data governance officers supporting warehouse systems.

Warehouse Automation & Digital Inventory Systems Course Outlines

Day 1: Automation Readiness and Technology Landscape

- Signs a warehouse is ready for automation and signs it is not.
- Technology families: conveyors, sorters, AS/RS, AMRs, and goods-to-person systems.
- Pick-to-light, voice picking, and put-to-light technologies.
- Automated packaging and labelling options.
- Throughput, density, and flexibility trade-offs per option.
- Common automation failures and their root causes.

- Readiness assessment: process stability, volume profile, and data quality.

Day 2: Business Case, Costing, and Vendor Selection

- Baseline measurement before any automation decision.
- Labour saving, accuracy gain, space release, and service improvement modelling.
- Capital cost, operating cost, maintenance, and payback calculation.
- Total cost of ownership over the asset life.
- Vendor assessment criteria and reference site visits.
- Contract terms: performance guarantees, service levels, and spare parts.
- Risk assessment and contingency planning for the project.

Day 3: WMS, ERP Integration, and Master Data

- WMS core functions: receiving, put-away, replenishment, picking, and dispatch.
- Integration points between WMS, ERP, and transport systems.
- Interface design, message flows, and error handling.
- Material master and item data required for automation.
- Location, bin, and label standards for automated handling.
- Data migration, cleansing, and validation before go-live.
- Reporting and dashboard requirements from the systems.

Day 4: Data Capture, Labelling, and Process Design

- Barcode types, symbologies, and print quality standards.
- QR code and RFID use cases and cost comparison.
- Scanner selection: handheld, fixed mount, and mobile terminals.
- Label placement, durability, and verification routines.

- Process redesign before automation rather than after.
- Slotting and layout changes to support the equipment.
- Exception handling design for misreads, rejects, and shortages.

Day 5: Implementation, Change Management, and Performance

- Project phases: design, build, testing, cutover, and ramp-up.
- User acceptance testing and parallel run planning.
- Training, super users, and floor-level support during go-live.
- Change management for roles affected by automation.
- KPIs: throughput per hour, accuracy, uptime, and cost per order.
- Post-implementation review and benefits realisation tracking.
- Building a multi-year automation and digital roadmap.

Conclusion

By successfully completing the Warehouse Automation & Digital Inventory Systems Training Course, participants will have acquired a solid working knowledge of automation readiness assessment, technology selection, business case construction, WMS and ERP integration, barcode and RFID data capture, implementation management, and performance measurement. They will leave able to judge whether automation fits their operation, specify it properly, and measure whether it delivered what it promised. Gentex Training Center delivers this programme with logistics technology practitioners who implement these systems in live operations.

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FAQs for the Warehouse Automation & Digital Inventory Systems course

Q1 What is the "Warehouse Automation & Digital Inventory Systems" course about?

It is a five-day programme on selecting, implementing, and running warehouse automation and digital inventory technology. It covers readiness assessment, technology options, business cases, WMS and ERP integration, data capture, go-live management, and performance measurement.

Q2 What are the key benefits of the "Warehouse Automation & Digital Inventory Systems" course?

Participants avoid buying automation their data cannot support, build business cases that survive finance scrutiny, and run go-lives with fewer surprises. They also gain cleaner master data, faster throughput, and a way to prove whether the investment actually paid back.

Q3 What skills will I gain from the "Warehouse Automation & Digital Inventory Systems" course?

You will gain automation readiness assessment and technology selection, business case and vendor evaluation, WMS and ERP integration with master data control, and digital data capture implementation with performance measurement.

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Q4 What tools, methods, or standards are covered in the "Warehouse Automation & Digital Inventory Systems" course?

The course works with automation technology families including conveyors, sorters, AS/RS, AMRs and goods-to-person systems, pick-to-light and voice picking, total cost of ownership and payback modelling, vendor performance guarantees and service level agreements, WMS functional requirements with ERP interface mapping, material master and location data standards, barcode symbologies and print quality standards, QR code and RFID use cases, user acceptance testing and parallel run planning, go-live cutover checklists, and automation KPIs including throughput per hour, accuracy and uptime.

Q5 How is the "Warehouse Automation & Digital Inventory Systems" course applied in real-world practice?

Teams apply it when assessing whether a site is ready for automation, writing a WMS requirement specification, evaluating vendor proposals, cleaning item and location data before go-live, planning a cutover weekend, and reviewing automation benefits after ramp-up. It also guides labelling standards and scanner selection across a network.