LAPT

LONDON ACADEMY OF PROFESSIONAL TRAINING

CERTIFICATE

ISO 22737 — Automated Driving Low-Speed Vehicles

ISO Certification Programme

LAPT — London Academy of Professional Training

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Reference TR-SMV-22737 • ISO Transport

UKPRN 10067351 • Registered in England and Wales, company 4984798

6	15	72	430	60%	Lifetime
SUBJECTS	CHAPTERS	CLASSES	TOTAL MARKS	PASS MARK	VALIDITY

AT A GLANCE

REFERENCE	**TR-SMV-22737**
AWARD	**Certificate**
ASSESSMENT	**430 marks — 258 to pass (60%)**
PREREQUISITES	**None**
VALIDITY	**Lifetime**
AWARDING BODY	**LAPT — London Academy of Professional Training**

CURRICULUM

1 Innovative Design Solutions

0 chapters · **45 marks**

2 ISO Standards Compliance

5 chapters · 30 classes · **85 marks**

- **1 Understanding ISO 22737: Framework and Principles** — 6 classes
  - 1.1 Identify Key Concepts in ISO 22737
  - 1.2 Explore the Scope of Automated Low-Speed Vehicle Standards
  - 1.3 Analyze the Framework of ISO 22737 Compliance
  - 1.4 Examine the Principles of Risk Assessment in Automated Driving
  - 1.5 Discuss Stakeholder Responsibilities in ISO 22737 Implementation
  - 1.6 Apply ISO 22737 Principles to Case Study Scenarios
- **2 The Role of ISO Standards in Automated Driving** — 6 classes
  - 2.1 Explain the Significance of ISO Standards in Automated Driving
  - 2.2 Identify Key ISO Standards Relevant to Low-Speed Automated Vehicles
  - 2.3 Analyze the Structure and Purpose of ISO 22737
  - 2.4 Explore Compliance Requirements for Automated Driving Systems
  - 2.5 Assess the Impact of ISO Compliance on Safety and Performance
  - 2.6 Develop a Plan for Implementing ISO Standards in Automated Vehicle Projects
- **3 Compliance Requirements of ISO 22737** — 6 classes
  - 3.1 Define Compliance Requirements for ISO 22737
  - 3.2 Identify Key Components of Automated Driving Low-Speed Vehicles
  - 3.3 Analyze Regulatory Framework Impacting ISO 22737 Compliance
  - 3.4 Assess Risk Management Strategies for Low-Speed Vehicles
  - 3.5 Develop a Compliance Checklist for ISO 22737
  - 3.6 Implement Best Practices for ISO 22737 Compliance in Real-world Scenarios
- **4 Assessment and Audit Processes for Compliance** — 6 classes
  - 4.1 Understand the Purpose of Assessment and Audit Processes
  - 4.2 Identify Key Components of ISO 22737 Compliance
  - 4.3 Explore Different Assessment Methods for Compliance
  - 4.4 Analyze Audit Procedures in Automated Driving Context
  - 4.5 Evaluate Case Studies of Successful Compliance Audits
  - 4.6 Implement Action Plans for Continuous Compliance Improvement
- **5 Future Trends in ISO Standards for Automated Vehicles** — 6 classes
  - 5.1 Identify Key Future Trends in ISO Standards for Automated Vehicles
  - 5.2 Evaluate the Impact of Technological Advancements on ISO Compliance
  - 5.3 Analyze Case Studies of ISO 22737 Implementation in Low-Speed Vehicles
  - 5.4 Discuss the Role of International Collaboration in Shaping Future ISO Standards
  - 5.5 Develop Strategies for Ensuring Compliance with Upcoming ISO Regulations
  - 5.6 Create a Roadmap for Integrating Future ISO Standards in Automated Vehicle Designs

3 Leadership in Cross-Functional Teams

0 chapters · **65 marks**

4 Performance Evaluation Methods

0 chapters · **65 marks**

5 Risk Analysis and Mitigation

5 chapters · 12 classes **65 marks**

- **1 Fundamentals of Risk Analysis in Automated Driving** — 6 classes
  - 1.1 Define Key Concepts in Risk Analysis for Automated Driving
  - 1.2 Identify Common Risks Associated with Low-Speed Automated Vehicles
  - 1.3 Analyze Risk Factors Affecting Automated Driving Environments
  - 1.4 Evaluate the Impact of Human Factor Risks in Automated Vehicles
  - 1.5 Develop Risk Mitigation Strategies for Low-Speed Automated Operations
  - 1.6 Create a Risk Assessment Framework for Automated Driving Scenarios
- **2 Identifying Hazards in Low-Speed Automated Environments** — 6 classes
  - 2.1 Define Hazard Types in Low-Speed Automated Environments
  - 2.2 Analyze Real-World Incidents Involving Low-Speed Automated Vehicles
  - 2.3 Conduct a Preliminary Hazard Identification Workshop
  - 2.4 Evaluate Risk Factors Associated with Low-Speed Automated Driving
  - 2.5 Develop Mitigation Strategies for Identified Hazards
  - 2.6 Create a Risk Assessment Report for Low-Speed Automated Environments
- **3 Risk Assessment Techniques for Smart Systems Vehicles**
- **4 Mitigation Strategies for Identified Risks**
- **5 Regulatory Compliance and Best Practices in Risk Management**

6 Strategic Management of Automated Systems

5 chapters · 30 classes **105 marks**

- **1 Understanding Automated Systems in Low-Speed Vehicles** — 6 classes
  - 1.1 Define Automated Systems in Low-Speed Vehicles
  - 1.2 Examine Key Components of Automated Driving Technologies
  - 1.3 Analyze Regulatory Frameworks for Low-Speed Automated Vehicles
  - 1.4 Identify Safety Standards and Best Practices in Automated Systems
  - 1.5 Evaluate Impact of Automated Systems on Urban Mobility
  - 1.6 Develop a Strategic Plan for Implementing Low-Speed Automated Vehicles
- **2 Strategic Frameworks for Automated System Management** — 6 classes
  - 2.1 Define Key Strategic Frameworks in Automated System Management
  - 2.2 Analyze the Role of Leadership in Automated Systems Strategy
  - 2.3 Evaluate Case Studies of Successful Automated System Implementations
  - 2.4 Identify Challenges in Strategic Management of Automated Systems
  - 2.5 Develop a Strategic Plan for Low-Speed Automated Vehicles
  - 2.6 Present and Critique Strategic Management Proposals for Automation
- **3 Risk Assessment and Mitigation Strategies** — 6 classes
  - 3.1 Identify Key Risks in Automated Low-Speed Vehicles
  - 3.2 Analyze Risk Impact and Probability in Automated Systems
  - 3.3 Develop Risk Mitigation Strategies for Automated Driving
  - 3.4 Evaluate Effectiveness of Risk Mitigation Measures
  - 3.5 Implement and Monitor Risk Management Plans
  - 3.6 Review and Revise Risk Assessment Processes
- **4 Stakeholder Engagement and Collaboration** — 6 classes
  - 4.1 Identify Key Stakeholders in Automated Driving Systems
  - 4.2 Analyze Stakeholder Needs and Expectations
  - 4.3 Develop Strategies for Effective Stakeholder Engagement
  - 4.4 Facilitate Collaborative Discussions Among Stakeholders
  - 4.5 Evaluate the Impact of Stakeholder Contributions on Project Success
  - 4.6 Create a Stakeholder Engagement Action Plan for Automated Vehicles
- **5 Evaluating Performance and Continuous Improvement** — 6 classes
  - 5.1 Identify Key Performance Indicators for Automated Driving Systems
  - 5.2 Analyze Data from Low-Speed Automated Vehicles for Performance Assessment
  - 5.3 Implement Benchmarking Techniques for Continuous Improvement
  - 5.4 Evaluate Stakeholder Feedback to Enhance System Effectiveness
  - 5.5 Develop Action Plans Based on Performance Evaluation Results
  - 5.6 Create a Continuous Improvement Framework for Automated Driving Systems