LAPT

LONDON ACADEMY OF PROFESSIONAL TRAINING

CERTIFICATE

ISO 21434 — Cybersecurity Engineering for Road Vehicles

ISO Certification Programme

LAPT — London Academy of Professional Training

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Reference TR-ROD-21434 • ISO Transport

UKPRN 10067351 • Registered in England and Wales, company 4984798

6	10	42	430	60%	Lifetime
SUBJECTS	CHAPTERS	CLASSES	TOTAL MARKS	PASS MARK	VALIDITY

AT A GLANCE

REFERENCE	**TR-ROD-21434**
AWARD	**Certificate**
ASSESSMENT	**430 marks — 258 to pass (60%)**
PREREQUISITES	**None**
VALIDITY	**Lifetime**
AWARDING BODY	**LAPT — London Academy of Professional Training**

CURRICULUM

1 Cybersecurity Policy Development

0 chapters · **65 marks**

2 Cybersecurity Risks in Road Vehicles

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

• 1 Understanding Cybersecurity Fundamentals in Road Vehicles — 6 classes

- › 1.1 Define Key Cybersecurity Concepts in Road Vehicles
- › 1.2 Identify Common Cybersecurity Threats to Road Vehicles
- › 1.3 Assess Vulnerabilities in Vehicle Systems
- › 1.4 Examine the Impact of Cyber Incidents on Road Safety
- › 1.5 Explore Regulatory Requirements for Vehicle Cybersecurity
- › 1.6 Develop a Cybersecurity Awareness Strategy for Road Vehicles

• 2 Identifying and Analyzing Cybersecurity Risks in Automotive Systems — 6 classes

- › 2.1 Define Key Concepts in Automotive Cybersecurity
- › 2.2 Identify Common Cybersecurity Threats in Road Vehicles
- › 2.3 Analyze Vulnerabilities in Automotive Systems
- › 2.4 Evaluate Potential Impacts of Cybersecurity Breaches
- › 2.5 Apply Risk Assessment Techniques to Automotive Cybersecurity
- › 2.6 Develop Mitigation Strategies for Identified Risks

• 3 Implementing ISO 21434 Framework for Risk Management — 6 classes

- › 3.1 Identify Cybersecurity Risks in Road Vehicles
- › 3.2 Analyze Risk Impact and Likelihood in Vehicle Systems
- › 3.3 Develop Risk Assessment Methodologies for ISO 21434
- › 3.4 Prioritize Cybersecurity Risks Based on Assessment
- › 3.5 Implement Mitigation Strategies for Identified Risks
- › 3.6 Monitor and Review Risk Management Processes Continuously

• 4 Developing Cybersecurity Strategies for Road Vehicle Protection — 6 classes

- › 4.1 Identify Key Cybersecurity Threats in Road Vehicles
- › 4.2 Analyze Vulnerabilities in Vehicle Systems and Components
- › 4.3 Evaluate Current Cybersecurity Frameworks and Standards
- › 4.4 Develop an Integrated Cybersecurity Strategy for Road Vehicles
- › 4.5 Implement Risk Management Practices for Cybersecurity
- › 4.6 Assess and Enhance Cybersecurity Measures and Protocols

• 5 Evaluating Cybersecurity Solutions and Continuous Improvement — 6 classes

- › 5.1 Identify Key Cybersecurity Risks in Road Vehicles
- › 5.2 Assess Current Cybersecurity Solutions in the Automotive Sector
- › 5.3 Analyze the Effectiveness of Cybersecurity Measures
- › 5.4 Develop a Framework for Continuous Improvement in Cybersecurity
- › 5.5 Implement Evaluation Metrics for Cybersecurity Solutions
- › 5.6 Create a Cybersecurity Improvement Action Plan for Road Vehicles

3 ISO 21434 Framework and Compliance

5 chapters · 12 classes **65 marks**

- **1 Understanding the ISO 21434 Framework: An Overview** — 6 classes
  - 1.1 Define the Purpose and Importance of ISO 21434 in Cybersecurity
  - 1.2 Identify Key Components of the ISO 21434 Framework
  - 1.3 Explore the Risk Management Processes in ISO 21434
  - 1.4 Analyze Roles and Responsibilities in ISO 21434 Compliance
  - 1.5 Describe the Relationship Between ISO 21434 and Other Standards
  - 1.6 Assess Compliance Strategies for Implementing ISO 21434 in Vehicles
- **2 Key Components of the ISO 21434 Standard** — 6 classes
  - 2.1 Identify the Purpose and Scope of ISO 21434
  - 2.2 Examine Key Terminology and Definitions within ISO 21434
  - 2.3 Analyze the Structure and Components of the ISO 21434 Standard
  - 2.4 Explore Risk Management Principles in ISO 21434
  - 2.5 Assess Compliance Requirements for Road Vehicle Cybersecurity
  - 2.6 Implement Best Practices for Adhering to ISO 21434 Framework
- **3 Implementation Strategies for ISO 21434 Compliance**
- **4 Assessment Techniques for ISO 21434 Conformity**
- **5 Maintaining Compliance and Continuous Improvement**

4 Leadership in Cybersecurity

0 chapters **65 marks**

5 Regulatory Compliance and Best Practices

0 chapters **85 marks**

6 Risk Management Strategies

0 chapters **65 marks**