

LAPT

LONDON ACADEMY OF PROFESSIONAL TRAINING

CERTIFICATE

ISO 17423 — ITS Cooperative Systems

ISO Certification Programme



LAPT — London Academy of Professional Training

Address 85 Great Portland Street, W1W 7LT, London, United Kingdom

Email info@lapt.org

Telephone +44 7513 283044

Web lapt.org

Reference TR-SMV-17423 • ISO Transport

UKPRN 10067351 • Registered in England and Wales, company 4984798

AT A GLANCE

REFERENCE	TR-SMV-17423
AWARD	Certificate
ASSESSMENT	430 marks — 258 to pass (60%)
PREREQUISITES	None
VALIDITY	Lifetime
AWARDING BODY	LAPT — London Academy of Professional Training

CURRICULUM

1

Introduction to Intelligent Transport Systems

5 chapters · 30 classes85 marks

• 1 Fundamentals of Intelligent Transport Systems — 6 classes

› 1.1 Define Intelligent Transport Systems and Their Importance

› 1.2 Identify Key Components of Intelligent Transport Systems

› 1.3 Explore the Technologies Behind Intelligent Transport Systems

› 1.4 Assess the Benefits of Implementing Intelligent Transport Systems

› 1.5 Examine Case Studies of Successful Intelligent Transport Systems

› 1.6 Develop a Conceptual Framework for a Local Intelligent Transport System

• 2 Communication Technologies in ITS — 6 classes

› 2.1 Explore the Basics of Communication Technologies in ITS

› 2.2 Identify Key Communication Protocols in Intelligent Transport Systems

› 2.3 Analyze the Role of Wireless Networks in ITS Communication

› 2.4 Examine Data Transmission Methods Used in ITS

› 2.5 Evaluate Real-World Applications of Communication Technologies in ITS

› 2.6 Design a Basic Communication Framework for an ITS Solution

• 3 Data Management and Analysis in ITS — 6 classes

› 3.1 Identify Key Data Types in Intelligent Transport Systems

› 3.2 Explore Data Collection Methods for ITS

› 3.3 Analyze Data Quality and Integrity in Transportation Data

› 3.4 Utilize Data Analysis Techniques for ITS Decision-Making

› 3.5 Implement Data Visualization Tools for ITS Insights

› 3.6 Assess the Impact of Data Management Strategies on ITS Performance

• 4 Safety and Security Considerations in ITS — 6 classes

› 4.1 Identify Key Safety Risks in Intelligent Transport Systems

› 4.2 Analyze Security Threats Affecting ITS Infrastructure

› 4.3 Evaluate Regulatory Frameworks Governing ITS Safety and Security

› 4.4 Explore Technological Solutions for Enhancing ITS Safety

› 4.5 Develop a Safety Management Plan for ITS Implementation

› 4.6 Assess Real-World Case Studies of ITS Safety Incidents

• 5 Future Trends and Innovations in Intelligent Transport Systems — 6 classes

› 5.1 Explore Emerging Technologies in Intelligent Transport Systems

› 5.2 Analyze the Impact of Autonomous Vehicles on Transportation Infrastructure

› 5.3 Evaluate Smart Traffic Management Solutions and Their Effectiveness

› 5.4 Investigate the Role of Data Analytics in Enhancing Transport Systems

› 5.5 Discuss the Future of Sustainable Transport Innovations

› 5.6 Design a Concept for Integrating ITS Innovations into Urban Mobility

2

Management of Cooperative Systems

5 chapters · 30 classes **85 marks**

• 1 Fundamentals of Cooperative Systems in Transport — 6 classes

- › 1.1 Define Key Concepts of Cooperative Systems in Transport
- › 1.2 Explore Historical Development of Cooperative Transport Systems
- › 1.3 Analyze Benefits of Cooperative Systems in Modern Transportation
- › 1.4 Identify Stakeholders in Cooperative Transport Systems
- › 1.5 Examine Case Studies of Successful Cooperative Systems
- › 1.6 Develop Strategies for Implementing Cooperative Systems in Transport

• 2 Technologies Enabling Cooperative Systems — 6 classes

- › 2.1 Explore the Fundamentals of Cooperative Systems Technology
- › 2.2 Identify Key Technologies Powering Cooperative Systems
- › 2.3 Analyze the Role of Connectivity in Cooperative Systems
- › 2.4 Evaluate the Impact of Data Sharing on Cooperative Efficiency
- › 2.5 Assess the Security Challenges in Cooperative System Technologies
- › 2.6 Implement a Practical Scenario Using Cooperative Technologies

• 3 Management Principles for Cooperative Transport Systems — 6 classes

- › 3.1 Define Key Management Principles for Cooperative Transport Systems
- › 3.2 Analyze the Role of Stakeholders in Cooperative Transport Management
- › 3.3 Evaluate Communication Strategies for Effective Cooperation
- › 3.4 Develop Conflict Resolution Techniques in Cooperative Systems
- › 3.5 Assess Performance Metrics for Cooperative Transport Initiatives
- › 3.6 Create an Action Plan for Implementing Cooperative Management Practices

• 4 Data Analytics and Decision Making in Cooperative Systems — 6 classes

- › 4.1 Identify Key Data Sources for Cooperative Systems
- › 4.2 Analyze Data Patterns to Enhance Decision Making
- › 4.3 Explore Data Visualisation Techniques for Effective Communication
- › 4.4 Implement Statistical Methods for Informed Decision Making
- › 4.5 Evaluate the Impact of Data-Driven Decisions on Cooperative Systems
- › 4.6 Develop Action Plans Based on Data Insights in Cooperative Environments

• 5 Future Trends and Challenges in Cooperative Systems Management — 6 classes

- › 5.1 Identify Emerging Technologies Impacting Cooperative Systems
- › 5.2 Analyze Current Challenges in Cooperative Systems Management
- › 5.3 Explore Case Studies of Successful Cooperative Systems
- › 5.4 Evaluate Trends in Stakeholder Collaboration and Engagement
- › 5.5 Develop Innovative Strategies for Future Cooperative Management
- › 5.6 Plan Implementation of Adaptive Management Techniques

3

Project Management in ITS

0 chapters **85 marks**

4

Stakeholder Engagement and Communication

0 chapters **45 marks**

5

Team Leadership and Development

0 chapters **65 marks**

6

Technology Integration in Transport

5 chapters · 6 classes **65 marks**

• 1 Foundations of Technology Integration in Transport Systems — 6 classes

- › 1.1 Identify Key Technologies in Transport Systems
- › 1.2 Analyze the Role of Data in Transport Technology Integration
- › 1.3 Examine Challenges in Implementing Technology in Transport
- › 1.4 Evaluate the Impact of Cooperative Systems on Transport Efficiency
- › 1.5 Develop Strategies for Technology Adoption in Transport Networks
- › 1.6 Create a Case Study Presentation on Successful Technology Integration in Transport

• 2 Core Technologies in Smart Transport Solutions

• 3 Regulatory Standards and Compliance for Transport Technologies

• 4 Human Factors and Behavioral Considerations in Smart Transport

• 5 Future Trends and Innovations in Transport Technology Integration