

LAPT

LONDON ACADEMY OF PROFESSIONAL TRAINING

CERTIFICATE

ISO 20924 — Internet of Things Vocabulary

ISO Certification Programme



LAPT — London Academy of Professional Training

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Reference IIT-IOT-20924 • ISO IT & Related Technologies

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AT A GLANCE

REFERENCE	IIT-IOT-20924
AWARD	Certificate
ASSESSMENT	430 marks — 258 to pass (60%)
PREREQUISITES	None
VALIDITY	Lifetime
AWARDING BODY	LAPT — London Academy of Professional Training

CURRICULUM

1

Analytical Skills for IoT Leaders

5 chapters · 30 classes 45 marks

• 1 Foundations of Analytical Thinking in IoT — 6 classes

› 1.1 Define Key IoT Terminology for Analytical Context

› 1.2 Identify and Differentiate Analytical Thinking Types in IoT

› 1.3 Explore Data Collection Methods for IoT Analytics

› 1.4 Analyze Real-World IoT Case Studies to Develop Insights

› 1.5 Evaluate Analytical Tools and Techniques for IoT Applications

› 1.6 Create an Action Plan for Implementing Analytical Skills in IoT Projects

• 2 Data Collection Techniques for IoT Analytics — 6 classes

› 2.1 Identify Key Data Sources for IoT Analytics

› 2.2 Evaluate Data Collection Methods in IoT Environments

› 2.3 Understand the Importance of Data Quality in IoT

› 2.4 Implement Data Collection Tools and Technologies

› 2.5 Analyze Data Collection Techniques through Case Studies

› 2.6 Develop a Data Collection Strategy for IoT Projects

• 3 Data Interpretation and Visualization in IoT — 6 classes

› 3.1 Analyze IoT Data Sources and Types

› 3.2 Interpret Key Metrics in IoT Data

› 3.3 Visualize IoT Data Using Dashboards

› 3.4 Compare Visualization Tools for IoT Applications

› 3.5 Identify Patterns and Trends in IoT Data

› 3.6 Communicate Insights from IoT Data Visualizations

• 4 Advanced Analytical Tools and Techniques for IoT Leaders — 6 classes

› 4.1 Analyze Key Performance Indicators for IoT Solutions

› 4.2 Implement Predictive Analytics in IoT Systems

› 4.3 Utilize Real-Time Data Visualization Techniques

› 4.4 Evaluate Machine Learning Algorithms for IoT Insights

› 4.5 Conduct Root Cause Analysis in IoT Contexts

› 4.6 Design Data-Driven Decision-Making Frameworks for IoT Leadership

• 5 Strategic Decision Making Based on IoT Analytics — 6 classes

› 5.1 Identify Key IoT Metrics for Strategic Decision Making

› 5.2 Analyze Data Trends to Predict Future IoT Scenarios

› 5.3 Evaluate IoT Analytics Tools for Effective Leadership

› 5.4 Formulate Strategies Based on IoT Insights

› 5.5 Communicate Data-Driven Decisions to Stakeholders

› 5.6 Implement Feedback Loops for Continuous IoT Improvement

• 1 Understanding Communication Protocols in IoT — 6 classes

- › 1.1 Identify Key Communication Protocols Used in IoT
- › 1.2 Explain the Role of Protocols in IoT Communication
- › 1.3 Compare Different IoT Communication Protocols
- › 1.4 Analyze the Impact of Protocol Selection on IoT Systems
- › 1.5 Demonstrate the Use of HTTP and MQTT in IoT Scenarios
- › 1.6 Evaluate Best Practices for Implementing Communication Protocols in IoT Projects

• 2 Strategies for Effective Stakeholder Communication — 6 classes

- › 2.1 Identify Key Stakeholders in IoT Projects
- › 2.2 Analyze Communication Needs and Preferences
- › 2.3 Develop Tailored Communication Strategies
- › 2.4 Implement Effective Messaging Techniques
- › 2.5 Utilize Feedback to Enhance Communication
- › 2.6 Evaluate Communication Outcomes in IoT Stakeholder Engagement

• 3 Data Management and Sharing Practices in IoT — 6 classes

- › 3.1 Understand Key Terms in IoT Data Management
- › 3.2 Identify Data Sources and Types in IoT Projects
- › 3.3 Explore Data Storage Solutions for IoT Applications
- › 3.4 Implement Data Sharing Protocols in IoT Systems
- › 3.5 Evaluate Data Privacy and Security Measures in IoT
- › 3.6 Develop a Data Management Plan for an IoT Project

• 4 Managing Interoperability Challenges in IoT Communication — 6 classes

- › 4.1 Identify Key Interoperability Standards in IoT Communication
- › 4.2 Analyze Common Interoperability Challenges in IoT Systems
- › 4.3 Evaluate the Role of Protocols in Enhancing IoT Communication
- › 4.4 Assess the Impact of Data Formats on Interoperability
- › 4.5 Implement Best Practices for Cross-Platform IoT Integration
- › 4.6 Design a Communication Strategy to Overcome Interoperability Issues

• 5 Measuring Communication Effectiveness in IoT Projects — 6 classes

- › 5.1 Define Key Metrics for Communication in IoT Projects
- › 5.2 Analyze Current Communication Channels in IoT Contexts
- › 5.3 Assess Stakeholder Communication Needs in IoT
- › 5.4 Implement Feedback Mechanisms for Communication in IoT
- › 5.5 Evaluate Communication Strategies Based on Collected Data
- › 5.6 Develop a Communication Improvement Plan for IoT Projects

• 1 Fundamentals of IoT Standards and Compliance — 6 classes

- › 1.1 Define Key IoT Standards and Compliance Concepts
- › 1.2 Explain the Importance of Compliance in IoT Systems
- › 1.3 Identify Major IoT Standards Organizations and Their Roles
- › 1.4 Analyze the Impact of Non-Compliance in IoT Implementations
- › 1.5 Explore Certification Processes for IoT Devices
- › 1.6 Develop a Compliance Checklist for IoT Projects

• 2 Overview of ISO 20924 and Related Certifications — 6 classes

- › 2.1 Understand the Purpose and Scope of ISO 20924
- › 2.2 Identify Key Terms and Definitions in IoT Vocabulary
- › 2.3 Explore the Structure and Components of ISO 20924
- › 2.4 Examine the Importance of Compliance in IoT Standards
- › 2.5 Analyze Related Certifications and Their Relevance
- › 2.6 Apply ISO 20924 Vocabulary in Real-World Scenarios

• 3 Compliance Requirements for IoT Devices — 6 classes

- › 3.1 Identify Key Compliance Standards for IoT Devices
- › 3.2 Explore Data Protection Requirements for IoT Devices
- › 3.3 Evaluate Security Protocols Relevant to IoT Compliance
- › 3.4 Analyze Regulatory Bodies and Their Roles in IoT Compliance
- › 3.5 Implement Best Practices for Compliance Audits in IoT
- › 3.6 Develop a Compliance Checklist for IoT Device Deployment

• 4 Assessment and Auditing of IoT Standards — 6 classes

- › 4.1 Define key IoT standards relevant to assessment and auditing
- › 4.2 Identify best practices for assessing IoT compliance
- › 4.3 Explore tools and technologies for IoT auditing
- › 4.4 Analyze case studies of successful IoT standard audits
- › 4.5 Develop a checklist for conducting IoT standard assessments
- › 4.6 Implement a mock IoT audit exercise with peer feedback

• 5 Future Trends in IoT Standards and Compliance — 6 classes

- › 5.1 Explore Emerging Technologies Shaping IoT Standards
- › 5.2 Analyze Current Compliance Challenges in IoT
- › 5.3 Investigate Global Trends Influencing IoT Regulations
- › 5.4 Evaluate Stakeholder Roles in IoT Standard Development
- › 5.5 Design a Compliance Strategy for Future IoT Implementations
- › 5.6 Predict the Impact of AI on IoT Standards and Compliance

• 1 Fundamentals of IoT Vocabulary — 6 classes

- › 1.1 Define Key IoT Vocabulary Terms
- › 1.2 Explore the Architecture of IoT Systems
- › 1.3 Identify Components of IoT Devices
- › 1.4 Analyze the Role of Connectivity in IoT
- › 1.5 Discuss IoT Protocols and Standards
- › 1.6 Apply IoT Vocabulary in Real-World Scenarios

• 2 Categories and Types of IoT Devices — 6 classes

- › 2.1 Define and Categorize Different Types of IoT Devices
- › 2.2 Explore Consumer IoT Devices and Their Applications
- › 2.3 Investigate Industrial IoT Devices and Use Cases
- › 2.4 Understand Smart Home Technologies and Their Functions
- › 2.5 Analyze Health Monitoring IoT Devices and Their Impact
- › 2.6 Compare and Contrast IoT Device Categories in Real-World Scenarios

• 3 Communication Protocols and Standards — 6 classes

- › 3.1 Identify Key Communication Protocols in IoT
- › 3.2 Explain the Role of Standards in IoT Communication
- › 3.3 Compare Different IoT Communication Protocols
- › 3.4 Analyze the Impact of Communication Standards on IoT Devices
- › 3.5 Evaluate Use Cases for Various IoT Communication Protocols
- › 3.6 Implement a Simple IoT Communication Protocol in a Project

• 4 IoT Architectures and Models — 6 classes

- › 4.1 Analyze Key IoT Architectural Components
- › 4.2 Compare Different IoT Models and Frameworks
- › 4.3 Illustrate IoT Data Flow in Architectures
- › 4.4 Evaluate Scalability in IoT Architecture Designs
- › 4.5 Develop a Conceptual IoT Architecture
- › 4.6 Present Real-World Applications of IoT Models

• 5 Emerging Concepts and Future Trends in IoT Vocabulary — 6 classes

- › 5.1 Explore Key Emerging Concepts in IoT
- › 5.2 Analyze Future Trends in IoT Vocabulary
- › 5.3 Define Core IoT Terms for Emerging Technologies
- › 5.4 Examine Case Studies Highlighting Future IoT Applications
- › 5.5 Discuss the Impact of IoT Vocabulary on Industry Practices
- › 5.6 Apply IoT Vocabulary to Predict Future Innovations

• 1 Understanding IoT Leadership: Principles and Practices — 6 classes

- › 1.1 Define Key IoT Leadership Concepts
- › 1.2 Explore IoT Ecosystem Dynamics
- › 1.3 Identify Essential Leadership Qualities for IoT
- › 1.4 Analyze Case Studies of Effective IoT Leadership
- › 1.5 Develop Strategies for Leading IoT Teams
- › 1.6 Implement IoT Leadership Practices in Real-World Scenarios

• 2 Strategic Innovation in IoT: Driving Change and Growth — 6 classes

- › 2.1 Analyze the Role of Leadership in IoT Innovation
- › 2.2 Identify Key Strategic Drivers for IoT Growth
- › 2.3 Explore Innovative Business Models in IoT
- › 2.4 Assess Market Trends Impacting IoT Strategy
- › 2.5 Develop a Strategic Plan for IoT Implementation
- › 2.6 Evaluate the Effectiveness of IoT Strategies in Driving Change

• 3 Building High-Performance Teams in IoT Environments — 6 classes

- › 3.1 Define the Core Characteristics of High-Performance IoT Teams
- › 3.2 Identify the Key Roles and Responsibilities in IoT Team Dynamics
- › 3.3 Assess Team Collaboration Tools and Techniques for IoT Projects
- › 3.4 Develop Strategies for Fostering Innovation within IoT Teams
- › 3.5 Evaluate Conflict Resolution Methods in High-Performance Teams
- › 3.6 Create an Action Plan for Implementing Best Practices in IoT Leadership

• 4 Ethical Leadership and Governance in IoT — 6 classes

- › 4.1 Define Ethical Leadership in the Context of IoT
- › 4.2 Analyze the Role of Governance in IoT Innovation
- › 4.3 Identify Ethical Challenges Unique to IoT Environments
- › 4.4 Evaluate Case Studies of Ethical Leadership in IoT
- › 4.5 Develop Strategies for Ethical Decision-Making in IoT
- › 4.6 Create a Governance Framework for Ethical IoT Initiatives

• 5 Future Trends in IoT Leadership: Preparing for Tomorrow — 6 classes

- › 5.1 Analyze Emerging IoT Technologies and Their Impact on Leadership
- › 5.2 Evaluate Case Studies of Successful IoT Leadership Models
- › 5.3 Discuss the Role of Ethical Leadership in IoT Innovation
- › 5.4 Identify Key Skills Required for Future IoT Leaders
- › 5.5 Develop Strategies for Leading Cross-Functional IoT Teams
- › 5.6 Create a Vision Statement for IoT Leadership in Your Organization

• 1 Understanding IoT Frameworks and Eco-systems — 6 classes

- › 1.1 Define and Differentiate Key IoT Frameworks
- › 1.2 Analyze the Role of Standards in IoT Ecosystems
- › 1.3 Identify Components of IoT Architecture
- › 1.4 Explore Interoperability Challenges in IoT
- › 1.5 Evaluate Real-World IoT Implementation Case Studies
- › 1.6 Develop a Strategic Plan for IoT Integration

• 2 Evaluating IoT Business Models and Opportunities — 6 classes

- › 2.1 Identify Key Components of IoT Business Models
- › 2.2 Analyze Current Market Trends in IoT
- › 2.3 Evaluate Case Studies of Successful IoT Implementations
- › 2.4 Assess Risks and Challenges in IoT Deployments
- › 2.5 Develop Criteria for Selecting IoT Business Opportunities
- › 2.6 Create a Strategic Plan for IoT Initiative Implementation

• 3 Designing an Effective IoT Strategy and Roadmap — 6 classes

- › 3.1 Assess Current Organizational Readiness for IoT Implementation
- › 3.2 Identify Key Stakeholders and Define Roles in IoT Strategy
- › 3.3 Establish Clear Objectives and Goals for IoT Adoption
- › 3.4 Develop a Comprehensive IoT Roadmap and Timeline
- › 3.5 Evaluate Technology Options and Partnership Opportunities
- › 3.6 Create a Framework for Monitoring and Adapting the IoT Strategy

• 4 Implementing IoT Solutions: Best Practices and Challenges — 6 classes

- › 4.1 Identify Key Components of Successful IoT Implementation
- › 4.2 Analyze Common Challenges in Deploying IoT Solutions
- › 4.3 Develop a Strategic Plan for IoT Integration
- › 4.4 Evaluate IoT Technologies and Tools for Business Needs
- › 4.5 Implement Best Practices for IoT Data Management
- › 4.6 Create a Risk Mitigation Strategy for IoT Projects

• 5 Measuring Success: IoT Performance Metrics and KPIs — 6 classes

- › 5.1 Define Key IoT Performance Metrics
- › 5.2 Identify Critical KPIs for IoT Success
- › 5.3 Analyze Data Sources for IoT Metrics
- › 5.4 Develop a Framework for Measuring IoT Performance
- › 5.5 Assess the Impact of IoT Metrics on Business Decisions
- › 5.6 Create a Real-World IoT Metrics Dashboard