# Airport Data-Driven Decision Making Training Course

Professional Development Training Course Outline

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|---|---|---|---|
| **Category** | Aviation and Airport Management | **Duration** | 5 Days |
| **Base Fee** | $1,500 USD | **Delivery Mode** | Online / On-site Hybrid |

## Course Introduction

Airports are increasingly embracing data-driven decision making to improve operational efficiency, enhance passenger experience, strengthen aviation safety, optimize resource utilization, and support sustainable airport growth. The rapid adoption of Artificial Intelligence (AI), Business Intelligence (BI), predictive analytics, machine learning, digital transformation, Internet of Things (IoT), cloud computing, airport operational databases (AODB), Airport Collaborative Decision Making (A-CDM), and real-time dashboards has transformed how airport managers make strategic and operational decisions. Airport Data-Driven Decision Making Training Course equips participants with the knowledge and practical skills required to leverage aviation data for evidence-based planning, performance improvement, and informed decision-making across airport functions.

Participants will explore industry best practices for collecting, analyzing, visualizing, interpreting, and communicating airport data using internationally recognized frameworks and analytical tools. Through practical exercises, global aviation case studies, and performance measurement techniques, learners will gain competencies in predictive analytics, operational intelligence, risk analysis, KPI development, digital airport management, and data governance. The course prepares aviation professionals to build resilient, efficient, customer-focused, and data-enabled airport operations aligned with ICAO and global aviation standards.

## Programme Curriculum

**Airport Data-Driven Decision Making Training Course**

**Introduction**

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**Course Objectives**

Upon completion of this course, participants will be able to:

1. Apply data-driven decision-making frameworks in airport operations.
2. Develop airport performance dashboards using aviation KPIs.
3. Analyze airport operational data using predictive analytics.
4. Utilize Business Intelligence tools for strategic airport management.
5. Improve airport efficiency through real-time operational analytics.
6. Integrate AI and machine learning into airport decision processes.
7. Implement airport data governance and quality management.
8. Optimize passenger flow using advanced data analytics.
9. Strengthen operational resilience through risk-based analytics.
10. Enhance airport resource allocation using evidence-based planning.
11. Interpret airport data visualizations for executive reporting.
12. Support digital airport transformation through data innovation.
13. Evaluate data-driven strategies for continuous airport improvement.

**Organizational Benefits**

- Improves operational efficiency.
- Enhances strategic planning.
- Supports faster decision-making.
- Strengthens safety oversight.
- Optimizes resource utilization.
- Improves passenger satisfaction.
- Increases data transparency.
- Reduces operational costs.
- Promotes innovation and digital transformation.
- Strengthens organizational competitiveness.

**Target Audience**

- Airport Directors
- Airport Operations Managers
- Aviation Analysts
- Air Traffic Management Personnel
- Airport Planning Officers
- Aviation Safety Professionals
- Airport IT and Digital Transformation Teams
- Airline Operations Managers

**Course Duration:** 5 days

**Course Modules**

**Module 1: Foundations of Airport Data-Driven Decision Making**

- Principles of evidence-based airport management
- Airport operational data sources
- Data lifecycle in aviation
- Decision-support frameworks
- Airport performance indicators
- Case Study: Singapore Changi Airport digital decision ecosystem

**Module 2: Airport Data Collection and Quality Management**

- Data acquisition techniques
- Airport Operational Database (AODB)
- Data validation and cleansing
- Data governance frameworks
- Regulatory data compliance
- Case Study: Heathrow Airport operational data integration

**Module 3: Business Intelligence and Airport Dashboards**

- Business Intelligence fundamentals
- Dashboard design principles
- KPI visualization techniques
- Executive reporting tools
- Real-time airport monitoring
- Case Study: Dubai International Airport operational dashboards

**Module 4: Predictive Analytics for Airport Operations**

- Forecasting passenger demand
- Predictive maintenance analytics
- Capacity planning models
- Risk forecasting techniques
- Scenario analysis
- Case Study: Amsterdam Schiphol predictive operations management

**Module 5: Artificial Intelligence and Smart Airport Analytics**

- AI applications in airports
- Machine learning fundamentals
- Intelligent resource allocation
- Automated operational alerts
- Digital twin concepts
- Case Study: Incheon International Airport AI implementation

**Module 6: Operational Performance Optimization**

- Airport turnaround analytics
- Passenger flow optimization
- Resource scheduling analytics
- Delay reduction strategies
- Operational benchmarking
- Case Study: Hong Kong International Airport performance optimization

**Module 7: Strategic Decision Support and Risk Analytics**

- Strategic planning with analytics
- Airport risk intelligence
- Crisis decision support
- Data-driven investment planning
- Performance review methodologies
- Case Study: Zurich Airport resilience analytics

**Module 8: Future Trends in Airport Data Analytics**

- Big Data in aviation
- IoT-enabled airport operations
- Cloud-based airport analytics

- Sustainability performance analytics
- Digital transformation roadmap
- Case Study: Hamad International Airport smart airport initiatives

**Training Methodology**

- Interactive instructor-led presentations
- Practical airport data analysis workshops
- Hands-on dashboard development exercises
- Group discussions and peer learning
- Aviation software demonstrations
- Individual and team-based practical assignments
- Real-world airport operational simulations
- Global airport case study analysis
- Performance assessments and feedback sessions
- Action planning for workplace implementation

**Register as a group from 3 participants for a Discount**

**Send us an email: info@fineskilltrainingcenter.org or call *+254769199797***

*Certification*

*Upon successful completion of this training, participants will be issued with a globally- recognized certificate.*

*Tailor-Made Course*

*We also offer tailor-made courses based on your needs.*

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

## Upcoming Scheduled Sessions

| Start Date | End Date | Location | Price |
|---|---|---|---|
| **23 Nov 2026** | 27 Nov 2026 | Online | $1,000 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $1,500 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $3,000 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $3,000 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $6,000 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $4,500 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $6,000 |
| **23 Nov 2026** | 27 Nov 2026 | Physical | $6,000 |

Ready to enroll or request a customized program? Book online or contact us:

**Register Online Now**

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com