



DIGITAL INNOVATION AND TRANSFORMATION

AI Innovations in Healthcare: From Detection to Treatment

Course code: DIT-007

SPARK TRAINING

Professional training courses for leaders, specialists, and organizations seeking practical capability development.

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— Workshop Overview

Healthcare is undergoing a major transformation driven by artificial intelligence, where data, algorithms, and automation are reshaping how diseases are detected, diagnosed, and treated. From early detection of critical conditions to personalized treatment planning, AI is enabling faster, more accurate, and more efficient healthcare delivery. However, leveraging these innovations requires a clear understanding of both the opportunities and the practical applications within clinical and operational environments. This course is designed to help professionals understand how AI is applied across the healthcare value chain—from diagnostics and predictive analytics to treatment optimization and patient care management. It bridges the gap between technology and real-world healthcare applications, enabling better decision-making and improved patient outcomes.

Why Attend

This programme combines practical insight with applied learning through:

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Real-world healthcare AI case studies

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Interactive discussions on clinical and operational use cases

Who Should Attend

Healthcare professionals and administrators

Hospital and clinic managers

Medical technology and health IT professionals

Data and analytics professionals in healthcare

Policy and public health specialists

Professionals interested in digital health transformation

— Learning Objectives

- Understand the role of AI in modern healthcare systems
- Identify AI applications in diagnosis, treatment, and patient monitoring
- Explore predictive analytics in disease detection and prevention
- Understand how AI supports clinical decision-making
- Evaluate the benefits and limitations of AI in healthcare
- Recognize ethical and regulatory considerations in AI healthcare use
- Understand how AI improves efficiency and patient outcomes

Course Outline

**DAY
1**

Introduction to AI in Healthcare

- Overview of AI in healthcare transformation
- Evolution of digital health systems
- Key AI technologies used in healthcare
- Data sources in medical and clinical environments
- Opportunities and challenges in AI adoption
- Real-world examples of AI in healthcare

**DAY
2**

AI in Disease Detection and Diagnostics

- Role of AI in early disease detection
- Medical imaging and pattern recognition concepts
- Predictive analytics for diagnosis
- Machine learning in clinical diagnostics
- Accuracy, reliability, and validation of AI models
- Case study: AI in diagnostic support systems

**DAY
3**

AI in Treatment Planning and Personalization

- Personalized medicine concepts
- AI-driven treatment recommendation systems
- Patient data analysis for treatment optimization
- Decision support systems in clinical care
- Monitoring treatment effectiveness using AI
- Practical healthcare scenario analysis

**DAY
4**

AI in Patient Monitoring and Healthcare Operations

- Remote patient monitoring systems
- Wearable technologies and real-time data analysis
- Hospital operations optimization using AI
- Workflow automation in healthcare settings
- Predictive analytics for patient risk management
- Case study: improving hospital efficiency with AI

DAY
5

Ethics, Challenges, and Future of AI in Healthcare

- Ethical considerations in healthcare AI
- Data privacy and security in medical systems
- Regulatory frameworks and compliance
- Risks and limitations of AI in healthcare
- Future trends in digital health and AI innovation
- Final case study and strategic reflection

— Upcoming Classroom Dates

DATE	LOCATION	FEE
5 - 9 October 2026	Amsterdam - Netherlands	€2,125
5 - 9 October 2026	Amsterdam - Netherlands	€2,125
12 - 16 October 2026	Munich - Germany	€1,725
12 - 16 October 2026	Munich - Germany	€1,725
9 - 13 November 2026	Barcelona - Spain	€1,925
9 - 13 November 2026	Barcelona - Spain	€1,925
16 - 20 November 2026	London - United Kingdom	€2,100
16 - 20 November 2026	London - United Kingdom	€2,100

— Certificate and Registration

Participants who attend and complete the full programme receive a SPARK Training Certificate of Completion. For registration, in-house delivery, or availability questions, contact info@sparktraining.eu or +31 85 115 0004.