London TDM

Artificial Intelligence and Data Science Training Courses

Course Venue: United Kingdom - London

Course Date: From 03 May 2026 To 07 May 2026

Course Place: London Paddington

Course Fees: 7,500 USD

Introduction

AI and Robotics Integration is a cutting-edge professional course designed to equip participants with the necessary skills and knowledge to seamlessly merge artificial intelligence and robotics in various applications. This course provides a comprehensive understanding of the theoretical and practical aspects of the integration process, fostering innovation and efficiency in technological environments.

- Understand the fundamentals of AI and robotics.
- Explore the various methods of integrating AI with robotics.
- Learn about the latest advancements and trends in AI robotics integration.
- Analyze real-world applications and case studies.
- Develop practical skills through interactive sessions and exercises.

Course Outlines

Day 1: Fundamentals of AI and Robotics

- Introduction to AI: Basics and Definitions
- Overview of Robotics: Components and Systems
- Understanding Machine Learning and Neural Networks
- Robotic Sensors and Perception
- Discussion: Future Trends in AI and Robotics

Day 2: AI Algorithms and Robotics Integration

- Key AI Algorithms used in Robotics
- Integration of AI in Robotic Sensing and Perception
- Techniques for Natural Language Processing in Robotics
- Path Planning and Navigation using AI
- Workshop: Building an AI-driven Robotic Task

Day 3: Advanced AI Applications in Robotics

- Deep Learning for Robotic Applications
- Robotic Vision and Image Recognition
- AI in Collaborative Robots (Cobots)
- Predictive Maintenance using AI
- Case Study: AI-powered Robotic Systems in Industry

Day 4: Practical and Ethical Considerations

- Human-Robot Interaction and User Experience Design
- Ethical Considerations in AI and Robotics
- Security Challenges in AI and Robotics Systems
- Legal Framework and Compliance
- Panel Discussion: Future of Work with AI and Robotics

Day 5: Implementation and Future Trends

- Strategies for Successful AI-Robotics Integration
- Hands-on Lab: Implementing a Robotics Solution
- The Role of IoT in AI and Robotics
- Emerging Technologies: AI in Drones and Autonomous Vehicles
- Final Assessment and Certification Ceremony