informatech

IT MANAGEMENT AND CYBER SECURITY | COURSE

# Artificial Intelligence (AI)-Based Cybersecurity Defense Strategies

**UK**
+44 33 000 111 90
info@informatech.co.uk
https://informatech.uk
63-66 Hatton Garden Hatton Garden
EC1N 8LE , London

**NL**
+31 85 74 444 46
info@infomatech.nl
https://infomatech.nl
Waarderweg 50 - 2031PB
Haarlem - Netherlands

# Course content

## Why Attend

### Course Introduction

This Artificial Intelligence (AI)-Based Cybersecurity Defense Strategies training course provides an in-depth exploration of how artificial intelligence (AI) can be leveraged to enhance cybersecurity defense strategies.

Participants will learn about the latest AI technologies and methodologies used to identify, prevent, and respond to cyber threats.

The training course covers practical applications, case studies, and hands-on exercises to equip professionals with the skills needed to implement AI-based cybersecurity solutions effectively.

## Course Methodology

This training course will utilise a variety of proven adult learning techniques to ensure maximum understanding, comprehension and retention of the information presented. This training course is interactive and challenges one to think. The tutor will guide and facilitate learning, using direct input, discussions, case studies, exercises and video presentation. The skill sets developed will add value to employees, managers and leaders alike.

### Who should Attend?

This training course is suitable to a wide range of professionals but will greatly benefit:

• Cybersecurity professionals

• IT managers and administrators

• Data scientists and AI engineers

• Security analysts and consultants

• Anyone interested in the intersection of AI and cybersecurity

## Course Objectives

By the end of this training course, participants will be able to:

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## Course Objectives

- Understand the fundamentals of AI and its application in cybersecurity
- Learn how to use AI for threat detection and response
- Explore machine learning algorithms for cybersecurity
- Gain insights into deep learning techniques for advanced threat analysis
- Develop strategies for integrating AI into existing cybersecurity frameworks
- Understand the ethical and legal considerations of using AI in cybersecurity

## Course outline

### Day One: Introduction to AI and Cybersecurity

- Overview of AI technologies and their relevance to cybersecurity
- The role of AI in modern cybersecurity strategies
- Current trends and challenges in AI cybersecurity
- Case studies of AI applications in cybersecurity
- Interactive session: Identifying AI opportunities in your organization's cybersecurity strategy

### Day Two: Machine Learning for Cyber Threat Detection

- Basics of machine learning algorithms and their applications in cybersecurity
- Supervised vs. unsupervised learning techniques
- Implementing machine learning models for threat detection
- Case studies of machine learning in threat detection
- Interactive session: Developing a machine learning model for a sample cyber threat scenario

### Day Three: Deep Learning for Advanced Threat Analysis

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## Course outline

- Introduction to deep learning and neural networks
- Applications of deep learning in advanced threat analysis
- Techniques for training and deploying deep learning models
- Case studies of deep learning in cybersecurity
- Interactive session: Building and testing a deep learning model for threat analysis

### Day Four: AI-Driven Incident Response

- Automated incident response using AI technologies
- AI tools for real-time threat analysis and response
- Developing an AI-driven incident response plan
- Case studies of AI-driven incident responses
- Interactive session: Creating an AI-driven incident response plan for a sample organization

### Day Five: Integration and Ethical Considerations

- Integrating AI into existing cybersecurity frameworks
- Best practices for AI implementation in cybersecurity
- Ethical and legal considerations in AI cybersecurity
- Preparing for future developments in AI and cybersecurity
- Interactive session: Developing an integration plan for AI in your organization's cybersecurity strategy

# Seminar dates

## Available seminar dates

Live dates and pricing for Artificial Intelligence (AI)-Based Cybersecurity Defense Strategies generated from the course details page.

| Date | Location | Format | Fee |
|---|---|---|---|
| 3 - 7 August 2026 | London - U.K | Classroom | **€4,200.-** |
| 7 - 11 September 2026 | Istanbul - Turkey | Classroom | **€2,850.-** |
| 12 - 16 October 2026 | Vienna - Austria | Classroom | **€4,250.-** |
| 9 - 13 November 2026 | Barcelona - Spain | Classroom | **€3,850.-** |
| 14 - 18 December 2026 | Paris - France | Classroom | **€4,500.-** |
| 17 - 21 August 2026 | Amsterdam - Netherlands | Classroom | **€4,250.-** |
| 21 - 25 September 2026 | London - U.K | Classroom | **€4,200.-** |
| 19 - 23 October 2026 | Istanbul - Turkey | Classroom | **€2,850.-** |
| 2 - 6 November 2026 | Vienna - Austria | Classroom | **€4,250.-** |
| 21 - 25 December 2026 | Barcelona - Spain | Classroom | **€3,850.-** |

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|---|---|
| **Live online option** | Online delivery is available at €1,850.-. |