Artificial Intelligence (AI) for Military Decision Support Training Course

Professional Development Training Course Outline

Category	Defense and Security	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Artificial Intelligence is transforming modern military environments, enabling armed forces to analyze vast datasets, predict threats, automate strategic assessments, and enhance operational readiness. As global defence forces adopt machine learning, predictive analytics, deep learning, and autonomous systems, AI-powered decision support has become essential for intelligence operations, battlefield planning, surveillance, logistics, and risk mitigation. Artificial Intelligence (AI) for Military Decision Support Training Course provides a comprehensive understanding of how AI technologies strengthen military situational awareness, accelerate decision cycles, and optimize mission outcomes using secure, data-driven models.

Participants will explore advanced AI frameworks, operational analytics, command-and-control automation, geospatial intelligence, and real-time threat modelling used in defence ecosystems. The course integrates practical defence applications, ethical considerations, adversarial AI risks, and cybersecurity requirements for military-grade systems. By the end of the training, learners will be capable of developing AI-enabled military decision support systems, evaluating AI-driven strategies, and integrating emerging technologies into complex defence operations.

Programme Curriculum

Artificial Intelligence (AI) for Military Decision Support Training Course

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Course Objectives

1. Understand the foundations of artificial intelligence and its applications in military operations.
2. Analyze machine learning and deep learning models used in defence decision support.
3. Apply AI-driven predictive analytics for mission planning and threat forecasting.
4. Integrate AI systems into command, control, communications, and intelligence workflows.
5. Evaluate geospatial, satellite, and surveillance data using AI tools.
6. Strengthen cybersecurity and mitigate risks associated with AI-enabled systems.
7. Deploy autonomous and semi-autonomous decision support technologies.
8. Assess adversarial AI, data poisoning, and algorithmic vulnerabilities.
9. Improve operational efficiency through AI-enabled logistics and resource optimization.
10. Use natural language processing for intelligence interpretation and battlefield insights.
11. Implement ethical and responsible AI frameworks within defence operations.
12. Support real-time mission decision-making with AI-enhanced situational awareness.
13. Build institutional capacity for long-term AI integration in military ecosystems.

Organizational Benefits

- Enhanced military readiness through AI-enabled intelligence
- Improved situational awareness and real-time decision-making capabilities
- Reduced operational risks through predictive threat modelling
- Increased efficiency in logistics and resource allocation
- Strengthened cybersecurity across mission-critical systems
- Faster interpretation of complex intelligence datasets
- Scalable AI frameworks adaptable to diverse operations
- Improved precision of mission planning and strategic forecasting
- Lower long-term costs through automation and optimized processes
- Stronger institutional resilience through technology innovation

Target Audiences

- Military intelligence officers
- Defence analysts and operational planners
- Cybersecurity and information assurance personnel
- Command and control (C2) systems specialists
- Military engineers and technology integration teams
- Defence research and innovation units
- Strategic planning and logistics officers
- Government defence policy and oversight personnel

Course Duration: 10 days

Course Modules

Module 1: Introduction to AI in Military Operations

- Overview of AI technologies in defence environments
- Role of AI in strategic, tactical, and operational decision-making
- Core principles of machine learning and deep learning
- Applications in intelligence, planning, and threat prediction
- Defence-specific challenges and opportunities of AI adoption
- Case Study: AI deployment in a national defence intelligence command

Module 2: Machine Learning Models for Defence Analysis

- Supervised, unsupervised, and reinforcement learning explained
- Building models for battlefield forecasting and threat detection
- Data requirements and preprocessing for military datasets
- Evaluation of model accuracy, reliability, and bias
- Techniques for improving model performance in critical operations
- Case Study: Machine learning model used to predict insurgent activity

Module 3: Deep Learning for Surveillance and Reconnaissance

- Neural networks and convolutional neural networks for imagery
- AI for UAV, drone, and satellite surveillance analytics
- Real-time detection of objects, movement, and anomalies
- Enhancing ISR (Intelligence, Surveillance, Reconnaissance) workflows
- Data fusion techniques for multisource intelligence
- Case Study: Deep learning applied to border security monitoring

Module 4: AI-Driven Geospatial and Terrain Intelligence

- Use of AI for terrain mapping and enemy movement prediction
- Integration of GIS and satellite imaging with AI models
- Automated analysis of geospatial datasets
- Enhancing battlefield mobility and mission route planning
- Predictive modelling using environmental and topographical data
- Case Study: AI-assisted terrain intelligence during a field operation

Module 5: AI for Command and Control (C2) Systems

- Decision support integration within C2 architectures
- AI dashboards for real-time battlefield updates
- Automating C2 communication flows for rapid response
- Enhancing data visualization for commanders
- Interoperability across joint military systems
- Case Study: AI-enhanced command centre supporting rapid deployment

Module 6: Natural Language Processing for Defence Intelligence

- Text mining and automatic report generation
- AI for interpreting intercepted communications and briefings
- Sentiment and intent analysis in intelligence operations

- Automating intel classification using NLP tools
- Enhancing multilingual communication processing
- Case Study: NLP use in counterterrorism intelligence analysis

Module 7: Predictive Analytics for Mission Planning

- Modelling mission scenarios and risk profiles
- Predicting battlefield outcomes using historical data
- AI for logistics forecasting and resource planning
- Integrating predictions into war-gaming simulations
- Quantifying operational uncertainty with analytics
- Case Study: Predictive analytics used in peacekeeping operations

Module 8: Autonomous and Semi-Autonomous Decision Systems

- Role of autonomy in defence platforms
- AI integration into unmanned aerial, ground, and marine systems
- Human-machine teaming and operational oversight
- Ensuring safety and reliability in autonomous systems
- Regulatory and operational considerations
- Case Study: Semi-autonomous drone-assisted mission support

Module 9: Cybersecurity for AI-Enabled Defence Systems

- Cyber threats targeting AI and military systems
- Protecting models, algorithms, and training data
- Encryption, access control, and system hardening
- AI-enabled cybersecurity for intrusion detection
- Secure communication between AI-enabled platforms
- Case Study: Cyber breach linked to compromised AI models

Module 10: Adversarial AI and Threat Mitigation

- Understanding adversarial attacks on AI
- Techniques for protecting algorithms from manipulation
- Data poisoning, evasion, and inference attacks
- Testing AI resilience under battlefield conditions
- Defensive strategies for algorithmic security
- Case Study: Adversarial attack on a military surveillance model

Module 11: Ethical and Responsible AI in Defence

- Balancing effectiveness with responsible AI principles
- Ethical considerations in autonomous systems
- Minimizing bias and ensuring fairness in defence AI
- Transparency and explainability in mission-critical decisions
- Institutional frameworks for responsible AI governance
- Case Study: Ethical review of AI-enabled targeting system

Module 12: AI for Logistics and Supply Chain Optimization

- Automating procurement and inventory management

- Predicting supply disruptions using AI
- Route optimization for military transport
- Integrating AI with logistics command systems
- Reducing waste and increasing operational efficiency
- Case Study: AI-enabled logistics for humanitarian mission

Module 13: AI-Enhanced War-Gaming and Simulation

- Designing AI-based simulation environments
- Modelling dynamic battlefield conditions
- Stress-testing operational plans using AI
- Training personnel using intelligent simulations
- Integrating simulation data into real-world strategies
- Case Study: AI-assisted simulation used for special forces training

Module 14: Integrating AI into Military Infrastructure

- Modernizing legacy defence systems for AI compatibility
- Planning institutional AI roadmaps
- Interoperability across defence technologies
- Budgeting and resource allocation for AI transformation
- Managing change and organizational resistance
- Case Study: National defence modernization program using AI

Module 15: Future Trends in Military Artificial Intelligence

- Emerging military AI technologies
- Quantum computing and AI for defence
- Swarm intelligence in battlefield operations
- AI-driven strategic forecasting
- Preparing institutions for future disruptions
- Case Study: Defence strategy enhanced through AI foresight modelling

Training Methodology

- Instructor-led presentations and conceptual briefings
- Hands-on simulation exercises and modelling activities
- Group problem-solving using real military scenarios
- Case study discussions extracting operational lessons
- AI tool demonstrations and guided practice
- Development of action plans for organizational 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
02 Nov 2026	13 Nov 2026	Online	$2,000
02 Nov 2026	13 Nov 2026	Physical	$3,000
02 Nov 2026	13 Nov 2026	Physical	$6,000
02 Nov 2026	13 Nov 2026	Physical	$6,000
02 Nov 2026	13 Nov 2026	Physical	$12,000
02 Nov 2026	13 Nov 2026	Physical	$9,000
02 Nov 2026	13 Nov 2026	Physical	$12,000
02 Nov 2026	13 Nov 2026	Physical	$12,000

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