

Indian Army's AI Roadmap: Battlefield Innovation by 2026-27

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Indian Army AI Roadmap Latest News

- The Indian Army has formulated a comprehensive roadmap to integrate Artificial Intelligence (AI), Machine Learning (ML), and Big Data Analytics by 2026-27.
- Key focus areas include drone swarming, real-time battlefield surveillance, combat simulations for troop training, information warfare, and data-driven decision-making—aimed at enhancing operational efficiency and strategic capabilities.

Key Benefits of Military AI

- **Faster, Smarter Decisions** – AI speeds up battlefield analysis and decision-making, providing commanders a “decision advantage” by processing sensor data and recommending actions in seconds.
- **Force Multiplication and Efficiency** – Autonomous systems handle repetitive or dangerous tasks without fatigue, improving logistics, surveillance, and resource allocation with minimal manpower.

- **Reduced Risk to Soldiers** – AI-driven drones and robots can perform high-risk operations like reconnaissance, mine-clearing, and casualty evacuation, saving human lives.
- **Cost-Effectiveness and Scalability** – AI platforms, particularly drones and software, are often cheaper and easier to scale than traditional systems—offering a cost-effective military edge.
- **Greater Precision and Less Collateral Damage** – AI-enhanced targeting may increase strike accuracy and help avoid civilian casualties, provided systems are rigorously trained and validated.
- **Strategic Deterrence and Wargaming** – Advanced AI capabilities can deter adversaries and simulate complex war scenarios, giving military planners a strategic and predictive edge.

Major Risks of Military AI

- **Loss of Human Control and Escalation Risks** – Autonomous systems may act at machine speed, triggering unintended conflict before human intervention is possible—especially dangerous in nuclear scenarios.
- **Cyber Vulnerabilities and AI Hacking** – AI systems can be spoofed or hacked, leading to misidentification, system failure, or even turning weapons against their operators.
- **Unintended Civilian Harm** – AI errors in complex environments may result in wrongful targeting and civilian casualties, especially due to unpredictable “black box” behavior.
- **Bias and Authoritarian Misuse** – AI trained on flawed or biased data may discriminate, misidentify targets, or be misused for domestic repression and unlawful killings.
- **Arms Race and Strategic Instability** – A global AI arms race could lead to rushed deployments, accidents, and heightened tensions due to miscalculation or lack of transparency.

Indian Army’s AI Roadmap: Transforming Warfare by 2026-27

- The Indian Army has drawn up an ambitious roadmap to integrate Artificial Intelligence (AI), Machine Learning (ML), and Big Data Analytics into its operations by 2026-27.
- The plan aims to enhance battlefield awareness, speed up decision-making, and modernise various facets of military functioning, from combat to logistics.
- The push for rapid AI integration was accelerated by lessons from *Operation Sindoor*, a cross-border strike in May 2025 on terror targets in Pakistan and PoK.
- Following this, the Army has decided to fast-track AI deployment across combat and support functions.

Immediate Priorities: Enhanced Battlefield Awareness

- One of the key priorities is improving real-time battlefield awareness using AI tools that can process vast amounts of data rapidly.
- These tools include:
 - **Text summarisers** powered by Large Language Models (LLMs)
 - **AI-driven chatbots** and **voice-to-text systems**
 - **Facial recognition** and **anomaly detection algorithms**
 - **Data fusion tools** that analyse and integrate feeds from drones, satellites, aircraft, and ground sensors for real-time insights

Wide-Ranging Applications of AI

- The roadmap outlines tactical, operational, and strategic objectives for AI use, including:
 - **Combat and surveillance:** Counter-intelligence, adversary mapping, and drone-based monitoring
 - **Decision support systems:** Operational planning, threat detection, and wargaming simulations
 - **Open-Source Intelligence (OSINT) and social media analysis:** Monitoring public sentiment and adversary movements
 - **Logistics and maintenance:** AI-based supply chain optimisation, predictive maintenance, and GPS-denied navigation

Modernisation of Equipment and Collaboration

- To ensure long-term integration, AI features will be embedded in the *General Staff Qualitative Requirements* —technical benchmarks for all new equipment.
- The Army also plans to retrofit AI into select legacy platforms.
- An AI lab is being established at DGIS for model development and will coordinate efforts with the Navy and Air Force.
- Additionally, the Army seeks increased collaboration with industry and academia to foster innovation and accelerate adoption.

Formation of AI Task Force

- An AI Task Force under the **Directorate General of Information Systems (DGIS)** is being established.
- This body, comprising representatives from other Army directorates, will oversee:
 - Technology implementation
 - Training and capacity building
 - Data sharing and system integration
 - Maintenance and support
 - Research and development
 - Integration of AI in procurement processes

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