CENTRE FOR LAND WARFARE STUDIES

CONFERENCE REPORT

CLAWS–HUGHES CONVERSE 2026
AI FOR NATIONAL SECURITY
"Converging Intelligence • Accelerating Impact"

Wednesday, 22 July 2026

Manekshaw Centre, New Delhi

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CONVERSE 2026 — "AI for National Security," held on 22 July 2026, brought together senior serving and veteran military officers, policymakers, scientists, industry leaders and academics to assess the accelerating role of Artificial Intelligence (AI) in India's national security. Organised by the Centre for Land Warfare Studies (CLAWS) in collaboration with Hughes Systique Pvt. Ltd. (HSPL), the conference examined how AI is reshaping defence planning, military operations, communications and electronic warfare. Its tagline, "Converging Intelligence • Accelerating Impact," and its three organising tracks CONNECT (Communications & Networked Warfare), COMPREHEND (Decision Superiority & Battlespace Intelligence) and COMMAND (Electronic Warfare & Spectrum Superiority) captured the imperative of integrating AI across every stage of the military decision cycle, from gathering and moving information, through making sense of it, to acting on it at machine speed.

The programme comprised an inaugural session with a keynote and two special addresses, a book launch, a further special address on intelligent communications, two technical panel discussions, a special address on India's defence AI ecosystem, and a concluding fireside discussion of the AI Mission Council. A recurring consensus ran through the day: '*AI is no longer a future capability but an operational necessity, and India must build indigenous AI models, sovereign computing infrastructure, trusted datasets and resilient communication networks while ensuring that human judgement remains central to the use of force.'*

Collectively, the deliberations underscored that India's technological trajectory in AI will determine the balance of deterrence across its contested borders. Sovereign compute,

indigenous foundation models, resilient networks and a coordinated defence-innovation ecosystem emerged as the decisive variables, with speakers converging on the view that India's principal constraint lies not in scientific talent but in execution, testing infrastructure and institutional coordination.

SUPPORTIVE PARTNERS

The conference was organised by the Centre for Land Warfare Studies (CLAWS) in collaboration with Hughes Systique Pvt. Ltd. (HSPL). The partnership brought together perspectives from the Armed Forces, DRDO, ISRO, BEL, the startup ecosystem and academia, strengthening the conference's multidisciplinary engagement across AI, communications, electronic warfare and defence-industrial policy.

EXECUTIVE SUMMARY

CLAWS–Hughes CONVERSE 2026 examined how AI is reshaping India's national security environment across command, communications, surveillance, electronic warfare and logistics. Speakers agreed that AI has moved from an experimental technology to an operational requirement, and that technological sovereignty in the form of indigenous AI models, domestic computing, secure networks and trusted datasets is now central to national security. Computing, rather than talent, capital or data, was repeatedly identified as India's binding constraint. Resilient communication networks able to withstand electronic attack, cyber intrusion and physical disruption were seen as decisive in future warfare, even as AI must remain explainable, trustworthy and accountable, with human commanders retaining authority over the use of force. Above all, speakers converged on the view that India's harder challenge is not the underlying science but the ecosystem: realistic operational data, testing and certification infrastructure, and coordination among DRDO, the Armed Forces, ISRO, BEL, academia, startups and industry.

GLOBAL CHALLENGES

- AI-enabled warfare has fused algorithms, software and defence systems into a single operational trinity, with the scale of transformation required amounting to what one speaker termed a "Manhattan Project moment."

- Battlefield lethality is increasingly determined by the quality of software and algorithmic systems rather than hardware, as demonstrated by low-cost autonomous platforms outcompeting established defence primes.
- An emerging "cognitive battlespace" is dominated by a small number of platforms, weaponised language models, deepfakes and concentrated GPU supply chains, with imported AI models carrying embedded foreign worldviews.
- Modern software-defined communications produce agile, frequency-hopping and previously unseen "zero-day" emissions that human analysts cannot classify quickly enough, straining traditional electronic-warfare responses.
- Major military powers are compressing decision-to-effect timelines to machine speed through programmes such as the United States' JADC2 and Project Maven, China's "intelligentised warfare," Israel's AI-driven ISR, and NATO's push for interoperable AI.
- Contested environments involving jamming, lost communications and destroyed infrastructure threaten to sever the sensor-to-shooter "kill chain" unless networks can reconfigure and heal themselves in real time.

IMPLICATIONS FOR INDIA

- Computing, not talent, capital or data, is India's binding constraint: national GPU capacity has scaled from roughly ten thousand to forty thousand units even as leading global players operate on the order of millions, and hardware becomes outdated within nine to twelve months.
- Genuine sovereignty depends on who controls the underlying data and models, not on where servers are physically hosted; foreign firms hosting data centres on Indian soil does not by itself make AI sovereign.
- India is behind not marginally but on a civilisational scale, with only a narrow window of roughly two years to close the gap and shift the balance of deterrence in South Asia.
- India possesses real strengths such as a young talent base, digital public infrastructure, DRDO and ISRO capability, and a strong startup ecosystem but its

central challenge is execution: converting potential into deployable, sovereign military AI.

- Across communications and electronic-warfare domains, India's principal bottleneck is realistic operational data, testing infrastructure and certification rather than algorithm development.
- Data quality matters as much as algorithmic sophistication, making sovereign, secure defence-data infrastructure a foundational national priority.

KEY RECOMMENDATIONS BY SPEAKERS

- Build AI-enabled digital "kill webs" along the LoC and LAC, and construct the Northern, Eastern and Maritime theatres as digital-first enterprises from the outset rather than retrofitting legacy structures.
- Operationalise large fleets of low-cost, Shahed-type drones through field-driven development that bypasses slow conventional procurement, backed by a comprehensive counter-drone and counter-UAS network of radars, acoustic sensors and full air-picture coverage.
- Reduce dependence on Western technology in favour of sovereign models and platforms, and develop a unified, AI-enabled common operational picture so that political and military leadership act on the same real-time data.
- Pursue a five-point national roadmap of sovereign compute, trusted AI, dual-use pipelines, data as infrastructure, and talent at scale, alongside a sovereign defence-data infrastructure, indigenous foundation models, and a rigorous AI test-and-certification ecosystem.
- Develop self-healing, self-adaptive military communication networks built on sovereign, software-defined waveforms, adopting DRDO's Indian Radio Software Architecture (IRSA) as the national standard to avoid a foreign-controlled "kill switch."
- Build a hybrid, multi-orbit satellite constellation (LEO, MEO and GEO) with cognitive payloads capable of detecting jamming and shifting spectrum faster than an adversary can track.

- Advance indigenous cognitive electronic warfare through a phased roadmap from AI-based sensing to network-centric integration, prioritising synthetic datasets, RF simulators and digital twins to prepare for an AI-versus-AI battlespace.
- Institutionalise collaboration among the Armed Forces, DRDO, BEL, academia, startups and industry to accelerate indigenisation, treating private industry as a development partner rather than a vendor.

FUTURE OUTLOOK

- Continued transition from platform-centric to network-, information- and intelligence-centric warfare, culminating in increasingly autonomous operations across all domains.
- Wider adoption of self-adaptive, intent-driven communication networks and integrated sensing and communications (ISAC), with major standards bodies embedding AI natively into 6G.
- Growing national focus on embodied AI and quantum technology, both flagged by speakers as frontier domains where India is not yet competitive.
- Maturing frameworks for AI trust and accountability across technical, policy and infrastructure layers, building on India's existing ETAI framework.
- Continued insistence that human commanders retain final decision authority i.e. remaining "on the loop" even as machine-speed decision cycles compress further.
- Deeper, sustained public-private-academic collaboration underpinned by frugal, low-cost and culturally relevant engineering as the basis for long-term technological competitiveness.

The Strategic Way Forward for India, as emerging from the conference deliberations and recommended by the speakers, is presented at Appendix I.

APPENDIX 1					
S. No	**Recommended Action**	**Government of India / Ministry of Defence**	**Armed Forces**	**Industry & Startups**	**Academia & Research Institutions**
1	Build Sovereign Compute Infrastructure	Scale national GPU/compute capacity through strategic partnerships and continuous refresh cycles rather than one-off procurement.	Define compute requirements for AI-enabled operations and prioritise access for mission-critical systems.	Invest in domestic compute and data-centre capacity; partner on cutting-edge hardware access.	Conduct research on compute-efficient models suited to India's hardware base.
2	Develop Indigenous Foundation Models & Sovereign AI	Expand the National AI Mission with shared compute, open datasets and sovereignty designed from the start.	Adopt indigenous models for operational and command systems in place of imported platforms.	Build sovereign foundation models and dual-use AI pipelines.	Lead foundational research on Indian-context models and datasets.
3	Establish AI Test, Certification & Data Infrastructure	Create a rigorous AI test-and-certification ecosystem and secure defence-data infrastructure.	Provide realistic operational data, testing ranges and field trials for AI systems.	Develop synthetic datasets, RF simulators and digital twins for AI-versus-AI preparedness.	Support independent testing, evaluation and certification frameworks.
4	Build AI-Enabled Digital Kill Webs & Common Operational Picture	Support unified, real-time data architectures linking political and military leadership.	Operationalise digital kill webs along the LoC and LAC; build Northern, Eastern and Maritime theatres as digital-first enterprises.	Deliver interoperable sensor, data-fusion and decision-support platforms.	Research human-machine teaming and decision-cycle compression.
5	Field Counter-Drone & Counter-UAS Networks	Fund a comprehensive counter-drone network of radars, acoustic sensors and full air-picture coverage.	Operationalise low-cost drone fleets and counter-UAS systems through field-driven, rapid development.	Develop integrated drone-warfare ecosystems and counter-drone platforms.	Study swarm autonomy and counter-swarm techniques.
6	Develop Self-Adaptive, Resilient Military Communication Networks	Adopt DRDO's Indian Radio Software Architecture (IRSA) as the national software-defined-radio standard.	Induct indigenous SDR systems; prioritise networks that survive jamming and infrastructure loss.	Build sovereign, software-defined waveforms and self-healing, self-adaptive network platforms.	Research explainable, decentralised cognitive networks with dynamic topologies.
7	Advance Indigenous Cognitive Electronic Warfare	Support DRDO's phased roadmap from AI-based sensing through cognitive jamming	Prioritise fusion of EW intercepts with other intelligence and automated emitter	Develop RF machine learning, RF fingerprinting and spoof-resistant	Advance computer-vision techniques for RF analysis and common data frameworks.

		to network-centric EW integration.	classification, retaining humans in the loop.	sensing technologies.	
8	Build Hybrid Multi-Orbit Satellite Constellation	Fund a hybrid LEO-MEO-GEO satellite architecture with cognitive, jam-detecting payloads.	Route tactical data over low-latency LEO links while reserving GEO capacity for bulk traffic.	Develop cognitive payloads capable of dynamic spectrum shifting and rerouting.	Research resilient, multi-orbit space-layer communications architectures.
9	Strengthen Defence AI Ecosystem & Public-Private-Academic Collaboration	Institutionalise collaboration mechanisms linking the Armed Forces, DRDO, BEL, academia, startups and industry.	Provide operational problem statements and rapid field validation for emerging AI systems.	Treat industry as a development partner rather than a vendor; adopt open protocols.	Expand interdisciplinary research programmes bridging AI, EW and communications.
10	Develop Cross-Disciplinary AI Talent for Defence	Expand national skilling programmes in AI, autonomy, EW and defence-relevant computing.	Incorporate AI, cyber, EW and networking modules into professional military education.	Support fellowships, internships and industrial training in defence AI.	Launch specialised academic programmes in AI, autonomy and strategic technologies.

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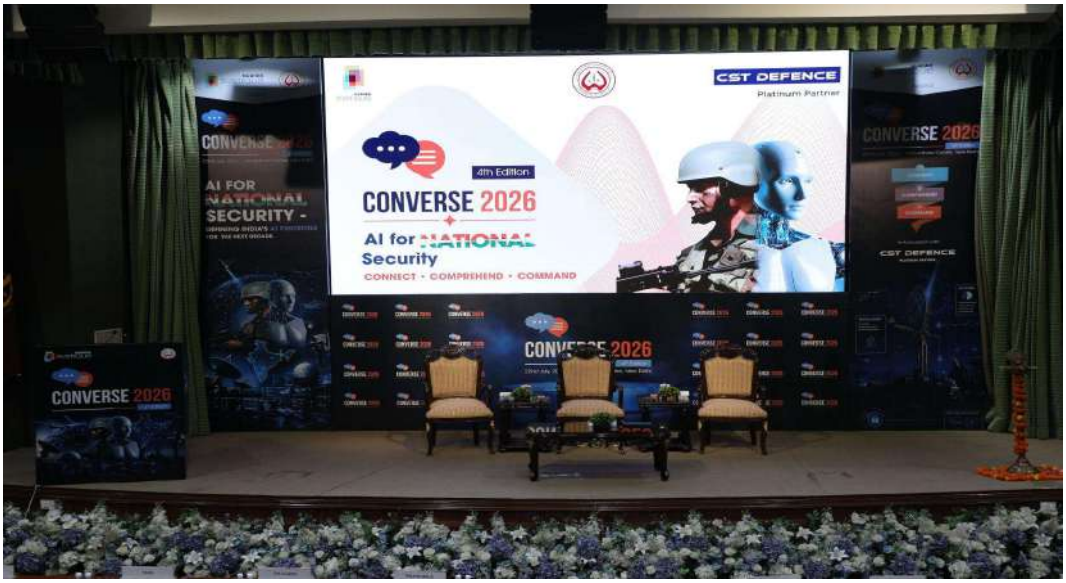
AI FOR NATIONAL SECURITY

PROGRAMME SCHEDULE

TIME (H)	EVENT	SPEAKER(S)
0900–0930	Registration & Networking Tea	
INAUGURAL SESSION		
0930–0940	Lamp Lighting Ceremony	
0950–1000	**Welcome Address**	**Mr. Ajay Gupta** Global Business Head, HSPL
1000–1015	**Keynote Address**: *The Future of AI-Enabled Warfare*	**Lt Gen Raj Shukla** PVSM, YSM, SM (Retd.), Member, UPSC
1015–1030	**Special Address**: *AI & India's Technology Roadmap*	**Mr. Arvind Gupta** Head, Digital India Foundation & Ex-CEO, MyGov
1030–1045	**Special Address:** *AI for National Security – From Algorithmic Advantage to Strategic Superiority*	**Dr. B. K. Das, DG (ECS), DRDO**
1045–1050	**Book Launch Ceremony – *Dragon's Fire & Bite*** by Maj Gen Rajiv Narayanan, AVSM, VSM (Retd.)	
1050–1115	Networking Tea / Coffee Break	
SPECIAL ADDRESS		
1115–1130	**Special Address:** *Intelligent Communication*	**Maj Gen Anindya Auddy, VSM** ADG (T), Corps of Signals
PANEL DISCUSSION I – CONNECT		
1135–1235	**Intelligent Communications: Self-Adaptive Networks**	**Moderator: Lt Gen Sanjay Verma, PVSM, AVSM, VSM (Retd.)**
		Sh L. C. Mangal (DRDO)
		Sh Satyendra Kumar (DEAL, DRDO), Sh Sudhir Agarwal (SAC, ISRO),
		Sh Lakshay Talwar (CST Advanced Systems Pvt. Ltd.)
PANEL DISCUSSION II – COMPREHEND • COMMAND		

1240–1340	**Electronic Dominance: AI-Driven Electronic Warfare for Future Battlefields**	**Moderator: Lt Gen Dushyant Singh, PVSM, AVSM (Retd.), DG CLAWS**
		Sh Rajeev Marathe (CASDIC), AVM
		Ajay Kunnath, VSM (IAF),
		Sh Gaurav Lohia (DLRL, DRDO),
		Maj Gen Subhasis Das, SM (ADG TAC C)
1340–1440	Lunch & Networking Break	
SPECIAL ADDRESS		
1440–1455	Special Address: *Building India's Defence AI Ecosystem*	**Sh Anoop Kumar Rai** Executive Director, CRL, BEL
AI MISSION COUNCIL – FIRESIDE DISCUSSION		
1500–1600	**Defining India's AI Priorities for the Next Decade**	**Chair & Moderator: Lt Gen Harsh Chhibber, AVSM, VSM, PhD, DGIS**
		Smt Sarvjeet Kaur (SAG, DRDO),
		Prof. Huzur Saran (IIT Delhi),
		Rear Admiral Mohit Gupta, VSM (Retd.),
		Maj Gen Manjeet Singh Mokha, SM, VSM (Retd.)
1605–1615	**Vote of Thanks**	**Mr. Vinod Sood** Managing Director, HSPL
1615 onwards	Networking & Refreshments	

GALLERY



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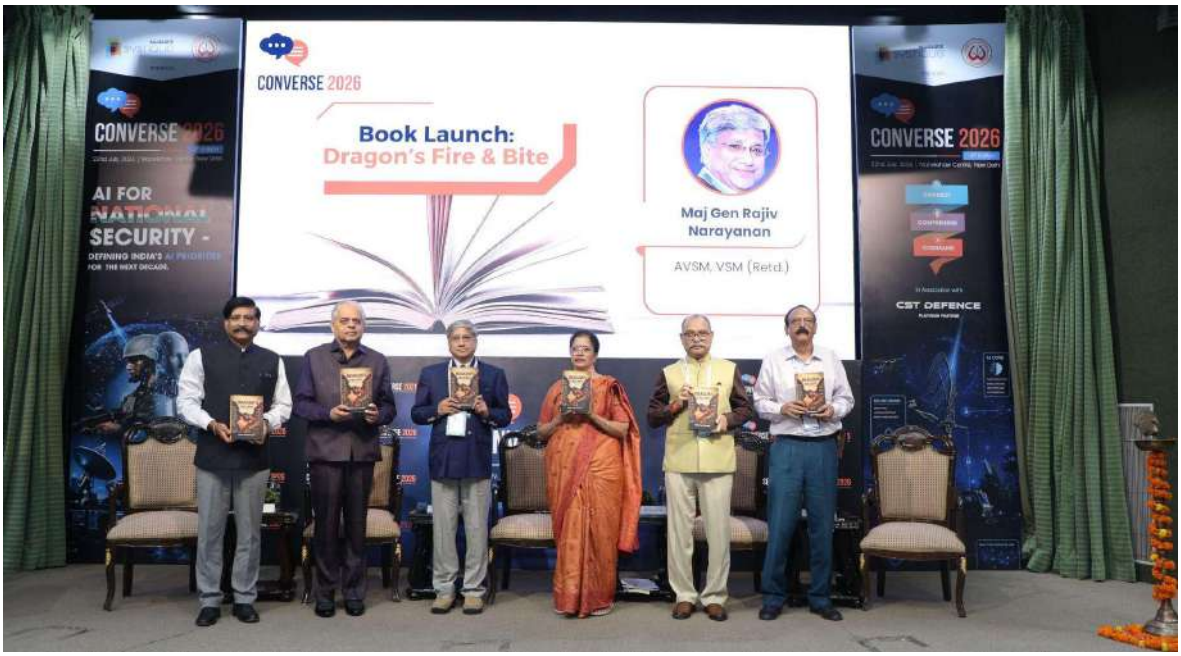
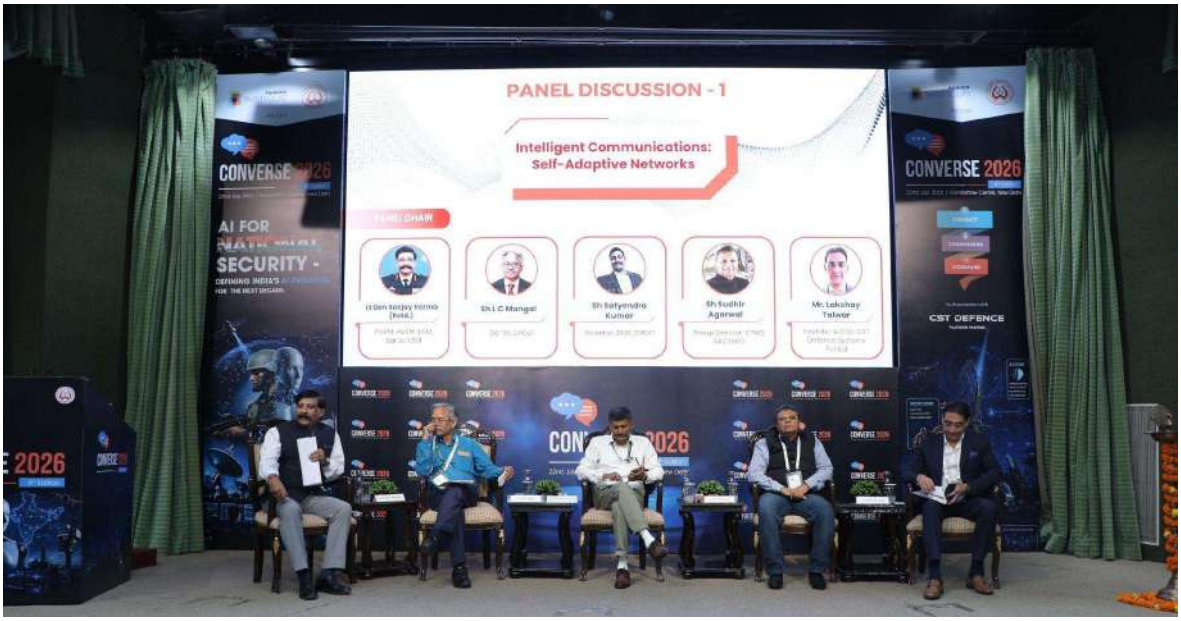
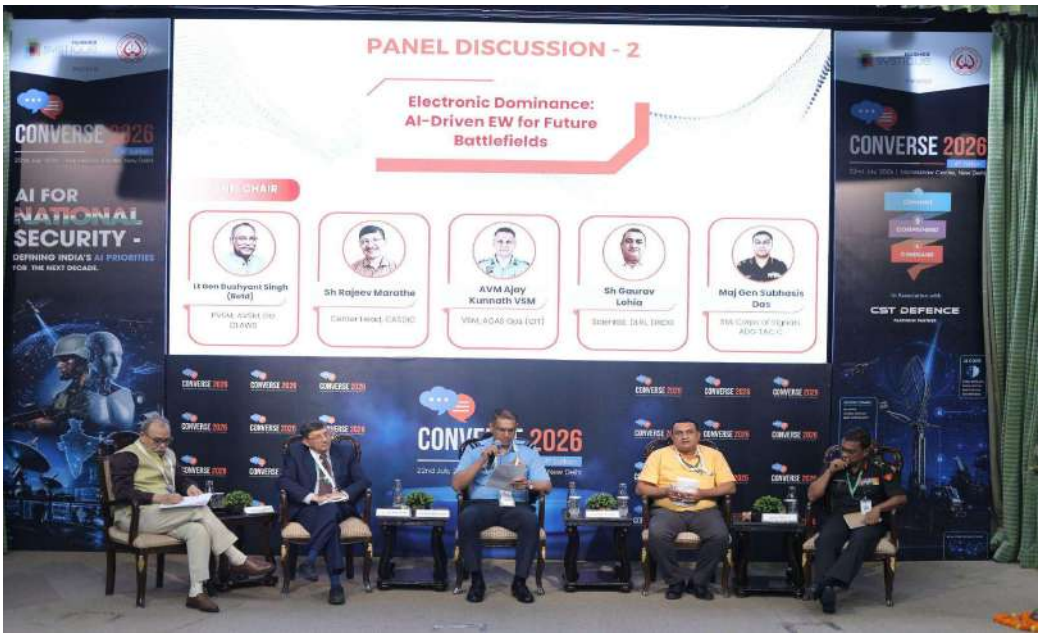
Lamp Lighting Ceremony



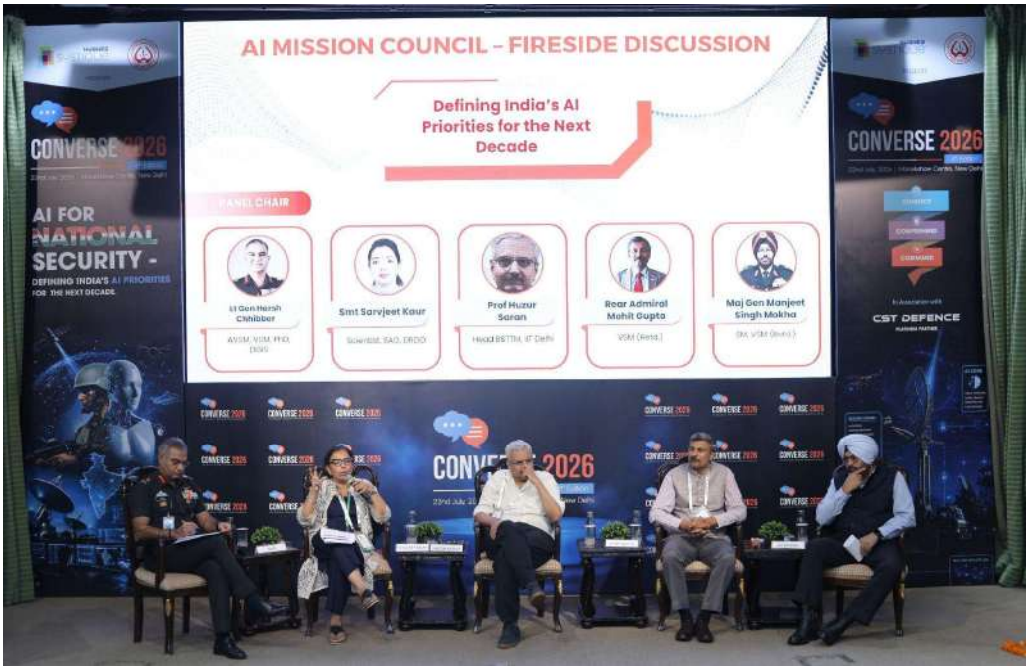
Book Launch Ceremony – *Dragon's Fire & Bite* by Maj Gen Rajiv Narayanan, AVSM, VSM (Retd.)



PANEL DISCUSSION I : Intelligent Communications: Self-Adaptive Networks



PANEL DISCUSSION II : Electronic Dominance: AI-Driven Electronic Warfare for Future Battlefields



AI MISSION COUNCIL – FIRESIDE DISCUSSION: Defining India's AI Priorities for the Next Decad