

Capability assessment workshop on drones and autonomous systems concludes at IIT Kanpur

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Delivering the welcome address Prof. Manindra Agrawal, Director of IIT Kanpur said, "India aims to become a global hub for drone technology, with strong government support driving this vision. Certification, testing, and R&D are key pillars in realizing this goal. IIT Kanpur has the infrastructure to facilitate these efforts, including an airstrip, flight lab, and prototyping facilities that can help with drone design and production on campus. Several drones have already been designed and manufactured at IIT Kanpur, with some handed over to the defense sector and others in the pipeline. We firmly believe that discussions like these will play a significant role in establishing India as a leader in drone technology." Ambassador Sujan R Chinoy, Director General of the Manohar Parrikar Institute for Defence Studies and Analyses (MP-IDSA), outlined the broader vision behind the workshop and how it aligns with India's strategic ambitions in drone technology. He said, "The two-day deliberation focused on policy incentives and collaboration between government and non-government entities required to achieve Aatmanirbharta in the drone sector. Discussions revolved around three key focus areas: Infrastructure Development, Technology Development and Integration, and Ecosystem Development. IIT Kanpur has the human resources and infrastructure to position itself as a hub for drone technology. With access to the Kanpur Defense Corridor and a strong network of startups, the institute is well-placed to drive innovation and advancements in this field."

Awnish Awasthi, Chief Advisor to Chief Minister Yogi Adityanath, shared the Uttar Pradesh Government's perspective on drone research and development initiatives. He said, "For Uttar Pradesh, IIT Kanpur is a premier research institute and a leading hub for drone technology. The Centre of Excellence here is a matter of pride for both the state and the country. Drones have diverse applications beyond defence, including agriculture, surveying, and traffic management, among others. The Uttar Pradesh government is keen on advancing high-tech sectors, and as an innovation hub of the country, IIT Kanpur has the state's full support in its work in the drone sector."

JD Patil, Director and Senior Executive Vice President for L&T's Defence Business, provided insights from the industry's standpoint on drone development. Whereas Air Marshal BR Krishna, former Chief of Integrated Defence Staff, Vice Admiral Satishkumar Namdeo Ghormade, former Vice Chief of Naval Staff and officials from DRDO laid the foundation of discussion and shared the end-users perspectives on strengthening India's drone ecosystem, the statement added.

Participants were given a guided tour of IIT Kanpur's state-of-the-art drone research and testing facilities, including the Smart Systems and Operations Lab, Flight Lab, UAV Lab, Drone Centre of Excellence, Helicopter and VTOL Lab, National Wind Tunnel Facility, EMI/EMC Facility, and the C3i Center. These facilities play a pivotal role in advancing drone design, testing, and certification.

Under Infrastructure Development, participants deliberated on the establishment of a 24x7 aerial testing ecosystem, specialized laboratory infrastructure, and advanced testing and certification facilities. The Technology Development and Integration discussions focused on the indigenous development of critical UAV components, civil-military technology integration, and the establishment of standards and certification frameworks. Meanwhile, the Ecosystem Development track explored collaborations between defense organizations, academia, and industry, the development of Indian drone standards, and the creation of comprehensive testing protocols.

Further the statement added, the closing session was led by Prof AK Ghosh from the Department of Aerospace Engineering, IIT Kanpur, who summarized the workshop's key takeaways and action items. Looking ahead, the insights from this workshop will serve as a foundation for ongoing discussions in collaboration with MP-IDSA to refine and implement strategic initiatives aimed at strengthening India's drone technology ecosystem.

This event marked a significant step toward establishing IIT Kanpur as a premier hub for drone technology research, development, and deployment. The workshop concluded with a well-defined roadmap to build an integrated drone manufacturing ecosystem, develop indigenous drone standards, set up UAV testing and certification infrastructure, and implement a structured framework for technology development and trials. These strategic efforts will propel India's self-reliance in drone technology while fostering innovation and industry collaboration.