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समाचार पत्रों से चयनित अंश
Newspapers Clippings

डीआरडीओ समुदाय को डीआरडीओ प्रौद्योगिकियों, रक्षा प्रौद्योगिकियों, रक्षा नीतियों, अंतर्राष्ट्रीय संबंधों और विज्ञान एवं प्रौद्योगिकी की नूतन जानकारी से अवगत कराने हेतु दैनिक सेवा

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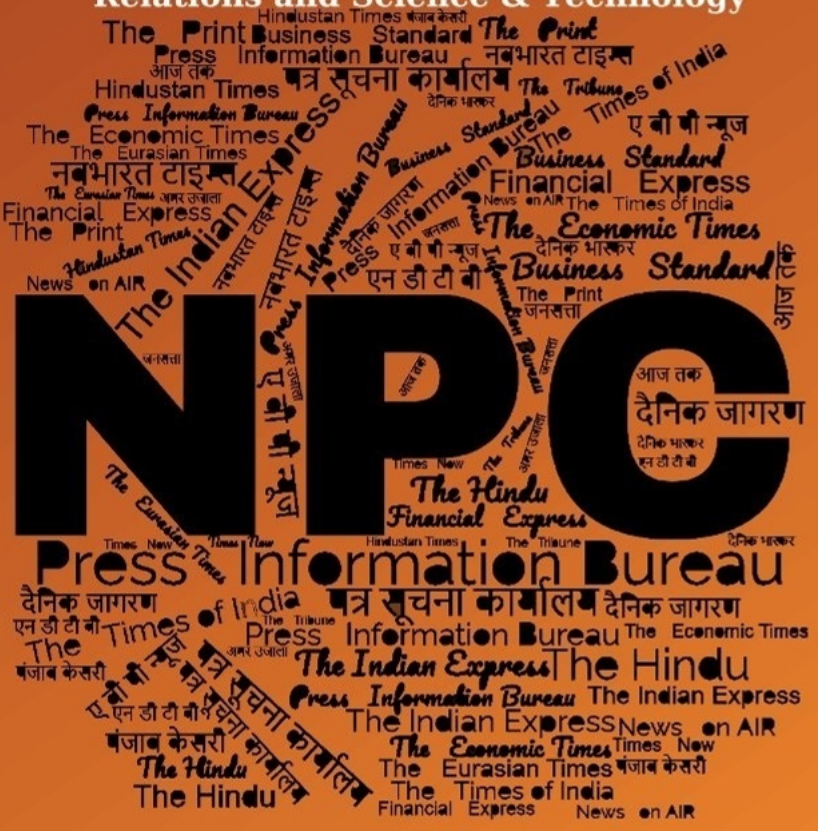

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दुश्मन की पनडुब्बियों को खोज-खोजकर मारेगा आईएनएस माहे

Source: Dainik Jagran, Dt. 25 Nov 2025

मुंबई, प्रेट्र: भारतीय नौसेना ने सोमवार को आइएनएस माहे को अपने बेड़े में शामिल कर तटीय सुरक्षा ढांचे को नई मजबूती दी। माहे-क्लास का यह पहला एंटी-सबमरीन वारफेयर शैलो-वाटर क्राफ्ट (एएसडब्ल्यू-सीएसडब्ल्यू) है, जो समुद्री निगरानी और तटीय रक्षा की अग्रिम पंक्ति में तैनात होगा और बड़े युद्धपोतों, पनडुब्बियों और नौसैनिक विमानन इकाइयों के साथ समन्वित रूप से काम करेगा। इसकी स्टील्थ क्षमता और गतिशीलता के कारण इसे 'साइलेंट हंटर' भी कहा जाता है।

पहली बार सेना प्रमुख शामिल हुए आर्मी चीफ: मुंबई में आयोजित कमीशनिंग समारोह में सेना प्रमुख जनरल उपेंद्र द्विवेदी मुख्य अतिथि रहे। यह पहली बार है जब किसी नौसैनिक पोत की कमीशनिंग में आर्मी चीफ शामिल हुए। उन्होंने आइएनएस माहे को नौसेना की स्वदेशी युद्धपोत निर्माण क्षमता का प्रतीक बताते हुए कहा कि यह हिंद महासागर क्षेत्र में भारत की समुद्री शक्ति और प्रभाव को और मजबूत करेगा। नौसेना ने कहा कि माहे-क्लास प्लेटफार्म तटीय क्षेत्रों में निरंतर सतर्कता बनाए रखने और भारत के समुद्री हितों की रक्षा के लिए निर्णायक भूमिका निभाएगा, और नौसेना के 'बिल्डर नेवी' बनने के संकल्प को आगे बढ़ाएगा।

आइएनएस माहे आत्मनिर्भर भारत की नई ताकत: सेना प्रमुख : जनरल द्विवेदी ने कहा कि यह सिर्फ एक जहाज नहीं है बल्कि आत्मनिर्भर भारत की नई ताकत है। आइएनएस माहे की जिम्मेदारी संभालने वाले कमांडिंग आफिसर व क्रू को संबोधित करते हुए जनरल द्विवेदी ने कहा, "देश इसलिए चैन की नींद सो पाएगा क्योंकि आप समुद्रों की रक्षा में सदैव सतर्क रहेंगे।"

मुंबई के नेवल डाकयार्ड में सोमवार को आइएनएस माहे को नौसेना में शामिल किए जाने के अवसर पर आयोजित कार्यक्रम में सेना प्रमुख उपेंद्र द्विवेदी (आगे दाएं से तीसरे) व अन्य ● एपी

- भारतीय नौसेना ने आइएनएस माहे को तटीय रक्षा की पहली पंक्ति के रूप में शामिल किया
- तटीय इलाकों में रहकर गहरे समुद्र की निगरानी कर सकता है आइएनएस माहे
- यह माहे-क्लास का पहला एंटी-सबमरीन वारफेयर शैलो-वाटर क्राफ्ट है
- नौसैनिक पोत की कमीशनिंग में पहली बार शामिल हुए सेना प्रमुख
- 80 प्रतिशत स्वदेशी सामग्री से तैयार युद्धपोत स्टील्थ क्षमता से है लैस
- 25 नाट प्रति घंटे (46 किमी प्रति घंटा) की अधिकतम रफ्तार
- 78 मीटर लंबा यह पोत डीजल इंजन-वाटरजेट संयोजन से चलता है
- 900 टन वजन का युद्धपोत टारपीडो और हाई क्वालिटी राडार से लैस

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Navy gets its 'silent hunter', 80% home-grown INS Mahe

Source: The Hindu, Dt. 25 Nov 2025

INS Mahe, India's first Mahe-class anti-submarine warfare shallow watercraft, was commissioned at the Naval Dockyard by General Upendra Dwivedi, Chief of Army Staff, on Monday (November 24, 2025).

INS Mahe, the Mahe-class anti-submarine warfare shallow watercraft at the Naval Dockyard in Mumbai. EMMANUAL YOGINI

With over 80% indigenous components, the ship is another step in the Indian Navy's efforts towards achieving self-reliance, the Navy said. The induction was done after long, rigorous trials for over two years, officials said. Due to its stealth, vigilance and unyielding readiness, INS Mahe's motto is 'Silent Hunters'.

This was the first time an Army chief presided over the commissioning of a naval warship. General Dwivedi said that the true strength of the Indian armed forces lies in synergy among the three services.

"In the age of multi-domain operations, the country's ability to act in concert from the depths of the ocean to the highest frontier will determine the security influence of the Indian Republic," he said, adding that Operation Sindoor showcased the seamless harmony between the services.

The Army Chief noted that the force is undergoing a major transformation, with jointness and integration serving as key pillars for meeting the challenges of hybrid and multi-domain warfare. "As said by Helen Keller, alone we can do so little. Together we can do so much. So, as a soldier, we are standing among seafarers... The sea, land, and the skies from a single continuum of national security. And together, the Army, Navy and Air Force form the trinity of India's strategic strength," General Dwivedi said.

INS Mahe, the lead ship of eight vessels in its class, has been designed and constructed by Cochin Shipyard Limited. It will form the first line of coastal defence, integrating seamlessly with larger surface combatants, submarines, and aviation assets to maintain constant vigilance over India's maritime areas of operation.

"Today's ceremony not only marks the induction of a potent new platform to a maritime order of battle, but also reaffirms our nation's increasing capability to design, construct, and field complex combatants with indigenous technology. This commissioning will significantly augment the Indian Navy's capability to ensure near-sea dominance, strengthen the coastal security grid and safeguard our maritime interests across the vast expanse of our littorals. The commissioning of INS Mahe reaffirms the Navy's steadfast transformation into Builders' Navy, one that designs, constructs and sustains its own combat platforms," General Dwivedi said.

Listing out the abilities of the warship, a government statement said, "The ship's combat suite blends multiple systems into a compact yet potent network. She is specially designed to undertake anti-submarine operations in coastal and shallow waters. Fitted with advanced weapons, sensors, and communication systems enabling it to detect, track, and neutralise sub-surface threats with precision, the ship can sustain prolonged operations in shallow waters and features technologically advanced machinery and control systems."

The event was hosted by Vice-Admiral Krishna Swaminathan, Flag Officer Commanding-in-Chief, Western Naval Command. Several senior naval officers, representatives from Cochin Shipyard Ltd, Kochi, were among the dignitaries present at the Naval Dockyard.

https://www.thehindu.com/news/national/navy-gets-its-silent-hunter-80-home-grown-ins-mahe/article70318707.ece

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कटाना गोला-बारूद के लिए फ्रांसीसी-जर्मन रक्षा कंपनी से समझौता

Source: Dainik Jagran, Dt. 25 Nov 2025

नई दिल्ली, प्रेट्र: भारत की एक प्रमुख रक्षा और एयरोस्पेस कंपनी ने एक फ्रेंको-जर्मन रक्षा समूह के साथ एक "टीमिंग समझौता" किया है, जिसके तहत दोनों पक्ष भारतीय सेना को "कटाना गोला-बारूद परिवार" की पेशकश करने पर ध्यान केंद्रित करेंगे।

कटाना एक 155 मिमी का सटीक निर्देशित गोला-बारूद है, जिसे उच्च सटीकता और विस्तारित रेंज प्रदान करने के लिए डिजाइन किया गया है। यह आधुनिक तोप प्रणालियों की महत्वपूर्ण परिचालन आवश्यकताओं को पूरा करता है। यह समझौता ऐसे समय में हुआ है जब सेना को 155 मिमी तोप प्रणालियों और गोला-बारूद की तत्काल आवश्यकता है।

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India, France to jointly manufacture HAMMER air-to-ground weapons

Source: The Indian Express, Dt. 25 Nov 2025

India's state-owned Bharat Electronics Limited (BEL) and French firm Safran Electronics and Defence (SED) Monday signed a joint venture cooperation agreement (JVCA) for the production of Highly Agile Modular Munition Extended Range (HAMMER) smart precision Guided air-to-ground weapons in India.

The development is crucial because India previously ordered this weapon system, along with other armaments, from France to equip its Rafale fighter jets through the emergency procurement route in 2020 during standoff with China in eastern Ladakh. There were subsequent plans to procure more of this weapon system to arm the Rafale jets and the indigenously-made Light Combat Aircraft, Tejas.

Also known as a glide bomb, HAMMER precision-guided munitions have a range of up to 70 km and can be fitted to standard bombs of 250kg, 500kg, 1,000kg weights. The all-weather weapon is insensitive to jamming and can be launched from low altitude over rough terrains. What makes it an effective weapon is that it is difficult to intercept and can penetrate fortified structures. HAMMER is a precision-guided weapon system known for its high accuracy and modular design, making it adaptable for multiple platforms.

The all-weather weapon is insensitive to jamming and can be launched from low altitude over rough terrains

According to a Defence Ministry statement, the agreement formalises the intent expressed in the pact signed between BEL and SED during Aero India on February 11 this year, reaffirming the willingness of both sides to incorporate a potential joint venture company in India.

“The JVC shall be formed as a private limited company with 50:50 shareholding. It will localise the manufacturing, supply and maintenance of HAMMER to meet the operational needs of the Indian Air Force and the Indian Navy,” the statement said. It said the indigenisation level will progressively increase up to 60 per cent with key sub-assemblies, electronics and mechanical parts being manufactured locally.

https://indianexpress.com/article/india/india-france-to-jointly-manufacture-hammer-air-to-ground-weapons-10384256/

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13th India-Oman Joint Military Cooperation Committee meeting held in New Delhi

Source: Press Information Bureau, Dt. 24 Nov 2025

Defence Secretary Shri Rajesh Kumar Singh and Secretary General, Ministry of Defence, Oman Dr Mohammed Bin Naseer Bin Ali Al Zaabi co-chaired the 13th Joint Military Cooperation Committee meeting in New Delhi on November 24, 2025. Both officials reviewed & appreciated the robust defence cooperation between the two countries and discussed ways to further strengthen bilateral engagements in various areas. They also shared perspectives on regional and international security developments, particularly relating to the Indian Ocean Region.

Both sides reaffirmed their commitment to deepening defence industrial cooperation, emphasising on joint development, technology sharing, and expanded production partnerships. They highlighted the importance of strengthening supply chains, enhancing interoperability, and fostering innovation in emerging defence technologies.

The discussions focused on creating long-term frameworks that support co-development of advanced platforms, boost indigenous manufacturing, and improve strategic resilience. Both sides agreed that closer defence industrial collaboration is essential for regional stability, mutual security interests, and sustainable defence modernisation. The meeting reaffirmed the strong strategic partnership between India & Oman and underlined the commitment of both countries to maintain regular high-level dialogue.

During his visit, Secretary General, Ministry of Defence, Oman Dr Mohammed Bin Naseer Bin Ali Al Zaabi also called on Raksha Rajya Mantri Shri Sanjay Seth and discussed bilateral defence cooperation. He also held a meeting with Chief of Defence Staff General Anil Chauhan.

India and Oman have a strategic partnership built on strong political, defence, economic, and cultural ties. Key strategic points include, economic collaboration and energy security through oil and gas trade; and shared interests in regional stability, counter-terrorism, and maritime security.

https://www.pib.gov.in/PressReleasePage.aspx?PRID=2193653

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'Strength lies in synergy, Operation Sindoor apt example, says Army chief General Upendra Dwivedi

Source: The Economic Times, Dt. 25 Nov 2025

The strength of the armed forces lies in synergy, with Operation Sindoor being an apt example given the precisely coordinated, multi-domain action carried out against terror infrastructure in the aftermath of the Pahalgam attack, Army chief General Upendra Dwivedi said on Monday.

Speaking at the commissioning of INS Mahe in Mumbai, he said India's ability to act in concert across domains - from the depths of the ocean to the highest frontier - will shape the republic's security influence in the years ahead.

"The sea, land and the skies form a single continuum of national security. And, together, the Army, Navy and Air Force form the Trinity of India's strategic strength," he said. "In this age of multi-domain operations, our ability to act in concert from the depths of the ocean to the highest frontier will determine the security influence of our Republic where an operation lies in every domain," he said.

He referred to the ongoing transformation drive within the Army that prioritises jointness and integration, recognising that future conflicts will be multi-domain, hybrid and require unified national power.

https://economictimes.indiatimes.com/news/defence/strength-lies-in-synergy-operation-sindoor-apt-example-says-army-chief-general-upendra-dwivedi/articleshow/125549701.cms?from=mdr

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Science & Technology News

IIT बॉम्बे से दिल्ली तक हाई-टेक लैब्स

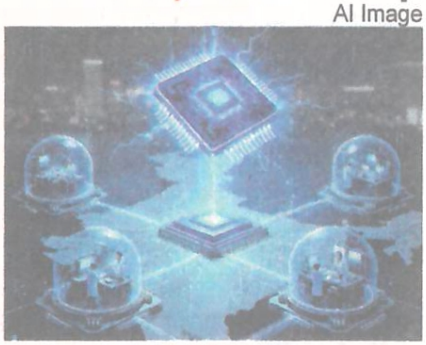
Source: NavBharat Times, Dt. 25 Nov 2025

देश में बनेंगे अपने क्वांटम चिप्स, 720 करोड़ की सुविधाएं शुरू होंगी

■ NBT रिपोर्ट, नई दिल्ली

केंद्र सरकार ने देश को भविष्य की सबसे बड़ी तकनीक क्वांटम टेक्नोलॉजी में आत्मनिर्भर बनाने के लिए बड़ा कदम उठाया है। विज्ञान और प्रौद्योगिकी मंत्री डॉ. जितेंद्र सिंह ने IIT बॉम्बे में घोषणा की कि सरकार देश के चार बड़े संस्थानों IIT बॉम्बे, आईआईएससी बेंगलुरु, IIT कानपुर और IIT दिल्ली में कुल 720 करोड़ रुपये की लागत से अत्याधुनिक क्वांटम फैब्रिकेशन और सेंट्रल सुविधाएं स्थापित कर रही है। इन नई लैब्स की मदद से भारत अब अपनी क्वांटम चिप,

AI Image



क्वांटम कंप्यूटर, क्वांटम सेंसर और जरूरी क्वांटम मटीरियल्स खुद बना सकेगा। अभी तक ऐसी सुविधाएं बहुत कम देशों में है और भारत को महंगे विदेशी लैब्स पर निर्भर रहना पड़ता था। IIT बॉम्बे और IIT कानपुर में देश की क्वांटम सेंसर और मेट्रोलॉजी क्षमताओं को विकसित किया जाएगा। IISC बेंगलुरु और IIT बॉम्बे में क्वांटम कंप्यूटिंग के लिए जरूरी चिप्स और उपकरण (सुपरकंडक्टिंग, फोटोनिक और स्पिन क्यूबिट तकनीक) विकसित किए जाएंगे। वहीं IIT दिल्ली में क्वांटम मटीरियल्स और डिवाइस बनाने से जुड़ी अहम रिसर्च होगी। इन लैब्स को सिर्फ वैज्ञानिकों के लिए ही नहीं, बल्कि स्टार्टअप, उद्योग, कॉलेजों, छात्रों और देश के रणनीतिक क्षेत्रों के लिए भी खोला जाएगा, ताकि हर कोई इसका फायदा उठा सके।

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Dr Jitendra Singh lauds Quantum sensing breakthroughs by IIT Bombay, inaugurates India's first Liquid Helium Cryogenic facility

Source: Press Information Bureau, Dt. 24 Nov 2025

Union Minister of State for Science & Technology; Minister of State (Independent Charge) for Earth Sciences; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr. Jitendra Singh today reaffirmed the Government of India's commitment to advancing frontier technologies by visiting the Quantum Research Laboratories at IIT Bombay and inaugurating the Institute's new Liquid Helium Facility, an important milestone in India's growing ecosystem of quantum science, cryogenics, advanced materials, and next-generation computing.

During his visit to the Quantum Lab, the Minister reviewed India's first series of indigenous quantum sensing and imaging platforms that signal a major leap in the nation's R&D capabilities. He was briefed on QMagPI, the country's first portable magnetometer capable of detecting ultra-low magnetic fields at the nanotesla (nT) scale. Developed using nitrogen vacancy (NV) centers-atomic-scale defects in diamond, the device enables high-precision magnetic sensing for strategic sectors, defense applications, mineral exploration, and scientific instrumentation. The Minister appreciated the team's achievement in creating a compact, scalable system that places India among a select group of nations with such capabilities. He noted that the Department of Science &

Technology (DST) has supported this advancement, enabling translation of deep science into real-world applications.

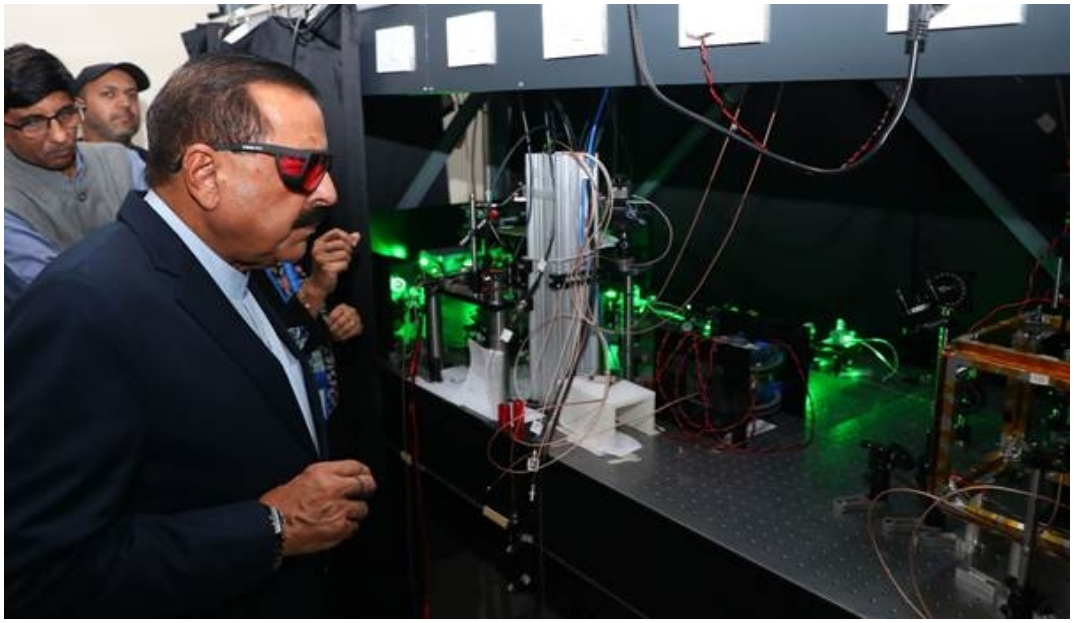
The Minister also witnessed India's first indigenous Quantum Diamond Microscope (QDM), built by IIT Bombay's PQuest Group. Powered by NV centers in diamond, the QDM allows nanoscale, three-dimensional magnetic field imaging and is poised to revolutionize widefield mapping in neuroscience, materials research, and semiconductor diagnostics. Integrated with AI/ML systems, the technology promises new breakthroughs in electronics, biology, geology, and next-generation chip testing, key pillars for India's future technological leadership.

Highlighting the growing role of quantum technologies in healthcare, the Minister examined the Q-Confocal system, a homegrown confocal microscope engineered to exploit quantum properties of NV centers in nanodiamonds. Using T_1 relaxometry, this system enables sensitive detection of intracellular changes, particularly Reactive Oxygen Species (ROS) levels, which are critical for early-stage cancer diagnostics. Successful experiments on U87-MG glioblastoma and keratinocyte cells demonstrate the ability of the platform to measure disease-related changes at the nanoscale. Dr. Singh commended the innovation team and underlined that such quantum-enabled biomedical tools represent India's increasing convergence of health sciences and high technology.

Following the lab visit, Dr. Jitendra Singh inaugurated the Liquid Helium Facility, describing it as a foundational national research asset that will significantly boost India's capabilities in cryogenic engineering, superconductivity, quantum computing, quantum sensing, photonics, healthcare technologies, and green energy devices. Highlighting that liquid helium is indispensable for MRI systems, advanced materials characterization, and cryogenic electron microscopy (cryo-EM), he noted that the new facility, now dedicated to the nation and open for use by industries, universities, and research institutes- is equipped with an efficient helium recovery system that is expected to reduce the cost of cryogenic experiments to nearly one-tenth of current expenses while conserving one of the world's rarest resources.

The Minister said that as global demand for quantum computers rises, India must simultaneously strengthen its cryogenics infrastructure. He noted that quantum computing depends critically on dilution refrigerators, which operate at ultra-low temperatures of around 10 millikelvin (below –272°C). Since these systems rely on advanced cryogenic support, the inauguration of the Liquid Helium Facility lays the foundation for future indigenous development of dilution refrigeration units, a strategic requirement for India's long-term technological self-reliance. He acknowledged that

unlike the quantum technologies reviewed earlier, the Liquid Helium Facility has not yet received DST support, pointing to the need for greater national collaboration to scale indigenous cryogenic capabilities.



Dr. Singh stated that both the Quantum Lab advancements and the new cryogenics facility reflect India's fast-expanding leadership in next-generation science and technology. He said these achievements align with Prime Minister Narendra Modi's vision of a Viksit Bharat, where deep-tech research, strategic innovation, and indigenous development drive India's global competitiveness. He added that IIT Bombay's work demonstrates how academia, government, and industry can jointly build a world-class scientific ecosystem capable of shaping the technologies of the future.

The Minister congratulated the researchers, faculty, and students of IIT Bombay for their pioneering contributions and assured continued government encouragement for breakthroughs in quantum science, cryogenics, healthcare innovation, and national technology missions.

https://www.pib.gov.in/PressReleasePage.aspx?PRID=2193757

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Union Minister Dr. Jitendra Singh Announces ₹720-Crore Quantum Fabrication & Central Facilities at IIT Bombay Under the National Quantum Mission

Source: Press Information Bureau, Dt. 24 Nov 2025

Union Minister of State (Independent Charge) for Science & Technology, Dr. Jitendra Singh, today announced the establishment of four state-of-the-art Quantum Fabrication and Central Facilities worth ₹720 crore across IIT Bombay, IISc Bengaluru, IIT Kanpur and IIT Delhi under the National Quantum Mission (NQM). Making the announcement during his visit to IIT Bombay, the Minister said that these cutting-edge facilities mark a decisive leap in India's journey toward technological sovereignty, positioning the nation among the select global leaders advancing next-generation quantum technologies.

The event was attended by senior leadership from the country's premier scientific institutions, including Dr. Sireesh, Director of IIT Bombay; Dr. Abhay Karandikar, Secretary, Department of

Science & Technology; Dr. N. Kalaiselvi, Director General, CSIR; Dr. Rajesh Gokhale, Secretary, Department of Biotechnology; senior faculty members of IIT Bombay; researchers; innovators; and representatives from the Technology Innovation Hubs and start-up ecosystem.

Dr. Singh said that under the visionary leadership of the Hon'ble Prime Minister, India has emerged as one of the earliest nations to launch a National Quantum Mission, reflecting the government's willingness to embrace disruptive ideas and rapidly translate them into national initiatives. He added that the new fabrication and characterization capabilities, spanning quantum sensing, quantum computing, and quantum materials, will serve as the foundational hardware ecosystem needed to build sovereign, secure, scalable quantum devices and systems within the country. These facilities, he said, will be open not only to NQM investigators but also to academia, industry, start-ups, and strategic sectors across India.

Referring to IIT Bombay as one of India's oldest and most respected science and technology institutions, the Minister noted that the institute has consistently partnered with the Department of Science & Technology (DST) since its inception, and continues to be a national leader in deep-tech domains. He highlighted that IIT Bombay and IIT Kanpur will anchor the nation's quantum sensing and metrology infrastructure; IISc Bengaluru and IIT Bombay will advance quantum computing fabrication using superconducting, photonic and spin qubits; and IIT Delhi will host India's quantum materials and device development ecosystem. These capabilities, he noted, will create a controlled environment for prototyping indigenous quantum devices, supporting translational research, and training the next generation of quantum hardware experts.

Dr. Singh recalled the remarkable evolution of science and medical technology over the years, from invasive diagnostic methods of the past to the emerging non-invasive, physics-driven therapeutics of today, and emphasized that quantum technologies will accelerate this transition further, enabling breakthroughs in healthcare, diagnostics, imaging, materials science, and advanced computing. He observed that India's deep-tech innovations increasingly demand interdisciplinary training, adding that future medical education may very soon require physics as a core component. He praised institutions like IIT Bombay, IIT Kanpur and IISc for already moving toward integrated medical-tech research ecosystems.

The Minister stressed the importance of breaking silos and fostering multilateral collaboration among major institutes to translate academic R&D into real-world impact. He cited his own efforts in facilitating multi-institutional MoUs among IITs, AIIMS, IIMs, CSIR labs and communication institutes to ensure stronger market linkages, wider public dissemination of scientific breakthroughs, and more effective outreach to stakeholders such as students, farmers, and start-ups.

Speaking about IIT Bombay's Technology Innovation Hub (TIH) under the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS), Dr. Singh noted that the hub has become a national model for translational research, supporting 96 technology development projects and more than 50 deep-tech start-ups. Among its 23 portfolio companies, several are already revenue-generating, with a combined valuation of ₹466 crore. He also emphasized the national importance of BharatGen, India's first sovereign multilingual and multimodal AI initiative aimed at building large language models across 22+ Indian languages. He said that BharatGen's text, speech, and vision models, and applications such as Krishi Sathi, e-VikrAI and Docbodh, represent India's growing leadership in AI, data sovereignty and inclusive digital innovation.

Dr. Singh highlighted that many farmers and citizens remain unaware of scientific breakthroughs meant for their benefit, urging institutions to actively demonstrate technologies on the ground.

Referring to examples from IMD, CSIR and agricultural missions, he said that the true test of innovation lies in its reach and acceptance by those who need it most. He urged IIT Bombay and all NQM institutions to ensure wider awareness, including demonstrations for farmers, students, and early-stage learners, so that India's next generation can discover its scientific aptitude early.

The Minister added that the new quantum fabrication and centralized facilities will become a national pride asset, just as India's space achievements such as Chandrayaan have elevated the global esteem of Indian youth and scientists. He said that India is witnessing a democratization of science, where even non-degree holders and rural innovators are building successful technology enterprises such as lavender-based biotech start-ups, proving that innovation is no longer confined to elite institutions.

Dr. Singh concluded by saying that the National Quantum Mission, NM-ICPS and BharatGen collectively represent India's bold strides toward a future defined by deep-tech leadership, knowledge sovereignty, and Atmanirbhar Bharat. He said that the ₹720-crore quantum facilities will act as a springboard for India to build globally competitive quantum hardware and will accelerate the nation's rise toward Prime Minister Modi's vision of a Viksit Bharat by 2047. "These facilities," he said, "will empower India to design, fabricate and scale its own quantum technologies, ushering in an era of sovereign, secure and world-class scientific innovation."

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