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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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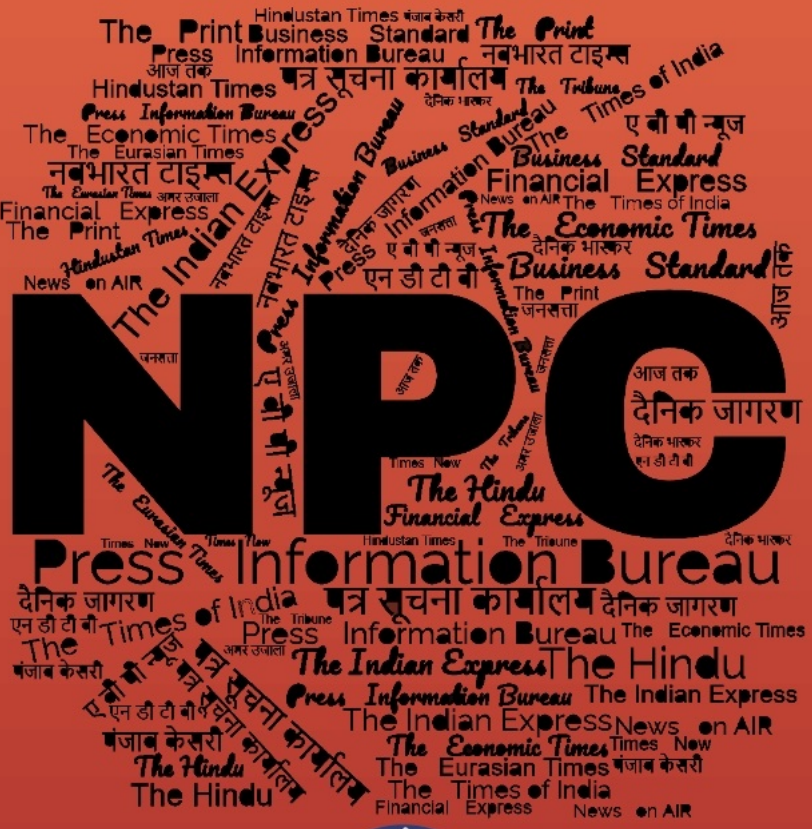

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Defence News

समुद्री शक्ति और बढ़ाएगा 'प्रताप'

Source: NavBharat Times, Dt. 06 Jan 2026

■ NBT रिपोर्ट, नई दिल्ली

रक्षा मंत्री राजनाथ सिंह की मौजूदगी मे इंडियन कोस्ट गार्ड मे पल्यूशन कंट्रोल वेसल समुद्र प्रताप को कमिशन किया गया। रक्षा मंत्रालय ने इसे भारत की जहाज निर्माण और समुद्री क्षमता को मजबूत करने की दिशा मे आत्मनिर्भरता की ओर एक अहम कदम बताया। गोवा शिपयार्ड लिमिटेड ने इसे बनाया है। इसी तरह का एक और जहाज कोस्ट गार्ड को और मिलेगा।

60% से अधिक स्वदेशी सामग्री के साथ ICGS समुद्र प्रताप भारत मे ही डिजाइन किया गया पहला प्रदूषण नियंत्रण जहाज है और अब तक कोस्ट गार्ड के बेड़े का सबसे बड़ा जहाज भी है। रक्षा मंत्रालय ने कहा कि ICGS समुद्र प्रताप के शामिल होने से प्रदूषण नियंत्रण, अग्निशमन, समुद्री सुरक्षा और पर्यावरण संरक्षण के क्षेत्र मे कोस्ट गार्ड की ऑपरेशनल क्षमता बढ़ेगी। साथ ही

यह भारत के विस्तृत समुद्री क्षेत्रो मे लंबी अवधि तक निगरानी और त्वरित प्रतिक्रिया अभियानो को अंजाम देने की क्षमता को भी मजबूत करेगा। रक्षा मंत्री राजनाथ सिंह ने इस जहाज को भारत के परिपक्व रक्षा औद्योगिक तंत्र का प्रतीक बताया, जिसमे जटिल निर्माण चुनौतियो से प्रभावी ढंग से निपटने की क्षमता है। उन्होने यह भी कहा कि जहाजो मे स्वदेशी सामग्री की हिस्सेदारी को 90% तक बढ़ाने के लिए लगातार प्रयास किए जा रहे है। राजनाथ सिंह ने कहा कि जिस तरह से कोस्ट गार्ड अपने कर्तव्यो का निर्वहन कर रहा है, उससे देश के विरोधियो को स्पष्ट संदेश गया है कि यदि वे भारत की समुद्री सीमाओ पर बुरी नज़र डालने की कोशिश करेंगे तो उन्हे सख्त और करारा जवाब मिलेगा।

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Rajnath Singh commissions ICG's pollution control vessel 'Samudra Pratap' in Goa

Source: The Hindu, Dt. 06 Jan 2026

Defence Minister Rajnath Singh commissioned Indian Coast Guard Ship (ICGS) Samudra Pratap, the first of two indigenously designed pollution control vessels (PCVs) for the Indian Coast Guard (ICG), at Goa on Monday (January 5, 2026). The Minister described the ship, built with over 60% indigenous content, as a symbol of India's maturing defence industrial ecosystem.

The vessel was built by Goa Shipyard Limited (GSL). The Ministry of Defence said Samudra Pratap is India's first homegrown pollution control vessel and the largest ship in the Coast Guard's fleet so far. Its induction substantially enhances the ICG's capability in pollution response, fire-fighting, maritime safety, environmental protection, and extended surveillance across the country's vast maritime zones.

Commissioning the ship, Mr. Singh reiterated the government's goal to increase indigenous content in warships to 90%. He said the vessel integrated multiple roles on a single platform, making it effective not only for pollution control but also for coastal patrol and maritime security in today's complex maritime environment.

Defence Minister Rajnath Singh, on January 5, 2026, commissioned the ship at GSL, Vasco, in South Goa

The ship is equipped with advanced pollution detection systems, specialised pollution response boats, modern firefighting equipment, and aviation facilities including a helicopter hangar, enabling greater operational reach even in rough sea conditions. Mr. Singh noted that these capabilities would ensure rapid detection and containment of pollution incidents, helping protect coral reefs, mangroves, fisheries, and marine biodiversity, directly supporting coastal communities and the blue economy.

Emphasising that marine environmental protection is both a strategic necessity and a moral responsibility, the Defence Minister praised the ICG's role in oil spill response, search and rescue, maritime law enforcement, and coastal cleanliness. He stated that India today stood as a responsible maritime power, committed to peace, stability, and environmental responsibility in the Indo-Pacific region.

In a notable first, Samudra Pratap will have two women officers onboard. Mr. Singh hailed it as a proud step towards a more inclusive and gender-neutral Coast Guard, highlighting the growing role of women in frontline maritime operations.

Reaffirming the government's commitment to modernising the ICG, Mr. Singh stressed the need for an intelligence-driven and integration-centric force to address emerging technology-led threats. He expressed confidence that Samudra Pratap will significantly strengthen the country's maritime governance and environmental protection capabilities.

https://www.thehindu.com/news/national/rajnath-singh-commissions-icgs-pollution-control-vessel-samudra-pratap-in-goa/article70473074.ece

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India will ensure stability, peace in Indo-Pacific: Rajanth Singh

Source: The Times of India, Dt. 06 Jan 2026

No single country can claim ownership over marine resources, said defence minister Rajnath Singh on Monday, while stressing that India aims to ensure peace and stability across the entire Indo-Pacific region. Singh said that maritime challenges through grey-zone threats such as narcotics trafficking, illegal fishing, human trafficking, and environmental violations threaten peace in the region.

Speaking at the commissioning of the Indian Coast Guard Ship (ICGS) 'Samudra Pratap', the first of two pollution control vessels built by Goa Shipyard Limited (GSL), Singh said that the responsibility for the protection of marine resources is also shared among nations.

"We believe that marine resources are not the property of any one country, but a shared heritage of humanity. And when the heritage is shared, the responsibility for its protection is also shared. This is why India stands firmly on the world stage today with the principles of peace, stability, and environmental responsibility," he said.

Touching upon the current global uncertainty, Singh said that India remains a "responsible maritime power" that repeatedly "proves that it secures not only its own interests, but also the peace and stability of the entire Indo-Pacific region".

He termed marine environment protection as not just a strategic necessity, but a moral responsibility. He appreciated the Coast Guard for carrying out oil spill response, firefighting, and salvage operations, placing India in the category of select countries that possess advanced environmental response capabilities.

"Our Coast Guard has instilled such fear in the minds of our enemies that if anyone dares to even cast an eye towards our borders, the Coast Guard will leave them in no condition to do so again," said Singh. He said that the ICGS Samudra Pratap will strengthen the Coast Guard's capabilities by ensuring that pollution incidents are controlled in a timely manner.

The defence minister said that the vessel is an embodiment of the Indian shipyard's capability to handle complex manufacturing challenges effectively. He added that consistent efforts are being made to enhance the indigenous content in ships to 90%.

https://timesofindia.indiatimes.com/city/goa/india-will-ensure-stability-peace-in-indo-pacific-rajnath/articleshow/126359261.cms

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Science & Technology News

इसरो ने पृथ्वी पर बरसते धूल कणों का पता लगाया

Source: Dainik Jagran, Dt. 06 Jan 2026

बेंगलुरु, प्रेट्र : भारतीय अंतरिक्ष अनुसंधान संगठन (इसरो) के पहले स्वदेशी धूल डिटेक्टर उपकरण द डस्ट एक्सपेरिमेंट (डीईएक्स) ने पृथ्वी पर बरसते अंतरग्रहीय धूल कणों (आइडीपी) का पता लगाया है। डीईएक्स को एक जनवरी को लांच किया गया था।

ये धूल कण धूमकेतुओं और क्षुद्रग्रहों के मलबे हैं और अंतरिक्षयानों के लिए खतरा बन सकते हैं। इसरो ने सोमवार को बताया कि आइडीपी पृथ्वी से हर हजार सेकेंड में टकराते हैं। इसरो के भौतिक अनुसंधान प्रयोगशाला अहमदाबाद द्वारा विकसित डीईएक्स उच्च गति के आइडीपी की खोज के लिए तैयार किया गया है। 140 डिग्री चौड़े डिटेक्टर ने कक्षीय मलबे (धूल) के प्रभावों के संकेतों को सफलतापूर्वक रिकार्ड किया। डीईएक्स तीन किलोग्राम का धूल डिटेक्टर है। इसे केवल 4.5 वाट पावर खपत के साथ उच्च गति के अंतरिक्ष धूल प्रभावों को कैप्चर करने के लिए डिजाइन किया गया है। इसरो ने कहा, डीईएक्स डिटेक्टर का ब्लूप्रिंट है जो किसी भी ग्रह पर ब्रह्मांडीय धूल कणों का अध्ययन कर सकता है।

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IIT Guwahati develops material to turn CO_2 into methanol fuel

Source: The Pioneer, Dt. 06 Jan 2026

Researchers at the Indian Institute of Technology (IIT), Guwahati, have developed a photocatalytic material that can convert carbon dioxide (CO2) into methanol fuel using sunlight, according to officials.

The effort is aimed at addressing one of the most essential challenges — meeting rising energy needs without further harming the environment. The findings of the study have been published in the prestigious Journal of Materials Science.

"The dependence on petroleum-based fuels continues to be a source of carbon dioxide emissions, causing environmental stress and global warming. To address this, researchers are working on designing photocatalytic methods to convert carbon dioxide into clean fuels," said Mahuya De, Professor, Department of Chemical Engineering, IIT Guwahati.

Researchers worldwide have been working on addressing this critical challenge by utilising graphitic carbon nitride, a low-cost, metal-free, non-toxic material. However, due to limitations such as rapid energy loss and low fuel generation, no prominent solution has been developed so far.

To overcome this challenge, the IIT Guwahati research team combined graphitic carbon nitride with few-layer graphene. Known for its electrical conductivity and energy transfer capabilities, this ultrathin carbon material helped minimise energy loss within the catalyst.

"The present work is expected to contribute towards mitigating environmental problems with simultaneous contribution towards green energy. Converting carbon dioxide to greener fuel using solar energy is a promising technology towards this direction," De said.

The study demonstrated that the incorporation of few-layer graphene improved the photocatalytic energy retention of carbon nitride under visible light or sunlight exposure. It kept the catalyst active for a longer duration, resulting in better light absorption and improved charge generation.

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Celebrating 80th Foundation Day of CSIR-NPL, Union Minister Dr. Jitendra Singh inaugurates the World's second "National Environmental Standard Laboratory" and the World's fifth "National Primary Standard Facility for Solar Cell Calibration"

Source: Press Information Bureau, Dt. 05 Jan 2026

Union Minister of State (Independent Charge) for Science & Technology, Earth Sciences, PMO, Department of Space and Department of Atomic Energy, Dr Jitendra Singh today inaugurated the world's second "National Environmental Standard Laboratory" and the world's fifth "National Primary Standard Facility for Solar Cell Calibration" at the CSIR–National Physical Laboratory (NPL).

Addressing the 80th Foundation Day celebrations of CSIR–NPL here, the Minister said, while the "National Environmental Standard Laboratory" marks for India a major leap in Environmental Governance, the "National Primary Standard Facility" makes India a member of Elite Global League in Solar Metrology.

Describing India's premier scientific institutions as "monuments of 20th and 21st century India," Dr. Jitendra Singh said that laboratories like the CSIR–National Physical Laboratory embody India's scientific journey from pre-Independence foundations to global technological leadership. The Minister said that science and technology reforms will be the key drivers shaping India's socio-economic future.

Recalling the unique legacy of CSIR–NPL, Dr. Jitendra Singh noted that the laboratory was already operational before Independence and later became an integral pillar of India's post-Independence scientific architecture. He said CSIR itself is older than independent India, making NPL one of the earliest "siblings" among the 37 CSIR laboratories. Highlighting its historic significance, the Minister recalled that the laboratory was mentored by eminent national leaders including Dr. Syama Prasad Mukherjee and Sardar Vallabhbhai Patel, calling NPL a rare institution where history and science intersect.

"For decades, half the nation synchronised its watches with the atomic clock housed at NPL," the Minister said, underscoring the laboratory's role in establishing Indian Standard Time (IST). He said that this contribution quietly but profoundly shaped everyday life in India and remains a symbol of national integration through science. Emphasising public outreach, he suggested that such institutions must be showcased to students and citizens, much like historical monuments, to inspire scientific curiosity and help young minds discover their aptitude for science and innovation.

On the occasion, Dr. Jitendra Singh inaugurated the National Environmental Standard Laboratory, describing it as a critical step towards strengthening India's environmental governance framework. He said that reliable, India-specific calibration and certification of air pollution monitoring systems was long overdue and would now enable transparent, traceable, and accurate environmental data. The facility will support regulatory bodies, industries, and startups by ensuring that monitoring instruments are tested under Indian climatic conditions, thereby improving policy enforcement under programmes such as the National Clean Air Programme.

The Minister also inaugurated the National Primary Standard Facility for Solar Cell Calibration (Solar Energy Complex), terming it a "future-ready facility" that places India among a select group

of global leaders in photovoltaic measurement standards. Developed in collaboration with PTB, Germany, the laser-based Differential Spectral Responsivity (L-DSR) system achieves the lowest uncertainty globally at 0.35% (k=2) for reference solar cell calibration. Dr. Jitendra Singh said the facility would reduce India's dependence on foreign certification agencies, save foreign exchange, shorten turnaround time for calibration, and enhance investor confidence in the country's rapidly expanding solar sector.

Highlighting the government's openness to public participation, the Minister said that even sectors traditionally considered closed are now being opened, reflecting the Prime Minister's vision of integrated national development. He noted that institutions like CSIR–NPL, despite limited financial resources, possess immense intellectual and infrastructural assets that can be leveraged through collaboration with industry, MSMEs and the private sector. Such integration, he said, will allow scientific institutions to directly contribute to economic growth in the years ahead.

Addressing the gathering, N. Kalaiselvi, Director General, Council of Scientific & Industrial Research, congratulated the NPL fraternity on completing 80 years of service to the nation. She highlighted that the laboratory now houses the world's fifth-largest environmental calibration facility and the world's second-best solar cell calibration facility, and urged the institution to set its sights on becoming world number one in a chosen domain. She also underlined the strategic importance of NPL's atomic clocks, stating that they would continue to support national timekeeping even under GPS-denied scenarios.

During the event, fourteen Phytochemical Bharatiya Nirdeshak Dravya (BNDs) jointly developed by CSIR-CIMAP and CSIR-NPL were released, along with two Gas BNDs and one Silica Fume BND, strengthening India's quality assurance and metrological traceability ecosystem. Several MoUs and technology transfer agreements were also concluded to further support indigenous manufacturing, startups and MSMEs.

Concluding his address, Dr. Jitendra Singh said that Indian scientists are no longer working in isolation within laboratories but are central to national expectations and aspirations. "The nation now looks to its scientific institutions to carry India from strength to strength," he said, expressing confidence that CSIR–NPL will continue to play a defining role in India's journey towards technological leadership and Atmanirbhar Bharat as the country moves towards 2047.

https://www.pib.gov.in/PressReleasePage.aspx?PRID=2211574&reg=3&lang=1

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The Tribune

The Statesman

पंजाब केसरी जनसत्ता

The Hindu

The Economic Times

Press Information Bureau

The Indian Express

The Times of India

Hindustan Times

नवभारत टाइम्स

दैनिक जागरण

The Asian Age

The Pioneer