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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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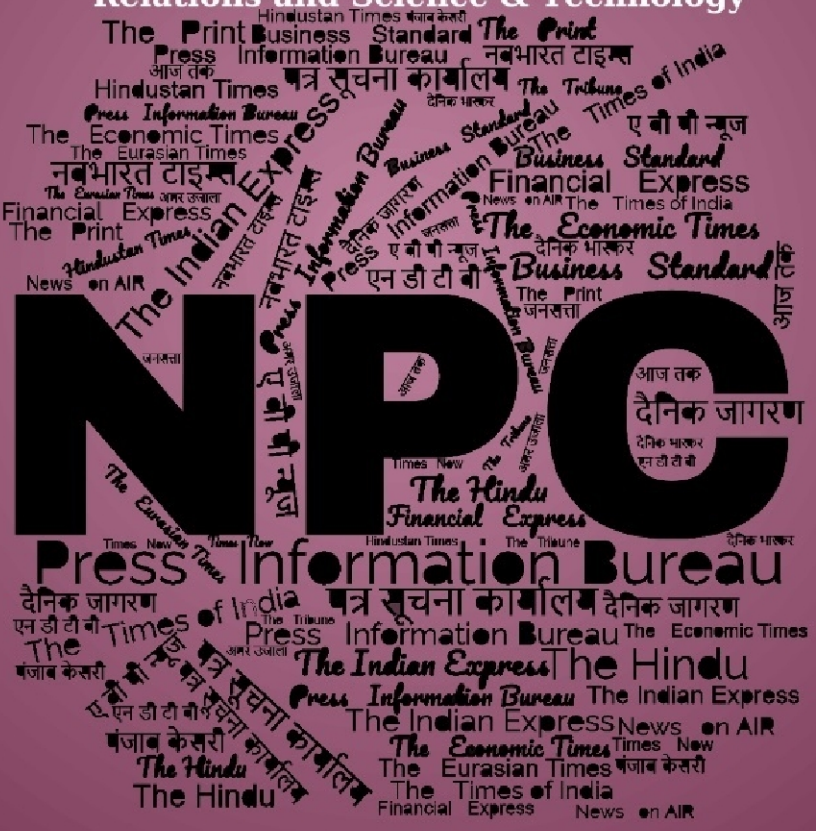

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Defence News

Navy at 'inflection point' as maritime threats rise, say Admiral

Source: The Times of India, Dt. 16 Apr 2026

Top Navy commanders have carried out a comprehensive review of the maritime security framework and implications of the West Asia crisis in the context of safeguarding India's energy security.

In his address at the Commanders' Conference that began here on Tuesday, Navy chief Admiral D K Tripathi said there are various aspects that have caused the maritime security environment to reach an inflection point — where concurrent conflicts, increasing adversary capabilities, erosion of institutions, and reduced acquisition costs for non-state actors are converging to create a highly-contested space for the Indian Navy on a day-to-day basis. He also linked West Asia disruptions to maritime traffic, calling it "a reminder that security is interconnected, persistent and unforgiving — where distance from conflict does not equate to distance from its consequences".

The Admiral spoke of the global power dynamic, noting that "in a span of five years, we have moved from a competition continuum to a conflict continuum". He highlighted the salient impacts of the ongoing conflict, both economic and military, as well as the visible shaping of conflict perception through narrative warfare and not just operational outcomes alone.

The commanders also deliberated on issues pertaining to jointness, capability enhancement, maintenance and refits, multi-domain safety practices, training, foreign cooperation and those related to human resources and indigenisation. It is learnt that the commanders also discussed naval deployments to safeguard India's energy security amidst the conflict in West Asia. The Indian Navy played a major role in the safe transit of merchant ships moving out of the Persian Gulf, while also being a source of confidence for Indian seafarers through the presence of warships in the region.

Admiral Tripathi also highlighted that there has been a significant increase in the operational deployment of naval platforms over the past 5 to 10 years. Continued upgradation and augmentation of warfighting capabilities in the surface, sub-surface, and air domains, supported by major infrastructural developments, robust maintenance practices, and in-house technical developments, were among the measures contributing to the Navy's combat readiness.

https://timesofindia.indiatimes.com/india/navy-at-inflection-point-as-maritime-threats-rise-says-admiral/articleshow/130293164.cms

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First edition of Naval Commanders' Conference-2026 commences at Nausena Bhawan, New Delhi

Source: Press Information Bureau, Dt. 15 Apr 2026

The Indian Navy Commanders' Conference 01/2026 commenced at Nausena Bhawan on 14 Apr 2026 with an inaugural address by Adm Dinesh K Tripathi, Chief of the Naval Staff, to senior naval

leadership, outstation Operational and Area Commanders, and Command Headquarters and Naval Headquarters staff.

The CNS commended the Navy's achievements in safeguarding India's maritime interests, including energy security amidst the ongoing conflict in West Asia, increased tempo of operations, and enhanced inter-service synergy. CNS laid emphasis on the continued focus on combat readiness and adapting emerging technologies to build a Future Ready force. The CNS reiterated the Indian Navy's commitments in the Indian Ocean Region and beyond in the emerging geostrategic scenario, and the significance of Cohesive and Credible approach through proactive engagements with Friendly Foreign Countries (FFCs) in multilateral and bilateral exercises.

Operational highlights, including salient issues pertaining to jointness, capability enhancement (afloat and ashore), maintenance and refits, multi-domain safety practices, training, foreign cooperation, HR issues, and innovation and indigenisation, were discussed during the Conference. Gen Anil Chauhan, Chief of the Defence Staff, addressed and interacted with the naval commanders on matters pertaining to changing geopolitical orders, and urged the Navy to plan for rapidly evolving character of war, including economic and technological factors.

https://www.pib.gov.in/PressReleasePage.aspx?PRID=2252126&reg=3&lang=1

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IOS Sagar ship arrives at Phuket, Thailand

Source: Press Information Bureau, Dt. 15 Apr 2026

Indian Ocean Ship (IOS) SAGAR arrived at Phuket, Thailand, on 14 Apr 2026 on completion of a six-day transit from Malé, Maldives, marking the second port call of its ongoing mission. The IOS SAGAR-INS Sunayna, with a multinational crew from 16 Friendly Foreign Countries (FFCs), is on deployment to the Indian Ocean Region, reinforcing the vision of MAHASAGAR (Mutual and Holistic Advancement for Security and Growth Across Regions). The current edition of IOS

SAGAR, which commenced in Mar 2026, also reflects India's leadership role as Chair of the Indian Ocean Naval Symposium (IONS).

During the port call at Phuket, IOS SAGAR is scheduled to engage in professional interactions with the Royal Thai Navy (RTN), aimed at strengthening bilateral defence cooperation and enhancing mutual understanding. A range of social, cultural and sporting engagements are also planned to foster camaraderie and people-to-people connect. The ship's stay coincides with the Songkran festival, the traditional Thai New Year, providing an opportunity for strengthening cultural exchanges amongst the participating navies.

During the transit from Malé, the international crew undertook structured training activities at sea, including seamanship evolutions and operational drills, aimed at enhancing collective readiness, interoperability and maritime cooperation. The deployment underscores the Indian Navy's continued commitment to strengthening maritime partnerships and capacity building, thereby contributing to regional security and stability.

IOS SAGAR was flagged off from Mumbai on 02 April 2026 by Hon'ble Raksha Rajya Mantri Shri Sanjay Seth. As part of this mission, the Indian Navy crew along with 38 personnel from 16 Friendly Foreign Countries onboard IOS SAGAR will undertake port calls at Male, Phuket, Jakarta, Singapore, Yangon, Chittagong and Colombo. The initiative embodies the vision of 'One Ocean, One Mission', fostering deeper engagement and cooperation among maritime partners.

https://www.pib.gov.in/PressReleasePage.aspx?PRID=2252298&reg=3&lang=1

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Science & Technology News

वैज्ञानिकों ने कहा, आर्टेमिस-2 की सफलता से भारत में गगनयान मिशन का बड़ा आत्मविश्वास

Source: Jansatta, Dt. 16 Apr 2026

नई दिल्ली, 15 अप्रैल (भाषा)।

अशोका विश्वविद्यालय के कुलपति और भौतिकी के प्रोफेसर सोमक रायचौधरी ने कहा कि आर्टेमिस-2 मिशन की सफलता से भारत को बहुत आत्मविश्वास मिला है, क्योंकि देश अपने गगनयान अभियान के तहत उन्हीं क्षमताओं के प्रदर्शन की योजना बना रहा है, जो नासा की ओर से हाल में प्रक्षेपित इस अंतरिक्ष यान ने प्रदर्शित की थीं।

आर्टेमिस-2 के चालक दल ने चंद्रमा के चारों ओर 10 दिन की ऐतिहासिक परिक्रमा पूरी करने के बाद 11 अप्रैल को कैलिफोर्निया के तट से दूर प्रशांत महासागर में सफल लैंडिंग की। यह 50 से अधिक वर्षों में पहली बार था, जब कोई मानवयुक्त मिशन पृथ्वी की कक्षा से

आर्टेमिस-2 के चालक दल ने चंद्रमा के चारों ओर 10 दिन की ऐतिहासिक परिक्रमा पूरी करने के बाद 11 अप्रैल को कैलिफोर्निया के तट से दूर प्रशांत महासागर में सफल लैंडिंग की।

बाहर निकलकर चंद्रमा के पास से गुजरा।

भारत के शीर्ष खगोल भौतिकविदों में शामिल रायचौधरी ने कहा कि आर्टेमिस-2 की सफल उड़ान भारतीयों के लिए शानदार खबर है, क्योंकि गगनयान मिशन जल्द शुरू होने वाला है।

यह वही काम करेगा, जो आर्टेमिस-2 ने किया। उन्होंने कहा कि भारतीय अंतरिक्ष अनुसंधान संगठन (इसरो) आर्टेमिस परियोजना पर लंबे समय से अमेरिकी अंतरिक्ष एजेंसी नासा के साथ काम कर रहा है और हमारे अंतरिक्ष यात्री समान प्रशिक्षण कार्यक्रमों से गुजर रहे हैं। गगनयान मिशन भारत का पहला मानवयुक्त अंतरिक्ष मिशन होगा। इसे 2027 में प्रक्षेपित किए जाने की उम्मीद है। आर्टेमिस परियोजना के पहले मिशन के तहत 2022 में एक मानवरहित अंतरिक्ष यान ने चंद्रमा का चक्कर लगाने के बाद धरती पर सफल वापसी की थी। आर्टेमिस-2 साल 2028 में चंद्रमा की सतह पर भेजे जाने वाले मानवयुक्त अभियान का पूर्वाभ्यास था।

यह परियोजना चंद्रमा पर मानवयुक्त अंतरिक्ष उड़ान के एक नए युग की शुरुआत की प्रतीक है, जिसका मकसद वहां एक स्थायी बस्ती स्थापित करना और मनुष्यों को चंद्रमा की यात्रा का अवसर प्रदान करना है।

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A glowing alert for Nicotine

Source: Press Information Bureau, Dt. 15 Apr 2026

A tiny fluorescent “turn-on” sensor for rapidly detecting nicotine and its major metabolite, cotinine, in aqueous media and living cells, could enable early and rapid detection of nicotine exposure and biomarkers levels of cotinine its long-lasting footprint in the body.

Smoking and second-hand smoke exposure remain major global health issues. Nicotine is highly addictive and harmful, while cotinine is a stable biomarker present in blood, saliva, and urine. Therefore, developing a selective and biocompatible probe for nicotine/cotinine detection is important for public health screening, monitoring smoking exposure and biological and cellular research related to nicotine metabolism.

Conventional nicotine/cotinine detection methods (GC-MS, HPLC, electrophoresis, immunoassays) are expensive, time-consuming, require skilled operators, and need complex sample preparation. Scientists from Institute of Nano Science and Technology (INST), Mohali, an autonomous institute of the Deparyment of Science and Technology (DST) have developed a sensor using an iron metal-organic framework (Fe-III-MOF) nanosphere a microscopic, sponge-like structure made from iron. The scientists synthesised the Fe-MOF nanospheres through a process called solvothermal process, tested them for safety and effectivity. This material is full of tiny pores that can trap molecules like nicotine.

Using intracellular imaging and confocal microscopy to follow the cellular uptake they found that when molecules like nicotine or cotinine entered the pores, the nanosphere began to glow brighter with shift towards blue.

Fig: Testing the nanospheres for sensing.

The nanosphere reported in the journal Nanoscale, was also found to be highly selective recyclable. The researches have suggested that fluorescence enhancement occurs due to host–guest interactions and electron transfer, leading to a stronger emission signal. It is also simple to operate and works in aqueous medium.

The abundance of iron makes the Fe-based MOFs a convenient, safe option suitable for biological applications like non-invasive health monitoring, medical and research studies related to smoking, addiction, and metabolism, potential future development of low-cost sensing kits and safer biological detection due to low cytotoxicity and high biocompatibility. It could help public health monitoring and smoking biomarker screening, rapid low-cost screening for tobacco exposure and Fluorescent MOF-based biosensing platforms for other biomarkers.

Publication link: DOI: 10.1039/D5NR00785B

https://www.pib.gov.in/PressReleasePage.aspx?PRID=2252244&reg=3&lang=1

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The Tribune
The Statesman
पंजाब केसरी जनसत्ता
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The Economic Times
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