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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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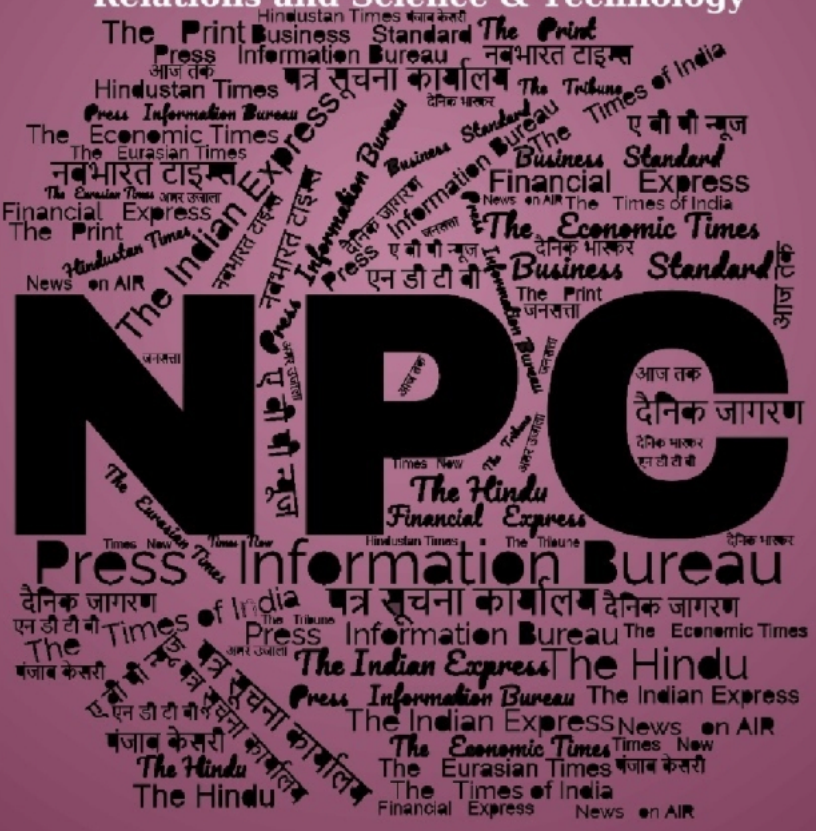

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DRDO NEWS

BEL buys land in UP to build ‘desi Iron Dome’ Kusha system

Source: The Times of India, Dt. 10 Apr 2026

In a big step towards bolstering India’s indigenous defence capabilities, Navratna PSU Bharat Electronics Limited (BEL) has acquired 75 hectares of land in the Chitrakoot node of the UP defence industrial corridor to establish a new manufacturing unit for production of next-generation missiles, radar systems and India’s own ‘Iron Dome’.

“With an investment of more than Rs 600 crore, this upcoming facility will cater to futuristic defence programmes like quick-reaction surface-to-air missile (QRSAM), Kusha air defence system and next-generation radar systems along with maintenance, repair and operations facility,” the BEL said.

Project Kusha is India's indigenous, long-range air defence system **developed by the DRDO** to create a three-tiered, 400-km-range shield against stealth aircraft, cruise missiles, and drones. Often compared to Russia’s S-400, it aims to reduce dependency on foreign suppliers by creating India’s own’ Iron Dome’ by 2028-29. Kusha comprises three variants of interceptors —M1 (150 km), M2 (250 km), and M3 (350–400 km) and features long-range surveillance and fire-control radars capable of tracking and destroying multiple targets simultaneously.

Handing over the land allotment letter to PSU CMD Manoj Jain, CM Yogi Adityanath said, “Under this project, BEL will establish an advanced manufacturing unit for the production of state-of-the-art radar and air defence systems with an investment of approximately Rs 562.5 crore.

This initiative will not only strengthen high-technology-based production in the defence sector but will also provide a new direction to the expansion of industrial efficiency and technical capabilities in the state.”

The CM further said, “This initiative will provide a strong foundation to the resolve of Atmanirbhar Bharat by decisively strengthening indigenous production capacity in the defence sector. At the same time, the project will accelerate the development of ancillary and MSME-based industries and create new opportunities for advanced technological collaboration, innovation and knowledge transfer, which will help establish the state as a major hub in defence production.”

“As a result, there is a possibility of generating more than 300 direct employment opportunities, while large-scale indirect employment will also be created in ancillary and allied sectors,” he said.

https://timesofindia.indiatimes.com/defence/news/psu-bel-acquires-land-in-ups-chitrakoot-to-manufacture-desi-iron-dome-kusha-system/articleshow/130152650.cms

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Defence News

Rafale order plan: Govt to ensure jets can carry indigenous missiles

Source: Hindustan Times, Dt. 10 Apr 2026

India will ensure that indigenously developed missiles and weapons systems can be integrated into the 114 Rafale fighters it plans to buy, people familiar with the matter said. It will do so by insisting on a so-called interface control document (ICD) in the government to government contract on the “buy and make” deal, they added, asking not to be named.

The defence ministry is expected to issue the Request For Proposal (RFP) to French jet maker Dassault next month, and contract negotiations will begin after that. The Defence Acquisition Council (DAC) cleared the deal on February 12.

The people cited above said the plan is to “hardwire” ICD into the final contract for the ₹3.25 lakh crore mega deal. ICD is a critical system engineering document that controls and defines all the vital protocols between a system and sub-systems. According to the proposal cleared by DAC, 18 fighters will be delivered in fly away condition from France while remaining 96 will be manufactured in India with indigenous content of over 25%.

Amidst reports that the mega deal has hit a hurdle with French Rafale manufacturer Dassault refusing to hand over “source code” of the fighter to India, top defence ministry officials confirmed to Hindustan Times that no country offers up these proprietary software codes (which control the radars, electronic warfare suite and weapon integration) to any third country and the deal remains well on track.

The “source codes” virtually control the entire fighter including avionics, target tracking, flight control, weapon launch and weapons release algorithms. The code is the intellectual property of the original equipment manufacturer, which is not shared even with the closest of allies, the officials added.

While India’s long term strategic ally Russia has offered two squadrons of fifth generation Su-57 to Indian Air Forces and is involved in upgrading the existing Su-30 MKI fighter fleet with state-owned HAL, it has never shared or offered to share source codes of either of these fighters, HT learns. The same holds true for American aircraft manufacturers with Indian transport fleet and attack helicopter fleet made up of US aerial platforms.

Even though India has not taken any decision on acquisition of fifth generation aircraft either from US or from Russia, it is focused on indigenous development of Tejas Mark I A along with long range missiles and twin engine AMCA for the future in order to reduce dependence on foreign aerial platforms, beyond visual range air to air, and air to surface missiles.

https://www.hindustantimes.com/india-news/rafale-order-plan-govt-to-ensure-jets-can-carry-indigenous-missiles-101775784028849.html

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The two-day national seminar on Multi Domain Operations - Ran Samwad kicks off in Bengaluru

Source: Press Information Bureau, Dt. 09 Apr 2026

The second edition of Ran Samwad, a tri-service strategic seminar, under the aegis of Headquarters Integrated Defence Staff (IDS) commenced in Bengaluru on April 9, 2026. The two-day seminar, being organised by the Air Force Training Command, was inaugurated by Chief of Defence Staff General Anil Chauhan. The seminar is anchored around the theme "Multi-Domain Operations (MDO): An Imperative for Addressing Conventional and Irregular Threats." The MDO doctrine is intended to enable stakeholders across military and non-military entities to foster India's joint warfighting capabilities across all six domains, i.e., land, sea, air, space, cyber and cognitive.

The Chief of Integrated Defence Staff to the Chairman, Chiefs of Staff Committee (CISC) Air Marshal Ashutosh Dixit, in his keynote address, outlined a transformative vision for India's military future centred on Multi-Domain Operations (MDO). He said that the character of war has undergone a fundamental shift and noted that modern conflict is no longer sequential but unfolds simultaneously across space, cyberspace, the electromagnetic spectrum and the cognitive domain. For India, Multi-Domain Operations is not a future idea but a present necessity, he added.

Characterizing the modern era as a "dispersed, undeclared world war," the Chief of Army Staff (COAS) General Upendra Dwivedi emphasized that the battlefield is no longer a map, but a layered, complex adaptive system. He highlighted the reality of a "permanent conflict" world, how a land force commander must read the battle across domains, how different domains interact in operations and how the Army is transforming MDO from a concept into capability. He said that MDO is not of six domains operating in parallel, but in constant dynamic interaction where the weight shifts and the lead changes. He further emphasised that the Army is accelerating Integration, Informatisation and Intelligentisation to ensure that the force moves beyond "Domain Purity" toward total Domain Fusion.

Talking on operational milestones, General Dwivedi shared that the Indian Army has operationalized Integrated Battle Groups (IBGs), Divyastra Drone Batteries, Command Cyber Operations Wings, among others. He called for a new command culture where leaders "command technology rather than merely operate it" to ensure decision advantage. He further noted that while Operation Sindoor proved India's jointness, the ultimate goal remains a seamless "Whole of Nation" architecture where the seams between domains disappear entirely. Chief of the Naval Staff

(CNS) Admiral Dinesh K Tripathi presented a comprehensive maritime visualization of Multi-Domain Operations grounding modern naval strategy in both technological convergence and Kautilya's wisdom. He defined the modern maritime domain as an interconnected grid extending from the seabed to space. He elaborated on how the maritime battlespace has changed into a dense, transparent, deeply interconnected grid shaped by speed, scale and simultaneity.

The CNS said that the Indian Navy firmly on course towards being a 200-plus ship Navy by 2035 with each new induction increasingly focused on modularity and technological evolution. At the same time, the Navy is pursuing augmentation of fleet capabilities with uncrewed and autonomous solutions across the domains, in accordance with the Indian Navy Vision for Unmanned Systems 2022-30, he added.

The flagship two-day national level seminar is conducted annually on rotational basis between the three services. It brings together senior officers from the three services, academicians, think-tank scholars, industry experts and Foreign Service Attaches from friendly foreign nations, to engage in brainstorming sessions on wide array of topics. The seminar will culminate on 10 April 2026 with a collaborative roadmap to prepare the Indian Defence Forces for Multi Domain Conflict.

https://www.pib.gov.in/PressReleasePage.aspx?PRID=2250618&reg=3&lang=1

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Theatre command proposal to be submitted to govt soon: CDS Anil Chauhan

Source: The Tribune, Dt. 10 Apr 2026

Chief of Defence Staff Gen Anil Chauhan on Thursday said discussions among the armed forces on the creation of theatre commands have concluded, and a proposal will be submitted to the government within the next week or so. Speaking at a fireside chat during a brainstorming session at an event titled 'Ran Samwad', hosted by the Ministry of Defence, Gen Chauhan said, "I should be able to complete the report of Operation Tiranga — the name given to the discussions and formulation of theatre commands — in a week or so."

Officials later indicated that it may take about two weeks for the proposal to be formally submitted to the government. "From our side, it is done. All three services are on board and discussions have

concluded. Now, we have to take the proposal to the Defence Minister and the Cabinet Committee on Security (CCS)," the CDS said. He added that the theatre commands concept had two aspects — the idea itself and its operationalisation. "There is 100 per cent consensus on the concept. Some differences remain on the process of implementation; however, we are moving ahead," he said.

Earlier, a top military official confirmed that more than 90 per cent of the planning for the creation of theatre commands — a new organisational structure for the armed forces — has been completed. Air Marshal Ashutosh Dixit, immediate junior of CDS Chauhan, who is tasked with advancing tri-service jointness, integration and operational synergy, said, "Our move towards joint structures and theatre commands — with planning now reported to be more than 90 per cent complete — is a historic opportunity."

He cautioned that structures alone do not guarantee synergy, stressing that cultural integration is key. "Jointness must evolve from mere coordination to genuine unity of effort. That requires transparency in information-sharing, clarity of authority and, most fundamentally, mutual trust," he said. Theatre commands refer to geographically defined operational areas led by a single commander who controls all war-fighting assets, including aircraft, helicopters, artillery, tanks, equipment and personnel. Under the emerging contours, the western theatre, focused on Pakistan, is likely to be headed by an Indian Air Force officer, while the northern theatre, focused on China, would be led by an Army officer. The maritime theatre command, as expected, would be headed by a Navy officer.

https://www.tribuneindia.com/news/india/theatre-command-plan-ready-will-reach-govt-soon-says-cds/

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Post Op Sindoor, India steps up nuclear threat analysis of Pakistan, China

Source: The Tribune, Dt. 10 Apr 2026

The conflict in West Asia, coupled with last year's skirmish India had with Pakistan, had led the military to draw lessons, including on widening the ambit of assessing nuclear threats from Pakistan and China while focusing on self-reliance in military equipment and supply chains and expanding towards future technologies. At a strategic level, the Army has widened the ambit of discussing nuclear threats behind closed doors. Speaking at the brainstorming event called 'Ran Samwad' here, Army Chief General Upendra Dwivedi said, "In the past year, we have been discussing nuclear threats at war games. Nuclear is a reality along both our borders. It is mandatory to be discussed. Every day, we are looking at offensive and defensive plans and what action may be needed for protection of forces."

Later, officials explained that nuclear threats were earlier discussed at the top-most level in the strategic forces command. Now, the widened ambit includes war gaming of threats at the level of Lt General-rank officials at the Corps Commander-level and Army Commander-level. This empowers them with direct knowledge of the kind of nuclear threats to be expected. The US-Iran conflict and the lessons drawn from it were also discussed at the conference. Officials pointed out that an immediate analysis focuses on the need to have diversity of weapons being deployed; the need to use space for greater control; an increase in surveillance and reconnaissance; a resilient

domestic supply chain; and the ability to control choke points, like Iran did in the Strait of Hormuz, can decide outcomes of conflict.

Asked about lessons the Navy had drawn from the West Asian conflict, Navy Chief Admiral DK Tripathi said, “It is the resilience of the supply chains that have been demonstrated by the parties (Iran, US) and the intrinsic capability to carry on the battle.” The Navy, which has warships in the area, has been monitoring the number of strikes carried out in the conflict. It is being analysed by the headquarters and also the commands. “We are monitoring like a hawk. What is happening, what is working, what is not working, what we can learn from that and what is not to be done,” the Navy Chief said.

The US used aircraft carriers to carry out operations and launch a number of aircraft during the conflict. Earlier, Air Marshal Ashutosh Dixit, the immediate junior of the Chief of Defence Staff General Anil Chauhan, tasked with tri-service jointness, integration and operational synergy, pointed out that self-reliance in defence was not just about manufacturing — it was about controlling architectures, software, encryption and data standards of all military platforms. Air Marshal Dixit added a genuine multi-domain response to threats that needs to integrate intelligence agencies, industry, academia and civil institutions. Crisis coordination cannot be improvised — it must be pre-designed.

https://www.tribuneindia.com/news/india/post-op-sindoor-india-steps-up-nuclear-threat-analysis-of-pakistan-china/

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INS Sunayna (IOS Sagar) departs Malé, Maldives

Source: Press Information Bureau, Dt. 09 Apr 2026

The Indian Ocean Ship SAGAR (INS Sunayna) departed from the port of Malé on 08 Apr 2026, further reinforcing the maritime partnership between India and Maldives. The visit was marked by a series of professional engagements and cultural exchanges between the Indian Navy and the Maldives National Defence Force (MNDF). On departure, the ship participated in a Passage Exercise (PASSEX) with the MNDF Coast Guard Ship Ghazee, underscoring enhanced operational coordination and interoperability between the two maritime forces.

During the visit, Commander Siddharth Chaudhary, Commanding Officer of IOS SAGAR, called on Major General Ibrahim Hilmy, Chief of Defence Force, MNDF, and Brigadier General Mohamed

Saleem, Commandant, Coast Guard MNDF. Discussions were focused on advancing joint training initiatives, reaffirming commitment to sustained strategic engagement. The multinational crew of IOS SAGAR, comprising personnel from 16 friendly foreign countries, had an insightful and enriching interaction with MNDF leadership, contributing to a broader spirit of international maritime cooperation.

In addition to professional exchanges, the visit featured cultural and social interactions, including sports fixtures with MNDF personnel – fostering camaraderie and mutual understanding. The visit of IOS SAGAR highlights the strong maritime bonds between the two nations, reinforcing framework for cooperation and a shared commitment to regional stability and security.

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Too ealry to draw lessons from West Asia conflict: Navy Chief

Source: The Pioneer, Dt. 10 Apr 2026

Bengaluru

Describing the West Asia conflict as a critical case study in modern warfare, Chief of Naval Staff Admiral Dinesh Kumar Tripathi on Thursday said it was too early to draw definitive lessons from the war.

Addressing the 'Ran Samvad' forum on "Maritime Forces — Visualisation of Multi Domain Operation (MDO)", he said the Indian armed forces were closely tracking developments in the West Asia conflict to derive lessons for future operations.

"It is too early to draw definitive lessons. The war is still going on. We are monitoring what is happening, what is working, what is not working, and learning the correct lessons," Admiral Tripathi said during the question-answer session.

The Navy Chief emphasised that one of the most striking takeaways from the conflict is the heightened vulnerability of military assets across domains.

"Battle space transparency today is so high that anything visible, whether moving or stationary, is inherently vulnerable," he said.

He added that while all platforms, land, sea and space, face exposure, subsurface assets retain a relative advantage due to detection challenges.

The conflict has also underscored the importance of resilience, particularly in sustaining supply chains under prolonged hostilities.

CNS Admiral Dinesh K Tripathi addressing a session on 'Maritime Forces Visualisation of MDO' during the 'Ran Samwad 2026' in Bengaluru, Karnataka PTI

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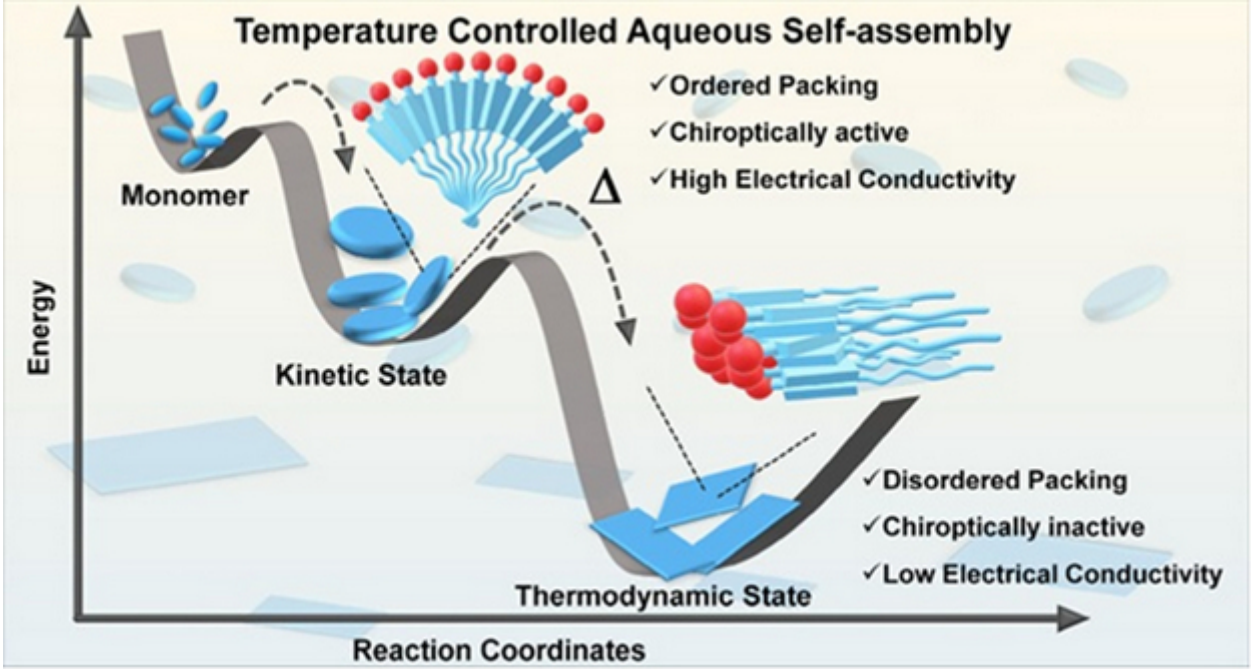
Science & Technology News

Unlocking temperature-controlled nanomaterials for future electronics

Source: Press Information Bureau, Dt. 09 Apr 2026

Researchers have made a significant breakthrough in understanding how small organic molecules can be guided to form advanced functional materials. This could facilitate future electronic devices, tuneable optoelectronic systems, responsive materials, and bioelectronic interfaces. The team from the Centre for Nano and Soft Matter Sciences (CeNS), Bengaluru, in collaboration with the Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), both autonomous bodies under the Department of Science and Technology (DST), Government of India, investigated naphthalene diimide (NDI), which is amphiphilic molecule with the unique ability to organize itself in water through a process known as supramolecular self-assembly.



Amphiphilic molecules come together through noncovalent interactions and form well-defined nanostructures. Such assemblies that can be controlled are crucial for emerging applications in electronics, photonics, and biomedical devices. The researchers discovered that at room temperature, these molecules self-assemble into tiny circular nanostructures called nanodisks. These nanodisks display an optical property that enables them to interact with polarized light in a distinctive way (chiroptical activity). Upon heating, the nanodisks are structurally reorganised and transform into two-dimensional nanosheets that lose their chiroptical activity. This shows that temperature alone can switch the material between different structural and optical states.

The team also observed that the nanodisks showed significantly higher electrical conductivity, which decreased nearly sevenfold when they converted into nanosheets. This demonstrates that the electrical behaviour of the material can be precisely tuned by controlling its self-assembly pathway. Such tunability is a rarity in small organic molecules. This ability to dynamically adjust

structural, optical, and electrical properties using temperature provides a powerful route to developing smart, adaptive materials.

The study, recently published in ACS Applied Nano Materials by the American Chemical Society, highlights how understanding nanoscale molecular behavior can influence the design of next-generation functional materials. By showcasing a simple yet effective method to control molecular assembly, the work opens new avenues for designing advanced materials for sensors, electronics, and smart technologies. The research led by Dr. Goutam Ghosh (CeNS), along with his PhD student Mr. Sourav Moyra (CeNS) and collaborator Mr. Tarak Nath Das (JNCASR) provides valuable insights into using supramolecular chemistry to engineer highly tunable and efficient smart materials.

Publication link: https://doi.org/10.1021/acsanm.5c03598

https://www.pib.gov.in/PressReleasePage.aspx?PRID=2250461&reg=3&lang=1

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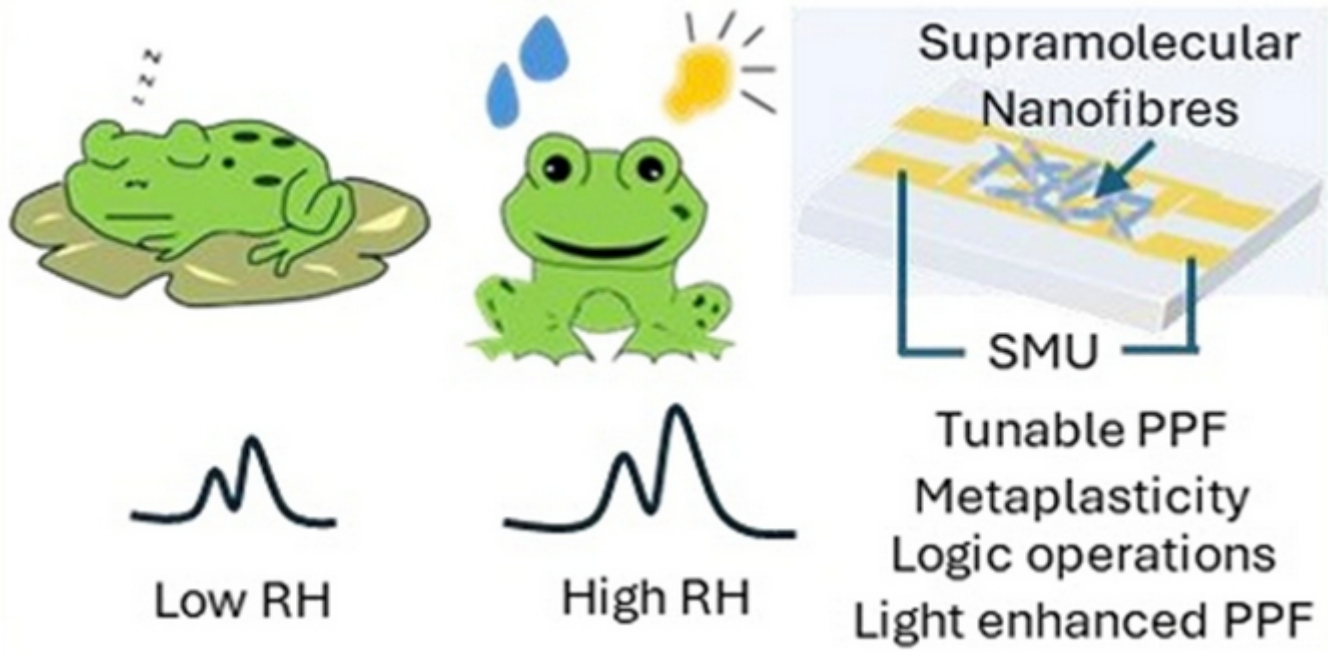
Scientists develop Humidity-Responsive Brain-Like Sensor inspired by frogs that can save energy in conventional electronics

Source: Press Information Bureau, Dt. 09 Apr 2026

A novel neuromorphic sensor that mimics the response of the brain to environmental changes, primarily humidity, with the ability to process, and store information in a single device, similar to biological systems, could significantly reduce energy consumption and data-processing requirements compared to conventional electronics. Neuromorphic electronics are gaining importance as conventional computing systems struggle with increasing energy consumption and data processing demands, particularly in applications such as edge computing and artificial intelligence.

Neuromorphic devices, in particular, sensors aim to emulate the functioning of the biological neural systems by integrating sensing, memory, and processing into a single device. Most of the neuromorphic sensors still rely on separate sensing units and memristive elements for processing, which introduces additional energy consumption and data transfer overhead. In contrast, biological sensory systems perform sensing and signal processing simultaneously, making them highly energy efficient and effective. Developing devices that can integrate sensing, memory, and processing in a single platform is therefore crucial for efficient and adaptive systems.

Researchers from Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), an autonomous institute of the Department of Science and Technology (DST) have developed a humidity-responsive neuromorphic sensor based on 1D supramolecular nanofibers, capable of integrating sensing and synapse-like information processing in a single device platform. The development of this neuromorphic sensor published in the Journal of Materials Chemistry C was inspired by the amphibian frog, particularly cricket frogs, whose synaptic behaviour is highly moisture sensitive and influenced by daylight.



The moisture-sensitive frog behaviour with increased activity at higher moisture levels is emulated in a supramolecular nanofibre-based neuromorphic sensor

Tejaswini S. Rao, Sukanya Baruah grew the supramolecular nanofibers from the charge transfer complex of the donor and acceptor molecules. The nanofibers from the water medium were drop coated on the interdigitated gold electrode on a glass substrate to form the active device layer. The device was then placed in a humidity-controlled chamber where relative humidity was regulated using humidified nitrogen flow. Humidity pulses of different strengths and intervals were applied and electrical measurements were performed to examine synaptic responses such as facilitation, depression, and meta plasticity, and to demonstrate basic logic operations.

With the organic nanofibers the researchers developed a tiny device that can sense changes in moisture and respond in a way similar to the way communication happens in the brain. It was found that when the surrounding humidity changes, the current response of the device changes, and it can also temporarily “remember” previous humidity signals it has been exposed to. The response can also be influenced by light in a way similar to that of cricket frog whose activity is also highly sensitive to moisture and daylight. Since the device can sense, process, and store information at the same time, it represents a step toward smart sensors that behave more like natural biological systems. “This is the first time humidity has been used as the primary stimulus to emulate synaptic behaviour in a neuromorphic device,” the researchers noted.

In the future, this technology could enable smart environmental monitoring systems that respond adaptively to humidity and other environmental signals. It may also contribute to advanced healthcare devices, wearable sensors, and efficient edge-computing technologies used in artificial intelligence and the Internet of Things. By enabling environmentally responsive and energy-efficient computing platforms, the work supports the development of next-generation sustainable electronic technologies.

Publication link: https://doi.org/10.1039/d5tc03980k

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Union Minister Dr Jitendra Singh asks private sector to accelerate its participation in R&D activities

Source: Press Information Bureau, Dt. 09 Apr 2026

Union Minister for Science & Technology and Earth Sciences Dr Jitendra Singh today called upon the private sector to accelerate its participation in Research & Development (R&D) activities, emphasising that industry engagement is essential to strengthening India's innovation ecosystem. The Minister said the government has taken a series of enabling steps - including opening up sectors such as space and nuclear energy to private players and creating dedicated mechanisms like the RDI fund—and stressed that industry must now respond by investing more actively in R&D and partnering in the country's scientific and technological advancement.

Speaking at the release of two NITI Aayog reports on easing research and development processes, Dr. Jitendra Singh emphasised that the focus must shift from how systems are designed to how they are actually experienced by researchers on the ground. He said evidence-based documentation of these lived challenges strengthens the case for reform and helps carry concerns beyond the scientific community to policymakers. "There is no denying that research can flourish only when there are no impediments, no slowdowns and no avoidable interruptions," Dr. Jitendra Singh said, adding that even when external disruptions are unavoidable, "the ponderables must be addressed" to prevent compounding delays.

The Minister pointed to a growing mismatch between India's expanding scientific capabilities and the systems that support them, noting that while the country has "no dearth of human resources" and its scientific talent is increasingly recognised globally, institutional and procedural frictions continue to constrain outcomes. Highlighting the changing nature of research, Dr. Jitendra Singh said scientific work is now deeply interconnected with industry, finance and global collaboration, making it essential for systems to facilitate interdisciplinary and cross-sectoral engagement. He noted that the government has taken steps to open sectors such as space and nuclear energy to private participation, signalling a broader shift in the research and innovation landscape.

At the same time, he flagged the limited participation of private industry in research funding and execution, arguing that government support alone cannot sustain long-term innovation. Referring to the recently introduced Research, Development and Innovation (RDI) funding approach, Dr. Jitendra Singh described it as an unusual intervention aimed at incentivising private sector engagement, even as he acknowledged that industry readiness remains uneven. He also drew attention to gaps in corporate social responsibility (CSR) spending for research, noting that even existing allocations are not being fully utilised for R&D purposes, and called for a stronger culture of philanthropy and institutional support for scientific work.

The Minister cited initiatives such as "One Nation, One Subscription" for research journals as examples of enabling measures that improve access to knowledge, while stressing that incremental improvements in routine processes—such as approvals, funding flows and administrative clearances—can collectively have a significant impact on research productivity. Suman Bery, Vice Chairman, NITI Aayog, said the initiative on easing R&D processes is rooted in long-standing calls from the scientific community to reduce administrative burdens and improve system efficiency. He emphasised that as India's research ecosystem expands, the focus must shift towards ensuring coherence across the entire research lifecycle—from approvals and funding to execution and application—so that avoidable delays do not disrupt outcomes. Highlighting findings from extensive consultations, Bery noted that inefficiencies often arise at the intersections

of systems rather than within individual processes, calling for a more coordinated, system-wide approach to reform. He added that clearer processes, institutional support for collaboration, and alignment with global practices would be key to enabling research continuity and translating knowledge into real-world applications.

V. K. Saraswat, Member, NITI Aayog, said India's research ecosystem is at a "point of transition", with systemic inefficiencies such as funding delays and administrative bottlenecks continuing to affect both the pace and quality of research. He called for greater institutional autonomy, reduced compliance burden on researchers, and stronger linkages between research, innovation and industry, alongside coordinated, top-down reforms in funding and policy frameworks. The Principal Scientific Adviser Prof. A.K. Sood said improving ease of doing R&D must remain a continuous effort, noting that despite recent progress, key gaps persist. He flagged low funding success rates, unresolved issues such as the Treasury Single Account (TSA) framework, and constraints in hiring and infrastructure, urging stronger coordination and follow-through to translate recommendations into action.

The reports released by NITI Aayog draw on consultations with researchers across institutions and highlight the need for greater flexibility, transparency and predictability in research systems. They emphasise that efficiency is not only about reducing timelines but also about providing clarity, enabling scientists to plan work with continuity and confidence. Dr. Jitendra Singh concluded that strengthening India's research ecosystem requires sustained, system-wide engagement beyond government, involving institutions, industry and society at large. "Science today is too serious a subject to be left to scientists alone," he said, calling for broader stakeholder participation to ensure that research translates into scalable technologies, products and solutions. The focus on easing research processes comes as India seeks to expand its innovation capacity and align its scientific ecosystem with broader economic and strategic goals, including increased global collaboration and the transition from research outputs to real-world applications.

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