



● POLITY

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REPUBLIC DAY SHOWCASES DIVERSITY, MILITARY MIGHT

HISTORY, ART AND CULTURE



India marked its Republic Day with a grand display of military strength and cultural diversity, emphasizing 75 years of the Constitution and public participation. President Droupadi Murmu led the celebrations, with Indonesian President Prabowo Subianto as the special guest. The theme for the event was "Swarnim Bharat: Virasat aur Vikas" (Golden India: Heritage and Development).

The parade began with Prime Minister Narendra Modi paying tribute at the National War Memorial, followed by a 21-gun salute and the unfurling of the National Flag. The Indonesian Army also participated with a music band. Key highlights included tableaux celebrating tribal leader Birsa Munda's 150th anniversary and Dr. B.R. Ambedkar's role in

framing the Constitution. The parade featured over 31 tableaux, including a first-ever tri-services tableau highlighting military integration.

Around 10,000 special guests attended, with over 77,000 passes issued for the event. The celebration concluded with the National Anthem and the release of balloons marking the 75th anniversary of the Constitution.

ARMY'S MISSILE FIREPOWER THUNDERS DOWN KARTAVYA PATH IN SHOW OF STRIKE OPTIONS

SCIENCE AND TECHNOLOGY

During the Republic Day parade, India showcased its advanced missile systems, reflecting the growing need for long-range tactical strike options, a key lesson from the Ukraine conflict. Featured systems included the BrahMos supersonic cruise missiles, the upgraded Pinaka Multi-Rocket Launch System (MRLS) with a 75 km range, the BM-21 Grad MRLS, and the Pralay quasi-ballistic missile.

The Defence Research and Development Organisation (DRDO) displayed the indigenous Advanced Towed Artillery Gun System (ATAGS), while the Army introduced its new Battlefield Surveillance System, Sanjay, developed with Bharat Electronics Ltd.

The upgraded Pinaka system can launch 72 rockets in 44 seconds, reaching targets up to 75 km away. With four regiments in service and six more ordered, it is set to be a major part of the Army's artillery. The Pralay missile, which has completed development trials, is India's first ballistic missile designed for conventional warfare and offers flexible range and destructive power.

Additionally, India is working on extending the Pinaka's range to 300 km. The Army also has Grad and Smerch rocket regiments, with future plans to showcase the Nirbhay sub-sonic cruise missile.

Specialised ammunition for the Pinaka, such as high-explosive pre-fragmented rockets and area denial munitions, will enhance its effectiveness. The Grad missile, tested in the Kargil War, was upgraded for better mobility and capacity. The BrahMos unit, led by Captain Suraj Singh, was another highlight of the parade.

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ASSAM TEA WORKERS PRONE TO POST-TB FUNGAL DISEASE: STUDY

SCIENCE AND TECHNOLOGY



A recent study has highlighted the growing threat of chronic pulmonary aspergillosis (CPA), a serious fungal infection affecting tuberculosis (TB) survivors in Assam's tea plantations. This follows an earlier report warning of epidemic dropsy. TB remains a significant health issue in Assam, with a high prevalence in the tea belt areas. Risk factors include poverty, poor nutrition, close contact with TB patients, and overcrowded living conditions.

Researchers from Assam Medical College and Hospital in Dibrugarh focused on CPA, caused by the fungus *Aspergillus fumigatus*. This infection primarily affects individuals with lung damage from previous TB. The study, published in PLOS Neglected Tropical

Diseases, examined 128 tea workers and their families, revealing a CPA prevalence of 17.18%. Notably, 48.9% of post-TB patients tested positive for CPA, indicating its strong association with previous TB infections.

The prevalence of CPA in Assam (60 per 100,000 people) is higher than the global average and even surpasses some African countries. The study suggests early diagnosis by testing for *Aspergillus* antibodies in TB patients, which could reduce the morbidity and mortality associated with this neglected condition. It also calls for health campaigns to educate workers on respiratory health, nutrition, and hygiene.

Additionally, the study points to an earlier report on epidemic dropsy, a condition linked to contaminated edible oils, as another ongoing health concern in the region.

INDIAN SPACE PROGRAMME BREAKS INTO 2025 IN 'MISSION MODE'

SCIENCE AND TECHNOLOGY



India's space program, which made significant strides in 2024, is set to enter mission mode in 2025. The PSLV-C60 mission, launched at the start of the year, laid the groundwork for key projects like Chandrayaan-4 and the Bharatiya Antariksh Station. The country is also progressing toward human spaceflight, with the construction of a third launch pad at Sriharikota and the development of the Next-Generation Launch Vehicle (NGLV).

A major highlight of the PSLV-C60 mission was the Space Docking Experiment (SpaDeX). The two SpaDeX satellites, launched on December 30, 2024, successfully performed an in-orbit rendezvous and docking on January 16, 2025, marking ISRO's first successful docking in space, a critical step for lunar and space-station missions. The satellites were also controlled together, paving the way for future space station operations.

Additionally, the mission involved the PSLV Orbital Experimental Module (POEM4), which hosted 24 payloads from ISRO and various private and academic entities. These included experiments like a robotic manipulator technology demonstrator, plant growth studies in space, and testing of green propulsion systems. Several companies, such as Manastu Space and Bellatrix Aerospace, also contributed their payloads, showcasing advancements in satellite technology.

On January 14, V. Narayanan succeeded S. Somanath as ISRO's chairman, following his contributions to cryogenic

propulsion and the Chandrayaan-2 mission review. Meanwhile, three Indian companies—Pixxel Space, Digantara, and XDLINX Labs—sent their payloads aboard SpaceX's Transporter 12 mission on January 15.

The Union cabinet approved the construction of a third launch pad at the Satish Dhawan Space Center, which is expected to be completed by 2029. This will support human spaceflight and the NGLV. ISRO also successfully tested the Vikas engine's restart ability and released its first data from the Aditya-L1 mission, which is studying the sun.

MAHAKUMBH: WHERE FAITH MEETS TECHNOLOGY AND TWIN HOG LIMELIGHT

SCIENCE AND TECHNOLOGY

The Maha Kumbh 2025 is not just a grand spiritual gathering but also a showcase of cutting-edge digital innovations that blend tradition with modern technology.

AI Surveillance: Over 2,750 CCTV cameras, including 328 AI-enabled ones, are continuously analyzing crowd behavior, ensuring security, and managing the flow of 40 crore pilgrims, like a digital guardian.

Drones: A swarm of drones is buzzing overhead, offering surveillance from above and underwater, while anti-drone systems keep the skies clear of threats.

Kumbh Sah'Al'yak: This chatbot, fluent in 11 languages, acts as a personal guide, helping devotees with directions and information about rituals, much like having a local expert in your pocket.

QR Codes: The days of long queues are over; QR codes are used for entry passes, vehicle permits, and more, streamlining the process and offering a smooth, digital experience.

Smart Lost-and-Found: AI-powered systems quickly reunite lost individuals with their families by matching descriptions, making sure no one is left behind.

Digital Mapping: The entire Kumbh site is mapped using GIS and Google Maps, ensuring easy navigation, whether for rituals or food stalls.

Virtual Reality: For those who can't attend in person, 360-degree VR booths offer a chance to experience the Kumbh's rituals from the comfort of home.

NFTs: Embracing the blockchain, the Kumbh offers digital collectibles (NFTs) for those who want a virtual piece of their spiritual journey.

Health-Tech: AI-driven health systems monitor hygiene, inventory, and provide medical support to ensure the well-being of all pilgrims.

In essence, the Kumbh 2025 is a fusion of spirituality and innovation, with technology enhancing both the safety and experience of millions, making it a true leap into the future.

PALESTINE PRESIDENT CONDEMNS 'ANY PROJECTS' TO DISPLACE CITIZENS OF GAZA

INTERNATIONAL RELATIONS

Palestinian President Mahmud Abbas strongly condemned any efforts to relocate Gaza's population, in response to U.S. President Donald Trump's suggestion of moving Palestinians to Egypt and Jordan. Although he did not name Trump directly, Abbas expressed his rejection of any plans to displace the people of Gaza, emphasizing that Palestinians would not abandon their land or holy sites.

Trump's remarks, made shortly after beginning his second term, proposed that Jordan and Egypt take in Palestinians from Gaza, a suggestion quickly rejected by both countries. In his statement, Abbas recalled the displacement of Palestinians during the 1948 Nakba and the 1967 Naksa, events that caused widespread displacement. He also criticized any policies that threaten the unity of Palestinian territories, including Gaza, the West Bank, and East Jerusalem.

Abbas urged Trump to continue supporting the ceasefire in Gaza that started on January 19 and affirmed the Palestinian Authority's readiness to govern Gaza, which has been devastated by ongoing conflict.

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SHOULD GOVERNORS HEAD STATE UNIVERSITIES?

POLITY AND GOVERNANCE



The role of the Governor as Chancellor of State universities is a contentious issue, rooted in colonial-era practices rather than the Indian Constitution. Originally designed by the British to control universities, this role was carried over post-Independence, granting Governors significant powers such as appointing Vice-Chancellors and nominating members to university bodies. However, the role has often led to conflicts, particularly in Opposition-ruled States, where Governors are seen as political appointees acting on behalf of the Centre, undermining university autonomy.

Historically, Governors were largely ceremonial until political shifts after 1967, when they became more politically active and asserted control over university matters. This politicization has caused delays in university governance and exacerbated conflicts between State governments and the Centre. Additionally, many Governors lack the academic expertise needed for these roles.

The office of the Governor as Chancellor contradicts the principles of federalism, as it allows the Centre to control State

universities, despite the latter being funded by State governments. Various commissions have criticized this model, advocating for reforms such as having non-political figures serve as Chancellors or having State governments appoint Chancellors who are experts in academia.

Alternative models, such as appointing an eminent academician or public figure as Chancellor, are already being adopted in some States like Telangana and Maharashtra. These reforms aim to reduce political interference, improve university governance, and promote academic freedom. The reform process faces delays in some States due to the need for Presidential assent, but a clear shift away from the Governor's colonial-era role is necessary to improve the independence and quality of Indian universities.



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Corporate office:

Vedhik IAS Academy
Samkalp Bhawan, Plot No.15,
Sector 4, Rama Krishna Puram,
New Delhi, Delhi-110022

Regional office

Vedhik IAS Academy
202, Raheja Chambers, 12,
Museum Road. Bangalore -
560001. Karnataka, India.

GCC Office:

Bobscoedu,
Bobsco Trading & Contracting Co. W. L . L
Office 22, Dream Tower 1,
Road: 2701, Adliya, Kingdom of Bahrain
www.bobscoedu.com