

MAHITHI MONTHLY SNIPPETS

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NEWS IN SHORT

- The Karnataka Admission Overseeing Committee (AOC), tasked with addressing student and parent grievances against professional colleges, is currently headless after its chairperson's term ended on October 16. With no leader, staff can only receive and acknowledge complaints, and forward them to member secretaries, leaving over 250 complaints unresolved. This admission season has seen a surge in complaints against colleges demanding excess fees and insisting on hostel stays, particularly from MCA, MBA, Nursing, and Dental colleges. The committee's inaction has stalled resolutions and hearings, including a pending petition from COMEDK regarding alleged seat blocking at top engineering colleges. Higher Education Minister Dr. M C Sudhakar acknowledges the issue and is awaiting the Chief Justice's response to appoint a new chairperson, considering appointing the previous chairperson as interim solution if necessary.
- T P Gopalan Nambiar, the founder of the BPL Group and "one of the key architects of the electronics industry in post-independence India" passed away
- The state government has increased the cash prize for the Suvarna Mahotsava Awards from Rs 50,000 to Rs 1 lakh, recognizing the outstanding contributions of 50 men and 50 women achievers in various fields. This move is particularly significant, as it coincides with the golden jubilee celebrations of the naming of the state, emphasizing the historic importance of this year's Rajyotsava Day
- The Bengaluru police launched an initiative to promote Kannada-speaking among autorickshaw drivers as part of Karnataka Rajyotsava celebrations. They are distributing laminated cards with essential Kannada phrases and English translations to facilitate easy communication between drivers and passengers. The cards include a QR code linking to video demonstrations. This voluntary initiative, inspired by autorickshaw driver Ajmal Sultan's social media campaign, aims to ensure smooth interactions and is fully funded by the Police Department, with distribution set to continue for a month, according to Bengaluru City Police Commissioner B Dayananda.
- With the aim of easing the price rise challenge, the Ministry of Consumer Affairs, Food and Public Distribution and the National Co-operative Consumers' Federation of India Ltd (NCCF) have started distributing essential food grains in Bengaluru. NCCF said that these products are made available in Phase II of Bharat products. Under the initiative, high quality essential grains are made available at an affordable rate for the residents of Bengaluru. Bharat rice is being sold at ₹34, while Bharat wheat flour ₹30, Bharat Chana Dal ₹70 and Bharat Moong Dal is being sold at just ₹107. The market rate for the same products are rice ₹55-60, atta ₹45-50, dal ₹90-100 and moong dal ₹120-130.
- India's first Mars and Moon analog mission at Leh in Ladakh to simulate life in an interplanetary habitat has been inaugurated. ISRO, AAKA Space Studio Pvt. Ltd, the

University of Ladakh, IIT Bombay, and the Ladakh Autonomous Hill Development Council have collaborated in this endeavour.

- Rajesh Kumar Singh took over as Defence Secretary
- The list of 69 recipients of the Karnataka Rajyotsava Award 2024 was recently announced by Kannada and Culture Minister Shivaraj Tangadagi. This year, the award ceremony will be held at Vidhana Soudha instead of the traditional venue, Ravindra Kalakshetra, to accommodate a larger audience. Additionally, Karnataka is commemorating the 50th anniversary of its renaming as "Karnataka" through the Karnataka Sambhrama-50 Suvarna Mahotsava Awards, which will honor 100 recipients equally divided between men and women, each receiving Rs. 50,000. Among notable awardees is actor Sihi Kahi Chandru for his work on television. The Rajyotsava Award, Karnataka's second-highest civilian honor, was established in 1966 and is awarded annually on November 1st, Karnataka's state formation day. The award acknowledges individuals in fields such as arts, literature, science, and social service, and includes a Rs. 5 lakh cash prize, a 24-gram gold medal, and a citation. It has been awarded every year except in 1977, 1978, 1979, 1980, and 2009.
- India recently committed to increasing its biodiversity conservation budget by 2.5 times by 2030, as part of its enhanced biodiversity funding strategy. This pledge, presented at the 16th Conference of Parties of the Convention on Biological Diversity (CBD) in Colombia, reflects India's goal to rehabilitate 30% of degraded land and marine areas by 2030. From 2017 to 2022, the government spent an average of Rs 33,200 crore annually on biodiversity, and by 2029-2030, the budget is set to exceed Rs 81,600 crore per year. Key conservation objectives include restoring ecosystems in terrestrial, inland, marine, and coastal areas to boost biodiversity and resilience. India's biodiversity strategy also identifies major threats to ecosystems, including habitat change, pollution, overexploitation, climate impacts, and invasive species, with 23 targeted plans to address these challenges. As one of 17 mega-diverse nations, India hosts 7-8% of global species on just 2.4% of the earth's land area. The new biodiversity initiative aligns with the Kunming-Montreal Global Biodiversity Framework and CBD's mission to conserve biodiversity, promote sustainability, and ensure equitable resource sharing, following India's longstanding commitment as a CBD member since 1994.
- Parthavi Grewal, Vanshika Goswami and Hemant Sangwan won gold at inaugural U-19 World Championships organised by World Boxing in Colorado, USA.
- A team of Indian botanists has identified a new leafless orchid species, *Gastrodia lohitisensis*, in Arunachal Pradesh's Lohit district.
- Recently, the Indian Army contingent departed for the 15th edition of India- US joint Special Forces Exercise VAJRA PRAHAR.
- The 8th meeting of the Empowered Committee for Animal Health (ECAH) recently highlighted India's progress in animal health, thanks to the committee's efforts since its establishment in 2021. As the think tank for the Department of Animal Husbandry and Dairying (DAHD), ECAH brings together experts from various fields

to provide evidence-based insights and policy recommendations on national health programs, emerging disease threats, and regulatory frameworks for veterinary products. Chaired by the Principal Scientific Adviser (PSA) to the Government of India, and vice-chaired by the Secretary of DAHD, the committee includes members from prominent organizations such as CDSCO, DBT, ICAR, ICMR, IVRI, and VCI. ECAH's focus is on creating resilient, farmer-centric animal health systems, streamlining regulatory approvals, driving innovative practices, and assessing emerging disease threats to ensure the long-term success of India's livestock sector. By acting as a think tank, ECAH provides critical inputs on animal health programs, protects public and animal health, and supports initiatives to promote innovative practices in the Indian animal health sector.

- The Indian Army contingent comprising 25 personnel departed for Cijantung, Jakarta, Indonesia to take part in Exercise GARUD SHAKTI 24 which will be conducted from the 1st to 12th of November 2024.
- The Department of Agriculture & Farmers' Welfare has released the operational guidelines for the "NAMO DRONE DIDI" Central Sector Scheme, aiming to empower 14,500 selected Women Self-Help Groups (SHGs) by providing them with drones from 2024-25 to 2025-26 for rental services to farmers, primarily for applying liquid fertilizers and pesticides. The "NAMO DRONE DIDI" scheme, overseen by an Empowered Committee and implemented by a dedicated team led by the Additional Secretary of Rural Development, provides significant support to Women Self-Help Groups (SHGs) by offering 80% financial assistance (up to ₹8 lakhs) for purchasing drones, with the remaining amount accessible through loans from the National Agriculture Infra Financing Facility at a 3% interest subvention. This initiative includes a 15-day training program on drone piloting and agricultural applications and is implemented by Lead Fertilizer Companies at the state level. An IT-based Drone Portal ensures effective monitoring and fund management, with the goal of creating sustainable business opportunities and additional income streams for SHGs, thereby enhancing their livelihoods.
- The production of key spice crops—cardamom, ginger, and pepper—in Karnataka has been severely affected by heavy rains from July to August, leaving many farmers facing significant losses. Pepper, cultivated on 2,22,394 hectares, has seen a drastic reduction in expected yield to only 25% of normal levels. Despite this, projected production for 2023-24 is slightly higher at 89,000 tonnes compared to the previous year's 80,805 tonnes. Cardamom, grown over 25,135 hectares and typically harvested from late August to November, is expected to see a 50% production decline due to premature ripening and size reduction caused by excessive rainfall. Ginger, cultivated over 40,000 hectares, is forecasted to experience a 30-40% production drop, with crop losses exacerbated by diseases like koleroga (rotting disease). The heavy rains also caused premature ripening and quality degradation in cardamom, hindered the drying process of both cardamom and ginger, and affected the blooming period for pepper, resulting in fewer

peppercorns. Consequently, farmers faced additional harvesting difficulties due to prolonged rain and continuous wet conditions.

- A report titled "Implementation of the Right of Children to Free and Compulsory Education Act, 2009: Where Do We Stand" reveals critical insights and concerns about education in the region, with a literacy rate of only 63.71%, much lower than the state average of 75.36%. Compiled by the Right to Education (RTE) Cell and Council for Social Development (CSD), the report highlights alarming trends such as 115 government schools with zero student enrollment and 11.65% of schools functioning with just one teacher. Systemic issues include insufficient investment, high teacher vacancies, and the increased closure of low-enrollment government schools, which has led to more students attending private schools. Many marginalized students are dropping out due to the lack of accessible public schools. Additional concerns include Karnataka's low compliance with national education norms, a limited budget for education, and the recent introduction of board exams for classes 5 and 9, which critics argue contradicts the RTE provisions. Furthermore, Karnataka has the highest number of teacher vacancies in India, with 141,358 positions unfilled. Quality of education is compromised due to inadequate teacher professional development, overreliance on online resources, and severe understaffing in academic support institutions. The report recommends adopting open-source digital technologies, as used in Kerala, to improve teacher training and uphold the right to quality education for all children.
- The National Achievement Survey (NAS), India's comprehensive tool for evaluating student learning, has been renamed PARAKH Rashtriya Sarvekshan 2024. Scheduled for December 4, 2024, this annual survey aims to assess educational progress nationwide. PARAKH targets students in Grades 3, 6, and 9 from government, government-aided, and private schools, evaluating them across subjects like Language, Mathematics, Science, Social Science, and "The World Around Us" using multiple-choice questions. It collects both performance and contextual data through Optical Mark Recognition (OMR) technology to streamline analysis. Unlike previous surveys, PARAKH focuses on a system-level evaluation aligned with the National Education Policy (NEP) 2020, assessing schools based on foundational, preparatory, and middle education stages. By generating report cards at national, state, and district levels, PARAKH offers insights that help shape educational reforms. Managed by the National Assessment Center within NCERT and under the Ministry of Education, PARAKH also aligns with international standards, like the Programme for International Student Assessment (PISA), to benchmark India's educational progress globally.
- The Indian Council of Medical Research (ICMR) has launched the "First in the World Challenge" to promote pioneering research among Indian scientists, aiming to address complex global health issues with ideas that have not been explored worldwide. This initiative encourages Indian researchers to develop breakthrough health technologies, including vaccines for emerging diseases, novel drugs, and innovative diagnostic tools, with a strict focus on completely original and untested

ideas. Projects funded by this challenge must have substantial potential for global health impact and are intended to be "high risk, high reward"—acknowledging that while some ideas may not succeed, those that do could revolutionize health and biomedical sciences. Through this program, ICMR seeks to establish Indian science at the forefront of international health solutions, fostering future advancements that offer transformative health benefits.

- India has been included in the Steering Committee of the Asset Recovery Interagency Network-Asia Pacific (ARIN-AP), represented by the Directorate of Enforcement (ED). ARIN-AP is a collaborative, multi-agency network aimed at depriving criminals of their illicit profits by facilitating cross-border cooperation in asset tracing, freezing, and confiscation within the Asia-Pacific region. Comprising various law enforcement agencies dedicated to combating financial crimes, ARIN-AP serves as a central hub for professionals working on crime proceeds, promoting coordinated asset recovery efforts. The network currently includes 28 member jurisdictions and nine observers and operates informally within the broader Camden Asset Recovery Inter-Agency Network (CARIN), which encompasses over 100 jurisdictions globally. As India's nodal agency within ARIN-AP, the ED plays a critical role in decision-making and coordination, helping to enhance cross-border asset tracing, improve intelligence exchange, and strengthen the CARIN network.
- The upcoming COP29 climate summit is set to commence amid a significant funding gap for global biodiversity conservation, as wealthy nations appear to have reached their limits in financial contributions. At the recent COP16 negotiations in Cali, Colombia, countries struggled to devise a plan to mobilize the required \$200 billion annually in conservation funding by 2030, which includes a target of \$30 billion from affluent nations. Despite the pledges made two years ago as part of the Kunming-Montreal Global Biodiversity Framework agreement to finance nature-boosting initiatives like sustainable farming and wildlife reserve protection, the talks at COP16 failed to reach a consensus, with discussions dragging on past the scheduled conclusion on November 2. Human activities and climate change continue to threaten approximately one million plant and animal species, exacerbating the urgency for funding. As countries prepare for COP29 in Azerbaijan, there remains a pressing need for wealthy nations to provide financial support to poorer counterparts facing climate-related challenges. However, developed nations have shown reluctance to increase their cash contributions, with cuts to foreign aid budgets evident in several European countries, and a decline in government development money for nature conservation from \$4.6 billion in 2015 to \$3.8 billion in 2022, according to the Organisation for Economic Co-operation and Development.
- *Alstonia scholaris*, commonly known as the blackboard tree or Saptaparna, is an evergreen tropical tree native to the Indian subcontinent, Southeast Asia, and southern China. It grows 10-40 meters tall, with dark grey bark, whorled leaves in clusters of seven, and small, fragrant greenish-white flowers blooming in late autumn and early winter. Traditionally used in medicine for respiratory issues,

fever, skin disorders, and digestive problems, its soft wood was historically used for making writing slates and blackboards. Classified as "Least Concern" by the IUCN, *Alstonia scholaris* has been cited in ancient Indian texts like Charaka and Sushruta Samhithas, and its flowering period brings relief to those with allergies and asthma.

- Recently, the Himachal Pradesh Chief Minister announced that the upcoming Durgesh Aranya Zoological Park will become India's first zoo to earn certification from the Indian Green Building Council (IGBC) for sustainable and eco-friendly infrastructure.
- With an aim to promote new and young talent in the country, the 55th edition of the International Film Festival of India (IFFI) brings to you a new award category: 'Best Debut Director of Indian Feature Film' which will showcase five remarkable debut films that highlight new perspectives, diverse narratives, and innovative cinematic styles from across India. IFFI, scheduled to be held from November 20-28, 2024, announced its official selection in the Best Debut Director of Indian Feature Film category.
- FTII's student film 'Sunflowers Were The First Ones To Know' qualifies for Oscars in the Live Action Short Film Category. This short film has been directed by FTII student Chidananda S Naik and had earlier this year won the first Prize at the Cannes Film Festival's La Cinef Selection, which led to global recognition for this Kannada- language project inspired by Indian folk stories and traditions.
- Pilikula Biological Park has just welcomed some exciting new additions - a six-year-old Asiatic lion, a wolf, two gharial crocodiles, and four rare birds, including two silver pheasants and two yellow-golden pheasants, from Nandankanan Zoological Park in Odisha . This animal exchange program, approved by the Central Zoo Authority, aims to provide companions for solitary animals and preserve pure bloodlines. In return, Pilikula Zoo will send four dhole/wild dogs, four rare reticulated pythons, two brahminy kites, three Asian palm civets, and two large egrets to Nandankanan Zoo. The newly arrived animals will spend 15 days in quarantine before being available for public viewing. This exchange sets a new record for the longest distance traveled by animals in Pilikula Zoo's animal exchange program, approximately 2,000 kilometers from Nandankanan Zoo . The zoo is also planning to introduce unique species like the Anaconda and Humboldt penguin, which is expected to boost revenue and make the zoo self-sustaining
- Indian professional boxer Mandeep Jangra won the World Boxing Federation's super featherweight world title after defeating Britain's Conor McIntosh in the Cayman Islands.
- The Tumaini Festival, founded in 2014, is a unique cultural event held annually within Malawi's Dzaleka Refugee Camp, bringing together refugees and locals through music, art, and crafts. As the only festival of its kind held within a refugee camp, it fosters community, solidarity, and cultural exchange, attracting thousands of attendees and featuring global performances showcasing music, dance, theatre, and visual arts. Organized and managed by refugees, the festival received the 2024

Cultures of Resistance Award. Held in Malawi, a landlocked Southeastern African country with stunning highlands and lakes, including Lake Malawi, the festival takes place in Dzaleka Refugee Camp, established in 1994 to support displaced people from Burundi, Rwanda, DRC, Somalia, Ethiopia, and other countries, and now a symbol of hope and resilience.

- Glacial lakes and other water bodies across the Himalayan region saw a 10.81% increase in area from 2011 to 2024 due to climate change, signalling a heightened risk of Glacial Lake Outburst Floods (GLOFs), according to a Central Water Commission's (CWC) report.
- Himachal Pradesh's Chief Minister recently launched water sports activities at Gobind Sagar Lake, a 90 km long manmade reservoir spanning Una and Bilaspur districts. Named after Guru Gobind Singh, the lake is sourced from the Bhakra Dam, one of the world's highest gravity dams, standing 225.5 m tall. With a depth of 163.07 m and covering 170 sq. km, Gobind Sagar is one of the deepest and largest man-made lakes globally, surrounded by lush hills and Himalayan peaks. It supplies irrigation water to Himachal Pradesh, Punjab, Haryana, and Rajasthan, supporting regional agriculture, and is India's third-largest water storage reservoir.
- Major Ralengnao "Bob" Khathing, a Tangkhul Naga from Manipur's Ukhrul district, was born on February 28, 1912. He became the first Manipuri to receive the King's Commission during World War II. His bravery earned him the coveted Member of British Empire (MBE) and Military Cross (MC) awards for his role in galvanizing Naga support against the Japanese in Burma and India. Khathing's impressive military career spanned commissions in the 9/11 Hyderabad Regiment, Assam Regiment, and Victor Force, a guerrilla outfit that combated Japanese forces on the Burma-India road. He also led the peaceful integration of Tawang into India and established crucial military and security frameworks, including the Sashastra Seema Bal, Nagaland Armed Police, and Naga Regiment. As India's first tribal-origin ambassador to Burma (now Myanmar), Khathing paved the way for others to follow. Recently, the Defence Minister inaugurated the Major Ralengnao 'Bob' Khathing Museum of Valour at Tawang in Arunachal Pradesh.
- Recently, Ningol Chakkouba festival was held with religious fervour and gaiety across the State of Manipur.
- The Indian Navy hosted the third MAHASAGAR virtual interaction on Nov 5, 2024, where Admiral Dinesh Kumar Tripathi engaged with maritime heads from Indian Ocean Region littorals, including Bangladesh, Comoros, Kenya, and others. Focused on "Training Cooperation to Mitigate Common Maritime Security Challenges," MAHASAGAR promotes regional cooperation and active security. Launched in 2023, this bi-annual initiative has gained widespread acceptance, fostering growth and collaboration among participating nations.
- Indian Rare Earths Limited, (IREL) and Ust-Kamenogorsk Titanium and Magnesium Plant JSC, (UKTMP JSC) Kazakhstan Signed an Agreement to Establish Indo-Kazakh Joint Venture Company (JVC): IREUK Titanium Limited for production of Ti Slag in India

- Karnataka has launched a new initiative to combat bonded labour, appointing 52 officials as 'Bonded Labour Prohibition Officers' to collect evidence, prosecute offenders, and raise awareness. Bonded labour involves individuals working to repay debts under coercive conditions without pay, punishable by up to three years imprisonment. Between 2016-2024, Karnataka reported 2,631 cases, freeing 4,397 labourers who received pensions and financial support (Rs 1-3 lakh). The initiative targets high-incidence districts and industries (agriculture, construction, textiles) and fulfills the Chief Minister's 2024-25 budget promise to eradicate bonded labour.
- Scientists have released 1,000 fingerlings of the critically endangered Nilgiri Mystus into a Shivanasamudra ranching facility as part of conservation efforts. Once found in the Tungabhadra River, its population drastically declined over 30 years, nearing extinction. However, the species was rediscovered in 2019. The National Bureau of Fish Genetic Resources initiated a breeding program, collecting brooders from Talakad and inducing natural spawning. Nilgiri Mystus acts as a key predator and indicator of river health in the Western Ghats, providing scavenger services. Future plans include releasing fingerlings into the Cauvery River and conducting awareness programs.
- Karnataka has introduced a single-window system to guarantee necessary clearances for business proposals within 100 days, responding to competitive pressures from neighboring states. Developed by Microsoft, the system integrates 33 departments and 147 services, aiming to reduce approval timelines from the current 300 days. The initiative includes familiarization training for government officials, a new website showcasing investment opportunities, and UMA, an AI-powered interactive platform providing voice-based information in multiple languages.
- India will launch two European Space Agency (ESA) satellites, Proba-3, from Sriharikota Spaceport on December 4 to study the Sun's corona. The mission involves a Coronagraph Satellite and an Occulter Satellite, which will maintain a precise formation 144 meters apart, creating a "virtual giant satellite" to observe solar phenomena. Launched on ISRO's PSLV, this marks ESA's first dual-satellite formation with such precision and its first launch from India since 2001. The mission enables Indian and European scientists to study the Sun's corona, demonstrating India's capability to support complex international missions.
- On November 5, 2024, the world's first wooden satellite, LignoSat, was launched aboard a SpaceX mission to test wood's viability in space exploration. Developed by Kyoto University and Sumitomo Forestry, LignoSat is made from honoki wood and aims to demonstrate timber's potential for construction and habitation on the Moon and Mars. The NASA-certified satellite will stay in orbit for six months, enduring extreme temperatures and testing wood's durability in space, with potential benefits for reducing space radiation impact and environmental pollution.

- The Indian government is launching the Mahabharata Circuit, a new religious tourism initiative, following the success of the Ramayana and Krishna circuits. This project aims to attract visitors to sites related to the ancient epic in Haryana, Uttar Pradesh, and Uttarakhand, with over ₹200 crore allocated to develop the circuit in Haryana. Key sites include Kurukshetra's Brahma Sarovar, Sri Krishna Museum, Bhishma Kund, and Jyotisar, as well as other attractions like Bhadrakali Temple and Sthaneshwar Mahadev Temple in Haryana.
- The Bangalore Electricity Supply Company (Bescm) got the 'Charge India 2024 Excellence' award for its contribution to establishment of Electric Vehicle (EV) charging infrastructure and promotion of eco-friendly mobility in Karnataka, at a recent ceremony organised by Emobility community. Karnataka has a total of 5,765 EV charging stations, the highest in India, with 85% of those stations (4,462) situated in Bengaluru.
- An autonomous surface vessel built by Sagar Defence Engineering has successfully completed a 1,500-km journey from Mumbai to Thoothukudi without human intervention, marking a significant milestone in India's development of autonomous maritime technology. This feat was achieved with the support of the Indian Navy and its affiliated organizations, including the Naval Innovation and Indigenisation Organisation (NIIO), Technology Development Acceleration Cell (TDAC), and Innovations for Defence Excellence (iDEX). Defence Minister Rajnath Singh virtually flagged off the Sagarmala Parikrama journey on October 29, highlighting India's growing expertise in unmanned systems for national security. According to Captain Nikunj Parashar, CEO of Sagar Defence Engineering, this achievement demonstrates India's ability to build autonomous maritime systems indigenously, critical for national security, and paves the way for future deployment in critical sea lanes, coastal surveillance, and anti-piracy operations.
- Scientists at the Institute of Advanced Study in Science and Technology (IASST) in Guwahati, an autonomous institute under the Department of Science and Technology, have discovered a specific protein IL-35 that can aid in new treatments for type I and autoimmune diabetes mellitus.
- The Exercise "VINBAX 2024" is scheduled to be conducted from 04 to 23 November 2024 at Ambala and Chandimandir. It is a bilateral army exercise conducted between India and Vietnam.
- The Karnataka Sahitya Academy announced its 2022 literary awards, honoring outstanding contributions to Kannada literature. Five distinguished writers - R K Hudagi, Agrahara Krishnamurthy, Indira Hegde, Ramzan Dargah, and Tumbadi Ramaiah - received honorary awards, each consisting of Rs 50,000, a certificate, plaque, and shawl. Ten individuals received the Sahityashree award, including Banjagere Jayaprakash, Rumi Harish, and Dr. M G Manjunath, with a Rs 25,000 cash prize. Notable winners of the 2021 Book Prizes included Dadapeer Jyman for Kannada translation of "Purdah and Polygamy" and Cheemanahalli Rameshbabu for poetry collection "Ragi Kaalu." Eight writers won the 2021 endowment awards,

and the academy plans to publish a book showcasing 50 women's achievements and organize a young writers' workshop.

- The State government has introduced a ₹50,000 reward for gram panchayats that either fully eliminate or significantly reduce child marriage cases. This initiative aims to encourage local governments to take action against child marriage at the grassroots level. The scheme, launched in the current financial year, involves coordination among seven government departments, including the Home Department, Health Department, School Education and Literacy, Panchayat Raj and Rural Development, and the Women and Child Development Department. In addition, 59,000 Child Marriage Prohibition Officers have been appointed to collaborate with NGOs and other departments to address the issue. Despite these efforts, child marriage persists due to factors such as poverty, cultural practices, migration, and poor legal awareness. The lack of coordination between government agencies has also been a significant challenge in tackling this problem effectively.
- The PM Vidyalaxmi scheme, a new initiative launched by the Union Cabinet under the leadership of Prime Minister Narendra Modi, aims to provide financial support to meritorious students pursuing higher education. The scheme targets students who secure admission in any of the 860 designated Quality Higher Education Institutions (QHEIs), including both government and private institutions. It is expected to benefit around 22 lakh students. The scheme offers collateral-free and guarantor-free loans to cover full tuition fees and other related expenses. For loans up to ₹7.5 lakh, a 75% credit guarantee is provided, which encourages banks to offer loans without requiring collateral. With a budget allocation of ₹3,600 crore, the scheme will be implemented from 2024-25 to 2030-31, and it is expected that 7 lakh new students will benefit within this period.
- Anil Pradhan has been awarded the prestigious Rohini Nayyar Prize for his significant contributions to STEM education, particularly in rural areas. He founded the Young Tinker Foundation in Bhubaneswar with the goal of enhancing STEM skills and promoting innovation among school students. His initiative has impacted over 2.5 lakh students across Odisha, Telangana, and Tamil Nadu, and he aims to expand to Delhi by 2026, with a target of reaching 10 lakh students. Pradhan's leadership in guiding a team of rural students to achieve a world rank of 3 at the NASA Rover Challenge in 2021 further solidified his commitment to empowering underserved communities through education. The Rohini Nayyar Prize, established in 2022 to honor the legacy of Dr. Rohini Nayyar, an economist and bureaucrat who played a key role in the development of MGNREGA, recognizes outstanding contributions to rural development, with a cash prize of Rs 10 lakh, a citation, and a trophy.
- Researchers from the Indian Institute of Science (IISc), University of Pennsylvania, and Massachusetts Institute of Technology (MIT) have discovered an ultra-low energy method to convert crystals into glass, using only one-billionth of the energy required by traditional techniques. Published in Nature, this breakthrough involves

Indium Selenide, a material with unique properties that enables solid-to-glass transformation through internal "self-shocks" when an electric current is applied. This process bypasses the need for high temperatures, making it a game-changer for phase-change memory (PCM) technology, which stores data without power and is used in cache memory and high-performance computing. The discovery has the potential to transform memory technology, offering faster write speeds, improved endurance, and greater energy efficiency, and paves the way for integrating these devices onto CMOS platforms.

- Researchers have found a new species of jumping spider on Baner Hill, yet again highlighting the region's rich biodiversity and the need to protect the city's natural landscapes.
- Recently, an 11-member expert committee has recommended urgent conservation and management for habitat improvement and prey base development before designating Rajasthan's Kumbhalgarh-Todgarh Raoli sanctuaries as a tiger reserve.
- The 2nd edition of the annual Indian Military Heritage Festival (IMHF) was held in New Delhi on November 8, 2024. The two-day festival aims to engage global and Indian think tanks, corporations, public and private sector undertakings, non-profits, academicians, and research scholars focusing on India's national security, foreign policy, military history and military heritage.
- The Bengaluru Traffic Police is launching ASTraM (Actionable Intelligence for Sustainable Traffic Management), a super-app designed to centralize real-time traffic updates and various services for Bengaluru commuters. ASTraM aims to simplify route planning, report traffic incidents, and streamline fine payments, all within a single platform. It features real-time congestion alerts, user reporting for traffic violations, and integration with existing services, such as Public Eye. Additionally, police-specific functionalities include digital traffic mapping and virtual scenario testing to improve traffic management. Complementary projects, like upgraded road safety measures, body-worn cameras, and signal reallocations, support the city's comprehensive traffic improvement plan, funded with ₹55 crore, with completion expected by January 2024.
- Kempegowda International Airport (KIA) has launched "Tiger Wings," an impressive vertical garden in Terminal 2 that merges modern infrastructure with nature, conceptualized by the distinguished botanist Patrick Blanc. Standing 30 feet tall and spanning 160 feet in width, this installation is Blanc's largest project in India, symbolizing KIA's commitment to integrating greenery within architectural spaces. With over 15,000 plants from 153 species, it emphasizes Karnataka's and the Western Ghats' botanical richness. Using specially designed felt layers for soilless growth and an advanced irrigation system to conserve water, "Tiger Wings" embodies sustainability while enhancing travelers' experiences with a nature-inspired aesthetic that celebrates the region's biodiversity.
- The zonal agricultural research center at VC Farm, Mandya, under the University of Agricultural Sciences-Bangalore, has successfully cultivated 11,290 paddy varieties, including unique local types like Karichippiga and Gowri Sanna, as well as varieties

from other states such as Ambemohar and Kalanamak. The research aims to analyze the characteristics and pest resistance of these diverse strains, preserving local varieties endangered by the Green Revolution's focus on high-yield crops. In collaboration with the National Bureau of Plant Genetic Resources (NBPGR) and supported by the Department of Biotechnology, this initiative seeks to conserve indigenous varieties, enhance disease resistance, and transfer beneficial traits to new varieties, contributing to biodiversity, sustainable agriculture, and the development of robust crops.

- Bengaluru's first digital population clock, located at the Institute for Social and Economic Change (ISEC), is designed to provide real-time population estimates for both Karnataka and India. Developed in partnership with the Union Ministry of Health and Family Welfare (MoHFW), the clock aims to raise awareness about population growth and its impact, offering reliable demographic data for researchers to aid in policy planning. Updating every one minute and 10 seconds for Karnataka and every two seconds for India, this clock uses satellite-based technology for accuracy and functions independently. A Census Data Research Workstation also accompanies the clock at ISEC, offering researchers access to comprehensive census data with advanced tools for demographic analysis, supporting evidence-based policy decisions. Similar population clocks have been established by MoHFW at 18 Population Research Centers across India, reinforcing the significance of understanding demographic shifts for sustainable development.
- In the recently released EdelGive-Hurun India Philanthropy List 2024 Shiv Nadar, founder of HCL Technologies, led the list of India's top philanthropists by donating Rs 2,153 crore in the fiscal year ending March 2024. The list ranks India's most generous philanthropists, with notable figures including Mukesh Ambani, who contributed Rs 407 crore personally and an additional Rs 900 crore through Reliance Industries' CSR, and Nandan Nilekani, who ranked sixth with Rs 307 crore, marking the highest incremental increase in donations. The 2024 list features a record 203 philanthropists, including 96 newcomers, with the total donations reaching Rs 8,783 crore—a 55% increase from two years prior. City-wise, Mumbai leads with 30% of the list's philanthropists, followed by New Delhi at 19%, and Bengaluru at 9%, including the notable philanthropists Nandan and Rohini Nilekani. This year's minimum donation to enter the top 10 doubled to Rs 154 crore, while 18 individuals donated over Rs 100 crore, highlighting India's growing culture of large-scale philanthropy.
- The Supreme Court of India has made a landmark decision, overturning a 1967 verdict that denied Aligarh Muslim University (AMU) its minority status. In a 4-3 majority ruling, the seven-judge Constitution bench, led by Chief Justice DY Chandrachud, declared that AMU retains its minority status under Article 30 of the Constitution. This decision allows AMU to implement reservation policies for Muslim students, potentially reserving up to 50% of seats. The court emphasized that the institution's founding purpose and historical significance as a Muslim institution justify its minority status, countering arguments that its substantial

federal funding disqualifies it . The ruling sets a precedent that could influence other educational institutions seeking minority status and promotes inclusivity and representation in education for all communities

- Sandhya S. Visweswariah, professor and ex-chair at the Indian Institute of Sciences (IISc), Department of Bioengineering, is the president-elect of the International Union of Biochemistry and Molecular Biology (IUBMB).
- The Tamil Nadu government has declared snakebite envenomation a notifiable disease under the Tamil Nadu Public Health Act, 1939, to tackle the public health challenge of snakebites. This life-threatening condition, caused by venomous snakebites, poses a significant risk to agricultural workers, children, and those in tropical and sub-tropical areas. Following the WHO's recognition of snakebite as a global public health issue and the Ministry of Health's National Action Plan, Tamil Nadu aims to halve snakebite deaths by 2030. By making snakebite a notifiable disease, the government seeks to improve data collection, strengthen clinical infrastructure, and enhance anti-snake venom distribution. Both government and private hospitals must now report snakebite cases and fatalities to the government, enabling better prevention strategies and reduced mortality rates.
- Chief of Defence Staff (CDS) General Anil Chauhan on Friday launched Project 'Shaurya Gatha', an initiative of the Department of Military Affairs and the United Service Institution (USI) of India, to conserve and promote India's military heritage. It was launched at the second edition of the annual Indian Military Heritage Festival organised by the USI. The two-day festival aims to engage global and Indian think tanks, corporations, public and private sector undertakings, non-profits, academicians, and research scholars focusing on India's national security, foreign policy, military history and heritage, a Defence Ministry statement said.
- India's Niti Aayog has surprisingly endorsed joining the China-backed Regional Comprehensive Economic Partnership (RCEP) trade bloc, despite the government's previous reservations. RCEP is a proposed agreement between ASEAN's 10 member states (Brunei, Cambodia, Indonesia, Malaysia, Myanmar, Singapore, Thailand, Philippines, Laos, Vietnam) and six FTA partners (China, Japan, South Korea, Australia, New Zealand). Launched in 2012 and effective since January 2022, RCEP aims to create an integrated market among 16 countries, facilitating trade in goods, services, investment, intellectual property, and e-commerce, with focuses on dispute settlement, SMEs, and economic cooperation.
- Recently, the Centre for Development of Telematics (C-DOT) and the Indian Institute of Technology-Roorkee (IIT-Roorkee) have signed an agreement under the Telecom Technology Development Fund (TTDF) scheme of the DoT with the development of a "millimeter wave transceiver for 5G rural connectivity". It refers to electromagnetic waves with frequency between 30-300 GHz and wavelength between 10 mm and 1 mm. Its frequency spectrum is used for wireless high-speed communications. It is also known as the extremely high frequency, or EHF, band by the International Telecommunication Union.

- Allulose, a low-calorie sugar substitute naturally found in foods like wheat, raisins, and figs, has gained popularity in South Korea as a testing ground. Also known as D-allulose or d-psicose, it's commercially produced from beet sugar or corn using enzymes. Seventy percent as sweet as sugar, allulose is almost calorie-free, making it ideal for those cutting sugar, including diabetics. However, high doses may cause nausea, diarrhea, and gastrointestinal symptoms. Approved by the US FDA as "generally recognized as safe" (GRAS), allulose is also cleared for use in Japan, Mexico, Singapore, and South Korea, offering a promising alternative for health-conscious consumers.
- Union Minister for Chemicals and Fertilizers Shri JP Nadda launches " Scheme for Strengthening the Medical Device Industry ". With a total outlay of 500 crores, the comprehensive scheme targets critical areas of the medical device industry covering manufacturing of key components and accessories, skill development, support for clinical studies, development of common infrastructure and industry promotion
- Chief of Defence Staff General Anil Chauhan inaugurated the 2nd edition of the Indian Military Heritage Festival (IMHF) in New Delhi, a two-day event held on November 8-9, 2024, aiming to engage global and Indian think tanks, corporations, and academia on national security, foreign policy, and military heritage. The festival also launched Project 'Shaurya Gatha', an initiative to conserve and promote India's military heritage through education and tourism. Notable publications were released, including "A History of the Indo-Pak Air War December 1971" and "Valour and Honour". The Defence Research and Development Organisation (DRDO) showcased its achievements in defence research through a photo exhibition. NCC Cadets and informative stalls from the three Services participated, highlighting opportunities for aspiring youth. The IMHF seeks to bridge the gap in national discourse on India's military heritage and security concerns, enhancing understanding of military traditions, contemporary security issues, and self-reliance in military capability.
- The 3rd edition of joint military Exercise AUSTRAHIND commenced at Foreign Training Node, Pune in Maharashtra today. The exercise will be conducted from 8th to 21st November 2024. Exercise AUSTRAHIND is an annual event conducted alternatively in India and Australia. Last edition of the same exercise was conducted in Australia in December 2023.
- Researchers at the Indian Institute of Science (IISc) in Bengaluru have developed an eco-friendly, biodegradable foam that disintegrates in landfills without contaminating groundwater, offering a sustainable alternative to traditional plastic foams. Led by professors Suryasarathi Bose and Subodh Kumar, the team created the foam from bio-based epoxy resins derived from non-edible oils and tea leaf-based hardeners, reducing reliance on fossil fuels and non-recyclable materials. This innovation addresses the significant environmental impact of traditional plastic foam production, which generates 308 kg of greenhouse gas emissions per 10,000 cups and contributes to growing landfill waste, with less than 1% of the 2.3

million tonnes produced annually being recycled. The Indian foam market is projected to grow from USD 7.9 billion in 2023 to USD 11.1 billion by 2032, and this biodegradable foam is poised to revolutionize the industry with its excellent compressive strength and sustainable properties.

- India has taken a significant step towards strengthening regional energy cooperation by signing an agreement to establish the BIMSTEC Energy Centre in Bengaluru . This move aims to promote energy cooperation, including inter-grid connectivity, among BIMSTEC member states, which include Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand. The centre will serve as a hub for energy information sharing, knowledge and technology transfer, and program and project coordination to promote sustainable energy development in the region . The BIMSTEC Energy Centre is expected to play a crucial role in achieving the organization's vision of promoting energy security and sustainability in the region. With India's Neighbourhood First Policy, Vision SAGAR, and Act East Policy guiding its commitment to BIMSTEC, the establishment of the energy centre is a significant milestone in regional cooperation
- At the World University Shooting Championship, Indian shooters excelled, with Palak Gulia and Amit Sharma securing mixed air pistol gold, defeating compatriots Sainyam and Samrat Rana 16-12. Neeru claimed silver in women's trap, narrowly losing to Zina Hrdlickova, while Kirti Gupta took bronze. Aishwary Pratap Singh Tomar won team gold in the 50-meter rifle 3-position event but settled for individual silver behind Jiri Privratsky. India dominated the medals table with four gold, five silver, and two bronze, maintaining its top position.
- A new species of mouse with a remarkably long tail, dubbed Otavalo's Andean mouse, has been discovered near a dormant volcano in Ecuador.
- Kerala tourism Ministry is launching a seaplane service meant to boost the tourism sector at Bolgatty Waterdrome in Kochi.
- The Labour Department of Karnataka is contemplating a proposal to introduce a six-day annual paid menstrual leave in the private sector. This proposal comes after the recommendations of an 18-member committee headed by Sapna Mohan, an associate dean at the School of Law, Christ University. The committee consulted with various groups and suggested not only the introduction of menstrual leave but also a Bill on the Right of Women to Menstrual Leave and Free Access to Menstrual Health Products. States like Bihar, Kerala, and Odisha have already introduced menstrual leave policies for government employees and students in universities. However, the proposal has faced criticism from management groups worried about its impact on workplace operations. To balance concerns, the committee recommended a six-day annual paid leave rather than one day per month. Furthermore, some members of the committee proposed renaming "menstrual leave" to "special leave" to reduce stigma. Globally, countries like Japan and Indonesia have menstrual leave policies, typically offering one-day leave per month, which is generally recognized as a reasonable accommodation for workers.

- KSRTC (Karnataka State Road Transport Corporation) plans to launch the Ashwamedha AC buses to cater to commuters traveling within a 100-km radius of Bengaluru. These buses aim to provide a more comfortable, reliable, and efficient alternative for daily travelers from towns like Ramanagara, Tumakuru, Kolar, Mandya, and Hosur, among others. Unlike the regular Ashwamedha buses, the AC versions will be more compact and maneuverable, with comfortable seating, air-conditioning, and charging ports to enhance the commuter experience. While the fares for these buses will be slightly higher than ordinary buses, the added comfort and convenience are expected to make the daily commute more enjoyable. The Ashwamedha bus series, which already operates with 750 buses across Karnataka, connects Bengaluru with district headquarters and major towns. The introduction of these AC buses is expected to reduce overcrowding, enhance service quality, and provide commuters with a healthier, more comfortable travel experience.
- The PyPIM Platform is an innovative computing solution developed by Israeli researchers that combines Python programming with Digital Processing-In-Memory (PIM) technology. This platform enables more efficient data processing by performing computations directly within the memory, eliminating the need to transfer data to the Central Processing Unit (CPU). By bypassing traditional memory-to-CPU data transfers, PyPIM reduces delays, inefficiencies, and energy consumption. It simplifies software development by using the widely accessible Python language, allowing developers to take full advantage of in-memory computations. This approach benefits energy-intensive applications and large-scale computing by reducing the CPU's workload, improving overall system efficiency, and speeding up data processing.
- France is currently evaluating India's Pinaka multi-barrel rocket system as a potential replacement for its outdated M270 Lance-Roquettes Unitaire systems, with a special mission traveling to India for assessment. The Pinaka system, which was showcased during India's 75th Republic Day parade, has attracted France's attention due to its impressive range and versatility. Armenia has already become the first international customer, and several other countries have expressed interest in acquiring it. The Indian Army currently operates four Pinaka regiments, with plans to expand to six more. The system's range is set to increase from 38 km to 75 km and eventually to 120 km and 300 km. The Pinaka system's key features include its varied ammunition options, such as guided extended-range rockets, and its ongoing development for even greater range. France and India also share a growing defense cooperation, exemplified by the Shakti bilateral army exercise, focusing on high-altitude warfare, and mutual concerns about global geopolitical issues, particularly regarding international law in regions like Lebanon.
- India is currently in advanced discussions with Oman, UAE, Saudi Arabia, Maldives, and Singapore to establish cross-border electricity transmission lines as part of the ambitious 'One Sun One World One Grid' (OSOWOG) initiative. This initiative was proposed by the Prime Minister of India at the First Assembly of the International

Solar Alliance (ISA) in October 2018, with the goal of creating a transnational electricity grid that supplies power globally, focusing primarily on renewable energy sources like solar. The initiative aims to connect regional grids across continents, allowing for cross-border renewable energy transfer, and to maximize the potential of solar and other renewable sources by utilizing areas where sunlight is abundant to supply regions in need. The grid is expected to cover around 140 countries, providing clean, cost-effective, and reliable energy, thereby supporting the global clean energy transition, enhancing energy security, and reducing dependence on fossil fuels.

- Supreme Court judge Justice Sanjiv Khanna was sworn in as the Chief Justice of India at a function in Rashtrapati Bhavan, New Delhi
- The High Court of Karnataka ordered the state government to form a 3-member committee to inspect and report on the ancient Allama Prabhu Swamy Temple in Belagavi district. The temple, built in the 17th-18th centuries, is submerged part of the year and requires relocation. The committee will assess its historical and religious significance under the Karnataka Ancient And Historical Monuments and Archeological Sites and Remains Act, 1961. For more details, try searching online for updates on this case.
- Aravindh Chithambaram made a stunning comeback to win the Chennai Grandmasters classical chess tournament, defeating Levon Aronian 2-0 in a blitz tie-break. Initially struggling, Aravindh drew all his games until the fifth round and was considered an unlikely champion. However, his victory over top seed Arjun Erigaisi in the sixth round boosted his momentum, and he went on to win against Parham Maghsoodloo in the final round. Tied with Arjun and Aronian at 4.5 points, Aravindh advanced to the final due to his superior tie-break record. After Aronian won the armageddon decider against Arjun, Aravindh clinched the title, marking his first classical super tournament victory in remarkable fashion. Meanwhile, V. Pranav secured the Challengers title by drawing with Leon Luke Mendonca in the final round.
- In a groundbreaking discovery for Indian entomology, researchers have identified a new species of aphid wasp, *Arpactophilus pulawskii*, in Nagaland's Khuzama district.
- 'Antariksha Abhyas – 2024', a three day Exercise to war-game the growing threats from and to Space Based Assets and Services, is being conducted by the Defence Space Agency of Headquarters Integrated Defence Staff from 11 - 13 Nov 24. Exercise Antariksha Abhyas is a first of its kind exercise being conducted and is expected to help secure national strategic objectives in space and integrate India's space capability in military operations.
- The Kadumalleshwara Geleyara Balaga is organizing its annual four-day Kadalekai Parishe (groundnut fair) in Malleswaram from November 15 to 18, promoting a plastic-free and farmer-friendly environment. To reduce waste, approximately 40,000 paper bags made by student volunteers and 6,000 cloth bags created from old saris will be distributed to vendors. The fair, rooted in folklore where groundnut

farmers worship Basava to protect their harvest from bull attacks, will feature farmers from Karnataka, Tamil Nadu, and Andhra Pradesh. This year's event coincides with the 200th "Hunnime Hadu" cultural program and precedes the historic Basavanagudi Kadalekai Parishe on November 25, showcasing the rich cultural heritage and traditions surrounding groundnut farming.

- The Government High Public School in Bashettihalli, Bengaluru Rural District, just received a fantastic boost to its science education capabilities thanks to Prayoga Institute of Education Research and Ajax Engineering. The two organizations teamed up to donate a science lab station to the school, which was inaugurated on Tuesday in the presence of Doddaballapur Block Education Officer Syeda Anisa and representatives from both organizations . This donation is part of Prayoga's larger initiative, Kriya, aimed at promoting hands-on science learning for students in grades 6-10, particularly in underserved communities. Kriya's goal is to transform schools into experiential learning centers, empower teachers, and increase student engagement in science through a multi-year partnership model . Impressively, Prayoga has already made a significant impact, reaching over 65 schools in Karnataka and benefiting 7,000 students . By providing access to quality science education, Prayoga is helping shape the next generation of innovators and thinkers.
- The Union government has sanctioned the formation of the Central Industrial Security Force's (CISF) first-ever all-women reserve battalion, comprising 1,025 personnel, to address the increasing responsibilities of securing airports and other critical installations. This exclusive women's unit, led by a senior commandant, will be created from within the CISF's authorized manpower of around two lakh personnel. Currently, the CISF operates 12 reserve battalions, which are deployed for reinforcement in both temporary assignments, like election security, and permanent roles, such as safeguarding critical facilities, including the recently assigned Parliament House complex. With significant female personnel already engaged in high-interaction roles at 68 civil airports, the Delhi Metro, and heritage sites like the Taj Mahal, the CISF's need for an all-women battalion was clear. Established in 1969, the CISF also provides counter-terrorism security at sensitive nuclear and aerospace facilities, underscoring its expanded role in national security.
- L. Shruthi defeated compatriot Keerath Bhandal 215-202 to win the women's World billiards championship title at Walsall (England).
- The Telecom Regulatory Authority of India recently hosted the South Asian Telecommunication Regulators' Council (SATRC) in Delhi, organized by the Asia Pacific Telecommunity (APT). APT is an intergovernmental organization founded in 1979 to promote Information and Communication Technology (ICT) development in the Asia-Pacific region, jointly initiated by the United Nations Economic and Social Commission for Asia and the Pacific and the International Telecommunication Union . With 38 members, 4 associate members, and over 140

affiliate members, APT plays a crucial role in coordinating ICT policies, regulations, and technical standards. Its key functions include fostering telecommunication services and information infrastructure development, hosting working groups and forums, and organizing capacity-building programs related to ICT topics . APT also prepares for international conferences like the ITU Plenipotentiary Conference and World Telecommunication Standardization Assemblies, and implements pilot projects to promote ICT development in the region. Additionally, APT provides sub-regional platforms to facilitate achieving common interests, making it a vital organization for ICT development in the Asia-Pacific region.

- India has begun its first-ever space exercise, 'Antariksha Abhyas - 2024', hosted by the Defence Space Agency in New Delhi. This three-day exercise, running from November 11-13, aims to war-game growing threats to and from space-based assets and services, integrating India's space capabilities into military operations to secure national strategic objectives . Chief of Defence Staff General Anil Chauhan emphasized India's rich legacy in space exploration and growing military capabilities, positioning the country well to navigate space-based challenges. The exercise involves participants from the Defence Space Agency, Army, Navy, Air Force, Defence Cyber Agency, Defence Intelligence Agency, and Strategic Forces Command, as well as representatives from ISRO and DRDO . Its objectives include understanding space-based assets, operational dependencies, and identifying vulnerabilities in space-based services disruptions. By fostering innovation and cutting-edge technologies, India seeks to secure national interests in the increasingly congested, contested, competitive, and commercial space domain
- Recently, researchers discovered a new species of the genus Dicliptera in the Northern Western Ghats of India and named it as Dicliptera polymorpha.
- On November 10, 2024, Union Minister of Power and Housing & Urban Affairs Shri Manohar Lal launched the 'EV as a Service' programme by Convergence Energy Services Limited (CESL) at Major Dhyan Chand National Stadium, a significant step towards promoting e-mobility in government sectors. The programme aims to deploy 5,000 electric cars (E-Cars) across government departments over the next two years, supporting India's goal of achieving net-zero emissions by 2070. Through a flexible procurement model, the programme will allow government offices to choose E-Cars that best suit their operational needs, contributing to reduced carbon emissions, decreased reliance on fossil fuels, and enhanced energy security. CESL, which has already deployed 2,000 E-Cars and is facilitating the deployment of 17,000 E-Buses, is committed to fostering sustainable mobility solutions. The event also featured an impressive EV rally with over 100 electric vehicles from various segments, showcasing the diversity of e-mobility options available in India, with participation from government officials, industry leaders, and EV enthusiasts.
- The University of Agricultural Sciences-Bengaluru (UAS-B) is hosting the Krishi Mela 2023 under the theme "Climate-Smart Digital Farming" from November 14 to 17

at the GKVK campus. The event focuses on showcasing innovative climate-resilient technologies and advancements in digital and mechanized farming. Key highlights include demonstrations of AI-based machinery, drones for coconut plucking, and digital farm equipment for enhancing efficiency and reducing labor. The event will feature live crop displays, farm machinery, and a special exhibition on renewable energy applications in agriculture. In addition, aquaculture, poultry, and high-nutrient crops will be part of interactive exhibits. The Centre for Innovation and Development in Smart Agriculture (CIDsA) will offer training and promote digital farming solutions. The Krishi Mela will also highlight new crop varieties, including maize, cowpea, sunflower, and bajra napier hybrids, designed for higher resilience and yield. Several awards will be presented to progressive farmers at state, district, and taluk levels for their innovations.

- The Inter-State Council, a constitutional body formed under Article 263 of the Indian Constitution in 1990, has been reconstituted with important updates to its leadership and composition. Prime Minister Narendra Modi has been appointed as the Chairman of the restructured council, which now includes nine Union ministers and the Chief Ministers of all Indian states. Key members of the council include political leaders such as Lalan Singh (JD(U)) and Chandrababu Naidu (RDP), while permanent invitees include HD Kumaraswamy (JD(S)), Jiten Manjhi (HAM), Chirag Paswan (LJP(RV)), along with 13 Union ministers. The Standing Committee of the council, which is headed by Union Home Minister Amit Shah, will facilitate continuous consultation on Centre-State matters, prepare issues for Council consideration, and monitor the implementation of its recommendations. The council aims to promote cooperative federalism, prevent and resolve interstate disputes, and provide a platform for states to voice concerns, though it faces challenges such as underutilization, lack of autonomy, non-binding recommendations, and limited civil society participation.
- A new study published in Nature Geosciences by researchers Andrew Jarvis and Piers Forster from Lancaster University, UK, reveals that human-induced climate change may have increased Earth's average temperature by about 1.5°C by the end of 2023, compared to pre-1700s levels. Key findings include a temperature rise of 1.49°C in 2023 and 1.53°C in October 2024, surpassing pre-industrial levels. This study aligns with the UN Climate Summit in Baku, Azerbaijan, where nations are striving to create a new climate finance mechanism to tackle climate change. The World Meteorological Organization (WMO) issued a red alert, warning that 2024 could be the warmest year on record, with the 2015-2024 decade likely being the hottest in history. To assess human-induced warming, the study used Antarctic ice core data from the last two millennia. Against the 1850–1900 baseline, the warming is slightly lower but is still approaching the critical 1.5°C limit. If current trends persist, the Paris Agreement's target of limiting global temperature rise to 1.5°C above pre-industrial levels may be breached within the next decade. Scientists stress the need for global cooperation, resilience building, and urgent

action to reduce warming and minimize the impacts of climate change, as the physics of climate change does not wait for geopolitics.

- Amazon has launched the Amazon Future Engineer Makerspace in Bengaluru, India, a free facility aimed at empowering over 4,000 underserved students with technological skills by 2025. Targeting students in grades 5 to 12, the initiative focuses on robotics, AI, 3D printing, and other advanced technologies. Partnered with The Innovation Story, it offers programs ranging from short beginner sessions to advanced multi-month courses, with equipment like 3D printers, power tools, and expert guidance from Amazon volunteers. The program aims to reduce the tech-literacy gap in India, particularly in underserved regions, and provide equal learning opportunities. Since its launch in 2021, the Amazon Future Engineer Program has reached 2.9 million students, with further expansion planned. The Makerspace will also support the vision of promoting digital equity through collaborations with state governments and non-profits, integrating computer science into curriculums and providing resources like the Code Mitra app and scholarships for girls. In addition, Amazon offers internships and scholarships for female students in tech, along with initiatives like the Computer Science Teaching Excellence Program in Maharashtra and support for marginalized communities in Karnataka.
- India's Defence Research and Development Organisation (DRDO) successfully conducted the maiden test of its long-range cruise missile at the Integrated Test Range in Chandipur, Odisha. This missile, once operational, will become the world's longest-range non-nuclear cruise missile, capable of striking targets 1,000 km away. The missile is an advanced version of the Nirbhay cruise missile and has been developed to be launched from both mobile ground launchers and ships with universal vertical launch modules. It has a payload capacity exceeding 450 kg. During the test, the missile followed a planned trajectory using waypoint navigation, demonstrating its ability to perform complex maneuvers at various altitudes and speeds. The test was deemed successful, with all subsystems meeting their objectives. The project was led by DRDO's Aeronautical Development Establishment in Bengaluru, with Bharat Dynamics Limited and Bharat Electronics Limited collaborating as development-cum-production partners. This test, approved four years ago, marks a major milestone in India's indigenous missile development program, which will contribute to strengthening the country's defence capabilities and future cruise missile projects.
- India has joined the global effort to build the world's most sensitive radio telescope, the Square Kilometre Array (SKA), which will explore the farthest corners of the universe, returning to an era close to the Big Bang. As a council member of the SKA Organisation, India's participation was announced in Pune, marking a significant milestone after over a decade of involvement by Indian astronomers. The SKA will be 50 times more sensitive than current instruments and survey the sky 10,000 times faster, comprising 197 dishes in South Africa and 130,000 low-frequency antennas in Western Australia. This mega collaboration

puts India ahead in the global scientific forum, according to Ajit Kumar Mohanty, Secretary of the Department of Atomic Energy. With 12 full members, including India, the SKA Organisation is expected to grow, and India's participation is supported by a Rs 1,250 crore approval from the Union Cabinet until 2031. Indian astronomers and engineers have made significant contributions to the project's design and development since 2012, including critical software elements. The project is jointly funded by the Department of Atomic Energy (DAE) and the Department of Science and Technology (DST).

- Visvesvaraya Industrial and Technological Museum (VITM), a unit of National Council of Science Museums, is hosting a two-day Southern India Science Drama Festival on November 14 and 15 at VITM on Kasturba Road.
- Karnataka is set to roll out e-khatas for all properties in gram panchayats and urban local bodies (ULBs) to prevent fictitious transactions using fake manual khatas. Ministers Krishna Byre Gowda, Priyank Kharge, and Rahim Khan have directed the Urban Development Department to implement e-khatas, following the model of Bruhat Bengaluru Mahanagara Palike, to simplify the khata procedure, especially for rural areas. This move aims to address the issue of numerous residential and commercial properties lacking khatas in municipalities and corporations. Obtaining e-khatas will enable property owners to register sales subsequently. As Revenue Minister Gowda emphasized, khatas are legally required for all property types, and court directives have mandated e-khata-based registrations. The Urban Development Department has been instructed to expedite e-khata issuance and integrate MUDA with e-Aasthi for streamlined processing.
- Karnataka is poised to become India's first state to designate a DGP-rank officer specifically for cybercrime oversight, reinforcing its role as a pioneer in cybercrime management since establishing India's first cybercrime police station in the early 2000s. Currently, Karnataka's police structure includes four DGP roles overseeing the state police chief, CID, Fire and Emergency Services, and Prisons and Correctional Services. This new, fifth DGP role will lead the Cyber Economics and Narcotics (CEN) wing, recently approved by the state government, to address the surge in cybercrime, such as fake news, harassment, and data theft, which has led to significant financial losses—Bengaluru alone saw Rs 1,242.7 crore lost in cyber-related incidents within the first eight months of 2023. The CEN wing will operate independently, reporting directly to the new DGP, with a structured hierarchy involving an ADGP, IGP, and seven SPs managing investigations across seven regions. This separation from CID reflects the government's focus on enhancing coordination and investigative efficiency, anticipating future cybercrime trends, and strengthening communication with other states. Additionally, Karnataka is developing a cybercrime database and new investigative techniques to proactively counter cyber threats.
- The State government has launched the distribution of APAAR IDs, a unique 12-digit identifier for schoolchildren, as part of the "One Nation, One Student ID" initiative, aiming to provide a lifelong identifier similar to Aadhaar to streamline

academic and administrative processes. Designed to align with the National Education Policy (NEP) and the National Credit and Qualifications Framework (NCqF), APAAR IDs aim to standardize student identification across government, aided, and private schools, integrating with DigiLocker for secure storage of academic records, exam results, holistic report cards, and extracurricular achievements, as well as supporting national testing, admissions, scholarships, and benefits. Despite the State's objections to the NEP, APAAR adoption is proceeding, generating debate among educationists. Critics argue that adopting APAAR contradicts Karnataka's State Education Policy (SEP) and might infringe on student privacy, viewing it as a federal attempt to centralize control over education, which falls under the Concurrent List. Additionally, some question the necessity of APAAR, as Karnataka already has the Student Achievement Tracking System (SATS), soon to be upgraded to SATS 2.0.

- The Karnataka State government has appointed H.N. Nagamohan Das, a retired Karnataka High Court judge, to lead a commission of inquiry into implementing internal reservations for Scheduled Caste (SC) communities in Karnataka. This commission is tasked with recommending an approach to fairly distribute reservations among SC sub-communities within two months. It will gather empirical data on the representation of different SC sub-communities in public education and employment. Previously, Mr. Das headed a commission that successfully recommended increasing SC reservation from 15% to 17% and ST reservation from 3% to 7%. He is also involved in the investigation of "40% commission" allegations linked to the previous BJP administration. The internal reservation demand stems from significant pressure by Dalit groups, with the Dalit Left faction arguing that Dalit Right communities disproportionately benefit from the current 17% SC reservation. Historically, the A.J. Sadashiva Commission's 2012 report recommended a structured sub-reservation matrix within the SC quota to address disparities between Dalit Left and Dalit Right communities, identifying groups like Lambanis, Bhovis, Koracha, and Koramas as distinct sub-communities in need of equitable representation.
- India's armed forces are conducting Poorvi Prahar, a significant tri-service military exercise in the forward areas of Arunachal Pradesh near the Line of Actual Control (LAC), to enhance defense readiness and operational efficiency across the Army, Navy, and Air Force. Held amid ongoing tensions along the LAC, particularly in eastern Ladakh, this exercise, running from November 10 to 18, aims to boost India's preparedness for joint operations on land, air, and sea. The exercise includes the deployment of advanced weaponry, such as the M-777 howitzers in mountainous eastern sectors, and integration of next-generation technologies like swarm drones, loitering munitions, and First-Person-View (FPV) drones for situational awareness and precision targeting. Rafale fighter jets from Hasimara Air Station provide air superiority, while Chinook and Rudra helicopters enhance troop mobility and logistical support. Poorvi Prahar also trials real-time data-sharing using satellite communication and AI-driven analytics, working towards a unified

command system that coordinates efforts across all service branches for a cohesive operational picture. This exercise underscores India's focus on future-ready military operations, technological innovation, and the establishment of joint command structures to streamline inter-service coordination, thereby improving defense capabilities and rapid response effectiveness.

- Prime Minister Narendra Modi is set to receive the Dominica Award of Honour, the highest national award of the Commonwealth of Dominica, for his outstanding contributions to the country during the COVID-19 pandemic and his dedication to strengthening ties between India and Dominica. This prestigious award will be conferred upon him by President Sylvanie Burton at the upcoming India-CARICOM Summit in Guyana, scheduled from November 19 to 21. Specifically, Modi's generosity in providing 70,000 doses of the AstraZeneca Covid vaccine to Dominica in February 2021, enabled the country to extend support to its Caribbean neighbours, showcasing his commitment to global cooperation
- Karnataka has witnessed an 18.2% increase in the number of start-ups, rising from 2,568 in 2022 to 3,036 in 2023. This growth has propelled Karnataka to the forefront, now housing 8.7% of India's total start-ups, the highest percentage for any State. Karnataka's supportive ecosystem, he wrote, was driven by policy innovation and strategic initiatives. The State also was a preferred launchpad for new ventures, fostering a thriving start-up landscape and reinforcing its reputation as a hub of innovation and opportunity
- The Defence Research and Development Organisation (DRDO) announced the successful completion of flight tests of guided Pinaka multi-barrel rocket (MBRL) system as part of Provisional Staff Qualitative Requirements (PSQR) validation trials paving the way for its induction. This enhances the range of the Pinaka to over 75 km. The flight tests have been conducted in three phases at different field firing ranges.
- Botanists recently discovered a new species of flowering plant 'Crinum andhricum' in the Eastern Ghats of Andhra Pradesh.
- The Indian Navy is set to conduct the fourth edition of the 'Pan-India' Coastal Defence Exercise 'Sea Vigil-24' on 20 & 21 Nov 24. It is the National Level Coastal Defence Exercise conceptualized in 2018 to validate various measures that have been instituted towards enhancing maritime security since '26/11'. The concept of 'Sea Vigil' is to activate the Coastal Security apparatus across India and assess the overarching Coastal Defence mechanism.
- In Geelong, Australia, people are flocking to witness the rare blooming of the Amorphophallus Titanum, or Titan Arum, also known as the Corpse Flower. This endangered species, native to Sumatra's rainforests, blooms once a decade for just 24-48 hours, emitting a rotting flesh stench to attract carnivorous bees and flies. Reaching 10 ft tall, its unique appearance features a pale yellowish spadix surrounded by a dark red, waxy spathe, mimicking uncooked meat. First described by Italian botanist Odoardo Beccari in 1878, this rare event offers a glimpse into the natural world's fascinating diversity.

- The third regional event of the year-long celebration, 'Hamara Samvidhan Hamara Samman' campaign is being organized under the aegis of Designing Innovative solutions for Holistic Access to Justice (DISHA), a Central Sector Scheme which is being implemented by Department of Justice under Access to Justice division, Ministry of Law and Justice, Government of India.
- DARPG in collaboration with IAS will host the IAS-DARPG India Conference, 2025 at Bharat Mandapam in New Delhi from February 10-14, 2025. The IAS Annual Conference is the flagship event of the IAS body. It is organized every year in different regions of the world. The theme of the conference is "Next Generation Administrative Reforms – Empowering Citizens and Reaching the Last Mile."
- Operation Dronagiri, a pilot project under India's National Geospatial Policy 2022, was launched on November 13, 2024, by Professor Abhay Karandikar, Secretary of the Department of Science and Technology. This initiative aims to showcase the potential of geospatial technologies in improving citizens' quality of life and ease of doing business. Initially, Operation Dronagiri will be implemented in Uttar Pradesh, Haryana, Assam, Andhra Pradesh, and Maharashtra, focusing on agriculture, livelihoods, logistics, and transport. The project gains momentum with the Integrated Geospatial Data Sharing Interface (GDI), facilitating seamless data sharing, access, and analysis for urban planning, environmental monitoring, and disaster management. GDI's advanced features empower organizations to make data-driven decisions, fostering innovation and responsible geospatial data use. A nationwide rollout is envisioned under a public-private partnership model, with industry engagement playing a pivotal role. Operation Dronagiri represents a crucial step in positioning India as a global geospatial technology leader, emphasizing the private sector and startups' role in making geospatial data accessible and impactful.
- Australia has introduced the Mobility Arrangement for Talented Early-professionals Scheme (MATES) for Indian university graduates and early-career professionals, allowing them to work in Australia for two years without employer sponsorship. Eligible candidates must be 30 or younger, have proficient English skills, and hold a Bachelor's degree or higher from one of India's top 100 universities (as per NIRF ranking 2024) in fields like renewable energy, engineering, ICT, AI, FinTech, and AgriTech. MATES participants can live and work in Australia for up to two years, bring dependents, and have multiple entries. The program commences as a pilot with 3,000 places annually, with visa grants determined through a random ballot system (AUD 25 application fee). Successful candidates can extend their stay by applying for other visas.
- The Union government has reintroduced the Armed Forces (Special Powers) Act (AFSPA) in six areas across five districts of Manipur due to escalating violence, with over 200 fatalities and thousands displaced since May last year. Originating in 1947 during British rule, AFSPA was introduced to suppress uprisings and later became a formal law in 1958, enforced in the Northeast region. The Act gives sweeping powers to the armed forces and Central police in "disturbed areas," allowing them

to use force, arrest without warrants, and providing legal immunity for their actions. However, the law has faced significant controversy, particularly for its human rights implications, including accusations of fake encounters and abuse, leading to calls for its repeal, though these have not been acted upon.

- Prime Minister Narendra Modi will launch a commemorative stamp and coin on November 15, marking the 150th birth anniversary of Birsa Munda, a tribal icon and freedom fighter. This date was designated as Janjatiya Gaurav Divas by the Centre in 2021 to honor Munda's contributions and those of India's tribal communities. The day celebrates the vital role of tribal communities in preserving cultural heritage and promoting Indian values such as pride, bravery, and hospitality. Modi is also set to inaugurate and lay the foundation for multiple tribal welfare projects, valued at over ₹6,640 crore, aimed at improving tribal welfare. Birsa Munda, born in 1875, led the Sardari Larai movement to restore tribal land rights and opposed British colonial rule. His efforts culminated in the Chotanagpur Tenancy Act of 1908, which protected tribal lands from exploitation. Revered as a healer and preacher, he founded the Birsait religious movement, which advocated monotheism and a return to traditional beliefs, ultimately leading the Munda Rebellion against feudal oppression.
- The Infosys Science Foundation (ISF) recently announced the winners of the Infosys Prize 2024, recognizing six young researchers under 40 for their groundbreaking work in various fields. The prize categories include Economics, Engineering and Computer Science, Humanities and Social Sciences, Life Sciences, Mathematical Sciences, and Physical Sciences. Each winner receives a gold medal, a citation, and a prize of USD 100,000 (or equivalent in INR). This year, the ISF focused on early-career researchers, highlighting their potential for paradigm-shifting discoveries. Notable awardees include Arun Chandrasekhar for his work in social and economic networks, Shyam Gollakota for innovations in healthcare and technology, Mahmood Kooria for his research on maritime Islam and Kerala history, Siddhesh Kamat for his contributions to lipid biology, Neena Gupta for solving the Zariski Cancellation Problem, and Vedika Khemani for her work in non-equilibrium quantum matter.
- India's sports market is projected to experience significant growth, with its current market size estimated at \$52 billion in 2023 and expected to more than double to \$130 billion by 2030. This growth will be driven by increased government investments and a rising multi-sports culture. The compound annual growth rate (CAGR) of 14% is expected to outpace India's GDP growth, with the sports sector anticipated to grow faster than sectors like automobiles and tourism. Growth began 15 years ago, largely due to the Indian Premier League (IPL), and the market's future potential remains high due to mainstream popularity and investment interest. The sports market can be segmented into core sub-sectors like sporting goods, broadcasting, fantasy sports, technology, infrastructure, and services, which are projected to grow from \$31 billion in 2023 to \$71 billion by

2030. Allied sub-sectors like sports tourism, wearables, and fitness centers are expected to rise from \$21 billion to \$59 billion by 2030. Key drivers of growth include multi-sport fandom, digital platforms, and Gen Z's engagement with sports. The sector is also projected to create 10.5 million jobs by 2030 and generate \$21 billion in indirect tax revenue, contributing to economic and social development through grassroots initiatives and infrastructure expansion.

- The World Intellectual Property Organization (WIPO) released the 2024 World Intellectual Property Indicators (WIPI) report, detailing global trends in intellectual property (IP) filings, with a focus on patent, trademark, and industrial design applications. India has emerged as a major player in IP filings, securing a spot in the global top 10 for patents, trademarks, and industrial designs. In 2023, India saw the fastest growth in patent applications among the top 20 economies, with a 15.7% increase, marking its fifth consecutive year of double-digit growth. India ranks 6th globally in patent applications, with over 64,000 filed, and for the first time, over 50% of patent filings came from residents. Industrial design applications in India rose by 36.4%, with textiles, tools, and health sectors leading in filings. India also ranked 4th globally in trademark applications, with 90% filed by residents, and holds the second-largest number of active trademarks worldwide. On a global scale, patent applications reached a record 3.55 million in 2023, driven by leading economies like China, the United States, Japan, South Korea, and India.
- British writer Samantha Harvey won the Booker Prize 2024 for fiction with her novel *Orbital*, a short, wonder-filled story set aboard the International Space Station. Described as a "space pastoral," the novel follows six astronauts orbiting Earth, reflecting on their experiences over the course of 16 sunrises and sunsets. Written during the COVID-19 pandemic lockdown, *Orbital* touches on themes of isolation and the fragile beauty of Earth. At just 136 pages, it is one of the shortest-ever Booker-winning novels. Harvey, who received £50,000 for the award, is the first British author to win the Booker Prize since 2020. The 2024 Booker Prize shortlist also featured a record number of five women, emphasizing a focus on the quality of the novels, regardless of gender or nationality. Other notable finalists included *James* by Percival Everett (USA), *Creation Lake* by Rachel Kushner (USA), *Held* by Anne Michaels (Canada), *Stone Yard Devotional* by Charlotte Wood (Australia), and *The Safekeep* by Yael van der Wouden (Netherlands). The Booker Prize, established in 1969, honors novels originally written in English and published in the UK or Ireland, with last year's winner being Paul Lynch's *Prophet Song*.
- The George Cross medal awarded to British Indian spy and descendant of Tipu Sultan, Noor Inayat Khan, for her "most conspicuous courage" will go on display at the Royal Air Force (RAF) Museum at Colindale in north-west London
- As part of the three-day 14th Annual Convocation, the Jain (Deemed-to-be University) (JDU) on Friday, conferred Honoris Causa, (honorary doctorate) on Arun Yogiraj, sculptor of the Ram Lalla idol.

- BEML Limited has been honoured with awards in multiple categories at the 18th Global Communications Conclave and the 14th Public Relations Council of India (PRCI) Excellence awards
- The Bruhat Bengaluru Mahanagara Palike (BBMP) is all set to launch a new portal for property owners who have never obtained a khata in the city to apply for fresh e-khatas. The civic body estimates that there are around five lakh such properties without a khata. The BBMP recently launched a website, www.bbmpeaasthi.karnataka.gov.in, to digitally procure e-khata for properties that already have a khata. For this, the Revenue Department digitised 22 lakh properties. So far, six lakh drafts of e-Khatas have been downloaded by property owners. The BBMP has already started approving final e-khatas.
- The Solomon Islands, a southwestern Pacific Ocean archipelago consisting of nearly 1,000 islands (six main and over 900 smaller islands, with 147 inhabited), is home to the world's largest coral colony, recently discovered by researchers. The islands, covering 28,446 sq km of landmass within a 461,000 sq km area, are mainly mountainous and forested with some plains. A parliamentary democracy within the Commonwealth, the Solomon Islands gained independence as a republic in 1978, with Honiara as its capital on Guadalcanal, the largest island. The population comprises Melanesian (93%), Polynesian (4%), Micronesian (1.5%), and other (1.5%) ethnic groups, speaking English officially and around 120 vernacular languages, including Solomon Islands pidgin.
- Union Minister for Youth Affairs & Sports has launched a nationwide appeal to strengthen the fight against doping in sports, urging athletes, coaches, and the entire sporting community to embrace the National Anti-Doping Agency (NADA) India's 'Know Your Medicine (KYM)' app.
- The Scientifically Validated Traditional Knowledge (SVASTIK) initiative, coordinated by CSIR-National Institute of Science Communication and Policy Research (NIScPR), aims to preserve and promote India's traditional knowledge and practices by verifying them scientifically. Launched to communicate validated traditional knowledge to society, SVASTIK has partnered with research organizations, institutions, experts, and NGOs to document and disseminate content. Through social media, NIScPR has shared engaging SVASTIK stories in 17 Indian languages, and its publications provide authenticated stories on traditional knowledge, inspiring young students to explore science, thereby boosting public faith in India's traditional heritage.
- The 12th India Inclusion Summit (IIS), an annual event focused on raising awareness about people with disabilities and fostering an inclusive society, took place in Bangalore
- India and Nigeria have agreed to boost bilateral defense cooperation and combat radicalization and terrorism together. This development came after Prime Minister Narendra Modi met with President Bola Ahmed Tinubu in Abuja . During the meeting, Tinubu conferred Nigeria's national award, "Grand Commander of the Order of Niger," on Modi, who dedicated the honor to the people of India and the

historic friendship between the two nations. They also witnessed the signing of three Memoranda of Understanding (MoUs) on cultural exchange, customs cooperation, and survey cooperation. Modi offered India's expertise in agriculture, transportation, affordable medicine, renewable energy, and digital transformation to Nigeria. Nigeria appreciated India's development cooperation partnership, which has created local capacities, skills, and professional expertise. The leaders reaffirmed their commitment to jointly fighting terrorism, piracy, and radicalization, and agreed to work together to meet the development aspirations of the Global South. This visit marks a significant step forward in the strategic partnership between India and Nigeria, with Modi being the first foreign recipient of the "Grand Commander of the Order of Niger" award since 1969 after Queen Elizabeth

- The Indian government is planning to introduce a new law regarding MPs holding office of profit, repealing the 65-year-old Parliament (Prevention of Disqualification) Act, 1959. The draft 'Parliament (Prevention of Disqualification) Bill, 2024' aims to rationalize Section 3, remove the negative list of offices that would incur disqualification, and resolve conflicts with other statutes. This bill is prepared based on recommendations by the Joint Committee on Offices of Profit, headed by Kalraj Mishra in the 16th Lok Sabha. The proposed reforms aim to rationalize Section 3 by updating the existing law to align with present-day requirements, eliminate the Negative List to remove disqualification-inducing offices, resolve statutory conflicts by addressing inconsistencies between the existing Act and other statutes, and omit temporary suspension provisions, empowering the Centre to amend the schedule through notifications for streamlined governance.
- The Chennanoor excavation site in Tamil Nadu's Krishnagiri district has emerged as a significant discovery in Tamil civilisation, uncovering evidence of habitation spanning the Microlithic Age to the Early Historic Period. This marks a breakthrough in understanding the Neolithic Age (9000 BC-3000 BC), bridging gaps between the Microlithic (9000 BC-4000 BC) and Iron Ages (1200 BC-600 BC). Since June, archaeologists have unearthed 327 artefacts across 10 trenches, including tools, terracotta seals, handcrafted pottery, stone axes, and iron implements, revealing four distinct cultural sequences stratigraphically—a rare find. With evidence of continuous habitation and transitions from hunting to settled life, the findings reinforce the region's historical significance, complementing earlier discoveries like the 4,200-year-old iron technology at Mayiladumparai in Krishnagiri.
- India's first K-12 School of Innovation, Creativity, and Design, Ekya Nava, was inaugurated in Bengaluru on Sunday during the FIND festival, Ekya School's flagship celebration event. The school aims to nurture a problem-solving mindset through experiential learning and community involvement. The inauguration featured a design-thinking challenge, learning showcases, interactive workshops, and panel

discussions, alongside the launch of Prompting the Future: AI for Transformative Teaching by the Ekya Professional Development Institute.

- Recently, the Prime Minister inaugurated the 1st Bodoland Mahotsav in New Delhi, a significant event aimed at promoting peace and fostering a vibrant Bodo society. With the theme 'Peace and Harmony for Prosperous Bharat', the Mahotsav celebrates the rich cultural, linguistic, and educational heritage of the Bodo community and other communities in the Bodoland Territorial Region (BTR). It highlights the region's ecological biodiversity, linguistic diversity, and touristic potential while reflecting on the resilience achieved since the 2020 Bodo Peace Accord. The Bodos, one of Assam's earliest known ethnic groups, belong to the Mongoloid stock and are speakers of Tibeto-Burman languages. They are known as Bodos or Boros in the Brahmaputra Valley and as Meches in Lower Assam, West Bengal, and Nepal.
- The Red-Headed Vulture, also known as the Asian King Vulture or Pondicherry Vulture, was recently sighted for the first time at Manhampothikunnu near Mavungal in Kasaragod, Kerala. This vulture is one of the nine species found in India and is characterized by its dark, medium-sized body, bare reddish head, and loose flaps on the side of the neck. Weighing around 5 kg and measuring over 80 cm in length, it is primarily solitary, often seen alone or with a mate. Its black plumage is marked by a distinctive white patch on the abdomen, which becomes more prominent during flight. The Red-Headed Vulture is typically found in Central India, Nepal, Myanmar, Thailand, Vietnam, and parts of Kerala, Karnataka, and Tamil Nadu. Breeding occurs between November and January. However, the species is critically endangered, listed on the IUCN Red List, and is protected under Schedule 1 of the Wildlife Protection Act of 1972. The vulture's population has drastically reduced in India due to diclofenac poisoning, which has had a severe impact on its numbers.
- The Tamil Nadu Forest Department is experimenting with the removal of a potential new species of invasive plant *Senna tora* that has begun emerging in parts of the Mudumalai Tiger Reserve (MTR). 2014
- Tamil Nadu Forest Department staff, along with members of a non-governmental organization, recently rescued a rare peacock with white feathers, a result of a genetic condition called leucism. Leucism is an abnormal condition of reduced pigmentation that affects various animals, including birds, mammals, and reptiles, leading to overall pale coloring or patches of reduced color. This condition is caused by a genetic mutation that inhibits the deposition of melanin and other pigments in feathers, hair, or skin. In birds, leucism specifically affects the feathers, causing them to lack the typical plumage colors. As a result, affected birds may have white patches where feathers should be, or their entire plumage may appear pale or bleached out.
- The AI-enabled e-Tarang System, recently launched by the Ministry of Defence, is a cutting-edge software developed in collaboration with the Bhaskaracharya National Institute for Space Applications and Geo-informatics (BISAG-N). Designed

to enhance the planning and management of Defence Spectrum, this system aims to ensure the interference-free operation of defence equipment during both wartime and peacetime. By automating the process, it enables more efficient planning, supporting the development of new technologies in higher frequency bands. The system is also poised to facilitate rapid decision-making, ensuring the seamless integration of advanced technologies critical for modern defence applications.

- Ahuna, a post-harvest festival of the Sumi Naga tribe, was recently celebrated with a spirit of oneness.
- The Karnataka state government plans to expand the Diabetic Foot Care Initiative through D-PoC, aiming to address diabetic foot-related conditions such as diabetic peripheral neuropathy (detected in 82% of patients), peripheral arterial disease (12%), and diabetic foot ulcers (33%). The D-PoC system includes interconnected devices that work together to assess foot pressure, neuropathy, and blood flow, creating digital twins of patients' feet to track disease progression and provide predictive podiatry insights. The system's future expansion is being supported by collaborations with the state health department and private foundations, and the initiative will be reviewed by a technical committee before full implementation.
- The Karnataka Transport Department is set to introduce advanced smart cards for Driving Licences (DLs) and Registration Certificates (RCs) by January or February 2025, replacing the current PVC cards, which suffer from durability issues like fading and damage over time. The new smart cards will feature embedded chips for secure data storage, QR codes for instant access to cardholder details, and laser-engraved information to prevent tampering. Made of durable polycarbonate, these cards will provide enhanced security, quick data retrieval, and a streamlined user experience, especially in traffic, theft, or accident-related cases. With centralised printing in Bengaluru, the new cards will ensure uniform quality and timely distribution across Karnataka, following the example of states like Tamil Nadu, Chhattisgarh, and Himachal Pradesh that have already implemented similar smart card systems.
- The Partnerships for Accelerated Innovation and Research (PAIR) initiative, launched by the Anusandhan National Research Foundation (ANRF), aims to enhance research capabilities in India's central and state public universities by fostering collaboration between institutions. It encourages scientific innovation, supports internationally competitive research, builds collaborative networks, advances research infrastructure, and aligns with the National Education Policy (NEP) 2020. Following a hub-and-spoke model, top-tier institutions (hub) mentor emerging institutions (spoke) like public universities, NITs, and IIITs, focusing on improving research quality and infrastructure. Initially, the top 25 institutions in the NIRF ranking and Institutions of National Importance (within the top 50) serve as hubs, mentoring up to seven spoke institutions each, with plans to expand in future phases. The ANRF, established under the ANRF 2023 Act, provides strategic direction for scientific research and fosters collaboration among academia,

industry, and government bodies, taking over the functions of the Science and Engineering Research Board (SERB).

- India's Defence Research and Development Organisation (DRDO) successfully flight-tested a long-range hypersonic missile on November 17, 2024, off the Odisha coast, making India one of the few nations with hypersonic capabilities. The missile, with a range of over 1,500 km and capable of carrying various payloads, was developed indigenously in collaboration with DRDO labs and industry partners. Hypersonic missiles, traveling at speeds exceeding Mach 5 and offering enhanced maneuverability, pose strategic advantages such as increased strike capabilities and difficulty in detection but face challenges like heat generation, operational complexities, and high development costs. Globally, nations like Russia, China, and the US lead in hypersonic technologies, while India's successful test strengthens its defense infrastructure and positions it prominently on the global stage.
- Dementia India Alliance hosts "Dementia Tech Thinkathon 2024" on Nov 30 at IISc, Bengaluru, seeking innovative tech solutions to enhance quality of life for dementia patients and caregivers, with prize money over ₹2.5 lakh.
- Tyavarekoppa zoo-cum-safari near Shivamogga has welcomed its first-ever critically endangered gharials, with one male and one female brought from Thiruvananthapuram zoological park in Kerala. Under the animal exchange program, the zoo has also acquired lesser rheas, Sun Conures, an Indian Crested Porcupine, and a striped hyena. Notably, the gharial is more endangered than the tiger, and the zoo's executive director, Amarakshara M V, emphasizes its significance for education on wild animal conservation. The gharials, measuring four and three meters in length, are of breedable age, sparking hopes for captive breeding. In exchange, the Shivamogga zoo has given the Thiruvananthapuram zoo a Marsh Crocodile, striped-hyenas, Indian Golden Jackal, and Asian Palm Civet. The new additions are expected to be a major attraction, with enclosures already constructed and the gharials now in their specially created pond.
- Vyasankere Prabhanjanacharya, a renowned Sanskrit scholar from Ballari, has been selected for the esteemed 'Kanakashri' award this year, as announced by Minister Shivaraj Tangadagi. This prestigious honor is part of the Saint Kanakadasa Jayanti celebrations, and Prabhanjanacharya will receive the award from Chief Minister Siddaramaiah at Ravindra Kalakshetra in Bengaluru. The award includes a cash prize of Rs. 5 lakh, a bust of Kanakadasa, and a citation. Prabhanjanacharya is known for his expertise in the Dvaita school of philosophy and has written extensively on Veda, Upanishads, Ramayana, Mahabharata, and Bhagavata. His notable works include critically editing Sarvamula Granthas, a collection of Sri Madhvacharya's works, and publishing numerous books on Indian philosophy and Sanskrit. This recognition adds to his impressive list of accolades, including the President's award of Certificate of Honour in 2005 and the Rajyotsava Award in 2002. The award carries a cash prize of Rs. 5 lakh, a bust of Kanakadasa and a citation.

- Prime Minister Narendra Modi announced India's support for Brazil's initiative to launch a global alliance against hunger and poverty at the G20 summit in Rio de Janeiro, emphasizing that countries of the Global South have been hardest hit by conflicts and the food, fuel, and fertilizer crisis. Modi highlighted India's successes, including lifting 250 million people out of poverty in the last decade, and stressed the importance of considering the challenges and priorities of the Global South in discussions. The Global Alliance against Hunger and Poverty, proposed by Brazil's President Luiz Inácio Lula da Silva, aims to raise resources and knowledge for effective public policies and social technologies to reduce hunger and poverty worldwide. Notably, all G20 leaders supported the initiative, except Argentina's President Javier Milei. Modi also reiterated India's advocacy for the Global South, highlighting the impacts of global conflicts and the need to reform institutions of global governance
- India's Global Capability Centers (GCCs) are projected to reach \$100 billion and employ 2.5 million professionals by 2030, according to a study by Inductus, with 90% of GCCs operating as multi-functional entities handling tech, operations, and product engineering services. Currently, India hosts 1,700 GCCs generating \$64.6 billion in revenue and employing 1.9 million professionals. Engineering, R&D-focused GCCs are growing 1.3 times faster, with 70% of mid-sized corporations viewing Indian GCCs as crucial for strategic innovation. By 2026, 70% of GCCs will integrate advanced AI capabilities, and 80% plan to invest in cybersecurity training and AI-driven threat detection. India's skilled labor and lower operational costs (30-40% lower than Latin America and Eastern Europe) drive GCC growth.
- The Indian Institute of Management Bangalore (IIMB) launched its second "International Symposium on Financial Inclusion, Digital Innovation, and Sustainability," a two-day event bringing together industry leaders, policymakers, and academics to explore fintech innovations for underserved communities. Rajesh Bansal, CEO of RBI Innovation Hub, highlighted India's progress in financial inclusion through digital innovation, citing Aadhaar, AEPS, JAM (Jan Dhan-Aadhaar-mobile), UPI, and ULIP as key drivers. The event featured panel discussions on digitalization, financial inclusion, and sustainable business models, with experts sharing insights on revolutionizing access to financial services for marginalized populations.
- Omkar Salvi has been appointed the bowling coach of the Royal Challengers Bengaluru men's team, the franchise announced
- Telangana's new Electric Vehicles policy, launched on November 17, aims to reduce air pollution and promote environmental sustainability, particularly in and around Hyderabad. The policy was motivated by concerns over pollution levels, with Hyderabad's air quality index recorded at 123, significantly better than New Delhi's 494. To encourage EV adoption, the policy offers 100% exemption from road tax and registration fees for EVs until December 31, 2026, with no cap on eligible vehicles.

- The **Cao Bang crocodile newt** (*Tylototriton koliaensis*), a newly discovered species of crocodile newt, was found in Vietnam's mountainous regions at elevations above 3,300 feet. Adapted to a fluctuating climate with a colder dry season and a warmer rainy season, this medium-sized newt measures about 5 inches in length. It features a stout body with rough, knob-like skin, a large head, and long, slender limbs. The newt's striking appearance includes a completely black body with bright orange markings on its toes, fingertips, and a central tail stripe, while its underside is dark gray. Breeding occurs during the rainy summer in slow-flowing streams or temporary pools, while winter months see the newts hiding under rocks or in cavities. Crocodile newts, a genus of salamanders found in Asia, are so named for their rough, crocodile-like skin, with species such as the Himalayan crocodile newt (*Tylototriton verrucosus*) and Emperor newt (*Tylototriton shanjing*) sharing this characteristic.
- A team of researchers recently discovered a glowing "mystery mollusk" named *Bathydevius Caudactylus* within the ocean's midnight zone.
- Recently, twenty-four coastal villages in Odisha were recognized as 'Tsunami Ready' by the Intergovernmental Oceanographic Commission (IOC) of UNESCO under its international community-based recognition program. The Tsunami Ready Recognition Programme aims to build resilient coastal communities through awareness and preparedness strategies to safeguard lives, livelihoods, and property from tsunamis. Communities seeking this recognition must meet all 12 indicators that assess readiness in areas such as assessment, preparedness, and response. Recognition is renewable every four years, emphasizing sustained commitment to preparedness. This voluntary, performance-based initiative fosters collaboration among national and local warning agencies, government authorities, scientists, community leaders, and the public to establish robust tsunami preparedness measures.
- President Droupadi Murmu has appointed K. Sanjay Murthy, a 1989-batch IAS officer, as the new Comptroller and Auditor General (CAG) of India. The CAG, as per Article 148 of the Indian Constitution, is appointed by the President, with salary and service conditions determined by Parliament. The CAG is ineligible for further government office and its expenses, including salaries, are charged on the Consolidated Fund of India. Under Article 149, the CAG's duties include auditing government accounts, revenues, and expenditures, and reporting to the President and Governors for parliamentary or legislative review. The CAG is also empowered by the CAG Act of 1971, serving a tenure of six years or until the age of 65, with the power to resign or be removed in a manner similar to a Supreme Court judge. Additionally, the CAG plays a crucial role in assisting the Public Accounts Committee (PAC) by submitting reports on government expenditures and providing expert advice to ensure financial accountability, thus acting as a guide to ensure transparency in public finances.
- Azim Premji University has introduced a new climate data set for India, revealing significant temperature and precipitation changes under varying emission

scenarios. By 2057, annual maximum temperatures could rise by 1.5°C under moderate emissions (SSP2-4.5), but this increase may occur a decade earlier under high emissions (SSP5-8.5). Summer maximum temperatures are projected to rise by 1.5°C by 2043 (SSP2-4.5) or as early as 2041 (SSP5-8.5). District-level analysis shows Leh will face the highest temperature changes, with 196 districts experiencing notable increases in summer maximums under moderate scenarios and 249 districts under high emissions. Western India is expected to see higher precipitation than eastern regions, with arid states like Gujarat and Rajasthan projected to experience a 20-50% increase in annual rainfall. Extreme weather risks include dangerously high wet bulb temperatures in 24-25 districts across coastal and Himalayan regions, emphasizing the severe impacts of fossil-fuel-driven scenarios.

- Karnataka's king cobra, locally called Kaalinga Sarpa, is set to receive the scientific name *Ophiophagus kaalinga*, marking a milestone in herpetology. Historically, all king cobras across South and Southeast Asia were classified under *Ophiophagus hannah* by Danish naturalist Theodore Edward Cantor in 1836. However, a decade-long genetic study led by herpetologist Dr. P. Gowri Shankar has identified four distinct king cobra species: the Western Ghats lineage (Kaalinga), Indo-Chinese lineage, Indo-Malaysian lineage, and Luzon Island lineage (*Salvatana*). Findings, published in the *European Journal of Taxonomy* (September 2023), highlight Kaalinga's cultural significance and its distinctiveness, identified through DNA sampling from various countries. The formal naming of Kaalinga and *Salvatana* will occur on November 22 in Bengaluru. Notably, king cobras, unique among snakes, construct large nests fiercely guarded by females. Their venom, while not the most potent, is lethal enough to kill an elephant. This discovery opens avenues for species-specific anti-venom, a crucial step as none exists in India.
- The National Tiger Conservation Authority's (NTCA) recommendation to notify the entire Nugu Wildlife Sanctuary, located in Mysore district, Karnataka, as a core and critical area of Bandipur Tiger Reserve remains unimplemented. Covering 30.32 sq km, the sanctuary was designated as a wildlife sanctuary on March 9, 1998, and features a rich ecological profile with habitats ranging from open dry deciduous to tropical mixed forests. Situated in Heggadadevanakote Taluk, it is about 60 km from Mysore city, 30 km from Nanjanagud, and lies north of Bandipur National Park, with its western boundary defined by the Nugu reservoir and southern boundary by the Alaganchi State Forest. The area, part of the Western Ghats biogeographic zone, experiences seasonal grassland formation that attracts migrating elephants from Bandipur. However, despite its ecological significance and accessibility, the sanctuary's proposed upgrade remains pending.
- Bangalore International Airport Limited (BIAL) has been awarded the AAA rating (Stable Outlook) by ICRA Ltd, India Ratings and Research Pvt Ltd, and Crisil Ratings Ltd. This rating, the highest in the credit rating scale, reflects a strong degree of safety in the timely servicing of financial obligations and minimal credit risk

- Patients in Karnataka can now get a free second opinion for complex elective joint surgeries from government experts that will help them make informed decisions. The department has set up a dedicated second opinion helpline — 18004258330 — that will be functional round-the-clock under the Suvarna Arogya Suraksha Trust (SAST), the nodal agency implementing the State's health scheme — Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana-Chief Minister's Arogya Karnataka (AB-PMJAY-CM's ArK).
- India has made remarkable progress in promoting women's representation in local governance, with nearly 46% of councillors being women, surpassing 60% in 19 out of 21 capital cities, including Patna, Shimla, Ranchi, and Bhubaneswar. Tamil Nadu takes the lead with the highest number of women councillors, followed closely by Rajasthan, Madhya Pradesh, Maharashtra, Andhra Pradesh, Karnataka, Uttar Pradesh, Kerala, Bihar, and Chhattisgarh. Notably, 17 states have legislated for a 50% women's quota, exceeding the constitutional minimum of 33%. To further accelerate urban transformation, the "Road map for India's city systems reforms" report by Janaagraha outlines three key pathways: Place-Based Governance, Decentralized Participatory Governance, and Building State Capacities. The report recommends Implementing Rural-Urban Transition Policy to facilitate planned urbanization of fast-urbanizing villages, with approximately 1,000 villages already transitioning to cities since Census 2011. Additionally, it suggests Reimagining Urban Governance by transforming the Ministry of Housing and Urban Affairs and State Urban departments to focus on regional economies and local governments. Lastly, Strengthening Local Governments through the amendment and implementation of the 74th constitutional amendment is crucial to ensure citizen participation and empower local self-government institutions. These initiatives aim to create more livable, climate-resilient, and inclusive cities, driving India's economic growth and development
- The Indira Gandhi Prize for Peace, Disarmament, and Development for 2023 was presented to classical pianist and conductor Daniel Barenboim and Palestinian peace activist Ali Abu Awwad. The Indira Gandhi Prize, or the Indira Gandhi Peace Prize, also known as Indira Gandhi Prize for Peace, Disarmament and Development, is the prestigious award accorded annually by Indira Gandhi Memorial Trust. The prize carries a cash award of 2.5 million Indian rupees and a citation. A written work, in order to be eligible for consideration, should have been published. First awarded in 1986
- Coal India Limited (CIL) under the aegis of the Ministry of Coal, has been conferred with the esteemed Green World Environment Award in the Corporate Social Responsibility (CSR) category along with the distinguished title of Green World Ambassador. Ministry of Coal has overall responsibility of determining policies and strategies in respect of mining of coal and other minerals in large interest of the country.
- The Indian Army successfully conducted the Multilateral Annual Joint Humanitarian Assistance and Disaster Relief (HADR) Exercise, 'Sanyukt Vimochan

2024' at Ahmedabad and Porbandar on 18-19 November 2024. The exercise conducted by the Konark Corps of Southern Command of Indian Army, was conducted over two days from 18 to 19th November 2024 at Ahmedabad and Porbandar, Gujarat.

- A team of researchers have discovered Koima, a new genus of freshwater fish endemic to the Western Ghats.
- India's Minister for Ports, Shipping, and Waterways has announced the operationalization of the Chennai-Vladivostok Eastern Maritime Corridor, facilitating the transportation of oil, food, and machinery between Russia's east coast and South India. The EMC significantly reduces cargo transit time by up to 16 days and distance by 40%, connecting Chennai to Vladivostok through a 10,458 km route, compared to the existing 16,066 km route via Europe. This shorter route, passing through the Sea of Japan, East China Sea, South China Sea, Malacca Straits, Andaman Sea, and Bay of Bengal, offers logistical cost savings and enhanced efficiency, with optional ports of call including Dalian, Shanghai, Hong Kong, Singapore, and Colombo, cutting travel time from 40 days to approximately 24 days.
- The Department of Biotechnology (DBT) and Biotechnology Research and Innovation Council (BRIC) have launched the "One Day One Genome" initiative to unlock India's vast microbial potential. This groundbreaking project will highlight the unique bacterial species found in India, emphasizing their crucial roles in environment, agriculture, and human health. Coordinated by BRIC-NIBMG, an institute under DBT, the initiative aims to release fully annotated bacteriological genomes isolated in India, making them freely available to the public. Each genome release will be accompanied by detailed graphical summaries, infographics, and genome assembly/annotation details, providing insights into the scientific and industrial applications of these microbes. By making microbial genomics data more accessible, this initiative will stimulate discussions, drive innovation, and benefit the entire community and ecosystem.
- The Union Minister of State (Independent Charge) for Science & Technology recently launched the Grievance Redressal Assessment and Index (GRAI) 2023, conceptualized and designed by the Department of Administrative Reforms and Public Grievances (DARPG) based on recommendations from the Parliamentary Standing Committee of the Ministry of Personnel, Public Grievances, and Pensions. The objective of GRAI is to provide a comparative picture of grievance redressal mechanisms across organizations, highlighting strengths and areas for improvement. The first edition, GRAI 2022, was released on June 21, 2023, assessing and ranking 89 Central Ministries and Departments on dimensions such as efficiency, feedback, domain, and organizational commitment, using data from the Centralized Public Grievance Redress and Management System (CPGRAMS). Key top-ranked departments include the Department of Agriculture and Farmers Welfare, the Office of the Comptroller & Auditor General of India, and the Department of Investment & Public Asset Management. The report includes a two-

dimensional analysis of the root causes of effective grievance redressal, offering color-coded insights and technical support for optimizing CPGRAMS usage. It outlines a roadmap for improvement, recommending the integration of AI and ML for data analysis, enhancing accountability through audits, and extending CPGRAMS integration to the third tier of government, along with capacity building for Grievance Redressal Officers (GROs).

- November 19 is celebrated as International Men’s Day (IMD), a day dedicated to recognizing the positive contributions of men to society and highlighting issues such as their well-being, mental health, and role models. IMD was established in 1999 by Dr. Jerome Teelucksingh of Trinidad and Tobago, who chose the date in honor of his father’s birthday and a moment of national unity. The day was further popularized in India by Uma Challa, a men’s rights activist, who began advocating for it in 2007. Although IMD is less prominent than International Women’s Day, it draws attention to male-related issues like suicide, loneliness, and societal pressures. The theme for 2024 is ‘Positive Male Role Models’, emphasizing the importance of men teaching younger generations values and responsibilities. Despite some criticism regarding its need, IMD seeks to address men’s struggles while promoting a balanced view without undermining women’s rights.
- The Karnataka government launched the Bengaluru Tech Summit 2024 with key announcements, including India’s first dedicated Global Capability Centres (GCC) policy aimed at establishing 500 new GCCs by 2029, creating 3.5 lakh jobs, and generating \$50 billion in economic output. The state also introduced skill development initiatives under the NIPUNA Karnataka program, targeting the training of 1 lakh candidates by 2025. In manufacturing and innovation, initiatives such as the Electronics Manufacturing Cluster in Mysuru and the Bengaluru Global Innovation District were introduced. The state also unveiled several infrastructure projects like the Bengaluru Business Corridor and announced international collaborations with countries like Austria, Germany, and UAE to foster technology and innovation. Additionally, the establishment of the Centre of Excellence on AI in Bengaluru aims to accelerate AI research and development for start-ups, while the Bengaluru Data Report and a wide array of international participation highlighted the tech summit.
- Guru Ghasidas-Tamor Pingla Tiger Reserve, located in Chhattisgarh, has been notified as the 56th Tiger Reserve in India. Spanning an area of 2829.38 sq km across the Manendragarh-Chirmiri-Bharatpur, Korea, Surajpur, and Balrampur districts, it includes a core habitat of 2049.2 sq km, which encompasses the Guru Ghasidas National Park and Tamor Pingla Wildlife Sanctuary. This reserve is the third-largest in India, following Nagarjunasagar-Srisailam and Manas Tiger Reserves. It forms part of a larger conservation landscape connected to other reserves in Madhya Pradesh and Jharkhand, totaling nearly 4500 sq km. With rich biodiversity, the reserve houses 753 species, including 230 bird species and 55 mammal species. The addition of this reserve bolsters the conservation efforts in Chhattisgarh, now home to four tiger reserves under Project Tiger.

- SpaceX successfully launched ISRO's GSAT-20 communication satellite on November 19, 2024, at 12:01 am from Cape Canaveral, Florida, using its Falcon 9 rocket. This launch marks the first collaboration between ISRO and SpaceX, with GSAT-20 weighing 4,700 kg, surpassing ISRO's GSLV-III capacity of 4,000 kg for Geosynchronous Transfer Orbit (GTO) payloads. The satellite, also known as GSAT-N2, is a high-throughput satellite (HTS) with a Ka-band capacity of up to 48 Gbps, designed to enhance broadband and communication services across India, especially in remote and underserved areas. The satellite will provide extensive coverage through 32 beams, including in the Andaman and Nicobar Islands and Lakshadweep. Post-launch operations will be managed by ISRO's Master Control Facility in Karnataka, and early data suggests the satellite is in good health, contributing to India's growing communication infrastructure.
- India and Italy have unveiled a five-year strategic action plan for the period 2025-2029, focusing on strengthening bilateral ties in key sectors like defense, trade, clean energy, and connectivity. The collaboration will cover areas such as economic cooperation, energy transition through joint initiatives in renewable and clean energy, space exploration, defense and security, migration and mobility, people-to-people exchanges, and global cooperation on multilateral platforms. The plan aims to build on past meetings between Indian Prime Minister Modi and Italian Prime Minister Meloni, advancing shared goals and promoting sustainable development, while enhancing India-Italy collaboration across these critical sectors.
- Priyank Kharge, Minister for Information Technology and Biotechnology, explored Uber Shuttle at the Bengaluru Tech Summit, a service that enables users to book travel in larger vehicles on fixed routes with pre-booked seats. Uber Shuttle, already launched in Delhi and Kolkata, aims to reduce traffic congestion and promote efficient transportation in cities like Bengaluru. The service may soon expand to Bengaluru, potentially operating from Hebbal and the Outer Ring Road tech hub, pending regulatory approval.
- Go Ru Channabasappa, a renowned writer and folk scholar, has been unanimously elected as the president of the 87th All India Kannada Sahitya Sammelana, scheduled to take place in Mandya from December 20 to 22. At 94 years old, Channabasappa's contributions to Kannada literature and his seniority secured a unanimous approval from the central executive committee. He was chosen over other notable figures like Prof T V Venkatachala Shastri, Hampa Nagarajaiah, and Dr Sudha Murthy, solely based on his seniority, as stated by Nadoja Dr Mahesh Joshi, president of Kannada Sahitya Parishath. Channabasappa began his career as a school teacher in 1948 and has been actively involved in various movements and organizations. Interestingly, this isn't his first presidency; he previously served as president of KSP from 1992 to 1995, during which the 1994 Kannada Sahitya Sammelana was held in Mandya. He is celebrated as the 'Bhishma of folklore' for his lasting contribution to Kannada literature, authoring over 50 works, including Mahadevi, Cheluvaambike, and Karnataka Pragatipatha.

- The Tamil Nadu government is set to restore 15 acres of degraded seagrass in the Gulf of Mannar Marine Biosphere Reserve. This move aims to rehabilitate vital ecosystems and provide habitats for marine organisms, including dugongs and green turtles. The project will cover five acres each in Thoothukudi, Keelakarai, and Mandapam regions. Seagrass restoration will enhance carbon storage capacity and improve habitats for marine life. The Gulf of Mannar, stretching from Rameswaram to Kanyakumari, includes 21 islands and coral reefs off the Ramanathapuram and Thoothukudi coasts. Restoration will help protect vulnerable ecosystems and species, providing safe feeding and breeding habitats.
- The Kochi-Muziris Biennale is an international exhibition of contemporary art held in the city of Kochi in Kerala, India. It is the largest art exhibition in the country and the biggest contemporary art festival in Asia. The Kochi-Muziris Biennale is an initiative of the Kochi Biennale Foundation with support from the Government of Kerala. The sixth edition of the Kochi-Muziris Biennale (KMB), which was expected to begin in December 2024, will now be held from December 12, 2025 to March 31, 2026. Artist Nikhil Chopra and his team HH Art Spaces will be the curators of the upcoming edition.
- Justice D. Krishnakumar has been appointed as the Chief Justice of the Manipur High Court, effective immediately, following the retirement of Justice Siddharth Mridul today, November 21. Krishnakumar was recommended by the Supreme Court Collegium, headed by Chief Justice Sanjiv Khanna, on November 18. He is a senior-most puisne judge from the Madras High Court, with expertise in constitutional law, and is set to retire on May 21, 2025.
- Prime Minister Narendra Modi proposed seven key pillars to strengthen ties between India and CARICOM at the 2nd India-CARICOM Summit in Guyana. The pillars focus on areas such as trade, technology, tourism, talent, and tradition, aiming to promote economic cooperation, agriculture, health, and science innovations. Modi also announced a \$1 million grant for small and medium enterprises and highlighted India's commitment to supporting CARICOM countries, particularly in renewable energy and climate change.
- India and Australia sealed an ambitious renewable energy partnership and set their eyes on a comprehensive economic cooperation agreement as Prime Minister Narendra Modi and his Australian counterpart Anthony Albanese vowed to significantly ramp up overall bilateral ties. A raft of issues including ways to boost ties in areas of defence and security ties, mobility, science and technology and education figured prominently at the second India-Australia annual conclave held on the sidelines of the G20 summit. The Renewable Energy Partnership (REP) would provide the framework for practical cooperation in priority areas such as solar energy, green hydrogen, energy storage, investments in related projects and allied areas.
- The Indian women's hockey team successfully defended their Asian Champions Trophy title, defeating China 1-0 in the final at the Rajgir Sports Complex. Deepika, named player-of-the-tournament with 11 goals, scored the lone goal in the 31st

minute with a controlled reverse hit that left the Chinese defense and goalkeeper helpless. After a cautious start, India shifted gears in the third quarter, taking control of the game. Despite China's initial onslaught and two penalty corners, India's constant push yielded five penalty corners, ultimately leading to Deepika's decisive goal. The team's impressive attack, featuring standout performances from Sangita Kumari, Captain Salima Tete, Vaishnavi Phalke, and Sunelita Toppo, secured India's victory, overcoming a disappointing semifinal display.

- India is hosting a 4-day Global Learning and Development Framework (GLDF) Results Management Training in collaboration with the World Anti-Doping Agency (WADA) in New Delhi. The World Anti-Doping Agency (WADA) aims to promote and coordinate the fight against doping in sport internationally. WADA was established on November 10, 1999, in Lausanne, Switzerland, as an independent international agency to lead a collaborative worldwide movement for doping-free sport. WADA's key activities include scientific research, education, development of anti-doping capacities, and monitoring the World Anti-Doping Code. WADA has a 42-member Foundation Board and a 16-member Executive Committee, representing the Olympic Movement and governments from all five continents. The GLDF training aims to standardize anti-doping procedures globally, encouraging collaboration among participating countries to ensure fairness in sports.
- Curtin University's Binar Space Program recently lost three tiny Australian satellites, Binar-2, 3, and 4, which burned up in Earth's atmosphere due to increased solar activity. The program, aiming to advance understanding of the Solar System and lower space operation barriers, launched its first satellite, Binar-1, in September 2021 during low solar activity, and it survived 364 days in orbit. However, the follow-up CubeSats, expected to last six months, succumbed to intensified solar activity, including sunspots, solar flares, and solar wind, which exceeded predictions for solar cycle 25 by over 1.5 times. Solar activity, driven by the Sun's changing magnetic field, peaks every 11 years, and current levels are unusually high, impacting satellite longevity. This unexpected solar surge highlights the challenges of space exploration and the importance of monitoring solar activity for space mission planning.
- The Bharat National Cyber Security Exercise (Bharat NCX 2024) is a groundbreaking initiative designed to bolster India's cybersecurity resilience, conducted by the National Security Council Secretariat (NSCS) in partnership with Rashtriya Raksha University (RRU). This flagship event unites over 300 participants from government agencies, public organizations, and the private sector, aiming to safeguard critical information infrastructure through immersive training sessions, live-fire exercises, and strategic simulations. Key features include cyber defense and incident response training, live-fire simulations of cyberattacks on IT and OT systems, and collaborative platforms for stakeholders. The exercise also encompasses a Strategic Decision-Making Exercise, where senior management from various sectors will simulate decision-making in national-level cyber crises, enhancing their

strategic response capabilities. Additionally, the CISO's Conclave will facilitate knowledge sharing among Chief Information Security Officers from government, public, and private sectors, exploring the latest cybersecurity trends and government initiatives.

- Karnataka has introduced its Space Policy 2024-29, aiming to capture 50% of India's space market and achieve a 5% share in the \$44-billion global industry within the next decade. The policy, developed by the Department of Electronics, IT, Biotechnology, and Science and Technology, emphasizes commercial space operations, defence applications, electronics, and astronomical research. Key missions include skill development to train 5,000 individuals (1,500 women), attracting \$3 billion in investments, fostering 500 startups and MSMEs, and establishing space manufacturing clusters and testing centers through PPPs. Developmental initiatives aim to support the launch of 50 satellites, create statewide testing facilities, and leverage digital infrastructure for applications in agriculture, urban development, and more. The policy also focuses on partnerships, such as an MoU with DRDO, to boost the defence ecosystem. Bengaluru, already a hub for ISRO, NAL, and leading space-tech firms, is set for infrastructure expansion with 250 acres earmarked for development and a focus on downstream applications for industries like mining, safety, and cybersecurity.
- Climate Change Performance Index (CCPI) 2025: The CCPI 2025, released at the UN Climate Conference in Baku, Azerbaijan, assessed 63 countries and the EU, covering 90% of global emissions. The top three ranks remained vacant, with Denmark ranked fourth, followed by the Netherlands. India dropped two places to 10th but remains a high performer due to low per capita emissions (2.9 tCO₂e, well below the global average of 6.6 tCO₂e) and rapid renewable energy growth, including solar energy expansion and ambitious targets like net-zero by 2070 and 500 GW of renewable capacity by 2030. Strengths include large-scale solar projects, EV deployment, and new energy efficiency standards, although coal dependency and policy continuity pose challenges. Globally, Denmark, the Netherlands, and the UK lead in performance, while countries like China (55th), the US (57th), and Argentina (59th) rank poorly. The report highlights the UK's success with coal phase-out policies and underscores global shortcomings, leaving the top three ranks vacant for lack of "very high" performance.
- A 13-day dance festival, beginning November 26, will showcase the classical dance forms of India. Titled Kalanadam, it is currently in its 25th edition. It is the annual festival of Narthan Academy of Dance and Music (NADAM), which is located in Malleswaram. The first edition of the festival was held in the year 2000.
- Karnataka is rolling out an Artificial Intelligence-based system that citizens can use to generate various property-related documents such as agreements and deeds by themselves without having to depend on middlemen
- Karnataka has taken a significant step towards combating climate change by launching a dashboard to monitor mitigation and adaptation measures through an integrated approach involving line departments at the state and district levels. The

Karnataka State Action Plan on Climate Change, drafted in 2021 and approved in May 2024, estimates a funding requirement of ₹52,827 crore for implementation between 2025 and 2030. The plan provides recommendations to 11 sectors, including agriculture, energy, and infrastructure, to reduce emissions and promote sustainability. Developed by the Environment Management Policy Research Institute (EMPRI) in collaboration with the Centre for Environment Education (CEE) and Hanns-Seidel-Stiftung (HSS), the dashboard will track adaptation measures and expenditure while facilitating funding mechanisms such as exploring carbon credit markets.

- IT-BT Minister Priyank Kharge announced that the Karnataka government is collaborating with corporates to develop a 50-50 syllabus for engineering colleges, likely as an additional skilling programme under the state's "Nipuna Karnataka" initiative. The plan includes adopting 100 colleges by 100 corporates and global capability centres (GCCs) to enhance employability, partially funded by the state and corporate social responsibility (CSR) contributions. A skill council will oversee the initiative to align training with industry needs. Kharge highlighted partnerships with Germany, France, Finland, and Switzerland for advancements in sustainable development, AI, biotechnology, and manufacturing. Additionally, the government targets 10,000 startups beyond Bengaluru in two years, supported by grants and ease-of-business policies. A centre of excellence in AI, approved by the cabinet, will be set up in collaboration with IIT Alumni Centre Bengaluru.
- Karnataka's software and services exports surged to ₹4.11 lakh crore in the fiscal year 2023-24, up 27% from ₹3.2 lakh crore the previous year, according to IT&BT Minister Priyank Kharge, citing Software Technology Parks of India data. This growth increased Karnataka's share of the nation's software exports to 42%. Notably, tier 2 and tier 3 cities contributed ₹10,000 crore to the IT exports. Nationally, IT exports from STPI-registered units crossed ₹9 lakh crore. At the conclusion of the 27th Bengaluru Tech Summit (BTS), the Minister highlighted Karnataka's pioneering GCC policy, expected to attract 500 additional GCCs, create 3.5 lakh jobs, and add \$50 billion to the economy by 2029. BTS-2024 also launched the Nipuna initiative in collaboration with IBM, Intel, Microsoft, NVIDIA, and others to train 1 lakh youth annually, aiming to position Karnataka as a global talent hub. The summit featured 300+ start-ups pitching to 100+ investors and announced Start-up Awards from 2025 to honor innovation and impact. With participation from 51 countries and 521 global speakers, BTS-2024 reinforced Karnataka's position as a tech leader.
- The Department of Archaeology, Museums, and Heritage (DAMH) in Karnataka has proposed adding 210 monuments to the list of State-protected sites under the Karnataka Ancient Monuments and Archaeological Sites and Remains (KAMASR) Act, 1961, increasing the total to 1,058 from the current 848. These additions will augment conservation efforts alongside 609 monuments of national importance protected by the Archaeological Survey of India (ASI). Once notified as protected, these monuments will receive higher priority for conservation and maintenance.

Of the identified sites, 49 have already been submitted for notification, while details of the remaining sites, including boundaries, land extent, and usage, are awaited from the Revenue Department. This inventory update, the first in decades, followed a comprehensive district-wise survey using 3D scanning under the Karnataka Digital Heritage Project. The monuments span Mysuru, Bengaluru, Belagavi, Hampi, and Kalaburagi divisions, and include notable sites such as the Arakeshwara and Holenarasimhaswamy temples in Sosale, the Sri Janardhana temple in Talakadu, the Rosary Church at Shettihalli, and 13 Chalukya-era temples in Lakkundi. Additionally, hero stones, neolithic burial sites, and kalyanis or stepwells are among the newly identified heritage structures.

- Double Olympic champion Alistair Brownlee of England announced his retirement from triathlon at the age of 36. Brownlee won gold medals in London in 2012 and Rio de Janeiro in 2016, with his younger brother, Jonny, making the podium on both occasions. He was also world champion in 2009 and 2011, and a four-time European champion.
- Italy won the Billie Jean King Cup for the fifth time as Jasmine Paolini beat Rebecca Sramkova to secure a dominant 2-0 win over Slovakia
- After successfully conducting the Women's Asian Champions Trophy hockey tournament at Rajgir, Bihar will host the Khelo India Youth Games (KIYG) in April, 2025. The Khelo India Para Games (KIPG), which was organised for the first time in New Delhi last year, will also be held in the same State. There will be a gap of 10 to 15 days between KIYG and KIPG.
- Researchers have identified a new microbe called Candidatus Phytoplasma responsible for a peculiar disease that has been affecting the sesame fields of Midnapore in West Bengal.
- Recently, the Hon'ble Minister of Jal Shakti digitally launched the "Bhu-Neer" portal during the concluding ceremony of India Water Week 2024. Developed by the Central Ground Water Authority (CGWA) under the Ministry of Jal Shakti, in collaboration with the National Informatics Centre (NIC), the portal aims to enhance groundwater regulation across India. Serving as a one-stop platform, "Bhu-Neer" ensures transparency, efficiency, and sustainability in groundwater usage by providing detailed information on the legal framework for groundwater extraction and regulations at both state and national levels. The portal features a centralized database with access to critical data on compliance, policies, and sustainable practices. It also offers a user-friendly interface with features like a PAN-based single ID system, NOC with QR codes, and a streamlined process flow for project proponents seeking groundwater withdrawal permits. Marking a significant improvement over its predecessor, NOCAP, "Bhu-Neer" promotes ease of doing business by simplifying the groundwater regulation process. The portal is now live for public use, allowing users to track applications, make payments, and seek clarifications related to groundwater withdrawal.
- The Supreme Court recently gave a major fillip to telecom companies by allowing them to claim Central Value Added Tax (CENVAT) credit for the installation of

mobile towers and peripherals like Prefabricated Buildings (PFBs), for which they pay excise duties.

- The G20 Leaders' Summit held in Rio de Janeiro, Brazil was headlined by the official launch of the Global Alliance Against Hunger and Poverty (henceforth "the Alliance"). One of the main initiatives championed by Brazil during its G20 presidency in 2024, the initiative will serve as a platform for connecting countries in need of assistance with public policies targeted towards eradicating hunger and poverty, with partners willing to offer expertise or financial support.
- The Indian Army is gearing up to recruit domain experts as officers and junior commissioned officers (JCOs) to advance its adoption of cutting-edge technologies in areas like space, cyber warfare, AI, robotics, and quantum technologies, aiming for a strategic edge in modern conflict. This initiative follows the establishment of 16 technology clusters focusing on innovations like 5G/6G communication, counter-drone technology, and blockchain. Candidates with master's degrees will join as officers, while graduates will be recruited as JCOs or other ranks. These experts will specialize in their assigned domains throughout their careers, with opportunities for promotion in their disciplines. Inspired by lessons from recent global conflicts and a growing emphasis on non-kinetic warfare, the army aims to transition from emergency purchases to in-house technological development, partnering with IITs to strengthen its supply chain and innovation capabilities.
- Visvesvaraya Technological University (VTU) will provide Kannada textbooks for first-year engineering students from this academic year, aiming to help rural students and those from Kannada medium understand concepts easily. Despite the Kannada medium being launched in 2020-21, only one student opted for it this year. VTU has translated textbooks for the first and second semesters and will release them on their website, with plans to translate third and fourth semester books as well.
- Researchers have discovered that there are four species of king cobras with different traits, two of which are found in India. Wildlife biologist P Gowri Shankar, who led the 12-year research, has described the new species, including the 'Ophiophagus kaalinga' found in the Western Ghats. The discovery highlights the need to protect habitats and develop anti-venom specific to each species, which can help reduce conflict situations and save lives, with 58,000 people dying of snake bites in India every year.
- A recent World Bank report highlights the significant gap between education and skilling in six Indian states, emphasizing the need for school-based skilling programs. The report identifies 14 sectors, including services, agriculture, and IT, that can cater to high-demand jobs. Union Education Minister Dharmendra Pradhan urged the World Bank to conduct a pan-India study to inform policy decisions. The report recommends targeting 20-30% of secondary schools in every district and offering at least two trades, with a focus on the agriculture sector, which presents opportunities for jobs, income enhancement, and entrepreneurship.

- The Centre has notified telecom cyber security rules to safeguard India's communication networks and services. The rules require telecom entities to report security incidents within six hours, appoint a Chief Telecommunication Security Officer, and furnish detailed information on affected users and remedial measures within 24 hours. Manufacturers of equipment with IMEI numbers must register them with the government before sale.
- The International Criminal Court recently issued arrest warrants for the Prime Minister of Israel, Benjamin Netanyahu, his former Defence Minister and Hamas officials, accusing them of war crimes and crimes against humanity.
- An international team of astronomers has utilized the MeerKAT radio telescope, a highly advanced radio interferometer located in South Africa's Northern Cape province, to study giant radio galaxies in the COSMOS field. Originally conceived as the Karoo Array Telescope (KAT) with 20 receptors, MeerKAT now boasts 64 receptors, each 13.5 meters in diameter, with separations of up to 8 km, making it the most powerful radio interferometer at centimeter wavelengths. Part of South Africa's contribution to the global Square Kilometre Array (SKA) project, MeerKAT serves as a precursor to SKA's mid-frequency component, employing radio signals from space to explore the evolution of the universe and its contents.
- A new frog species named Raorchestes asakgrensis was recently discovered from Meghalaya.
- The Ministry of Science and Technology recently launched India's first Artificial Intelligence (AI) data bank to propel innovation and strengthen national security. Announced at the 7th ASSOCHAM AI Leadership Meet 2024, this initiative aims to provide high-quality, diverse datasets to researchers, startups, and developers for creating scalable AI solutions. It supports real-time analytics of satellite, drone, and IoT data, enhancing disaster management, cyber security, and predictive analytics. Artificial Intelligence, a multidisciplinary field spanning computer science, data analytics, and neuroscience, focuses on creating machines capable of reasoning, learning, and acting with human-like intelligence.
- Union Minister of Culture and Tourism will present the Ustad Bismillah Khan Yuva Puraskar for 2022 and 2023 to 82 young artists at a ceremony at Dr. Ambedkar International Centre, New Delhi. Instituted in 2006 by the Sangeet Natak Akademi, the award honors young performing artists (up to 40 years old) in music, dance, drama, folk and tribal arts, and puppetry. It includes a cash prize of ₹25,000, a plaque, and an angavastram. Named after Bharat Ratna Ustad Bismillah Khan, a legendary shehnai maestro who played at India's first Republic Day celebration and performed globally, the award aims to inspire and support young talent in preserving and promoting India's rich cultural heritage.
- A study by the Institute for Social and Economic Change (ISEC), using NFHS-5 data, highlights significant variations in access to antenatal services across Karnataka. Bengaluru leads in service access, with 85% of women receiving four or more antenatal services, compared to Mysuru (77%), Belagavi (66%), and Kalaburagi (59%). Services include ultrasound scans, vaccinations, and essential supplements.

The state's Maternal Mortality Rate stands at 69 per one lakh live births (2022). Wealthier mothers generally have better access, though disparities exist based on caste and religion. Interestingly, in Bengaluru, educated women often avoid standard antenatal services, opting for online resources or personalized care. Northern Karnataka faces unique challenges such as inadequate facilities and travel delays. Socio-economic constraints, cultural beliefs, and insufficient awareness further hinder access. Policy recommendations include strengthening ASHA workers, improving transport, delaying first pregnancies, and addressing cultural barriers.

- The UAE has launched the Global Energy Efficiency Alliance at COP29 with the goal of doubling global energy efficiency rates by 2030. This initiative, building on the 'UAE Consensus' from COP28, aims to reduce carbon emissions and promote sustainable resource management. The UAE will lead the alliance, utilizing its expertise in energy efficiency while fostering collaboration with the private sector. Key objectives include carbon emission reduction, sustainable resource management, capacity building, and the creation of global energy efficiency standards. The alliance will focus on public-private partnerships, investments, and sharing best practices globally. Special attention will be given to supporting African nations by providing technological and financing solutions to improve their energy sustainability.
- The AroTrack is a water-pollutant detecting device developed by scientists at the Indian Institute of Technology Bombay (IIT Bombay). It is designed to detect harmful aromatic pollutants, such as phenol, benzene, and xylenols, in water. AroTrack works by utilizing proteins derived from bacteria found in highly polluted environments. These proteins undergo an ATP hydrolysis chemical reaction in the presence of aromatic compounds, resulting in a color change that the device detects. The device uses an LED-phototransistor assembly to shine light through the sample and measure the absorption to determine the concentration of pollutants. It also includes a biosensing module, MopR, which is particularly sensitive to phenol. With its ability to operate in water temperatures up to 50°C and deliver results in under 30 minutes, AroTrack is a low-cost, battery-operated solution ideal for deployment in remote or rural areas. This device addresses the challenges of expensive laboratory testing, making it particularly valuable for under-resourced settings. AroTrack has the potential to revolutionize water safety by detecting pollutants quickly and affordably, thereby enhancing public health by identifying water contamination before consumption.
- The Global Alliance Against Hunger and Poverty was launched during the 2024 G20 summit under Brazil's presidency, aiming to address global hunger and poverty challenges. Originating from the UN's 2030 Agenda for Sustainable Development, the initiative seeks to connect countries in need of public policy assistance with partners offering expertise and financial support. The COVID-19 pandemic, rising global conflicts, and climate change have significantly worsened the fight against poverty and hunger, making the Alliance's goals even more urgent. Projections

indicate that by 2030, 622 million people could be living in extreme poverty, and 582 million in hunger. The Alliance brings together 81 countries, 26 international organizations, 9 financial institutions, and 31 NGOs, focusing on key areas such as school meals, cash transfers, smallholder farming, maternal and childhood interventions, socio-economic inclusion, and water access solutions. Rather than providing direct funding, it acts as a matchmaking platform, with an annual budget of \$2-3 million from its members, including the FAO and UNICEF. The headquarters will likely be in Brasilia or Rome. The initiative strengthens global cooperation for sustainable development by offering evidence-based policies and best practices to member nations.

- Lakkundi's ancient relics are getting a new lease on life thanks to the efforts of Karnataka Tourism Minister H.K. Patil and the State Tourism Department. In a unique initiative, the department is collecting historical relics from residents of Lakkundi village in Gadag district, with the goal of restoring the village's rich archaeological heritage and nominating it for inclusion in the UNESCO World Heritage Sites list. Over 1,050 historical relics have been identified in just three days, and the department plans to recognize and reward residents who contribute to the initiative. The collected relics will be stored safely and eventually shifted to a museum or open museum, highlighting the village's importance as a major economic center in the 10th century, with minting operations and a rich cultural heritage.
- Over 1.76 crore school students from all 36 states and union territories have enthusiastically participated in Project Veer Gatha 4.0, a joint initiative by the Ministry of Defence and Ministry of Education. Instituted in 2021, the project aims to inspire patriotism among students by sharing stories of gallantry award winners' bravery, selfless sacrifice, and courage. Students can engage in creative projects and activities based on these heroic deeds, with three successful editions conducted in 2021, 2022, and 2023. The project honors gallantry awards like the Ashoka Chakra, Kirti Chakra, and Shaurya Chakra, which recognize acts of bravery and sacrifice by armed forces personnel and civilians.
- The Union Minister for Education, along with the Minister of Labour and Employment and Youth Affairs, launched a World Bank report titled "Jobs at Your Doorstep: A Jobs Diagnostics for Young People in Six States" in New Delhi. This report serves as a diagnostic and roadmap for providing strategic linkages between education and job opportunities in India, focusing on six states: Himachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Odisha, and Rajasthan. The report identifies key priority sectors and roles offering high employment potential for young people graduating from secondary school, emphasizing the benefits of embedding skill-based education from Classes 9-12.
- In a groundbreaking achievement for India's biotechnology sector, the Union Minister launched the first indigenous antibiotic, **Nafithromycin**, developed to tackle antimicrobial resistance (AMR). Supported by the **Biotechnology Industry Research Assistance Council (BIRAC)**, Nafithromycin is marketed under the trade

name **Miqnaf** and is designed specifically to treat **Community-Acquired Bacterial Pneumonia (CABP)**, one of the most common and deadly infectious diseases globally. This antibiotic targets both typical and atypical pathogens, providing a powerful solution where no new antibiotic in this class has been developed worldwide for over three decades. Nafithromycin stands out for its efficacy, offering **10x the effectiveness** with just **3 doses**, and minimal side effects, including negligible gastrointestinal issues and no significant drug interactions. It also remains unaffected by food, making it a versatile treatment option for patients. The development of Nafithromycin is the result of **14 years of research** and a **₹500 crore investment**, with clinical trials conducted across the U.S., Europe, and India. This marks a significant milestone in India's fight against drug-resistant pneumonia and strengthens the country's position in the global biotechnology arena.

- The famous Chinar boat race 2024 was organised recently in Jammu and Kashmir's Dal Lake by the Army.
- A volcano erupted with lava spewing from a fissure on the Reykjanes Peninsula in southwestern Iceland, becoming the tenth such event in the area in three years.
- Recently, Prasar Bharati, India's public broadcaster, ventured into the over-the-top (OTT) space with the launch of its new app, Waves. This digital platform has been developed to meet India's growing demand for streaming services, offering a wide array of content, including live TV, video on demand, games, radio streaming, and e-commerce options through the ONDC network. Waves provides on-demand content such as movies, shows, ebooks, and historical visuals, live events like religious programs and cricket tournaments, and games for all age groups. The app also features online shopping options and currently offers access to around 65 live channels, including those from private broadcasters. An OTT platform, like Waves, delivers content via wireless internet, bypassing traditional media consumption methods like cable or set-top boxes, and offers benefits such as on-demand access, flexible subscription models, cross-device availability, and personalized content recommendations.
- BBMP has adopted blockchain technology to protect and secure E-Khata data, an electronic version of property ownership documentation (A or B Khata). Launched on October 1, property owners can download E-Khata through the platform www.bbmpeAasthi.karnataka.gov.in. The National Informatics Centre (NIC) assisted BBMP in implementing blockchain, offering a secure, fool-proof mechanism to protect against data manipulation or hacks. Blockchain stores data in decentralized "nodes" that are digitally connected, ensuring secure, tamper-proof records. Each transaction is stored in a "block," and blocks are linked in an irreversible chain, making it impossible to alter past data. The technology verifies mutation requests such as property sale details and flags fraudulent transactions. Awareness campaigns are being conducted across the city, targeting Residents Welfare Associations (RWAs), to educate the public on how E-Khata simplifies property documentation and prevents fraud.

- At the United Nations climate talks (COP29) in Baku, Azerbaijan, a key agreement was reached to channel at least \$300 billion annually to support developing nations in their climate change efforts, a significant increase from the previous \$100 billion target set in 2009. The funding will assist in transitioning away from fossil fuels, adapting to climate impacts, and addressing the damage caused by extreme weather events. However, while the \$300 billion target is seen as a step forward, it falls short of the \$1.3 trillion that developing countries had requested. Nations like Fiji welcomed the agreement, although India called the \$300 billion figure “abysmally poor” and criticized the process, with civil society groups and developing countries echoing similar sentiments. The funding proposal includes public and private funding, bilateral and multilateral contributions, and alternative sources like carbon credit trading, but lacks the grants or concessionary loans that developing nations had demanded. Critics of the carbon market proposal argue that the rules could allow polluters to bypass real emission reductions, further questioning the adequacy of the agreement. Developing countries, particularly African nations and small island states, rejected initial proposals and were unsatisfied with the final offer, citing it as insufficient for meaningful climate action.
- Prime Minister Narendra Modi inaugurated a groundbreaking 100 TPD cattle dung-based Compressed Biogas (CBG) plant at Adarsh Gaushala in Gwalior. This initiative aligns with the government's "Waste to Wealth" vision, aiming to promote sustainability and reduce carbon emissions. The CBG plant, the first of its kind in India, is housed in the largest cowshed in Gwalior, where biogas is produced from cattle dung and vegetable/fruit waste from local markets and homes. Developed in collaboration with Indian Oil Corporation at a cost of Rs 31 crores, the plant spans over 5 acres and will generate 2 tons of Bio-CNG and 10-15 tons of dry bio-manure daily, benefiting organic farming. The initiative is not only an environmentally friendly solution but also promotes economic growth by creating local employment and offering affordable bio-manure to nearby farmers. The project serves as a model for sustainable development, reducing reliance on fossil fuels and fostering green energy practices. As a self-sufficient gaushala, it sets a benchmark for other regions to replicate, contributing to climate change mitigation and offering a holistic approach to both environmental and social benefits.
- The Department of Tourism plans to build 20 "traveller nooks" at Hampi, a UNESCO World Heritage site, to enhance accessibility and convenience. These nooks will offer facilities like drinking water, toilets, and information kiosks, and are expected to increase annual tourist visits from 1.28 million to 2.06 million over the next five years.
- The Manjusha Museum, owned by Dharmasthala Dharmadhikari Dr D Veerendra Heggade, has received special recognition from the India Book of Records in the 'largest single man diverse collection of antiques' category.
- Residents of Singapura, Bengaluru celebrated the town's 500th anniversary on November 26, 2024, marking the earliest historical reference to Singapura from an

inscription dated November 26, 1524. The three-day festivities, held from November 25 to 27, featured cultural and religious events, including bhajans, prasadam distribution, and a play performed by local school students on Singapura's history.

- Jannik Sinner led Italy to a successful defense of the Davis Cup, defeating Tallon Griekspoor 7-6 (7/2), 6-2 in the final against the Netherlands, capping off a sensational year that includes titles at the Australian Open, US Open, and ATP Finals.
- Scientists from the Jawaharlal Nehru Centre For Advanced Scientific Research (JNCASR) have made a groundbreaking discovery in detecting the Monkeypox virus. They've identified a new route to understand the virology of the virus and developed diagnostic tools for the infection. The researchers have pinpointed highly conserved G-quadruplex (GQ) forming DNA sequences within the MPV genome. Using a tailored fluorescent small-molecule probe, they can precisely detect the MPV. This breakthrough has therapeutic implications and paves the way for developing diagnostic tools and treatments. The Department of Science and Technology notes that these GQ sequences are stable, highly conserved, and not present in other pox viruses or the human genome. A novel fluorogenic molecular probe has also been developed, delivering over 250-fold enhancement in fluorescence output upon binding with MPV GQs.
- Minister M.B. Patil has announced a proposal to rename three railway stations in Koppal district: Gangavati to Anjanadri, Bhanapura to Mahatma Gandhi, and Munirabad to Huligemma Devi. The proposal, forwarded to Chief Minister Siddaramaiah, aims to honor the sentiments of the Kalyana Karnataka region's people, with Anjanadri being Lord Anjaneya's birthplace and Huligemma Devi a revered folk deity, while renaming Bhanapura after Gandhiji holds historical significance.
- The Central Board of Secondary Education (CBSE) has invited online applications for the single girl child merit scholarship scheme, aiming to provide scholarships to meritorious female students who are the only children of their parents, have passed CBSE Class X with 60% or more marks, and are continuing their education in Class XI and XII. Eligible applicants must be Indian nationals, single girl children, and have parental income up to Rs. 8 lakh per annum. The scholarship provides ₹500 per month for a maximum of two years, payable through ECS/NEFT, and existing holders can renew for Class XII if they secure 50% or more marks in Class XI exams.
- Chikkamagaluru District health officials are on high alert to prevent Kyasanur Forest Disease (KFD), also known as monkey fever, in the district. KFD is a tick-borne viral haemorrhagic disease mostly found in southern India, first reported in Karnataka's Kyasanur Forest in 1957. The disease is transmitted by tick species, with small rodents, monkeys, and birds playing a role in its transmission. Symptoms include high-grade fever, nausea, vomiting, diarrhea, and occasionally neurological and haemorrhagic manifestations, with a mortality rate of 5-10%. While there's no

cure, supportive care and a vaccine are available, recommended in KFD-prone areas.

- The Narasapuram lace craft, originating from Andhra Pradesh, has received the prestigious Geographical Indication (GI) tag. This traditional craft, dating back 150 years, involves women from the farming community creating intricate artefacts from colourful lace using thin threads and crochet needles. The craft has survived historical events like the Indian famine and the Great Depression, with over 2,000 women involved by the early 1900s. Narsapur's hand-made crochet industry produces various products like doilies, pillow covers, and bed spreads, many of which are exported to the USA, UK, and France.
- The Supreme Court recently dismissed petitions challenging the inclusion of the words 'secular' and 'socialist' in the Preamble of the Constitution, which were added through the 42nd Constitutional Amendment in 1976 during the Emergency. The Court criticized the delay in raising the issue, asserting that the constitutional position on the matter was clear and did not require exhaustive examination. It emphasized that the terms 'secular' and 'socialist' align with India's evolving societal framework and have not hindered legislation or government policies. The Court also reaffirmed that Parliament has the power to amend any part of the Constitution, including the Preamble, and that retrospective amendments under Article 368 are constitutionally valid. The petitioners' arguments, claiming that the amendment contradicted the Constituent Assembly's original exclusion of 'secular' and that 'socialist' limits economic policy, were rejected. The Court concluded that the Constitution, as a living document, evolves with societal changes.
- The Union Cabinet, chaired by Prime Minister Narendra Modi, has approved the continuation of the Atal Innovation Mission (AIM) under NITI Aayog, with an increased scope and a budget of Rs. 2,750 crore until March 31, 2028. AIM 2.0 seeks to enhance India's innovation and entrepreneurship ecosystem by focusing on fostering innovation, increasing the global competitiveness of India, and contributing to job creation. It builds upon the achievements of AIM 1.0, such as Atal Tinkering Labs (ATL) and Atal Incubation Centers (AIC), while introducing new initiatives to address gaps in the ecosystem. Key programs include the Language Inclusive Program of Innovation (LIPI), which aims to create innovation ecosystems in 22 scheduled languages, and The Frontier Program, targeting underserved regions like Jammu & Kashmir and the North Eastern States. AIM 2.0 also focuses on improving startup success rates through initiatives like the Human Capital Development Program and the Deeptech Reactor. Additionally, the mission will foster international collaboration through initiatives such as the Annual Global Tinkering Olympiad and the Startup20 Engagement Group under the G20.
- The Cabinet recently approved the PAN 2.0 project, which aims to modernize the existing Permanent Account Number (PAN) system with a financial allocation of Rs 1,435 crore. The new system will introduce a QR code to all PAN cards, integrating them into a unified system for individuals and businesses. It will be fully online and paperless, offering a seamless application process. Additionally, a mandatory data

vault will protect PAN-related information, ensuring cybersecurity for businesses. PAN 2.0 will simplify tax filings, improve security, and make it easier to manage PAN-related services through a consolidated online portal. This upgrade will enhance the integration of financial transactions with the tax department, benefiting both individuals and businesses.

- The Union Cabinet has approved the National Mission on Natural Farming (NMNF), a centrally-sponsored initiative aimed at promoting chemical-free farming. With a total budget of ₹2,481 crore, the scheme is funded by both the Centre (₹1,584 crore) and states (₹897 crore) and will continue until 2025-26 under the 15th Finance Commission period. The mission, led by the Ministry of Agriculture, seeks to encourage natural farming as an alternative to chemical-based agriculture. It will focus on integrating local livestock, using natural farming inputs like Jeevamrit and Beejamrit, and adopting diversified cropping systems based on agro-ecological principles and local knowledge. The initiative targets 1 crore farmers and 7.5 lakh hectares of farmland, with 15,000 clusters in gram panchayats. Additionally, 2,000 model demonstration farms will be established at Krishi Vigyan Kendras (KVKs), agricultural universities (AUs), and farmers' fields. Training will be provided to farmers, with 18.75 lakh farmers learning to produce or procure inputs from Bio-input Resource Centres (BRCs), while 30,000 Krishi Sakhis/Community Resource Persons (CRPs) will spread awareness across regions.
- Labour Commissioner Dr. H N Gopalakrishna launched the Karnataka State Building & Other Construction Workers' Welfare Board's video display vehicle initiative, aiming to inform construction workers about various programmes, projects, and facilities offered by the Board through an Information, Education, and Communication (IEC) initiative. The LED video display vehicle will operate throughout Bengaluru for a month, providing essential information on departmental facilities and other relevant matters, with Gopalakrishna encouraging workers to take full advantage of this initiative.
- The Indian real estate sector is set to cross \$4.8 trillion in market size by 2047, contributing over 18% to the projected \$26 trillion GDP target in that timeline, according to a joint report by the Confederation of Real Estate Developers' Associations of India (CREDAI) and Ernst & Young LLP (EY)
- Scientists at the Raman Research Institute (RRI), along with collaborators from IIT-Palakkad and Ohio State University, have uncovered the mysterious sources heating and sustaining the fiery hot gas surrounding the Milky Way's disc. The study revealed that the X-ray emitting hot gas is caused by a puffed-up region around the stellar disc, heated by massive stars exploding as supernovae, enriching the gaseous matter with synthesized elements, and continuously pumping heat to keep the gas alive.
- N.H. Ravindranath, a climate change expert, warned that temperatures in northern and central Karnataka are projected to rise by 2°C to 2.5°C within the next decade, emphasizing the need for emergency action to combat climate change. Speaking at the Climate Leadership Summit, experts urged the government to develop a

Bengaluru declaration on climate change, addressing rising temperatures and unusual weather patterns, and to ensure committed implementation of the action plan. They also stressed the importance of research, early warning systems, participatory engagement, and dedicated funding to promote resilience to climate risks and disasters.

- According to the Basic Animal Husbandry Statistics 2024, India's milk production increased by 3.78% in 2023-24, reaching 239.3 million tonnes, with Uttar Pradesh being the top milk-producing state. India is the world's largest milk producer and second-largest egg producer, with an estimated 142.77 billion eggs produced in 2023-24, led by Andhra Pradesh. Additionally, the country's total meat production is estimated at 10.25 million tonnes, with poultry accounting for 48.96%, and the report highlights a compounded annual growth rate of 5.62% in milk production, 6.8% in egg production, and 4.85% in meat production over the past decade.
- Shashikant Ruia, popularly known as Shashi Ruia, the founder Chairman of Essar Group, passed away
- The upcoming Gelephu Mindfulness City (GMC) in Bhutan, spanning 2,500 sq. km., is being pitched as the country's largest cooperative project, with gratitude expressed by the Bhutanese Prime Minister for India's support. Envisioned by King Jigme Khesar Namgyel Wangchuck, this innovative urban development integrates economic growth with mindfulness, sustainability, and holistic living. Located in south-central Bhutan, GMC will be the country's first Special Administrative Region (SAR) with its own government, independent judiciary, and lawmaking powers. The city will feature low-rise buildings, inhabitable bridges, an international airport, a university, health care facilities blending traditional and modern medicine, markets, and spiritual centers. Designed as ribbonlike neighborhoods with mandala-inspired layouts, the city will incorporate its 35 rivers and streams, with paddy fields forming flood-resistant terraces. GMC will also host two protected areas: a national park and a wildlife sanctuary, ensuring ecological harmony alongside urban development.
- The Department of Animal Husbandry and Dairying (DAHD) has announced the winners of the prestigious National Gopal Ratna Awards (NGRA) 2024, one of the highest honors in the livestock and dairy sector, which will be presented on National Milk Day, November 26, 2024, at Manekshaw Centre, New Delhi. Union Minister Shri Rajiv Ranjan Singh, along with Prof. S.P. Singh Baghel and Shri George Kurian, will confer the awards during a grand ceremony. The NGRA recognizes individuals and organizations excelling in the fields of dairy farming, artificial insemination, and cooperative activities. It includes three categories: Best Dairy Farmer Rearing Indigenous Breeds, Best Artificial Insemination Technician (AIT), and Best Dairy Cooperative/Milk Producer Company/Dairy Farmer Producer Organization, with a newly added special award for the North Eastern Region (NER). Winners across these categories include Smt. Renu from Haryana, The Gabat Milk Producers Cooperative Society from Gujarat, and Shri Bhaskar Pradhan from Odisha, among others, with additional recipients from the NER. The awards

comprise cash prizes ranging from ₹2 to ₹5 lakh, along with certificates and mementos, recognizing excellence among the 2,574 applicants received through the online portal.

- After nearly two decades of negotiations, the World Intellectual Property Organization (WIPO) member states adopted the landmark Design Law Treaty (DLT), which India signed to reaffirm its commitment to inclusive growth and equitable access to intellectual property protection. The treaty harmonizes procedural frameworks for industrial design protection, standardizing registration processes to reduce administrative burdens and promote global creativity, with a focus on benefiting small and medium-sized enterprises (SMEs), startups, and independent designers. Key provisions include relaxed time limits, reinstatement of lost rights, simplified procedures for assignments, and the ability to file multiple designs in a single application, alongside the promotion of electronic systems for design registration. These measures, complemented by initiatives like the Startup India program and the Startups Intellectual Property Protection (SIPP) scheme, empower startups and SMEs to secure global design rights. With its rich creative heritage and a policy emphasis on innovation, India has seen impressive growth in design registrations, which have tripled over the past decade, with domestic filings increasing by 120% in the last two years and a 25% rise in applications last year alone.
- The Indian government has launched the "Bal Vivah Mukta Bharat Abhiyan" campaign to eradicate child marriage. This initiative will focus on seven high-burden states, including West Bengal, Bihar, Jharkhand, Rajasthan, Tripura, Assam, and Andhra Pradesh, as well as 300 high-burden districts with higher-than-average child marriage rates
- The Karnataka Small Scale Industries Association (KASSIA) has sought amendments to the Karnataka Land Reforms Act, 1961, as small and medium enterprises (SMEs) struggle to afford increasingly expensive land. Highlighting that 90% of SMEs operate in private industrial areas with inadequate infrastructure, the association urged the government to acquire land under Section 109 of the Act to develop industrial estates and upgrade existing facilities like power supply. They also recommended empowering the Karnataka State Small Industries Development Corporation (KSSIDC) to directly acquire land for new industrial estates or for the Karnataka Industrial Areas Development Board (KIADB) to allot undeveloped land without developmental charges to KSSIDC. KASSIA President MG Rajagopal called for an exclusive SME labour policy with reduced compliance and separate minimum wage provisions, as the current uniform labour guidelines and wages are unsustainable for SMEs. Additionally, the association demanded the removal of double taxation on industrial areas by both KIADB/KSSIDC and municipal authorities, parity of property tax with residential rates, and reductions in stamp duty. They also sought a revision of the Karnataka Factories Rules, 1969, which significantly increased government service fees and licensing costs.

- The Bangalore Water Supply and Sewerage Board (BWSSB) has launched a door-to-door campaign in 110 villages to encourage residents to apply for Cauvery water connections under the Stage V project, which was inaugurated on October 16, 2024. Despite targeting three lakh connections, BWSSB has received only 3,000 applications and 30,000 inquiries in over a month, partly due to high pro-rata charges for apartment communities and complaints of middlemen demanding bribes to expedite formalities. To address these issues, the Board introduced the “Mane Manegoo Cauvery Neeru - Samparka Abhiyana” campaign, setting up camps in public spaces to simplify the application process and urging residents to apply directly via the BWSSB website or offline at the camps. Complaints about middlemen are being investigated by the Vigilance Cell, and the Board has warned residents to pay connection fees only through RTGS, NEFT, or demand draft to avoid fraud. BWSSB officials anticipate an increase in applications during the summer months when water scarcity becomes more pressing.
- The Transport Department has launched Bengaluru’s first Automated Testing Station (ATS) in Nelamangala, aiming to replace outdated manual inspections at RTOs with a more efficient, automated system designed to reduce corruption and minimize the involvement of agents and middlemen in the fitness certification (FC) process. Vehicles tested at these centers will undergo automated checks, with the system directly issuing pass or fail certificates, ensuring greater efficiency, transparency, and accountability by eliminating human errors and subjectivity. Automated machines handle all checks, maintaining detailed records of both visual and technical assessments, with results only released after compiling the final report and undergoing biannual audits to ensure compliance. The fitness certificate for private vehicles is valid for 15 years from registration, renewable every five years thereafter, while commercial vehicles require a biannual renewal after their first two years of validity. The department plans to expand the ATS network to 13 additional locations, including Devanahalli, Tumakuru, and others, and is also developing automated testing centers at 19 other locations, including several parts of Bengaluru and other key districts.
- The Army has received Sabal-20 logistics drones, procured from EndureAir Systems, for deployment in the eastern sector, marking a significant step in enhancing military logistics. These drones, based on variable pitch technology, have a payload capacity of up to 20 kg and are designed to support missions like long-range deliveries and high-altitude operations. Their advanced Vertical Take-Off and Landing (VTOL) technology allows seamless operation in rugged terrains, with a low RPM design that reduces noise, enhancing stealth. In another development, the Indian Institute of Technology, Kanpur (IIT-K), unveiled a breakthrough in stealth technology with the launch of the Metamaterial Surface Cloaking System (Anālakshya), developed by a team led by professors from the Departments of Physics, Electrical Engineering, and Mechanical Engineering. The system offers near-perfect wave absorption across a wide spectrum, improving

defense capabilities by countering SAR imaging and providing protection against radar-guided missiles.

- Four battalions of the Army's Mechanised Infantry were presented the President's Colours by Army chief General Upendra Dwivedi during a ceremony at the Mechanised Infantry Centre and School in Ahilyanagar, Maharashtra, on Wednesday. The 26th and 27th Battalions of the Mechanised Infantry Regiment, along with the 20th and 22nd Battalions of the Brigade of The Guards, were honoured, marking a proud moment for the youngest battalions. General Dwivedi highlighted the Mechanised Infantry's remarkable journey since its inception in 1979, noting its exceptional courage, discipline, and operational proficiency in operations like Operation Vijay and UN peacekeeping missions. The President's Colours, a symbol of a unit's identity and one of the highest military honours, were awarded in recognition of their exemplary service in both combat and peacetime operations. The ceremony also saw the felicitation of four Veteran Achievers for their contributions to the well-being of ex-servicemen and society.
- The International Pathogen Surveillance Network (IPSN) recently announced its first round of grants to support the understanding of disease threats. IPSN is a public health initiative aimed at preventing and detecting infectious diseases before they escalate into epidemics or pandemics. Hosted by the World Health Organization (WHO) Hub for Pandemic and Epidemic Intelligence, the network brings together global experts in genomics and data analytics from governments, foundations, multilateral organizations, civil society, academia, and the private sector, all united by a common goal of optimizing disease surveillance and response. IPSN leverages pathogen genomics—analyzing the genetic material of viruses, bacteria, and other microorganisms—to track and understand how diseases spread and their potential threat. The network facilitates collaboration among members in dedicated groups to address specific challenges, providing funding to scale innovative projects in pathogen genomics. By strengthening global pathogen genomic surveillance, IPSN enhances the ability to detect new pathogens and track their evolution, thus improving outbreak prevention, response, and treatment strategies.
- The Supreme Court recently directed the Union government to submit the report prepared by a committee negotiating the dispute between Tamil Nadu and Karnataka over the sharing of the Pennaiyar river water. The Pennaiyar River, also known as the South Pennar River or Dakshina Pinakini in Kannada and Thenpennai or Ponnaiyar in Tamil, is a significant river in southern India. Originating in the Nandi Hills in the Chikkaballapura district of Karnataka, it flows southward for 80 km through Karnataka before entering northwestern Tamil Nadu, where it turns southeast and flows for another 320 km to reach the Bay of Bengal at Cuddalore, Tamil Nadu. The river basin is bordered by various ranges of the Eastern Ghats, such as the Velikonda, Nagari, Javadhu, Shevaroy, Chitteri, and Kalrayan Hills, and is bounded to the east by the Bay of Bengal. The Pennaiyar basin is the second largest interstate east-flowing river basin among the 12 basins located between

the Pennar and Cauvery rivers, covering an area of 16,019 sq. km, with 77 percent of it lying in Tamil Nadu. Major tributaries of the river include the Chinnar, Markanda, Vaniar, and Pamban. The river is extensively dammed for irrigation purposes, especially in Tamil Nadu.

- The United Nations Industrial Development Organization (UNIDO) and the Climate Club recently launched the Global Matchmaking Platform (GMP), designed to accelerate the decarbonization of heavy-emitting industries in emerging and developing economies. First introduced in December 2023 at the 28th United Nations Climate Change Conference (COP28), the GMP connects countries' specific needs with global technical and financial support to reduce emissions in energy and emissions-intensive industrial sectors. It links nations with a network of partners offering comprehensive assistance in policy development, technology transfer, and investments aimed at advancing the transition to zero and low-emission industrial practices. The platform also enables countries to tailor their decarbonization strategies while streamlining access to resources and guidance. Hosted by UNIDO, the GMP functions as a support mechanism for the Climate Club, with activities backed by the interim Secretariat of the Climate Club, jointly hosted by the Organisation for Economic Co-operation and Development (OECD) and the International Energy Agency (IEA).
- UNSC Resolution 1701 aims at ending hostilities between Hezbollah and Israel, and calls for the creation of a buffer zone as well as a permanent ceasefire.
- Karnataka's first government-run in-vitro fertilisation (IVF) centre will be established at Karnataka Medical College & Research Institute (KMC-RI) in Hubballi. This initiative aims to address the rising infertility rates and provide affordable fertility treatments, especially for low-income groups. IVF procedures will be offered free of cost for Below Poverty Line (BPL) patients, while Above Poverty Line (APL) cardholders will receive a 30% discount. The centre will be funded through Corporate Social Responsibility (CSR) funds, with partner companies also offering training to ensure quality care. The increasing rates of infertility, driven by delayed pregnancies, changing lifestyles, and chemical contaminants in food, have made fertility treatments more necessary but costly, creating barriers for many to access them. KMC-RI has already awarded tenders for the clinic's infrastructure and equipment, and requests have been made for the state government to provide free IVF medicines, which are not covered under the Ayushman Bharat Arogya Karnataka scheme. The clinic will operate under the obstetrics and gynaecology department, with reproductive endocrinologists and an embryologist on the team. The outpatient department currently handles 10-15 infertility cases daily, with 15% requiring IVF treatment.
- Karnataka's coastal erosion has significantly worsened, with 91.6 km of the state's 328.55-km coastline affected, marking an increase of 110% since 1990 when only 43.7 km was eroding. A study commissioned by the state government and conducted by the National Centre for Sustainable Coastal Management (NCSCM) revealed that 28% of Karnataka's coastline is now exposed to high erosion. The

increase in coastal erosion is attributed to climate change and human activities, such as the exponential rise in coastal infrastructure and disruptions in natural sediment flow. Notable districts impacted include Uttara Kannada, which contributes 39% of the state's erosion despite its rocky shores, Udupi, where 38% of the coastline continues to erode, and Dakshina Kannada, with 39% of its coastline eroding, particularly in areas like Uchil and Batapady. The erosion has significant effects on coastal habitations, scrublands, mangroves, and fisheries. The government report identifies 44 critical erosion zones and recommends nature-based interventions, such as beach nourishment, sand dune rehabilitation, and mangrove afforestation. The Karnataka-Strengthening Coastal Resilience and the Economy (K-SHORE) project has been launched to implement these solutions with a budget of Rs 840 crore, aiming to enhance coastal resilience and boost the blue economy.

- The "One Nation One Subscription" (ONOS) initiative, approved by the Union Cabinet, allocates ₹6,000 crore to centralize access to academic journals for approximately 6,300 government-run institutions. Starting January 1, 2025, ONOS will provide access to 13,000 journals from 30 international publishers through a single platform. This unified system will address the current fragmented access, where only 2,500 institutions access 8,100 journals. By consolidating subscriptions and eliminating duplications, ONOS will reduce costs and enhance access for 1.8 crore students, faculty, and researchers, including those in Tier 2 and Tier 3 cities. The implementation, spearheaded by INFLIBNET, is expected to cut costs from ₹4,000 crore to ₹1,800 crore annually and increase bargaining power with publishers. Additionally, institutions will retain the flexibility to subscribe to journals outside the platform. The initiative aligns with the goals of the National Education Policy (NEP) 2020, which emphasizes research and innovation, and will be supported by the newly established Anusandhan National Research Foundation (ANRF).
- India has proposed the creation of a multilateral fund to combat global plastic pollution, aimed at assisting low- and middle-income countries in phasing out polluting plastics. This proposal was presented at the fifth session of the Intergovernmental Negotiation Committee in Busan, South Korea. The fund would provide financial and technological support to nations, modeled after the Montreal Protocol Fund that helped phase out ozone-depleting substances. Developed nations would be responsible for replenishing the fund periodically, while the fund's oversight would be managed by a governing body representing both developed and developing nations. India emphasizes a shared but differentiated responsibility framework, aiming to ensure fairness and equity in tackling the plastic pollution crisis, with the ultimate goal of creating a legally binding global treaty on plastic pollution.
- The Council of Scientific and Industrial Research-National Aerospace Laboratories (CSIR-NAL) recently organized the National Kannada Science Conference, focusing on science and technologies for aerospace, defense, and social applications. This

event also celebrated the golden jubilee of 'Kanaada', the annual Kannada science magazine published by CSIR-NAL's Kannada Samskruthika Sangha.

- Chief Minister Siddaramaiah inaugurated Bengaluru's second mechanised waste transfer station at Chalavadipalya, aiming to end roadside waste transfer. The facility, one of three established at a cost of Rs 40 crore, can transfer 150-200 metric tonnes of waste daily. BBMP plans to build one plant in each of Bengaluru's 27 assembly constituencies, with funds already earmarked for three more stations
- The Department of Horticulture, in collaboration with the Women and Child Development Department, is hosting a three-day flower show at Jawahar Bal Bhavan, Cubbon Park, from November 29 to December 2, featuring over one lakh cut flowers and 20,000 pots, with floral sculptures of animals and special attractions for children, at an estimated cost of Rs 40 lakh.
- The Union Ministry of Tourism has selected 23 sites across India, including the Devika Rani Estate at Tataguni in Bengaluru and Yallamma Gudda at Savadatti in Belagavi district, for special financial assistance under the Special Assistance to States/Union Territories for Capital Investment (SASCI) scheme. This initiative aims to develop iconic tourist centres globally by providing long-term, interest-free loans for 50 years to states. The government has allocated ₹99.17 crore for creating an ecotourism and cultural hub at the Roerich and Devika Rani Estate and ₹100 crore for Savadatti Yallamma Gudda. Of 87 proposals worth ₹8,000 crore, the Ministry shortlisted 40 projects in 23 states for ₹3,295.76 crore, with all funds to be released by March 2026 and projects to be completed within two years. The scheme seeks to boost local economies, create employment, and promote sustainable tourism while reducing overcrowding at popular destinations by developing alternative, lesser-known locations like Gandikota in Andhra Pradesh, Jal Mahal in Rajasthan, and Loktak Lake in Manipur, among others.
- Australia has made history by becoming the first country to ban social media for children under 16, with the Australian Senate passing the landmark law on Thursday. The law will hold platforms like TikTok, Facebook, Snapchat, Reddit, X, and Instagram liable for fines of up to \$33 million if they fail to prevent minors from creating accounts. The bill was passed with 34 votes to 19 in the Senate and 102 votes to 13 in the House of Representatives. Platforms will have a year to implement the ban before penalties are enforced. While Meta Platforms has criticized the legislation as "rushed," Australian Prime Minister Anthony Albanese believes the law is necessary to protect young people from the harms of social media.
- The Indian Space Research Organisation's (ISRO) EOS-06 (Oceansat-3) and INSAT-3DR satellites are closely tracking Cyclone Fengal, which has been approaching Tamil Nadu, providing crucial early detection and real-time insights on the cyclone's intensity and direction.
- Economic historian Amiya Kumar Bagchi passes away
- The 55th International Film Festival of India (IFFI) concluded after a nine-day showcase of over 180 international titles from 81 countries. The festival's top

honors included the Golden Peacock Award for Best Film, which went to Lithuanian filmmaker Saulė Bliuvaitė's debut feature "Toxic", while Vikrant Massey was named Indian Film Personality of the Year. Additionally, Bogdan Muresanu won Best Director for "The New Year That Never Came", and Australian director Phillip Noyce received the Satyajit Ray Lifetime Achievement Award.

- The 11th edition of Indian Coast Guard's National Maritime Search and Rescue Exercise & Workshop (SAREX-24) will be in Kochi, Kerala on November 28-29, 2024
- India has achieved significant progress in the Network Readiness Index (NRI) 2024, climbing 11 ranks to secure the 49th position globally among 133 economies, as per the report released on November 21, 2024, by the Portulans Institute, a Washington-based non-profit. The NRI evaluates economies on four pillars— Technology, People, Governance, and Impact, with 54 variables in total. India's score improved from 49.93 in 2023 to 53.63 in 2024, reflecting robust advancements in digital innovation and transformation. The country ranked 1st globally in AI scientific publications, AI talent concentration, and ICT services exports, 2nd in FTTH/Building Internet subscriptions, mobile broadband internet traffic, and international Internet bandwidth, 3rd in domestic market scale, and 4th in annual investment in telecommunication services. Within the lower-middle-income group, India is ranked 2nd, behind Vietnam, underscoring its leadership in technological innovation and digital growth.
- In a significant development to enhance the Indian Army's logistical operations, private drone manufacturer EndureAir has delivered its advanced **Sabal-20 logistics drone** to the Eastern theatre of operations. The Sabal-20 is an electric unmanned helicopter utilizing variable pitch technology, tailored for demanding aerial logistics tasks such as precise deliveries, high-altitude operations, and long-range missions. Featuring a tandem rotor configuration, it offers exceptional stability, superior high-altitude performance, and an impressive payload capacity of up to 20 kg (50% of its own weight), with scalable options for future needs. Its Vertical Take-Off and Landing (VTOL) capability allows operation in confined or rugged terrains, while a low RPM design reduces noise for stealth in sensitive missions. Equipped with cutting-edge autonomous flight systems and user-friendly controls, the drone ensures reliable performance even beyond the operator's line of sight, reinforcing its utility in challenging operational environments.
- Pilikula Nisargadhama in Mangaluru, an eco-tourism destination, is set to undergo a facelift to transform it into a world-class attraction, announced Science and Technology Minister N. S. Boseraju. Inaugurated by Chief Minister Siddaramaiah in 2018, the site, part of the Pilikula Wildlife Sanctuary, offers ample space for development into an international-level destination. The Pilikula Development Authority, established under Siddaramaiah in 2018, will discuss a detailed blueprint for its comprehensive development at its next meeting. Boseraju revealed that a formal proposal would be submitted for inclusion in the 2025-26 budget and urged officials to expedite the appointment of a consultant for the project. Additionally, the Department of Science and Technology is planning to host a two-day Quantum

Summit in July 2025, modeled on the success of the Bengaluru Nano Summit, to highlight Karnataka's advancements in quantum technology and promote global collaboration.

- The Ashmolean Museum in Britain, located at Oxford University, has agreed to return a 500-year-old bronze idol of Thirumangai Alvar to India after Tamil Nadu Police provided compelling evidence proving that the statue, originally from a temple in Thanjavur district, was illegally taken abroad. Following a visit by a representative from the university to Tamil Nadu, the evidence presented by the Idol Wing Criminal Investigation Department (CID) led to the decision to repatriate the statue. The university has pledged to cover the costs of transporting the idol to the Sri Soundaraja Perumal Temple in Kumbakonam, where it is believed to have been stolen in the 1960s. The Idol Wing CID had launched an investigation in 2020, uncovering the theft of four valuable idols from the temple between 1957 and 1967. Tracing the Thirumangai Alvar idol to the Ashmolean Museum, as well as other stolen idols to museums in the U.S., the CID's efforts have led to the imminent return of the statue, valued at several crores of rupees
- India and the UK have signed a broad framework agreement to collaboratively develop and build an electric propulsion system for large naval ships, which will be constructed in Indian shipyards. The pact, signed in Portsmouth on November 28, focuses on the co-design, co-creation, and co-production of electric propulsion for future naval vessels, particularly Landing Platform Docks (LPDs). These ships, which will be powered by the new propulsion system, are part of India's plans to enhance its amphibious capabilities by constructing four such ships, in addition to the one currently in operation (INS Jalashwa). Unlike the diesel engines or gas/steam turbines used in current Indian warships, the new propulsion system will provide a more efficient alternative for larger ships with a displacement of 6,000 tonnes.
- **India re-elected to UN Peacebuilding Commission.** The UN Peacebuilding Commission (PBC) was established in 2005 to assist countries in post-conflict situations, supporting peacebuilding and recovery efforts, and fostering international cooperation and coordination. The PBC has 31 members, including representatives from the Security Council, Economic and Social Council, and top providers of UN contributions. The PBC provides advice and support, facilitates international coordination, promotes peacebuilding, and supports national peacebuilding plans, focusing on conflict prevention, human rights, economic development, and social cohesion.
- The average effective rentals across major cities in India have grown by 3.6% on a five-year compound annual growth rate (CAGR), according to India's first commercial property rental index developed by the Indian Institute of Management Bangalore (IIMB) in collaboration with CRE Matrix. The index, which is based on over a decade of transactional data, provides insights into rental trends across ten major cities, covering 90% of Grade A/A+ office stock. Unlike traditional indices that rely on anecdotal evidence, the IIMB-CRE Matrix CPRI uses a spatiotemporal modeling approach that incorporates both real and hypothetical

transactions, offering a more accurate and balanced view of the market. It tracks quarterly effective rental trends since 2012, excluding anomalies like rent-free periods or abnormal escalations. The index reveals that Pune has been the top performer with a 12-year CAGR of 6.9%, followed by Chennai and Bengaluru at 5.5% and 5.3%, respectively. The report also highlights Bengaluru's stability, with positive rental growth in 44 out of 50 quarters, and a recovery in office rentals post-pandemic. Bengaluru's key growth areas include Whitefield, South Bengaluru, and Outer Ring Road. The index's insights are expected to support informed decision-making and capital allocation in India's real estate sector, helping the country move toward its goal of becoming a \$25 trillion economy by 2047.

- Recently, the Chief of the Indian Army launched an online learning platform for the Indian Army, called "Eklavya," developed under the aegis of Headquarters Army Training Command with the Army War College as the sponsor agency. The platform, built by the Bhaskaracharya National Institute of Space Applications and Geoinformatics (BISAG-N) with support from the Directorate General of Information Systems, is hosted on the Army Data Network and features a scalable architecture. Eklavya supports the seamless integration of various Indian Army training establishments and offers a wide range of courses. It aligns with the Indian Army's "Decade of Transformation" and the 2024 theme, "Year of Technology Absorption." The platform offers three categories of courses: 'Pre-Course Preparatory Capsules,' which provide study material for offline courses, 'Appointment or specific assignment-related courses' to help officers specialize in their fields, and the 'Professional Development Suite,' which includes courses on strategy, leadership, emerging technology, and more. Additionally, Eklavya features a "Knowledge Highway," a searchable repository of journals, research papers, and articles. This initiative aims to promote continuous professional education, reduce the burden on physical courses, prepare officers for specialist roles, and foster domain expertise.
- The national capital has reported an "isolated" case of Japanese Encephalitis, official sources said recently.
- The Cabinet Committee on Economic Affairs recently approved investment of Rs 1750 crores for the Tato-I Hydro Electric Project (HEP) in Arunachal Pradesh's Shi Yomi District.
- The Karnataka Government has announced a project to upgrade 500 government schools into Karnataka Public Schools from July 2025 to June 2029, with a total funding of ₹2,500 crore. Of this, ₹2,000 crore will be a loan from the Asian Development Bank and ₹500 crore will be contributed by the state government. Currently, 308 Karnataka Public Schools operate in 204 taluks, offering classes from Lower Kindergarten (LKG) to Grade 12, with a focus on English and Kannada as the mediums of instruction. The schools provide modern facilities such as smart classes and interactive blackboards, along with adequate teachers and classrooms. The

initiative aims to reduce dropout rates, enhance student progression to higher education, and improve infrastructure and learning quality across the state.

- The Stamps and Registration Department of Karnataka has achieved a 26% revenue growth, surpassing the state's average growth rate of 11%, and is on track to meet its ₹24,500 crore revenue target, having collected ₹15,500 crore by October. Revenue Minister Krishna Byre Gowda defended the mandatory e-khata for property transactions, citing its potential to reduce fraud, ensure tax compliance for millions of properties, and contribute to Bengaluru's infrastructure development. Additionally, digital certificates for bagair hukum land ownership rights will be issued soon, and compensation for crop losses during the rabi and kharif seasons, amounting to over ₹282 crore, is being credited to farmers.
- The Department of Consumer Affairs has implemented the E-Daakhil portal across all States and Union Territories in India. Launched in 2020 by the National Consumer Dispute Redressal Commission, this portal offers a cost-effective and user-friendly mechanism for filing consumer complaints. It allows users to approach consumer forums online, eliminating the need for physical presence. With features like complaint filing, fee payment, and case tracking, the portal ensures accessibility for consumers from metropolitan to remote areas. Users can register via mobile OTP or email, pay fees electronically, and track case progress seamlessly.
- A Siberian Demoiselle crane, nicknamed Sukpak, has set a record for the longest migratory flight by traveling 3,676 km from the Tyva Republic in Siberia to Khichan in Rajasthan, India. Tagged by Russian researcher Elena Mudrik on July 20, 2024, with a yellow-blue leg ring, Sukpak broke the previous migration record of 2,800 km. This remarkable journey, deviating from typical migration routes, highlights Khichan's significance as a vital wintering ground for over 20,000 Demoiselle cranes and its designation as India's first crane reserve. These cranes, culturally significant in India as Koonj or Kurjaa, are known for their diverse behaviors and habitats, migrating from Central Eurasia to India and Africa during winter. Despite their "Least Concern" IUCN status, they face threats such as habitat loss, wetland drainage, hunting, and illegal trade.