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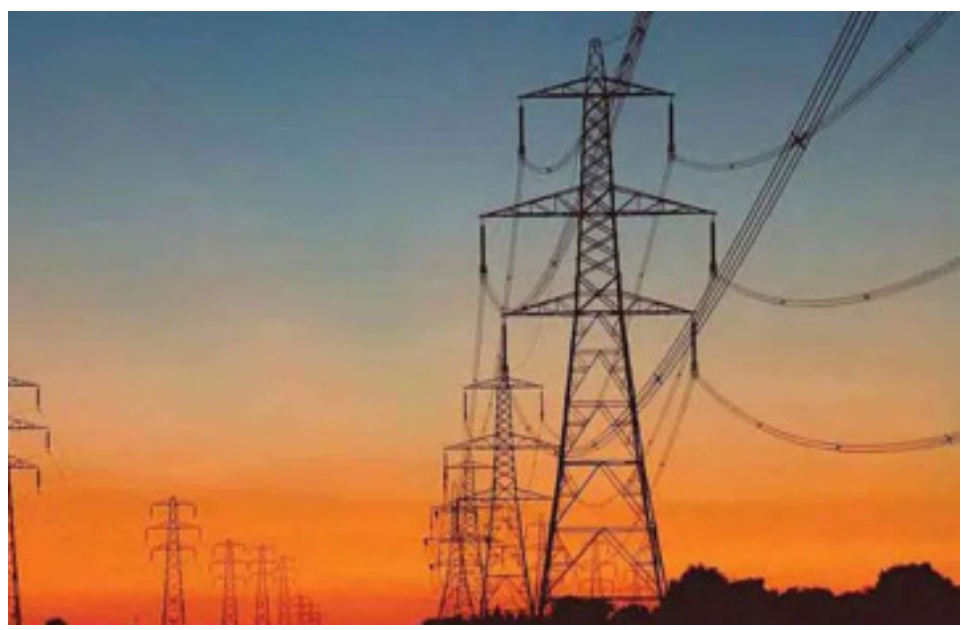
Amid scorching heatwave, India's power generation in May up 15%

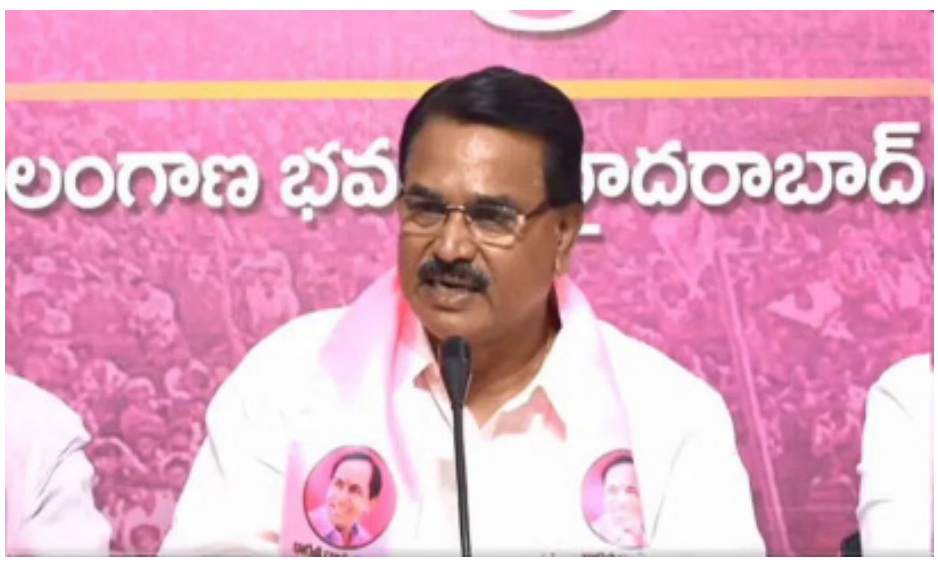
New Delhi: India's electricity production went up by a robust 15.06 per cent to 167.55 billion units in May this year compared to 145.61 billion in the same month last year, as demand surged amid the scorching heatwave, according to the monthly report of Central Electricity Authority.Thermal power, generated mainly from coal-and gas-based plants, contributed 127.87 billion units which represented a 14.67 per cent increase over the same month last year. The demand for electricity peaked at a record high of 250GW on May 30 as an extended heatwave across North India kept electricity demand elevated in May and most of June.

The peak power demand is projected to go up to 260GW in 2024-25. With the monsoon gathering pace to cover the entire country ahead of schedule and temperatures coming down in the northern States, the peak demand is currently at around 200GW.Hydropower generation is expected to increase with the reservoirs getting replenished during the monsoon. In May, electricity generation from large hydro projects rose 9.92 per cent to 11.62 billion units.

Renewable energy projects, excluding hydro, generated 22.50 billion units, 18.34 per cent more than the year-ago period. The power ministry has directed domestic coal-based plants to blend 6 per cent imported coal till September in order to ensure that sufficient electricity is generated to meet demand.With India clocking an economic growth of 8.2 per cent, the highest among the major economies, the demand for power has also shot up due to the increased economic activity. The Government is also considering taking a relook at the power demand projections in order to plan for creating more generation capacity in the next five years.



Rahul Gandhi owes explanation on party's double standards, says BRS



Hyderabad: Stating that Congress leader Rahul Gandhi had adopted double standards on his commitment to prevent defections, BRS leader S Niranjan Reddy said on Saturday that the Congress leadership which was encouraging defections owed an explanation on this count.Releasing to the media an open letter addressed to Rahul Gandhi questioning him on the issue of defections at press conference in Telangana Bhavan, Niranjan Reddy pointed out that the Congress had promised to prevent defections in its election manifesto but failed to uphold this commitment in practice.

Congress party leaders in Telangana were boasting of taking six BRS MLAs, including the former speaker, Pocharam Srinivas Reddy into the Congress. Such defections should have been either opposed by Rahul Gandhi or the Speaker of the State Legislative assembly should have taken the initiative for disqualifying the members who defected from the BRS.When Rahul Gandhi was deprived of his membership in Lok Sabha because of the machinations of the BJP, "we all sympathised with him", he said adding that the Supreme Court come to his rescue and restored his membership.Rahul Gandhi who had expressed his faith in the apex court on the occasion, did not take seriously the verdict of the Supreme Court on the automatic disqualification of the members defecting from one political party to the other.He said the Congress party would pay its price for the double standards adopted by it on defections. Appealing to Rahul Gandhi to respond to the four page open letter sent to him on behalf of the BRS leadership, Niranjan Reddy wanted the Congress leaders to act on the guarantees and promises made to the different sections of the people before the BRS hit the roads protesting against the Government's failure to fulfill them.Referring to the meeting of the Chief Ministers of Telangana and AP scheduled to be held in Hyderabad later in the day, he said it was much ado about nothing. People of Telangana should be wary of attempts of Chandrababu Naidu to rule Telangana by proxy, he added.

Nearly 400 bidders for Medigadda Barrage sand

Hyderabad: With the Telangana Mineral Development Corporation Limited (TGMDCL) inviting bids for the auction of sand dunes accumulated at the Medigadda barrage, 383 bids have come in!These bids were for the auction of 14 blocks. These sand blocks are located within Mahadevpur mandal of Jayashankar Bhupalpally district.

According to sources, a committee has been formed with five officials each from the TGMDCL along with one each from the Mining and Irrigation departments to examine the bids. It is learned that the process of examination of technical qualifications of the bidders has almost been completed and soon the bids of the qualified bidders will be scrutinized and selected, the sources added.

The upper reaches of the Medigadda barrage, which is part of the Kaleshwaram project, has huge reserves of sand. A large amount of sand accumulated after the water in the reservoir was drained. Officials are expecting to earn over Rs. 800 crore from the sale of the sand from the barrage. It is estimated that about 10 lakh tonnes of sand was available in the blocks being auctioned.

Sources said the sand would be removed from the respective blocks and moved to the storage centres in tractors and then transported through lorries to various destinations.

A case for reforming private health care

The National Health Policy (2017) envisages “universal access to good quality health care services without anyone having to face financial hardship as a result”. This goal is a clear affirmation of the commitment to universal health coverage (UHC). The policy also recognises “the pivotal importance of Sustainable Development Goals”. These list UHC as target 3.8, to be achieved by 2030.Two measured indicators of UHC are the degree of financial protection afforded to persons utilising needed health services, and the extent of health service provision to the population. The former is assessed by measuring and monitoring out-of-pocket expenditure (OOPE), catastrophic health expenditure, and the proportion of people made poor because of expenditure incurred on needed health care. The service coverage index is computed by combining tracer indicators across four domains: Reproductive, maternal, newborn and child health; infectious diseases; non-communicable diseases (NCDs); and service capacity and access. Adequate service coverage is essential to correctly estimate OOPE since the non-availability of accessible, affordable and quality health services can lead to people not seeking needed care. Such foregone care results in spuriously low estimates of out-of-pocket and catastrophic health expenditures, giving a rosy picture of financial protection.

India is attempting to improve performance on both these indicators. Comprehensive primary care, through Health and Wellness Centres, strengthening of district and medical college hospitals, and establishment of regional AIIMS are initiatives for improving service provision by the public sector. Much of this care is provided free of cost. However, existing public sector capacity is substantially supplemented by private sector hospitals. Extending service coverage can undermine the principle of financial protection which is cardinal to UHC. Claims about quality of care are contested, with considerable variability across both public and private hospitals.

India’s mixed health system evolved by default and not by design. Public sector health services were the main vehicle for the delivery of organised health services in the early decades after Independence. They dwindled in number and decayed in quality in many parts of the country, due to low levels of public financing and poor governance. Over time, the private sector grew in presence and influence, building financial muscle through investments that flowed in after liberalisation and globalisation opened the Indian economy. Tertiary care provision in urban areas is now dominated by the private sector.Both central and state governments are engaging private sector hospitals to supplement public sector provision of services in secondary and tertiary health care. This is done through central and state health insurance schemes, which purchase services from private hospitals. Several large employers also do so, through health insurance coverage for their employees. Some individuals buy private health insurance while others pay from their pocket for health services. Even insured individuals may have to pay for costs extending beyond the insurance coverage (co-payment).

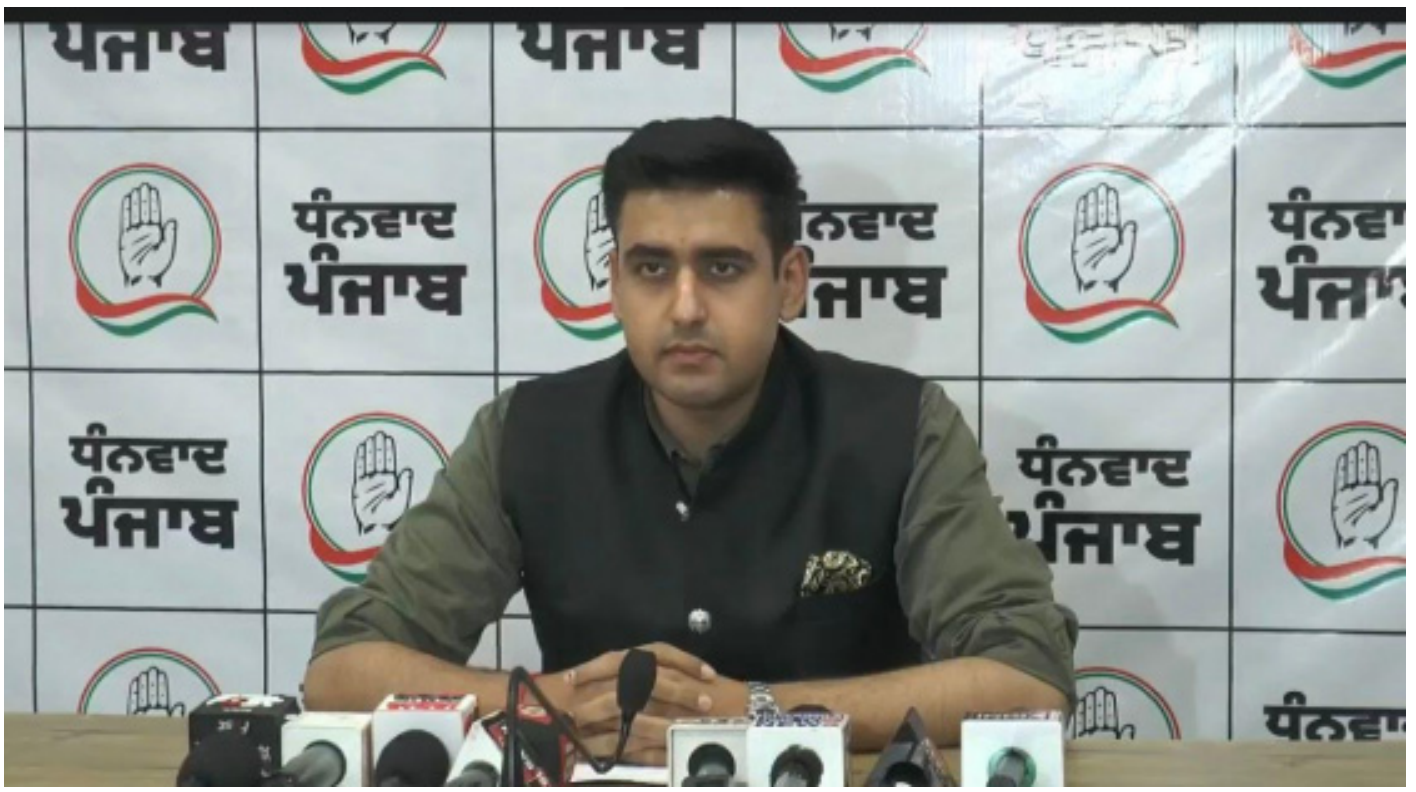
It is rational to use all existing health care resources in society to advance the objectives of UHC. However, that requires a robust regulatory framework wherein all health care delivery institutions deliver appropriate care, through quality-assured services, at an affordable cost. The government has to be the guarantor of UHC to the whole population, even if it is not the sole service provider or the purchaser of services.In this context, a recent judgment by the Supreme Court has stirred discussion on the duty of the Indian government to fix charges that can be reasonably levied by private hospitals. It came against the backdrop of considerable public discontent on the high costs charged by some private hospitals, even during the pandemic. The Court expressed concern that the government had not utilised the provisions of the Clinical Establishments Act and said that, if the government did not act, it would fix the charges at the rates paid by the Central Government Health Scheme (CGHS) for services provided to its beneficiaries by private hospitals.

The public and sections of the health insurance industry have welcomed the judgment, but the private health care industry has raised concerns. While agreeing with the spirit behind the judgment, it called for a “scientific method” of cost estimation—according to the type of health care provided (primary, secondary or tertiary), and location (rural, tier-2 or urban). Spokespersons of private hospitals call for “range pricing”, based on these assessments and factoring in the high investments made by private hospitals on land, infrastructure, skilled personnel and state-of-the-art equipment. They argue that qualified cost accountants should be part of committees that estimate costs across public and private health care institutions. Such an exercise was undertaken in Karnataka in 2017. Claiming that CGHS beneficiaries who avail private hospital services are cross-subsidised by payments from private patients, they warn that the imposition of unviable charges would threaten the survival and scalability of private sector health services. Critics point out that private hospitals have benefited from concessions in land pricing, low or exempt customs duties on equipment, and recruitment of doctors, nurses and technicians trained in publicly funded institutions.The government must undertake a credible process of cost estimation and price fixation, weighing all of these factors. Whether the patient pays directly or an insurance scheme pays, inflated costs hurt UHC. The government must ensure the development and adoption of standard management guidelines (for diagnostic tests and treatment protocols), monitoring their adherence to regular health care practice through periodic technical audits. Through such methods, it has to curb the pernicious practice of performing unnecessary tests or treatment procedures to boost hospital revenues.

Court’s questions on legislative privileges

The importance of the judgment of the seven-judge Constitution bench of the Supreme Court (SC) headed by the Chief Justice of India, Dhananjaya Y Chandrachud on March 4 overruling a five-judge bench in PV Narasimha Rao vs State, is that it contains a very authoritative pronouncement on the scope of Articles 105 and 194 of the Constitution. Article 105 deals with the privileges and immunities of members of Parliament (MPs) and Article 194 deals with the same with respect to members of the state legislatures. These privileges and immunities are the same for both MPs and members of legislatures.The 1998 SC judgment in PV Narasimha Rao was controversial because of a strange interpretation of Article 105 by the Court. The gist of the judgment was that an MP who takes a bribe for voting in a particular manner in the House and votes accordingly enjoys immunity from prosecution under the Prevention of Corruption Act. Another aspect of this interpretation was that if the MP, after taking money, does not vote in favour of that party or person in the House, he/she enjoys no immunity under Article 105 and is liable to be prosecuted. The simple meaning of this judgement is that a member of the legislature who takes a bribe for voting in favour of another party, which invariably is the ruling party of that time, and votes in the House as promised, can escape the consequences of the law.

Congress demands CM Mann's resignation over the collapse of law and order in Punjab



Chandigarh (JAG MOHAN THAKEN), July 6: Arshpreet Singh Khadial, the Chief Spokesperson of the Punjab Pradesh Congress Committee (PPCC), has called for Punjab Chief Minister Bhagwant Mann's resignation, citing his tenure of over two years as a period marked by the decline and downfall of the state across multiple areas.Khadial on Saturday organized a press conference in Chandigarh to address the pressing issues currently plaguing Punjab.In his address, Khadial expressed deep concern over the deteriorating law and order situation in the state. He highlighted a series of recent incidents that have left the citizens of Punjab alarmed and questioning their safety. "These are scary times in Punjab with the state facing back-to-back law and order incidents. The attack on the Shiv Sena leader in broad daylight in Ludhiana has been shocking and has made the entire state wonder about the law-and-order situation in Punjab," Khadial stated.Khadial did not mince words in his critique of Chief Minister Bhagwant Mann's administration. He called for CM Mann's resignation, citing his tenure of over two years as a period marked by the decline and downfall of the state across multiple areas. "Instead of governing the state and working for its betterment, Bhagwant Mann is staying in Jalandhar due to the upcoming by-elections in Jalandhar West. I would like to ask, is Bhagwant Mann the CM of Punjab or a representative of only Jalandhar?" questioned Khadial.

He further emphasized the growing discontent among the people of Punjab towards the Aam Aadmi Party government. "The Punjab CM can try his best, but it is clear that the people of Punjab have gotten fed up. Their bold claims of 13-0 in Lok Sabha elections by the AAP have failed to win only 3 seats, a similar image is set to be seen following the by-elections in Punjab," Khadial predicted.Khadial painted a grim picture of the current state of Punjab, noting the lack of investment, industry, and infrastructure. He attributed the decline in employment and the significant brain drain to the incompetence of the AAP government. "Punjab, earlier an image of growth and prosperity, has been converted into a state with no investment, industry, and infrastructure. Employment in our state has dropped and only the Bhagwant Mann-led AAP government is to be blamed for this," he asserted.He also addressed the pressing issue of brain drain, where the youth of Punjab prioritize migrating abroad over staying in the state due to the lack of job opportunities.

"Even though the situation abroad isn't fruitful, people still prefer that over staying in Punjab. This has all been caused due to the incompetence and inexperience of the Aam Aadmi Party, a party which has not worked throughout the last two years but only focused on false branding and marketing," Khadial said.Khadial criticized the AAP government for diverting attention from their shortcomings by blaming the administration, particularly the Punjab Police, for the ongoing drug menace. He noted that such accusations have severely impacted the morale of the police force."Instead of focusing on their own shortcomings, the AAP government has focused on pushing the blame on the administration with the blame of the drug menace on the Punjab Police, by claiming that the police force is hand in glove with the drug peddlers. Such incidents have led to a serious drop in morale of the police," he added.Highlighting the discrepancy in security measures, Khadial pointed out that AAP leaders continue to receive security while those facing real threats are ignored.Arshpreet Singh Khadial called for immediate action and accountability from the current administration. He urged the citizens of Punjab to remain vigilant and demand better governance to restore pace, stability, and progress in the state."It is time for the people of Punjab to rise and demand the leadership they deserve. We cannot afford to let incompetence and negligence dictate our future," he concluded.

Increased cases of Rotavac-induced intussusceptions after the third dose explained by background rates

In the paper published in the journal International Journal of Risk & Safety in Medicine (IJRSM), Brian Hooker and Jacob Puliyel say the risk of intussusception increased to nearly 2.5 times within 21 days after the third dose when self-controlled case series (SCCS) analysis was done after removing the unvaccinated from the analysis. Figure 1 of the New England Journal of Medicine (NEJM) paper shows that the third dose administration peaked at 16-17 weeks and then dropped sharply till 20-21 weeks and tapered till the end of 26-27 weeks. Unlike in the case of clinical trials, the uptake of rotavirus vaccine (any dose) during the universal immunisation programme was not precisely at the scheduled time periods of 6, 10 and 14 weeks, which is clearly shown in figure 1.

Explaining the reason for more number of cases in the high-risk period of 21 days after the third dose, the NEJM paper referring to figure 1 says: "The third dose of vaccine is scheduled to be administered at 14 weeks of age, but children presented at a median age of 18 weeks, which overlapped with the peak age of intussusception." This explains why more cases were seen among the vaccinated infants after the third dose.

Increased number of cases after the third dose (first 21 days after vaccination and the window after the high-risk period) is clearly illustrated in the bar chart in figure 2 of the NEJM paper. Figure 2 shows the number and the distribution of intussusception cases among the vaccinated infants during the first 21 days (the high-risk period) after any dose and the number of cases till 59 days after vaccine administration. Figure 2 also shows that the large number of cases during and after the risk-period following the third dose correlates with the delayed administration of the third dose.

According to the IJRSM paper, "susceptibility to adverse events need not be highest immediately after vaccination". But all SCCS studies on rotavirus vaccines carried out across the world have used the 1-21 days after a vaccine dose as the high-risk period. Similarly, as per the IJRSM paper, two time windows, 0-30 days and 31-60 days after the last rotavirus vaccination were chosen to "detect a temporal association with vaccination". However, across the world, temporal association with rotavirus vaccination is defined by the high-risk period of 1-21 days and compared with the non-risk period 22 days and beyond after a dose of vaccine.Cases of intussusception following vaccination do not suddenly stop after 60 days, as the figure 2 in the NEJM paper and other SCCS studies using other rotavirus vaccines have shown. As per the figure 2 and table 1 of the NEJM paper, the number of cases during the high-risk window (1-21 days) after the first dose were four after the first dose, 19 after the second dose and 37 after the second dose. During the period 22-59 days, there were 27 cases after the first dose, 59 cases after the second dose and 69 cases after the third dose. As per the figure 2 caption, there were 345 cases more than 59 days after the first dose, 265 cases more than 59 days after the second dose, and 181 cases more than 59 days after the third dose.

So restricting the comparison of intussusception frequencies to the time windows 0-30 days and 31-60 days makes it appear that more cases (92) are temporally associated with the last dose of vaccination in the 0-30 days compared with 63 cases in the 31-60 days window. Thus the choice of the two windows to find a temporal association with the last dose of vaccination appears misleading.With regard to shortening the analysis time to 180 days, the IJRSM paper says: "We selected to limit our analysis to 6 months because intussusceptions peak around 7 months in the unvaccinated."

HomeTown is Back with its New Store in HyderabadExperience Elevated Living at Gachibowli

HomeTown, a leading name in home retail and interior design in India, is thrilled to announce the grand opening of its brand new store, HomeTown, in Prism Mall, Gachibowli, Hyderabad. This exciting addition promises a distinctive and immersive shopping experience, perfectly catering to the modern homeowner's needs and tastes.HomeTown offers home and independent room packages at attractive price points, making home renovations and new home designs easily accessible, affordable and convenient. Our aspirational living room packages start at Rs. 44,900, living and dining room packages at Rs. 69,900, and bedroom packages at just Rs. 29,900.Covering over 19,000 square feet, the HomeTown store is your one-stop shop for all home essentials. From stylish furniture and home décor to functional tableware, kitchenware, modular kitchens, and wardrobes, everything you need is under one roof. The store's modern ambiance and thoughtfully arranged setups are designed to inspire and delight.We also feature the exclusive kids' furniture brand, Smartsters, with fun designs for children's rooms. Plus, our Interior Design Studio offers end-to-end design and project execution. Work with our professional designers and see your dream space come to life with advanced 3D visualizations.Our furniture collections are divided into three themes: Modern, Plush, and Indian, catering to different styles and preferences. Each piece is crafted for both durability and style.Modern: Combining contemporary New York style with Japanese Zen influences, this theme features warm textures, industrial metal, terra cotta tones, and mosaic patterns.Plush: Merging rich fabrics with elegant, refined designs, this style epitomizes sophisticated living with luxurious textures and accents of gold and other vibrant colors.

Indian: Infusing Indian cultural elements with global sophistication, this collection showcases an earthy design language with geometric patterns and colorful motifs, enhancing urban settings with elegance and richness.The Homeware collection at HomeTown showcases the latest trends in décor, furnishings, tableware, glassware, cookware, and kitchen essentials. With over 20,000 designs in décor and home fashion, the store offers something unique for every corner of the home.HomeTown also specializes in customized modular solutions for kitchens and wardrobes, offering over 100 styles and designs curated by in-house designers. To enhance the shopping experience, the brand offers Free Service Camps and White Glove Service, where our team of trained professionals handles the delivery, installation, and clean-up of your purchases, ensuring a hassle-free and enjoyable experience. To date, HomeTown has successfully designed more than 50,000 kitchens across India.Swetank Jain, CEO of Praxis Home Retail Ltd, shared his excitement, saying, "We're thrilled to bring HomeTown to Hyderabad. Our goal is to blend international design elegance with local customization, making it accessible to everyone. This new store is all about providing complete home experiences that inspire and transform living spaces."With the opening of this new store, HomeTown now operates 28 stores across 25 cities in India, serving over 15 lakh satisfied customers. The brand is renowned for its design excellence, quality, exceptional customer service, and after-sales support, including free delivery, free installation, three free service camps, and punctual delivery.For more information about HomeTown and its offerings, visit the official website at www.hometown.in.

A playbook to handle gestational diabetes better

A new series published in The Lancet on gestational diabetes takes a deep dive into the subject to come up with suggestions for greater focus on the pregnancy-related affliction, and a shift to a holistic life-course approach in its management.After a series on menopause in March, The Lancet has launched another series that looks at neglected areas of women's health. This time it deals with gestational diabetes, which refers to hyperglycaemia or high blood sugar levels first diagnosed during pregnancy. A common medical disorder in pregnancy, it reportedly has a global prevalence of 14%. The series offers insights and evidence into pathophysiology, screening, management, and prevention, besides suggesting new models of care that could protect both women and their children.

Age, family history of diabetes, and high BMI are major risk factors, so it comes as no surprise that rates are rising alongside a broader crisis of non-communicable diseases, such as obesity and cardiometabolic disorders, among women of childbearing age. Helmed by an editorial, the series talks of the increased complications associated with gestational diabetes its long term impact on the mother and infant, its rising incidence, the need to detect it earlier than is being done currently, modern treatment methodologies, and the need for a lifestyle approach to prevent the onset of GDM and complications. Pregnancy complications

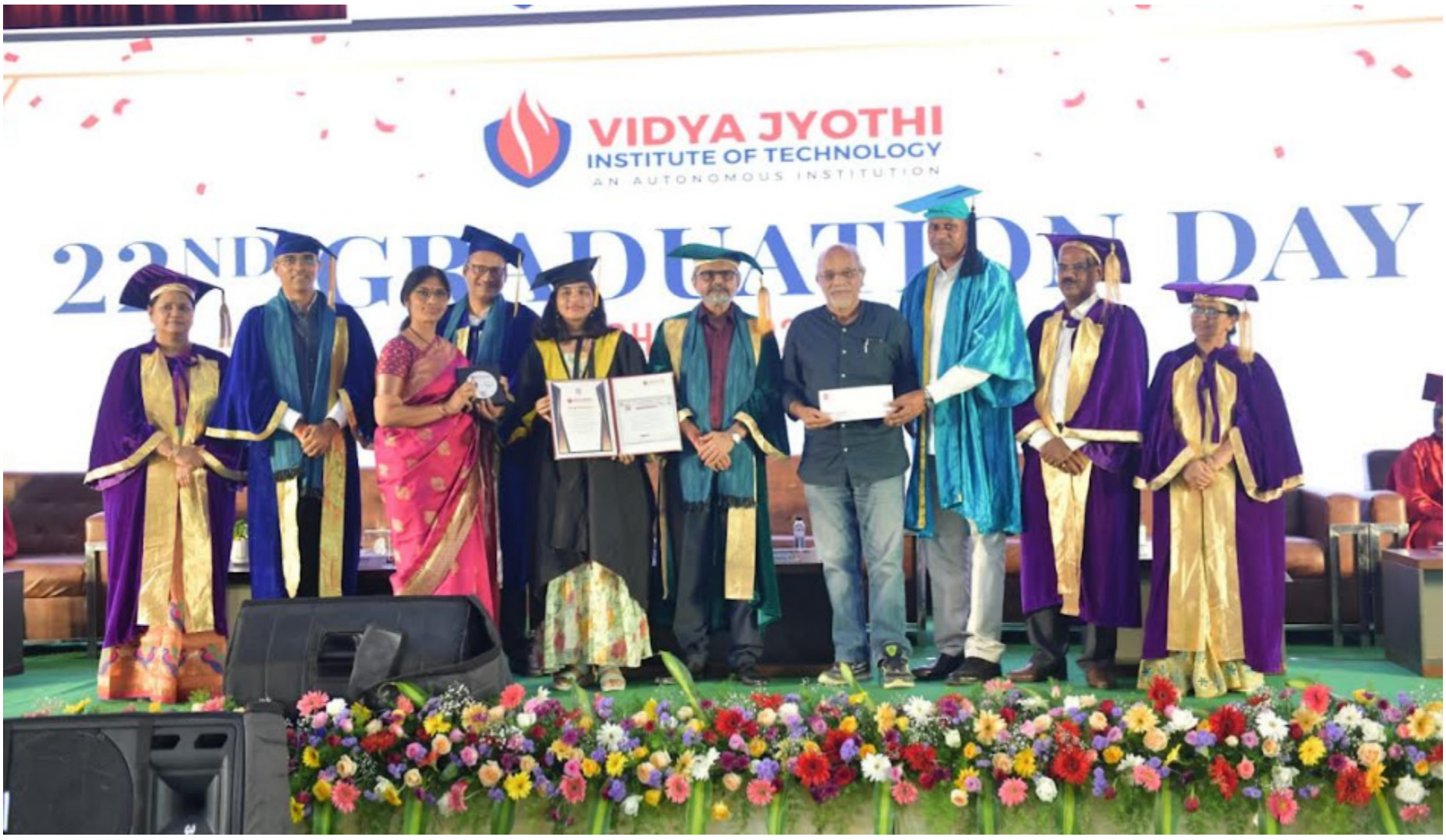
Gestational diabetes is associated with an increased risk of pregnancy complications, but it also threatens serious long-term complications for both mother and baby. Up to 31% of type 2 diabetes cases in parous women are attributable to gestational diabetes. Babies born to women with gestational diabetes are at increased risk not only of short-term perinatal morbidity and mortality but also of long-term complications, such as type 2 diabetes, obesity, cardiovascular diseases, and neurodevelopmental disorders. Experts from across the world pitched in as part of the series.

The editorial highlighted, from the research papers in the series, two major barriers to providing appropriate care for these

women: first, resources, and second, the isolation of secondary maternal care from primary care, meaning crucial information about a woman's pregnancy and how it might affect their long-term health is lost. But many other factors probably play into this failure, including a misconceived paternalistic wish to avoid further worrying women, childbearing mostly happening to young and physically well women for whom the long-term risks of non-communicable diseases might seem too distant, and a health-care ecosystem that prioritises the baby's health after birth over that of the mother.

VJIT Celebrates 2024 Graduation Ceremony, Inspiring Future Leaders in Technology

Esteemed Guests and Industry Experts Motivate Graduates to Embrace Innovation and Challenge Themselves



The Vidhya Jyoti Institute of Technology (VJIT) hosted its annual Graduation Day ceremony at the JPL Convention in Moinabad, Hyderabad, marking a significant milestone for the graduating class of 2024. The event brought together students, faculty, and distinguished guests for a memorable celebration of the graduates' achievements.The ceremony was inaugurated by Dr. U B Desai, In his welcome address, Dr. E. Saibaba Reddy, Principal of VJIT, congratulated the graduates on their hard work and perseverance. "Today, we celebrate your dedication and achievements," Dr. Saibaba said. "You have shown resilience and commitment, and we are proud of all you have accomplished."

Dr. Saibaba also highlighted the institute's strengths, including the dedication of the faculty, the outstanding performance of VJIT's sports teams, and the impressive placement record of 95% this year, with many students securing positions in top companies such as Capgemini and Tech Mahindra.Following the welcome address, Dr. Palla Rajeshwar Reddy, Secretary & Correspondent of VJIT, emphasized the importance of the knowledge and skills the graduates had acquired during their time at the institute. "Your education here has prepared you to face the challenges of the future with confidence and determination," Dr. Palla Rajeshwar remarked. "We look forward to seeing the positive impact you will make in the world."The ceremony was further enriched by the presence of three distinguished guests of honor: Mr. Abhishek Shroti, Vice President at Capgemini; Mr. Vinay Agarwal, Business and HR leader at Tech Mahindra; and Dr. U B Desai, Chancellor of Anurag University and Former Director of IIT Hyderabad.In their inspirational speeches, the guests encouraged the graduates to embrace adaptability, continuous learning, and innovation. Mr. Shroti urged the graduates to "stay curious and embrace the opportunities that come your way," while Mr. Agarwal encouraged them to "use their skills and knowledge to create meaningful change." Dr. Desai emphasized the importance of critical thinking and leveraging their education to make a positive difference in the world.The ceremony included the administering of the pledge by the graduating students, followed by the distribution of awards to institute toppers and department toppers. The graduates then received their certificates, marking the official completion of their academic journey at VJIT.Aluru Sai Harshitha, one of the graduates, reflected on the significance of the day, stating, "Graduating from VJIT is a proud moment for all of us. We are grateful for the education and support we received here and are excited to embark on our next adventures."The event concluded with the traditional cap toss, symbolizing the graduates' hope and excitement for the future. As the Class of 2024 celebrated their accomplishments, they looked forward to the opportunities and challenges ahead, ready to make their mark on the world.

Doctor, his teenage daughter test positive for Zika virus infection in Pune

A 46-year-old doctor and his teenage daughter have tested positive for Zika virus infection in Pune city of Maharashtra, but their health condition is stable, an official said on June 26.

The man recently developed symptoms like fever and rashes, following which he was admitted to a private hospital. The medical facility sent his blood samples to the city-based National Institute of Virology (NIV) for analysis. On June 21, his reports confirmed that he tested positive for Zika virus infection, a health official of the Pune Municipal Corporation (PMC) said.The doctor is a resident of Erandwane area of the city, he said.

“After he tested positive, the blood samples of his five family members were collected and sent for analysis, and it was found that his 15-year-old daughter was also positive for the infection,” the official added.The Zika virus disease is transmitted through the bite of an infected Aedes mosquito, which is also known to transmit infections like dengue and chikungunya. The virus was first identified in Uganda in 1947.

After these two cases were reported in the city, the PMC’s Health Department has started conducting surveillance, the official said.Although no other suspected cases have been found in the area, the authorities have started taking precautionary steps like fogging and fumigation to curb the breeding of mosquitoes, he said.“The mosquito samples have been collected by the state health department. We have started the general public awareness in the area and given instructions to monitor the health of pregnant women in the area. Zika does not lead to serious complications in general, but in case a pregnant woman gets infected, it may cause microcephaly in the foetus,” he said.

With hard hats and shovels, women break the rock ceiling in the deep

The blooms of the palash tree have set the rugged brown landscape of Asansol and Dhanbad on fire. In this otherwise dreary coal mining belt, 3,277 women of Eastern Coalfields Ltd. (ECL) have emerged ground breakers: they crack through hard rocky surface, mining coal with heavy machinery, while breaking gender stereotypes.ECL, which works across West Bengal and Jharkhand, is a subsidiary of Coal India Ltd. (CIL) that employs approximately 20,000 women, and is the top employer of women in a Central public sector enterprise (CPSE). However, that's just 8% of the company's 2.4-lakh workforce. The share of women in traditional male dominated on-field mining activities is lower still. However, this male bastion is slowly being breached.In the vast expanse of Sonepur Bazari in West Bengal's Raniganj Coalfields open-cast mine, where coal is extracted from an open pit, 49-year-old Bindu Paswan rides laboriously on a giant mechanised shovel. Within 20 minutes she fills a 60-tonne dumper. "She is among our best workers," an overseer said.Ms. Paswan, who finished Class IX, joined the Asansol-based ECL after the death of her husband. The job was offered to her on compassionate grounds, and rather than an office job like her husband's, the mother of four daughters opted to work in the mine. Her daughters, she said, were proud of her. Three years after joining service in 2010 she was put on ground, to operate a shovel. "It gives me freedom and also provides a lot of recognition. There are not many women shovel operators in the coal mine," she said.Ms. Paswan is not the only woman though. In Barmuri open-cast mine in Dhanbad district of Jharkhand, bordering West Bengal, there are about six women shovel operators and drill operators.

Amoti Mejhiyan and Malti Mejhiyan, both in their early 30s, are operating shovels in the open-cast mine pit. "Initially it was difficult to operate such heavy machinery, but now after years of practice I am used to it," Ms. Malati said. A few hundred metres away in the mine, sari-clad Saraswati Mejhiyan and Kumari Babani Bhuniya are operating a massive drilling machine that helps to blast open the surface. The women prefer morning shifts, from 6 a.m. to 2 p.m.Ms. Paswan, Ms. Malti, Ms. Saraswati and others paved the way for a wider revolution in the Indian mining sector in 2019. The Mines Act of 1952, disallowed the employment of women in underground mines completely and the deployment of women in open-cast mines between 7 p.m and 6 a.m. This practically restricted training and the requirement of women mining engineers, resulting in a gender-bias in the technical cadre at the executive level.In 2019, the Central government opened the field for women, asking mine owners or management to frame Standard Operating Procedures to facilitate employment of women.Ahuti Swain, Director (Personnel) of ECL, said that women employees were being encouraged to work in groups in underground mines in the operator category. "Women employees have undertaken various challenging roles in mining activities as crane, shovel, drill, fan operators and and more, and have proved their mettle," Ms. Swain said, adding that 678 women were posted in on-field operations in open-cast mines.Working in underground mines throws up different challenges. Poulomi Musib was the first woman mining engineer to have completed a B. Tech in mining, from the Indian Institute of Engineering Science and Technology (IIEST), near Kolkata.

She was also the first woman mining engineer recruited by CIL in 2011.Paulami Musib, a mining engineer, along with Antara Mukherjee and Priyanka Chowdhury outside Narsamuda Colliery, an underground mine.Paulami Musib, a mining engineer, along with Antara Mukherjee and Priyanka Chowdhury outside Narsamuda Colliery, an underground mine. | Photo Credit: Debasish BhaduriAfter the legal restrictions were withdrawn, Ms.

Musib was deployed at Narsamuda Colliery, to complete her training. Narsamuda is an underground mine, where coal is extracted through an incline reaching up to 170 metres below the surface."I have to go down the mine daily and when I come up and remove the helmet, it's as if someone has poured water on me," she said, referred to the heat in the dimly lit tunnels. "But I love this job; this is something I have wanted to do all my life," Ms. Musib said. She is happy to be training two other women now. "

Regulator's guidelines on Rajasthan power lines 'flout' Supreme Court orders, threaten the Great Indian Bustard: Petitioner

In a move that helps solar power projects in Rajasthan but may hinder efforts to make the region safe for the endangered Great Indian Bustard, the Central Electricity Authority (CEA) — India's apex power regulator — has proposed that only power lines below 33 KV need to go underground and the rest be fitted with bird-diverters. Conservationists have objected to the proposal and say the move could lead to the "extinction" of the bird.The CEA proposal was part of draft regulations issued on February 1 — and open to public comment until March 3 — that came in the background of an ongoing case involving the threat to the bustard and other birds from power lines. High tension power lines in Rajasthan and Gujarat, from solar plants, often lay in the flight path of the birds causing them to collide — often fatally — into them. While several species of migratory birds were being harmed, the matter is of particular concern to the future of the bustard as fewer than 150 of them remain, and existing conservation methods fall short of effectively replenishing their numbers.

Environmentalists and conservationists approached the Supreme Court in 2019, following which it directed, in 2021, that all 'low-voltage' power lines, in areas demarcated as "priority and potential habitats of the Great Indian Bustard" in the Thar and Kutch deserts, be pushed underground. "Priority zones" are areas where the birds are known to live and "potential regions" are those where conservation programmes, such as breeding the birds in captivity, are ongoing.A majority of the lines that transmit power from Rajasthan's

solar projects have a rating above 33KV and several such proposed ones are expected to pass through the 'priority' areas. While there is no standard definition of a 'low-power' line, the Ministry of Power in affidavits to the Supreme Court defined them as power lines 132 KV and lower. The SC order would have thus required several existing and proposed lines to go underground, hiking the cost of supplying solar power. The court had also constituted a three-member committee whom power companies could approach; in case they wanted exemptions from undergrounding.

This committee, The Hindu reported on February 4, recommended that 10% of the nearly 8,000-km length of proposed power lines in the Thar and Kutch deserts of Rajasthan and Gujarat be re-routed or made to go underground. No company approached the committee for exemptions to already established lines."These draft regulations appear to be a way to circumvent the orders of the Supreme Court," said M.K. Ranjitsinh, lead petitioner and noted conservationist. "

The 11 KV lines are relatively low [in height] and have already been exempted. It was the high tension lines that were the problem and with these regulations, virtually all high power lines get the pass-through," he told The Hindu."If the regulations come into effect this would lead to the extinction of a critically endangered species, which is also the State Bird of Rajasthan.

Artificial intelligence's new frontier

Picture a computer that could finish your sentences, using a better turn of phrase; or use a snatch of melody to compose music that sounds as if you wrote it (though you never would have), or solve a problem by creating hundreds of lines of computer code—leaving you to focus on something even harder. In a sense, that computer is merely the descendant of the power looms and steam engines that hastened the Industrial Revolution. But it also belongs to a new class of machine, because it grasps the symbols in language, music and programming and uses them in ways that seem creative. A bit like a human.The "foundation models" that can do these things represent a breakthrough in artificial intelligence, or AI. They, too, promise a revolution, but this one will affect the high-status brainwork that the Industrial Revolution never touched. There are no guarantees about what lies ahead—after all, AI has stumbled in the past. But it is time to look at the promise and perils of the next big thing in machine intelligence.

Foundation models are the latest twist on "deep learning" (dl), a technique that rose to prominence ten years ago and now dominates the field of AI. Loosely based on the networked structure of neurons in the human brain, dl systems are "trained" using millions or billions of examples of texts, images or sound clips. In recent years the ballooning cost, in time and money, of training ever-larger dl systems has prompted worries that the technique was reaching its limits. Some fretted about an "ai winter". But foundation models show that building ever-larger and more complex DL does indeed continue to unlock ever more impressive new capabilities. Nobody knows where the limit lies.

The resulting models are a new form of creative, non-human intelligence. The systems are sophisticated enough both to possess a grasp of language and also to break the rules coherently. A dog cannot laugh at a joke in the New Yorker, but an AI can explain why it is funny—a feat that is, frankly, sometimes beyond readers of the New Yorker. When we asked one of these models to create a collage using the title of this leader and nothing more, it came up with the cover art for our American and Asian editions (we tried to distract our anxious human designers with a different cover in our European editions).

Foundation models have some surprising and useful properties. The eeriest of these is their "emergent" behaviour—that is, skills (such as the ability to get a joke or match a situation and a proverb) which arise from the size and depth of the models, rather than being the result of deliberate design. Just as a rapid succession of still photographs gives the sensation of movement, so trillions of binary computational decisions fuse into a simulacrum of fluid human comprehension and creativity that, whatever the philosophers may say, looks a lot like the real thing. Even the creators of these systems are surprised at their power.

This intelligence is broad and adaptable. True, foundation models are capable of behaving like an idiot, but then humans are, too. If you ask one who won the Nobel Prize for physics in 1625, it may suggest Galileo, Bacon or Kepler, not understanding that the first prize was awarded in 1901. However, they are also adaptable in ways that earlier ais were not, perhaps because at some level there is a similarity between the rules for manipulating symbols in disciplines as different as drawing, creative writing and computer programming. This breadth means that foundation models could be used in lots of applications, from helping find new drugs using predictions about how proteins fold in three dimensions, to selecting interesting charts from datasets and dealing with open-ended questions by trawling huge databases to formulate answers that open up new areas of inquiry.

That is exciting, and promises to bring great benefits, most of which still have to be imagined. But it also stirs up worries. Inevitably, people fear that AIs creative enough to surprise their creators could become malign. In fact, foundation models are light-years from the sentient killer robots beloved by Hollywood. Terminators tend to be focused, obsessive and blind to the broader consequences of their actions. Foundational AI, by contrast, is fuzzy. Similarly, people are anxious about the prodigious amounts of power training these models consume and the emissions they produce. However, AIs are becoming more efficient, and their insights may well be essential in developing the technology that accelerates a shift to renewable energy.

A more penetrating worry is over who controls foundation models. Training a really large system such as Google's PaLM costs more than $10m a go and requires access to huge amounts of data—the more computing power and the more data the better. This raises the spectre of a technology concentrated in the hands of a small number of tech companies or governments.If so, the training data could further entrench the world's biases—and in a particularly stifling and unpleasant way. Would you trust a ten-year-old whose entire sense of reality had been formed by surfing the internet? Might Chinese- and American-trained ais be recruited to an ideological struggle to bend minds? What will happen to cultures that are poorly represented online?And then there is the question of access. For the moment, the biggest models are restricted, to prevent them from being used for nefarious purposes such as generating fake news stories. Openai, a startup, has designed its model, called DALL-E 2, in an attempt to stop it from producing violent or pornographic images. Firms are right to fear abuse, but the more powerful these models are, the more limiting access to them creates a new elite. Self-regulation is unlikely to resolve the dilemma.For years it has been said that AI-powered automation poses a threat to people in repetitive, routine jobs and that artists, writers and programmers are safer.

Stroke preparedness: Recognising early signs and actions to take

It very important to recognise early signs or symptoms of stroke and take prompt action right away as every minute delay, especially in an ischemic stroke, can lead to the death and destruction of thousands and thousands of neurons in the brain. So, what is something we can do to recognise early signs of a stroke?In an interview with HT Lifestyle, Dr Sonia Lal Gupta, Senior Neurologist and Director at Metro Group, revealed, "The first simple formula that we can follow is this aqua name called FAST. This is an easy way to remember the signs of a stroke as 'F' stands for grouping of the face on one side or sudden numbness. 'A' stands for arm weakness, which happens all of a sudden and the person complains of feeling weakness in the arm. 'S' stands for speech difficulty that is sudden difficulty in speaking properly and not being able to understand his speech or having slur speech. 'T' stands for time as every second we are losing hundreds and hundreds of neurons. It is important to get to the hospital as soon as possible."She added, "An important thing to remember is that it happens suddenly. There can be confusion, there can be trouble walking, dizziness and sometime even very severe sudden headache or sudden loss of vision can also be signs of stroke and it is important to get to the nearest hospital as soon as possible.

The key thing about stroke is to also understand that what are the risk factors one should keep in mind that increase the chances of having a stroke. These include lifestyle diseases such as high blood pressure, diabetes, high cholesterol conditions like smoking, obesity and medical conditions like irregular heart beat called atrial fabulation.

"She advised, "To help decrease your risk of stroke, maintain a healthy lifestyle such as eating a balanced diet, regular exercise at least 4-5 times a week, managing stress better, extremely important to quite smoking and controlling diseases like high blood pressure, diabetes. Many a times people ignore high blood pressure and diabetes and tend to take other medication over the top medication that are easily available but such life threatening conditions are long term and can worsen the condition of the people and put them at a risk of having stroke or heart attack.

The world's newest data-gatherers are sharks, storks, seals

The tempest prognosticator was an ornate brass-glass-and-mahogany device meant for use by the wealthy, in their drawing rooms. As it turned out, keeping the leeches healthy was a bigger challenge than it was worth.And soon the world had moved on, to more finely tuned instruments that began to unlock secrets behind some of Earth's most powerful forces, from magnetism and earthquakes to storm systems and tides.

Now, as we seek new kinds of information in a rapidly changing world, science is circling all the way back to biomonitoring.Let's start really small. In 2021, clams in a Warsaw reservoir were fitted with tiny sensors that alerted officials when heavy metals or pesticides were leaching into the city's drinking-water supply. When exposed to such pollutants, the shellfish clam up, setting off the alarms. Mussels have been tasked with the same job in Minneapolis for more than a decade.

Scaling up, in the cold depths of the Antarctic Ocean, trackers placed on elephant seals have helped oceanographers survey hard-to-access spaces such as coastal shelves. Tiger sharks, migrating storks and Weddell seals have similarly been deployed as unknowing data-gatherers.It helps that the tags have improved dramatically. They have morphed from clunky devices with relatively short battery lives of about six months, to solar-powered sensors that can weigh as little as 2 gm, and never exceed 3% of the total weight of the animal. Some can even draw from the kinetic energy of the animal's movements, and are designed to transmit data through a creature's lifespan.Could such sensors, gathering readings in real time, read and reprogrammed remotely, be used to create an Internet of Animals, to help us assess real-time changes in our oceans, skies and biomes? Take a look at ongoing efforts and recent successes.

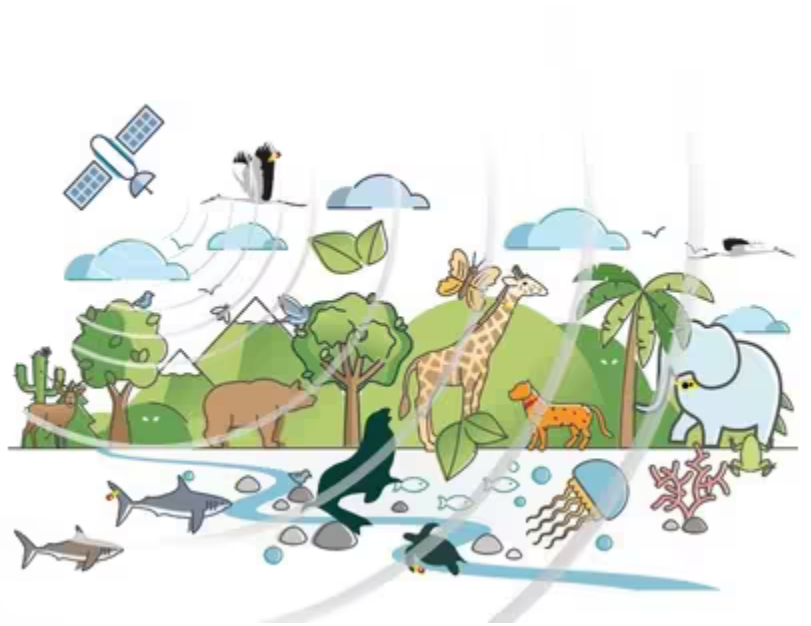
Tiger sharks began behaving rather strangely in the Atlantic Ocean off the coast of the Bahamas, in 2016. These large predators tend to hunt close to the shoreline. So when they started moving away from it, marine biologists at the not-for-profit organisation Beneath the Waves (BTW) became curious enough to attach 360-degree cameras to the fish, to see what was drawing them away.What they discovered, and eventually mapped with the sharks' help, was 66,000 to 92,000 sq km of seagrass ecosystems that satellite images of the subsea terrain had not revealed (and still can't see).

This is the world's largest known seagrass ecosystem, a 2022 paper published by BTW in the journal Nature Communications stated. "Since seagrass beds are excellent sources of capturing, or sequestering, carbon (~17% of the ocean's carbon annually), this discovery provides the world with a better idea of the ocean's capacity to store carbon that would otherwise be held in the atmosphere," said a statement by BTW.

Deep-diving Weddell and elephant seals have been helping map the floor of the Antarctic shelf, with the result that oceanographers are now redrawing estimates of how deep the ocean is here, and are adding underwater features to existing maps, including a marine canyon near the Vanderford Glacier.In a study published in the Nature journal Communications Earth & Environment in August, researchers at the Institute for Marine and Antarctic Studies (IMAS) of the University of Tasmania reported that the seals were diving to levels 1,000 metres deeper than where existing estimates placed the ocean floor.Even more revealing, there were channels of warm water here, the sensors reported; a finding with severe implications for ice shelves and ice-shelf cavities, amid rising ocean temperatures."If we can find out exactly where the water accesses the underside of the shelves, we'll also be much better placed to quantify melt rates, freshwater input into the ocean and other variables that affect our future oceans and climate," study co-author and IMAS ecology and biodiversity professor Mark Hindell said in a statement.

Animals first?Researchers of ecology and evolutionary biology at Yale University believe that existing methods of collecting weather and climate data could become outdated as we learn to leverage sensors better, to draw data and insight from animals on the move.

In a paper published in the journal Nature Climate Change in September, the researchers showed how "active environmental sentinels" could close critical data gaps by measuring air temperature, pollution, ocean salinity and a range of other metrics in real time, offering a crucial advantage over static traditional systems already struggling to do the job in a climate-change world.Monkeys bearing GPS sensors, for instance, can relay information about temperatures on the ground beneath a cloud-covered jungle canopy. Sensors on mountain goats could provide real-time data on temperature fluctuations in mountainous regions where weather stations cannot be built. Storks could offer in-depth readings of windspeed strength and air movements above oceans, with implications even for flight paths and turbulence.And domestic animals such as cows, sheep and dogs could warn against earthquakes, through changes in their behaviour, up to 20 hours before the tremors struck.In 2020, researchers from the Max Planck Institute of Animal Behavior and the Centre for the Advanced Study of Collective Behaviour at the University of Konstanz, studied the unusually high activity levels in farm animals before earthquakes. It is possible that their fur helps them sense the ionisation of the air caused by changes in ambient pressure, or that they can smell certain gases released before an earthquake.Further studies could determine what conditions tell birds to lay fewer eggs in years before a complex



weather phenomenon such as El Niño, or build their nests higher up before floods. (One explanation involves the theory that we live in a simulation, but that, of course, is an entirely different area of study.)It's a plan so audacious, it's been named ICARUS (the International Cooperation for Animal Research Using Space).

Researchers Martin Wikelski and Uschi Muller at the Max Planck Institute of Animal Behavior are testing an experimental tracking system that will begin data collection in October, using sensors attached to animals and birds around the world — and a receiver fitted onto a very small satellite, named CubeSat.Scientists will be able to download data and remotely reprogramme any or all of the sensors.CubeSat will rotate in low-earth orbit, allowing it to circumvent the planet multiple times a day. As a result, it can gather data from around the world, bringing scientists fresh updates from isolated deserts, polar ice fields, oceans and skies.In a first phase carried out in March 2021, the solar-powered sensors (which weigh less than 5 gm) were deployed across 15 species, including songbirds, rodents and fish.What the researchers aim to eventually create is an "Internet of Animals" that offers an overview of individual readings and movements, and uses such data to predict, track and mitigate aspects of climate change, biodiversity loss, disease and other threats to human and non-human populations.Ships could potentially be told when to reduce speed, for instance, to avoid collisions with colonies of whales. Zoonotic data could track the emergence and spread of new viruses.The real-time connection of disparate pieces of information would "(allow) us to identify cause and effect, and to ultimately make predictions about natural phenomena that we previously didn't understand," Wikelski said in a statement.

Musk's X cracks down on deepfakes with improved image matching

New Delhi: Tesla and SpaceX CEO Elon Musk, on Saturday, said that a new update on "improved image matching" will defeat deepfakes as well as shallowfakes on social media platform X.The new update will show notes on 30 per cent more posts that contain "similar or identical images."

"We just rolled out the update and will be monitoring for any erroneous image matches," X said in a post.Musk added that this move "should make a big difference in defeating deepfakes (and shallowfakes)."Shallowfakes are photos, videos and voice clips generated without the help of artificial intelligence (AI), and use widely available editing and software tools.X notes on images automatically show on posts that contain a matching image."It's common for these notes to match on dozens, hundreds and sometimes thousands of posts. Now, you can see how many posts an image note is matching on, right in note details," according to the company.In the global election season, experts have warned about the spread of fake news and deepfakes that aim to interfere with polls.