

# 'Container school' for tribal children set up in Bangarupalli thanda of Mulugu

Mulugu: After setting up a prefabricated health sub-centre, popular as the 'container hospital', for providing emergency medical treatment to people living in the remote agency area of Pocharam in Bandhala gram panchayat of Tadvai mandal, the district administration is preparing to launch a "Container School" for the children of Bangarupalli thanda situated in the forest area of Kannaigudem mandal of the district.

Sources say since the forest rules do not allow permanent structures in the forest areas, the children of the tribal communities residing in the Bangarupalli thanda were studying in huts. To provide a better facility, Collector TS Divakara sanctioned Rs.13 lakh for construction of the container school. The container school is reportedly ready and will be inaugurated by Panchayati Raj Minister Danasari Anasuya on Tuesday. This is the first instance of a government school being established in a container in the State. The container school is 25 feet wide and 25 feet long. It has space for up to 12 dual desks and 3 chairs for principal and teachers. Although container shops and houses are being built in the State, this is the first time that it has been converted into a government school. "The container classroom is an initiative taken up under the guidance of the PR Minister. This will go a long way in resolving issues related to non-availability of permanent school buildings, especially in the remote areas," he observed.

According to officials, the container



classroom could be taken to remote areas and villages, especially where construction of buildings for skilling was not feasible.. Container classrooms were a cost effective, scalable, and flexible option to

create additional space for students—both permanently or as a temporary solution. The mobile and flexible nature of containers unlocks countless solutions, both permanent and temporary, to the

unique challenges faced by school maintenance and facilities teams. They can be relocated easily, making container classrooms a valuable option for temporary classroom space.

## Office leasing market in Hyderabad sees sharp 71 percent growth: Knight Frank

Hyderabad: Nurturing Hyderabad over the last decade with focus on quality of life and a series of measures to improve the infrastructure continue to help the city sustain its dominance in office spaces leasing. The latest report from Knight Frank India, the country's premier real estate consultancy, documents that Hyderabad's office leasing market experiencing a sharp 71 per cent year-on-year (YoY) growth, with a total of 5 mn sft of area being transacted during H1 2024.

The increase in absorption by Global Capability Centres (GCCs) and flex space operators can be primarily attributed for the rise in demand for large office spaces in the city, it says. According to Knight Frank report, large office spaces (100,000 sft or more) constituted for 61 per cent of Hyderabad's total transactions in H1 2024, with 3.08 million sft transacted. This marks a 109 per cent year-on-year growth compared to 1.47 million sft in H1 2023. In the first half of 2024, approximately 26 per cent

of transactions, totalling 1.29 million sft, occurred in mid-sized office spaces ranging from 50,000 sft to 1,00,000 sft. This category experienced a significant YoY growth of 200 per cent, up from 0.43 million sft in H1 2023. Small office spaces, measuring below 50,000 sft made up 13 per cent of transactions in H1 2024, totaling 0.67 million sft, the study pointed out. Joseph Thilak, National Director- Occupier Strategy and Solutions (Hyderabad & Chennai) said that Knight Frank India points out that Hyderabad has seen strong growth in demand in recent years, reinforcing its position as a preferred hub for businesses. "This demand is fuelled by the city's exceptional quality of life, strong infrastructure, and steady influx of top-tier talent," he added. The recovery of the Information Technology sector in 2024, along with increased hiring activity, particularly by Global Capability Centres (GCCs), is anticipated to further boost commercial leasing demand in the coming months, Joseph Thilak adds.





# For Karnataka's growers, areca a hard nut to crack

Areca growers in Karnataka experienced a rude shock recently when traders in north India rejected truckloads of their produce, citing poor quality. This hit the areca price in the market by nearly ₹10,000 per quintal. The growers, who were expecting returns up to ₹58,000 per quintal, are now selling their produce for around ₹47,000 per quintal. Karnataka is the largest areca-growing State. The demand for nuts, particularly from the hilly Malnad region, is traditionally highest in north India, particularly in Gujarat, Rajasthan, and Uttar Pradesh. The agriculture economy of many districts in the Malnad region and central Karnataka depend on areca cultivation. When the produce was rejected, co-operative bodies of areca marketing in the Malnad region appealed to both the growers and traders to prioritise quality. The rejections have led to a war of words between the growers and traders.

The growers blame the traders. They allege that the traders mix different varieties of nuts and send loads of these to buyers in north India in the hope of higher returns. Areca nuts are categorised as Nuli, Hasa, Rashi, Bette and Gorabalu depending on their look and feel, the experience of biting into them, their aroma, and so on. Nuli and Hasa are top quality nuts and are highly valued. Gorabalu is of inferior quality. According to marketing bodies, a few traders mixed Gorabalu with Rashi and Bette. A truckload normally consists of 330 bags of nuts, each weighing some 70 kg. Farmers allege that traders mixed around 100 bags of Gorabalu nuts with Rashi to make quick money.

As several truckloads of nuts have been rejected in recent months, the demand for areca nuts fell and the prices crashed. The growers maintain that they are suffering for no fault of theirs: they sell their produce to middleman, who in turn make a deal with traders. They allege that low quality nuts were mixed with better quality ones after the nuts were sold to middlemen. Meanwhile, according to the traders, a handful of farmers have begun using chemicals during the processing of nuts to enhance the look and feel of inferior-quality nuts. Processing involves removing the husk and boiling the kernels. While a majority of growers follow the traditional method of processing that does not involve chemicals, the traders say some have, which has landed them in trouble during quality checks.

While these issues are being sorted out by local authorities, a section of growers believes that there is a larger reason why the nuts from Karnataka were rejected. They believe that inferior-quality areca is being illegally imported from Myanmar, Sri Lanka, and other countries. The farmers have demanded that this stop. Office bearers at the Shivamogga district areca growers' association say the Nagpur Bench of the Bombay High Court as well as Assam High Court have taken note of these illegal imports and the Centre should act to stop it. The issue of produce being rejected is only the latest in a series of problems that the areca growers are facing. In recent years, areca cultivation has been badly hit by fruit rot and yellow leaf disease. This year, following heavy rains in July and August, nearly 40% of the total areca plantation in Shivamogga district was affected by fungal disease. The situation in other



areca growing areas is no better. The infection reduces the yield substantially, causing a huge loss to the farmers. The growers have been following the advice of experts from the Horticulture Department and scientists and are desperately trying to protect their palms from the disease. Vast tracts of areca plantations in Chikkamagaluru, Shivamogga, and Uttar Kannada districts have already been hit

by yellow leaf disease. The yield in these plantations has come down by nearly 90%. A team of scientists from ICAR-Central Plantation Crops Research Institute at Kasargod, Kerala, visited the farms in Malnad region to examine them. Despite a series of protests and demands by the planters, no solution has been offered to them. Many growers, particularly those in the traditionally areca-growing regions of

Thirthahalli, Hosanagara and Sagar in Shivamogga district and Sringeri, N.R. Pura, and Koppa in Chikkamagaluru district, are even moving to bigger cities, abandoning their farms.

While some of these problems require detailed research, the traders and growers need to work together to solve the immediate problem of a drop in demand.

## Tech billionaire returns to Earth after first private spacewalk

A billionaire spacewalker returned to Earth with his crew on Sunday, ending a five-day trip that lifted them higher than anyone has travelled since NASA's moonwalkers. SpaceX's capsule splashed down in the Gulf of Mexico near Florida's Dry Tortugas in the predawn darkness, carrying tech entrepreneur Jared Isaacman, two SpaceX engineers and a former Air Force Thunderbird pilot.

They pulled off the first private spacewalk while orbiting nearly 460 miles (740 kilometers) above Earth, higher than the International Space Station and Hubble Space Telescope. Their spacecraft hit a peak altitude of 875 miles (1,408 kilometers) following Tuesday's liftoff.

Isaacman became only the 264th person to perform a spacewalk since the former Soviet Union scored the first in 1965, and SpaceX's Sarah Gillis the 265th. Until now, all spacewalks were done by professional astronauts. "We are mission complete," Isaacman radioed as the capsule bobbed in the water, awaiting the recovery team. Within an hour, all four were out of their spacecraft, pumping their fists with joy as they emerged onto the ship's deck. It was the first time SpaceX aimed for a splash-down near the Dry Tortugas, a cluster of islands 70 miles (113 kilometers) west of



Key West. To celebrate the new location, SpaceX employees brought a big, green turtle balloon to Mission Control at company headquarters in Hawthorne, California. The company usually targets closer to the Florida coast, but two weeks of poor weather forecasts prompted SpaceX to look elsewhere. During Thursday's commercial spacewalk, the Dragon capsule's hatch was open barely a half-hour. Isaacman emerged only up to his waist to briefly test SpaceX's brand new spacesuit

followed by Gillis, who was knee high as she flexed her arms and legs for several minutes. Gillis, a classically trained violinist, also held a performance in orbit earlier in the week. The spacewalk lasted less than two hours, considerably shorter than those at the International Space Station. Most of that time was needed to depressurise the entire capsule and then restore the cabin air. Even SpaceX's Anna Menon and Scott "Kidd" Poteet, who remained strapped in, wore spacesuits.



# Punjab Congress Burns effigies of BJP Govt



Chandigarh (JAG MOHAN THAKEN), September 18: Punjab State congress on Wednesday organized a massive protest across the state and burnt the effigies of BJP government. In a powerful display of solidarity with Rahul Gandhi, the Leader of the Opposition in the Lok Sabha, Congress organized massive protests across the nation, condemning the continued hate mongering by the BJP. Led by Amarinder Singh Raja Warring, President of the Punjab Pradesh Congress Committee and Member of Parliament from Ludhiana, Punjab Congress workers gathered in large numbers at multiple locations across the state, raising their voices against the reported derogatory and defamatory remarks aimed at Rahul Gandhi by BJP leaders. Effigies of the BJP government were burned as a symbol of the party's strong rejection of such hateful tactics.

Amarinder Singh Raja Warring lambasted the BJP for their orchestrated campaign of hate against Rahul Gandhi, saying, "The BJP is now clearly terrified of Rahul Gandhi Ji and the support he is receiving from across the nation. It is evident that their fear has resulted in them resorting to cheap tactics, spreading lies and venom in an attempt to tarnish his image."

Warring further highlighted how this smear campaign had begun when BJP MP Kangana Ranaut spread hate via defamatory remarks against Shri Rahul Gandhi Ji. "They have stooped so low that they even dared to use Kangana Ranaut to question the integrity of such an esteemed leader, insinuating falsehoods about him being intoxicated, merely because he spoke truth and exposed the BJP's hypocrisy," Warring said. Particularly targeting the comments made by former Congress leader Ravneet Bittu, who recently joined the BJP and referred to Rahul Gandhi in derogatory terms, Warring expressed his deep disappointment. "It is a matter of utter shame

that Ravneet Bittu, a man whose entire political career was built by the Congress Party and who has been repeatedly supported by Rahul Gandhi Ji before, is now attacking the very person who stood by him. His betrayal of both the Congress and the people of Punjab by aligning with the BJP has exposed his true colours," Warring added. The Congress party release

claims that the protests, which saw a massive turnout, were marked by the burning of effigies against the BJP and Ravneet Bittu and PM Modi. This act symbolized the Punjab Congress's firm stand against any form of disrespect or hate speech directed toward their leadership and the democracy of the nation. Protesters raised slogans, demanding an end to the continued defa-

matory rhetoric and calling for accountability from the BJP for allowing such hate to spread. Amarinder Singh Raja Warring concluded by reiterating the Congress Party's determination to protect its leadership and democracy, vowing to continue standing up against the BJP's divisive politics. "Our fight is not just for Rahul Gandhi Ji, it is for the soul of this nation. We will not let the politics of hate prevail," he declared.

## ISB Launches 'PGP YL' - A 20 Month Post Graduate Programme In Management For Fresh Graduates And Early Career Professionals

Renowned for setting new benchmarks in management education since its inception in 2001, the Indian School of Business (ISB), is poised to embark on another groundbreaking path in its mission to groom future leaders for India and the world. ISB has announced the launch of PGP YL - a 20 month Post Graduate Programme in Management for Young Leaders (PGP YL), a full time MBA equivalent residential management programme for high-potential aspirants with up to 2 years of full-time work experience.

Commencing in mid 2025, ISB's PGP YL will offer a comprehensive learning experience through an innovative and cutting-edge curriculum designed as a response to the rapidly evolving business landscape and technology disruptions. The research backed PGP YL curriculum will blend foundational business principles with advanced technology, data, analytics courses and global perspectives to develop students into innovative problem solvers. Given the students' limited work

experience, the PGP YL curriculum has been designed to incorporate significant experiential learning components, including a Business Design Lab and an Innovation Lab. Additionally, students will be required to complete a mandatory two-month summer internship, which will provide them with practical exposure to business environments in various settings. Students in the PGP YL programme will be taught by renowned faculty from ISB and other top international B-schools who will bring their expertise to the classroom. Speaking about the new PGP YL programme, Professor Madan Pillutla, Dean, ISB, said, "Since our inception in 2001, ISB has been imparting world-class management education to create leaders for India and the world. Our many conversations with industry leaders and recruiters reveal a need for young professionals who can step straight into roles that require business acumen alongside deep expertise in data and technology. In line with these requirements, we have designed the PGP YL programme for fresh graduates and entry level profession-

als to transform them into exceptional problem solvers and innovators at the workplace." Students interested in applying for the PGP YL programme will have to submit a valid GMAT, GRE or CAT score, in addition to the details of their educational qualifications and work experience, if any. The admissions process for the PGP YL programme includes a personal interview based on the students' academic excellence, application essays and test score performance. The shortlisted students will then be interviewed by a panel consisting of leading industry practitioners, academicians, and ISB alumni in senior positions.

The programme fee for the academic year 2025-27 is INR 21,65,000 + GST and the accommodation fee is INR 3,95,000. Scholarships will be awarded to 40-50% of the class based on merit and merit-cum-need criteria. Merit scholarships may offer up to a 100% tuition waiver for deserving candidates. For further information, please log on to <https://www.isb.edu/en/study-isb/post-graduate-programmes/pgpyl.html>



# Union Finance Minister Smt. Nirmala Sitharaman launches NPS Vatsalya Scheme



Students and parents from three locations in Telangana virtually joined the main launch in New Delhi 18 Sep 2024, Hyderabad in pursuance of the announcement in the Union Budget 2024-25, Union Minister for Finance and Corporate Affairs Smt. Nirmala Sitharaman launched the NPS Vatsalya scheme today, in New Delhi.

NPS launch included the introduction of an online platform for subscribing to NPS Vatsalya, release of scheme brochure and distribution of Permanent Retirement Number (PRAN) cards to new minor subscribers.

As part of the launch in New Delhi,

three NPS Vatsalya events were organised simultaneously at 3 locations in Telangana. NPS VATSALYA launching live telecast was streamed in these 3 schools viz Govt Model High School at Gunfoundry Hyderabad, Kendria Vidyalaya Bollaram at Medchal Malkajgiri dist and Govt Boys High school located at Hanumakonda. The live program was witnessed participation of students, parents, teachers, Head Mistress of these schools along with respective district Lead District Managers (LDM's), District Development Managers (DDM's), The National Bank for Agriculture and Rural Development (NABARD), Telangana Grameena Bank (TGB).



## Microsoft says fake Kamala Harris hit-and-run story is the work of Russian propaganda group

A false claim circulating on social media that Democratic presidential candidate Kamala Harris left a 13-year-old girl paralysed after an alleged hit-and-run in San Francisco in 2011 is the work of a covert Russian disinformation operation, according to new research by Microsoft. Researchers found that the operation created a video, paid an actor to appear as the alleged victim, and spread the claim through a fake website for a non-existent San Francisco news outlet named "KBSF-TV". The Russian group responsible, which Microsoft dubs Storm-1516, is described as a Kremlin-aligned troll farm.

The discovery is a sign of Russia ramping up its foreign influence efforts ahead of the November 5 presidential election, Microsoft said. A spokesperson for the Russian embassy in Washington did not respond to a request for comment. "Russian influence operations initially struggled to pivot operations aimed at the Democratic campaign following President Biden's departure from the U.S. 2024 presidential race," a blog published on Tuesday by Microsoft said.

"In late August, however, elements of

prolific Russian actor Storm-1516 began producing content implicating Vice President Harris and Governor Walz in outlandish fake conspiracy theories," Microsoft said, referring to Harris' running mate, Tim Walz. Storm-1516 is known for producing misleading videos featuring on-screen or voice actors who impersonate whistleblowers or journalists that share false, scandalous information, experts say. A website for KBSF-TV was created shortly before publishing its first related article about the alleged driving incident, according to online registration records. The claim was circulated on social media platforms, including X.com, using the hashtag #HitAndRunKamala.

The video was also shared on September 3 on X.com by Aussie Cossack, who describes himself as a "Registered foreign agent for Sputnik News," with the message "make this go viral MAGA folks." In total, it is estimated the video has been viewed more than 2.7 million times. "Many entities within the pro-Russian ecosystem advanced the video and its claims," said Microsoft's Threat Analysis Center. "Storm-1516 relies on some of these personali-



ties, such as Aussie Cossack, to drive amplification of its videos." Cossack did not immediately respond to a request for comment. Earlier this month the U.S. Justice Department filed money-laundering charges against two employees of Russian state media network RT for what officials said was a scheme to hire an American

company to produce online content to influence the election.

U.S. officials say Russia's goal is to exacerbate U.S. political divisions and weaken public support for American military aid to Ukraine. Harris says if elected she will continue supporting Ukraine in its defence against Russia's invasion.



# 9-day Live Handloom Silk Expo Inaugurated in Hyderabad



A 9-day Live Handloom Silk Expo was inaugurated at the Sri Satya Sai Nigamagamam in Srinagar Colony, Hyderabad on 18th September, 2024. The expo was inaugurated by Dr. Ch Preethi Reddy, Vice Chairman of Malla Reddy Vishwa Vidyapeeth, Ms. Sudha Jain, Ms India Asia Pacific and Show Coach & Socialist, along with Ms. Shailaja Yamusami, the Founder of the Live Handloom Silk Expo.

Speaking at the inauguration, Dr. Ch Preethi Reddy expressed her excitement about the expo, stating, "Exhibitions always create excitement for ladies, and I am glad to have been invited to this Handloom Silk Expo. Every stall is unique, and the collections are truly impressive. Each stall represents the culture of a different state, and the sarees beautifully showcase the diversity of our country. It is wonderful to have all these state products under one roof at reasonable prices. I have also made some purchases here today."

Shailaja Yamusami, the Founder of the Live Handloom Silk Expo, said, "We have 60 exhibitors from across India, including states like Bengal, Gujarat, Madhya Pradesh, Chanderi, Orissa, Telangana, and others, showcasing their handloom-based products. These include

sarees, jewelry, dress materials, bedsheets, Banarasi sarees, Chanderi, Ikat sarees, Kaanta work sarees, Gujarati work sarees, and many other craft-related products. All these products are directly from

the weavers, without any middlemen. Importantly, each saree is customized, with no repeat designs, which is the specialty of our exhibition." The Live Handloom Silk Expo will be open from 11 AM to 9 PM ev-

ery day from September 18 to 26, 2024, providing visitors with an opportunity to explore and purchase a wide range of authentic handloom products from across India.

## Doctors perform brain surgery as patient watches Jr. NTR's 'Adhurs' film in Kakinada

New Delhi: In a medical marvel, doctors at a government hospital in Andhra Pradesh's Kakinada performed a complex brain surgery — awake craniotomy — while the patient watches a film by Jr. NTR, through the surgery. Awake Craniotomy is a method where the patient remains conscious during the procedure. The 55-year-old patient A. Ananthalakshmi underwent surgery for a brain tumour at Kakinada's Government General Hospital (GGH). She had been suffering from symptoms like numbness in her limbs and persistent headaches and was later diagnosed with a 3.3 x 2.7 cm tumour on the left side of her brain. Due to high treatment costs at private hospitals, she chose the government

hospital for the operation. To keep Anantalakshmi calm and focused during the surgery, the doctors screened scenes from Jr NTR's Adhurs, her favourite film. The doctors successfully removed the tumour in a procedure, which lasted a two-and-a-half-hour operation. The doctors anticipate that the patient will be discharged within five days.

Awake craniotomy, also called awake brain surgery, was initially used for the surgical treatment of epilepsy and is now most commonly performed for the resection of tumours. When the patient remains awake, it allows the neurosurgeon to maximise tumour resection while preserving neurological function. A week ago, a similar sur-



gery was performed by doctors at Kalyan Singh Cancer Institute in Uttar Pradesh to remove a tumour. Throughout the innovative surgery, the 56-year-old patient remained fully awake and engaged with his mobile phone. This helped reduce the risk of nerve damage.



# What are AM, FM, and signal modulation? | Explained

When you tune in to the radio, the announcer says, "Welcome to 100.1 FM Gold" or "You are listening to Akashvani at 783 AM". The terms 'AM' and 'FM' refer to forms of signal modulation — a method at the heart of modern long-distance communications. Signal modulation simplifies the technologies required to send and receive good-quality signals carrying information, like the news and songs on the radio.

How do we 'measure' waves?

Imagine a vast, quiet lake. The water is as still as a statue. At the centre of the lake is a small island of pebbles. You pick up and drop a pebble into the water. A single wave ripples across the lake, forming a circle that expands in all directions. That is: a single, short disruption triggered the release of a single wave. After the wave passed, the lake became quiet again. If you dropped a small gravel, the resulting wave would have had a short height. If the stone had been heavier, the impact would have been more energetic and the wave would have been taller. This height is called the wave's amplitude. A high amplitude sound wave will be louder; a high amplitude light wave will be brighter. Dropping a stone every second will create a series of waves, traversing the surface one after another in concentric circles. If I'm sitting in a boat at some distance from the tower, and the wave strikes the boat, it will heave up and down. By measuring how much the boat is lifted, I can calculate the amplitude and from that the weight of the rock you dropped. I can also determine how frequently you drop new stones by counting how often my boat seesaws. The number of successive crests arriving at a spot per second is the wave's frequency, measured in hertz (Hz). One Hz equals one cycle per second. This means the Chennai Akashvani radio station produces radio waves with 783,000 crests in one second. The interval between two successive crests (or troughs) is called the wavelength, measured in metres.

What are FM and AM?

Suppose we agree to use the Morse code: two stones dropped in quick succession equals a dot (•) and a longer gap between two stones is a dash (–). When two stones are dropped one after the other, the waves are closely spaced, resulting in a higher frequency. If we drop the pebbles with a big time gap, the frequency drops. By monitoring the frequency of the incoming waves far from the shore, I can distinguish between • and –. And based on the series of • and –, I can decipher the message. This technique of information communication is called frequency modulation (FM). Here, we modulate, or adjust, the frequency to transmit a message. We can also agree to another code: a heavy stone indicates a • and a light stone indicates a –. To convey • – • • – • (Morse for 'air'), you drop heavy, light, heavy, heavy, heavy, light, heavy in that order, at regular intervals. The resulting waves will have varying amplitudes: tall, short, tall, tall, tall, short, tall. I can figure out the pattern by observing how much my boat sways and decipher your message. This is amplitude modulation

(AM). You fix the frequency by dropping the stones at fixed intervals. Instead you change the pebbles' weight, resulting in waves of different amplitudes.

What is phase modulation?

We can have two waves with the same frequencies but different phases, meaning one wave starts slightly later than the previous one. It's like in march-past in which one set of people are out of step. So the corresponding crests (or troughs) of the waves will be slightly out of phase. When a crest meets another crest, they combine and become more prominent. When a crest hits a trough, they cancel out. This way, out-of-phase waves can be made to stack up uniquely to produce a bigger wave. People use the phase difference between two waves of the same frequency to encode a message. The advantage of PM is that slight changes in the signal amplitude won't degrade the information it carries. This is because the modulating signal is not transmitted by the amplitude of the pulses, so pulse modulation is nearly impervious to amplitude fluctuations produced by interference and noise. This is why operators choose PM over AM or FM for crystal-clear digital transmission, such as in Wi-Fi.

What are digital and analog?

PM is unsuitable for analog radio or TV broadcasts because it's digital. When we use AM, FM or PM modes to transmit • and – (or 0s and 1s), we have digital transmission. When we use AM or FM to propagate composite waves, it's analog transmission. Analog signals are continuous while digital signals are discrete. In one critical respect, water waves and electromagnetic waves — such as radio signals — differ. Water waves travel on a medium. Electromagnetic waves consist of electrical and magnetic fields oscillating in the three spatial dimensions. This said, an electromagnetic wave's phase, frequency, and amplitude can communicate messages the same way waves on the surface of an ideal lake can.

How is signal modulation used?

An important advantage of modulation is that multiple signals modulated differently can travel in the same channel — like the airwaves in a city or a fibre-optic cable — without interrupting each other. In the same vein, lightning produces radio waves that interfere with signals, resulting in static and noise. They have little influence on digital transmission thanks to modulation. This is why we have advanced communications technologies like the internet. Operators prefer television and signals to be analog instead because analog receivers are cheaper. This is why TV and radio broadcast signals are AM or FM. The International Telecommunication Union allocates frequency bands to different services to minimise interference and increase transmission efficiency. AM's frequency range, from 535 to 1,705 kHz, makes room for high wavelength signals that can pass over mountains and buildings, providing more coverage. FM provides superior quality since it is unaffected



by static. However, because its frequency range is 88-108 MHz, the waves have lower wavelengths and the transmission distance is limited to line of sight. The receiver is

also more expensive. Nonetheless, as the prices of electronic components continue to decline, the world at large is moving from analog to digital broadcasting.

## Democratic engagement with a digital plug-in

Imagine a summer evening in the United Kingdom, right before the Brexit referendum. Social media was flooded with posts and advertisements, each one more eye-catching than the other. But among these, a campaign called 'Leave.EU' began to stand out. The messages played on fears, hopes, and a sense of lost identity. 'Leave.EU' harnessed digital platforms to target individuals with calculated and data-driven content, shaping their perceptions and pushing them towards voting to leave the European Union. Today, as we look back at the Brexit referendum, it serves as a potent reminder of how the structure of democracy is increasingly being defined by technology. Digital platforms, once seen as great equalisers that empowered the masses and amplified previously unheard voices, have become a double-edged sword. We see a similar trend in India where digital campaigns are now central to electoral strategies not only by national parties but even by regional parties. The same tools that can empower voters can also distort public discourse, as shown by the growing use of digital political advertisements by political parties. This was highlighted by the Lokniti-Centre for the Study of Developing Societies (CSDS) studies on digital campaigns during the 18th election to the Lok Sabha (April-June 2024).

The expenditure reports from the 2023 Karnataka Assembly election clearly illustrate the translation of economic power into digital influence. The Bharatiya Janata Party (BJP) spent ₹7,800 lakh on digital advertisements, which is 52% of its total "party propaganda" budget. The Indian National Congress, on the other hand, spent ₹4,900 lakh, which is 55% of its total

"party propaganda" budget. Conventional tools of publicity or propaganda such as flags, billboards, public meetings, and rallies, made up only 16% of the BJP's and 7% of the Congress's total propaganda spending. This shows a strategic shift toward digital platforms in the electoral strategies of political parties. Further underscoring this trend, the BJP became the first Indian political party to spend over ₹116 crore on Google ads in just five months, from January 2024. During the 2024 general election period from April 19 to June 1, 89,000 advertisements posted by the BJP were running on Google, on which more than ₹68 crore was spent. In contrast, 2,900 advertisements posted by the Congress were running during the same period, on which over ₹33 crore was spent. An additional layer to this digital strategy is the use of micro-targeting, based on location, with parties reaching specific audiences all the way down to the panchayat level in each advertisement. The BJP, for instance, was found to micro-target more than 1,700 pin codes in a single advertisement, demonstrating the profound capability of digital platforms in shaping electoral narratives with precision. This new frontier in political campaigning, where financial resources translate directly into targeted digital influence, marks a transformative shift in the democratic process. While the financial clout of major political parties is well documented, a more insidious force, or third-party campaigners, operates in the background. Although the information on Google Ads expenditure is publicly accessible, there is another ship at play, one not merely loaded with funds but armed with a potent mix of influence.



# New research rescues the dodo's reputation from confusion and myth

The moment you hear the words “extinct” and “bird”, the dodo is probably the first creature on your mind, probably from an image in a school textbook you knew from years ago. The dodo's significance transcended the boundaries of natural history. It has entered popular culture, immortalised in literature as a whimsical character with a stutter in Lewis Carroll's ‘Alice in Wonderland’. In the story, the bird is large, awkward, and the inspiration for the epithet “dumb as a dodo”. “We just didn't care”

But were dodos really slow-minded? To set the record straight, researchers from the University of Southampton, the Oxford University Museum of Natural History, and the Natural History Museum combed through 400 years of research papers on the dodo and its sister species, the solitaire, and also examined the only existing soft tissue from the dodo. Citing written records from their extensive review, the researchers have now challenged the widely held view that the dodo was a slow, bloated animal doomed to extinction. Instead, they have said, they may have been fast-moving birds that thrived in the forest.

“The dodo and the solitaire went extinct because of our hubris. We just didn't care, and in the 17th century, we didn't believe we could affect “god's creation” and destroy species through our actions,” Neil Gostling of the University of Southampton and the supervising author of the team's paper, said. The study was published in the August issue of the Zoological Journal of the Linnean Society.

What doomed the dodo?

Late into the 18th century and for some part of the 19th, many naturalists believed the dodo was a fiction. “Some even considered it mythical, like the phoenix,” Gostling said. Thanks to the work of Victorian-era scientists, we know dodos and solitaires were flightless birds endemic to the forests of Mauritius. But how they got to the island wasn't clear. In a 2002 study, researchers examined dodo DNA and found they belonged to the family of doves and pigeons. The dodo's closest relative was the Nicobar pigeon. Dodos and solitaires weren't always flightless. Over hundreds of thousands of years, they became larger and lived closer to the ground. They also had little competition for their food sources. So when Dutch settlers got to Mauritius in 1598, they found a tall, big, and flightless bird. Its life changed for the worse then. Their numbers began to dwindle. In less than a century, the dodo and its relatives went extinct. The paucity of natural predators rendered the birds brave and they were less wary of humans than they should have been. This said, contrary to common belief, the dodo didn't go extinct because it was prized as food. Since the birds nested in the ground, pigs from the Dutch vessels ate their eggs, rats and cats preyed on their chicks, and goats trampled the nests, Gostling said. The bird is the word. A hundred years after meeting the first humans, dodos and solitaires were wiped out. As a result, natural history collections have little material evidence of the birds' lives. Instead, most early scientific

deliberations banked on artist's impressions and sailors' reports and were often confused. Separately, the ever-changing naming schemes for animals in the 19th and the 20th centuries and the lack of a type specimen — a single, well-preserved body that serves as the species' official reference — for dodos and solitaires led to a long history of misidentification. Linnaean taxonomy, the current universally accepted method to name and categorise life-forms, kicked in more than a hundred years after the birds went extinct. In their study, Gostling and his team confirmed the dodo belonged to the Columbidae family of pigeons and doves. This matters: “In order to understand their biology, we first have to ensure that their taxonomy is correct, as this is the framework that explains relationships in the tree of life,” Gostling said.

Not so slow, dodo. While going through centuries of academic records and sailors' drawings and notes, the researchers came across an eyewitness account by a Dutch mariner named Volkert Evertsz. He survived a shipwreck and ended up on Mauritius in 1662. Evertsz described a bird he called “dodderse” to German scholar Adam Olearius in 1668, adding they were “larger than geese”, couldn't fly because they lacked wings, and ran fast. This ability to run is reflected in the dodo's anatomy. Birds close their toes with the help of tendons that run through a groove found in a large bone in their leg called the tibiotarsus. Evidence from existing dodo bones suggest the groove housed a tendon as big as the tibiotarsus bone, an anatomical feature seen in contemporary birds that are good runners. Gostling said sailors' journals from visits to Mauritius greatly contributed to



shaping the perception of dodo as unintelligent birds. These accounts often described capturing dodos by dozens in a single day as they didn't try to evade capture; the sailors thus believed they were slow-witted. Today we know this needn't be true. A dodo-led future. The story of the dodo's extinction has long served as a cautionary tale about the consequences of human exploitation and neglect, and could hold lessons for our future. “Using cutting-edge computer technology, we are piecing together how the dodo lived and moved. This isn't just about satisfying our curiosity. By understanding how birds evolved in the past, we are learning valuable lessons that could help protect bird species today,” Markus Heller, a professor of biomechanics at the University of Southampton and the co-author of the paper, said in a statement. Gostling added that

a deeper knowledge of the dodo's habitat is crucial as it could hold secrets to preventing further biodiversity loss. The team is planning a major new project with scientists from around the world, including from Mauritius. They hope to demonstrate the fact that the dodo was well adapted to its environment and wasn't ‘doomed’ to extinction. After all, it had got by just fine on Mauritius for millions of years. “The message that we still need to heed is that humans need to tread lightly on the earth,” Gostling said. “You can excuse the ignorance of 17th century sailors, they had no idea what they were doing. We do. We still thoughtlessly affect the environment, we still see plants and animals going extinct.” Sanjukta Mondal is a chemist-turned-science-writer with experience in writing popular science articles and scripts for STEM YouTube channels.

## Realising the rural-urban continuum

This century is supposed to be India's urban century due not only to massive demographic shifts, with the country soon becoming more urban than rural, but also to the demand for the infrastructure required to support these large shifts. These demographic changes are occurring in Tier II and Tier III cities, as well as the peripheries of major urban centres and urban agglomerations. India addresses challenges by viewing them as either rural or urban; it needs to instead look at them as part of an urban-rural continuum. There has been an over-centralisation of finances in recent times. Financial decentralisation, which provides autonomy to local bodies, has been compromised. The 13th Finance Commission pointed out this issue by mentioning how local bodies were getting “asphyxiated”. Some of these financial constraints arise from the tied nature of grants linked to centrally sponsored schemes and even financial devolution. For example, the rise in property tax in cities should be commensurate with the rise in the State Goods and Services Tax. If there is no linkage, most towns are at risk of losing tied money grants, which have increased relative to untied grants over the years.

Flagship programmes such as the Swachh Bharat Mission and the Atal Mis-

sion for Rejuvenation and Urban Transformation (AMRUT), launched by successive National Democratic Alliance governments at the Centre, miss the urban-rural continuum. As far as urban infrastructure for liquid waste management is concerned, funding is proposed under AMRUT, which initially covered 500 cities but has now been extended to all statutory towns. However, these towns account for only a portion of the urban population. Many people live in census towns (with a minimum population of 5,000) and in the more than 23,000 urban villages. These areas are contiguous, with census towns adjoining statutory towns, and urban villages accommodating large numbers of migrant and informal workers. When urban infrastructure for liquid waste, such as sewage treatment plants, is designed, and funding is sought under AMRUT, these contiguous areas do not qualify for funding. The waste flow in cities and peri-urban areas does not adhere to urban-rural nomenclature, yet the planning process is obsessed with it. This issue has been a challenge for many States, particularly Kerala. NITI Aayog has pointed out that 90% of Kerala is urban. In such a situation, AMRUT grants cannot be utilised to create infrastructure.

AMRUT also does not support solid

waste management infrastructure in urban areas. This falls under the Swachh Bharat Mission, which is now Swachh Bharat Mission 2.0. The goals of the Mission are two-fold. For Swachh Bharat Mission-Urban, the aim is to go beyond being open defecation-free to focusing on making urban India garbage-free and proposing sustainable solutions and practices for waste management. Similarly, Swachh Bharat Mission-Rural focuses on maintaining the open defecation-free status, managing solid and liquid waste in rural India, and constructing household toilets. It also addresses liquid waste management, which Swachh Bharat Mission-Urban does; however, treatment plants cannot be built jointly.

Both these programmes, run by the Government of India, aim for nearly the same outcomes, so realising these through imaginative practices could yield better results. Solid waste management plants in peri-urban and urban areas could be designed collaboratively at the district or regional levels. Such liberty and autonomy will pave the way for better urban governance, rather than implementing programmes and projects from a centralised perspective. In this context, the framework established by the 73rd and 74th Constitution Amendments needs to be revisited and strengthened.



# As Punjab promotes teachers with no expertise in subjects; question mark over 'flawed' rules

The Punjab education department, via a recent order, promoted 227 master cadre teachers (teaching classes 6 to 10) as commerce lecturers for classes 11 and 12 in the specialised stream. However, majority of these lecturers come from non-commerce graduation backgrounds and have been promoted from other subjects including mathematics (92) and social studies and science (48 each) and even from languages (39). The education department does not recruit master cadre teachers for commerce (B Com graduates) as these subjects are not taught in classes 6 to 10. Those given promotion as lecturers, were done so on the basis of their post graduation (MCom), largely pursued via distance learning mode. The situation is no different for subjects having their own master cadre.

Of 381 teachers promoted as Punjabi lecturers, more than half (194) are from other subjects, including 124 of social studies, and majority of them never pursued Punjabi as elective subject in their graduation, nor opted for "Teaching in Punjabi" during their B.Ed, a prerequisite for hiring as Punjabi master to teach class 6 to 10. In English, of 301 promotions, 298 are of teachers who come from non-English background. They include 102 social science teachers who had been teaching English to fill the gap as, till 2007, the state had no separate cadre to hire specialized English teachers. Like in Punjabi, most did not pursue English as an elective subject in graduation, nor as teaching subject in B.Ed but have been promoted after pursuing Masters in English via distance learning. Only three qualified English teachers have been promoted in their own subject. Incidentally, all these promotions are as per the rules.

The anomaly, however, has sparked a debate with teachers who have done both graduation and PG in their own subject demanding that at least a basic exam should be conducted before promoting teachers from other subjects as lecturers, especially in languages. Harpinder Singh Dhillon, state president, Association of English Teaching Aspirants, Punjab, says: "For teachers from other subjects, who have no skill or training to teach the language, there should be a proficiency test. How can a teacher be allowed to teach class 11 and 12 when they haven't even studied that subject in graduation. Allowing teachers, who haven't even done BCom, to teach commerce is a gross blunder". 'Flawed rules for promotion' According to the teachers who have been denied promotions in their own subjects, the problem lies with Punjab education department's rules, which have not been rectified by successive governments.

The Punjab Educational Service Rules Group B (amended in 2018) allows inter-subject promotions on the basis of seniority. A master cadre teacher can seek promotion as lecturer in any subject by obtaining a postgraduate degree in that subject, including via distance learning mode. Graduation and teaching experience in that particular subject (in which promotion is sought) aren't counted. The rules do not even specify any minimum pass percentage which a teacher must score in post graduation to be promoted

as a lecturer. The teacher seeking promotion isn't even required to have that particular subject in B.Ed, a basic qualification for teaching. For instance for English, the rulebook says that "any master/mistress who have passed MA in English and B.Ed from a recognized university or institution" and has "teaching experience for a minimum period of five years" can be promoted as a lecturer from master cadre. These teachers can be from any subject and do not need to score any minimum pass percentage in PG. This rule applies for all other subjects including Punjabi, Hindi, history, mathematics, economics, political science etc. According to the teachers, the promotion rule contradicts the rule for direct recruitment.

The rules for direct recruitment as English master/mistress (class 6 to 10), for instance, one must "have passed graduation at least with 55% marks and should have studied English as an elective subject for graduation" and "should have passed B.Ed with English as one of the teaching subjects." Similarly for direct recruitment as English lecturer, one should clear MA in English with 55% marks, B.Ed with English as teaching subject and study the language as elective subject for three years in graduation. However, none of these conditions apply for teachers who are promoted as English lecturers from other subjects. The rules are the same across all subjects. "It implies that a teacher who isn't qualified to teach a subject to class 6 if recruited directly, can now teach class 11 and 12 by obtaining a degree via distance learning mode. The experience and qualification of the teacher who has invested years in that subject doesn't count for promotion. We feel cheated when a maths teacher is promoted as a Punjabi lecturer. How can students benefit from such teachers," asked a Punjabi lecturer.

An English teacher said that they have stopped raising their voice against the rules as no government ever tried to rectify them. "Just to get a promotion, maths and science teachers are getting masters degrees in languages while teachers who are post-graduate in their own field are being ignored. Several times in the past, the English teachers objected to inter-subject promotions but no government has ever taken English or Punjabi teaching seriously, but to no avail". A Punjabi lecturer said that promotion rules for lecturers needed immediate correction. "Firstly, the subject of graduation and B.Ed teaching subject must be considered. As of now, a teacher who himself did not study a subject beyond class-12, is being promoted to teach the same to students in class 12. This is a joke. Science graduates are pursuing masters in languages to get promotion. No one knows from which universities these distance mode degrees are being secured and how". "Ideally, to get promotion in his/her own subject, a teacher should get minimum 50% marks in PG and B.Ed teaching subject. Some years back, the government mulled over stopping inter-subject promotions and taking basic tests for language teachers but it met with backlash from teachers whose promotions were due," said a chemistry teacher. Another English teacher said: "Despite being a regular PG



from Punjabi University, Patiala, my promotion was delayed due to teachers from other subjects who did distance mode PG from universities in Rajasthan and Uttar Pradesh, which were later declared unrecognized. Former Punjab education secretary Krishan Kumar had tried to stop such promotions but the matter reached the court." The recent promotion orders issued by Punjab education department, however, clarify that only those teachers who did their PG via distance learning before June 27, 2013 (the day UGC had notified its policy on territorial jurisdiction to be followed by all Universities/Institutions including Open and Distance Learning Institutions) have been given promotions. No study leave being granted: Science teachers

Science teachers who have been promoted in other subjects, while clarifying their stand, in a press statement said that they had to pursue post graduation in languages/other subjects as no university in Punjab offers PG in sciences via distance learning or correspondence, and the education department wasn't allowing them "study leave".

"The department is not offering study leave to teachers for pursuing regular PG courses so there is no option left with us but to for PG in other subjects. We have been promoted as per rules after getting distance learning degrees from recognized universities," said Harinder Kaur, state president, Science Teachers' Association, Punjab. Paramjit Singh, director school education (secondary), Punjab, said: "According to the rules, teachers have to pur-

sue post graduation from a recognized university. Only those who have fulfilled the criteria have been promoted." Harpreet Dua, member senate, Panjab University (PU), Chandigarh, said: "Just for sake of promotion, a teacher should not leave their own subject. It sets a wrong precedent. The teachers should be given preference in their own subject".

Dr Paramjit Kaur, former principal, BCM Arya Model Senior Secondary School, Ludhiana and coordinator, National Testing Agency (NTA), said that in private schools, according to CBSE by-laws, "a teacher who is a graduate and PG in the same subject has to be appointed to teach class 11 and 12; in case of teachers having degrees in two subjects, the one who has both UG and PG in same subject is given preference". A total of 2557 teachers have been promoted as lecturers recently including 381 in Punjabi, 301 in English, 350 in history, 277 in commerce among others.

How the rule differs for newly recruited and promoted teachers (Taking English as an example)-Direct recruitment as master/mistress (class 6 to 10): Graduation with at least 55 per cent marks with English as Elective subject for three years, B.Ed with English as teaching subject-Direct recruitment as lecturer:

MA English with least 55% marks, B.Ed with English as teaching subject and English Elective in graduation-Promotion as lecturer: MA English and B.Ed from any recognized university and minimum five years of teaching experience

## Over 1k healthcare professionals attend MedConnect at JNTU-Hyderabad

Hyderabad: More than 1,000 healthcare professionals and students participated in the second leg of MedConnect conducted by Academically Global, a healthcare ed-tech company, at Jawaharlal Nehru Technological University (JNTU) Hyderabad.

The participants gained insights into global healthcare career opportunities in medicine, dentistry, pharmacy, physiotherapy, optometry and lab technology, and various migration pathways.

JNTU-Hyderabad Rector Dr. K Vijaya

Kumar Reddy and JNTUH UCPS principal Dr. M Sunitha Reddy appreciated the initiative for its practical approach in guiding healthcare professionals about international career paths. Academically Global founder and CEO Dr. Akram Ahmad spoke about the multiple aspects of career growth and opportunities within the global healthcare sector. The programme featured sessions on topics, including migration pathways, preparation for licensure examinations, emerging global opportunities, and tailored strategies for professional success abroad.