

Lack of strong BJP leader in Old City affecting its prospects in LS polls

Hyderabad: The hype created by the BJP about giving a tough fight to AIMIM chief Asaduddin Owaisi in the ensuing Lok Sabha poll from Hyderabad, appears to be slowly fading away with reports that the saffron party has a very poor support base in the Old City and that its candidate has little chances of winning the seat.

The BJP had fielded social worker and businesswoman Kompella Madhavi Latha to take on Owaisi. The BJP tried to project her as a strong contender, who would give a tough time to four-time MP Owaisi. The party even promoted her through social media and created a hype that the people of Old City are very keen to replace Owaisi with her.

The BJP leadership even made her nomination filing programme a grand event with union Sports Minister Anurag Singh Thakur taking part in the rally. However, now reports are coming that it would be difficult for the BJP to dent Owaisi's vote bank and that the Hindu vote share would be split among the Congress, BJP and BRS candidates, causing huge loss to the BJP candidate. Sources in the party say in the absence of a strong BJP leader in the Old City, the Hindu voters have no one to look up to for support not only during the polls, but even otherwise. Though Goshamahal BJP MLA T Raja Singh is popular among the Hindu population, his influence is limited to his constituency and to some pockets of Old City. Raja Singh is also reportedly not so happy with the party nominating Madhavi Latha.

On the other hand, the Owaisi broth-



ers are always accessible to everyone in the segment. AIMIM MLAs and corporators are always available for the voters when they need them. "Majlis leaders are always among the people. They are accessible and help the locals in times of crisis. Whereas the BJP and other parties only

come to them during polls. In fact, the BJP does not have a long term plan for the Old City," a BJP leader said. Moreover, the equation has drastically changed in the Old City after Prime Minister Narendra Modi made some comments against the Muslim community. "Earlier, very few Muslim voters used to vote for other parties, but after

the PM's comments, it looks like a majority of the voters are likely to vote for Owaisi," another BJP leader said. Even Madhavi Latha's arrow gesture during a rally has not gone well among the Muslim community and the action has reportedly distanced her from the community, especially women.

Warangal artist makes miniature sculpture of Nataraja Swamy in the eye of a needle



Hanamkonda: Warangal-based international micro sculptor Mattewada Ajay Kumar has created another wonderful miniature creation in the eye of a needle. He sculpted a miniature sculpture of Lord Nataraja Swamy in the eye of a needle measuring 700 microns in height (0.70 mm) and 550 microns in width (0.55 mm). The artist used plastic powder, pieces of nylon, self-made soft wax and 24 carat gold to make the sculpture.

Ajay Kumar used caterpillar hair for colouring the idol. One could see this miniature sculpture only through a microscope. It took a lot of effort to make Nataraja Swamy's jata jutam (hair), he said. A 90 micron (hair thickness) sculpture of Apasmara (dwarf) under the feet of

Nataraja Swamy was made with a height of 90 microns. The artist had to spend 145 hours over a period of three months to complete this miniature sculpture. Ajay Kumar is participating in the 10th World Art Dubai-2024 exhibition to be held at the World Trade Center in Dubai from May 2 to 5. He would display the miniature sculptures he created at exhibition along with this newly made Nataraja Swamy miniature sculpture.

400 artists from 65 countries are participating in this prestigious exhibition. He informed that he is dedicating this miniature sculpture of Nataraja Swamy to the dance artists of the world. Ajay Kumar achieved many international and national records besides appreciation from Prime Ministers and Chief Ministers.

New type of host defence against Zika, dengue infections revealed

A space-fill drawing showing a cross-section through a Zika virus particle as it interacts with a cell. The two main proteins of the viral envelope are shown in red and purple. The lipid membrane of the envelope is shown in lavender. The capsid proteins, in orange, are shown interacting with the RNA genome, in yellow, at the virus's centre. The cell-surface receptor proteins are in green, the cytoskeleton in blue, and blood plasma proteins in gold.

The mere presence of a virus in a bodily fluid doesn't mean it is transmitted via that route. The Zika, dengue, and chikungunya viruses are present in fluids like saliva and semen but don't spread orally or sexually. This fact has puzzled scientists for years, and now a research team has finally explained why.

On March 29, 2020, the World Health Organisation (WHO) posted a tweet that sparked concerns among scientists and prompted many to contact the WHO to say there was enough evidence to discredit the tweet's contents, and suggest it steer clear of such assertions. The tweet was later proven to be factually incorrect but the WHO remained unconvinced for almost two years. Transmission is a crucial event in a virus's life cycle, yet studying it has been very tricky. A virus that can't transmit is of no consequence to anyone. Successful viruses have extraordinary adaptations selected through years of evolution to ensure they can jump to new hosts.

What does a virus do inside the body?

Most human viruses achieve this by ensuring they are present in bodily fluids that contact the outer environment, and subsequently a new host. Once inside the new host, a virus must be present at the correct location to infect new target cells. Viruses are usually highly selective in the cells they infect. This phenomenon, called tropism, occurs because most viruses have special proteins on their outer surface that make contact with a receptor on the host cell. Any cell-type that makes the receptor can be infected by the virus.

For example, the receptor for HIV is a protein called CD4. Only cells that make the CD4 protein, such as T-cells and macrophages, can be infected by HIV. Similarly, SARS-CoV-2 uses a receptor called ACE2. Cells of the respiratory tract and some cardiovascular cells all express ACE2, and are target cells for SARS-CoV-2. HIV can't infect respiratory cells and SARS-CoV-2 can't infect T-cells or macrophages. Viral transmission is an outcome of a chase inside the host: between the virus making copies of itself and the immune system trying to destroy the virus

and infected cells. The virus must transmit before the immune system beats it or the host dies. One strategy viruses use to achieve this is by making proteins on the surface that have receptors on multiple cell-types. Such a strategy will allow them to infect different cell-types, allowing access to multiple body fluids, enabling faster transmission.

What is the PS receptor?

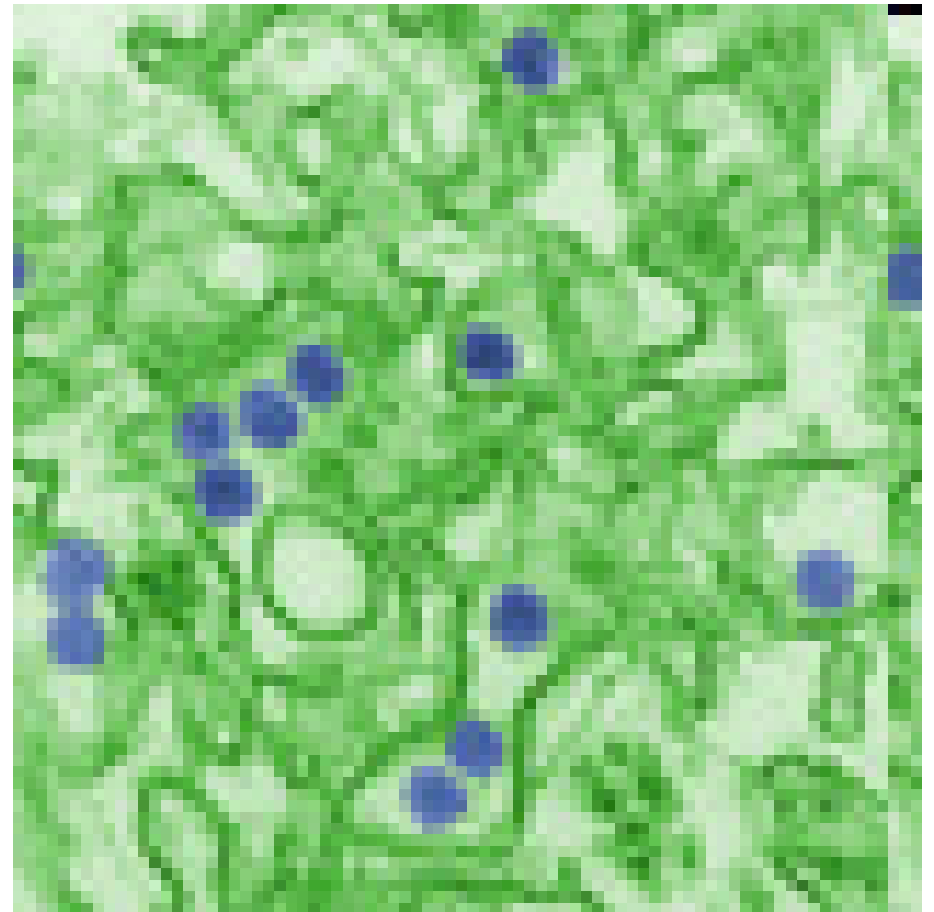
One such receptor is for a protein called phosphatidyl serine (PS). The PS protein is usually expressed by dying cells in the body, as a signal to the immune cells to destroy them. The immune cells express the PS receptor and fuse themselves with these cells, quietly destroying them. Viruses hijack this pathway with a process called apoptotic mimicry: by expressing the PS protein on their own surfaces, allowing them to infect the very cells that will destroy them. The WHO's tweet and its subsequent withdrawal exemplifies the difficulties of studying viral transmission. The problem is especially challenging when we're studying viruses that can use the PS receptor for entry. Since the PS receptor is expressed by many cells – apart from some cells of the immune system – the virus tends to be present in multiple compartments. Yet the mere presence of a virus in a given compartment wouldn't guarantee transmission from that route. For example, the Zika virus can be detected in semen, saliva, and breast milk but rarely spreads through these means despite the presence of target cells in the oral and genital cavities. Zika transmits mainly via mosquitoes.

How does the body fend off these viruses?

Now, scientists at the Institute of Molecular Virology at the Ulm University Medical Centre, Germany, have identified a novel defence mechanism the human body uses to prevent Zika and some other viruses from transmitting via non-conventional routes. The study, published in the journal *Nature Microbiology* on March 25, explains how the body uses extracellular vesicles in these bodily fluids to inhibit viral infection. Vesicles are small structures enclosed by fat that a cell uses to transport substances from one part of the cell to another. When they are secreted outside the cell, they're called extracellular vesicles. The researchers discovered these extracellular vesicles are abundant in saliva and semen and contain the same PS proteins on their surface that viruses like Zika use for infection. The team also discovered the concentration of these extracellular vesicles that contain PS is low in blood and high in saliva and semen. Through a series of experiments, they demonstrated the PS-containing vesicles compete for the same receptors the viruses use for entry, thus crowding the latter out and preventing an infection.

What does the discovery portend?

The group also showed that all viruses that use the PS receptor for apoptotic mimicry – the dengue, chikungunya, West Nile, ebola, and the vesicular stomatitis viruses – are inhibited by the presence of extracel-



lular vesicles. The vesicles' presence didn't affect the infectivity of viruses that don't use the PS receptor for entry, such as HIV and SARS-CoV-2. The discovery of PS-coated vesicles for immunity represents a novel type of host defence against viral infection. While it is too early to speculate on potential therapeutic applications from this discovery, it opens up avenues for further research. One thought-provoking, but also far-fetched, notion arising from the study is the possibility that PS-containing vesicles in humans could have influenced the evolution of mosquito-borne viruses. Perhaps these viruses were forced to look for an alternative when they couldn't spread through saliva or semen and, to paraphrase Michael Crichton, "life found a way". The mere presence of a virus in a bodily fluid

doesn't mean it is transmitted via that route. The Zika, dengue, and chikungunya viruses are present in fluids like saliva and semen but don't spread orally or sexually. This fact has puzzled scientists for years, and now a research team has finally explained why. Once inside the new host, a virus must be present at the correct location to infect new target cells. Viruses are usually highly selective in the cells they infect. This phenomenon, called tropism, occurs because most viruses have special proteins on their outer surface that make contact with a receptor on the host cell. One thought-provoking, but also far-fetched, notion arising from the study is the possibility that PS-containing vesicles in humans could have influenced the evolution of mosquito-borne viruses.

ACB officials arrest three more in HMDA Director case

Hyderabad: The Anti-Corruption Bureau (ACB) officials on Tuesday arrested three persons for their alleged involvement in actively assisting former Director HMDA Shiva Balakrishna and helping him cover up his illegal activities.

The arrested persons Godavathi Satyanarayana Murthy (62), Penta Bharath Kumar (34) and Penta Bharani Kumar (30) had helped former Director, Siva Balakrishna, in getting the properties purchased by him registered in their names to cover the official's illegal activities.

The properties were purchased by Balakrishna with ill-gotten money, said the ACB officials. All of them were produced before the court and remanded.

The ACB had arrested Balakrishna in January after conducting searches at his house and the premises of his friends, relatives and other acquaintances. The ACB said he had amassed huge wealth through alleged illegal activities.

Tight Security Arrangements for Lok Sabha Elections



Rachakonda Police Commissioner Tarun Joshi along with Rachakonda DCPs, Additional DCPs, ACPs and other officers conducted a review at Nagol Shreya Engineer College about the security arrangements and precautions being taken at the field level in the wake of the Lok Sabha election nomination process. In this meeting, the election security arrangements in the Lok Sabha constituencies under Rachakonda Commissionerate were re-

viewed. Commissioner Tarun Joshi speaking in this program said that all levels of Rachakonda staff are ready to conduct the Lok Sabha elections in an armed manner. He said that all security arrangements are being made for the smooth conduct of the election process from Malkajigiri, Hyderabad, Chevella, Bhuvanagiri and Nagar Kurnool Lok Sabha constituencies to assembly constituencies and mandals under Rachakonda Commissionerate. It is stated that armed checks are already be-



ing conducted at the check posts set up on many district borders and other major highways within Rachakonda. He said that barricades, tents, chairs, lighting system, communication tools and CC cameras have been installed at all the check posts. It was stated that along with the Rachakonda police personnel, Central Armed Forces will also be on duty in adequate numbers at the check posts. On this occasion, the commissioner suggested that more check posts

should be set up at necessary places to catch money being smuggled.

Yadadri DCP Rajesh Chandra, Malkajigiri DCP Padmaja, LB Nagar DCP Praveen Kumar, Maheshwaram DCP Sunitha Reddy, SB DCP Karunakar, DCP Cyber ??Crime Chandra Mohan, Traffic DCP Manohar, She Team DCP Usha Vishwanath, DCP SOT Muralidhar, Additional DCPs Narasimha Reddy, Srinivas and other officers participated.

U.S. probes whether Tesla Autopilot recall did enough to make sure drivers pay attention

The U.S. government's auto safety agency is investigating whether last year's recall of Tesla's Autopilot driving system did enough to make sure drivers pay attention to the road. The National Highway Traffic Safety Administration says in documents posted on its website on April 26 that it has concerns about the December recall of more than 2 million vehicles, nearly all the vehicles that Tesla had sold at the time. The agency pushed the company to do the recall after a two-year investigation into Autopilot's driver monitoring system, which measures torque on the steering wheel from a driver's hands. The fix involves an online software update to increase warnings to drivers. But the agency said in documents that it has found evidence of crashes after the fix, and that Tesla added updates that weren't part of the recall. "This investigation will consider why these updates were not part of the recall or otherwise determined to remedy a defect that poses an unreasonable safety risk," the agency wrote. A message was left early on April 26 seeking comment from Tesla. NHTSA said that Tesla reported 20 crashes that apparently happened after the recall remedy was sent out. The agency has required Tesla and other automakers to report crashes involving partially and fully automated driving systems. NHTSA said it will evaluate the recall, including

the "prominence and scope" of Autopilot's controls to address misuse, confusion and use in environments that the system is not designed to handle. It also said that Tesla has stated that owners can decide whether they want to opt in to parts of the recall remedy, and that it allows drivers to reverse parts of it. Safety advocates have long expressed concern that Autopilot, which can keep a vehicle in its lane and a distance from objects in front of it, was not designed to operate on roads other than limited access highways. The investigation comes just one week after a Tesla that may have been operating on Autopilot hit and killed a motorcyclist near Seattle, raising questions about whether a recent recall went far enough to ensure Tesla drivers using Autopilot pay attention to the road. After the April 19 crash in a suburban area about 15 miles (24 kilometers) northeast of the city, the driver of a 2022 Tesla Model S told a Washington State Patrol trooper that he was using Autopilot and looked at his cellphone while the Tesla was moving. "The next thing he knew there was a bang and the vehicle lurched forward as it accelerated and collided with the motorcycle in front of him," the trooper wrote in a probable-cause document. The 56-year-old driver was arrested for investigation of vehicular homicide "based on the admitted inattention to driving, while on Autopilot



mode, and the distraction of the cell phone while moving forward, putting trust in the machine to drive for him," the affidavit said. The Tesla driver told the trooper that he was driving home from having lunch when the crash occurred at about 3:45 p.m. The motorcyclist, Jeffrey Nissen, 28, of Stanwood, Washington, was under the car and pronounced dead at the scene, authorities reported. Authorities said they have not yet independently verified whether Autopilot was in use at the time of the crash. The Associated Press reported

shortly after the recall that experts said it relied on technology that may not work. Tesla, the leading manufacturer of EVs, reluctantly agreed to the recall last year after NHTSA found that the driver monitoring system was defective and required a fix. The system sends alerts to drivers if it fails to detect torque from hands on the steering wheel, a system that experts describe as ineffective. Government documents filed by Tesla say the online software change will increase warnings and alerts to drivers to keep their hands on the steering wheel.

BJP wants to destroy the constitution written by Baba Saheb: CM Bhagwant Mann



Chandigarh (JAG MOHAN THAKEN), 27 April: Punjab Chief Minister Bhagwant Mann, on Saturday, campaigned for AAP candidate Jagdeep Singh Kaka Brar in Ferozepur. He held a road show in different areas of Ferozepur Lok Sabha constituency and appealed to the people to make Kaka Brar win by a huge margin.

During the road show, Mann showed the picture of constitution writer Dr Bhim Rao Ambedkar to the people and said that the BJP wants to destroy the constitution written by Baba Saheb. He said that this election is not just an election to elect the Prime Minister and MPs. This is an election to save the democracy and constitution of the country. If the BJP wins this time, then there will never be elections in the country again. It will implement a single party system in the country like Russia and China and will take away your right to vote. Therefore, it is very important to defeat the BJP this time.

Mann said that BJP leaders are trying to disturb the communal harmony of the country and Punjab, whereas Punjab is known for mutual brotherhood and communal harmony. People here celebrate Gurburabs, Eid and Navami together. People here never accept the politics of

hatred. This time too, the people of Punjab will reject the politics of hatred and choose the politics of work. He said that the BJP is afraid of the Aam Aadmi Party and Arvind Kejriwal. So, under a conspiracy, they arrested Arvind Kejriwal in a false case. They think that by arresting Arvind Kejriwal, they will stop the Aam Aadmi Party but they are mistaken. Kejriwal is not just a person, he is an idea, a thought. They can arrest Arvind Kejriwal's body but how will they arrest his thoughts?

During the road show, Mann also attacked Shiromani Akali Dal Badal and its president Sukhbir Singh Badal. He said that Sukhbir Badal fled the field because he's afraid of losing. He knows that the people of Punjab will never give him another chance. That is why he has decided not to contest the elections. Mann said that as a representative of Akali Dal, the Badal family was a part of the central government many times, but these people never raised their voice for the rights of Punjab. They always prioritised their personal interests and ignored the people of Punjab. Therefore, the public showed them their real place too.

On the farmers of the border area, Mann said that we supplied canal water to

every corner of Punjab for the convenience of the farmers. He said that earlier farmers used to get electricity just for 8 hours. But after forming the government, we instructed the officials to provide 11 hours of electricity to the farmers without any cuts and that too during the day so that their time and energy is not wasted. Mann said that after two phases of voting, it has become clear

that this time the INDIA Alliance government is going to be formed at the Centre and the Aam Aadmi Party will be an important ally of that government. So, give me 13 more hands to strengthen us. All our MPs will raise their voice for the rights of Punjab in the Lok Sabha, then no one will be able to stop even a single rupee of our funds.

Meta's AR-VR market leadership bid costs billions

New Delhi: As Meta (formerly Facebook) continues to bet big on gaming, it has lost close to \$4 billion on its augmented reality/virtual reality (AR-VR) division. The Mark Zuckerberg-run company showed continued losses in its AR/VR Reality Labs division in its latest quarterly results. The company is losing money at a rate of more than \$1 billion per month since June 2022 on its AR/VR dream, according to GamesIndustry.biz. "We continue to expect operating losses to increase meaningfully year-over-year due to our ongoing product development efforts and our investments to further scale our ecosystem," according to the company. Meta CFO Susan Li said on the Q1 earnings call that "We continue to expect operating losses to increase meaningfully year-over-year". Meta's Reality Labs recorded \$440 million in revenue but an overall loss of \$3.85 billion. "The initial signs are quite positive here. But building the leading AI will also be a larger undertaking than the other experiences we've added to our apps, and this is likely going to take several years," said Zuckerberg.

After wars, deaths, political turmoil, the era of Indira Gandhi

The years between the third (1962) and fourth (1967) Lok Sabha elections were traumatic for the young republic. Defeat in the month-long war with China was followed by the deaths of two Prime Ministers — Jawaharlal Nehru on May 27, 1964, and Lal Bahadur Shastri less than two years later. In between came the second war with Pakistan, which lasted for almost a month and a half in August-September 1965, before both countries agreed to a UN call for ceasefire. On January 10, 1966, Shastri and Pakistan's Ayub Khan signed the Tashkent Declaration — but the Indian Prime Minister passed away in the Uzbek city the very next day, January 11. The responsibility for being India's caretaker Prime Minister fell on Gulzari Lal Nanda, Nehru's Home Minister, who had already played that role once on the passing of the first Prime Minister. This time he remained in office for 13 days — until Indira Gandhi, Nehru's daughter and Shastri's Information and Broadcasting Minister, took oath as Prime Minister on January 24, 1966, beating Morarji Desai in the race for the job. Voting for the fourth Lok Sabha took place between February 17 and 21, 1967. Indira led the Congress to victory, but her rift with Desai deepened. This was the last simultaneous election for Lok Sabha and state Assemblies. Non-Congress governments came to power for the first time in several states in 1967. After wars, deaths, political turmoil, the era of Indira Gandhi, who was injured after being hit by a stone in Orissa, comes out of Willingdon (now RML) Hospital in New Delhi. (Image source: PIB) A changed political map...

Based on the census of 1961, the fourth Lok Sabha election was held for 520 seats — significantly higher than the 494 in 1962. Seventy-seven seats were reserved for SCs and 37 for STs. Votes were cast for 3,563 seats in state Assemblies (compared with 3,121 in 1962), of which 503 were reserved for SCs and 262 for STs.

India in 1967 was different in a few other ways too. The state of Nagaland had been established in 1963. In 1966, Haryana became a separate state and Chandigarh was designated as a Union Territory (UT). By 1967, many of the country's 10 UTs — Himachal Pradesh, Manipur, Tripura, Goa, Daman and Diu, and Pondicherry — had Legislative Assemblies and Councils of Ministers. In his third term as Prime Minister, Nehru grappled with a grave drought situation. The country faced a foodgrains crisis and record high inflation rates. In 1963, Nehru had accepted the resignations of all Congress Ministers and Chief Ministers under the famous Kamaraj Plan, by which the party hoped to rebuild itself. The plan, however, annoyed several Congress stalwarts who had to give up positions of power. Meanwhile, the political tussle with the socialists intensified. The Gandhian and socialist J B Kripalani had left the Praja Socialist Party (PSP) before the 1962 election. In 1963, socialist leader Ram Manohar Lohia entered Lok Sabha after winning a bypoll for the Farrukhabad seat. The following year, Lohia formed the Samyukta Socialist Party (SSP), and formed an alliance with other



Opposition parties to take on the Congress.

In April 1964, the Communist Party of India split, and the Communist Party of India (Marxist) was born. In the state of Kerala, the ruling Congress unit also split that same year, and the Kerala Congress was formed.

In 1965, the Republican Party of India, which had its roots in Dr B R Ambedkar's All India Scheduled Castes Federation, split into factions. Soon after the 1962 election, the Shiromani Akali Dal had split into two factions led by Master Tara Singh and Sant Fateh Singh. After wars, deaths, political turmoil, the era of Indira Gandhi 61% voted in the Lok Sabha election of 1967, the biggest turnout until then. (Image source: PMML) The term of the third Lok Sabha was to end on April 17, 1967, while the terms of state Assemblies were to end between March 11 and April 5 that year. Over the period of a week in February, almost 15.27 crore people (61.33% of the 25.03 crore registered voters) voted at 2.67 lakh polling stations across the country. The high percentage of polling was seen by many as an expression of the people's anger with the government of that time, which is a popular interpretation of high turnouts even today. A total 2,369 candidates were in the fray for Lok Sabha, and 16,501 for state Assemblies. Counting of votes took long — results at three seats were declared on February 21, but the last result was declared only on March 10.

Of the 520 members elected to Lok Sabha, 30 were women. In the Assemblies, 98 of the 3,486 members were women. The fourth Lok Sabha sat for the first time on March 16, 1967... And a shock for the Congress. The results were a shock for the Congress. The party won just 283 seats in Lok Sabha, its lowest tally yet, even though the Congress' vote share remained above 40%. With 44 seats, C Rajagopalachari's

Swatantra Party emerged as the largest opposition party in Lok Sabha. In Gujarat, Orissa, and Rajasthan, the Swatantra Party was the main opposition. The Bharatiya Jana Sangh (BJS), which had won 14 seats in 1962, rose to 35 seats. And the Dravida Munnetra Kazhagam (DMK), which fought only in Madras, won 25 seats. Although the Congress emerged as the single largest party in 13 state Assemblies, it did not get a majority in five — Bihar, Punjab, Rajasthan, Uttar Pradesh, and West Bengal. In Madras, the home state of the nearly 88-year-old Rajaji, the Congress was unseated by C N Annadurai's DMK. Coalition governments of the Samyukta Vidhayak Dal (SVD) were formed in Punjab, Bihar, Orissa, West Bengal, Madras, and Kerala, as well as in the Delhi Metropolitan Council. In UP, Haryana, and Madhya Pradesh, coalition governments were formed with

the help of Congress defectors Chaudhary Charan Singh, Rao Birender Singh, and Govind Narain Singh respectively. Some of these coalitions had perhaps a dozen parties — in UP there were almost 20 — from the rightwing BJS to the extreme Left. Indira, whom Lohia famously mocked as gungi gudiya (silent doll), won in Rae Bareilly, a seat earlier represented by her late husband Feroze Gandhi. Nehru's sister Vijayalakshmi Pandit won at the first Prime Minister's seat of Phulpur. Gulzari Lal Nanda won from Kaithal in Haryana. Lohia and George Fernandes won on SSP tickets from Kannauj and Bombay South. Vijayaraje Scindia won from Guna on a Swatantra Party ticket, and Atal Bihari Vajpayee (BJS) won in Balrampur. After 1967, a new era began in the political history of India, which was dominated by Indira Gandhi.

mRNA vaccine tech can be harnessed to prevent deadly diseases: Report

New Delhi: The success of mRNA vaccine technology as seen during the recent Covid-19 pandemic offers hope for using the platform to reduce preventable illness across multiple disease areas, according to a report on Wednesday. The report by GlobalData, a data and analytics company, as part of World Immunization Week, shows that there are about 507 prophylactic or preventive vaccines currently in late-stage development, of which 88 are being developed using the mRNA technology to prevent diseases ranging from tuberculosis, malaria, to influenza, Covid-19, respiratory syncytial virus (RSV) and Lyme disease, amongst others. Unlike other vaccine technologies, mRNA enables rapid production and adaptability for evolving targets. While these vaccines require ultra-cold storage, modifying this would make it even more desirable. World Immunization Week is observed every year during the last week of April to raise awareness about the potential of vaccines to prevent disease and protect life. "Vaccinations have heavily reduced the burden of disease in our society. We have already seen the eradication of smallpox and are very close to achieving the same with polio. Promoting immunisation, improving vaccination schedules, and developing new vaccines are all methods that will contribute towards a decrease in morbidity mortality," said Anaëlle Tannen, Infectious Disease Analyst at GlobalData.

Engineering in local language? Slow start but uptick in students in UP, Tamil Nadu, Andhra

Three years ago, the Government launched engineering degree courses in regional languages as part of a new national plan to make technical education more inclusive and not allow lack of English to be a hurdle. Since then, 2,580 seats have been volunteered in local languages by 22 engineering colleges across the country — 18 private, the rest public. Of the total 25-lakh bank of engineering seats, this is a small fraction but its experience holds larger lessons for the road ahead — indeed, the progress card shows a distinct uptick in local-language programmes in the states of Tamil Nadu, Andhra and Uttar Pradesh. Data from the All India Council for Technical Education (AICTE) shows that enrollment in these courses has improved overall — from 80 per cent seat vacancy in the 2021-22 academic year to 53 per cent in 2022-23.

The Indian Express spoke to officials, teachers, students and recruiters across four states to find what's behind the uptick and where the challenges lie: from availability of non-English textbooks and language teachers to questions over job prospects. In some colleges, these vernacular programmes have become a popular draw for students from English-medium schools, too, given that it's easier to get a more "coveted" department. Engineering in local language? Slow start but uptick in students in UP, TN, Andhra At an introductory class for computer science in Hindi at the G L Bajaj Institute of Technology and Management in Noida. (Express photo by Gajendra Yadav) The Big Picture: Opening the door

In line with the new National Education Policy (NEP 2020), the AICTE approved 1,140 seats for BTech programmes in 11 regional languages — Hindi, Marathi, Tamil, Telugu, Kannada, Gujarati, Malayalam, Bengali, Assamese, Punjabi and Odia — across 18 engineering colleges for the academic year 2021-22. Three of the 18 were government institutes and 15 were private. The move was part of the plan of including native languages as the medium of instruction in higher education to help increase access and promote the "strength, usage, and vibrancy of Indian languages".

To begin with, engineering courses were offered in only five languages — Hindi, Kannada, Tamil, Telugu and Marathi — in 2021-22. And while colleges in Rajasthan, UP, MP, Haryana and Uttarakhand offered BTech in Hindi, those in Karnataka, Maharashtra, Andhra and Tamil Nadu offered the course in their respective regional language. Of 1,140 seats, the data shows, only 233 seats were filled by these 18 colleges that year. During the academic year 2022-23, however, the AICTE approved 1,440 seats for engineering in the local language in 22 colleges — four government, 18 private — and almost half or 683 seats were filled with programmes in Hindi, Marathi, Tamil and Telugu. Among the colleges that recorded a rise was Pune's Pimpri Chinchwad College of Engineering, a private college which offered admission to 65 students for its four-year computer engineering course in Marathi in 2021-22 against an approved intake of

60. With the AICTE allowing an additional division if needed, its enrollment increased to 74 students in 2022-23. According to Nilkanth Chopade, deputy director of the college, English-medium students form the majority in the Marathi course. "More than 90 per cent are from an English-medium background. It is a demand and supply situation. For example, there is huge demand for Computer Science and if students fail to get a seat in an English programme, they opt for the Marathi course," said Chopade.

The Noida Institute of Engineering and Technology (NIET), a private institute in Greater Noida, had only 19 students in the academic year 2021-22. But it filled 68 seats against the approved intake of 60 in the computer science course in Hindi in 2022-23. NIET director Vinod Kapse credited the "favourable" response to their "multifaceted approach". "We provide the students with field development programmes and programmes (by online providers like) Coursera so that they are well-equipped for placements," he said. NIET has also made English language modules provided by the British Council mandatory. Similarly, Erode Sengunthar Engineering College, a private institute in Tamil Nadu, started a Mechanical Engineering course in Tamil with just 10 students in 2021-22 but managed to fill 49 seats against the approved intake of 60 seats in 2021 and 2022. Enrollment in Computer Science and Engineering in Telugu at the NRI Institute of Technology (NRIIT) in Andhra's Vijayawada, too, rose from 22 students to 50 against the approved intake of 60 in the same period. Even as some universities did well, others had trouble getting in even one student.

For instance, courses offered by institutes affiliated to the state-run Gujarat Technical University (GTU) failed to net a single enrollment. A case in point is Gujarat Power Engineering and Research Institute (GPRI), which offered 120 seats in Gujarati in core specialty courses like mechanical, civil, electrical and computer science engineering for the academic year 2022-23. In an effort to "boost" enrollment, GPRI even organised special counselling sessions for students at government schools and diploma colleges, besides those in Adivasi hamlets in and around Mehsana district. GTU Registrar K N Kher said students have not yet warmed up to the idea. "Many students in the area [Mehsana] are not comfortable with English and we have tried to explain to them that learning will be more effective if done in a regional language. At the diploma level, we have allowed students to study and write their exams in Gujarati... There is a perception among students that if they pursue BTech in Gujarati, they will miss out on placement opportunities," Kher said. The "waning" appeal of core specialties may have contributed to the problem, too. "Another reason could be the declining popularity of core branches like mechanical, civil and electrical engineering, even in English," said Vivek Patel, the head of GPRI's Mechanical Engineering Department. Then, there's the lack of dedicated textbooks and teachers for these



courses, prompting some of these colleges to work out indigenous solutions. "Most of the books that we use in classrooms are in English. However, our approach is to gradually make students comfortable in English as they move on. In the first year, we explain the concepts in 75 per cent Telugu and 25 per cent English. This ratio becomes 50:50 in the second year and in the third year most of the curriculum is taught in English. Apart from that, AICTE has developed a tool for translating content in regional languages," C Naga Bhaskar, the principal of NRIIT, a private institute, said.

The college has adopted a similar approach to the recruitment of teachers. "We asked them whether they would be comfortable teaching in Telugu as well as English. Only those who were comfortable in both were hired for this programme. We have hired nine teachers so far for our regional language programme," Bhaskar said. The principal, however, acknowledged that "most of the parents are still worried if their child will be able to get a job at the end of this programme". "I assure them that the recruiters are focused on skill rather than the medium of instruction in the classroom," Bhaskar said. Another challenge, he said, is for students who wish to pursue higher studies abroad. "They may face difficulties because, according to the eligibility criteria of several foreign universities, students must have studied their bachelors in the English medium. Currently, there are 10-15 per cent students who wish to study abroad and I have communicated this issue to AICTE," Bhaskar said. The AICTE, meanwhile, is hopeful of the tide turning gradually. Rajive Kumar, AICTE member secretary, said, "We have started faculty development programmes in Indian languages. We have given students options (to choose regional language courses). Books are being translated in regional languages and efforts are being made to equip teachers to teach in regional languages. This multi-dimensional approach will surely help increase interest among students, but it will happen gradually. This is not likely to show results in just two years." Kumar said, "When we spoke to industry partners, no one expressed their unwillingness to hire students who had studied in Indian languages. It is our

mindset that makes us think the industry will not hire us." "Not a major constraint" for recruiters Asked about a recruiter's perspective, R C Bhargava, chairman, Maruti Suzuki India, said, "An HR person would be more adept at answering this question, but common sense would dictate that if a company prefers to conduct its work in a particular language, then it would want to hire engineers who understand and can read that language. Wouldn't it be a handicap if the engineer cannot speak the language fluently to interact with his colleagues? At Maruti, we deal with the Japanese. The Japanese have learned English. So our employees are usually fluent in English and Japanese." Naushad Forbes, co-chairman Forbes Marshall, a leading steam engineering and control instrumentation firm, said, "In second and third tier engineering colleges, students are usually taught in regional languages but take tests in English, essentially practicing bilingual education. Offering engineering degrees in regional languages isn't a significant change for them. From the market's perspective, although English is essential for most engineering jobs, it's something young people can easily learn. I don't view this shift as a major constraint." In India, "being bilingual is best", said Manish Sabharwal, co-founder of TeamLease Services, one of the country's leading HR consultants. "Being bilingual (English and a native language) improves labour mobility and there is a wage premium for being bilingual. In tech, especially the software sector, knowing English language matters given that 99 per cent of the work happens in English. While it's a good thing that the education system is being inclusive (with the introduction of tech programmes in native tongue), people should also realise that there is optionality to multilingualism," Sabharwal said. "A majority of our recruiters are based in India, and their emphasis is on skills over medium of instruction. Nevertheless, we have dedicated lectures to make students proficient in business English communication, which will improve employability," said Sansar Singh Chauhan, head of Computer Science Engineering at GL Bajaj Institute of Technology and Management in UP's Noida, which started its Hindi programme in 2021-22.

Ideological base in Kannur holds key to Left's fight for relevance

Fifteen kilometres away from bustling Kannur is the small neighbourhood of Parapram in Pinarayi village, enveloped by the waters of the pristine Anjarakandy river and its tributaries on three sides. The streets are peaceful -- concrete paths lined by solar lights and coconut trees, a library in one corner of the village, and a spanking new convention centre. A central motif is the colour red -- flags flutter at most street corners, with some carrying face of Argentine revolutionary Che Guevara.

Quiet it may be, but Pinarayi holds a special place in Kerala's politics. For one, it is the village of its now famous son, 78-year-old Kerala chief minister Pinarayi Vijayan, born in 1945 in the one of the tiled-roof homes that dot the area. But six years before that, it was here on a December day in 1939 that 40 leaders of the then Congress Socialist Party, including EMS Namboodiripad, AK Gopalan and P Krishna Pillai, held a meeting to affirm the formation of the Communist Party of India in Kerala, laying the foundation of the Left movement in the state. Eighteen years later, that meeting bore fruit, and the first elected communist government in India was sworn in. It is a day Parapram is immeasurably proud of. Along one narrow paved road stands a memorial -- a clenched fist, around five feet high, rising out of a stone plinth. Engraved to the wall on one side is the number "1939". Next to it are the names of the 40 people who attended the meeting. Five hundred metres away from the plinth, 52-year-old Sankaran PK, in a white checked shirt and an orange dhoti, points to the memorial. "It's a marker of courage. The fist is a sign of resistance against oppression." Sankaran launches into a discourse on the significance of Pinarayi, and the Kannur Lok Sabha seat. "It is here the party was born and then spread to other parts of the state. Kannur has given Kerala leaders such as Chadayan Govindan, AK Gopalan, former chief minister EK Nayanar, and current chief minister Pinarayi Vijayan. The party has always been strong here, and if it wants to do well in any election, it must begin from here." Over the eight decades since that covert meeting, the Left, though ideologically split into two parties -- the CPI and the CPI(M) -- has grown into a massive political force in Kerala, winning nine of 15 assembly elections, and contributing six of its 12 chief ministers. Yet, there is a clear political dissonance. At the national level, the LDF has had only marginal success, winning more seats than the rival Congress-led UDF in four of the 17 elections held since 1956, when the state was formed. In 2019, that dissonance became even more stark. The Left Front was in power in the state, but won only one of the 20 seats on offer. Elsewhere in the country, the Left parties are mere shadows of themselves. They were once the dominant force in West Bengal, ruling for 34 straight years till 2011, when the Mamata Banerjee-led Trinamool Congress wrested power. Since then, there has been little sign of a revival, and the BJP has become the TMC's principal challenger. In 2018, the CPI(M) lost

power in Tripura to the BJP, which then was re-elected to power in 2023 with barely a challenge. Now, even in Kannur, one of its most resolute ideological fortresses, it is a measure of the challenge ahead that there is a steep mountain to climb at the Lok Sabha level. In 2019, the state Congress chief K Sudhakaran won the seat by over 94,000 votes. Five years later, the CPI(M) has deployed MV Jayarajan, a former two-time-MLA and briefly the private secretary to CM Vijayan, against the incumbent. One local CPI(M) leader says that hope springs eternal. "In four of the seven assembly segments, we are ahead and doing well. But there are two segments called Peravoor and Irikkur, which are areas bordering Karnataka where there is a large Christian population who generally favour the Congress, and the challenge is winning those parts." A symbol of decay

One day in early April, 500m away from the Left memorial, a group of 40 women are hard at work inside a decrepit building with a tiled roof. Some cut tendu leaves in rectangular shapes, and the practised fingers of others roll beedis by stuffing dry, flaky tobacco into them. The unit is part of the Kerala Dinesh Beedi Cooperative Society, launched in 1969 by the then Left government led by EMS Namboodiripad. The move was aimed at employing thousands of workers in a sector controlled privately at the time, and its grateful employees went on to form the backbone of support to the Communist party. One of the women is Sudha P. Tall and striking, with spectacles resting on her nose, she's wearing a simple peach saree. A metal watch jangles on her wrist as does a job she has been doing for 40 years. "I started rolling beedis when I was 13 after I dropped out of school. At the time, we didn't even have the money to buy rice, and it was essential that I found work," she said. Now 53, she is one of the fastest beedi rollers in the unit. "It was very tough in the beginning. When we messed up the cutting of the leaf or the rolling of the beedi, the instructor would hit us on our knuckles with scissors. It was painful, but we learnt quickly," she chuckles. And yet, Sudha's story is also a story of decay, of incomes that have failed to rise proportionally with the times. She does not remember what she earned when she started, but it was barely enough to cover for her family. Now, she makes ₹367 for every 1,000 beedis rolled, and ₹1,700 a month is set aside for a provident fund she will receive when she retires at 58. She is fast, but there is a limit to how much even she can do. In a month, she earns ₹8,000. "The extremely low wages, coupled with long working hours and health hazards associated with the profession have driven people away from the sector," she said.

In the 1990s, the company had more than 1,200 workers -- its halls bustled with activity as rows and rows of men and women worked for hours on end. Now, there are just 40, and the peeling walls echo with emptiness. "Every year, more and more people are retiring. All the men have left for jobs with better wages and



only the women have been left behind. The industry is on its last legs," Sudha said. Next to her, Sajitha, another beedi worker and an active member of the CPI(M), says that for decades the employees were lifelong Left workers, their loyalty learnt by the jobs that were created and the pensions that were offered. "But over the years, people inclined to other parties like the Congress have also joined in. There may be political divisions, but as workers, we are all one," Sajitha said. And yet, despite her clear political partisanship, Sajitha is disappointed with the LDF campaign. "The candidate came and spoke to us, appealing for votes. But he made no promises on increasing our wages. Maybe the party also understands that this is a decaying sector. It will soon disappear." Though Kerala may be one of the only states where the Left has electoral heft, it is not the only party that looks to the state as its bastion of resistance. As the Congress has seen its vote shares and seat shares across India plummet since 2009, it has increasingly looked to Kerala to save face -- a state where it continues to have a robust organisational machinery and helpful allies. In 2014, Kerala contributed eight of its 44 members of Parliament, and in 2019 this number went up to 16 of its 52 MPs. In Kannur, for instance, the party has built a formidable electoral calculus, with influence across communities, including the 29% percent Muslim population aided by an alliance with the Indian Union Muslim League. In the 2019 elections, the Congress put more eggs in the Kerala basket with Rahul Gandhi fighting from Wayanad as the party searched for an alternative to the withering family pocket borough of Amethi in Uttar Pradesh. The strategy bore fruit -- Gandhi lost Amethi but won Wayanad. In 2024, he is fighting from Wayanad again, and despite a national Left and Congress alliance elsewhere, there has been clear hostility between the two sides in Kerala. On April 19, chief minister Vijayan hit out at the Congress, and Rahul Gandhi in particular, for the Congress's stance on the Citizenship (Amendment) Act. "When the Sangh

parivar implements its agenda, secular-minded people oppose it. Rahul Gandhi should make clear whether he is secular or someone with the mindset of the parivaar. How can the Congress not protest against such a law?" he asked. On that same day, speaking in Kannur, Gandhi hit back. "The Kerala CM claims he is leading an ideological battle against the BJP. But I know that the BJP fights back when they are attacked. Chief ministers of two states are in jail but Vijayan has not been questioned by the ED despite corruption charges against him. I am happy for him to attack me. But he must spend time attacking the BJP and Modi too," Gandhi said. A Kannur-based Congress leader said that he expects, like in 2019 when the UDF swept the state, minority votes to consolidate behind the Congress. "The visit of Gandhi has helped us. There is huge anti-incumbency against the LDF government and the BJP presence is marginal." Less than a kilometre away from the beedi unit, inside a crumbling CPI(M) local committee office, Raghavan, the local committee secretary, speaks animatedly about his party's chances -- a confidence built on local anti-incumbency against the sitting Congress MP. "It's going to be smooth sailing for us in Kannur because we have a good candidate with a clean image against a sitting Congress MP whose attendance in Parliament was barely 50%, and who didn't even use his entire MPLAD funds. The 2019 elections was fought under special circumstances, with the perception that Rahul Gandhi will be PM. Today, there's a strong INDIA bloc with many leaders who are fit to be PM," he said. In a dark-blue shirt and a white dhoti, surrounded by four workers deep in discussion, Raghavan admits that there is a crisis in traditional sectors such as beedi and toddy tapping. But, he says, these had been replaced by other developmental initiatives. "On 13 acres of land opposite the CM's residence in Pinarayi, there will be an educational hub with an engineering college and an IAS coaching academy.