

## IRCTC announces 'Divya Dakshin Yatra' with Jyotirlinga from Secunderabad

Hyderabad: The Indian Railways Catering and Tourism Corporation (IRCTC) has announced another trip of Bharat Gaurav tourist train from Secunderabad – 'Divya Dakshin Yatra with Jyotirlinga'. The tour offers an opportunity for rail passengers of Telangana and Andhra Pradesh to have darshan of one of the Jyotirlinga (Rameshwaram), while also covering other important pilgrim places.

Significantly, it provides boarding and aligning facility for passengers at Secunderabad, Kazipet, Warangal and Khammam in Telangana and Vijayawada, Tenali, Ongole, Nellore, Gudur and Renigunta in Andhra Pradesh, SCR officials said in a press release. It includes all travel facilities (including both rail as well

as road transport), accommodation, catering arrangements (morning tea, breakfast, lunch and dinner), professional and tour escorts, travel insurance and presence of IRCTC tour managers throughout the travel. Meanwhile, the 19th trip of Ayodhya – Kashi: Punya Kshetra Yatra, Bharat Gaurav train will commence its journey from Secunderabad railway station on June 8. Here are the details: Tour: Divya Dakshin Yatra with Jyotirlinga. Duration: 8 Nights/9 Days, from June 22 to 30. Tour itinerary – Secunderabad- Tiruvannamalai (Arunachalam)- Rameshwaram-Madurai-Kanyakumari- Trivandrum-Trichy-Thanjavur. – Secunderabad. Boarding/Aligning points – Secunderabad, Kazipet, Warangal, Khammam, Vijayawada, Tenali,



Ongole, Nellore, Gudur and Renigunta. Cost per person: Economy (SL): Rs. 14250 Standard (3AC): Rs. 21900 Comfort (2AC): Rs. 28450

## JICA facilitates IITH-Renesas partnership for semiconductor innovation in India



Hyderabad: The Japan International Cooperation Agency (JICA) entered into a strategic collaboration between the Indian Institute of Technology Hyderabad (IITH) and Renesas Electronics Corporation, a premier global supplier of advanced semiconductor solutions based in Japan, through a three-year Memorandum of Understanding (MoU). The MoU focuses on research and collaboration in the field of

very-large-scale-integration (VLSI) and embedded semiconductor systems.

Renesas will support curriculum development, hands-on learning, and outreach programs at IITH to nurture semiconductor talent. IITH engineering students will have opportunities for internships and full-time employment with Renesas, aligning with India's 'Make in India' strategy to build

a self-reliant semiconductor ecosystem for India and the world. JICA has been a long-standing partner of IITH, providing financial assistance for campus development through ODA loans totaling JPY 23,035 million (around Rs. 1,500 crores) and conducting the technical cooperation project, FRIENDSHIP. This project supports IITH's initiatives to function as a sustainable platform for academic and industrial collabora-

tions between India and Japan, such as the establishment of the Japan Desk on campus. Saito Mitsunori, Chief Representative, JICA India, said, "promotion of Indo-Japan collaboration in high-end technologies such as semiconductors will be a new but important sphere of JICA's cooperation with India as the largest and closest development partner of the country."

## More rains expected in Hyderabad as city welcomes southwest monsoon

Hyderabad: The southwest monsoon has arrived in Telangana, drenching the State capital and surrounding regions with massive rains on Wednesday. The downpour however resulted in severe traffic disruptions across Hyderabad, with motorists stuck for hours as many roads were inundated. According to the India Meteorological Department, on Thursday, the city is likely to see isolated to scattered rains in the evening and night, but the intensity will likely be less severe than yesterday's heavy downpour. However, a yellow alert indicating heavy rains has been issued for the city on June 7. Although the city may experience scorching temperatures in the afternoon, clouds are expected to gather by evening, with the maximum temperature reaching around 36 degrees Celsius.

# Bees and hoverflies are key to growing more fruit and veg in cities – new research

Accessing affordable fruit and vegetables is a significant challenge for the 1.2 million UK residents living in what is known as “food deserts”. People in these neighborhoods are unable to purchase fresh food within walking distance or via a quick trip on public transport. Instead, they have to choose between shopping at convenience stores with scarce fresh food in stock or spending some of their food budget on transportation. But there is a solution. Growing fruit and vegetables in cities is an effective and sustainable way of improving many urban residents’ access to fresh produce. In newly published research on urban UK allotments, my colleagues and I found that maintaining a diversity of insects in our cities is an important part of this. Urban farms, which account for around 6% of all farmland worldwide, have the potential to supply a significant amount of fresh food. Several studies, including those based on data collected by urban growers themselves, have demonstrated that small urban farms (typically allotments or community and market gardens that are less than two hectares in size) can match the productivity of conventional rural farms in terms of food production per unit area. But even in cities, humans rely on animals to pollinate their food crops. In fact, approximately three-quarters of the world’s leading food crops depend on insects for pollination. Yet our understanding of which insects pollinate specific crops in urban areas, and whether there are even enough insects in our cities to sustain fruit and vegetable production, remains limited.

Most research on crop pollination has focused on rural areas, leaving us with limited information about urban settings. While the role of insect groups like flies and wasps in crop pollination has only gained recognition relatively recently. We found that most crops are visited by a broad range of insects. Bumblebees and hoverflies emerged as two of the most important pollinators. But we also found that some crops, such as strawberries, struggle to attract enough pollinating insects to produce a quality crop. Top of the crops

Pollinating insects, such as bees, beetles, flies, butterflies, and wasps visit flowers to collect pollen and nectar as a source of food. Through this process, they fertilize the flower, enabling the development of seeds and the growth of fruit or vegetables. Bees and hoverflies are key to growing more fruit and veg in cities. Our new study offers insight into which specific pollinators we need to encourage to support and expand urban fruit and vegetable production. For instance, hoverflies are effective pollinators of strawberries. (Source: Farsai Chaikulngamdee on Unsplash) Our study involved conducting over 1,000 surveys in allotments across the city of Brighton & Hove in the south of England. During our surveys, we recorded the number of pollinators visiting crop flowers. We found that fruit trees, including apples, and bushes like raspberries and blackberries, were most popular with insect visitors, receiving the most visits per flower.

Bumblebees visited the widest range of crops, including fruit trees, beans, pump-

kins, and tomatoes. This shouldn’t come as a surprise. Bees are typically considered the most important pollinators in fruit orchards. But in our study, hoverflies were the main visitor to fruit trees. This finding aligns with research from 2020 that ranked flies as the second-most important crop pollinator after bees, visiting 72% of crop plants worldwide. With the data we collected, we created a visual representation resembling a “social network” of the interactions between different crops and insects. Our findings revealed that many of the crops that are cultivated in urban areas attract a diverse array of insect groups. Apple flowers, for example, were visited by every type of pollinator except wasps. By contrast, cucumbers were visited by every group except butterflies. These results suggest that maintaining a diversity of insects may be key for crop pollination in cities. Strawberries need a helping hand. We also conducted an experiment with strawberries to test whether there are enough insects in urban allotments to effectively pollinate these crops. We assigned two similar-sized plants to either a supplemental pollination treatment – where we transferred pollen between flowers by hand with a paintbrush – or open pollination where we relied on the insects to pollinate the plants. The strawberry plants that were pollinated naturally by insects produced lower-quality fruit than those receiving supplemental pollination by hand. This finding suggests that we need to improve the quality of insect pollination that some crops receive in cities. Food for cities. Improving crop pollination in cities



could be achieved by increasing the availability of food and nesting habitat for insects. A separate study that I co-authored in 2020 demonstrated that planting flowers that produce lots of pollen and nectar, such as borage, alongside crops in allotments and gardens can increase the amount of food that is harvested. We found that strawberry plants grown near borage plants produced a greater quantity of fruits that were larger and of superior quality compared to strawberry plants located further away from other flowering plants. Our new study offers insight into which specific pollinators we need to encourage to sup-

port and expand urban fruit and vegetable production. For instance, hoverflies are effective pollinators of strawberries. So providing nesting habitats like hoverfly lagoons for these insects could increase their abundance in urban areas, ensuring more effective pollination and better strawberry harvests in the future. Growing more food in cities has the potential to improve people’s access to fresh produce. But maintaining a diverse range of insects to pollinate those crops is an important factor in this. Only then will we be able to sustain and expand urban food production for the benefit of city dwellers.

## Canada will require Google and Meta to pay media outlets for news under bill set to become law

Canada’s Senate on Thursday passed a bill that will require Google and Meta to pay media outlets for news content that they share or otherwise repurpose on their platforms. The bill, which is set to become law, was passed amid a standoff between Prime Minister Justin Trudeau’s government and Silicon Valley tech giants. Ottawa has said the law creates a level playing field between online advertising giants and the shrinking news industry. And Canadian Heritage Minister Pablo Rodriguez has promised to push back on what he describes as “threats” from Facebook and Google to remove journalism from their platforms. Meta confirmed Thursday that it plans to comply with the bill by ending news availability on Facebook and Instagram for its Canadian users, as it had previously suggested. Meta would not offer details about the timeline for that move, but said it will pull local news from its site before the Online News Act takes effect. The bill will come into force six months after it receives royal assent. “We have repeatedly shared that in order to comply with Bill C-18, which was passed today in Parliament, content from news outlets, including news publishers and



broadcasters, will no longer be available to people accessing our platforms in Canada,” said Lisa Laventure, head of communications for Meta in Canada. Legacy media and broadcasters have praised the bill, which promises to “enhance fairness” in the digital news marketplace and help bring in more money for shrinking newsrooms. Tech giants includ-

ing Meta and Google have been blamed in the past for disrupting and dominating the advertising industry, eclipsing smaller, traditional players. Meta, which is based in Menlo Park, California, has taken similar steps in the past. In 2021, it briefly blocked news from its platform in Australia after the country passed legislation that would compel tech companies to pay publishers for using their news stories.

# CSDS-Lokniti post-poll survey: Despite discontent NDA given another chance

Voters often support the parties in the expectation of getting particular services, and when governments fail to fulfil these expectations, these voters turn to alternative appeals. At times, when governments fulfil those promises, the voters reward those parties handsomely. This time around, the 2024 results indicate, that in pockets the incumbent central government has been rewarded by the voters, leading them to vote in favour of the BJP-led NDA government. Are there historic patterns where a ruling party/coalition receives support (and in this case the coalition has secured a majority) based on what is perceived as satisfactory performance? The CSDS-Lokniti post poll survey 2024, sought to understand these issues from the voter's perspectives.

Historically, when voters were satisfied with the performance of incumbent governments, they were often re-elected, barring the notable exception of 2004, where despite reasonably high levels of support, the incumbent government lost the elections. In 2014, when the voters were dissatisfied with the work of the UPA government, it was reflected in more than half of the respondents (54%) being unwilling to give the alliance another chance. As a result, NDA came to power. Conversely, in 2009, under the Congress led – UPA regime, more than half of the respondents (55%) opined that the government deserved another chance. Similarly, in 2019 a little less than half the respondents (47%) favoured a second chance for the incumbent ruling party. In both pre and post-poll survey of 2024, (44% & 46% respectively), little less than half of the respondents have indicated that the BJP led- NDA should be given another chance. (Table 1).

Why did the ruling coalition secure a majority?



There are several reasons why the NDA coalition was given another chance. Data from the post poll survey indicates that for those who supported the NDA, the predominant reasons include government's development work, effective leadership, good governance and impactful welfare schemes. In particular, one-fifth of the respondents have indicated Modi's leadership as one of the prime reasons for choosing the NDA again, a proportion that nearly doubled since the pre-poll. While strong leadership is a significant, the lack of viable alternatives also played a role, with five per cent of voters

chose the NDA government due to lack of good option as alternatives. Development (21%) and good governance (15%) also fared equally well in the minds of about one in every five voters. Another one in every ten voters said that the incumbent government had good policies and welfare schemes (11%). (Table 2). Despite the factors that propelled an NDA majority, issues like unemployment, inflation, falling incomes, and corruption remain unaddressed by the incumbent government. These issues significantly discouraged the voters to support the current dispensation. For instance, unemployment, was a sig-

nificant issue for one in every third voter during the pre-poll in April 2024 (32%). However, during the campaign, possibly on account of the promises of employment resonated with voters, reducing this proportion to 27 percent in the post-poll. Concerns regarding inflation too flared up by 10 percentage points from April (pre-poll – 20%) to the post-poll (30%). (Table 3). The decision to give a majority to the NDA reveals a bag of mixed perceptions. Satisfaction with the NDA's performance led many to give it another chance, while discontent shows that voters have exercised restraint, by not giving the BJP a clear majority on its own.

## Nvidia's stock market value surpasses \$3 trillion

Nvidia's stock price has more than doubled this year after more than tripling in 2023 and it's now the third most valuable company in the S&P 500. Nvidia's stock rose again Wednesday to surpass 3 trillion in market value. The company is also about to undergo a stock split that will give each of its investors nine additional shares for every one that they already own.

The chipmaker has seen soaring demand for its semiconductors, which are used to power artificial intelligence applications. The company's revenue more than tripled in the latest quarter from the same period a year earlier. Nvidia, which has positioned itself as one of the most prominent players in AI, has been producing some eye-popping numbers. Here's a look: Nvidia's total market value as of Wednesday. Earlier this year, it passed Amazon and Alphabet to become the third

most valuable public company, behind Microsoft (\$3.168 trillion) and Apple (\$3.029 trillion). The company was valued at around \$418 billion two years ago. That's the one-day increase in Nvidia's market value on Wednesday. The company's 10-for-1 stock split goes into effect at the close of trading on Friday, June 7, and is open to all shareholders of record as of Thursday, June 6. The move gives each investor nine additional shares for every share they already own. Companies often conduct stock splits to make their shares more affordable for investors. Nvidia's stock closed Wednesday at \$1,224.40 and it's just one of 11 companies in the S&P 500 with a share price over \$1,000. Revenue for Nvidia's most recent fiscal quarter. That's more than triple the \$7.2 billion it reported in the same period a year ago. Wall Street expects Nvidia to bring in revenue of \$117



billion in fiscal 2025, which would be close to double its revenue in 2024 and more than four times its receipts the year before that. Nvidia's estimated net margin, or the

percentage of revenue that gets turned in profit. Looked at another way, about 53 cents of every \$1 in revenue Nvidia took in last year went to its bottom line.

# CSDS-Lokniti post-poll survey: Personal financial conditions played key role in voting choice

In democracies, economic currents often sway voters. With India's economic rise, the state of national economy has come to occupy centre stage of political and public debates. Economic issues such as growth, unemployment, inflation, rural distress and so on figured prominently in political debates in the run up to the recently concluded general elections to the Lok Sabha. While the ruling party/alliance flaunted their impressive GDP numbers and new economic initiatives aimed at benefiting people, the Opposition bloc's campaign remained focussed on unemployment, price rise and other forms of economic distress. Tapping into the downside of the economy, the Congress carefully crafted a package, called "Nyay" so as to be able to reach out to economically vulnerable sections.

For ordinary voters, complex macro-economic numbers may not mean much, but they have a fair sense of what they have gone through economically. Given this, it is people's assessment of personal or household's financial conditions rather than their perception about the performance of national economy that is expected to play an important role in shaping voting choice. The idea of "pocketbook" voting holds that those who feel economically secure or have experienced improvement in their financial wellbeing are more likely to vote for the candidates of the ruling regime. Conversely, individuals facing economic hardship, job loss or financial instability may seek to punish the incumbent.

So, in the recently concluded parliamentary election, how did people feel about their personal/household economic/financial conditions? Did it influence their voting preference? If so, to what extent? The CSDS-Lokniti post-poll survey helps us answer these questions. As per the survey findings, only four out of 10 respondents felt that their personal/household financial conditions improved over the past five years. This means that economic condition of households of a great majority of people either remained unchanged or worsened. Interestingly, this number is about as great as it was in 2019. A closer look at the data indicates that a significant number of respondents actually experienced their economic conditions worsen. Compared with 2019, this number increased a bit. What this implies is that "achchhe din" could not expand its reach during the past five years (Table 1).

Who are those whose economic fortune improved or worsened? Economic processes are likely to affect sub-groups of voters differentially as their sources of livelihood and income markedly differ. An interesting pattern can be observed in rural and urban settings, the two spatially polarised contexts in terms of sources of livelihood and income. Data shows that more rural voters than their urban counterparts felt that their economic conditions improved. At the other end of the scale representing economic distress, the percentage of urban voters exceeded, though marginally, that of rural voters. The data also shows that the processes of economic development have impacted different eco-



omic classes differentially. While half of the rich respondents said that their economic conditions improved, the corresponding figure for the poor was as low as 37%. A larger fraction of the poor than others saw their economic fortunes decline (Table 2). The way people perceived their economic conditions appear to have played an important role in shaping their political preferences. Data reveals that those whose economic conditions remained unchanged divided their votes almost equally between the ruling regime and the challenging party/alliance. However, those who experienced their economic conditions worsen had a clear preference

for the Opposition camp. More than half of them would have voted for the Congress and its allies as against 23% for the BJP and its allies. Conversely, most of those whose economic conditions improved said they voted for the BJP-led NDA (Table 3).

That key economic issues, such as personal economic well-being, mattered in the recently concluded elections is confirmed when we go back and take a look at other indicators as well. In the pre-poll survey held a couple of months back, three out of 10 respondents were of the view that the BJP-led NDA government worked for the benefits of the rich. About 15% of the respondents had held that there was no

development at all during the past five years. Unsurprisingly, those who held a negative view of the ruling regime had expressed their intention to vote for the Congress and its allies (Table 4). In sum, over the past five years, economic conditions of many people did not improve. A fairly large fraction of people actually saw their economic conditions worsen. Since this is only a preliminary bivariate result, it is difficult to say how much of a role personal economic conditions play in shaping final electoral outcomes. But it is quite clear that people's assessment of their own economic conditions made a large difference in the voting choice.

## YouTube toughens policy on gun videos and youth; critics say proof will be in enforcement

YouTube is changing its policies about firearm videos in an effort to keep potentially dangerous content from reaching underage users. The video sharing platform owned by Google said Wednesday it will prohibit any videos demonstrating how to remove firearm safety devices. In addition, videos showing homemade guns, automatic weapons and certain firearm accessories like silencers will be restricted to users 18 and older. The changes take effect June 18 and come after gun safety advocates have repeatedly called on the platform to do more to ensure gun videos aren't making their way to the site's youngest users, potentially traumatising children or sending them down dark paths of extremism and violence.

Katie Paul, director of the Tech Transparency Project, said the change was welcome news and a step in the right direc-

tion. But she questioned why the platform took so long to issue a new policy, and said her group will look to see how effectively YouTube enforces its new rule.

"Firearms are the number one cause of death for children and teens in America," said Paul, whose group has long sought stronger age controls on online gun videos. "As always with YouTube, the real proof of change is whether the company enforces the policies it has on the books. Until YouTube takes real action to prevent videos about guns and gun violence from reaching minors, its policies remain empty words." Last year, researchers at Paul's group created YouTube accounts that mimicked the behavior of 9-year-old American boys with a stated interest in video games. The researchers found that YouTube's recommendations system forwarded these accounts graphic videos of school

shootings, tactical gun training videos and how-to instructions on making firearms fully automatic. One video featured an elementary school-age girl wielding a handgun; another showed a shooter using a .50 caliber gun to fire on a dummy head filled with lifelike blood and brains. Many of the videos violated YouTube's own policies against violent or gory content. Manhattan District Attorney Alvin Bragg last month called on YouTube to stop the proliferation of firearm-related videos to young users, and told the company it was failing to enforce its own policies. On Wednesday, Bragg said he applauded the company's new policy. "We have heard firsthand from young individuals that YouTube's algorithm is driving them to the world of illegal and 3D-printed firearms, which is having a direct impact on the safety of Manhattanites," Bragg said in a statement emailed to reporters.

# Venus has more volcanism than previously known, new analysis finds

Venus appears to be more volcanically active than previously known, according to scientists whose new analysis of decades-old radar images has spotted evidence of eruptions at two additional sites on the surface of Earth's inhospitable planetary neighbour.

Radar images obtained by NASA's Magellan spacecraft from 1990 to 1992 indicated large lava flows at these two locations in the Venusian northern hemisphere at the time of the observations, the researchers said. These findings, coupled with previous studies, indicate that the planet's volcanic activity is comparable to Earth's, they added. Magellan mapped 98% of the Venusian surface. Advances in computing capability have made analyzing Magellan's radar data easier in recent years. "These findings significantly change our understanding of the degree to which Venus is volcanically active, suggesting it could be much more active than previously thought," said planetary scientist Davide Sulcanese of d'Annunzio University in Pescara, Italy, lead author of the study published this week in the journal *Nature Astronomy*.

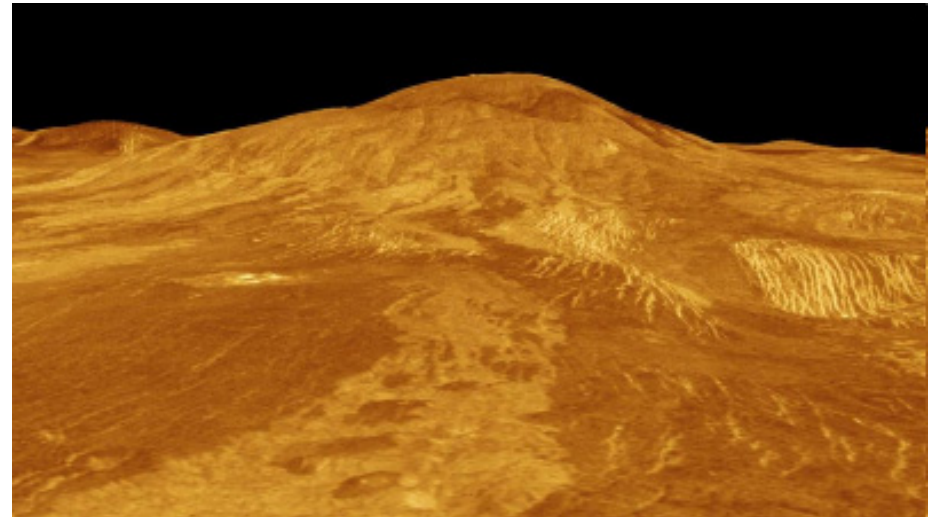
One of the two sites is a volcano called Sif Mons, which is about 200 miles (300 km) wide and situated in a region called Eistla Regio. The before-and-after radar images indicate a lava flow amounting to about 12 square miles (30 square km) of rock. The other site is a large volcanic plain in a region called Niobe Planitia. About 17 square miles (45 square kilometers) of rock was produced in this lava flow. "Both Sif Mons and the volcanoes in Niobe Planitia are shield volcanoes, characterized by broad, gentle slopes formed by low-viscosity lava flows," said d'Annunzio University planetary scientist and study co-author Giuseppe Mitri.

The new rock at both locations was estimated to have an average depth between about 10 and 66 feet (three and 20 meters). "The lava flows observed along the western flank of Sif Mons exhibit linear features with sinuous patterns that follow the direction of the maximum slope, generally towards the west," said planetary scientist and study co-author Marco Mastrogiuseppe of University Sapienza in Rome and Link Campus University in Rome. "Regarding the flows in Niobe Planitia, the lava flows appear to originate near small shield volcanoes and extend towards the northeast, also following the direction of the slope," Mastrogiuseppe added. Venus is the second planet from the sun, and Earth the third. Venus has a diameter of about 7,500 miles (12,000 km), slightly smaller than Earth.

The new study builds on previous findings of ongoing Venusian volcanic activity. A 2023 study found that a volcanic vent on Maat Mons in a region called Atla Regio, near the equator, expanded and changed shape during the Magellan mission. "Our study is the first to provide direct proof of lava flows formed during the Magellan mission period. By analyzing radar images from the Magellan spacecraft, we observed changes in surface morphology and radar

data indicative of new lava flows," Sulcanese said. "This offers direct evidence of ongoing volcanic activity on Venus, building upon previous evidence such as atmospheric sulfur dioxide variations, surface thermal emissions data, and especially the evidence of deformation of a volcanic vent observed in Atla Regio," Sulcanese said. Studying volcanic activity provides a fuller understanding of a planet's internal heat and geological processes.

It provides insights into the planet's thermal evolution, surface renewal processes and atmospheric interactions," Mitri said. The thick Venusian atmosphere, mainly carbon dioxide, traps in heat in a runaway greenhouse effect, making Venus our solar system's hottest planet. "Despite Venus and Earth being very similar in terms of size, mass, chemical composition and internal structure, there are fundamental differences that make Venus an infernal planet," with a roasting surface temperature and crushing atmospheric pressure,



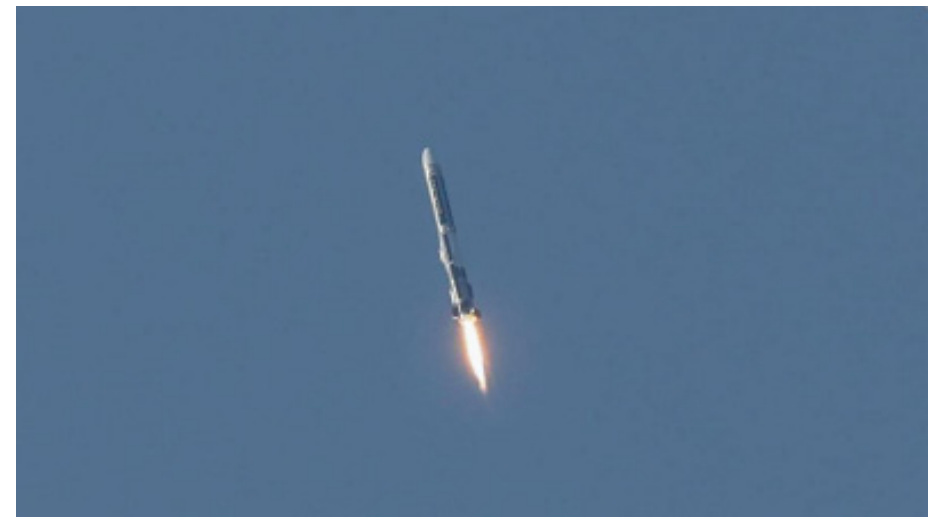
Sulcanese said.

The reason for this different evolution is still a subject of debate," Sulcanese added, noting that planned NASA and Eu-

ropean Space Agency missions in the coming years "will help us better understand why these two planets have met such different fates."

## Agnikul eyes satellite launches by 2025: start-up CEO Ravichandran

After the successful test-flight of Agnibaan SOrTeD, Chennai-based space start-up Agnikul Cosmos is hoping to start launching satellites early next year. In an interview with PTI, Agnikul co-founder and Chief Executive Officer Srinath Ravichandran said the 3D-printed semi-cryogenic engines and the rocket will offer quick turnaround for customers who will be able to have customised launch vehicles for their satellites. "Nine to 12 months I would say. Probably by the end of this financial year or the early part of the next financial year is what we are targeting," Mr. Ravichandran said when asked about the commercial orbital launch of the Agnibaan rocket. The first test flight of Agnibaan SOrTeD (suborbital technology demonstrator) on May 30, which lasted for 66 seconds, came after four unsuccessful attempts. "It was a big sense of relief. I think we got a lot of learning in differentiating between building a vehicle and launching a vehicle," said Mr. Ravichandran, whose idea to use 3D printing technology to build engines and rockets led to Agnikul Cosmos, a space sector start-up incubated at the IIT Madras Research Park in 2017. The other co-founders were Moin SPM, an operations specialist and Satyanarayanan Chakravarthy, a professor at IIT Madras and Head of the National Centre for Combustion Research and Development. Women engineers Saraniya Periaswamy, the Vehicle Director for Agnibaan SOrTeD and Umamaheswari. K, the Project Director of the first Mission played a key role in the test flight. Agnibaan SOrTeD was a vertical ascent flight unlike sounding rockets that are launched using



guiding rails placed at a particular angle.

"Seven seconds after lift-off we checked the health of the vehicle and that is when the auto-pilot kicked in. Little bit into the flight, it started moving over the ocean and performed the pitch-over manoeuvre and then continued on its planned trajectory," Ravichandran said, sharing details of Agnibaan SOrTeD's maiden flight. "Once it reached about 60 seconds or so, we entered the wind biasing manoeuvre, where we solve the wind speed and actually fly into the wind so there is not much wind load on the vehicle," he said.

After the wind-biasing manoeuvre, the rocket continued to fly till burnout and dropped back into the ocean. "There was continuous radar tracking of the vehicle. All the devices and instruments enabling that also worked really well," Mr.

Ravichandran said. The next steps for Agnikul is to master the technology of firing multiple engines together and carry out tests for stage separation.

"We will have to figure out two things. Our orbital rocket has multiple engines fired together. So, that will have to be tested out on the ground. And the stage separation. SOrTeD was a single stage vehicle. The orbital vehicle will have two stages. So stage separation has to be tested," Mr. Ravichandran said. "We are already in the middle of building rigs at our facility. We will take six-seven months to get that and from there we will be able to target the orbital mission in the next three months," he said. According to Mr. Ravichandran, the demand for small satellites was high with as many as 30-35 tonnes of payloads put in low earth orbits every year.

# Deportation and the Supreme Court: Understanding the apex court's stand

Citizenship, refugees, illegal migrants, and deportation are grey areas in the Indian legal space. India does not have comprehensive domestic legislation nor is it a signatory to the the United Nations' 1951 Refugee Convention and its 1967 Protocol. India also does not recognise the term refugee and any foreigner who does not have a valid visa or stays beyond the permitted time of his visa-- is treated as an illegal migrant. The entire domain is governed by Standard Operating Procedures and Executive Orders. With different rules and systems in place for the migrants based on their country of origin, the ambiguity increases.

Two recent orders of the Supreme Court, one ordering deportation and another staying the deportation have rekindled the confusion on the same. On 16th May 2024, the apex court in *Rajubala Das v. Union of India* ordered the Union of India to take immediate steps to deport 17 persons who have been declared foreigners. Rajubala Das had moved the Supreme Court seeking the release of her husband who was lodged in a detention camp in Assam and adjudged a foreigner. It is important to note that the Supreme Court in another case in 2019 had already upheld the order declaring her husband as a foreigner.

Rajubala was basing her prayer on the May 2019 order of the Supreme Court in *Supreme Court Legal Services Committee v. Union of India and Anr.* The apex court, in that case, had held that the detainee who had served long periods in detention camps awaiting their deportation could be released on the completion of three years or more on the execution of bond with two sureties (being Indian citizens) of ₹1,00,000/-, after providing a verifiable address, biometric details etc. Rajubala raised the issue with the surety amount stating that the same was too high for poor people to raise and pleaded that for a person already declared a foreigner getting people to stand surety was difficult. In the course of the hearings, the Supreme Court on April 30, 2024, ordered the Assam State Legal Services Authority (ASLSA) to visit the detention centres of declared foreigners and ascertain how many had completed a period of more than two years.

The Court had also ordered the ASLSA to submit a report on the facilities made available to declared foreigners. It was in regard to this order that the Supreme Court on May 16, 2024, based on the report submitted by ASLSA, ordered the Union to take steps to deport the 17 foreigners of whom 4 had completed more than two years in the detention camp. Thus, in this case, there was no issue with regard to the determination of citizenship but only with regard to the detention.

On May 17, 2024, in *Maya Barman @ Maya Rani Barman v. Union of India*, the Supreme Court stayed the deportation of the petitioner. Maya Barman had been



adjudged as a foreigner by the Foreigners Tribunal 1st Lakhimpur on November 22, 2019, and the said order was upheld by the Guwahati high court on January 11, 2024. It was in an appeal against the Guwahati high court order that Maya had approached the Supreme Court and been successful in securing a stay on any coercive steps including deportation. Thus, unlike the previous case, the issue here was whether the petitioner was an Indian citizen or a foreigner. There are other petitions similar to the one filed by Maya wherein the Supreme Court is hearing appeals questioning the status of citizenship. On September 23, 2022, the Supreme Court ordered a similar stay in the case of *Lal Bhanu @ Musstt. Lal Banu v. Union of India*. The Supreme Court noted that her entire family had been recognised as citizens except her. Most of these cases draw back to the National Register of Citizens or NRC. The NRC was first introduced in 1951 and Assam became the only state to maintain the register owing to its geographical position which made illegal migration easy. With the war in Bangladesh, there was an increased influx of Bangladeshis. In 1985 the Assam accord was signed wherein it was stipulated that any foreigner who entered Assam after March 25, 1971 would be detected and deleted from electoral rolls, and then deported.

In 2013, subsequent to the Supreme Court's order on petitions asking for a new NRC list, an updated list was released on August 31, 2019. However, the updated list ended up excluding more than 19 lakh persons. This led the Foreign Tribunals to take up cases to determine citizenship and the detention of people in camps. The Foreigners Act by virtue of Section 9 requires the person whose citizenship is in ques-

tion to prove he/she is a citizen of India. This places an unfair burden on the person who to start with is usually short of resources. Further, there is a lot of ambiguity with regard to what papers are considered evidence of citizenship and how to prove the same. For instance, in the case of *Maya Barman*, the Tribunal and High Court refused to accept the school leaving certificate because the principal who had issued it was not examined. On the other hand, even deportation is not an easy exercise. A person cannot be deported un-

less the country he is to be deported accepts that he is a citizen. The Supreme Court in *Ana Parveen and Anr v. Union of India* on April 29, 2022, ordered the release of a person who had been detained for seven years on the count of being a Pakistani national but the same was not confirmed by the Pakistani government. The Court held that the indefinite detention of a foreigner is also a violation of Article 21 and cannot be sustained. While the adjudication by Courts takes years, the detainee continues to languish in detention centres.

## LinkedIn is so 'cringe' it will make your toenails curl: Elon Musk

New Delhi: Tesla and SpaceX CEO Elon Musk on Wednesday attacked Microsoft-owned largest professional network LinkedIn, saying this platform is "so cringe it will make your toenails curl", as the billionaire aims to bring job search on his X platform. While LinkedIn has nearly 1 billion members in more than 200 countries, Musk-owned X social media platform has reached 600 million monthly active users (MAUs).

Reacting to an X user Alex Cohen who posted that "I hate LinkedIn with a passion", Musk said that "LinkedIn is so cringe it will make your toenails curl". The brief interaction between them invited a barrage of responses from Musk's X followers.

"The biggest difference between X and LinkedIn is that people tend to be their real selves on X. On LinkedIn, too many people are posting as if HR is breathing



down their necks," an X user commented. The tech billionaire is aiming to roll out a job search feature, allowing users to find jobs directly on the X platform. Elon Musk's AI company last year started posting job listings on its page via @XHiring in the US. Musk has said that there were no great "social networks" right now, but he was committed to creating "at least one", as he plans to build "an everything app".

# Perils of promoting an anti-vaccination scare

Two recent controversies featuring Covid-19 vaccines extensively employed in India have lessons for scientific research and media reporting. The virus vector vaccine manufactured and marketed by AstraZeneca used the spike protein antigen of SARS CoV-2 virus to stimulate immune response and a chimpanzee adenovirus as the carrier to transport that antigen to human cells. After approval for human vaccination in 2020, the vaccine was extensively used in several countries, including India.

In 2021, reports emerged of some vaccine recipients in Europe experiencing severe clotting disorders in their blood vessels. This had a peculiar feature. In affected individuals, clotting occurred despite a drop in platelet counts (cells that clump together to trigger blood clots). It was initially labelled as Vaccine-induced Immune Thrombotic Thrombocytopenia (VITT). As other countries too started reporting similar complications in some recipients of this vaccine, the adverse event was renamed Thrombosis with Thrombocytopenia Syndrome (TTS). The complication was only noted with two virus vector vaccines (AstraZeneca; Johnson and Johnson) and not with other types of vaccines. The name was thus changed to avoid provoking public concern about all vaccines. In 2021, this complication was widely discussed in scientific literature and global media. Questions about how much AstraZeneca knew about this from its own animal and human research, and to what extent concerns were shared with the general public, are now under judicial review in a court in the United Kingdom (UK) that is examining compensation claims. Recently, AstraZeneca admitted that evidence exists of this complication. While all who actually suffered such complications must be compensated, there is no cause for public anxiety among vaccine recipients who received their doses several months ago and did not experience such a complication soon after.

The mRNA vaccines too have had their share of "scare", with myocarditis and pericarditis (inflammation of heart muscle and its covering layer) reported among some persons who received the vaccines. Young males were identified as a high-risk group. Both the virus vector vaccines and mRNA vaccines were specifically directed at the spike protein of the SARS-CoV-2 virus. Inactivated virus vaccines have been around much longer and widely used. Vaccines against influenza and Hepatitis A are among the classic examples. They have been generally well tolerated, with no serious complications. Indigenously developed Covaxin too is an inactivated virus vaccine. Here, the inactivated SRS CoV-2 virus was combined with a United States (US) supplied adjuvant Alhydroxyquim-II that stimulates cellular immunity. Because Covaxin presents an array of antigens from the whole virus, it can provide broadband immunity, even against variants that emerged with changed spike protein configurations as

the pandemic advanced. A recent study reported a long list of adverse events of special interest (AESIs), in 635 adolescents and 291 adults one year after vaccination with Covaxin. This created a media stir in India, coming close on the heels of AstraZeneca's admission. The report on Covaxin raised further concerns, stoking anti-vaccine sentiments that were hitherto at a low level in India.

The report on Covaxin is enfeebled by its weak scientific methodology. Information on a long list of possible adverse effects was obtained only through a telephonic survey. Based on those responses even diagnoses that required clinical or laboratory evidence were documented as present or absent. Such questioning is subject to recall bias (leading to inaccurate responses) and ascertainment bias (mode of questioning generating preferred responses). No corroborative clinical or laboratory evidence was presented, rendering diagnoses questionable. More importantly, there was no control group of unvaccinated individuals for comparison. When respiratory infections are reported in the vaccinated group, we should also know about the concurrent prevalence of such infections among age and location-matched persons who were not vaccinated. When hypothyroidism is reported among vaccinated individuals, we need information on the prevalence of that disorder in a similar demographic group in the general population. Was hypothyroidism present in those who reported it even prior to their vaccination? When typhoid infections reported by telephonically interviewed persons are linked to the Covid-19 vaccine, it strains credulity. Did researchers check the incidence of typhoid among unvaccinated per-



sons in that area? The Indian Council of Medical Research (ICMR) has rightly drawn attention to such serious design and analytical flaws.

Post-marketing studies of vaccine-related adverse effects are important because clinical trials designed to assess efficacy do not provide large enough sample sizes of vaccine recipients to identify an array of potential adverse effects. Late complications are especially likely to be missed in short-term efficacy trials. Discovery of the link between virus vector vaccines and TTS attests to the value of such studies. However, methodologically weak studies can derail scientific research and harm public health. A spurious link between the measles vaccine and autism, suggested by a publication in *The Lancet*, created a worldwide anti-vaccine movement. The link was found to be non-existent and the flawed study was later retracted but the

damage continues with measles outbreaks among families who refuse to vaccinate their children. Four groups have a duty to report accurately and responsibly on issues of public health importance involving vaccines: Researchers who must design methodologically strong studies, conduct them with scrupulous adherence to protocols and report them with integrity; manufacturers who must truthfully disclose all findings of clinical trial research plus provide alerts from continuing post-marketing surveillance; the government's science agencies which must provide vigilant oversight of research and public accountability; media which must gain sufficient familiarity with research methodology to distinguish between scientifically strong and frail studies. Unless all of them play their roles with conviction and commitment, a confused public will be sceptical of science and suspicious of public health interventions.

## Gold drop guide to traditional utensils: The culinary treasures of Telangana

Hyderabad: Telangana cuisine is a symphony of flavors, textures, and aromas. Beyond the vibrant ingredients lie a hidden world of traditional utensils, each playing a vital role in crafting these culinary masterpieces. Let's delve into the enduring legacy of Telangana's heritage, with the Gold drop Guide. This stone vessel, also called Kal Chatti, is a true multi-tasker in Telangana kitchens. Its exceptional ability for slow cooking makes it ideal for delicious dals and sambar, allowing flavours to develop deeply. These hand-carved utensils are also used to store food. A round vessel, crafted from food-grade bronze by skilled artisans in Kerala, blends the beauty of a handi with the functionality of a kadhai. Perfect for a variety of dishes, the uruli adds a touch of authenticity to Telangana favourites including the delectable Bendakaya Vedupu (Fried Okra) cooked with mustard, cumin, onions and tomato. Known by different names such as



Sil Batta and Kal Batta across India, this humble grinding stone transforms whole

spices, grains and dals into fragrant pastes and powders.

# Gautam Gambhir, BCCI and coy India coach applicants

The deadline to apply for men's senior team head coach's post is now over. Last week, there was a flurry of well-wow-thanks-but-no-thanks-but-what-nonsense-we-are-not-even-asking noises. Ricky Ponting said he had "one on one" conversations about the position but at this point in time the job of India's coach "probably doesn't exactly fit into my lifestyle". Justin Langer said he is "out of contention" following KL Rahul's sound advice re: pressure and politics. Plus CSK CEO Kasi Viswanathan, who said he had a "feeling" that CSK long term coach Stephen 'Anna' Fleming wouldn't want to be involved in coaching for "nine-ten months" a year.

This was all before BCCI secretary Jay Shah issued a statement, "neither I nor the BCCI have approached any former Australian cricketer with coaching offer." Reports circulating in "certain media sections," he said, "are completely incorrect". Shah reminded us that finding the right coach for the team was "a meticulous and thorough process." BCCI was "focused on identifying individuals who possess a deep understanding of the Indian cricket structure and have risen through the ranks. It's crucial that our coach has an in-depth knowledge of our domestic cricket framework to truly elevate Team India to the next level." "Don't know about you, but sounds like Gautam Gambhir to me. About whom neither BCCI nor Shah have denied approaching, sounding out or chatting one-on-one.

Since the mushrooming of T20 franchise leagues, the post of head coach for national cricket teams has evolved. From one man in charge of everything into a multi-format compartmentalisation which simplifies time management issues and home-away balance. Uber gurus do still exist with Australia, New Zealand, Sri Lanka, Bangladesh in Andrew McDonald, Gary Stead, Chris Silverwood and Chandika Hathurasinghe. But elsewhere duties have been split between Test and white-ball coaches like in England (Baz McCullum - Matthew Mott), South Africa (Shukri Conrad-Rob Walter), West Indies (Andre Coley-Daren Sammy) and Pakistan (Jason Gillespie-Gary Kirsten). Afghanistan under Jonathan Trott play very little Test cricket. The most uber of these global uber gurus would no doubt be the head coach of the Indian team as the in-charge of the most widely followed national team in world sport. Even if you include the Brazilian football team which doesn't play quite as much year-round as the Indian cricketers. Then the job is also the highest paid in the sport, Rahul Dravid's annual salary is said to be ranging between ?10-12 crore and infinity.

The power and the glory of the job notwithstanding, a clear-eyed SWOT analysis of the position of Indian men's cricket team head coach would feature a handful of entries for Strength (money, player talent) and Opportunity (bootcamp,



man management training, air miles) categories. The Weaknesses and Threats are be considerably more crowded. Granted, former Indian players won't be amused by this SWOT because the pride they would feel working with a group they once represented is beyond our cynical comprehension. Naturally they will look at the job differently.

But for coaches from outside India, the SWOT analysis is fairly clear-eyed. They choose between two extremes. An extremely high-paying, year-round headache circus or a few months a year under a demanding, cold-blooded but largely-organised set-up? Mahela Jayawardene, whose name has also come up as Dravid's successor, is at the moment global head of performance for Mumbai Indians. This includes their five-time title winner IPL team and their other teams in the franchise leagues in the UAE (MI Emirates), South Africa (MI Cape Town) and the US (MI New York).

The difference between being an IPL coach and Indian head coach is a time, chain-of-command and attention issue. How much time is required on the job, who do you report to and what is the degree of media fuss must you deal with. The Indian team is one of the most widely travelled in the world, its chain of command while extremely clear, does not organically take to professionalism or efficiency and the 24x7 media fuss covers the entire gamut between considerate and cuckoo. The job description of the Indian men's team head coach requires being based in Mumbai. This time it comes accompanied with an astonishingly generous three-plus years tenure - July 1, 2024 to December 31, 2027. No India coach has had such an

uninterrupted clear run. Not Gary Kirsten who started on a two-year contract in 2008 March. Not even Ravi Shastri who was India coach for four and a half years, across two terms. India's first overseas coach John Wright spent most of his four and a half years from series to series at first, and then seasonal extensions. With BCCI president Jagmohan Dalmiya telling him before the 2003 World Cup that if India didn't finish No.1 or 2 that was going to be the end of their meet chats. The new coach's extended three-year clear run means that possible dud results can be bypassed and personnel change at the top of BCCI won't matter either. This is high-level succession planning. Particularly handy as Jay Shah's two uninterrupted terms as BCCI secretary end by October. Which is meant to be followed by a cooling-off period, but regulations can of course be re-amended. Regardless, BCCI's process to finding a successor for Dravid has been meticulous and thorough. All bases need to be covered which is why BCCI application process was simplified. Anyone could apply on a Google Form link

off the BCCI website. More than 3,000 applications came through that large-hearted, open-access Google form, with many candidates, real and unreal. Someone on X filled it in Harbhajan Singh's name with the best of intentions. Others as cricketing stars and politicians. A group of podcaster buddies were quick to apply in their own names - including Mayur, a US-based software professional who believes he can be the India cricket team's first Zoom coach, an out-of-the box approach previously never considered. It's also being rumoured that ChatGPT went sentient and put in his/her/their application too. Catch every big hit, every wicket with Crick-it, a one stop destination for Live Scores, Match Stats, Quizzes, Polls & much more. Explore now!. Stay updated with the latest cricket news, T20 World Cup 2024 updates, and match highlights. Explore the World Cup Schedule 2024, track the World Cup Points Table, follow Virat Kohli's performance, and stay ahead with the stats on World Cup Most Wickets and World Cup Most Runs on the Hindustan Times website and app.

## TSDCA advisory on blood plasma

Hyderabad: The TS Drug Control Administration (TSDCA) on Tuesday advised clinical research organisations (CROs), Bioavailability (BA) and Bioequivalence (BE) Study Centres in Hyderabad, who source their plasma and other biological materials like blood and serum for bioanalytical purposes, to enter into proper contractual agreements directly with blood

centres. "The BA/BE centres and CROs that hold requisite registrations issued by CDSCO may source plasma and other biological materials directly from blood centres after making a contractual agreement indicating the roles and responsibilities of both BA/BE centres, CROs and blood centres," a notice from DG, DCA, Kamal Reddy on Tuesday said.