

Internet Shutdowns in 2024

Context: In 2024, India saw 60 mobile internet shutdowns, the lowest in eight years, compared to 96 shutdowns in 2023. This marked a significant decrease, indicating a shift in how the government handles internet access during times of civil unrest or security concerns.

Reason Behind Shutdowns Decrease in 2024:

- The reduction in shutdowns can largely be attributed to fewer incidents in states like Jammu & Kashmir and Manipur, which have historically witnessed high numbers of shutdowns due to ongoing unrest and security challenges.
- In 2024, there was a notable decline in shutdowns in these regions. However, temporary shutdowns still occurred in places like Ambala, Haryana, due to farmer protests, and in parts of Manipur, where law-and-order issues prompted local internet restrictions.

When did India experience the most shutdowns?

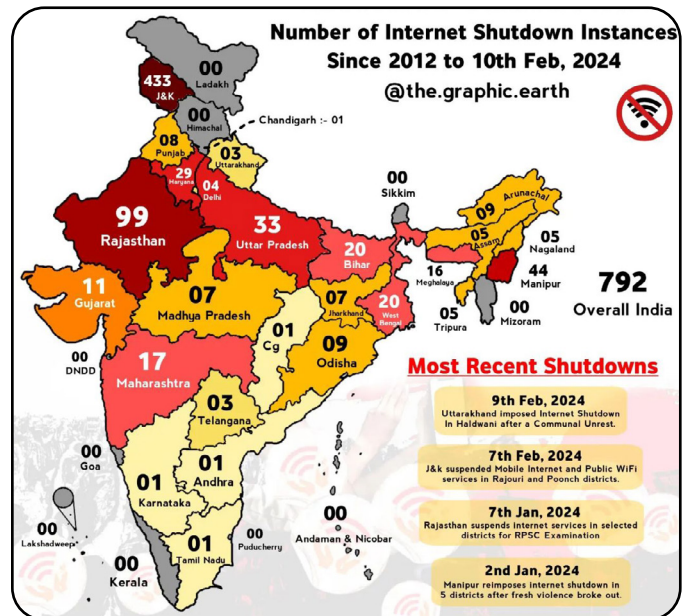
- The highest number of internet shutdowns occurred in 2020, with 132 shutdowns. This spike followed the revocation of Article 370, which granted special status to Jammu & Kashmir, leading to widespread unrest and a need to control the flow of information.

Provisions for Internet Shutdown in India

- Under the Indian Telegraph Act, 1885, the central government has the authority to regulate telecom services, including internet services, and issue licenses.
- The Temporary Suspension of Telecom Services (Public Emergency or Public Safety) Rules, 2017, specifically govern the suspension of internet services during public emergencies or safety concerns. Key provisions of these rules include:
 - » **Duration of Suspension:** Telecom services, including the internet, can be suspended for up to 15 days at a time.
 - » **Issuance of Orders:** Only the Union or State Home Secretary can issue orders for suspension.
 - » **Review Mechanism:** A three-member Review Committee at both central and state levels reviews the orders to ensure they are necessary and proportional.

Supreme Court Judgment in Anuradha Bhasin v. Union of India (2020)

- In the landmark case of Anuradha Bhasin v. Union of India (2020), the Supreme Court emphasized that the right to access the internet is an integral part of the fundamental right to freedom of speech and expression under Article 19(1)(a) of the Constitution. The Court ruled that:
 - » **Temporary Suspension Only:** Internet shutdowns must be temporary and adhere to the principle of proportionality.
 - » **Judicial Review:** Shutdown orders are subject to judicial review to ensure they are not excessive or disproportionate.



Impact of Internet Shutdowns

- Shutdowns cause significant economic losses, including a reported \$118 million in foreign investment lost between January and June 2023. A single-day shutdown can also lead to job losses, particularly in sectors that rely on digital platforms.
- Internet shutdowns restrict access to information and communication, which violates the fundamental right to freedom of speech as per Article 19 of the Indian Constitution.
- Shutdowns disrupt essential services such as online education and telemedicine, severely affecting students, educators, and patients, particularly in the regions impacted by the shutdowns.

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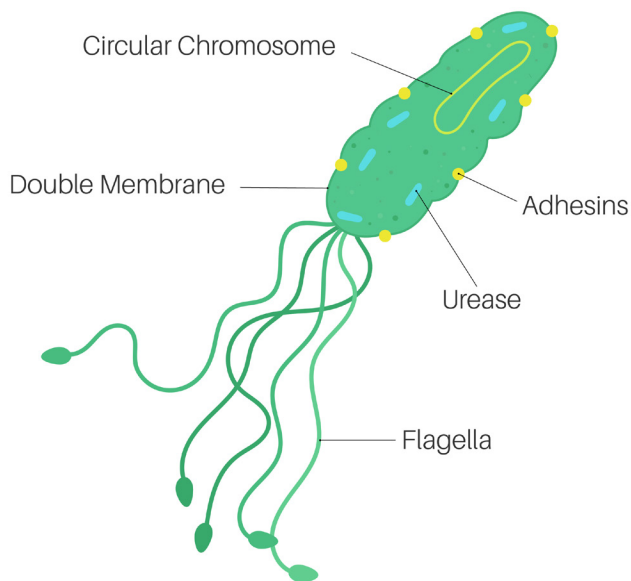
H. Pylori

Context: Recently, researchers have introduced a groundbreaking method for detecting *Helicobacter pylori* (*H. pylori*) and its antibiotic resistance mutations, using CRISPR-based technology. This new diagnostic tool, which can be used in resource-limited settings, offers hope for timely and accurate detection of *H. pylori* infections, which can lead to serious gastrointestinal diseases.

What is *H. pylori*?

- *Helicobacter pylori* is a bacterium that infects more than 43% of the global population, often leading to peptic ulcers, gastritis, dyspepsia, and gastric cancer. It resides in the stomach lining and can cause chronic infections that lead to long-term health problems. Early detection is key to preventing more severe outcomes, such as cancer.

HELICOBACTER PYLORI



Why is Detecting Mutations Important?

- Mutations in the 23S ribosomal RNA gene of *H. pylori* can result in resistance to common antibiotics, particularly clarithromycin. This resistance complicates treatment, requiring multiple rounds of antibiotics and potentially leading to ineffective treatments. Detecting these mutations allows healthcare providers to tailor more effective treatment plans, reducing the risk of

complications.

How Does the New Diagnostic Method Work?

- The new method utilizes an engineered CRISPR protein called en31-FnCas9, which targets specific mutations in *H. pylori* to detect antibiotic resistance. This technique, combined with a lateral flow-based test (FELUDA), allows for a rapid, visual diagnosis. It can be deployed in rural or remote areas with minimal infrastructure, making it a promising tool for widespread use.

Potential Impact in Remote Areas:

- This cost-effective, easy-to-use diagnostic method is ideal for use in rural or underserved areas, where access to advanced diagnostic equipment is limited. By providing quick, accurate results, it can help healthcare professionals make informed decisions about treatment, improving outcomes for patients with *H. pylori* infections and preventing complications like gastric cancer.

Two Years of Success of Ind-Aus ECTA

Context: Recently, The India-Australia Economic Cooperation and Trade Agreement (Ind-Aus ECTA) completes two years of remarkable success, driving mutual growth and showcasing the complementarity of both economies. The Ind-Aus ECTA has significantly advanced trade ties, creating new opportunities for MSMEs, businesses and employment in both nations while reinforcing the foundation of their economic partnership.

About India-Australia Economic Cooperation and Trade Agreement (Ind-Aus ECTA):

- The India-Australia Economic Cooperation and Trade Agreement (Ind-Aus ECTA) is a bilateral trade agreement aimed at enhancing economic cooperation between India and Australia. It was signed on April 2, 2022, and came into force on December 29, 2022.
- This agreement covers a wide range of sectors, including trade in goods, services, and investments. It provides preferential market access for goods, reduces trade barriers, and aims to stimulate economic growth, job creation, and trade between the two nations.

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Government of India
Ministry of Commerce and Industry
Department of Commerce

2 YEARS OF IND-AUS ECTA: STRENGTHENING TIES

- In 2023, Australia became India's 14th largest export destination & 11th largest import source.
- India's exports to Australia grew by **14%** in FY 2023-24.
- Export & import utilization rates soared to **79% & 84%** respectively.

How has the Ind-Aus ECTA performed in its two years?

- In the two years since its inception, the Ind-Aus ECTA has exceeded expectations. Bilateral merchandise trade surged from USD 12.2 billion in 2020-21 to USD 26 billion in 2022-23. Although the trade figure moderated to USD 24 billion in 2023-24, India's exports to Australia grew by 14%, reflecting the sustained growth momentum. This demonstrates the agreement's positive impact on trade flows and economic activity between both nations.

What sectors have benefited from the agreement?

- Several key sectors have seen significant benefits from the Ind-Aus ECTA. The textiles, chemicals, and agriculture sectors have recorded notable growth, while new products like gold studded with diamonds and turbojets have diversified exports. India has also gained access to essential raw materials like metalliferous ores, cotton, and wood from Australia, boosting its industrial capabilities. These sectoral developments reflect the broad economic impact of the agreement.

What are the current trade statistics for the agreement?

- In fiscal year 2023-24, bilateral merchandise trade between India and Australia reached USD 24 billion. From April to November 2024, total merchandise trade amounted to USD 16.3 billion. Notably, India's exports to Australia grew by 14%, underscoring the enduring strength of the trade relationship. These statistics

highlight the growing success of the ECTA and the potential for future trade expansion.

What is the future of the India-Australia economic partnership?

- Looking ahead, India and Australia have set an ambitious trade target of AUD 100 billion by 2030. The ongoing negotiations of the India-Australia Comprehensive Economic Cooperation Agreement (CECA) aim to deepen economic integration and enhance the scope of the bilateral partnership. By expanding areas such as business development, MSMEs, and employment generation, both nations are committed to sustaining and building on the success of the ECTA, driving growth in the coming years.

The H-1B Visa Program

Context: Former President Donald Trump has expressed his longstanding support for the H-1B visa program, stating that he has "always liked" it. In an interview with the New York Post, Trump clarified that he has personally used H-1B visas in his businesses, emphasizing that the program has been instrumental in his operations.

About H-1B Visa Program:

- The H-1B visa program is designed to allow U.S. employers to hire skilled workers from abroad in specialty occupations. To qualify for an H-1B visa, workers must typically hold a bachelor's degree or its equivalent in a specific field.
- This program helps address skill shortages in industries such as technology, engineering, healthcare, and education, where employers may struggle to find qualified workers in the U.S. The program plays a critical role in filling talent gaps, particularly in high-demand sectors like IT and computer-related jobs.

Cap on H-1B Visas:

- The U.S. government sets a cap on the number of new H-1B visas issued each year. The annual limit is set at 65,000 new visas, with an additional 20,000 visas allocated to individuals who hold a Master's degree or higher from a U.S. institution.
- Certain organizations, such as universities, nonprofit research organizations, and government research institutions, are exempt from this cap. This cap ensures a balance between meeting labor needs and protecting

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job opportunities for U.S. workers, though it often results in high competition for available slots.



About Indians and the H-1B Visa Program:

- Indians make up the largest group of H-1B visa holders. In fiscal year 2023, over 72% of all H-1B visas approved went to Indian nationals. This trend has been consistent over the years, with Indian workers primarily filling roles in tech-related industries.
- The high proportion of Indian nationals receiving these visas reflects both the large talent pool available in India and the strong demand for tech professionals in the U.S. In fact, many of the H-1B visa holders work in roles such as software engineers, developers, and data scientists.

How did the number of H-1B visas change during Trump's term?

- The number of H-1B visas approved and the number of visa holders fluctuated during Trump's administration. During Trump's presidency, the denial rate for H-1B visa applications increased significantly. The denial rate rose from 6% in 2016 to 24% in 2018, peaking during his administration's more restrictive visa policies.
- However, the rate of denials began to decrease starting in 2019 as more denials were overturned through legal challenges. By 2021, the denial rate had dropped to just 4%, and by 2022, it fell to 2%. This reduction suggests a shift towards a more favorable approach in the later years of his administration.

Creation of new District

Context: On January 1, 2025, the Gujarat government approved the bifurcation of Banaskantha district to create a new district called Vav-Tharad. The headquarters of the new district will be in Tharad town. With the creation

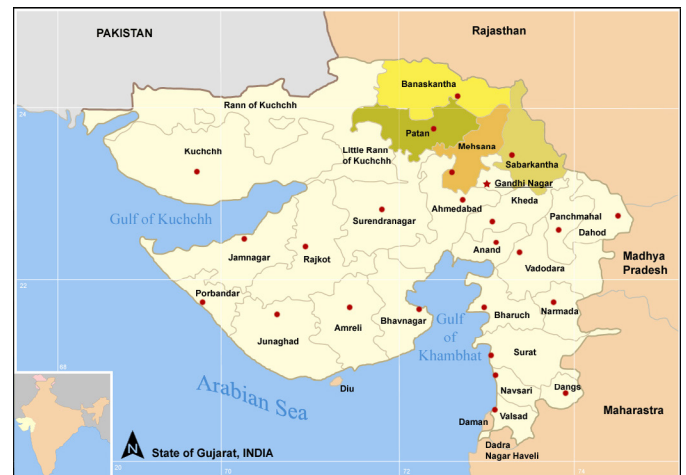
of Vav-Tharad district, the total number of districts in Gujarat will increase to 34. The bifurcation was approved to improve administrative efficiency and address public demand.

Who has the power to create a new district in India?

- The power to create new districts or alter existing ones rests with the State governments. This is done either through an executive order or by passing a law in the State Assembly. Many States prefer the executive route by issuing a notification in the official gazette.
- Several Central departments, including the Ministry of Earth Sciences, Intelligence Bureau, Department of Posts, Geographical Survey of India, and the Railway Ministry, provide clearance to the State government's proposal. Once these departments review the proposal, the State government receives a no-objection certificate.

Role does the Central Government:

- The Central Government has no direct role in the creation of new districts. However, its involvement comes into play in the following scenarios:
- The Ministry of Home Affairs is consulted when a State wants to change the name of a district or railway station.



Rationale behind creating new districts:

- States argue that smaller districts lead to better administration, more efficient governance, and better access to government schemes and services. For instance, in 2016, Assam upgraded the Majuli sub-division to a district for "administrative expediency" to streamline governance.

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Trend in the creation of new districts in India:

- According to the 2011 Census, there were 593 districts in India. Between 2001 and 2011, 46 new districts were created by various State governments. This trend of district creation has continued as States focus on improving administrative efficiency.

UDISE+ Report

Context: The UDISE+ (Unified District Information System for Education Plus) report for the 2023-24 academic year, released by the Ministry of Education, has garnered significant attention due to a concerning decline in school enrolment across India.

Key Findings of the Report

- Enrolment Decline:** The report indicates that the total number of students enrolled in schools has dropped by 37 lakh, from 25.17 crore in the previous academic year (2022-23) to 24.80 crore in 2023-24. Boys seeing a decrease of 21 lakh and girls experiencing a drop of 16 lakh. This reflects a negative growth compared to previous years.
- Minority Representation:** The proportion of minority students in total enrolment remained around 20%. Of this, 79.6% were Muslims, followed by Christians (10%), Sikhs (6.9%), Buddhists (2.2%), Jains (1.3%), and Parsis (0.1%).
- Social Category Enrolment:** Enrolment data reveals the distribution of students across different social categories, with 26.9% of students from the General category, 18% from Scheduled Castes (SC), 9.9% from Scheduled Tribes (ST), and 45.2% from the Other Backward Classes (OBC) category.
- Underutilisation and Overcrowding:** The report points out that certain states like Uttar Pradesh, Madhya Pradesh, and Himachal Pradesh have a higher percentage of schools than students, leading to underutilization of available schools. In contrast, states like Maharashtra, Tamil Nadu, and Delhi face an issue of under-supply of schools, resulting in overcrowding and higher infrastructure strain.
- Aadhaar Integration:** By 2023-24, more than 19.7 crore students voluntarily provided their Aadhaar numbers as part of the effort to create a unique student identity. This initiative helps track student movement,

ensures better resource allocation, and reduces ghost entries, which can enhance the accuracy of educational data and streamline benefit transfers.



सत्यमेव जयते

UDISE+

Unified Digital Information on
School Education

States with the Highest Drop in Enrolment since 2018-19 to 2023-24:

- Bihar:** Drop of 35.65 lakh students (2.49 crore to 2.13 crore).
- Uttar Pradesh:** Drop of 28.26 lakh students (4.44 crore to 4.16 crore).
- Maharashtra:** Drop of 18.55 lakh students (2.32 crore to 2.13 crore).

Suggestions Given by the Report

- Tracking Dropouts:** Identifying and tracking student dropouts through individual data to take targeted actions and align with NEP 2020's goal of reducing dropouts and ensuring universal education by 2030.
- Optimizing School Infrastructure:** Better utilization of schools in states with excess infrastructure and increasing school availability in states with shortages to bridge the infrastructure gap.
- Improving Teacher Availability and Quality:** Focus on addressing gaps in teacher availability and training, with enhanced professional development programs to improve teaching quality and student outcomes.
- Focus on Marginalized Communities:** Implement targeted programs for SC, ST, OBC, and minority students, addressing systemic barriers through scholarships, incentives, and community outreach.
- Leveraging Technology for Better Data:** Utilize student-wise data from UDISE+ for data-driven policy decisions, ensuring real-time, accurate data for better governance and educational policies.

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Power Packed News

World Boxing forms new Asian body

- World Boxing formed a new Asian body, which will have seven key positions of the Boxing Federation of India (BFI) to develop and expand Asian boxing. Ajay Singh has been appointed as a board member. There will be representation of Indian officials in key commissions including the Secretary General of BFI.
- Lovlina Borgohain will be part of the Athletes Commission and Narendra Kumar Nirwan will serve on the Constitution Commission. D P Bhatt will be part of the newly formed Sports and Competition Commission.
- This new body will play a key role in the development of Asian boxing.

Bosnia's "Balkan Blues" recognized by UNESCO

- Sevdalinka, the traditional love song of Bosnia and Herzegovina, has been included in UNESCO's National List of Intangible Cultural Heritage.
- It is often called the "Balkan Blues". It is a melancholic urban love song from the 16th century that combines oral poetry of South Slavic people and Ottoman music.
- Sevdalinka performances use traditional instruments and have been shared through generations of performances.
- Imamovic's SevdahLab initiative has garnered support to include it on UNESCO's World Heritage List.



Kamya Karthikeyan becomes youngest female mountaineer

- Kamya Karthikeyan, 17, is a student of Navy Children's School in Mumbai and has become the youngest woman in the world to climb the highest peaks on seven continents.
- She has climbed Mount Kilimanjaro, Mount Elbrus, Mount Kosciuszko, Mount Aconcagua, Mount Denali, Mount Everest and Mount Vincent in Antarctica.
- On December 24, she and her father completed the Seven Summits Challenge by reaching the top of Mount Vincent.
- Kamya also won the Prime Minister Rashtriya Bal Shakti Puraskar at the age of 16 while climbing Mount Everest.



Former US President Jimmy Carter passes away

- Former US President Jimmy Carter passed away on 29 December 2024 at the age of 100. He received the 2002 Nobel Peace Prize for his humanitarian work.
- He was a peanut farmer from Georgia turned president and became the 39th President of the US in 1977.
- He defeated incumbent Republican President Gerald Ford in the 1976 election.
- His book "Palestine: Peace Not Apartheid" was published in 2007 and "Faith: A Journey for All" in 2018.

AICTE and NQM launch UG minor programme

- The All India Council for Technical Education (AICTE) and the National Quantum Mission (NQM) jointly launched India's first undergraduate minor programme in quantum technologies.
- It aims to build a skilled workforce for quantum computing and related technologies. It will include topics such as quantum mechanics, quantum computing, quantum algorithms and quantum cryptography.
- AICTE has designed and implemented this course in collaboration with leading institutes.

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Transfer of tigers from Madhya Pradesh

- 14 tigers will be transferred to Rajasthan, Odisha and Chhattisgarh under the animal exchange programme by the Madhya Pradesh government.
- Four tigers will be sent to Rajasthan, two to Odisha and eight to Chhattisgarh. These tigers will be transferred from Bandhavgarh, Panna, Kanha and Pench tiger reserves.
- Recently two Bengal tigers were provided to Gujarat from Bandhavgarh Tiger Reserve. In return, Madhya Pradesh has received two Asiatic lions from Sakkarbaug Zoological Park.



South Korea's parliament impeaches acting President Han

- South Korea's National Assembly voted to impeach acting President Han Duk-soo on December 27.
- The decision was taken less than two weeks after he took over from President Yoon Suk-yeol. The impeachment motion passed unanimously with a vote of 192-0.
- Han was impeached for failing to impose martial law. Deputy Prime Minister Choi Sang-mok has taken over as both acting president and acting prime minister.



Gujarat government launches 'SWARA' platform

- Gujarat Chief Minister Bhupendra Patel launched the 'SWARA' (Speech and Written Analysis Resource) platform.
- The platform will help overcome language barriers and uses the indigenous Artificial Intelligence system Bhashini.
- Now citizens can write their messages by speaking instead of typing. This technological advancement will help the state government to improve the grievance redressal and feedback mechanism. The 'SWARA' platform will support the Chief Minister's Office with advanced artificial intelligence and machine learning capabilities.

18th edition of Surya Kiran military exercise

- The 18th edition of the joint military exercise Surya Kiran started at Saljhandi in Nepal. The exercise will run from 31 December 2024 to 13 January 2025.
- An Indian Army contingent of 334 personnel will participate in it. The aim of this exercise is to enhance interoperability in jungle warfare, counter-terrorism operations in the mountains and humanitarian assistance and disaster relief.
- This exercise strengthens friendship, trust and shared cultural ties between India and Nepal.

Success of India-Australia Trade Agreement

- The India-Australia Economic Cooperation and Trade Agreement (ECTA) has completed two years, which has enhanced trade relations and created new opportunities.
- The bilateral trade is set to grow from \$12 billion in 2020-21 to \$26 billion in 2022-23.
- The total trade is set to reach \$24 billion in 2023-24, with India's exports to Australia growing by 14 per cent. Textiles, chemicals and agriculture sectors have shown substantial growth. Imports of essential raw materials have supported India's industries.

Puducherry has the highest percentage of women voters

- According to data released by the Election Commission of India, Puducherry had the highest percentage of women voters in the country during the 2024 Lok Sabha election.
- According to the Chief Electoral Officer of Puducherry, out of the 10,23,699 voters, 5,42,979 are women. The Mahe Assembly

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constituency created history with the deployment of trained women officers.

- The sex ratio has also increased significantly, from 1127 in 2023 to 1130 in 2024.
- There was an increase of 5.19% in registered voters and nearly 70% of transgender voters cast their votes.

Jasprit Bumrah: Fastest Indian to take 200 Test wickets

- Indian fast bowler Jasprit Bumrah has written a new chapter in cricket history. He achieved the distinction of becoming the fastest Indian bowler to take 200 Test wickets. He achieved this achievement during the ongoing Border-Gavaskar Trophy at Melbourne Cricket Ground. By achieving this milestone on the 8484th valid ball, Bumrah broke the record of Mohammed Shami, who had achieved this feat in 9896 balls.
- Globally, Bumrah is the fourth fastest bowler, ahead of Waqar Younis (7725 balls), Dale Steyn (7848 balls) and Kagiso Rabada (8154 balls). His unique performance has taken India's fast bowling attack to new heights. Bumrah's ability and his unique bowling action have given him a special identity in the cricket world.

Dr Sandeep Shah: New Chairman of NABL

- Dr Sandeep Shah has been appointed as the Chairman of the National Accreditation Board (NABL). Known as the Joint Managing Director of Neuberg Diagnostics, Dr Shah was earlier the Chairman of the Medical Labs Accreditation Improvement Committee (MLAIC).
- NABL, which was set up in 1988, accredits laboratories and conformity bodies in India. It is headquartered in Gurugram and functions under the Quality Council of India (QCI). QCI is an autonomous body set up under the Ministry of Commerce and Industry.
- In Dr Shah's new role, his priority will be to improve the quality and reliability of laboratories. NABL celebrates World Accreditation Day every year on June 9, which can become more effective under the leadership of Dr Shah.

IIT Bombay's needleless shock syringe

- IIT Bombay has developed a needleless shock syringe for painless vaccination. This new technology was found to be more effective than conventional needles during testing on mice. This shockwave-based syringe injects a microjet of liquid drugs into the skin without piercing the skin.
- The syringe uses high-energy shockwaves, which penetrate the drug into the skin in the form of a microjet. The speed of this process is also twice the takeoff speed of a commercial airplane. This technique is not only painless but also reduces the risk of infection.
- This innovative device is expected to revolutionize vaccination campaigns. This technology can make vaccination more accessible while eliminating the concerns and fear associated with needles.

Vivaad se Vishwas Yojana deadline extended

- The Central Board of Direct Taxes (CBDT) has extended the deadline for the Vivaad se Vishwas scheme to January 31, 2025. Earlier the scheme was to end on December 31, 2024. The extension will give taxpayers additional time to file their declarations and settle disputes.
- The scheme was announced by Finance Minister Nirmala Sitharaman in the 2024 Budget. It aims to give taxpayers an opportunity to settle pending disputes with the Income Tax Department. Taxpayers are allowed to settle their liabilities by paying the disputed amount and a prescribed percentage.
- Those applying for the scheme from February 1, 2025 will have to pay additional fees as per the revised rate. The objective of the scheme is to resolve tax disputes quickly and simplify the income tax process.

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