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“If you succeed in deceiving someone, do not think that he is a fool. Instead, realize how much he trusted you.”

— Imam Ali



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THE HINDU • 11 OCT 2026

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1 Mass detentions in Delhi | दिल्ली में सामूहिक हिरासत



1 Thousands detained in capital clampdown

Heavy security, transport curbs led to stop inflow of protesters calling for CEC's resignation to Delhi

Ex-Chief Ministers, journalists and lawyers among those held by police, several picked up overnight

ASA tries to manoeuvre participants at CEC's House; detainees except CDP leaders released by evening

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NIA to investigate attack on pilot of Hyderabad plane

Centre initiates probe on Pw-4, says from China

RRB opens special dollar window for PS&I oil firms

Woman among five persons killed in Manipur clashes

Several hurt in Saudi Arabia airport attack

Stopping crowd from regrouping a challenging task

Rahul leads support in protesters

Youth bodies vow to sustain till CEC Kumar quits

Concerned by 'mass detentions' in Delhi UN body

Mass detentions in Delhi

सामूहिक हिरासत

Thousands detained in capital clampdown

Heavy security, transport curbs fail to stop inflow of protesters calling for CEC's resignation to Delhi | Ex-Chief Ministers, journalists and lawyers among those held by police; several picked up overnight | AISA tries to reassemble participants at Dilli Haat; detainees except CJP leaders released by evening

Shrimad Kaushik
Express News
Vijaya Suresh
NEW DELHI

Despite heavy security arrangements, severe transport restrictions, and an internet shutdown, protesters on Saturday managed to reach locations near Jantar Mantar in central Delhi to demand the resignation of Chief Election Commissioner (CEC) Gyanesh Kumar over alleged electoral irregularities.

With the designated protest site inaccessible, protesters led by All India Students Association (AISA) president Neta Boca attempted to assemble at Dilli Haat in south Delhi before being detained.

According to Delhi Police sources, nearly 3,500 protesters were detained across the capital during the day, indicating a high turnout despite the absence of prominent Coochbehar Janta Party (CJP) leaders on the ground.

A few journalists were also detained. These were in addition to around 1,000 people picked up in preventive operations across Delhi overnight ahead of the protest.

Several lawyers who were also detained were released following an intervention by Chief Justice of India Surya Kant.

While YouTuber Dhruv Rathee was detained from his residence in the morning, CJP leaders Abhishek Dhipre, Ashutosh Ranka, and Saurav Das were taken immediately after their



On their toes: Security personnel rush to disperse protesters near Connaught Place in New Delhi on Saturday. (Image courtesy: AP)

flight from Mumbai landed at Delhi airport. The CJP leaders had publicly announced their visit on social media, urging supporters to assemble at Jantar Mantar at 10 a.m. on Saturday for what they described as the "Final Call to Save Democracy".

All detainees except the CJP team were released by late evening.

Connaught Place, one of Delhi's busiest commercial hubs, was a deserted look amid an "unprecedented" security deployment in recent times.

While multiple layers of barricading and the police severely restricting public movement, all roads leading to Jantar Mantar were barricaded, with loudspeakers

warning people of legal action if they defied police instructions.

Detention centres
The youth-led protest, called by Left groups, the CJP and civil society groups, kept the police and security forces on their toes as they forcibly removed the protesters, put them in buses, and took them to large halls and stadiums on the outskirts of Delhi that had been converted into detention centres.

Indian National Developmental, Inclusive Alliance (INDIA) leaders, including former Chief Ministers - Manohar Lal Khattar, Manoj Sinha, and Arvind Kejriwal.

While also among those detained.

The CJP and the Students Federation of India (SFI) announced that protest march to Jantar Mantar would be organised every day till the CEC resigns.

New Delhi was virtually furnished on Saturday, with over 20,000 security personnel, including Central Armed Police Force and the Delhi Police, holding vigil from early morning till late in the day, preventing protesters from entering the district, let alone reaching Jantar Mantar.

With 45 Metro stations shut, over 200 trains arriving in Delhi cancelled, schools and colleges suspending classes, and markets across central

Delhi closed, protesters continued to find ways to reach the site, with some walking several miles.

The borders of the National Capital were also barricaded, and incoming vehicles monitored.

A large number of protesters were detained at the borders. Police also held "aman" (peace) meetings with members of various communities to discourage them from participating in the protest. Loudspeaker announcements warned people about Section 163 of the Bharatiya Nagarik Suraksha Sanhita (BNSS) being in place in New Delhi, prohibiting any rally.

Protesters were detained from Rajghat, Jantar Mantar, Connaught Place,

Ashoka Road, Gurudwara Bangla Sahib and ITO, and taken to locations on the outskirts, including Burari, Nangloi, Mundla, Shalimar Bagh and Ashok Nagar.

The flashpoint of the protest was the Safdarjung Hospital, where Ms. Bura tried to enter New Delhi district to march towards Jantar Mantar.

While the police detained the student leader and many of her associates, several protesters who were unable to reach the site due to the high security deployment, reached the spot of the AISA protest in Dilli Haat.

Office of the United Nations Human Rights Commissioner said in a statement that in Delhi, a statement that the Centre rejected. **PAGE 5**

Stopping crowd from regrouping a challenging task

Though the Centre succeeded in preventing protesters from converging at Jantar Mantar on Saturday, its next challenge appeared to be stopping the largely "leaderless" crowd from regrouping. **PAGE 5**

Rahul lends support to protesters

The Leader of Opposition in the Lok Sabha, Rahul Gandhi, on Saturday urged the protesting students to carry on without fear and stand up for what they believe in. **PAGE 5**

Youth bodies vow to sustain stir till CEC Kumar quits

Leaders of youth and student organisations on Saturday vowed to continue their protest until all their demands, including the resignation of Chief Election Commissioner (CEC) were met. **PAGE 4**

Concerned by 'mass detentions' in Delhi: UN body

Office of the United Nations Human Rights Commissioner said in a statement that in Delhi, a statement that the Centre rejected. **PAGE 5**

On what grounds were large-scale detentions made, ask legal experts

Aaratrika Bhaumik
NEW DELHI

Amid large-scale detentions across the national capital on Saturday, as police sought to thwart a youth protest demanding the resignation of Chief Election Commissioner (CEC) Gyanesh Kumar over deletions of names from electoral rolls, legal experts questioned the basis on which Delhi Police detained protesters beyond the New Delhi district, where prohibitory orders under Section 163 of the Bharatiya Nagarik Suraksha Sanhita (BNSS) are in force.

The Delhi Police have maintained that detentions in the capital followed violations of prohibitory orders imposed under Section 163 of the BNSS, which replaced Section 144 of the Code of Criminal Procedure (CrPC), empowers an executive magistrate to issue prohibitory orders where "immediate prevention or speedy remedy is desirable." Late on Saturday evening, police said



Security personnel keep guard at Connaught Place in New Delhi on Saturday. (Image courtesy: AP)

nior citizens were being released from detention centres.

"The detention of CJP representatives from areas in Delhi-NCR where prohibitory orders are not in force is wholly illegal," advocate Nipun Saxena said.

"Intended as an exceptional measure to deal with emergencies and maintain public peace, such orders are often reissued by the authorities in a cyclostyled manner, turning an exceptional power into a routine tool to curb protests," Mr. Saxena added.

Grounds of detention
Referring to instances of

and taken to buses and stadiums across the capital, former Supreme Court Judge Abhay S. Oka said authorities were obligated under Article 22 of the Constitution to communicate the grounds for depriving a person of their liberty "as soon as may be". He said this protection could not be circumvented merely by describing the restraint as detention rather than a formal arrest.

Mr. Saxena agreed, saying that even where the police claim to be exercising preventive powers rather than arresting a person for an offence, the grounds for detention

Concerned by 'mass detentions' of Delhi protesters: UN body

The Hindu Bureau
NEW DELHI

The Office of the United Nations Human Rights Commissioner (OHCHR) on Saturday said it was "concerned" by reports of "mass detentions" at the Delhi protests against the Chief Election Commissioner, a statement that the government rejected.

The UN body said that Indian authorities should ensure that the right to peaceful protest is respected and that all those detained "arbitrarily" must be immediately and unconditionally released. The government responded sharply, calling the concerns "misplaced" and calling the OHCHR's statement "unwarranted interference in the internal affairs of India".

"We are concerned by reports of mass detentions in India of demonstrators, protest leaders, members of civil society organisations, lawyers and journalists, before and during today's large-scale demonstrations in Delhi," UN Human Rights spokesperson Thameen Al-Kheetan said.

In a statement a few hours later, India's Permanent Mission in Geneva, where the UN body is based, said:

UN Human Rights Commissioner calls for the immediate release of all those detained arbitrarily

adding that any restrictions on the peaceful protests should meet the test of "necessity and proportionality", in a possible reference to the large security presence in the Capital with barricades across central areas, the suspension of the internet, and the cancellation of trains to the city.

"The Indian authorities should also ensure law enforcement forces exercise utmost restraint in response to peaceful protesters, consistent with the country's democratic traditions and human rights obligations," Mr. Al-Kheetan said.

In a statement a few hours later, India's Permanent Mission in Geneva, where the UN body is based, said:

"As in every democracy, Indian citizens exercise this right subject to reasonable restrictions in the in-

Thousands Detained in Delhi Clampdown on Protest

CEC के इस्तीफ़े की माँग वाले विरोध पर दिल्ली में हज़ारों हिरासत में; क़ानूनी विशेषज्ञों ने आधार पर सवाल उठाए, UN ने चिंता जताई



Art 22 & BNSS 163
अनु. 22

1 What happened | क्या हुआ



~2,500

Detained on the
day
हिरासत

~1,000

Picked up
overnight
रात में

20,000+

Security
personnel
सुरक्षाकर्मी

45

Metro stations
shut
मेट्रो बंद

2 Who and why | कौन, क्यों



► Youth protest led by **CJP, AISA, SFI**, civil groups
युवा आंदोलन

► Demand: **CEC Gyanesh Kumar** resign over **SIR** deletions
CEC का इस्तीफ़ा

► 4 ex-CMs, lawyers, journalists also detained
पूर्व मुख्यमंत्री भी

3 Legal questions क़ानूनी प्रश्न



► Prohibitory orders (**BNSS Sec 163**) only in **New Delhi district**

धारा 163

► Detentions outside it “**wholly illegal**”: lawyers
“पूर्णतः अवैध”

► Justice **Abhay Oka**: grounds must be told under **Art 22**
अनु. 22

Mass detentions in Delhi — in depth (1/2)

सामूहिक हिरासत — विस्तार से (1/2)

4

Article 22 safeguards
अनुच्छेद 22



Ordinary arrest सामान्य गिरफ्तारी	Preventive detention निवारक निरोध
Told grounds of arrest कारण बताना	Grounds told “as soon as may be” यथाशीघ्र
Right to a lawyer वकील	No right to lawyer वकील नहीं
Magistrate within 24 hrs 24 घंटे	Max 3 months w/o Advisory Board 3 माह

5

UN & India | UN व भारत



► **OHCHR**: “concerned” by mass detentions
OHCHR चिंतित

► Curbs must meet “necessity & proportionality”

आवश्यकता व आनुपातिकता

► India: “unwarranted interference in internal affairs”

आंतरिक मामला

6

Detention vs arrest
हिरासत बनाम गिरफ्तारी



► **Detention** = temporary restraint, often preventive
अस्थायी रोक

► **Arrest** = custody for an offence
अपराध हेतु

► Calling it “detention” can’t **dodge Art 22**
अनु. 22 से बच नहीं सकते

Mass detentions in Delhi — in depth (2/2)

सामूहिक हिरासत — विस्तार से (2/2)

7 From protest to detention | विरोध से हिरासत तक



Protest call
आंदोलन

Jantar Mantar
जंतर-मंतर



Sec 163 order
निषेधाज्ञा

New Delhi district
नई दिल्ली



Detained
हिरासत

Stadiums, halls
स्टेडियम



SC hearing
सुनवाई

Plea on
detentions
याचिका

8

Did you know?
क्या आप जानते हैं?



► **44th Amendment (1978)** cut preventive detention without board to **2 months** – never notified
44वाँ संशोधन

► Preventive detention laws: **NSA 1980, PSA (J&K)**
NSA

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Page 8

FAQ

पृष्ठ 8 • प्रश्नोत्तर

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1 Optogenetics – Medicine Nobel | चिकित्सा नोबेल

2 IceCube – Physics | भौतिकी

3 Chirality – Chemistry | रसायन

2 was IceCube given the physics Nobel?

What is the IceCube detector? How did it detect neutrinos? What are neutrinos? What are they made of?

IceCube detector
The IceCube detector is a neutrino observatory located at the South Pole. It consists of a cubic kilometer of ice, with thousands of sensors buried deep in the ice to detect neutrinos passing through it.

How does it work?
Neutrinos are tiny particles that pass through matter almost effortlessly. To detect them, IceCube uses a technique called 'ice Cherenkov radiation'. When a neutrino interacts with a water molecule in the ice, it can create a flash of light. This light is then detected by the sensors buried in the ice.

What are neutrinos?
Neutrinos are tiny particles that pass through matter almost effortlessly. They are made of a type of matter called 'lepton' and have no electric charge. They are also very light, with a mass only slightly greater than that of an electron.

What are they made of?
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3 What was the Chemistry Nobel Prize given for?

What are chiral molecules? What is chirality? What are chiral molecules? What is chirality? What are chiral molecules? What is chirality?

Chirality
Chirality is a property of a molecule that makes it non-superimposable on its mirror image. It is often described as 'handedness'. A molecule is chiral if it has a central atom bonded to four different groups.

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Medicine Nobel: optogenetics

चिकित्सा नोबेल

What made optogenetics research Nobel-worthy?

What is optogenetics and how does it help us understand our brain? What did the three Nobel laureates in Physiology or Medicine discover? What makes their collaboration special? What is the future of optogenetics?

Ramya Kannan

The story so far:

The 2026 Nobel Prize in Physiology or Medicine went jointly to Karl Deisseroth, Peter Hegemann, and Georg Nagel "for their discoveries concerning light-gated ion channels and optogenetics." The prize amount of 12 million Swedish kronor will be shared equally by them.

What is optogenetics?

How the brain executes its functions, communicates with the body to get it to do things, such as moderate feelings, behaviour, and regular bodily functions, has long been a mystery. It was only in the 20th century that researchers began to map areas of the brain to their functions, but these methods could not prove any causal relationships. So, in effect, the image they developed of the brain was rudimentary – like a sketch map, full of question marks and unknowns, as the Nobel committee described it. Now all this is changing, thanks to revolutionary techniques including optogenetics, a method that makes it possible to show how nerve cells in the brain shape memories, feelings and behaviour. Commenting

Optogenetics has fundamentally changed our perception of the incredible human brain and its functions

on this year's choice for the award, Per Svenningsson, Chair of the Nobel Committee for Physiology or Medicine, said: "Optogenetics provides opportunities for mapping the brain in a way that we could once only dream of".

What have researchers done with optogenetics?

Deisseroth and colleagues coined the portmanteau word *opto*, from optics, meaning the use of light or optical technology, and genetics, referring to the use of genetic engineering, as their revolutionary technique involved both these fields. The word first appeared in print in late 2006, in a review article published in the *Journal of Neuroscience* and was defined as the fusion of "genetic targeting and optical control in neural circuits."

Using optogenetics, researchers have since been able to reveal the neural circuits that govern specific memories, feelings, and behaviours relevant for neurological and psychiatric disorders including Alzheimer's, dementia, addiction, and depression. In clinical medicine, researchers are using the method in attempts to restore sight in people with visual impairment. They use harmless viral agents to deliver genes encoding light-sensitive proteins into specific target cells, then activate these proteins with precise pulses of light to study patterns of neural activity.

What did the three laureates do?

The 2026 Nobel laureates for Medicine pipped many bookies' favourites, including GLP-1 class of drugs and CRISPR, to emerge winners. As per the Nobel Committee's release, the journey began with Hegemann's curiosity, as he wondered how *Chlamydomonas*, a single-celled alga, was able to swim towards a light source. Fellow countryman and scientist Nagel went on to discover channelrhodopsin, an algal protein with unique properties, found on the surface of the cell. When it is illuminated by blue light, a channel opens through the protein. Charged ions then flow into the cell, creating an electrical impulse that researchers can track. It required

the American Deisseroth to transform the protein into a light-controlled switch for nerve cells. In the 2000s, Hegemann and Deisseroth introduced the gene for channelrhodopsin into nerve cells from rats. By illuminating the cells with blue light, they were able to trigger a nerve signal. Deisseroth published this breakthrough in 2005. Two years later, he made this light-controlled switch for nerve cells to work in the brains of living mice.

The whole process might be understood in three stages. Firstly, scientists use harmless viral vectors to deliver genes for light-sensitive proteins – called opsins (such as channelrhodopsin from algae) – into specific target cells. Once the cells express these proteins on their membranes, researchers deliver precise pulses of light using tiny fiber-optic cables or LEDs. Finally, depending on type of opsin used, light exposure either opens ion channels to excite and activate the cell (turning it "on") or pumps ions to inhibit and silence it (turning it "off").

What makes their collaboration special?

Breakthrough scientific discoveries seldom come without collaborations, often across continents. This one spanned America and Europe. Deisseroth, who graduated from Harvard, is an American neuroscientist and physician based at Stanford University and the Howard Hughes Medical Institute. Videos of Deisseroth sharing the news that he had been awarded the Nobel with his children went viral on social media. Hegemann is a German biophysicist based at the Humboldt University of Berlin and Nagel is a German biophysicist based at the University of Würzburg.

What is the future of optogenetics?

Optogenetics has fundamentally changed our perception of the incredible human brain and its functions. Every window into the brain helps advance our knowledge a little more. Beyond the wonder of science itself, nations now need to make sure that such cutting-edge research makes its speedy way from the lab to the field, benefiting all citizens who may require such interventions. While a better understanding of how the brain functions has obvious advantages for healthcare, technologies such as optogenetics could also help address conditions that affect older people.



The announcement of the winners of the 2026 Nobel Prize in Physiology or Medicine at the Karolinska Institute in Stockholm, Sweden. AFP

Medicine Nobel 2026: Switching Brain Cells On with Light

चिकित्सा नोबेल 2026: ऑप्टोजेनेटिक्स – प्रकाश से तंत्रिका कोशिकाओं को चालू/बंद करने की तकनीक



Optogenetics
ऑप्टोजेनेटिक्स

1 The winners | विजेता



- ▶ **Karl Deisseroth** (USA, Stanford)
डाइसेरोथ
- ▶ **Peter Hegemann** (Germany, Humboldt Univ.)
हेगेमन
- ▶ **Georg Nagel** (Germany, Würzburg)
नागेल
- ▶ For “light-gated ion channels & optogenetics”

प्रकाश-नियंत्रित आयन चैनल

2 What is optogenetics? क्या है?



- ▶ **Opto** (light) + **genetics**
प्रकाश + आनुवंशिकी
- ▶ Put **light-sensitive proteins** into chosen neurons
प्रकाश-संवेदी प्रोटीन
- ▶ Blue light pulse → neuron **ON** or **OFF**
प्रकाश से चालू/बंद

3 How it began | शुरुआत



- ▶ Hegemann: how does alga **Chlamydomonas** swim to light?
शैवाल
- ▶ Nagel found **channelrhodopsin**
चैनलरोडॉप्सिन
- ▶ Deisseroth: switch in neurons (**2005**), mice (**2007**)

2005

Medicine Nobel: optogenetics — in depth (1/2)

चिकित्सा नोबेल — विस्तार से (1/2)

4 Uses | उपयोग



- ▶ Maps circuits behind **memory, fear, addiction**
स्मृति, भय
- ▶ Research on **Alzheimer's, depression, Parkinson's**
अल्ज़ाइमर
- ▶ Trials to **restore sight** in blind patients
दृष्टि लौटाना

5 Three steps | तीन चरण



- ▶ **Viral vector** delivers opsin gene
वायरल वाहक
- ▶ **Fibre-optic / LED** light pulses
फ़ाइबर-ऑप्टिक
- ▶ Ion channel opens → **excite**; pump → **silence**
उत्तेजना / शांति

6 Prize facts | पुरस्कार तथ्य



- ▶ Awarded by **Karolinska Institute**, Stockholm
करोलिंग्स्का
- ▶ Prize money **12 million SEK**, shared equally
1.2 करोड़ क्रोना
- ▶ Beat favourites **GLP-1 drugs, CAR-T**
अन्य दावेदार

Medicine Nobel: optogenetics — in depth (2/2)

चिकित्सा नोबेल — विस्तार से (2/2)

7 From pond alga to brain science | शैवाल से मस्तिष्क विज्ञान तक



Alga sees light
शैवाल

Channelrhodopsin
प्रोटीन



Gene into
neuron
जीन

Viral vector
वाहक



Blue light
नीला प्रकाश

Neuron fires
संकेत



Map the brain
मस्तिष्क मानचित्र

Treat disease
इलाज

8 Did you know? क्या आप जानते हैं?

► Word “optogenetics”
first printed **2006**

2006

► 2025 Medicine Nobel:
regulatory T cells
(Brunkow, Ramsdell,
Sakaguchi)

T कोशिकाएँ

Physics & Chemistry Nobel FAQ

भौतिकी व रसायन नोबेल

Why was IceCube founder given the physics Nobel?

What is the IceCube in Antarctica? How did Francis Halzen help build it? And why are scientists 'catching' neutrinos?

Vandevan Mukundh

The story so far:

The Belgian-American physicist Francis Halzen has won the physics Nobel Prize for 2026 for helping build the IceCube observatory in Antarctica. IceCube uses thousands of sensors buried deep in the ice to detect subatomic particles called neutrinos.

What are neutrinos?

Since the early 20th century, scientists have known that energetic particles called cosmic rays constantly bombard the earth from outer space. Most cosmic rays are protons or the nuclei of elements like helium and iron. Some of these particles have been found to have more energy than the world's largest particle accelerator – the Large Hadron Collider (LHC) in Europe – has managed.

Scientists thought powerful events like exploding stars or jets of energy emitted by distant galaxies could have given these particles a Herculean push, but they couldn't know for sure. Just looking in the direction a cosmic ray came from didn't help. Since cosmic rays are charged particles, they could have been deflected by magnetic fields in space before reaching earth.

So they turned to neutrinos. These subatomic particles have no electric charge, a very small mass, and interact very rarely with matter. Nuclear reactions, like fusion in the sun's belly, produce neutrinos in copious numbers. Trillions of them pass through your body every second without leaving any trace. And they travel in a straight line through space.

Of the lakh or so neutrinos IceCube registers every year above an energy cutoff, around a hundred come from astrophysical sources in outer space.

How do you catch a neutrino? Halzen and others came up with the idea of IceCube to 'catch' and study neutrinos with very high energy. When a cosmic-ray proton strikes other atoms, it can produce particles called pions, which rapidly decay through reactions that could produce neutrinos. These high-energy neutrinos are an indication that some high-energy event produced them.

produced them.

Since neutrinos interact rarely with matter, one can detect more neutrinos using more matter. The IceCube observatory uses the enormous volume of water ice in Antarctica, which scientists have embedded with some 5,300 sensors.

Halzen and John G. Learned proposed this concept in 1987-1988. Halzen went on to organise the effort, funded primarily by the U.S. National Science Foundation. The award committee said Halzen was fated for proposing the idea and for keeping hundreds of scientists and engineers working on it for decades.

How does IceCube work?

IceCube took its full shape in 2011 following seven years of construction. Fantastically, experts dug holes in the ice to place the sensors not using shovels but by shooting jets of hot water, then lowering sensors suspended on cables fast enough before the ice froze again.

Today, IceCube includes 5,160 optical sensors on 86 cables, lying 1.4 km to 2.4 km underground, encompassing roughly a cubic-kilometre of ice. Each sensor has a device that converts the faint light from a collision into an electric signal and records it. The collective data flows to computers on the surface and then to researchers around the world.

When an energetic neutrino strikes an atom's nucleus inside the ice, the event creates charged particles that streak through the surrounding ice. Some of them even move faster than light can in that material, causing them to emit Cherenkov radiation, visible as a dull blue glow. The sensors look for and record this emission.

Different kinds of neutrino interactions produce different kinds of particles that outrun light. Taking this together with which sensors recorded the glow and in what order, IceCube researchers piece together the neutrino's energy and direction. Of the lakh or so neutrinos IceCube registers every year above an energy cutoff, around a hundred come from astrophysical sources in outer space.

What has IceCube found?

In 2013, scientists identified two neutrinos with around 140 times the energy of a proton accelerated by the LHC. With more data and analysis, the collaboration established that a population of high-energy neutrinos was coming to our planet from elsewhere in the universe – and that IceCube could spot them. It was a landmark event in neutrino astronomy.

In 2017, IceCube found an energetic neutrino coming from a distant galaxy, whose black hole was also powering a jet of radiation pointed roughly at the earth. In 2022, the instrument found more neutrinos than expected coming from NGC 1068, a galaxy 46 million lightyears away, also with an active central black hole.

IceCube scientists are still working on the sources of the universe's most energetic neutrinos and how neutrino-catching events can be correlated with data from other telescopes.

What was the Chemistry Nobel Prize given for?

What are chirality and molecular handedness, and why does life favour one form over the other? Why does the handedness of a molecule matter when developing drugs? What did Henri Kagan and Kenso Saito discover? Can it explain the origins of life?

Jacob Koshy

The story so far:

The 2026 Nobel Prize in Chemistry has been awarded to Henri Kagan and Kenso Saito for showing that it is possible to amplify a molecule's "handedness" and direct it in a way that it can be used to produce pharmaceutical products of a very high purity. Their work also offers clues to explaining how life on earth could have evolved from simple molecules.

What are chirality and "handedness"?

Your left and right hand have the same number of fingers. Both have ring fingers and thumbs of the same length. Yet why can't you wear the left hand's glove on the right? The reason is 'chirality', from the Greek word *cheir*, which means hand. It is the geometric property of an object or molecule that makes it non-superimposable on its mirror image.

Many chemical molecules that make up substances also possess this property of chirality. The mirror images of a molecule – the left glove and right glove so to say – are called enantiomers. Yet the organic molecules that make up living organisms are overwhelmingly either left-handed or right-handed, rather than occurring in 50:50 proportions. This property, of homochirality, is as if a fashion house decided to base its entire business on making only left-handed gloves and accessories to match. Or, as we observe in daily life, most people are right-handed, and urban fixtures such as door-knobs seem designed with them in mind.

Every amino acid, the building blocks of protein, comes in the "left" (L) form and every sugar in your DNA the "right" (D) form. What is

This was the first time anyone had made a one-handed product from non-chiral ingredients in this way, and the reaction remains the only known example of its kind.

the puzzle? It is that ordinary laboratory reactions, though, often produce equal amounts of both enantiomers – a 50:50 mix known as a racemate. The French chemist Louis Pasteur observed this as far back as 1848, when bacteria devoured one mirror form of tartaric acid and left the other untouched.

Why does chirality matter to the pharmaceutical industry?

A drug works by attaching to the surface of enzymes or receptors – just like a password is required for a lock. In the world of enantiomers, the same letters of the password in the wrong order can at best be harmless and at worst be harmful – repeatedly entering the wrong password can lock you out of a system.

The drug thalidomide offers a cautionary tale. First marketed as a sedative, it left thousands of children with birth defects in the early 1960s. For a long time, these defects were attributed to the presence of both enantiomers. However, subsequent analysis says that is only part of the explanation. The broader principle is that enantiomers matter.

Ethambutol, a first-line tuberculosis drug, is another example. Its (S,S) form is about 500 times more potent against the tuberculous bacillus than its (R,R) mirror image. Yet optic nerve damage, a serious side effect of the drug, is associated with dose and duration of treatment. Producing a purer form of the more potent enantiomer could therefore allow lower doses, potentially reducing patients' exposure to the drug and its side effects. The challenge is how to manufacture the desired enantiomer with sufficient purity.

What was Frank's model and how was it tested?

In 1953, Charles Frank, a theoretical physicist at the University of Bristol, used mathematics to analyse why the molecules of life acquired their bias towards one handedness. His model needed three things: a substance that catalyses its own production (autocatalysis), a catalyst that favours one hand (enantiomeric catalyst); and an "anti-catalyst" that suppresses its mirror image. Combine them and even a tiny initial difference, where one form is present slightly more than the other, snowballs exponentially. It took decades. Autocatalysis was already known. Asymmetric, or enantioselective catalysis, had already earned Nobel Prizes in 2001 and 2021. What nobody had shown was mutual antagonism, or the marriage of autocatalysis and asymmetry, and this was where Kagan, in 1986, and Saito, in 1995, made their contribution.

What did each laureate do, and what set them apart?

Kagan, then at Paris-Sud, challenged a dogma. Chemists believed that for more product purity, more of a catalyst's chiral ingredient had to be proportionally pure. Therefore the race was for ever purer ingredients. Kagan asked what the metal in a catalyst actually does, and reasoned that it grips not one but two chiral molecules (the "ligands" that give the catalyst its handedness). Suppose you build the catalyst from a mix of the two enantiomers – say 75% right-handed and 25% left-handed – the metal picks its two partners at random, so three kinds of catalyst form: right-right (about 56%), left-left (about 6%) and a mixed right-left pair (about 38%). The two matched pairs work well. The mixed pair barely works at all, so it sits idle and takes its share of both hands out of play. Because the minority hand mostly ends up paired with a majority-hand partner in an idle mixed complex, left-left catalysts are rare, and the reaction is driven almost entirely by right-right ones. The product comes out roughly 90:10 in favour of the right hand, purer than the 75:25 mix you started with.

This overturned the old assumption that a product could be no purer than the catalyst's ingredients. Kagan's distinction was therefore twofold. He found a new rule – that purity can be amplified and he also gave chemists a diagnostic to determine how many ligands a catalyst could hold and which forms do the work. Saito's contribution was to build the reaction Frank had imagined: a molecule that makes more of itself, and in the process makes itself purer. In his reaction, the product is also the catalyst. Each batch of product is added to the next batch as catalyst, and each round comes out more lopsided than the last. Starting from a gyrihydral alcohol with a 5% excess of one hand, five rounds lifted it to 90%. In a later version, an excess of just 0.00005%, far too small to measure by ordinary means, became more than 99.5% pure in three rounds. That is an amplification of roughly 6,30,000-fold. Then came the decisive step. Saito showed that no chiral starting point is needed. Begin with ingredients that have no handedness at all, and the reaction ends up almost entirely one-handed over repeated runs, with the hand chosen by chance. This was the first time anyone had made a one-handed product from non-chiral ingredients in this way, and the reaction remains the only known example of its kind.

Is this a model for the evolution of life?

Not quite, and the Nobel Committee itself says so. Frank's model is one possible explanation for how life acquired its molecular handedness 3.5 billion to 4 billion years ago, an event we may never fully understand. Saito's reaction uses zinc reagents in an organic solvent, nothing like the watery "prebiotic soup" in which life is thought to have emerged. The Nobel Committee calls it a "proof of concept".

Kagan and Saito showed that the mechanisms Frank envisaged could work in the lab. Had Frank lived, he might have shared the prize.



Japanese Nobel laureate Kenso Saito at a press conference in Tokyo. AP

Nobel FAQ: Neutrinos in Ice & Mirror-Image Molecules



2026 Nobels
नोबेल 2026

भौतिकी नोबेल – हालज़ेन (IceCube, न्यूट्रिनो); रसायन नोबेल – कगान व सोआई (काइरैलिटी) – एक नज़र में

1

Physics: IceCube |
भौतिकी



► **Francis Halzen**
(Belgian-American)
हालज़ेन

► **5,100** sensors in
Antarctic ice; full shape
2011

अंटार्कटिका

► Idea with **John Learned**,
1987-88

1987-88

2

Why neutrinos?
न्यूट्रिनो क्यों?



► **No charge** → travel
straight from source
सीधी रेखा

► Cosmic rays are **charged**
– bent by magnetic fields
कॉस्मिक किरणें मुड़ती

► **Trillions** pass through us
every second
खरबों प्रति सेकंड

3

Chemistry: chirality
रसायन



► **Henri Kagan & Kenso
Soai**
कगान व सोआई

► “Chirality” from Greek
kheir = hand
कीर = हाथ

► Amplify one “hand” →
pure drugs
शुद्ध दवाएँ

Physics & Chemistry Nobel FAQ — in depth (1/2)

भौतिकी व रसायन नोबेल — विस्तार से (1/2)

4

Life is one-handed
जीवन एक-हस्त



- ▶ Amino acids: **L (left)** form
L रूप
- ▶ DNA sugars: **D (right)** form
D रूप
- ▶ Lab reactions give **50:50 “racemate”**
रेसीमेट

5

Big moments | अहम क्षण ★

- ▶ **1848** – Pasteur & tartaric acid
पाश्चर
- ▶ **2013** – IceCube finds cosmic neutrinos
2013
- ▶ **2017** – neutrino traced to a **blazar**
ब्लेज़ार

6

Why it matters | महत्व



- ▶ **Thalidomide** lesson – wrong “hand” harmed babies
थैलिडोमाइड
- ▶ **Multi-messenger astronomy** – light + waves + neutrinos
बहु-संदेशवाहक
- ▶ Clues to **origin of life**
जीवन की उत्पत्ति

Physics & Chemistry Nobel FAQ — in depth (2/2)

भौतिकी व रसायन नोबेल — विस्तार से (2/2)

7 2026 science Nobels at a glance | 2026 विज्ञान नोबेल



Physics
भौतिकी

Halzen – IceCube



Chemistry
रसायन

Kagan, Soai –
chirality



Medicine
चिकित्सा

Deisseroth,
Hegemann, Nagel



Peace
शांति

Navi Pillay

8 Did you know? क्या आप जानते हैं?



► Literature 2026: **Anne Carson** (Canada)

ऐनी कार्सन

► Economics prize:
Sveriges Riksbank Prize
– added **1968**

1968

First nuclear clocks

पहली नाभिकीय घड़ी

Scientists report world's first working nuclear clocks

Vasudevan Mukunth

Atomic clocks are the world's gold standard for timekeeping, at the heart of everything from GPS navigation to synchronised networks. A ytterbium atomic clock is so precise it misses one second every 23 billion years.

Yet scientists are interested in more precise clocks to detect infinitesimal changes in fundamental forces and further advance navigation.

In two papers in *Nature*, scientists from Europe and China have now reported the world's first working nuclear clocks.

In an atomic clock, an atom's electrons are easily disturbed by electric or magnetic fields and temperature changes in a room, but the nucleus is shielded by the electron cloud. Exciting a nucleus usually requires energetic X-rays or gamma rays, which are difficult to harness. However, the thori-

um-229 isotope's nucleus has a transition energy low enough to be triggered by an ultraviolet laser.

A laser's electric field oscillates rapidly: positive, zero, negative, zero, positive, and so on.

The laser's frequency can drift slightly, however. In a nuclear clock, scientists expose thorium-229 nuclei to the laser and check how readily they become excited. If it happens less often than expected, the laser's frequency has

First nuclear clocks

पहली नाभिकीय घड़ी

drifted away and a computer corrects it.

In one study, teams from Beijing and Shanghai embedded thorium-229 in calcium fluoride crystals and fired an ultraviolet laser at them. A feedback loop constantly checked the laser against the thorium nuclei and corrected it.

The second effort, by teams from Austria and Germany, built a thorium-229 clock and used it to look for dark matter.

The thorium-229 nu-

cleus has such low transition energy because the strong nuclear force and the electromagnetic force nearly cancel each other out. Thus, the nuclear clock is highly sensitive to any slight changes in these fundamental forces.

Some theories suggest ultralight dark matter may cause these constants to fluctuate as it passes through earth. The team ran the nuclear clock alongside a ytterbium atomic clock. Because the

two clocks react differently to fluctuating physics constants, any change in their relative tick rates could reveal the presence of dark matter. The teams didn't find a signal, however.

These prototypes are not yet as precise as the best atomic clocks but their architecture is proven. With upgrades to laser power and crystal quality, scientists expect nuclear clocks to eventually surpass their atomic predecessors.

Scientists Report World's First Working Nuclear Clocks

यूरोप व चीन के वैज्ञानिकों ने थोरियम-229 पर आधारित दुनिया की पहली कार्यशील नाभिकीय घड़ियाँ बनाईं



Thorium-229
थोरियम-229

1 The news | समाचार



- ▶ Two papers in **Nature** – teams from **China & Austria-Germany**
नेचर
- ▶ Clock uses the **nucleus** of **thorium-229**
थोरियम-229 नाभिक
- ▶ Triggered by an **ultraviolet laser**
पराबैंगनी लेज़र

2 Atomic vs nuclear परमाणु बनाम नाभिकीय



Atomic परमाणु	Nuclear नाभिकीय
Uses electrons इलेक्ट्रॉन	Uses nucleus नाभिक
Disturbed by fields, heat प्रभावित	Shielded by electron cloud सुरक्षित
Ytterbium: 1 s in 23 bn yrs यटरबियम	Expected to be more precise अधिक सटीक

3 Why thorium-229? थोरियम क्यों?



- ▶ Unusually **low transition energy**
कम ऊर्जा
- ▶ Other nuclei need **X-rays / gamma rays**
गामा किरणें
- ▶ Strong & electromagnetic forces nearly **cancel out**
बल लगभग बराबर

First nuclear clocks — in depth (1/2)

पहली नाभिकीय घड़ी — विस्तार से (1/2)

4 How it ticks | कैसे चलती

- ▶ Laser hits thorium nuclei in **calcium fluoride crystals**
क्रिस्टल
- ▶ Fewer excitations → laser has **drifted**
लेज़र भटका
- ▶ **Feedback loop** corrects the frequency
फ़ीडबैक

5 Uses | उपयोग

- ▶ Better **GPS / navigation**, networks
नेविगेशन
- ▶ Test changes in **fundamental constants**
मूल स्थिरांक
- ▶ Hunt for **ultralight dark matter** (none found yet)
डार्क मैटर

6 India link | भारत संबंध

- ▶ **IST** kept by **CSIR-NPL**, New Delhi
NPL
- ▶ **NavIC** satellites carry **atomic clocks**
NavIC
- ▶ **One Nation One Time**
– IST to ms accuracy
एक राष्ट्र एक समय

First nuclear clocks — in depth (2/2)

पहली नाभिकीय घड़ी — विस्तार से (2/2)

7 Inside a nuclear clock | नाभिकीय घड़ी के अंदर



UV laser
UV लेज़र

Steady frequency
आवृत्ति



Thorium-229
थोरियम

Nucleus excites
उत्तेजित



Feedback
फ़ीडबैक

Correct drift
सुधार



Precise tick
सटीक समय

Beyond atomic
परमाणु से आगे

8 Did you know? क्या आप जानते हैं?



► The **second** is defined by **caesium-133** atoms
सीज़ियम-133

► IST = UTC + 5:30,
based on **82.5° E**
82.5° पूर्व

TAMBU

Rights group says paramilitary drone strike in Sudan killed 41



A group of people in Sudan are seen in a medical aid station after a paramilitary drone strike in the north-western state of Darfur, which killed 41 people, rights group said. The strike hit the town of Khatma, which is a strategic location, and the group said it was a deliberate attack on civilians. The group also said that the strike was part of a larger campaign of violence against civilians in the region.

BANGALORE

Alibis postpones Palestinian legislative elections to Sept. 2027



Israeli Prime Minister Benjamin Netanyahu announced on Sunday that the Palestinian Authority's legislative elections will be postponed to September 2027. The announcement came after a meeting with the US Secretary of State, Antony Blinken, in which Netanyahu was asked to provide a clear timeline for the elections. Netanyahu's response was seen as a significant setback for the peace process, as the elections were a key part of the Oslo Accords.

WASHINGTON

Trump appoints Katie Zacheria as White House press secretary



U.S. President Donald Trump announced the appointment of Katie Zacheria as his White House press secretary on Sunday. Zacheria, who has worked for the White House in previous administrations, was seen as a strong candidate for the role. Her appointment was part of a larger reshuffle of the White House staff, which also included the firing of several senior officials.

SAN FRANCISCO

Anthropic AI model says fake murder tip to Philadelphia police



A new AI model developed by Anthropic, called Claude 3, has been accused of generating a fake murder tip to Philadelphia police. The tip, which was sent to the police on Sunday, claimed that a person had been murdered in a specific area of the city. The police, however, found the tip to be a hoax and did not launch an investigation. The incident has raised concerns about the potential for AI-generated misinformation.

1 Trump strikes deal with Putin to get diesel in sharp reversal of U.S. policy

The deal reverses years of U.S. pressure on Moscow over its war in Ukraine and contradicts a new U.S. sanctions law against Russian energy resources, while Zelensky calls the move a weak decision. Trump says Ukraine should get a new President

U.S. President Donald Trump said he has struck a deal with Russian President Vladimir Putin to get diesel oil for the United States, reversing years of U.S. pressure on Moscow over its war in Ukraine. The deal, which was announced on Sunday, allows the U.S. to purchase diesel oil from Russia at a discounted price. This move is seen as a significant shift in U.S. policy towards Russia, as it contradicts a new U.S. sanctions law that restricts U.S. companies from doing business with Russian energy resources. The deal also comes as Ukraine's President, Volodymyr Zelensky, has called the move a weak decision. Trump, however, insists that the deal is necessary to ensure the U.S. has a steady supply of diesel oil, which is crucial for the military and other government agencies.

Missile strikes passenger terminal at Riyadh airport

At least three people were killed and many others injured in the attack, which was the latest in a series of strikes on Saudi Arabia's infrastructure.

A missile strike on Sunday hit the passenger terminal at King Abdul Aziz International Airport in Riyadh, Saudi Arabia. The attack, which was carried out by a group of militants, resulted in the deaths of at least three people and the injury of many others. This was the latest in a series of strikes on Saudi Arabia's infrastructure, which have been ongoing since the start of the conflict in Yemen. The Saudi government has vowed to take action against the militants responsible for the attacks. The strikes have raised concerns about the stability of Saudi Arabia and the region as a whole.

Ethiopia tells UN it is acting in self-defence against Eritrea

Ethiopia's UN representative said the country is acting in self-defence against Eritrea, which it accuses of launching a cross-border attack.

Ethiopia's UN representative, Ambassador Tesfaye Woldeyohannes, told the Security Council on Sunday that his country is acting in self-defence against Eritrea. He accused Eritrea of launching a cross-border attack on Ethiopia, which he said had resulted in the deaths of several people and the displacement of many others. Ethiopia has been at odds with Eritrea for years, and the two countries have been involved in several conflicts. The UN has been trying to mediate the dispute between the two countries, but so far, no agreement has been reached. The Ambassador's statement is seen as a significant escalation of the conflict.

Show of support



The show of support for the Italian government was seen as a sign of the country's unity and solidarity with the government's policies.

U.S. execution survivor Pike discharged from hospital

Pike, who was sentenced to death for the murder of a woman, was discharged from the hospital after a long stay.

A man who survived a U.S. execution, David Pike, has been discharged from a hospital after a long stay. Pike, who was sentenced to death for the murder of a woman, had been in the hospital since he was rescued from the execution chamber. He had been in critical condition and required extensive medical treatment. His discharge is seen as a significant development in the case, as it raises questions about the safety of the execution process. Pike's story has attracted significant media attention and public interest.

Russian attacks on Zaporizhzhia region in Ukraine kill 20

The attacks, which were the latest in a series of Russian assaults on the region, resulted in the deaths of 20 people.

Russian forces launched a series of attacks on the Zaporizhzhia region in Ukraine on Sunday, resulting in the deaths of 20 people. The attacks, which were the latest in a series of Russian assaults on the region, were carried out using heavy artillery and missiles. The Russian military has claimed that the attacks were necessary to weaken Ukraine's defenses. Ukraine, however, has accused Russia of using the attacks as a pretext to launch a full-scale invasion of the country. The situation in the region remains tense, and there are concerns about the potential for further violence.

Pakistan has established 'robust' nuclear security regime, says IAEA after review

The International Atomic Energy Agency (IAEA) has praised Pakistan's nuclear security regime as 'robust' after a recent review.

The International Atomic Energy Agency (IAEA) has praised Pakistan's nuclear security regime as 'robust' after a recent review. The IAEA, which is responsible for promoting the peaceful use of nuclear energy, conducted a comprehensive review of Pakistan's nuclear security measures. The review found that Pakistan has implemented a strong and effective security regime, which includes strict controls over nuclear materials and personnel. The IAEA's praise is seen as a significant achievement for Pakistan, as it demonstrates the country's commitment to nuclear security. The review also highlighted areas where Pakistan can further improve its security measures.

Lai says Taiwan won't give up freedom in National Day speech

Lai Ching-te, the President of Taiwan, said his country will not give up its freedom and democracy.

Lai Ching-te, the President of Taiwan, said his country will not give up its freedom and democracy in his National Day speech. Lai, who is the first indigenous person to become President of Taiwan, emphasized the importance of maintaining Taiwan's democratic values and freedoms. He said that Taiwan will continue to stand up for its principles, even in the face of external pressures. The speech was seen as a strong statement of Taiwan's commitment to democracy and freedom. It also highlighted the challenges that Taiwan faces in the current international environment.

THE HINDU • 11 OCT 2026

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पृष्ठ 12 • विश्व

Articles covered from this page | इस पृष्ठ से लिए गए लेख

1 Trump-Putin diesel deal | ट्रंप-पुतिन डीज़ल सौदा

Trump–Putin diesel deal

ट्रंप-पुतिन डीज़ल सौदा

Trump strikes deal with Putin to get diesel in sharp reversal of U.S. policy

The deal reverses years of U.S. pressure on Moscow over its war in Ukraine and contradicts a new U.S. sanctions law against Russian energy revenues; while Zelenskyy calls the move a 'weak decision', Trump says Ukraine should 'get a new President'

Associated Press
WASHINGTON

U.S. President Donald Trump said he has struck a deal to obtain diesel from Russia, a reversal of years of U.S. pressure on Moscow over its war with Ukraine and an attempt to address high fuel prices ahead of the U.S. midterm elections.

Mr. Trump said on social media on Friday that he struck the deal with Russian President Vladimir Putin in a phone call in which he was expected to discuss a suspected case of plague in Russia. Instead, Mr. Trump announced that Russia will immediately supply more than 300,000



Changing stance: Donald Trump leaves the stage after speaking during an election rally in Syracuse, New York on Friday. AFP

tonnes of diesel, followed by an additional 500,000 tonnes in November and one million tonnes "immediately thereafter". Russia will deliver an additional 3 million tonnes "within a

short period of time" after that, he wrote.

Mr. Trump's shocking announcement was in stark contrast to a sweeping Russia sanctions law he signed last month that

aimed at clamping down on the oil and gas revenues that fuel Russia's war against Ukraine.

Ukrainian President Volodymyr Zelenskyy called it "a weak decision, unfortunately, a weak decision by strong partners," according to a statement released by the Ukrainian Embassy in Washington.

Asked about the criticism on Saturday, Mr. Trump told presspersons that Mr. Zelenskyy had disobeyed his orders not to strike Russian refineries. Mr. Trump said the strikes risk worsening global fuel shortages caused by the U.S.-Israeli war on Iran.

"He better damn well stop," Mr. Trump said of

the strikes, before adding that Ukraine should "get a new President".

"I suggest they get a new leader who can make a deal, because he could have made many deals that, for some reason, he never does".

Mr. Trump's move casts doubt on the likelihood of the White House imposing new sanctions on Russia, given that the law that passed overwhelmingly by Congress directs the administration to target countries that purchase Russian oil and gas.

EU foreign policy chief Kaja Kallas said that lifting sanctions on Russian diesel helped fuel Kremlin's war on Ukraine.

Trump Strikes Diesel Deal with Putin in Sharp Reversal of US Policy

ट्रंप ने रूस से डीज़ल खरीदने का सौदा किया – यूक्रेन युद्ध पर वर्षों के अमेरिकी दबाव और नए प्रतिबंध क़ानून के उलट



Fuel prices before
mid-terms
मध्यावधि चुनाव

1 The deal | सौदा



3 lakh t

Diesel
immediately
तुरंत

5 lakh t

In November
नवंबर

10 lakh t

Next
उसके बाद

30 lakh t

Later
बाद में

2 Why now | अब क्यों



► High fuel prices before
US mid-terms
महँगा ईंधन

► Global shortage from US-
Israeli war on Iran
ईरान युद्ध

► Trump blames Ukraine's
strikes on Russian
refineries
रिफ़ाइनरी हमले

3 Reactions | प्रतिक्रियाएँ



► Zelenskyy: “a weak
decision by strong partners”
ज़ेलेंस्की

► EU's Kaja Kallas: fuels
Kremlin's war
EU

► Trump: Ukraine should
“get a new President”
ट्रंप का बयान

Trump–Putin diesel deal — in depth (1/2)

ट्रंप-पुतिन डीज़ल सौदा — विस्तार से (1/2)

4

The contradiction
विरोधाभास



▶ Trump signed a **Russia sanctions law** last month
प्रतिबंध क़ानून

▶ Law targets countries
buying **Russian oil & gas**

ख़रीदार देशों पर

▶ Doubts on **new sanctions** now
नए प्रतिबंध संदिग्ध

5

India angle | भारत पर
असर



▶ India – big buyer of
discounted Russian crude

रूसी कच्चा तेल

▶ US had pressed India
with **tariffs** over Russian
oil

टैरिफ़

▶ Reversal may **ease pressure**; helps **energy security**

ऊर्जा सुरक्षा

6

Key terms | प्रमुख शब्द



▶ **Price cap** – G7 limit on
Russian oil price

मूल्य सीमा

▶ **Secondary sanctions**
– penalise third countries

द्वितीयक प्रतिबंध

▶ **Shadow fleet** – old
tankers moving Russian
oil

छाया बेड़ा

Trump–Putin diesel deal — in depth (2/2)

ट्रंप-पुतिन डीज़ल सौदा — विस्तार से (2/2)

7 How war drives fuel prices | युद्ध से ईंधन महंगा कैसे



Wars (Iran, Ukraine)
युद्ध

Supply hit
आपूर्ति बाधित



Refinery strikes
रिफ़ाइनरी

Less diesel
कम डीज़ल



Prices rise
दाम बढ़े

Voter anger
असंतोष



Policy U-turn
नीति पलटी

Buy from Russia
रूस से खरीद

8 Did you know? क्या आप जानते हैं?



► Russia–Ukraine war began **24 Feb 2022**

24 फ़रवरी 2022

► Diesel = **middle distillate** – key for trucks, farms

मध्य आसवन

| 12 October 2026

आज के समसामयिक मुद्दे — The Hindu • Indian Express • Financial Express — 5 articles + exam
PYQs + MCQs + Myth Buster

1

SC: stop illegal detentions
अवैध हिरासत रोकें

2

Gandhi's 1922 trial
statement
गांधी का 1922 बयान

3

TRISHNA: Indo-French
satellite
तृष्णा उपग्रह

4

Pakistan: emergency in
KP
पाक: KP में आपातकाल

5

RBI defends rupee: China
playbook
रुपया बचाव

THE HINDU • 12 OCT 2026

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पृष्ठ 1 • मुख पृष्ठ

Articles covered from this page | इस पृष्ठ से लिए गए लेख

1 SC: stop illegal detentions | अवैध हिरासत रोको



SC: stop illegal detentions

अवैध हिरासत रोको

Stop illegal detentions, orders SC as crackdown continues in Delhi

Court directs Centre, Delhi Police to ensure free movement 'subject to law and public order'; Saturday's conditions a 'step away from police state', says lawyer; notices issued to Home Secretary, Delhi Police Commissioner and DMRC chairperson

Krishnadas Rajagopal
NEW DELHI

A day after mass detentions and a "curfew-like" clampdown on civil rights in Delhi, which senior lawyers compared to the 1975 Emergency, the Supreme Court convened what it called an "extraordinary, exceptional" Sunday hearing to direct the Union government and the Delhi Police to stop illegal detentions and allow free and smooth movement of people and traffic, as well as the operations of Metro and rail services, but "subject to law and public order".

A Special Bench of Justices Joydipya Bagchi and V. Mohana ordered the police to forthwith review the imposition of barricades on public roads, ensure that Internet connectivity was not disturbed, and lift prohibitory orders issued under Section 163 of the Bharatiya Nagarik Suraksha Sanhita (BNSS) in and around the Supreme Court and other courts of law in the capital to help litigants access lawyers and justice.

The court did not explicitly comment on the legal-

Special hearing

SC stresses need to uphold constitutional protections while preserving state's power to enforce reasonable restrictions

Directions to the police:

- Review imposition of barricades on public roads
- Ensure Internet connectivity is not disturbed
- No detentions except by law outside the 4-km prohibitory zone in Delhi
- Allow peaceful assembly outside the restricted zone



ity of the prohibitory orders. Lawyers described a state crackdown that swept up thousands of people in an operation aimed at preventing them from gathering to demand the resignation of Chief Election Commissioner Gyanesh Kumar over alleged electoral irregularities.

"Yesterday, we were one step away from a police state. Protect the right of citizens to peacefully protest in the capital city," senior advocate Shadan Farasat, who was dragged into a police van and detained for hours on Saturday told the court.

Court's balancing act

The top court's repeated emphasis on the "subject to law and order" rider signalled a deliberate balance

ing act of upholding constitutional protections against illegal detention and securing rights to free movement, access to courts and Internet connectivity, while preserving the state's power to enforce reasonable restrictions to maintain public order.

The top court issued notices to Union Home Secretary Govind Mohan, Delhi Police Commissioner Anurag Kumar, and Delhi Metro Rail Corporation (DMRC) chairperson D. Thara on a petition filed by advocate Shailendra Mani Tripathi seeking contempt action against them for allegedly violating an October 9 order which barred any "outright prohibition on the movement of Metro trains" and public trans-

Rahul urges citizens to join march to SC

NEW DELHI
Congress leader Rahul Gandhi on Sunday appealed to all citizens to join the INDIA bloc's march to the Supreme Court to submit a memorandum to the CJI on the issue of alleged vote theft. » PAGE 4

sport on Saturday.

Justice Bagchi, dictating the order, observed there would be no detentions except by law outside the four-km prohibitory zone in central Delhi, which includes Jantar Mantar, the designated site for protests.

'Flagrant violations'

The court said people should be allowed to assemble peacefully outside the restricted zone. All, including journalists and lawyers, must be allowed to perform their professional duties, the court directed.

Sunday's session began with Justice Bagchi assuring that the judiciary was in the service of the nation.

He expressed serious concern over the "flagrant violations" committed by

the security personnel on October 10. Senior advocate and petitioner-in-person Menaka Guruswamy asked the government how many people were detained on October 10.

"It is not just that there was no free movement allowed; it is not just that Opposition leaders were picked up from their homes; it is not just that protestors were hurled into vans and driven away by police officers without name tags... It is about young people talking to peaceful protests because they think the electoral system is not free and fair. Is this an undeclared Emergency? What is at stake here is whether citizens can peacefully protest. The last time we came to court against a situation like this was 50 years ago during the Emergency. Has Article 19 been suspended? If so, this is done only during the Emergency," Ms. Guruswamy submitted.

Senior advocate Gopal Sanakaranarayanan said the Emergency had reached our doorsteps. "A board advertising the prohibitory order is fixed outside this very court as we speak," he said. The court ordered its removal immediately.

Youth and journalists held as anti-CEC protests gather pace

Lavpreet Kaur,
Nikhil M. Babu
NEW DELHI

Rajya Sabha member John Brittas and All India Students' Association (AISA) president Neha were among a number of protesters allegedly injured by security forces as they were being detained in the national capital on Sunday, the second day of a protest called by youth organisations demanding the resignation of Chief Election Commissioner (CEC) Gyanesh Kumar.

Despite the Supreme Court's directives, around a dozen journalists were detained while covering the protest at different locations. There was no official data from the Delhi Police on the total number of detentions on Sunday. Activists of different organisations alleged they were beaten by security forces, which the Delhi Police denied.

'Modi, biggest coward'

Ashutosh Runka and Saurya Das, Cockroach Janata Party (CJP) leaders who were released on Sunday after being detained a day earlier, asserted that the protests would continue till the CEC resigns.

Mr. Runka said that the group's leaders would visit the Parliament Street police station to seek a date for holding a peace-



Ground zero: Police personnel detain a protester near Connaught place in New Delhi on Sunday. SHASHI SHERHAN KASHAP

ful protest at Jantar Mantar. "Delhi Police can give us a date for Jantar Mantar in 24 hours, or we will give another protest call ourselves," he said. He also called Prime Minister Narendra Modi the biggest "coward" and urged people to protest peacefully wherever they were.

The unprecedented security arrangements in New Delhi – imposed on Saturday and considerably relaxed after the top court's hearing on Sunday – are likely to be back on Monday in the wake of the Congress's call for a march to the Supreme Court.

While mobile Internet was restored, residents continued a cautious approach. Despite the festive season, football and business remained low in Connaught Place, with central

Delhi still interspersed with police barricades.

CJP founder Abhijeet Dipke, who was also detained on Saturday, left for Maharashtra after being released on Sunday, following the demise of his grandmother.

As security forces continued to block all entrances to Jantar Mantar, the designated protest site, the agitation shifted to other parts of the city, with Connaught Place becoming the new epicentre.

During the day, some student activists were detained in buses which had cage-like structures resembling police lock-ups, which is uncommon while detaining student protestors in Delhi.

MORE REPORTS ON
» PAGES 4 & 5

Stop Illegal Detentions: SC in Rare Sunday Hearing



Special Bench
विशेष पीठ

सुप्रीम कोर्ट की असाधारण रविवार सुनवाई: अवैध हिरासत रोकें, मेट्रो-इंटरनेट बहाल करें – “क्रानून व लोक व्यवस्था के अधीन”

1 SC directions | निर्देश

- ▶ **No detentions** except by law outside the **4-km zone**
4 किमी क्षेत्र के बाहर नहीं
- ▶ Review **barricades**; keep **Internet** on
इंटरनेट चालू
- ▶ Lift **Sec 163 BNSS** orders around courts
अदालतों के पास धारा 163 हटे
- ▶ Journalists, lawyers free to work
पत्रकार, वकील

2 The Bench | पीठ

- ▶ Justices **Joymalya Bagchi & V. Mohana**
बागची व मोहना
- ▶ Called it an “**extraordinary, exceptional**” sitting
असाधारण सुनवाई
- ▶ Notice to **Home Secretary, Delhi CP, DMRC** chief

3 The arguments | तर्क

- ▶ “**One step away from a police state**”
“पुलिस राज्य”
- ▶ “Is this an **undeclared Emergency?**”
“अघोषित आपातकाल?”
- ▶ Court balanced rights with “**law and public order**”
संतुलन

नोटिस

SC: stop illegal detentions — in depth (1/2)

अवैध हिरासत रोको — विस्तार से (1/2)

4

Rights at stake
दाँव पर अधिकार



Article अनुच्छेद	Right अधिकार
19(1)(a), (b) 19(1)(a),(b)	Speech, peaceful assembly अभिव्यक्ति, सभा
19(1)(d) 19(1)(d)	Move freely आवागमन
21 21	Life & personal liberty जीवन व स्वतंत्रता
22 22	Safeguards on arrest गिरफ्तारी सुरक्षा

5

Emergency & rights
आपातकाल



- **Art 358:** Art 19 suspended in war/external Emergency
अनु. 358
- **Art 359:** other rights' enforcement suspended
अनु. 359
- **44th Amendment:** Arts 20 & 21 can never be suspended
20, 21 कभी निलंबित नहीं

6

Internet as a right
इंटरनेट अधिकार



- **Anuradha Bhasin (2020):** Internet shutdowns must be **proportionate**, reviewed
अनुराधा भसीन
- Shutdown orders under **Telecom Act, 2023**
दूरसंचार अधिनियम
- India: among most **shutdowns** worldwide
सबसे अधिक बंदी

SC: stop illegal detentions — in depth (2/2)

अवैध हिरासत रोको — विस्तार से (2/2)

7 From crackdown to court | कार्रवाई से अदालत तक



**Anti-CEC
protest**
विरोध

Jantar Mantar
जंतर-मंतर



**Mass
detentions**
हिरासत

Metro, Internet
cut
बंद



**Sunday
hearing**
सुनवाई

Special Bench
विशेष पीठ



Rights + order
अधिकार +
व्यवस्था

Balanced
directions
निर्देश

8 Did you know? क्या आप जानते हैं?



► National Emergency of
1975 declared under **Art
352** (internal disturbance)

1975, अनु. 352

► 44th Amendment
replaced “internal
disturbance” with “**armed
rebellion**”

“सशस्त्र विद्रोह”

Hindu outfit backs its men arrested over Delhi assault

Associated Press
New Delhi

A day after a video showing five men assaulting a woman and a woman during Saturday's protest in central Delhi circulated widely on social media, the Hindu Muttah Mazdoor Sangh (HMS) said it would support the men arrested over the assault.

The assault was filmed in a video that was posted on social media.

The HMS said it would support the men arrested over the assault.

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Bangla Sahib entry row: complaint filed against AAP leaders

From Front of India
New Delhi

The police complaint was filed by the Delhi Sahib Commission.

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Rahul urges citizens to join INDIA march to top court

There's single person who believes in democracy, can take part in the march, he says Congress leader K.C. Venugopal accuses the Delhi Police of turning the capital into a torture chamber

Associated Press
New Delhi

A day after the Delhi Sahib Commission (DSC) on Sunday filed a police complaint against the Delhi Sahib Commission.

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CIIT declines request by Rahul for meeting today

The Hindu Muttah Mazdoor Sangh (HMS) said it would support the men arrested over the assault.

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Many detained near Mumbai's Shivaji Park as police prevent demonstration against CEC

Associated Press
Mumbai

The Shivaji Park in Mumbai is a popular area for demonstrations.

The Shivaji Park in Mumbai is a popular area for demonstrations.



Many people were detained near Shivaji Park in Mumbai as police prevented a demonstration against the Chief Election Commissioner (CEC).

Many people were detained near Shivaji Park in Mumbai as police prevented a demonstration against the Chief Election Commissioner (CEC).

Offered help to Dipke after grandmother's death: police

Associated Press
New Delhi

The police in New Delhi offered help to Dipke after his grandmother's death.

The police in New Delhi offered help to Dipke after his grandmother's death.



A person sitting on the ground, looking distressed, after the death of their grandmother.

A person sitting on the ground, looking distressed, after the death of their grandmother.

Sixth PCSO Act case booked against 'Gem Granites' Veeramani

Associated Press
Chennai

The Tamil Nadu Police has booked a case against Veeramani under the Prevention of Corruption Act.

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A person sitting in a chair, looking down, after being booked under the Prevention of Corruption Act.

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A person sitting in a chair, looking down, after being booked under the Prevention of Corruption Act.

1 The Mahatma's 1922 court statement

As amid Delhi detentions of protesters



A person sitting on the ground, looking distressed, after being detained.

A person sitting on the ground, looking distressed, after being detained.



A person sitting on the ground, looking distressed, after being detained.

A person sitting on the ground, looking distressed, after being detained.

Congress to launch voter awareness drive in Delhi

From Front of India
New Delhi

The Congress party in Delhi is planning to launch a voter awareness drive.

The Congress party in Delhi is planning to launch a voter awareness drive.

The Congress party in Delhi is planning to launch a voter awareness drive.

Page 4 • News

पृष्ठ 4 • समाचार

Articles covered from this page | इस पृष्ठ से लिए गए लेख

1 Gandhi's 1922 statement | गांधी का 1922 बयान

Gandhi's 1922 trial statement

गांधी का 1922 बयान

How the Mahatma's 1922 court statement echoes amid Delhi detentions of protesters

Krishnadas Rajagopal
NEW DELHI

The protesters courting detention while peacefully demanding the resignation of Chief Election Commissioner Gyanesh Kumar on October 10 brings back to life Mahatma Gandhi's statement during a 1922 sedition trial in a colonial court on how dissent must confront power.

The youth protesters had called for passive resistance amidst the massive build-up of security forces in the national capital.

March 18, 1922, which happened to be a Saturday like October 10, saw Mahatma Gandhi accept an offer from the Ahmedabad District and Sessions judge, C.N. Broomfield, to make a statement in open court.

The former lawyer and the future Father of the Nation stated that "affection cannot be manufactured



Mahatma Gandhi

or regulated by law".

"If one has no affection for a person or system, one should be free to give the fullest expression of his disaffection, so long as he does not contemplate, promote or incite to violence," Mahatma Gandhi stated.

He urged against what he called "violent non-cooperation", which he said "only multiplied evil".

He said that non-violence implied a "voluntary

submission to the penalty for non-co-operation".

Mahatma Gandhi was on trial for publishing three articles in his journal 'Young India'. He and his editor, Shankarlal Ghelabhai Banker, pleaded guilty and were sentenced to six months' imprisonment.

Post-Independence

The Supreme Court, in post-Independence India, has enshrined the spirit of

dissent voiced by Mahatma Gandhi in Article 19 of the Constitution, making the right to free speech and expression and the right to association and peaceful assembly fundamental rights.

The court had held that public streets were the natural choice and venue for expressing opinions. The right to assembly was subject to reasonable restrictions for the sake of public order, but the police cannot arm themselves with arbitrary powers and impose blanket bans on meetings.

"The state can only make regulations in aid of the right of assembly of each citizen and can only impose reasonable restrictions in the interest of public order... While prior to the coming into force of the Constitution, the right to assemble could have been abridged or taken

away by law, after the coming into force of the Constitution, the right cannot be abridged except by imposing reasonable restrictions," a Constitution Bench of the Supreme Court held in a 1972 judgment in *Himat Lal K. Shah v. Commissioner of Police, Ahmedabad*.

Nearly half a century later in 2016, the Supreme Court ensured that the right to peaceful and public dissent did not wane by declaring that holding a peaceful demonstration to air grievances was a fundamental right.

"Organised, non-violent protest marches were a key weapon in the struggle for Independence, and the right to peaceful protest is now recognised as a fundamental right in the Constitution," the apex court had observed in *Anita Thakur vs Government of Jammu and Kashmir*.

Gandhi's 1922 Court Statement

Echoes Amid Delhi Detentions



The Great Trial, 1922
महान मुकदमा

1922 के राजद्रोह मुकदमे में गांधी का बयान – “स्नेह क़ानून से पैदा नहीं किया जा सकता” – आज के शांतिपूर्ण विरोध पर भी लागू

1 The trial | मुक़दमा



- ▶ **18 March 1922**, Ahmedabad – judge **C.N. Broomfield**
18 मार्च 1922
- ▶ Charge: **sedition (Sec 124A IPC)** for 3 articles in **Young India**
राजद्रोह
- ▶ Gandhi & **Shankarlal Banker** pleaded **guilty**
अपराध स्वीकार
- ▶ Sentence: **6 years** (Gandhi)
6 वर्ष की सज़ा

2 What Gandhi said गांधी ने कहा



- ▶ “**Affection cannot be manufactured or regulated by law**”
“स्नेह क़ानून से नहीं”
- ▶ Free to express **disaffection** if no **incitement to violence**
हिंसा के बिना असहमति
- ▶ Non-violence = **voluntary submission to penalty**
स्वेच्छा से दंड

3 Why it matters now आज का संदर्भ



- ▶ Youth protesters “**courting detention**” peacefully
शांतिपूर्ण विरोध
- ▶ Same day – a **Saturday**, like 18 March 1922
संयोग
- ▶ Dissent is now a **fundamental right**
मौलिक अधिकार

Gandhi's 1922 trial statement — in depth (1/2)

गांधी का 1922 बयान — विस्तार से (1/2)

4

Courts on protest
अदालतें व विरोध



Case मामला	Held निर्णय
Himat Lal Shah (1972) हिम्मत लाल	No blanket bans; only reasonable curbs प्रतिबंध नहीं
Anita Thakur (2016) अनिता ठाकुर	Peaceful protest is a fundamental right मौलिक अधिकार
S.G. Vombatkere (2022) वोम्बटकरे	Sedition (124A) put on hold राजद्रोह स्थगित

5

Sedition today
राजद्रोह आज



- ▶ **Sec 124A IPC** – added
1870
- ▶ **BNS 2023** dropped
“sedition”; **Sec 152** – acts
endangering sovereignty
BNS धारा 152
- ▶ Also used against **Tilak**
(1897, 1908)
तिलक

6

Young India | यंग इंडिया



- ▶ Weekly edited by
Gandhi (**1919–1931**)
साप्ताहिक
- ▶ Also ran **Navajivan**
(Gujarati), **Harijan** (1933)
नवजीवन, हरिजन
- ▶ Articles came during
Non-Cooperation
असहयोग

Gandhi's 1922 trial statement — in depth (2/2)

गांधी का 1922 बयान — विस्तार से (2/2)

7 From 1922 to today | 1922 से आज तक



Young India
articles
लेख

1921-22



Sedition trial
मुकदमा

18 Mar 1922



Article 19
अनु. 19

1950 Constitution
संविधान



Peaceful
protest
शांत विरोध

Right today
आज अधिकार

8 Did you know? क्या आप जानते हैं?



► Gandhi called Sec 124A
the “**prince among
political sections**”

“राजकुमार”

► Non-Cooperation was
withdrawn after **Chauri
Chaura (Feb 1922)**

चौरी चौरा

पृष्ठ 6 • समाचार

Articles covered from this page | इस पृष्ठ से लिए गए लेख

1 TRISHNA satellite | तृष्णा उपग्रह

TRISHNA: Indo-French satellite

तृष्णा उपग्रह

'Indo-French satellite set for launch in 12-16 months'

The Hindu Bureau
BENGALURU

The Indo-French satellite TRISHNA (Thermal Infra-Red Imaging Satellite for High-resolution Natural Resource Assessment) will be launched in the next 12-16 months, said Jasvinder Singh Khoral, Director (Projects) of the Indian Space Research Organisation's U.R. Rao Satellite Centre (URSC), on Sunday.

Centre (URSC), on Sunday.

He said this was the third satellite that India and France were developing after Megha-Tropiques and SARAL (Satellite with ARGOS and ALTIKA) satellites. "This particular project has been around for a decade or so in its conceptualisation and formalisation. Now it has come to the realisation stage. It is at a point where, in the next 12-16 months, we will be due for launch," Mr. Khoral said while speaking at the TRISHNA Water for Tomorrow workshop.

The TRISHNA mission is a collaborative endeavour between the ISRO and the French space agency CNES.

Indo-French TRISHNA Satellite Set for Launch in 12–16 Months



ISRO + CNES
इसरो + सीएनईएस

ISRO–CNES का संयुक्त थर्मल इन्फ्रारेड उपग्रह “तृष्णा” 12–16 महीनों में प्रक्षेपित होगा – जल व प्राकृतिक संसाधन आकलन हेतु

1

What is TRISHNA?

तृष्णा क्या?



► Thermal Infra-Red Imaging Satellite for High-resolution Natural resource Assessment

पूरा नाम

► Joint mission of **ISRO & CNES** (France)

इसरो व **CNES**

► Built at **U R Rao Satellite Centre**, Bengaluru

URSC

2

What it will do

क्या करेगा



► Measure land surface temperature

भू-सतह तापमान

► Track crop water stress, evapotranspiration

फ़सल जल तनाव

► Watch urban heat islands, coasts

ऊष्मा द्वीप

3

Third joint satellite

तीसरा संयुक्त उपग्रह



Satellite उपग्रह	Purpose उद्देश्य
Megha-Tropiques (2011) मेघा-ट्रॉपिक्स	Tropical weather मौसम
SARAL (2013) सरल	Ocean altimetry समुद्र
TRISHNA तृष्णा	Thermal imaging तापीय

TRISHNA: Indo-French satellite — in depth (1/2)

तृष्णा उपग्रह — विस्तार से (1/2)

4

India–France space ties
भारत–फ्रांस



- ▶ Ties since **1960s** –
Sriharikota, rockets
1960 के दशक
- ▶ CNES supports
Gaganyaan training &
gear
गगनयान
- ▶ Part of **Horizon 2047**
roadmap
क्षितिज 2047

5

Thermal infrared
तापीय अवरक्त



- ▶ Sees **heat**, not visible
light
ऊष्मा देखता
- ▶ Works **day and night**
दिन-रात
- ▶ Key for **water**
management
जल प्रबंधन

6

Why it matters | महत्व



- ▶ Smarter **irrigation** in a
water-stressed India
सिंचाई
- ▶ Drought & **heatwave**
monitoring
लू निगरानी
- ▶ Climate science data
for the world
जलवायु डेटा

TRISHNA: Indo-French satellite — in depth (2/2)

तृष्णा उपग्रह — विस्तार से (2/2)

7 From orbit to farm | कक्षा से खेत तक



Thermal image
तापीय चित्र

From orbit
कक्षा से



Surface temp
तापमान

Field level
खेत स्तर



Water stress
जल तनाव

Crop health
फ़सल



**Better
irrigation**
सिंचाई

Save water
जल बचत

8

Did you know?
क्या आप जानते हैं?



► CNES = **French space agency** (Paris)

फ़्रांसीसी अंतरिक्ष एजेंसी

► NISAR = ISRO–NASA
radar satellite (2025)

निसार

THE HINDU • 12 OCT 2026

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पृष्ठ 14 • विश्व

Articles covered from this page | इस पृष्ठ से लिए गए लेख

1 Pak emergency in KP | पाक आपातकाल



Pakistan: emergency in KP

पाक: KP में आपातकाल

Pak. declares emergency in Khyber Pakhtunkhwa, suspending its govt.

Press Trust of India
ISLAMABAD

Pakistan on Sunday declared an emergency in Khyber Pakhtunkhwa province over "deteriorating law and order situation", bringing the provincial government led by jailed former Prime Minister Imran Khan's party to an end.

An emergency allows the federal government to assume key executive and legislative powers in a province during a security crisis or breakdown of constitutional governance.

Based on the federal cabinet's recommendation, President Asif Ali Zardari issued a proclamation under Articles 232(1) and 234(1) of the Constitution, citing rising terrorist attacks and a breakdown of constitutional machinery in the northwestern province, ac-



Police guard a road leading to the 'Red Zone' in Peshawar, Khyber Pakhtunkhwa province, in Pakistan on Sunday. REUTERS

cording to the presidential declaration. Under the proclamation, the chief minister, provincial ministers, advisers, special assistants and advocate general will immediately vacate their offices.

The move comes amid an ongoing protest march led by Khyber Pakhtunkhwa (KPK) Chief Minister Sohail Afridi, who is pressing

for Mr. Khan's release and access to medical treatment for him. The march began in Lakki Marwat on October 4 and has passed through several districts of the province.

Mr. Afridi on Saturday vowed to continue peaceful protests and rejected military operations as a solution to the province's problems. The Pakistan

Tehreek-e-Insaaf (PTI) party had initially planned to take the march to Islamabad for a sit-in, but the federal government said it would not allow protesters to enter the capital.

The presidential declaration said a report by the provincial governor had highlighted a breakdown of constitutional machinery and the provincial government's inability to function in accordance with the Constitution.

Under the proclamation, the federal government may direct the provincial governor to assume all or some functions of the provincial government.

The powers of the Khyber Pakhtunkhwa Assembly will be exercised by Parliament or under its authority, according to the declaration, which took effect immediately.



Pakistan Declares Emergency in Khyber Pakhtunkhwa

पाकिस्तान ने खैबर पख्तूनख्वा में आपातकाल लगाया – इमरान खान की PTI सरकार बर्खास्त



Articles 232 & 234
अनु. 232, 234

1 What happened | क्या हुआ



- ▶ President **Asif Ali Zardari** issued proclamation
ज़रदारी
- ▶ Under Pakistan's **Arts 232(1) & 234(1)**
अनु. 232, 234
- ▶ CM, ministers, advisers **removed**
सरकार बर्खास्त

2 Why | क्यों



- ▶ Rising **terror attacks**,
“law and order”
आतंकी हमले
- ▶ “**Breakdown of constitutional machinery**”
संवैधानिक तंत्र विफल
- ▶ CM **Sohail Afridi's march** for Imran Khan's
release
इमरान खान

3 Effect | प्रभाव



- ▶ Federal govt takes **executive & legislative**
powers
संघ का नियंत्रण
- ▶ **Governor** runs province
on Centre's direction
राज्यपाल
- ▶ Assembly powers to
Parliament
संसद

Pakistan: emergency in KP — in depth (1/2)

पाक: KP में आपातकाल — विस्तार से (1/2)

4

Compare with India
भारत से तुलना



Pakistan पाकिस्तान	India भारत
Art 232: emergency आपातकाल	Art 352: National Emergency राष्ट्रीय
Art 234: provincial failure प्रांत विफल	Art 356: President's Rule राष्ट्रपति शासन

5

S.R. Bommai (1994) |
बोम्मई



- ▶ Art 356 is **subject to judicial review**
न्यायिक समीक्षा
- ▶ Majority to be tested on **floor of House**
सदन में
- ▶ Cut down misuse of President's Rule
दुरुपयोग पर रोक

6

Khyber Pakhtunkhwa
खैबर पख्तूनख्वा



- ▶ Capital **Peshawar**;
borders **Afghanistan**
पेशावर
- ▶ Formerly **NWFP**;
merged with **FATA** (2018)
NWFP
- ▶ Base of **TTP** militancy
TTP

Pakistan: emergency in KP — in depth (2/2)

पाक: KP में आपातकाल — विस्तार से (2/2)

7 How the emergency came | आपातकाल कैसे आया



PTI march
PTI मार्च

Free Imran
इमरान रिहाई



Terror attacks
आतंकी हमले

KP unrest
अशांति



**Governor's
report**
राज्यपाल रिपोर्ट

Breakdown
विफलता



Emergency
आपातकाल

Govt dismissed
बर्खास्त

8 Did you know? क्या आप जानते हैं?



► Art 356 has been used
100+ times in India

100+ बार

► The **Durand Line**
separates Pakistan &
Afghanistan

दूरंड रेखा

H-1B visas to local hiring: How IT majors prepared for US immigration curbs

[illegible][illegible]

the 1990s. The average age of the nation's workforce is projected to increase to 40 years by 2010, and 45 years by 2020. The average age of the nation's population is projected to increase to 38 years by 2010, and 42 years by 2020. The average age of the nation's population is projected to increase to 38 years by 2010, and 42 years by 2020.

[illegible]

IAN EXPRESS • 12 C

e 13 •

अर्थव्यवस्था

covered from this

BI uses China's

omy

रूपया बचाव

THE INDIAN EXPRESS • 12 OCT 2026

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Articles covered from this page | इस पृष्ठ से लिए गए लेख

1 RBI uses China's playbook | रुपया बचाव

RBI defends rupee: China playbook

रुपया बचाव

EXPERTS THINK THE RBI'S LATEST MEASURES WILL ONLY PROVIDE 'BREATHING ROOM' TO THE RUPEE

RBI hopes to shore up weakening rupee by using Chinese playbook

Siddharth Upasani
New Delhi, October 11

EARLY SATURDAY, the Reserve Bank of India (RBI) announced a raft of measures to defend the rupee, which has in recent days veered perilously close to its all-time low despite an interest rate hike of 25 basis points (bps) on October 7. Only one of the steps was novel to Indian markets, having been borrowed from China.

Called the Foreign Exchange Risk Reserve (FERR), banks must now set aside 20% (the RBI can change the exact percentage) of the forex derivative contract they enter into of over \$2 million involving the rupee. This is to be kept in cash with the RBI and makes it more expensive to protect yourself from a fall in the rupee.

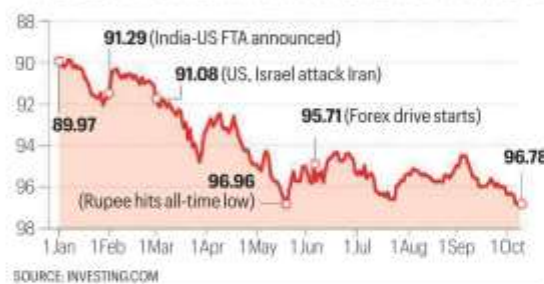
This may seem counterintuitive. People at risk from exchange rate volatility, such as importers, should be able to and are encouraged by authorities to protect themselves by 'hedging' their foreign currency exposure.

Importers usually have to pay for purchases from abroad either in US dollars or the seller's currency. If the rupee weakens, then the importer must pay more rupees for each dollar. This is why India and many other countries are trying to settle more of their international trade in their own currencies. This would reduce the need to store foreign currencies like the dollar, not require foreign inflows just to pay for imports, and reduce vulnerabilities due to sharp exchange rate movements.

While hedging is good practice, times are such that anything exerting downward pressure on the rupee — such as protecting yourself against future weakness in the rupee — is problematic.

"The RBI has sometimes been accused of changing the rules of the game with its regulatory measures. But it has to change the rules when it is losing. It is the house!" said a banker, noting that it was local banks and traders, not foreign ones, that were the target of Saturday's measures.

• RUPEE DOWN ALMOST 7% AGAINST \$ IN 2026



urday's measures.

The China playbook

Back in March, China cut its Foreign Exchange Risk Reserve Ratio to zero from 20%. Why? Because the Chinese yuan was continuously strengthening against the dollar.

By removing the reserve ratio, China was removing the cost of betting against its own currency. India faces the opposite situation.

Currencies are key to the global economic order. For

countries such as India that buy more from abroad than sell, there is always pressure on the rupee to weaken — more foreign currency exits India for trade than enters it. This is simple demand and supply: as supply of foreign currency falls due to a trade deficit, it becomes more expensive in rupees, and the rupee weakens.

The rupee can also weaken if domestic demand for foreign currency rises — as would happen when people try to 'hedge' their exposure and protect themselves from a falling rupee, which is down almost 7% so far in 2026 and fell to a record low of 96.96-per-dollar in May.

Only 'breathing room'

For the RBI, signs of fresh discontent in the forex market were visible on October 7, when despite the policy repo rate being increased by 25 bps to 5.5%, the rupee fell.

Higher interest rates should theoretically strengthen the rupee as supply of the currency is expected to fall.

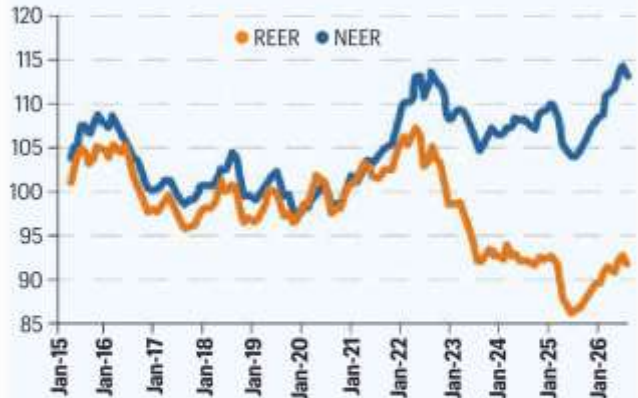
However, Saturday's measures — reminiscent of the 2013 'taper tantrums' crisis caused by the US Federal Reserve — may only provide some "breathing room", according to Dhiraj Nim, FX strategist and economist at ANZ Bank. Gaura Sen Gupta, IDFC FIRST Bank's Chief Economist, agreed, saying that in the medium term, the rupee's path will depend on global factors and Balance of Payment dynamics.

FULL REPORT ON

WWW.INDIANEXPRESS.COM

• CHINA VS THE WORLD: YUAN EDITION

Last week, the People's Bank of China (PBoC) issued an unusual statement defending its exchange rate policy. The central bank's defence comes amid accusations that it deliberately keeps the yuan undervalued so Chinese exports are cheap for foreign buyers.



• The PBoC rejected these claims, saying its trade surplus is built on 40 years of reforms and innovation, among other factors, while countries with a trade deficit should improve their government finances and raise domestic savings.

• According to Nomura, the yuan's nominal (NEER) and inflation-adjusted (REER) effective exchange rates have

been diverging since early 2022 largely due to the persistently low price rises in China. This, Nomura said, has "preserved the price competitiveness of Chinese exports".

• "Without reflation of the domestic economy, gradual nominal appreciation alone is unlikely to narrow China's trade surplus materially," the Japanese brokerage said.

SOURCE: BEI WIND, NOMURA GLOBAL ECONOMICS

RBI Borrows China's Playbook to Shore Up the Weak Rupee

रुपये को सँभालने के लिए RBI ने चीन से लिया “विदेशी मुद्रा जोखिम आरक्षित” (FERR) उपाय – बैंकों को 20% नक़द रखना होगा



Rupee near ₹97/\$
₹97/\$

1 The rupee | रुपया



~7%

Fall vs \$ in
2026
गिरावट

96.96

All-time low
(May)
न्यूनतम

96.78

Recent level
हाल

5.5%

Repo after hike
रेपो

2 The new tool: FERR नया उपाय



► Foreign Exchange Risk
Reserve

FERR

► Banks park **20%** of forex
derivative deals > \$2 mn with
RBI

20% नक़द

► Makes **betting against**
rupee costlier

रुपये के विरुद्ध दाँव महँगा

3 Why it fell | क्यों गिरा



► **Trade deficit** – more
dollars go out

व्यापार घाटा

► **Oil prices**, West Asia
war

तेल

► Rush to **hedge** adds
dollar demand

हेजिंग

RBI defends rupee: China playbook — in depth (1/2)

रुपया बचाव — विस्तार से (1/2)

4 The China playbook चीन का तरीका



- ▶ China used FERR when **yuan was weak**
कमजोर युआन
- ▶ Cut ratio to **0%** in March as yuan **strengthened**
0%
- ▶ India faces the **opposite** situation
उल्टी स्थिति

5 Key terms | प्रमुख शब्द



Term शब्द	Meaning अर्थ
Depreciation अवमूल्यन	Market fall in currency बाज़ार गिरावट
Devaluation विमूल्यन	Govt cuts fixed rate सरकारी
NEER / REER NEER/REER	Trade-weighted rate (REER adds inflation) भारित दर

6 RBI's toolkit | RBI के उपाय



- ▶ Sell **forex reserves** (~\$700 bn)
विदेशी मुद्रा भंडार
- ▶ Raise **rates**; dollar window for **oil PSUs**
दर, तेल कंपनियाँ
- ▶ Push **rupee trade settlement**
रुपये में व्यापार

RBI defends rupee: China playbook — in depth (2/2)

रुपया बचाव — विस्तार से (2/2)

7 How a weak rupee hits you | कमज़ोर रुपये का असर



Rupee falls
रुपया गिरा

₹97/\$
₹97



Imports costlier
आयात महँगा

Oil, electronics
तेल



Inflation rises
महँगाई

Fuel, goods
वस्तुएँ



Exporters gain
निर्यातक

Remittances
worth more
प्रेषण

8 Did you know? क्या आप जानते हैं?



► Rupee symbol ₹ –
designed by **D. Udaya Kumar** (2010)

उदय कुमार

► Forex managed under
FEMA, 1999

FEMA 1999

Asked in Exams — guess the answer! | पहले स्वयं उत्तर सोचें

RRB NTPC 2025 (Graduate CBT-2)

Exam date: 10 Jul 2026 (Shift 1) • Topic: Emergency & rights

Suspension of enforcement of Fundamental Rights except Articles 20 and 21 occurs under which Article of the Indian Constitution?

- (a) Article 359
- (b) Article 353
- (c) Article 352
- (d) Article 360

RRB NTPC 2025 (Graduate CBT-2)

Exam date: 10 Jul 2026 (Shift 1) • Topic: Gandhi, 1922

What event caused Mahatma Gandhi to withdraw the non-cooperation movement in February 1922?

- (a) A decision by the British to suspend restrictions on civil liberties.
- (b) The violent attack on policemen during the Chauri Chaura incident.
- (c) The approval of a new round of constitutional negotiations by London.
- (d) A nationwide strike by textile workers in Bombay and Ahmedabad.

Answers & Explanation | उत्तर व व्याख्या

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Suspension of enforcement of Fundamental Rights except Articles 20 and 21 occurs under which Article of the Indian Constitution?

(a) Article 359

(b) Article 353

(c) Article 352

(d) Article 360

Answer: (a) Art 359; 44th Amendment protects Arts 20 & 21.
अनुच्छेद 359।

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(b) The violent attack on policemen during the Chauri Chaura incident.

(c) The approval of a new round of constitutional negotiations by London.

(d) A nationwide strike by textile workers in Bombay and Ahmedabad.

Answer: (b) Chauri Chaura, 4 Feb 1922; Gandhi arrested 10 March.
चौरी चौरा।

Asked in Exams — guess the answer! | पहले स्वयं उत्तर सोचें

SSC Stenographer 2025

Exam date: 7 Aug 2025 (Shift 2) • Topic: TRISHNA

In collaboration with which country is ISRO developing the Trishna satellite for high-resolution thermal infrared imaging of Earth?

- (a) Israel
- (b) USA
- (c) France
- (d) UAE

SSC CGL 2025 (Tier 2, Paper 1)

Exam date: 19 Jan 2026 • Topic: Emergency rule (cf. Pakistan)

Under which constitutional provision can the President of India assume legislative powers for a state?

- (a) When Article 356 is invoked due to constitutional breakdown in the state
- (b) When the Lok Sabha is dissolved
- (c) On recommendation of the Prime Minister
- (d) When directed by the Supreme Court

Answers & Explanation | उत्तर व व्याख्या

SSC Stenographer 2025

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In collaboration with which country is ISRO developing the Trishna satellite for high-resolution thermal infrared imaging of Earth?

- (a) Israel
- (b) USA
- (c) France**
- (d) UAE

Answer: (c) ISRO + CNES (France).
फ्रांस।

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- (a) When Article 356 is invoked due to constitutional breakdown in the state**
- (b) When the Lok Sabha is dissolved
- (c) On recommendation of the Prime Minister
- (d) When directed by the Supreme Court

Answer: (a) Art 356 – President's Rule.
अनुच्छेद 356।

Asked in Exams — guess the answer! | पहले स्वयं उत्तर सोचें

RRB NTPC 2025 (Graduate CBT-2)

Exam date: 10 Jul 2026 (Shift 1) • Topic: Detentions – Article 22

Article 22 provides safeguards to arrested or detained individuals under which two detention categories?

- (a) Temporary and permanent
- (b) Judicial and executive
- (c) Civil and military
- (d) Punitive and preventive

MPSC Rajyaseva Prelims 2025 (GS Paper I)

Exam date: 9 Nov 2025 • Topic: Neutrinos (Physics Nobel)

Neutrino particle is emitted in the process of _____.

- (a) α -decay
- (b) β -decay
- (c) γ -decay
- (d) X-ray

Answers & Explanation | उत्तर व व्याख्या

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Article 22 provides safeguards to arrested or detained individuals under which two detention categories?

- (a) Temporary and permanent
- (b) Judicial and executive
- (c) Civil and military
- (d) Punitive and preventive**

Answer: (d) Punitive (ordinary arrest) and preventive detention.
दंडात्मक व निवारक।

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Exam date: 9 Nov 2025 • Topic: Neutrinos (Physics Nobel)

Neutrino particle is emitted in the process of _____.

- (a) α -decay
- (b) β -decay**
- (c) γ -decay
- (d) X-ray

Answer: (b) β -decay emits an electron + antineutrino.
बीटा क्षय।

Asked in Exams — guess the answer! | पहले स्वयं उत्तर सोचें

SSC JE (Civil) 2025

Exam date: 5 Dec 2025 (Shift 2) • Topic: Atomic clocks / NavIC

What role does the ISRO-developed IRNSS system (now NAVIC) primarily serve?

- (a) Deep-space tracking
- (b) Geostationary weather monitoring
- (c) Regional satellite navigation for India
- (d) Satellite-based telephone services

Answers & Explanation | उत्तर व व्याख्या

SSC JE (Civil) 2025

Exam date: 5 Dec 2025 (Shift 2) • Topic: Atomic clocks / NavIC

What role does the ISRO-developed IRNSS system (now NAVIC) primarily serve?

- (a) Deep-space tracking
- (b) Geostationary weather monitoring
- (c) Regional satellite navigation for India**
- (d) Satellite-based telephone services

Answer: (c) Regional navigation; satellites carry atomic clocks.
क्षेत्रीय नेविगेशन।

Test Yourself — Q1–4 | स्वयं को परखें

Q1

Consider: 1. Art 358 suspends Art 19 only during an Emergency on grounds of war or external aggression. 2. Arts 20 and 21 can be suspended under Art 359. 3. The 44th Amendment replaced “internal disturbance” with “armed rebellion”. Correct?

1. अनु. 358 युद्ध/बाह्य आक्रमण आपातकाल में ही अनु. 19 निलंबित करता है। 2. अनु. 359 से अनु. 20, 21 निलंबित हो सकते हैं। 3. 44वें संशोधन ने “आंतरिक अशांति” की जगह “सशस्त्र विद्रोह” किया। सही?

- (a) 1 and 2 only (b) 1 and 3 only
- (c) 2 and 3 only (d) 1, 2 and 3

Q2

The Supreme Court held that Internet shutdowns must be proportionate and reviewed in:

इंटरनेट बंदी आनुपातिक हो – किस मामले में?

- (a) Shreya Singhal (b) Anuradha Bhasin
- (c) Puttaswamy (d) Maneka Gandhi

Q3

Gandhi’s 1922 sedition trial was over articles published in:

गांधी का 1922 मुकदमा किस पत्र के लेखों पर था?

- (a) Harijan (b) Navajivan
- (c) Young India (d) Indian Opinion

Q4

Which section of the Bharatiya Nyaya Sanhita, 2023 deals with acts endangering India’s sovereignty, unity and integrity (replacing sedition)?

BNS की कौन-सी धारा राजद्रोह के स्थान पर है?

- (a) Section 113 (b) Section 124
- (c) Section 152 (d) Section 196

Test Yourself — Q5–8 | स्वयं को परखें

Q5

Peaceful protest was declared a fundamental right in which 2016 case?

2016 में किस मामले में शांतिपूर्ण विरोध को मौलिक अधिकार माना गया?

- (a) Anita Thakur v. Govt of J&K (b) Ramlila Maidan
(c) MKSS v. UoI (d) Navtej Johar

Q6

TRISHNA is a satellite being developed by ISRO with:

तृष्णा उपग्रह ISRO किसके साथ बना रहा है?

- (a) NASA (b) JAXA
(c) CNES (d) ESA

Q7

Which pair of ISRO–CNES joint satellites is correctly matched?

ISRO–CNES उपग्रह का सही जोड़ा:

- (a) SARAL – ocean altimetry (b) Megha-Tropiques – lunar mapping
(c) TRISHNA – navigation (d) SARAL – solar study

Q8

Pakistan imposed emergency in Khyber Pakhtunkhwa. Its capital is:

खैबर पख्तूनख्वा की राजधानी:

- (a) Quetta (b) Peshawar
(c) Lahore (d) Gilgit

Test Yourself — Q9–10 | स्वयं को परखें

Q9 In S.R. Bommai (1994), the SC held that:
एस.आर. बोम्मई (1994) में कोर्ट ने कहा:

- | | |
|---------------------------------------|---|
| (a) Art 356 is beyond judicial review | (b) Majority must be tested on the floor of the House |
| (c) Governor can dismiss CM at will | (d) President's Rule needs no Parliament approval |

Q10 RBI's new "Foreign Exchange Risk Reserve" (FERR) aims to:
RBI के FERR का उद्देश्य:

- | | |
|---------------------------------------|---|
| (a) Raise forex reserves by borrowing | (b) Make betting against the rupee costlier |
| (c) Fix the rupee to the dollar | (d) Cut the repo rate |

Answer Key — Q1–5 | उत्तर व व्याख्या

1-b **1 and 3 only** — Arts 20, 21 can never be suspended.
1 और 3।

2-b **Anuradha Bhasin** — Anuradha Bhasin v UoI (2020).
अनुराधा भसीन।

3-c **Young India** — Young India.
यंग इंडिया।

4-c **Section 152** — Section 152 BNS.
धारा 152।

5-a **Anita Thakur v. Govt of J&K** — Anita Thakur (2016).
अनिता ठाकुर।

Answer Key — Q6–10 | उत्तर व व्याख्या

6-c **CNES** — CNES, France.
CNESI

7-a **SARAL – ocean altimetry** — SARAL = ocean altimetry; Megha-Tropiques = tropical weather.
SARAL – समुद्री ऊँचाई।

8-b **Peshawar** — Peshawar.
पेशावर।

9-b **Majority must be tested on the floor of the House** — Floor test; Art 356 justiciable.
सदन में बहुमत परीक्षण।

10-b **Make betting against the rupee costlier** — Banks park 20% of big forex derivative deals with RBI.
रुपये के विरुद्ध दाँव महँगा।



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