

**International**

**China unveils world's fastest high-speed train prototype**

**About News:-**

- ❖ China has revealed its next-generation high-speed train, the CR450 prototype, which has reached 450 km/h test speeds, surpassing all existing models to become the fastest train globally.

**Key Points:-**

- ❖ The CR450 significantly outpaces the CR400 Fuxing trains operating at 350 km/h. This breakthrough was achieved through extensive research and development since the project's inception in 2021, focusing on safety, energy efficiency, and passenger comfort.
- ❖ The train's braking system has been optimised to ensure stability and safety at these unprecedented speeds, while its streamlined design reduces energy consumption by over 20%.
- ❖ the new prototypes CR450AF and CR450BF feature an eight-car formation, with advanced systems like water-cooled, permanent magnet traction and a high-stability bogie system.
- ❖ China, boasting the world's largest high-speed rail network with 47,000 km of operational tracks, has leveraged its expertise to expand globally. The CR450's debut reinforces the country's ambition to set new global standards in rail transport, with plans to shorten travel times significantly-for instance, cutting the Beijing-Shanghai journey from 4.5 hours to just over three.
- ❖ While commercial operation dates remain unconfirmed, China Railway hinted at a launch as early as next year.

**About China:-**

- ❖ Capital:- Beijing
- ❖ Currency:- Renminbi
- ❖ President:- Xi Jinping



**National**

**Pivotal Sewerage Projects Approved in NMCG's 59th Executive Committee Meeting**



**About News:-**

- ❖ The 59th Executive Committee (EC) meeting of the National Mission for Clean Ganga (NMCG), chaired by Shri Rajeev Kumar Mital, Director-General, NMCG, approved several critical projects dedicated to the conservation and rejuvenation of the Ganga River.
- ❖ These initiatives are aimed at promoting the cleanliness, sustainable development, and preservation of the environmental and cultural significance of the river.

**Key Points:-**

- ❖ The Executive Committee (EC) of NMCG has undertaken key initiatives to further strengthen the efforts for the rejuvenation and cleanliness of the Ganga River in Uttar Pradesh. Projects worth ₹272 crores were approved for Chandauli and Manikpur.

- ❖ The project in Chandauli, with an estimated cost of ₹263 crores, is based on the hybrid annuity model and involves the construction of a 45 MLD capacity Sewage Treatment Plant and other supporting structures.
- ❖ This initiative is designed to reinforce the river management system, with O&M ensured for the next 15 years. Additionally, a Faecal Sludge Management Project in Manikpur, Pratapgarh district, has been approved at a cost of ₹9 crores.
- ❖ This project includes the development of a 15 KLD capacity Faecal Sludge Treatment Plant and a 35 KW solar power plant, ensuring eco-friendly waste management solutions and effective operations for the next five years.

#### State

**Assam govt to launch 'Swagata Satirtha' transfer portal for Grade 3 and 4 employees**

**About News:-**



- ❖ The Assam government will introduce an online transfer portal, 'Swagata Satirtha,' for its Grade 3 and 4 employees, Chief Minister Himanta Biswa Sarma announced on Tuesday.
- ❖ The portal, designed to modernize and streamline the transfer process, will replace the old manual system and is set to become operational on January 1, 2025.

#### Key Points:-

- ❖ The Chief Minister also highlighted his government's ongoing efforts toward Assam's all-round development.

- ❖ The recently concluded 12-day development campaign saw significant initiatives, including distributing 20 lakh new ration cards, awarding the Bani Kanta Kakati Merit Scholarships to over 48,000 students, and providing bicycles to Class IX students to encourage education.
- ❖ Sarma reaffirmed Assam's commitment to the National Education Policy 2020, aiming to have a high school within a five-kilometre radius of every locality. The government is investing Rs. 2,000 crore annually to support student welfare, with Sarma urging students to prioritize education for the state's brighter future.

#### Economic

**RBI mandates beneficiary name verification for RTGS and NEFT by April 2025**

**About News:-**



- ❖ The Reserve Bank of India (RBI) has instructed banks to implement beneficiary account name verification systems for fund transfers via Real Time Gross Settlement (RTGS) and National Electronic Funds Transfer (NEFT) services by April 2025.
- ❖ Banks giving RTGS and NEFT must provide this service across all platforms, including online banking, mobile applications, and physical branch locations to strengthen the security of digital fund transfers.
- ❖ "All banks who are direct members or sub-members of RTGS and NEFT are advised to offer this facility no later than April 1, 2025,"

### Key Benefits

The introduction of the beneficiary name look-up facility aims to:

- ❖ **Enhance Transaction Accuracy:** Remitters will be able to confirm the recipient's account name before initiating payments, reducing instances of errors caused by incorrect account details.
- ❖ **Improve Security:** By verifying account information in real-time, the risk of fraudulent transactions or wrong transfers will be minimised.
- ❖ **Streamline Processes:** This feature will provide an additional layer of assurance, similar to what is already available on other platforms like UPI and IMPS.

### About Reserve Bank of India:-

- ❖ Established:- 1 April 1935
- ❖ Headquarters:- Mumbai, Maharashtra
- ❖ Governor:- Sanjay Malhotra (26th)

### Appointment

### DBS appoints Rajat Verma as DBS Bank India CEO

#### About News:-

- ❖ Singapore's DBS Group said on Monday it has appointed Rajat Verma as chief executive officer of DBS Bank India, succeeding Surojit Shome, who would retire at the end of February.
- ❖ Verma's nomination was in November and the bank was awaiting the Reserve Bank of India's approval on the successor.

#### Key Points:-

- ❖ India's central bank must approve all appointments of bank CEOs.
- ❖ Verma, currently the head of the institutional banking group at DBS Bank India, has been appointed in line with approval accorded by the RBI, DBS said in its statement. His appointment is effective March 1, 2025.



- ❖ Before joining DBS, Verma spent more than 26 years at HSBC, where he was head of commercial banking in India, according to his LinkedIn profile.
- ❖ He will be part of DBS' group management committee in his new role, Southeast Asia's biggest bank

### Science & Technology

### ISRO set to launch NVS-02 satellite in Jan 2025



#### About News:-

- ❖ The Indian Space Research Organisation (ISRO) is preparing for the launch of the NVS-02 satellite in January 2025, aboard the Geosynchronous Satellite Launch Vehicle (GSLV), said ISRO Chairman S Somanath.

#### Key Points:-

- ❖ On May 29, 2023, the GSLV-F12 rocket successfully launched the NVS-01 satellite, weighing 2,232 kg, into Geosynchronous Transfer Orbit (GTO).
- ❖ According to an ISRO statement, the NVS-01 satellite featured an indigenous atomic clock and was designed to enhance the capabilities of NavIC, including L1 band signals for broader service coverage.
- ❖ The PSLV-C60 mission, 99th, successfully deployed two satellites
- ❖ The NVS-02 satellite is part of India's Navigation with Indian Constellation
- ❖ This satellite follows the successful deployment of NVS-01 in May 2023
- ❖ The Indian Space Research Organisation (ISRO) is poised to celebrate a remarkable achievement with its 100th rocket launch scheduled for January 2025.
- ❖ This includes both orbital and sub-orbital rocket launches conducted by Isro.



- ❖ This milestone will be marked by the launch of the NVS-02 satellite aboard the Geosynchronous Satellite Launch Vehicle (GSLV) from the Satish Dhawan Space Centre in Sriharikota.

#### About ISRO:-

- ❖ The Indian Space Research Organisation (ISRO)
- ❖ Formed:- 15 August 1969
- ❖ Headquarters:- Bengaluru, Karnataka
- ❖ Chairman:- S. Somanath

#### Defence

#### Defence Ministry inks Rs 2,867 crore contracts to bolster submarine capabilities

##### About News:-

- ❖ Ministry of Defence has signed two contracts, worth approx. Rs 2,867 crore, for the construction of Air Independent Propulsion (AIP) Plug for the DRDO-AIP system & its integration onboard Indian Submarines, and the integration of Electronic Heavy Weight Torpedo (EHWT) onboard the Kalvari-Class submarines.



- ❖ Both the contracts were signed in the presence of Defence Secretary Shri Rajesh Kumar Singh in New Delhi on December 30, 2024.

##### Key Points:-

- ❖ The contract for the construction of AIP Plug and its integration was inked with Mazagon Dock Shipbuilders Limited, Mumbai worth around Rs 1,990 crore, while the contract for integration of EHWT, being developed by DRDO, was signed with Naval Group, France at an approx. cost of Rs 877 crore.

- ❖ The AIP technology is being indigenously developed by DRDO. The project pertaining to the construction of AIP-Plug and its integration will enhance the endurance of conventional submarines and significantly contribute towards the 'Aatmanirbhar Bharat' initiative. It would generate employment of nearly three lakh mandays. The integration of EHWT will be a collaborative effort by the Indian Navy, DRDO and Naval Group, France.
- ❖ It would greatly augment the firepower capabilities of Kalvari Class submarines of the Indian Navy.

##### About DRDO:-

#### Defence Research and Development Organisation

- ❖ Formed:- 1958
- ❖ Headquarters:- DRDO Bhavan, New Delhi
- ❖ Chairman:- Sameer V. Kamat

#### Miscellaneous

#### Pakistan to construct 'largest' nuclear plant with Chinese design



##### About News:-

- ❖ Pakistan will soon be constructing its largest nuclear power plant after it obtained the necessary licence from the country's atomic energy regulatory agency.

##### Key Points:-

- ❖ The Pakistan Nuclear Regulatory Authority (PNRA) has granted the licence for the Chashma Nuclear Power Plant Unit 5 (C-5), a facility with a capacity of 1,200 megawatts electric (MWe), making it the largest nuclear electricity generation plant in the country.

- ❖ The PNRA confirmed that the Pakistan Atomic Energy Commission (PAEC) had applied for the licence earlier this year, submitting the Preliminary Safety Assessment Report and documentation covering nuclear safety, radiation protection, emergency preparedness, waste management, and nuclear security.
- ❖ C-5 is an advanced third-generation Pressurised Water Reactor designed by Chinese firm Hualong. The plant incorporates active and passive safety features, including a double-shell containment structure and a reactor-filtered venting system.
- ❖ With a lifespan of 60 years, C-5 is the third nuclear power plant in Pakistan to feature this advanced design. The Karachi Nuclear Power Plants-units 2 and 3 of similar specifications are already operational and contributing to the national grid.
- ❖ The construction of C-5 has been approved by the executive committee of the National Economic Council and is projected to cost \$3.7 billion. Once operational, the plant will bolster Pakistan's nuclear energy capacity, which currently stands at approximately 3,530 MW, accounting for about 27 per cent of the country's total electricity generation.

### Sport

#### Lakshya Sen finishes third in King Cup International Open 2024



#### About News:-

- ❖ India's Lakshya Sen exited the King Cup International Badminton Open in the semifinals after losing to China's Hu Zhe'an in Shenzhen on Saturday.
- ❖ The 23-year-old Indian shuttler lost 19-21, 19-21 to the reigning world junior champion.

#### Key Points:-

- ❖ The two players were evenly matched throughout the first game. Hu held a slim one-point lead at the break. This occurred after Sen's backhand error.
- ❖ The 18-year-old Hu, making his international debut in 2022, maintained his pressure. He secured the first game when Sen hit the shuttlecock wide.
- ❖ The second game also remained closely fought. The score was tied at 6-6 early on. Hu then pulled ahead to 12-10.
- ❖ Sen rallied to lead 19-16. Hu, however, responded with a combination of powerful smashes and delicate drop shots. He won the second game and the match.
- ❖ Sen had previously won the Syed Modi International Super 300 title earlier in the month. He defeated Hong Kong's Angus Ng Ka Long in the quarterfinals of the King Cup.
- ❖ The King Cup is a three-day badminton tournament with a prize purse of approximately US\$152,000.

### Important Day

#### Global Family Day - 1 January 2025



#### About Day:-

- ❖ Every year, Global Family Day is celebrated on January 1. As we begin the new year on a fresh note, it is important to understand how all of us are connected through love and humanity.

**History:**

- ❖ In 1997, the United Nations General Assembly launched the International Decade for the Culture of Peace and Non-Violence for the Children of the World.
- ❖ In 1999, the members of the United Nations received a formal invitation to dedicate the first day of the year to developing strategies to bring peace to the world.
- ❖ Since then, Global Family Day has been celebrated every year on the same date.

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**MPSC  
WALLAH**