

29<sup>th</sup> November 2024

## First AI lab in Space

TakeMe2Space announced the launch of India's First AI Laboratory in Space.

### Key Points

- ❖ TakeMe2Space (a space technology firm based in Hyderabad) has announced the launch of MOI-TD (My Orbital Infrastructure - Technology Demonstrator).
- ❖ It will be India's first AI lab in space.
- ❖ The mission will demonstrate real-time data processing in orbit, making space research more affordable and accessible.
- ❖ The launch is scheduled for mid-December 2024 aboard ISRO's PSLV C60 launch vehicle.
- ❖ This AI laboratory will allow for the processing of data directly in space, eliminating the need for extensive ground-based data transmission and significantly reducing costs associated with space research.

## 43rd India International Trade Fair

The 43rd India International Trade Fair concluded at Bharat Mandapam in New Delhi.

### Key Points

- ❖ The fair provided a global platform to the traders from different states to learn innovative ideas and enhance their business.
- ❖ It is organised annually by the India Trade Promotion Organisation (ITPO).
- ❖ This year, the theme of the fair was 'Viksit Bharat @2047', reflecting India's vision of becoming a self-reliant and resilient nation by 2047. Additionally, the fair emphasised 'Vocal for Local, Local to Global,' promoting local industries on international platforms.

- ❖ The focus state for IITF 2024 was Jharkhand, while Bihar and Uttar Pradesh were serving as partner states, showcasing their regional innovations, businesses, and culture.



### Awards

- ❖ On the last day of fair, awards were presented for the various categories:
- ❖ In the category of Partner states Bihar and Uttar Pradesh bagged gold and Jharkhand grabbed gold in the focus state category.
- ❖ In the Ministries and Departments category, the Ministry of Mines got the Gold award, Ayush Ministry was awarded silver.
- ❖ In a state and UTs category, Puducherry bagged the gold award, Meghalaya got silver and Karnataka was awarded bronze.

## Anālākṣhya MSCS

IIT Kanpur has developed "Anālākṣhya" Stealth Technology.

### Key Points

- ❖ IIT Kanpur launches the Anālākṣhya Metamaterial Surface Cloaking System, a revolutionary technology for defence applications.
- ❖ This textile-based broadband Metamaterial Microwave Absorber offers near-perfect wave absorption across a broad spectrum, significantly enhancing stealth capabilities against Synthetic Aperture Radar imaging.

- ❖ The **Anālakṣhya MSCS** is the brainchild of Professor Anantha Ramakrishna from the department of Physics; Professor Kumar Vaibhav Srivastava from the department of Electrical Engineering; and Professor J Ramkumar from the department of Mechanical Engineering, IIT Kanpur, developed with their team of talented students: Gagandeep Singh, Dr Kajal Chowdhary and Dr Abhinav Bhardwaj, along with other PhD scholars.
- ❖ The technology has undergone extensive laboratory and field testing between 2019 and 2024, proving its efficacy across diverse conditions.
- ❖ The system is currently under acquisition by the Indian armed forces, signalling its strategic importance to national security.
- ❖ According to a statement, 90 per cent of the Anālakṣhya MSCS is sourced indigenously.
- ❖ In a significant move towards industrial production, the technology has been licensed to a private company **Meta Tattva Systems**, which will oversee its manufacturing and deployment.

#### Way Forward

- ❖ The Anālakṣhya MSCS is not only a technological marvel but also a testament to the successful collaboration between academia, defence forces, and the private sector.
- ❖ It is a shining example of India's growing defence manufacturing capabilities, which are increasingly aligned with the nation's **"Make in India"** and **"Atmanirbhar Bharat"** initiatives. The system's development also highlights the country's potential to lead in the global defence technology race.

#### Sabal 20

The Indian Army received the Sabal 20 logistics drone, marking an important development in improving its logistical operations, particularly in challenging and difficult-to-reach terrains.

#### Key Points

- ❖ Sabal 20 was delivered by **EndureAir** (a leading drone manufacturer in unmanned aerial vehicle (UAV) technology) to the Indian Army in the Eastern theatre.
- ❖ Sabal 20 is an **electric unmanned helicopter based** on variable pitch technology, designed specifically for aerial logistics, capable of carrying payloads of up to 20 kilograms, equivalent to 50 percent of its own weight, with scalable options for future requirements.

#### Person In News- Worldwide

##### Dinesh Bhatia

- ❖ He is an **Indian Foreign Service officer from the 1992 batch**, has been named as India's next **Ambassador to Brazil**.



- ❖ He has authored *Devi Purana- A Rendition of Srimad Devi Bhagavatam*, published by Bloomsbury in 2023.

##### G Balasubramanian

- ❖ He is a 1998 Indian Foreign Service officer. He has been **appointed as the next High Commissioner of India to the Maldives**.



### Masato Kanda

- ❖ He has been elected as the **11th President of Asian Development Bank (ADB)**.
- ❖ Kanda currently serves as Special Advisor to Japan's Prime Minister and Minister of Finance.
- ❖ ADB is a **regional development bank established in 1966**, which is headquartered in Manila, Philippines.



### Schemes/Initiatives

- ❖ **Desh Ka Prakriti Parikshan Abhiyan**
- ❖ It is an initiative under the **Ministry of AYUSH**.
- ❖ It is managed by the **National Commission for Indian System of Medicine (NCISM)**.
- ❖ It focuses on identifying an individual's unique mind-body constitution, or Prakriti, based on **Ayurvedic principles of Vata, Pitta, and Kapha doshas**.
- ❖ This knowledge empowers participants to adapt their lifestyles, diets, and exercise routines for better health and disease prevention.



### Military Exercises

#### SAREX-24

- ❖ **Indian Coast Guard**



- ❖ Indian Coast Guard is hosting the 11th edition of **National Maritime Search and Rescue Exercises (SAREX-24)** in Kochi, Kerala.
- ❖ It is being hosted under the aegis of NMSAR Board.
- ❖ The theme of the exercise is **"Enhancing Search and Rescue capabilities through Regional collaboration"** to signify ICG's commitment and resolve to provide succor during large scale contingencies regardless of location, Nationality or circumstances in the ISRR and beyond.

#### Agni Warrior 2024

- ❖ **Military exercise between India and Singapore**
- ❖ The bilateral military exercise "Agni Warrior 2024" between India and Singapore is taking place at the **Devlali Field Firing Ranges in Maharashtra** from November 28 to November 30.
- ❖ It is **organized as part of professional military collaboration**, the exercise aims to strengthen interactions between the artillery units of both nations.

### Important News- Other States

#### Bihar

- ❖ National postal exhibition **BIPEX-2024** held in **Patna**. Around 20 thousand postal stamps were displayed in the exhibition.

#### Jammu and Kashmir

- ❖ The **Union Ministry of Home Affairs (MHA)** has permanently created a hub of **National Security Guards (NSG)** in the Jammu City to counter any major terror-attack.

### Important News- Worldwide

#### UAE

- ❖ The third Global Media Congress was held at the Abu Dhabi National Exhibition Center (ADNEC) in the United Arab Emirates (UAE). It brought together global media leaders, innovators, and policymakers.
- ❖ It was organized by the ADNEC Group and the Emirates News Agency. It focuses on discussions on the future of the media industry and ways to address challenges and grasp opportunities in the rapidly evolving media landscape.

### Miscellaneous

- ❖ President Droupadi Murmu unveiled the Indian constitution's translation in Sanskrit and Maithili language in New Delhi on 26 November 2024 on the occasion of the Samvidhan Diwas.

- ❖ The Ministry of Health and Family Welfare's Health Pavilion, themed 'One Health', received the Special Appreciation Medal at the 43rd India International Trade Fair (IITF) in New Delhi. The Pavilion featured 39 dynamic and informative stalls, showcasing the Ministry's major milestones in healthcare.

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