

INDIA'S FIRST AI SCHOOL

Kerala recently introduced India's first-ever AI (artificial intelligence) school.



About India's First AI School:

- **Location:** It was launched by Santhigiri Vidhyabhavan in Thiruvananthapuram, Kerala.
- The establishment of this AI school is the **result of a collaboration between iLearning Engines (ILE) USA and Vedhik eSchool.**
- The school's **curriculum aligns with the National School Accreditation Standards**, which are based on the **New National Education Policy (NEP 2020).**
- The school's unique approach **centres on deepening students' understanding of Artificial Intelligence (AI) and advanced technologies**, enhancing their learning journey.
- It **seamlessly integrates AI components such as machine learning, natural language processing, and data analysis into various educational facets** like curriculum design, personalised assessments, and student support.

Features:

- It **caters to students from 8 to 12 grade** with various multifaceted support services. They will get many **benefits like support from a multitude of teachers, different test levels, aptitude tests, career planning**, memory techniques and counselling.
- Besides academics, this AI system **nurtures the skills like interview techniques, group discussion aptitude, mathematical prowess**, writing finesse, etiquette, English proficiency and emotional well-being as well.
- It **equips its students to prepare for competitive exams** like JEE, NEET, CUET, CLAT GMAT and IELTS for a better higher education.
- It **helps students get opportunities at esteemed foreign universities** and paves the way for students to pursue their higher studies in foreign countries.

WHAT IS A CURRENCY CHEST?

Two cases were recently registered after RBI detected fake notes from the SBI currency chest in Kochi, Kerala.



About Currency Chest:

- A currency chest is a place where the Reserve Bank of India (RBI) stocks the money meant for banks and ATMs.
- The RBI has authorised select scheduled banks to establish currency chests.
- The monitoring authority over the chests lies with the RBI. They are inspected by representatives of RBI from time to time.
- Whenever new currency notes are printed by RBI, they are first delivered to currency chests. These notes are then delivered to other banks by the banks holding the currency chests.
- They act as cash distribution centres. These currency chests are expected to distribute banknotes and rupee coins to other bank branches in their area of operation.
- RBI takes back soiled notes and mutilated notes from the public through currency chests.
- Moreover, if the bank has excess cash balance, the excess is moved to the currency chest. In a vice versa situation, when the bank is low on cash balance, the currency chest provides it.

Guidelines for banks to set up new currency chests:

- The area of the room or vault should be at least 1500 sq. ft.
- In case of hilly/ inaccessible places, the area of the strong room or vault should be at least 600 sq. ft.
- Apart from this, the new chests should have a processing capacity of 6.6 lakh pieces of banknotes per day.
- For those situated in hilly/ inaccessible places, a capacity of 2.1 lakh pieces of banknotes per day.
- The currency chests should have a Chest Balance Limit (CBL) of ₹1,000 crore, subject to ground realities and reasonable restrictions, at the discretion of the Reserve Bank.

RAMON MAGSAYSAY AWARD

Recently, Oncologist Ravi Kannan has been named one of the four winners of the 2023 Ramon Magsaysay Award.



About Ramon Magsaysay Award:

- It is Asia's premier prize and the **highest honour** celebrates the greatness of spirit and **transformative leadership in Asia**.
- The Ramon Magsaysay Awardees, annually selected by the RMAF board of trustees, are presented with a **certificate and a medallion** with an embossed image of Ramon Magsaysay facing right in profile.

From 1958 to 2008, the Award was given in **six categories annually**:

- **Government Service:** To recognise outstanding service in the public interest in any branch of government, including the executive, judicial, legislative, or military;
- **Public Service:** To recognise outstanding service for the public good by a private citizen;
- **Community Leadership:** To recognise leadership of a community toward helping the disadvantaged have fuller opportunities and a better life;
- **Journalism, Literature, and Creative Communication Arts:** To recognise effective writing, publishing, or photography or the use of radio, television, cinema, or the performing arts as a power for the public good;
- **Peace and International Understanding:** To recognise contributions to the advancement of friendship, tolerance, peace, and solidarity as the foundations for sustainable development within and across countries; and
- **Emergent Leadership:** To recognise an **individual, forty years of age** or younger, for outstanding work on issues of social change in his or her community but whose leadership may not yet be broadly recognised outside of this community.
- It is presented in formal ceremonies in Manila, Philippines, on August 31st, the birth anniversary of the much-esteemed Philippine President whose ideals inspired the Award's creation in 1957.

Indian winners on the list

- Prominent Indians who have won the award include **Vinoba Bhave** in 1958, **Mother Teresa** in 1962, **Kamaladevi Chattopadhyay** in 1966, **Satyajit Ray** in 1967, and **Mahasweta Devi** in 1997.
- In recent years, **Arvind Kejriwal** (2006), **Anshu Gupta of Goonj** (2015), human rights activist **Bezwada Wilson** (2016), and journalist **Ravish Kumar** (2019) have won the award.

BRICS IS BIGGER NOW. IS IT BETTER TOO?

Context

- At Johannesburg BRICS summit, **Leaders of Brazil, Russia, India, China, and South Africa (BRICS)** took a call to **expand the BRICS grouping** from five countries to 11.
- It is important to understand **what the new members will bring to the BRICS table** and with many of new members having economic dependencies on China, **what is at stake for India?**

Origin and Evolution of BRICS



- BRICS brings together **five of the largest developing countries of the world**, representing around **41 per cent of the global population**, around **24 per cent of the global GDP**, and around **16 per cent of global trade**.
- The acronym **BRIC** was first used in 2001 by **Goldman Sachs**, projecting that the 4 economies of Brazil, Russia, India, and China would be among the world's largest economies in the next 50 years or so.

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- As a formal grouping, **BRIC** started after the meeting of the leaders of **Russia, India, and China** in **St. Petersburg** on the margins of the **G8 Outreach Summit** in 2006.
- The grouping was formalised during the first meeting of **BRIC Foreign Ministers** on the margins of the **UNGA** in **New York** in 2006.
- The first **BRIC Summit** was held in **Yekaterinburg, Russia**, in 2009. It was decided to include **South Africa** at the **BRIC Foreign Ministers' meeting** in **New York** in 2010.

- Accordingly, South Africa attended the 3rd BRICS Summit in Sanya, China, in 2011.

The Expansion of BRICS

- **The Johannesburg declaration**, issued after the summit, said **Argentina, Egypt, Ethiopia, Iran, Saudi Arabia, and the United Arab Emirates (UAE)** had been invited to become full members from January 1, 2024.
 - The new entrants are **emerging economies with the potential to scale up**.
 - Many belong to the Global South or the developing countries, and want to hedge their bets in the increasingly polarised geopolitical landscape.
- The Johannesburg declaration said that **BRICS countries had reached a consensus on the guiding principles, standards, criteria, and procedures of the expansion process**, but these have not been made public.
- By growing to a size of 11 members, **BRICS has become larger than ASEAN (10 members) and Shanghai Cooperation Organisation (9)**.
- Contrary to the views that the new expanded grouping is an alternative to western blocs like the G7, **India does not view this as an anti-West grouping**.
- In fact, France, one of the P-5 (permanent members of the UNSC) countries which is also a member of G7, seems to have expressed interest in engaging with the BRICS more actively. Whether Paris becomes a member is a question to be agreed through consensus.

India's Role in the Expansion of the BRICS

- **India took the lead in forging consensus** on membership criteria and selection of new members.
- **India's efforts were guided by its objective** to incorporate Strategic Partners as new members.
- **India has strategic partnerships with four of the new six members** — Saudi Arabia, UAE, Iran, and Egypt.

Conclusion

- There have been many multilateral groupings that prospered and lost their relevance with time.

- The case of **BRICS** is truly remarkable. Despite several achievements, it began to lose its sparkle but still many countries want to join **BRICS**.
 - With the expansion of the grouping **BRICS** has certainly become bigger but only time will tell whether it has become better as well.
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PRODUCTION LINKED INCENTIVE (PLI) SCHEME FOR IT HARDWARE

Why in News?

- As part of its renewed PLI scheme for IT hardware, the Centre has received applications from 38 entities (Asus, Dell, HP, Foxconn, etc., excluding Apple), that want to manufacture laptops, personal computers and servers in India.
- The development comes weeks after the Centre imposed and then postponed a licensing requirement on the import of laptops and personal computers.

What is the Production Linked Incentive (PLI) Scheme?

- A cornerstone of the Government's push for achieving an **Atmanirbhar Bharat**, the objective of the PLI Schemes is to
 - **Make domestic manufacturing globally competitive**
 - Create **global Champions** in manufacturing and
 - Generate employment opportunities for the country's youth.
- The strategy behind the scheme is to **offer companies incentives on incremental sales** from products manufactured in India, over the base year.
- They have been specifically designed to
 - **Boost domestic manufacturing in sunrise and strategic sectors,**
 - Curb cheaper imports and reduce import bills,
 - Improve cost competitiveness of domestically manufactured goods, and
 - Enhance domestic capacity and exports.
- The first three PLI Schemes were approved earlier in **March, 2020** and these were followed by another 10 New PLI Schemes in November, 2020.

- The Union Budget 2021-22, announced an outlay of INR 1.97 Lakh Crores for the PLI Schemes for 13 key sectors.

TRANSFORMING INDIA INTO A MANUFACTURING HUB
CABINET APPROVES PRODUCTION LINKED INCENTIVE SCHEME FOR 10 SECTORS WITH AN OUTLAY OF NEARLY RS 2 LAKH CRORE

Sectors	Approved financial outlay for 5 years
Advance Chemistry Cell (ACC) battery	Rs 40,500 crore
Electronic/Technology products	Rs 5,000 crore
Automobiles & Auto components	Rs 57,042 crore
Pharmaceutical drugs	Rs 15,000 crore
Telecom & Networking Products	Rs 12,955 crore
Textile products	Rs 10,683 crore
Food products	Rs 10,500 crore
High-efficiency solar PV modules	Rs 4,500 crore
White goods (ACs & LED)	Rs 6,298 crore
Specialty Steel	Rs 6,322 crore
Total	Rs 1,45,980 crore

Already notified sectors	Approved financial outlay for 5 years
Mobile manufacturing and specified electronic components	Rs 40,951 crore
Critical Key Starting materials/Drug Intermediaries & Active Pharmaceutical Ingredients	Rs 6,940 crore
Manufacturing of medical devices	Rs 1,400 crore
Total	Rs 1,97,291 crore

The scheme will make Indian manufacturers globally competitive, attract investment in areas of competency & cutting-edge technology while ensuring efficiencies, pushing exports and making India a key part of the global supply chain.

- This means that minimum production in India as a result of PLI Schemes is expected to be **over US\$ 500 billion in 5 years.**

What is the PLI scheme for IT Hardware?

- It was first announced in February 2021 with an initial outlay of around Rs 7,300 crore over a period of four years.
- Domestic players investing Rs 20 crore and clocking sales of Rs 50 crore in the 1st year, Rs 100 crore in the 2nd, Rs 200 crore in the 3rd, and Rs 300 crore in the final year, **would pocket incentives of 1-4% on incremental sales over 2019-20.**
- The first version of the scheme was a laggard with only two companies - Dell and Bhagwati - managing to meet first year's (FY22) targets, and the industry calling for a renewed scheme with an increased budgetary outlay.
- As a result, the Union Cabinet cleared a **revised PLI scheme for IT hardware** (in May, 2023) **with an outlay of Rs 17,000 crore**, more than doubling the budget for the scheme.
- The **PLI 2.0** could attract big global IT hardware manufacturers to shift their production base to India and give a boost to local production of laptops, servers, personal computers, etc.
- The **average incentive** over six years will be **about 5%** compared with the 2% over four years offered earlier.
- As the IT hardware industry is targeted to reach a **production of \$24 billion by 2025-26** (and exports ~\$12-17 billion), this scheme will play a key role in **achieving the \$1 trillion digital economy goal, including \$300 billion of electronics manufacturing by 2025-26.**

How will the PLI Scheme Boost Local Production in India?

- Even as the country has identified electronics manufacturing as a key sector for future economic growth, **India has seen an increase in imports of electronic goods** in the last few years.

- **For example**, the import of electronic goods increased to \$6.96 billion (during April-June this year) from \$4.73 billion in the year-ago period, **with a share of 4-7% in overall imports.**
- **The highest share of imports** is in the category of **personal computers including laptops, and palmtops.**
 - **China** accounts for roughly 70-80% of the share of India's imports of personal computers, laptops.
- Companies that locally manufacture certain components including memory modules, display panels, etc., will also **get additional incentives under the restructured scheme.**
- **The PLI scheme seeks to penalise companies** if production lags behind the set thresholds, by deducting as much as 10% from the subsidies.
- **The PLI scheme will interplay with the semiconductor scheme of the government**, with chips made in India and being used by laptop manufacturers.

LIQUID APOGEE MOTOR (LAM)

For the Aditya-L1 mission, ISRO will be using Liquid Apogee Motor (LAM) identical to the one used in the Mars and Moon missions.



About Liquid Apogee Motor:

- It is a small but powerful engine going by the acronym 'LAM' will have a critical role to play in the Indian Space Research Organisation's (ISRO) upcoming Aditya-L1 mission **meant to study the sun.**
- The successful operation of LAM is vital to ISRO's plans to place the **Aditya spacecraft in a halo orbit at Lagrangian point L1.**
- Such engines are used for **orbital adjustment manoeuvres** of satellites/spacecraft in orbit.
- It is developed by the **Liquid Propulsion Systems Centre (LPSC)**, the ISRO Centre for Liquid and Cryogenic Propulsion in Thiruvananthapuram.

Key facts about the Aditya-L1 mission

- It is the first space-based **Indian mission to study the Sun.**



CROSS & CLIMB ROHTAK



- It will be launched by the **PSLV-XL launch vehicle**.
 - The spacecraft shall be placed in a halo orbit **around the Lagrange point 1 (L1)** of the Sun-Earth system, which is about 1.5 million km from the Earth.
 - A satellite placed in the halo orbit around the L1 point has the major advantage of **continuously viewing the Sun** without any occultation/eclipses.
 - This will provide a greater advantage in observing solar activities and their effect on space weather in real-time.
 - The spacecraft carries **seven payloads to observe the photosphere, chromosphere and the outermost layers of the Sun** (the corona) using electromagnetic particle and magnetic field detectors.
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