

# NEWS TODAY

## ‘ADVANCED MANUFACTURING: A NEW NARRATIVE’ PAPER RELEASED BY THE WORLD ECONOMIC FORUM

• Advanced manufacturing is defined as **the use of innovative technologies to create existing products and the creation of new products.**

➤ Advanced manufacturing can **include production activities that depend on information, automation, computation, software, sensing, and networking.**

### • Reasons for shifting towards advanced manufacturing

➤ **Geopolitical tensions and economic instability:** Shifting political landscapes and evolving regulatory environments, coupled with rising protectionism.

➤ **Climate change:** The goal to achieve net zero by companies.

➤ **Technology integration:** Technology adoption and fostering innovation for maintaining business competitiveness.

➤ **Changing people dynamics:** Changing demographics and societal values.

### • Impact of Advanced Manufacturing Solutions

➤ **Improving resilience** to disruptions in manufacturing and value chains through IoT technologies

➤ **Reducing operational and production costs and driving production health** through process automation

➤ **Accelerating energy efficiencies**, promoting renewable energy sources, and focusing on value-added energy

➤ **Facilitating product customization** through exploration of new processes, materials, etc.

### • WEF’s initiatives to support industry transformation

➤ **Global Lighthouse Network** for the adoption of advanced fourth industrial revolution technologies.

➤ **Industry Net Zero Accelerator** to collaborate, share knowledge, and accelerate toward achieving net zero target.

➤ **The Augmented Workforce Initiative** to augment, empower, and upskill the factory workforce.

## SHREYAS SCHEME EMPOWERS OVER 21,000 STUDENTS FOR HIGHER STUDIES

• **Scholarships for Higher Education for Young Achievers Scheme (SHREYAS)** was started in 2014-15.

• **Type:** Central Sector Scheme under the **Ministry of Social Justice and Empowerment.**

• It comprises **4 central sector sub-schemes** namely:

➤ **Free Coaching Scheme for SCs and OBCs:** provide **coaching of good quality to enable them to appear** in competitive and entrance examinations.

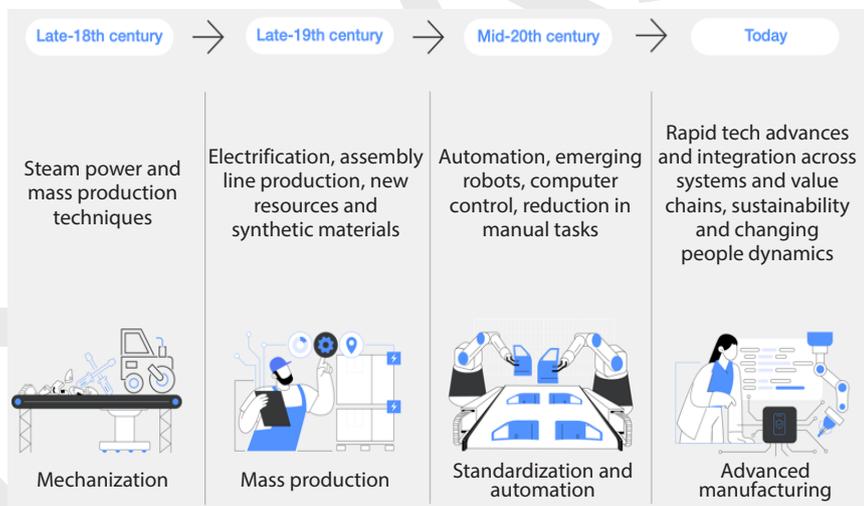
▪ **Ratio of SC: OBC students is 70:30** and 30% of slots are reserved for females in each category.

➤ **Top-Class Education for SCs:** ensures the **empowerment of the SCs** by providing scholarships for tuition fees, living expenses, etc.

▪ **covers SC students pursuing studies** beyond the 12th class.

➤ **National Overseas Scheme for SCs:** **covers** students belonging to the SC, **De-notified Nomadic, Landless Agricultural Labourers,** and Traditional Artisans, for overseas study.

➤ **National Fellowship for SC Students:** provide **fellowship to SC students for pursuing higher education leading** in Sciences, Humanities, and Social Sciences in Indian Colleges recognized by UGC.





# THE SACRED ENSEMBLES OF THE HOYSALAS INSCRIBED ON THE UNESCO WORLD HERITAGE LIST

- Sacred Ensembles of Hoysala is a serial nomination of three temples belonging to the Hoysala era from the 12th to 13th century, located in the state of Karnataka.
- The three temples are
  - > Channakeshava Temple, Belur
  - > Hoyasalesvara Temple, Halebidu
  - > Keshava Temple, Somanathapura
- Hoysalas were feudatories of Chalukyas of Kalyani who declared their autonomy following King Vishnuvardhana's accession in 1108 CE.
  - > Vishnuvardhana built Hoyasalesvara and Channakeshava temple with the latter commemorating his victory over the Cholas.
  - > Somanathapura Keshava temple was built by Somanatha, an officer under Narasimha II.
- Unique Features of Hoysala Temple Architecture
  - > Basic features are drawn from different temple-building traditions including
    - Nagara tradition (north India),
    - Dravida tradition (south India)
    - Bhumija tradition (central India)
    - Karnata Dravida tradition (Kalyani Chalukyan territories)
  - > Use of a special type of stone - Chloritic Schist or soapstone
  - > Multi-tier Friezes (a horizontal band of sculpted or painted decoration) depicting animals, plants, humans and birds along the temple plinths.
  - > Hoysala temples are generally nirandhara or shrines without pradakshinapatha or circumambulatory passage.
    - Jagati or the platform functions as an open circumambulatory passage.
  - > Perfectly proportioned stone pillars with circular rings.

## OTHER WORLD HERITAGE SITES OF KARNATAKA

- Hampi (1986)
- Pattadakal (1987)
- Western Ghats (2012)

## DEDICATED COAL CORRIDORS NEEDED TO MEET POWER DEMAND: RAILWAY BOARD

- Dedicated Coal Corridors (DCC) can be referred to as high-capacity railway corridor that is exclusively meant for transportation of coal across country.
  - > It will be laid down on a line of Dedicated Freight Corridors.
- DCC would be exclusively for coal transportation from Odisha, Jharkhand, and Chhattisgarh to other parts of country.
- Need of DCC:
  - > Volume: Coal traffic to thermal power plants constitutes highest in the rail freight traffic, both in terms of capacity and revenues.
    - Highly congested rail networks cause significant delays in coal transportation.
  - > Cost: majority of India's coal reserves are concentrated in the eastern parts of India, while consumption of coal is scattered across the country, hence huge logistic costs.
  - > Energy requirements: India's coal consumption and energy demand will increase to 1,853 million tonnes and 3,000 billion units by 2030, respectively. Any shortfall can impact growth of country.
- Other issues in Coal transportation: Low handling capacity of railway, improper loading and unloading infrastructure, and non-availability of wagons.
- Significance of DCC: reduced freight rate for coal, ensures energy security and creates employment opportunities.
- Initiatives for coal transportation:
  - > Ministry of Coal released a draft Coal logistic policy for 2022 aims to create the optimal infrastructure for coal transportation at the origin & destination point.
  - > Around 67 First Mile Connectivity (FMC) Projects are being implemented.

## INDIA REITERATES ITS COMMITMENT TOWARDS GLOBAL SOUTH AT G77 PLUS CHINA SUMMIT IN CUBA

- Group of 77 (G-77) is called G77 Plus China because while China works closely with the group, it does not officially consider itself a full member.
  - > G-77 was established in 1964 by seventy-seven developing countries.
  - > It provides the means for the countries of the South to articulate and promote their collective economic interests and enhance their joint negotiating capacity.
  - > Currently, it has 134 members, including India.
  - > The Chairmanship rotates on a regional basis (between Africa, Asia-Pacific and Latin America and the Caribbean) and is held for one year.
- In the Summit, India highlighted that through G20 and other initiatives, it is promoting the interest of the Global South.
  - > Hosted Voice of Global South Summit to shape a positive G20 agenda.
  - > Facilitated the Inclusion of the African Union in G-20 as a permanent member.
- The phrase "Global South" refers broadly to the regions of Latin America, Asia, Africa, and Oceania.
  - > In the 1980s, the Brandt Line, geographically split the world into relatively richer and poorer nations.
  - > Poorer countries are mostly located in tropical regions and in the Southern Hemisphere.



# SUPREME COURT (SC) CALLED FOR STRONGER SELF-REGULATION AMONG TV NEWS CHANNELS

- SC asked **News Broadcasters and Digital Association (NBDA)** and **News Broadcasters Federation (NBF)** to **suggest improvements** for **self-regulation** in case of **Advertising and Programme Code violations**.
  - Presently, there is **no single recognized self-regulatory organization** covering **all the TV news channels**.
- **NBDA** and **NBF** are two different organizations **representing different news channels**.
  - NBDA has a **regulatory authority** called **News Broadcasting and Digital Standards Authority** headed by a **former SC Judge**.
    - It administers '**Codes of Ethics & Broadcasting Standards**' for its member broadcasters.
    - Can impose a **penalty of ₹1 lakh** in case of code violation.
  - **NBF** has its self-regulatory authority, called the **Professional News Broadcasters Standards Authority**.
    - It is **registered and the only statutorily recognized** body for TV news channels under **Cable Television Networks (CTN) Amendment Rules 2021**.
- **Provisions of regulation under CTN Amendment Rules 2021:**
  - **Three-tier regulatory mechanism:** **First**, self-regulation **by broadcasters**, **Second**, self-regulation by **authorities created by the news broadcasters**, and **third**, **oversight** by **Central government**.
  - **Grievance Redressal:** Viewer can **file a complaint directly to broadcaster**, who has to respond within 15 days.

## ALSO IN NEWS



### Land Port Authority of India (LPAI)

- It is established under the **Land Ports Authority of India Act, 2010** under the **Ministry of Home Affairs**.
- LPAI is mandated **to develop, sanitize and manage the facilities for the cross-border movement of passengers and goods** at designated points along the international borders of India.
- The chairperson and Members are appointed by Central Government.
- There are **currently ten Land Ports operational in India** at Attari, Agartala, Dawki, Petrapole, Raxaul, Jogbani, Moreh, Sutarkandi, Srimantapur and PTB at Dera Baba Nanak.



### Bharatkosh Portal

- The Bharatkosh aims to provide 24X7 year round electronic services to **deposit the money into Government Account using internet based payment technologies** to the users at the door step through the web based portal.
  - It serves as a one **stop services to deposit any fees/fine/other money into the Government Account**.
- It is initiative of **Controller General of Accounts**, Ministry of Finance.
- It converges all the Civil Ministries/Departments of Government of India.



### String-based technology to produce lithium

- Usually, lithium extraction involves **evaporation from ponds** that **concentrate lithium from saltwater reservoirs**, and **salt flats of underground aquifers**.
- **String method** uses **strings of porous fibers** engineered to have a hydrophilic- (**substance that has water affinity**) core and water-repelling surface.
- On dip in saltwater solution, it uses **capillary action and subsequent evaporation** of water to **concentrate salt ions** like sodium and lithium.
- **Significance:** **Reduce the amount of land and time** needed for production.



### Biohacking

- **Biohacking** is a term used to describe **various methods** employed for **enhancing the body's ability to function at peak performance**—and maybe even extend one's lifespan.
  - It can include **lifestyle changes** such as meditation, exercise; **biologics; technology adoption** such as electromagnetic stimulators, hyperbaric chambers, etc.
- **Emerging areas of biohacking:** reducing one's age, enabling motor functions, genetic modifications and improving functioning of the brain etc.



### SPRINT Challenges' initiative

- SPRINT is a collaborative initiative being undertaken in **conjunction with the Defence Innovation Organisation (DIO)**, launched in 2022.
- **SPRINT** stands for **{Supporting Pole-Vaulting in R&D through Innovations for Defence Excellence (iDEX), NIIO and Technology Development Acceleration Cell (TDAC)}**.
- Under it, 75 challenges were presented to **startups and MSMEs**, aimed at **fostering** the use of **indigenous technology** within the **Indian Navy**.
- **Also involve niche technologies:** **blue-green lasers for underwater applications**, autonomous weaponized swarms etc.

 <p><b>XPoSat</b></p>	<ul style="list-style-type: none"><li>• ISRO is collaborating with <b>Raman Research Institute</b> to build the XPoSat.</li><li>• It aims to study various dynamics of <b>bright astronomical X-ray sources in extreme conditions</b> and provide vital <b>information on the nature and behavior of celestial objects</b>.</li><li>• It refers to <b>India's 1<sup>st</sup></b> and the <b>world's 2<sup>nd</sup></b> <b>dedicated</b> polarimetry mission (first was NASA's <b>Imaging X-ray Polarimetry Explorer</b>).<ul style="list-style-type: none"><li>➤ Polarimetry is a tool, allows astronomers to <b>infer information about celestial objects</b>, from passing comets to distant galaxies.</li></ul></li><li>• <b>Payload:</b> two scientific payloads in a low earth orbit: <b>POLIX</b> (Polarimeter Instrument in X-rays) and <b>XSPECT</b> (X-ray Spectroscopy and Timing).</li></ul>
 <p><b>Supra Thermal and Energetic Particle Spectrometer (STEPS)</b></p>	<ul style="list-style-type: none"><li>• <b>Aditya-L1</b>, India's first <b>space mission to study the Sun</b>, began collecting data by deploying its <b>STEPS instrument</b>.</li><li>• STEPS is part of the <b>ASPEX (Aditya Solar Wind Particle Experiment) payload</b>.</li><li>• <b>Sensors of the STEPS</b> have begun measuring <b>fast-moving charged particles</b> generated in processes within the Sun.</li><li>• <b>Benefits:</b> helps scientists <b>analyze the behavior of particles surrounding Earth</b>.</li><li>• Aditya-L1 carries <b>seven payloads</b>, four of which will observe the light from <b>Sun</b> and rest will measure <b>in situ parameters of plasma and magnetic fields</b>.</li></ul>
 <p><b>Pir Panjal region</b></p>	<ul style="list-style-type: none"><li>• <b>Pir Panjal Range</b> is a <b>group of mountains in the Inner Himalayan region</b>.</li><li>• <b>Location:</b> from east-southeast (ESE) to west-northwest (WNW) across Himachal Pradesh and Jammu and Kashmir.</li><li>• <b>Separates</b> the Jammu hills from the Kashmir Valley.</li><li>• <b>Hill station- Gulmarg is located in this range.</b></li><li>• <b>Major passes:</b> Pir Panjal Pass (west of srinagar), Banihal Pass, Sinthan Pass (link jammu and kashmir) Rohtang La (link Kullu to lahual)</li><li>• <b>The Atal tunnel</b> is constructed in the Pir Panjal ranges.</li></ul> 
 <p><b>Narmada river</b></p>	<ul style="list-style-type: none"><li>• Flooding in Narmada displaced thousands in Gujarat.</li><li>• <b>About Narmada</b><ul style="list-style-type: none"><li>➤ It is the <b>largest west flowing river</b>, rises near the <b>Amarkantak range of mountains</b> in Madhya Pradesh.</li><li>➤ It is the <b>fifth-largest river in the country</b>.</li><li>➤ It traverses <b>Madhya Pradesh, Maharashtra, and Gujarat</b> and meets the Gulf of Cambay.</li><li>➤ Tributaries are the <b>Burhner, Halon, Heran, Banjar, Dudhi, Tawa, Barna, Kolar, Beda, Goi, and Orsang</b></li><li>➤ Flows between the <b>Vindhya Range and Satpura Range</b>.</li></ul></li><li>• <b>Dams in Narmada Basin:</b> sardar sarover dam, Rani Avanti Bai Sagar (Bargi) Dam, Maheshwar Dam etc.</li></ul>
 <p><b>Places in News</b></p>	<ul style="list-style-type: none"><li>• It is believed that the design of the old Parliament building was inspired from <b>Chausath Yogini temple located in mitaoli village in Madhya Pradesh</b>.<ul style="list-style-type: none"><li>➤ Old Parliament building was designed by architects <b>Edwin Lutyens</b> and <b>Herbert Baker</b>.</li></ul></li><li>• The grand Chausath Yogini <b>temple is circular</b>, with 64 chambers dedicated to the 64 yoginis, and a <b>central shrine dedicated to Shiva</b>.<ul style="list-style-type: none"><li>➤ The 64 yoginis are <b>believed to be powerful warriors and sorceresses</b>.</li></ul></li><li>• It was built around <b>1323 by King Devapala of the Kachchhapaghata dynasty</b>.</li></ul> 

**Errata:** In News Today dated 1st September 2023, under '**Ramon Magasaysay Award**' article of Also in News, it was incorrectly mentioned that Ramon Magsaysay was the third president (1953-57) of Philippines.

Correct information is **Ramon Magsaysay was the seventh President** (1953-57) of Philippines