



TATHASTU ICS



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S.NO.	TOPIC
1.	ISRO TO LAUNCH ADITYA-L1
2.	51,000 'AMRIT RAKSHAKS' GET JOB LETTERS AT ROZGAR MELA.
3.	INDIA NAMED CHANDRAYAAN-3 LANDING SPOT AS SHIV SHAKTI POINT

ISRO TO LAUNCH ADITYA-L1

SOURCE: [ISRO](#) , [HINDUSTAN TIMES](#) , [INDIAN EXPRESS](#)

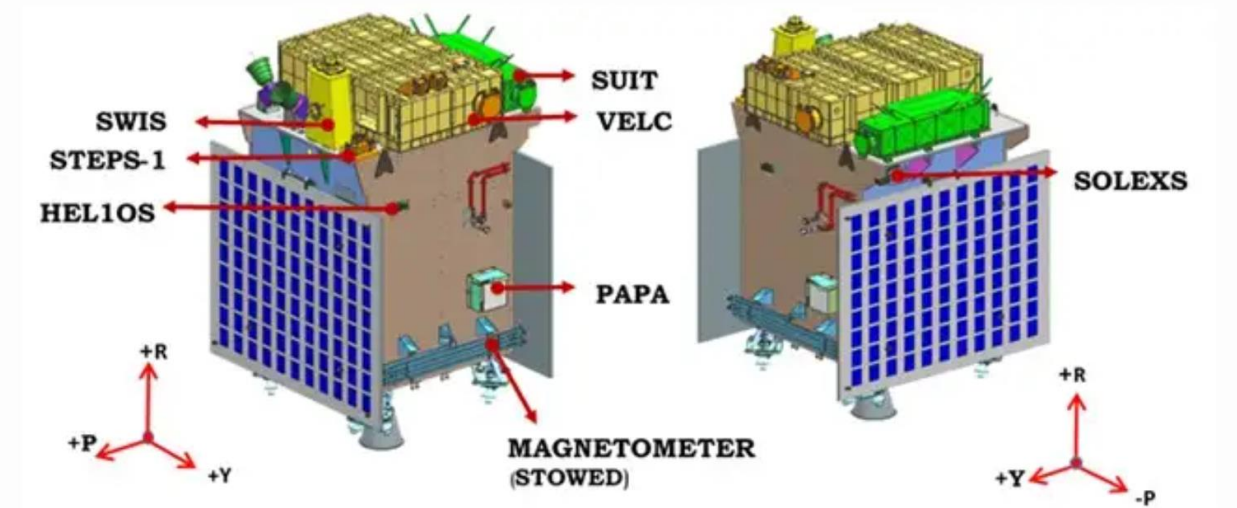
ABOUT ADITYA-L1:

- Aditya L1 is **India's first space mission to study the Sun.**
- It will **orbit around Lagrange point 1 (L1)** in the Sun-Earth system, 1.5 million km away.
- Halo orbit around L1 allows **continuous Sun observation without eclipses.**
- This offers **real-time insights into solar activities** and space weather.
- Will provide insights into particle and field propagation.

THE MAJOR SCIENCE OBJECTIVES OF ADITYA-L1 MISSION ARE:

- Study of **Solar upper atmospheric (chromosphere and corona) dynamics.**
- Study of **chromospheric and coronal heating, physics of the partially ionized plasma, initiation of the coronal mass ejections, and flares**
- Observe the in-situ particle and plasma environment providing data for **the study of particle dynamics from the Sun.**
- Physics of solar corona and its heating mechanism.
- Diagnostics of the coronal and coronal loops plasma: Temperature, velocity and density.
- Development, dynamics and origin of CMEs.
- Identify the **sequence of processes that occur at multiple layers** (chromosphere, base and extended corona) which eventually leads to solar eruptive events.
- **Magnetic field topology and magnetic field measurements in the solar corona .**
- Drivers for space weather (origin, composition and dynamics of solar wind).

Aditya-L1 Payloads:



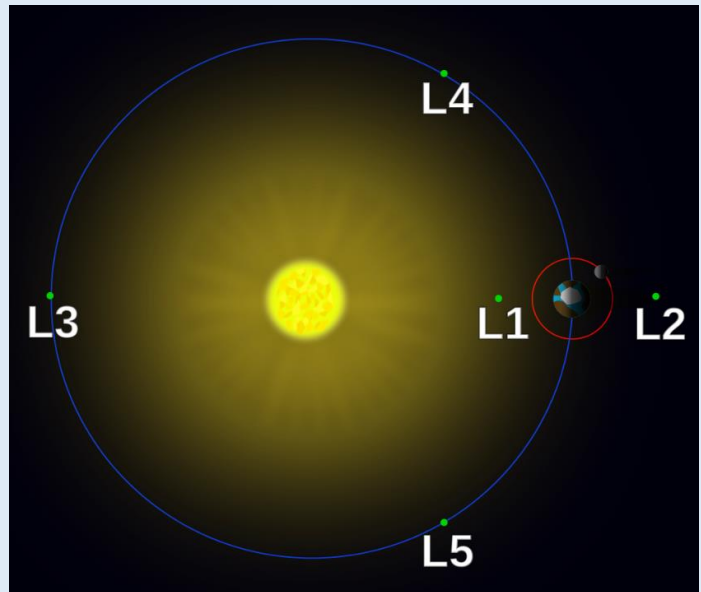
PAYLOADS OF ADITYA-L1:	
Payload	Description
Visible Emission Line Coronagraph (VELC)	- Observes solar corona in visible and near-ultraviolet wavelengths. - Studies corona dynamics, mass ejections, solar wind.
Aditya Solar Wind Particle Experiment (ASPEX)	- Measures solar wind properties, particle distribution. - Analyzes solar wind particles, composition.
Plasma Analyser Package for Aditya (PAPA)	- Studies solar wind ions, composition, and temperature. - Provides insights into solar wind characteristics.
Solar Low Energy X-ray Spectrometer (SoLEXS)	- Observes Sun in soft X-rays. - Analyzes solar flares, emissions, temperature.
High Energy L1 Orbiting X-ray Spectrometer (HEL1OS)	- Detects high-energy X-rays from the Sun. - Investigates solar corona dynamics, high-energy events.
Aditya Solar wind Plasma Particle Experiment (ASPEX)	- Measures solar wind particle flux, energy. - Provides insights into solar wind dynamics.
Magnetometer (MAG)	- Measures Sun's magnetic field, variations. - Studies magnetic structures in solar atmosphere.

OTHER SOLAR MISSIONS:		
Mission	Country	Description
Solar and Heliospheric Observatory (SOHO)	NASA (USA) and ESA (European Space Agency)	- Launched in 1995. - Studies the Sun's outer atmosphere, solar wind, and interior. - Provides data on solar activity and coronal mass ejections.
Solar Dynamics Observatory (SDO)	NASA (USA)	- Launched in 2010. - Observes the Sun in multiple wavelengths with high resolution. - Studies solar magnetic activity, flares, and coronal mass ejections.
Parker Solar Probe	NASA (USA)	- Launched in 2018. - Approaches the Sun closer than any previous spacecraft. - Aims to study solar corona, solar wind, and energetic particles.
Solar Orbiter	ESA (European Space Agency) and NASA (USA)	- Launched in 2020. - Observes the Sun from various angles, including polar regions. - Studies solar wind, magnetic fields, and heliosphere's dynamics.
Hinode (Solar-B)	JAXA (Japan Aerospace Exploration Agency), NASA (USA), ESA (European Space Agency)	- Launched in 2006. - Studies solar magnetic fields and their role in solar activity. - Provides high-resolution images of solar surface and corona.

Yohkoh (Solar-A)	ISAS (Institute of Space and Astronautical Science, Japan)	<ul style="list-style-type: none"> - Launched in 1991. - Studies solar flares, X-rays, and coronal temperature. - Provided insights into solar activity and dynamics.
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BREIF SUMMARY OF LAGRANGE POINTS:

- **Definition:** Lagrange points are locations where gravitational forces between two large bodies, like the Earth and the Moon, create areas of gravitational equilibrium.
- **Stable Points:** Five Lagrange points exist in a Sun-Earth system. Three are aligned with the Earth and Sun, and two are 60 degrees ahead and behind Earth in its orbit.
- **L1 (Lagrange Point 1):** Located between the Earth and the Sun. Objects placed there are influenced by both bodies' gravity, allowing continuous solar observation.
- **L2 (Lagrange Point 2):** Positioned on the opposite side of Earth from the Sun. Provides a stable point for telescopes or observatories that need an unobstructed view.
- **L3 (Lagrange Point 3):** Lies on the other side of the Sun from Earth. Harder to maintain, as objects here are influenced by both Earth and Sun.
- **L4 and L5:** Found 60 degrees ahead and behind Earth in its orbit. They form equilateral triangles with Earth and Sun, providing stable regions.
- **Uses:** Lagrange points are ideal for space telescopes, solar observatories, and interplanetary missions due to their stable nature and unobstructed



51,000 'AMRIT RAKSHAKS' GET JOB LETTERS AT ROZGAR MELA.

SOURCE: [LIVEMINT](#) , [NARENDRA MODI](#) , [INDIAN EXPRESS](#)

WHY IN NEWS?

PM Modi distributed over **51,000 appointment letters** to para-military recruits, addressing the **8th Rozgar Mela** virtually, highlighting streamlined recruitment and job growth in sectors like automobiles and pharma. **The event, held at 45 locations, aims to distribute 51,106 appointment letters for various paramilitary positions, contributing to youth employment.**

ABOUT ROZGAR MELA:

- **National Skill Development Corporation (NSDC) organizes Rozgar Melas** across India to enhance employment opportunities in the private sector for unemployed youth under the Ministry of Skill Development & Entrepreneurship.
- These **Melas facilitate job seekers and employers**, fostering growth in the private and industrial sectors.
- Rozgar Melas are half-day events where job seekers and employers meet, coordinated by NSDC in collaboration with **Sector Skill Councils (SSCs) and Pradhan Mantri Kaushal Kendras (PMKKs)**.
- Approximately 40-50 employers from various high-growth sectors participate in each Rozgar Mela, targeting sectors based on local demand.
- These **Melas target youth aged 18-35 with qualifications ranging from 8th to 12th pass, ITI, Diploma, Graduates, and NSQF-certified candidates.**
- Job seekers are informed through advertisements, SMS, social media, workshops, and university-level events.
- Counselling, skill training registration, Mudra Loan facilitation, and skill exhibitions are part of the Rozgar Mela.
- **NSDC, SSCs, PMKKs, and PMKVY (PM KAUSHAL VIKAS YOJANA) partners conduct Rozgar Melas on a national scale.**

REASONS FOR UNEMPLOYMENT IN INDIA:

- **High population growth:** India has a population of over 1.4 billion people, which is the second highest in the world. This high population growth puts a strain on the economy and makes it difficult to create enough jobs for everyone.
 - The unemployment rate in India was 7.93% in 2023, according to the National Sample Survey Office. This means that about 123 million people were unemployed in India.
 - The unemployment rate is higher in the rural areas (8.5%) than in the urban areas (7.4%).
- **Lack of skills and education:** Many people in India do not have the skills or education necessary to get good jobs. This is due to a number of factors, including the poor quality of education in many schools, the lack of access to education for people from poor families, and the low priority given to vocational training.
 - According to a 2019 report by the National Skill Development Corporation, only 20% of the Indian workforce has the skills required for the jobs that are available.
- **Slow economic growth:** The economic slowdown has had a disproportionate impact on the informal sector, which employs about 90% of the Indian workforce.
 - The Indian economy grew by 8.7% in 2018-19, but this growth slowed down to 4.2% in 2020-21 due to the COVID-19 pandemic.

- **Unfavourable industrial policies:** The government's industrial policies have not been very helpful in creating jobs. These policies have been focused on attracting foreign investment and promoting large-scale industries, which have not created many jobs.
- **Regressive social norms:** Regressive social norms, such as the caste system and the preference for male children, have also contributed to unemployment in India. These norms have prevented many people from getting an education and getting good jobs.
- **Poor infrastructure:** The poor infrastructure, such as the lack of roads, railways, and airports, has made it difficult for businesses to operate.
 - India ranks 136th out of 190 countries in the World Bank's 2020 Logistics Performance Index. This means that the country has a poor infrastructure for moving goods and people.
- **Corruption:** Corruption in the government and the private sector has also made it difficult for businesses to operate and has discouraged them from investing in the country.
 - India ranks 86th out of 180 countries in Transparency International's 2022 Corruption Perception Index.

OTHER MAJOR SKILL DEVELOPMENT AND EMPLOYMENT GENERATION PROGRAMS BY THE GOVERNMENT OF INDIA:

Scheme	Key Features
Pradhan Mantri Kaushal Vikas Yojana (PMKVY)	Provides skill training to youth in over 500 skill areas, including both formal and informal sectors. The training is provided by a network of over 20,000 training providers across the country. The government also provides financial assistance to the training providers.
Deen Dayal Upadhyay Grameen Kaushal Yojana (DDU-GKY)	Provides skill training to rural youth in over 100 skill areas. The training is provided by a network of over 10,000 training providers in rural areas. The government also provides financial assistance to the training providers.
Pradhan Mantri Rozgar Protsahan Yojana (PMRPY)	Provides financial assistance to employers who create new jobs. The assistance is given as a reimbursement of the wages paid to the newly recruited employees for a period of three months.
National Apprenticeship Promotion Scheme (NAPS)	Promotes apprenticeship training by providing financial assistance to employers who offer apprenticeship training. The assistance is given as a reimbursement of the training costs incurred by the employer.
National Skill Development Mission (NSDM)	Provides financial assistance to states and training providers to develop and implement skill development programs. The assistance is given to cover the cost of training, infrastructure development, and other related expenses.
National Career Service (NCS)	Provides online career counseling and placement services to youth. The services include career assessment, job search assistance, and training and placement support.
Atmanirbhar Bharat Rojgar Yojana (ABRY)	Provides financial assistance to states and local bodies to create employment opportunities in the rural areas. The assistance is given to support the creation of self-employment opportunities, wage employment opportunities, and infrastructure development projects.

WAY FORWARD:

1. **Skill Development:** Establish comprehensive skill development programs to align workforce skills with market demands. Foster vocational training and certification to enhance employability.
2. **Entrepreneurship Promotion:** Encourage entrepreneurship through easier access to loans, mentoring, and incubation support. Simplify regulatory procedures to start and run businesses.
3. **Labor Market Reforms:** Revise labor laws to balance worker rights and make hiring and firing processes more flexible. Promote formalization of informal sector jobs.
4. **Infrastructure Investment:** Increase investment in infrastructure projects to create jobs in construction and related sectors. Develop transportation, energy, and technology sectors to drive economic growth.
5. **Diversification of Economy:** Shift from agrarian economy to manufacturing and services sectors for diverse job opportunities. Invest in emerging industries like renewable energy, technology, and healthcare.
6. **Rural Development:** Focus on agribusiness, agro-processing, and rural industries to provide employment in rural areas. Improve rural infrastructure to prevent migration to urban centers.
7. **Foreign Direct Investment (FDI):** Attract FDI to stimulate economic growth and create jobs in various sectors. Create favorable investment policies to encourage multinational corporations to establish operations in India.

TYPES OF UNEMPLOYMENT:

- **Open unemployment:** This is when people are actively looking for work but cannot find a job. It is the most visible form of unemployment and is measured by the unemployment rate.
- **Disguised unemployment:** This is when people are employed but are not fully utilized. This can happen when there are too many workers for the amount of work available, or when workers are not skilled enough for the jobs they are doing.
- **Seasonal unemployment:** This is when people are unemployed during certain times of the year, such as during the off-season for agriculture or tourism.
- **Cyclical unemployment:** This is caused by economic recessions. When businesses are not doing well, they tend to lay off workers.
- **Educated unemployment:** This is when people with high levels of education are unemployed. This can happen due to a mismatch between the skills that people have and the jobs that are available, or because there are not enough jobs in the economy for everyone who wants one.
- **Technological unemployment:** This is caused by the introduction of new technologies that make some jobs obsolete. For example, the introduction of self-checkout machines in grocery stores has led to the loss of jobs for cashiers.
- **Structural unemployment:** This is caused by long-term changes in the economy, such as the decline of manufacturing jobs in the United States.
- **Underemployment:** This is when people are employed but are working fewer hours than they would like, or are in jobs that do not utilize their skills.
- **Casual unemployment:** This is when people are employed on a temporary or part-time basis.
- **Chronic unemployment:** This is when people are unemployed for a long period of time.
- **Frictional unemployment:** This is caused by the time it takes for people to find a job after they have been laid off or have moved to a new area.

INDIA NAMED CHANDRAYAAN-3 LANDING SPOT AS SHIV SHAKTI POINT

SOURCE: [INDIAN EXPRESS](#)

WHY IN NEWS?

- In a recent announcement, Prime Minister Narendra Modi revealed that the point where **Chandrayaan-3's lander touched down on the lunar surface would be named Shiv Shakti**.
- The point where **Chandrayaan-2 left its imprints** on the Moon will be named as "**Tiranga Point**".
- **Chandrayaan-1, which crashed on the Moon** in 2008, is named as "**Jawahar Point**".
- Prime Minister Narendra Modi said that this will serve as an inspiration for every effort that India makes and remind us that failure is not the end.
- The **23rd of August** will be celebrated as "**National Space Day**" to mark the soft landing of Chandrayaan-3 at the South Pole of the Moon.



LAW REGARDING OWNERSHIP, NAMING SITES IN SPACE:

- **Outer Space Treaty**: The Outer Space Treaty is an international treaty that was **adopted by the United Nations in 1966**. It sets out the **basic principles governing the exploration and use of outer space, including the Moon and other celestial bodies**. One of the key principles of the treaty is that no country can claim sovereignty over any part of outer space.
- **Moon Agreement**: The Moon Agreement is an international treaty that was **adopted by the United Nations in 1979**. It builds on the principles of the Outer Space Treaty and provides more detailed regulations for the exploration and use of the Moon. **One of the key provisions of the Moon Agreement is that no part of the Moon can be owned by any person or organization**.
- **No ownership of Moon**: The Outer Space Treaty and the Moon Agreement make it clear that no country can claim ownership of the Moon. This means that countries cannot claim sovereignty over the Moon or its land. However, they can still explore and use the Moon for peaceful purposes, such as conducting scientific research or mining resources.
- **No law on naming places**: There is no law that specifically prohibits countries from naming places on the Moon. However, it is generally considered to be good practice to consult with other countries before naming a place on the Moon. This is to avoid any potential conflicts or disputes.

WHO DECIDES THE NAMES?

- **The International Astronomical Union (IAU)** is the leading authority in assigning official names to lunar features.

- The IAU has been the arbiter of planetary and satellite nomenclature since its inception in 1919.
- Many countries have been giving informal names to lunar features during lunar missions.
- The United States gave informal names to lunar sites during Apollo missions.
- Most of the informal names assigned during the Apollo mission were later given “official” status by the IAU.
- In 2021, the IAU approved China's application for naming eight new features on the moon around the landing site of the Chang'e-5 probe.
- The International Astronomical Union (IAU) has a Working Group for Planetary System Nomenclature (WGPSN) that handles the process of naming lunar spots.
- The WGPSN's decisions and recommendations are not enforceable by any international law.
- Any attempts by India to name physical features near the landing site of Chandrayaan-3 will require the IAU's approval.

