Chandrayaan-2 Mission - GSLV-Mk III

- Chandrayaan 2, a fully indigenous mission, is an Indian Space Research Organization (ISRO) mission comprising an orbiter and a soft lander carrying a rover, scheduled to launch to the Moon in July 2019.
- Chandrayaan-2 will be India’s second outing to the moon. ISRO will send the mission on its heavy lift booster, the GSLV MkIII, from Sriharikota.
- The 3,800-kg spacecraft includes an orbiter which will circle the moon at 100 km; a five-legged lander called Vikram that will descend on the moon and a robotic rover, Pragyan, that will probe the lunar terrain around it. Chandrayaan-2 will carry 14 Indian payloads.
- ISRO has chosen a landing area at the hitherto unexplored lunar south pole, making it the first agency to touch down at the south pole if it succeeds in its first landing attempt.
- The primary objective of Chandrayaan-2 is to demonstrate the ability to soft-land on the lunar surface and operate a robotic rover on the surface.
- Scientific goals include studies of lunar topography, mineralogy, elemental abundance, the lunar exosphere, and signatures of hydroxyl and water ice.
- Chandrayaan-2 will make India the 4th country in the world to soft-land on the moon, a feat achieved only by US, USSR and China till now.

Previous Moon Probes
- In October 2008, the space organisation had launched its orbiter mission Chandrayaan-1 on its PSLV booster. The spacecraft had 11 payloads. One of the U.S. payloads shares credit with Chandrayaan-1 for confirming the presence of water ice on the moon.
- Before that, the Moon Impacter Probe carrying the Indian tricolour image was made to hard-land on the lunar south pole.

Benefits:
- Push the Boundaries of Scientific knowledge - Clues to some of the most fundamental questions about our Solar system. Studying those will help us unravel the mysteries of our universe.
- Engage with the Public - It will inspire the whole nation and motivate the youth to undertake real-life applications of science and technology to be second to none in solving the problems of man and society.
Expand India’s Footprint in Space - Moon is the perfect test-bed for proving technologies required for future space exploration as well as in-situ resource utilisation.

Unleash Innovation - Throwing grand challenge to the youth will unleash the innovation, spurring future research and development

Explore Economic Possibilities - Industry has always been a partner in ISRO’s space program and the future holds bigger opportunities for strengthening the alliance.

Foster shared aspirations of International Community - India will be a key contributor in exploring and uncovering the secrets of universe an aspiration shared by the global community

Young Scientist Programme (Yuvika-2019)
- Young Scientist Programme (Yuvika-2019) was inaugurated by ISRO on May 13, 2019.
- Yuvika Program is primarily aimed at imparting basic knowledge on Space Technology, Space Science and Space Applications to the younger ones with the intent of arousing their interest in the emerging areas of Space activities.
- The two week long residential training programme covers invited talks and experience sharing by the eminent scientists, facility and lab visits, hands on training, exclusive sessions for discussions with experts and a feedback session.