

11 – 02 – 2023

News: SSLV D – 2

- In its second attempt, the Indian Space Research Organisation (ISRO)'s smallest vehicle, Small Satellite Launch Vehicle (SSLV-D2), was launched from the Satish Dhawan Space Centre, Sriharikota, Andhra Pradesh.

SSLV D – 2

- SSLV-D2 will place the ISRO's earth observation satellite EOS-07 and two co-passenger satellites - Janus-1 and AzaadiSat2.

Janus-1

- Janus-1 is a technology demonstrator satellite built by US-based Antaris and its Indian partners XDLinks and Ananth Technologies.
- It is a six unit cube satellite with five payloads on board — two from Singapore, and one each from Kenya, Australia, and Indonesia.

AzaadiSat2

- AzaadiSat2 is a Cubesat weighing around 8 kg and carries 75 different payloads.

- Girl students from rural regions across the country were provided guidance to build these payloads.
- The payloads are integrated by the student team of “Space Kidz India”.

EOS-07

- EOS-07 is a 156.3 kg satellite designed and developed by ISRO.
- Its mission objective is to design and develop payload instruments compatible with microsatellite buses and new technologies for future operational satellites.

Small Satellite Launch Vehicle

- SSLV is a 3 stage Launch Vehicle configured with three Solid Propulsion Stages and Liquid propulsion-based Velocity Trimming Module (VTM) as a terminal.
- It is 2 m in diameter and 34m in length with a lift off weight of 120 tonnes and is capable of launching a 10 to 500 kg satellite in 500 km planar orbit.
- The rocket can be assembled by a small team in only a few days, compared to the 6 months and around 600 people it takes for ISRO’s workhorse PSLV.

Objective

- SSLV has been developed to capture the emerging small (nano-micro-mini) satellite commercial market, with launches offered on demand.

Significance

- It provides low-cost access to Space, offers low turn-around time, facilitates flexibility in accommodating multiple satellites and demands minimal launch infrastructure.

