

Department: ME | Date: November, 01, 2022

**A REPORT ON INDUSTRIAL VISIT**

**TO**

**Indian Space Research Organization (ISRO)  
on**

**01/11/2022**

for the

STUDENTS OF (IV B.TECH, I SEMESTER,

C SECTION, MECHANICAL ENGINEERING)



**DEPARTMENT OF MECHANICAL ENGINEERING**

**SREE VIDYANIKETHAN ENGINEERING COLLEGE  
(AUTONOMOUS)**

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Following is the report on industrial visit to Indian Space Research Organization on 01/11/2022.

There were a total of 50 students and 1 Staff member for the Industrial visit. The students started their journey at 6.00 am from the main gate of college. Before the start of the bus, the students were given clear cut instructions with respect to travel, safety and other issues. The students were made to sit comfortably in the bus. The students reached Indian Space Research Organisation(ISRO), Sriharikota SHAR, Nellore District by 9.45 am. ISRO`s security authority verified the ID`s of students and staff at GATE 1 and allowed to pass through the GATE 1. The students and staff are instructed to deposit their electronic gadgets and after that ISRO allotted guide. All students are then allowed to sit in the auditorium and viewed a short movie on the ISRO`s history and developments. After that, Students and Staff guided to visit. At GATE 2 the students and Staff have undergone security checks and the officials of ISRO gave instructions regarding the safety procedures to be strictly followed in the plant and explained the working and administration of various departments in Indian Space Research Organisation, Sriharikota SHAR, Nellore - 524124 Andhra Pradesh, India.

Indian Space Research Organisation (ISRO), Satish Dhawan Space Centre is the only Space centre in India where all the launches of the space missions took place. As a part of Industrial Visit, the students are firstly allowed to visit Mission Control Centre (MCC) of ISRO, where all the controls of the rockets will be taken care at the time of launching the space missions. In this centre the continuous monitoring of the rockets and also the controls of the rocket such as fuel filling, rocket starting, control surface controls, satellite injection will be done in this centre. In short all the control from the start to end of the mission will be taken

care from this centre.

Then the students are taken to the Second Launch Pad, It is a movable Modern Advanced multi rocket type assembly launch pad where any type of rockets can be assembled at the Space Vehicle Assembly Building on the launch pad and moved to the launch site. The height of this launch pad is approximately 76 meters. This launch pad supports 4 ton of payload rocket launches. After moving the rocket from the assembly building, the feeding of fuel to the rocket is done at the launch site. The launching site is surrounded by the four towers which are used to capture the thunder storms and the towers are equipped with the High Resolution Cameras. During launching period the area covering with radius of 6 Km should be free from all forms of life to protect humans and animals from immense radiation. The Cameras will help to capture and monitor the launch of rocket. At launching site under the launch pad there is a water pit with capacity of 4 lakhs is filled with water to absorb heat generated during launch. All the GSLV and GSLV Mk III space vehicles are launched from this launch pad. This launch pad is operational since 2005.


After the visit of second launch pad, Students and staff are taken to the first launch pad. Unlike the second launch pad it is small compared to second launch pad with 50 meters height. In this launch pad the assembly of building will take place at the launch site itself and after assembling the building will away from the launch site. It is having the maximum payload capacity of 2 tons and beyond that payload capacity this launch pad is unusable. It is the golden lucky launch pad of ISRO because, almost all the launches are successful from this launch pad. This launch pad is surrounded by three thunder storm arrestor towers. From this launch pad the rockets with small payload and most of the PSLV rockets are launched. This launch pad is operational since 1993.



Figure : Students and Staff at the Entrance of the ISRO

#### Impact of Industrial Visit :

- The industry exposure helps a lot in personality development of the students. They are also exposed to industry culture and learnt to communicate with their industry mentors and perform tasks assigned within the given time frame in an industrial setting.
- Also this visit helps the students to get inspired from ISRO personnel's and motivates them to learn and gain knowledge on Space programs.
- With the exposure of industry and its practices to the students, the attainment of POs and PSOs becoming more relevant. The PEOs set as Learning outcomes, Employability and Entrepreneurship are achieved better with industry institute interaction.
- Student feedback is collected at the end of academic year and efforts will be made to have sustained industry interaction.

  
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