Industrial Visit Report

Visit to ISRO Sriharikota

3rd Year ECE Students

---

1. Introduction

On Aug 12th 2024, the 3rd-year ECE students of St. Joseph's College of Engineering had the privilege of visiting the Indian Space Research Organisation (ISRO) facility at Sriharikota. The visit aimed to provide students with firsthand exposure to the workings of one of India's most prestigious space research organizations, enhancing their understanding of the practical applications of their studies.

2. Objectives of the Visit

- To understand the process of satellite launching.
- To observe the technological advancements in the field of space research.
- To gain insight into the operations of launch pads and related facilities.
- To explore potential career opportunities in the field of space research and communication.

3. Overview of ISRO Sriharikota

Sriharikota is home to the Satish Dhawan Space Centre (SDSC), which serves as the launch site for India’s satellites. The SDSC is equipped with several facilities, including multiple launch pads used for launching satellites into orbit.

4. Detailed Itinerary

- **Arrival and Welcome:** The students were welcomed by ISRO officials and given an introductory presentation about the history and achievements of ISRO.
- **Facility Tour:** The students were taken on a guided tour of the SDSC, including visits to:
    - **Mission Control Centre:** Where they learned about the control and monitoring systems used during satellite launches.
    - **Launch Pads:** The students visited the First Launch Pad (FLP) and Second Launch Pad (SLP), where they observed the setup and equipment used to launch various satellites.
    - **Vehicle Assembly Building:** Insight into the process of assembling rockets before they are moved to the launch pad.
    - **Spacecraft Integration Facility:** Where they observed the integration and testing of spacecraft before they are launched.

5. Key Learnings

- **Launch Vehicle Technology:** The students learned about the Polar Satellite Launch Vehicle (PSLV) and the Geosynchronous Satellite Launch Vehicle (GSLV) used for different missions.
- **Satellite Communication:** Understanding the role of satellites in communication, weather forecasting, and navigation.
- **Challenges in Space Missions:** Insights into the challenges faced during satellite launches and how ISRO overcomes them.
- **Hands-On Experience:** Students had the opportunity to see the technology and equipment they study in textbooks being applied in real-world scenarios.

6. Interaction with ISRO Scientists

The students had the chance to interact with ISRO scientists and engineers, who shared their experiences and answered questions about the various projects and missions they are working on.

7. Conclusion

The visit to ISRO Sriharikota was an enriching experience for the students, providing them with valuable knowledge and inspiration. It reinforced their theoretical learning and gave them a better understanding of the applications of electronics and communication engineering in space research.

8. Acknowledgments

We extend our sincere gratitude to ISRO for providing us with this opportunity, and to our college management and faculty for organizing the visit. Special thanks to the ISRO officials and scientists for their hospitality and guidance during the visit.