



K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109

DEPARTMENT OF COMPUTER SCIENCE AND DESIGN

REPORT ON

"Practical exposor to applications in Aerospace and Aerocraft through Visit to ISRO"

Semester:	4 th Semester
Event Type:	Practical exposor to applications in Aerospace and Aerocraft through Visit to ISRO .
Venue:	ISRO, Bengaluru
Event Name:	ISRO
Date/Duration:	08-09-2023, 9:00-2:00 pm
No. of Students:	48

Introduction:

On 8th June, 2023, Thursday, students along with the faculty left the KSIT campus by bus at 9:30 am.. After finishing reception formalities, everyone was given a pass and entered the exhibition hall. Initially, there were different models of the rockets. Older rockets were displayed along with the modern PSLV and GSLV.

Event Objectives:

- 1. To expose students to the practical applications of computer science and design learning in the field of space research.**
- 2. To provide students with a comprehensive understanding of the satellite development process.**
- 3. To inspire and motivate students to pursue careers in space technology and research.**

Highlights:

The visit to U R S C was a very good experience for the students. It included various informative sessions, interactive demonstrations, and guided tours, which allowed students to witness firsthand the advanced technologies and research carried out at the facility. Some of the visit highlights are as follows:

Technical Presentations:

- Students were introduced to different types of rockets & satellites developed till now at ISRO. Then we were informed about different centres of ISRO all over India & their purpose.
- Next, there were the models of satellites including the oldest Apple satellites and the later satellites with solar panels, solar sail and minor rockets present on the satellites for adjusting their positions in space. The reason for gold color coating on the satellites for handling extremes of temperature was explained. Two types of satellites were described: Indian Remote Sensing Satellites and Communication Satellites. Remote sensing satellites are useful in activities like fishing (identifying places in the sea where fish can be found) and warnings about cyclones.
- Then, we were shown the different electronic components used in satellites. The components need to be very sturdy. Currently, they are therefore imported and very expensive. The use of aluminium honey comb material for body parts was demonstrated. These parts are light and yet very strong.

Laboratory Visits:

- Next, we witnessed a “clean room” where satellite is assembled. A satellite in space faces extremes of temperature such as -120 degrees to +120 degrees Celsius. We were taken to a room where there is a chamber for testing this. The chamber gets liquid nitrogen for testing against low temperature and similarly testing hot temperature. Only after thorough testing, satellite is taken by road to the launching pad at Sriharikota.

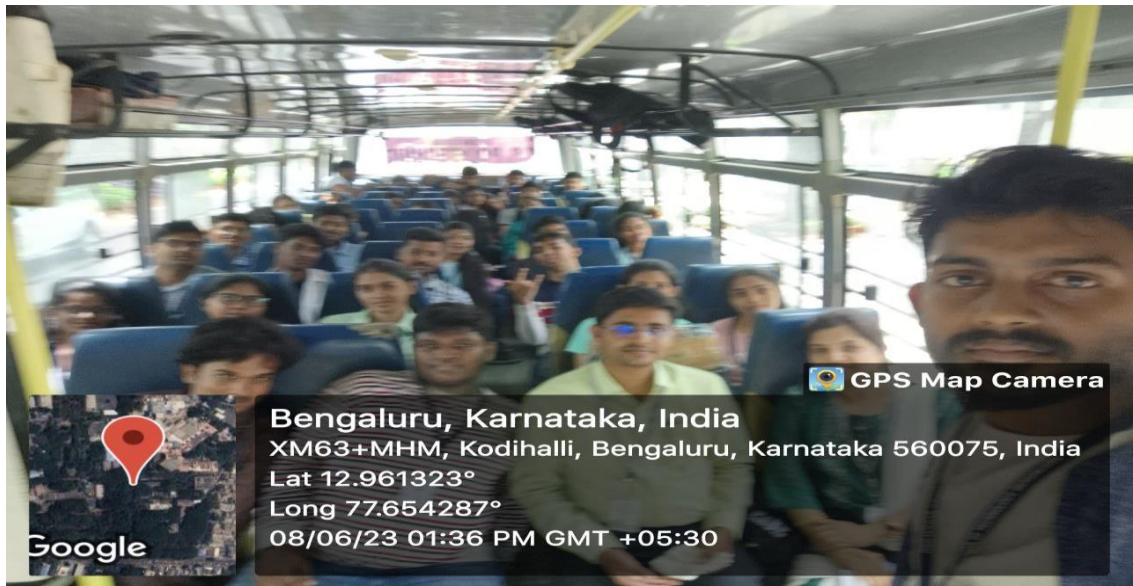
Interaction with Scientists:

- **Interactive session:** Answering many questions from students regarding ISRO, ISRO activities and space mission related topics. They explained the various job requirements and the minimum marks criteria for selection.

Conclusion

- The industrial visit to U R S C, ISRO, Bengaluru organized by the Department of CSD, KSIT, Bengaluru was a resounding success. The visit offered students a unique opportunity to witness the remarkable advancements in the field of space technology and satellite development. The Department of CSD, KSIT, Bengaluru extends its heartfelt gratitude to U R S C, ISRO, for organizing such a valuable visit and providing an unforgettable experience to the students.

Event Photos:



Outcomes / Benefits: Industrial trips to ISRO help students to enhance their interpersonal, communication skills, and teamwork abilities.

EO#	EVENT OUTCOMES
EO1	Understand the practical applications of computer science and design learning in the field of space research.
EO2	Understand the detailed satellite development process.
EO3	Explore the opportunities to pursue careers in space technology and research.

EO-PO/PSO Mapping:

EO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
EO1	1	1	1		2				2	2		1	1	
EO2	1	1	1		2				2	2		1	1	
EO3	1	1	1		2				2	2		1	1	
	1	1	1		2				2	2		1	1	

Event Coordinator

HOD

Principal