SRI KRISHNA INSTITUTE OF TECHNOLOGY

#29, Hesaraghatta Main Road, Chimney Hills, Chikkabanavara Post, Bangalore- 560090

Department of Electronics and Communication Engineering

Date: /01/2023

Event Report

Event: "Industrial visit to Indian Space Research Organisation"

Department of Electronics and communication Engineering had organized an Industrial visit to ISRO for 2nd Year students on 18th of January 2023 which was co-ordinated by Mrs Kiranmayi M(Asst. Prof ECE) and Mr Naveen Kumar (Asst. Prof ECE). It was a half day visit and 38 students along with 2 faculty members participated.

OBJECTIVES:

The main objectives of this industrial visit are:

1. An opportunity for the students to understand the making of satellites
2. To understand the design, development, assembly and integration of communication , navigation and remote sensing of small satellites
3. To understand the capacity of different space vehicles like PSLV, GSLV
4. To understand the role of satellites in communication and broadcasting

SUMMARY:

ISRO Satellite Centre (ISAC) is the lead center of the Indian Space Research Organization (ISRO) responsible for design, development, assembly & integration of communication, navigation, remote sensing, scientific and small satellite missions. For the benefit of students there is a space exhibition center at ISAC. Our students were able to see the exhibition. It includes the models of the first Indian satellite Aryabhatta, APPLE, INSAT series etc. Satellites are basically of two types- Indian Remote Sensing (IRS) satellites and communication satellites. IRS-1A was the first remote sensing mission undertaken by the Indian Space Research Organization (ISRO). It was a part-operational, part-experimental mission to develop Indian expertise in satellite imagery.

Students also gained knowledge about how television signals are broadcasted with the help of satellites. A working model was demonstrated. Various images of India taken at different angles from the satellites, for the purpose of geographical/weather study were seen. Latest images of moon obtained from satellite was also shown. Different electronic devices used in satellite and space communication were explained.

OUTCOMES:

1. Students were introduced to different types of rockets & satellites developed till now at ISRO and their purpose by Then we were informed about different centres of ISRO all over India & their purpose.
2. The various features of the rockets 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. During cyclone Hudhud, damage to human life was made minimal due to warnings.
3. Students understood after seeing 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.
4. After attending the video session which presented ISAC activities, students understood ISRO activities and space mission related topics.

SCREENSHOTS/PICTURES:

SRI KRISHNA INSTITUTE OF TECHNOLOGY

#29, Hesaraghatta Main Road, Chimney Hills, Chikkabanavara Post, Bangalore- 560090

Department of Electronics and Communication Engineering

Kiranmayi M/ Naveen Kumar	**Dr. Nagannagouda C Patil**	**Principal**
Event Coordinator,	**Prof, HOD Dept of ECE**	**SKIT**
Dept of ECE SKIT	**SKIT**	