



RV Educational Institutions

RV Institute of Technology and Management®

Bangalore – 560076

Department of Computer Science and Engineering

Event Name	Visit to U R Rao Satellite Centre
Date	8th Nov 2023
Venue	U R Rao Satellite Centre
Audience	45 students from various branches (CSE, ME, ISE, ECE)
Resource person	U R Rao Satellite Centre Scientists
Faculty Coordinator(s)	Dr. Mallangouda Patil and Dr. Shashidhar V.

Objective of the Program:

The purpose of the visit was to provide students with technical exposure to space technology and advancements.

Topics Covered:

This visual exploration helped us to understand the meticulous steps involved in crafting satellites, providing a glimpse into the technological precision and expertise employed by ISRO in this endeavor.

- *Satellite Assembly Clean Room:* Participants were taken to witness the satellite assembly process in the clean room, providing a close-up view of the intricate procedures involved in crafting satellites. Engineers and technicians in specialized cleanroom attire were seen delicately handling satellite components with utmost care. The assembly process involves the integration of various modules, including payload, power systems, and communication instruments.
- *Space Exhibition:* The Space Exhibition offered an immersive experience, showcasing models of diverse satellites and providing a visual representation of ISRO's technological achievements in space exploration. The exhibition featured small prototypes and models, offering a detailed insight into spacecraft design intricacies. Complementing the visual aspects, the exhibition included informative displays that covered comprehensive information on satellite technologies, contributing to an enriched understanding of the field. This well-curated exhibition was integral to the visit, enhancing participants' knowledge and appreciation of space technology.

Brief Report:

The visit to U R Rao Satellite Centre (URSC), located on Old Airport Road, Bengaluru, was organized by the placement cell of RVITM. The purpose of the visit was to provide students with technical exposure to space technology and advancements.

Overview of U R Rao Satellite Centre:

U R Rao Satellite Centre (URSC), Bengaluru, formerly known as ISRO Satellite Centre (ISAC) is the lead centre for building satellites and developing associated satellite technologies. The

spacecraft are used for providing applications to various users in the areas of communication, navigation, meteorology, remote sensing, space science and interplanetary explorations. The Centre is housed with state-of-the-art facilities for building satellites on an end-to-end basis.



Visit Highlights:

- *Security Measures:* Upon arrival, participants were required to deposit their mobile phones, smart watches, electronic gadgets and bags at the reception.
- *Entry Procedures:* Entry pass ID cards were provided before proceeding to the briefing session.
- *Classroom Session:* An informative session about ISRO and its missions was conducted, detailing the organization's history, purpose, and achievements. The classroom session commenced with an insightful overview of the ISRO and its profound impact on space exploration. The organization, a key constituent of the Department of Space (DOS) within the Government of India, has been instrumental in developing major space systems for communication, television broadcasting, meteorological services, resources monitoring and space-based navigation. Highlighting its pivotal role, ISRO has successfully developed satellite launch vehicles, such as the Polar Satellite Launch Vehicle (PSLV) and the Geosynchronous Satellite Launch Vehicle (GSLV), to deploy satellites into designated orbits. The organizational activities are strategically spread across different centres and units, including the Vikram Sarabhai Space Centre (VSSC) in Thiruvananthapuram for launch vehicle construction, the U R Rao Satellite Centre (URSC) in Bengaluru for satellite design and development, and the Satish Dhawan Space Centre (SDSC) in Sriharikota for satellite and launch vehicle integration and launch operations. In the session, we learned about a range of significant Indian space missions, starting with Aryabhata, India's first satellite. We explored the lunar mission, Chandrayaan, the solar observation mission Aditya-L1, the successful Mars mission Mangalyaan, and the upcoming human spaceflight endeavour, Gaganyaan. These missions collectively highlight India's commitment and achievements in the field of space exploration. During the classroom session, an illuminating video presentation offered a detailed insight into the intricate process of satellite manufacturing.

The visit to U R Rao Satellite Centre proved to be an enriching experience, offering students a unique opportunity to witness the intricacies of satellite manufacturing and explore the fascinating world of space technology.



Coordinator Signature HOD's Signature