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INDUSTRIAL VISIT

The department of **Electronics and Communication (Advanced Communication Technology)** organised an **Industrial Visit to U R Rao Satellite Centre, Bangalore** on **29.08.2025**.

This visit to the premier satellite development centre of Indian Space Research Organisation (ISRO) proved to be an enriching academic experience. A total of 44 students from the 5th semester participated in this insightful experience, accompanied by two faculty members, Prof. Rinsa Mol T and Prof. Sachin.

Objectives of the Event

The primary objectives of the industrial visit to URSC, Bangalore, were as follows:

- **Exposure to Advanced Space Technology**
  To provide students with first-hand experience of satellite development processes and space mission planning at one of India's leading space research centres.
- **Bridging Theory with Practice**
  To help students connect classroom learning with real-world applications in electronics and communication systems.
- **Inspiring Innovation and Research**
  To motivate students to pursue research and innovation in space science and technology by witnessing India's achievements and future goals in space exploration.

Event Overview

On 29 August 2025, a group of 44 students from the 5th semester EC(ACT) department, accompanied by two faculty members, visited the U R Rao Satellite Centre (URSC), Bangalore, as part of an industrial exposure initiative. The visit aimed to give students practical insight into satellite technology and India's space missions.

Upon arrival, the group was welcomed by the URSC team and given an overview of ISRO's satellite development programs. The students were able to observe various

stages of satellite design and testing, including payload integration, thermal vacuum testing, and clean room operations. The visit also included a presentation on India's flagship missions, such as the Chandrayaan, Mangalyaan, Gaganyaan, Venus and Aditya spaceflight programs.

The interactive session with ISRO scientists was particularly inspiring. They shared their experiences, discussed the challenges of space exploration, and encouraged students to pursue careers in aerospace and research. The students were briefed on the skills required to contribute to India's space initiatives.

This industrial visit successfully bridged academic learning with real-world applications, enhancing students' understanding of satellite systems and instilling a sense of pride in India's achievements in space technology. It was a memorable and motivating experience for all participants.

Figure 1: Students in U R Rao Satellite Centre, Bangalore

Figure 2: Students starting for the Industrial Visit from MVJCE

Outcomes and Impact

- **Enhanced Technical Understanding:** Students gained practical exposure to satellite systems, payload integration, and testing processes, which complemented their academic curriculum.
- **Real-World Application of Concepts:** The visit helped bridge the gap between theoretical knowledge and its application in real-world space missions.
- **Awareness of ISRO's Contributions:** Students developed a deeper appreciation of India's achievements in space technology and the role of URSC in national and international missions.
- **Career Inspiration:** Interaction with ISRO scientists inspired many students to consider careers in aerospace, research, and government R&D organizations.
- **Improved Industry Readiness**: Exposure to professional work environments and high-precision engineering processes enhanced students' readiness for internships and future employment.

The industrial visit to URSC provided a significant motivational boost, sparking curiosity among students to explore space science and consider higher studies or research in related fields. It enabled meaningful networking opportunities with ISRO

personnel, laying the groundwork for future academic collaborations and internships. Students gained valuable insight into the interdisciplinary skills essential for space missions, while the visit also reinforced the department's commitment to holistic development through strong industry-academia engagement.

Conclusions

The industrial visit to URSC, Bangalore proved to be a highly impactful learning experience for the students of the EC(ACT) department. Not only did it deepen their understanding of satellite technology and space missions, but also inspired them to explore future opportunities in research and innovation. The visit successfully bridged academic concepts with real-world applications, leaving a lasting impression on both students and faculty.

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