



Bhoj Reddy Engineering College for Women

(Sponsored by Sangam Laxmibai Vidyapeet, Accredited by NAAC with A Grade, Approved by AICTE and Affiliated to JNTUH)
Vinaynagar, IS Sadan Crossroads, Saidabad, Hyderabad – 500 059, Telangana. www.brecw.ac.in



30 November 2024

Report on Industrial Visit to National Remote Sensing Centre (NRSC), ISRO, Hyderabad

The Department of Electrical and Electronics Engineering (EEE) organized an enriching industrial visit to the National Remote Sensing Centre (NRSC), ISRO, located in Jeedimetla, Hyderabad, on 25th November 2024. The visit was meticulously planned for IV Year EEE students, with the aim of providing practical exposure to the applications of remote sensing technology and insights into satellite operations. A total of 38 students participated, accompanied by three faculty members: S Deepti, Associate Professor and HOD-EEE; Dr S Asha Kiranmai, Associate Professor; and S Mayuri, Assistant Professor.

This industrial visit was organized with the prior permission and support of the Principal, Dr J Madhavan, and the Head of the EEE Department, S Deepti. The visit was made possible through coordination with Dr R Srinivas Reddy from the Office of Outreach, NRSC, ISRO, who facilitated the arrangements. The experience provided a platform for students to witness cutting-edge technology in action and understand its real-world applications, significantly complementing their theoretical knowledge.

Banner:

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Department of Electrical and Electronics Engineering & Internal Quality Assurance Cell

Presents

Industrial Visit

to

National Remote Sensing Centre, ISRO, Jeedimetla, Hyderabad

For IV BTech EEE students

Date: 25 November 2024



Figure 1: During the starting of the industrial visit, Students and staff of EEE department

The visit commenced as planned, with the bus departing from our college premises at 08:30 AM and arriving at National Remote Sensing Centre (NRSC), ISRO, located in Jeedimetla, Hyderabad around 10:30 AM. The journey to NRSC was smooth and efficient. Upon reaching NRSC, we were warmly received by the Mr Nitish Kumar, a staff from the ISRO, led by Mr R Srinivas Reddy, Head, Student & Public Outreach Division, Training, Education & Outreach Group, NRSC Outreach Facility, Jeedimetla, ISRO, Hyderabad. The warm welcome and smooth coordination set a positive tone for the entire visit, were given a brief introduction.



Figure 2: Students of EEE department along with the Mr R Srinivas Reddy, Head, Student & Public Outreach Division in ISRO

The visit commenced with a warm welcome from the NRSC team, followed by an introductory session about ISRO's vision and mission. Students learned about the history of ISRO, its evolution from the Indian National Committee for Space Research (INCOSPAR) in 1962, to becoming a globally recognized space agency. Mr R Srinivas Reddy at NRSC conducted an engaging presentation on the operational aspects of satellite technology, the importance of remote sensing in disaster management, and the societal benefits of space-based technologies.



Figure 3: Mr R Srinivas Reddy, Head, Student & Public Outreach Division at NRSC conducted an engaging presentation

The National Remote Sensing Centre (NRSC) is a key center of the Indian Space Research Organisation (ISRO), which operates under the Department of Space (DoS). NRSC plays a crucial role in receiving satellite data, developing remote sensing applications, and offering geospatial services for various sectors, including disaster management, urban planning, agriculture, and governance. During the visit, students were introduced to the significant contributions of NRSC in monitoring and managing ISRO's geostationary and geosynchronous satellites, such as the INSAT, GSAT, Kalpana, and IRIS series.



Figure 4: Mr R Srinivas Reddy explanation along with students at NRSC

One of the key highlights of the visit was the in-depth discussion on the monitoring and control mechanisms of ISRO's satellites. The students were provided with a technical overview of how satellites like INSAT and GSAT function and the processes involved in receiving and processing satellite data. This session helped students appreciate the intricate engineering that goes into maintaining the functionality and reliability of India's space assets.



Figure 5: At NRSC

Additionally, the students were introduced to ISRO's renowned rocket technologies, the Polar Satellite Launch Vehicle (PSLV) and the Geosynchronous Satellite Launch Vehicle (GSLV). These launch vehicles, pivotal to India's space missions, were explained in terms of their design, development, and capabilities. The students gained insights into the technological advancements that enable India to remain a competitive force in space exploration.

The visit concluded with an interactive session where students were encouraged to ask questions about career opportunities and research prospects in the field of space technology. The NRSC team shared valuable information on internships, projects, and training programs available for aspiring engineers, motivating students to explore new avenues in their academic and professional journeys.

Overall, the industrial visit to NRSC, ISRO, proved to be an insightful and inspirational experience for the IV Year EEE students. It bridged the gap between classroom learning and industry practices, offering students a firsthand understanding of advanced space technologies. The department extends its heartfelt gratitude to NRSC, ISRO, and Dr. R. Srinivas Reddy for their cooperation and hospitality, which made this visit a resounding success.

Throughout the visit, the students were highly engaged and enthusiastic, actively participating in the learning experience. They eagerly absorbed the knowledge imparted by ISRO staff and expressed their appreciation for the opportunity to witness the practical applications of their theoretical learnings.

The students and staff members returned to Bhoj Reddy Engineering College for Women safely, reaching back around 06:10 PM, marking the end of a fruitful and enriching industrial visit.

In summary, the industrial visit to NSRC, ISRO provided the students with a comprehensive understanding of the company's operations, advanced technologies, and commitment to excellence. The visit has undoubtedly inspired and motivated them to excel in their chosen field of engineering.

We would like to extend our sincere gratitude to the college management for supporting and encouraging such industrial visits. The exposure gained from this visit will undoubtedly prove to be beneficial for the professional development of our students.

In conclusion, the industrial visit was a resounding success, leaving a positive impact on our students and staff. We look forward to organizing more such educational and enriching experiences for our students in the future.

R Manju Bhargavi
Seminars and Workshops In-charge

S Deepti
HOD-EEE