



GEETHANJALI INSTITUTE OF SCIENCE & TECHNOLOGY
(Approved by AICTE, New Delhi & Affiliated to JNTUA, Anantapur)
Gangavaran (V), Kovur(M), SPSR Nellore (Dt), AP, India- 524137, www.gist.edu.in



Industry Institute Interface Cell (IICC)

A.Y: 2025-26

Industrial Visits – Organised

S No.	Name of the faculty	Name of the Company/ organization & Place	Contact person with Phone & Email ID	Course / Class	Focused area/topic	PO/PSO Mapped	No. of participants	Date/s
1	Mr.A.Siva Sai Kumar Mr.G.Kiran Kumar Mr.A.Hemanth Kumar Ms.G.Mounika Ms.B.Akhila	SDSC SHAR, SRIHARIKOTA	08623-226141 ppo@shar.gov.in	II ECE- A,B&C	Real World Application In Aerospace, Mechanical & Electronics Engineering	P01,P03,P O5,P07, PSO1,PSO 2	103	09-09- 2025
2	Mr.G.Shannughavel Mr.P.Sukumar Ms.P.Bhargavi Ms..Tejaswi	NARL/TIRUPATI	Dr.T.K Ram kumar, scientist 0877-2500551 stvisits@narl.gov.in	III ECE- A,B&C	Advanced Atmospheric Research Activities Cutting -Edge Technologies ,And Real Time Measurement	P01,P03,P O5,P07,PS O1,PSO2	65	19-09- 2025


Faculty Coordinator


HOD ECE



GEETHANJALI INSTITUTE OF SCIENCE & TECHNOLOGY (AUTONOMOUS)

(A Unit of USHODAYA EDUCATIONAL SOCIETY)

Accredited by NAAC with "A" Grade. Accredited by NBA (B Tech - ECE, EEE & Mech)

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Report on Industrial Visit to Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota

Department of Electronics & Communication Engineering organized an Industrial Visit to "Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota" on 09-09-2025 for II ECE - A & B students. Total of 103 students along with 05 staff members attended the visit. SDSC SHAR is one of the primary spaceports of the Indian Space Research Organization (ISRO), responsible for launching India's satellites into orbit using PSLV, GSLV, and other indigenous launch vehicles.



At Geethanjali Institute of Science & Technology, Gangavaram (Before Starting to SDSC SHAR)

The primary objectives of the visit were:

- To understand the infrastructure and operational procedures involved in launching a satellite.
- To learn about different types of launch vehicles used by ISRO.
- To observe the satellite integration and testing processes.

- To interact with professionals and engineers working on real-time space missions.
- To motivate students toward careers in space science, aerospace engineering, and related fields

After several security checks and administrative formalities, Students were taken to media center. In this place, they were shown a video – 'Gateway to Space' – on the ISRO, its history, and the current facilities available.

As a part of it, we visited Mission Control Centre (MCC), Second Launch Pad, First Launch Pad and ISTRAC.

In Mission Control Centre (MCC) they presented a video on the various activities that are undergoing in SDSC SHAR. They also presented the latest launch videos of GSLV & PSLV.

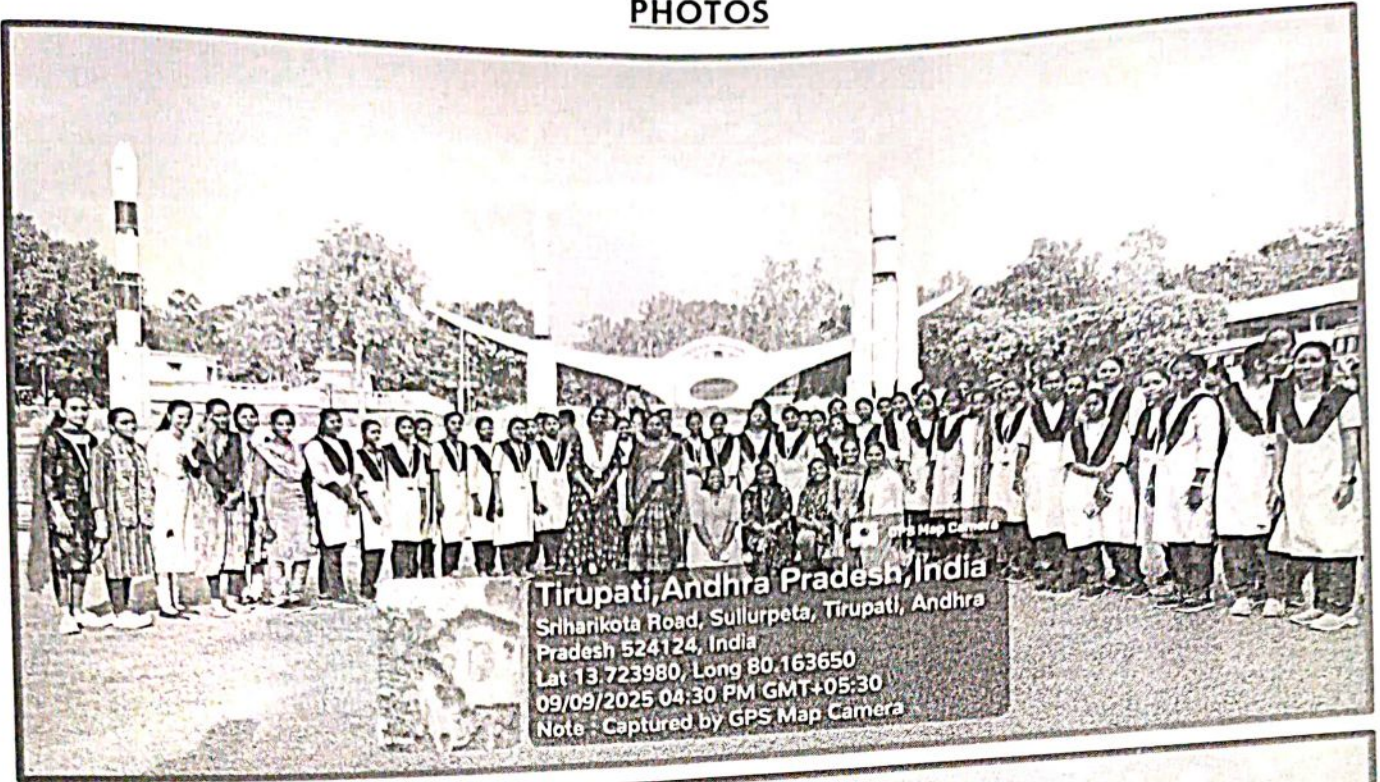
Later we moved to second launch pad. They explained about the integration of various stages of different rockets in Vehicle Assembly Building (VAB) and the process of moving the launch vehicles from VAB to Umbilical Tower (UT). They also explained about the latest upgradation at the second launch pad for the upcoming launches.

Later we moved to first launch pad. The first launch pad is completely used for launch of PSLV and SSLV vehicles. They given an overview about the activities that are performed at first launch pad and also about MST. Later we moved to ISTRAC. ISRO Telemetry, Tracking and Command Network (ISTRAC) is the central hub responsible for providing ground support for Indian space missions, including satellite and launch vehicle operations. It has a network of ground stations across India and abroad (including collaborations with other space agencies) to ensure continuous communication with satellites and space missions.

The industrial visit to SDSC SHAR, Sriharikota, provided the students with valuable exposure to the advanced facilities and operations of India's leading spaceport. They learned about rocket integration, testing procedures, and the complex coordination required for successful launches. The experience bridged the gap between theoretical knowledge and real-world applications, especially in aerospace, mechanical, and electronics engineering.

Interactions with ISRO scientists and engineers gave them insights into India's space achievements and future missions. The visit not only broadened their technical perspective but also instilled in them a sense of pride and inspiration to contribute to the field of science and technology. Overall, the visit was a memorable and enriching experience that strengthened their academic and professional aspirations.

PHOTOS



At SDSC SHAR Entrance

[Handwritten Signature]
10/9/25

HOD - ECE

Head of Department
Dept. of Electronics & Communication Engineering
**GEETHANJALI INSTITUTE OF
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Report on Industrial Visit to National Atmospheric Research Laboratory (NARL), Gadanki

The Department of Electronics and Communication Engineering (ECE) organized an industrial visit to the National Atmospheric Research Laboratory (NARL), Gadanki, on Friday, 19th September 2025. A total of 65 students along with 4 faculty members participated in this academic exposure program. The visit was arranged with the prior consent of the Director, NARL, and the date was exclusively reserved for our institute.

Purpose of the Visit

The main objective of this industrial visit was to provide students with exposure to advanced atmospheric research activities, cutting-edge technologies, and real-time measurement systems. The visit aimed at bridging the gap between theoretical learning and practical applications, thereby enhancing students' knowledge in the field of atmospheric sciences and allied technologies.

About National Atmospheric Research Laboratory (NARL)

National Atmospheric Research Laboratory (NARL), located at Gadanki near Tirupati, is an autonomous research institute under the Department of Space, Government of India. NARL conducts fundamental and applied research in atmospheric sciences. The institute is equipped with world-class research facilities to study weather, climate, atmospheric dynamics, ionospheric processes, and space weather phenomena.

Functions and Research Activities of NARL

NARL undertakes several advanced research functions including:

1. Atmospheric Dynamics: Study of troposphere, stratosphere, and mesosphere dynamics using advanced radar systems.
2. Ionospheric Research: Investigating ionospheric irregularities, plasma waves, and space weather impacts.
3. Lidar and Radar Operations: Use of MST Radar, Rayleigh/Mie/Raman Lidars, and other advanced instruments for atmospheric profiling.
4. Climate and Weather Studies: Developing models and conducting observations for monsoon prediction and climate variability.
5. Space Weather Monitoring: Continuous monitoring of solar and geomagnetic activities and their influence on the Earth's atmosphere.

Major Instruments and Measurement Facilities

During the visit, students were introduced to various research facilities at NARL, such as:

- Mesosphere-Stratosphere-Troposphere (MST) Radar – for studying atmospheric wind, turbulence, and structure.

- Lidars – for measuring atmospheric temperature, aerosols, and trace gases.
- GPS-based systems – for ionospheric studies and total electron content measurements.
- Atmospheric Modeling Facilities – for weather forecasting and climate change studies.
- Balloon-borne Instruments – for vertical profiling of atmospheric parameters.

Student Learning Outcomes

The students gained the following insights from the industrial visit:

- Practical exposure to advanced atmospheric research equipment and their working principles.
- Understanding the significance of atmospheric and ionospheric studies in communication systems and space technology.
- Awareness about real-time measurement techniques and data collection methods.
- Inspiration to pursue higher studies and research in atmospheric sciences and allied domains.
- Better appreciation of the integration of Electronics and Communication Engineering concepts in atmospheric research.

Photographs



Conclusion

The industrial visit to NARL, Gadanki, was highly beneficial for the students of the ECE Department. It provided them with valuable academic exposure, practical knowledge, and motivation to explore new horizons in scientific research and technology development. The department expresses gratitude to the Director, NARL, and the management of our institute for facilitating this enriching experience.

Convener

[Signature]
20/9/25

HOD-ECE

[Signature]
20/9/25