REPORT ON

INDUSTRIAL VISIT TO NRSC

ORGANISED BY: Department of Electronics and Communication Engineering

NUMBER OF STUDENTS: 100

OBJECTIVE:

The primary objective of this visit was to provide students with practical exposure to the field of remote sensing, satellite communication, and geospatial technology, as well as to understand the applications of these technologies in various sectors. The visit aimed to bridge the gap between theoretical concepts taught in classrooms and their real-world applications

INTRODUCTION to NRSC :

National Remote Sensing Centre (NRSC) at Hyderabad is responsible for remote sensing satellite data acquisition and processing, data dissemination, aerial remote sensing and decision support for disaster management. NRSC has a data reception station at Shadnagar near Hyderabad for acquiring data from Indian remote sensing satellites as well as others.

OVERVIEW OF THE VISIT:

Students and faculty from the Electronics and Communication Engineering (ECE) department embarked on an educational tour to NRSC. The group received a warm welcome from the NRSC team, who provided an introductory session on the organization's mission, vision, and activities. The session included an overview of NRSC's recent projects, technological advancements in satellite imaging, and its key role in supporting national initiatives such as Digital India and Smart Cities.

SESSIONS AND HIGHLIGHTS:

1. Remote Sensing and Satellite Technology Overview:
   The NRSC team presented a detailed session on remote sensing technology, explaining how satellite data is used to monitor various aspects of earth and environmental science. Students were introduced to the principles of satellite imaging, data acquisition, and the latest advancements in remote sensing.

2. Geospatial Data Processing:
   A significant part of the visit was dedicated to understanding geospatial data processing techniques. Experts from NRSC demonstrated data collection, processing, and analysis, as well as the tools and software commonly used in the field. This session provided students with valuable insights into practical data management, image processing, and map creation.

3. Applications in Disaster Management and Natural Resource Monitoring:
   One of the highlights of the visit was learning about the applications of remote sensing in disaster management, such as flood mapping, drought monitoring, and early warning systems. Additionally, the team demonstrated how NRSC's satellite data supports agriculture, forestry, and water resource management, showing students real-world applications of their studies.
4. Hands-On Demonstration and Interactive Session:
   Students participated in an interactive Q&A session with NRSC scientists and engineers, where they could clarify their doubts and ask questions about career opportunities, advancements in remote sensing technology, and the role of electronics and communication engineering in satellite systems.

OUTCOME OF THE VISIT:

The industrial visit to NRSC enriched students' understanding of remote sensing and its applications. The experience deepened their knowledge of satellite communication, data processing, and geospatial analysis. Additionally, it provided students with a broader perspective on career opportunities in this sector and reinforced the importance of interdisciplinary skills in engineering and technology.

CONCLUSION:

The visit to NRSC was an enlightening experience that enhanced

students’ technical and practical knowledge. It inspired many to explore potential career paths in satellite technology, remote sensing, and geospatial analysis. The ECE department of Sreyas Institute of Engineering and Technology successfully achieved its goal of linking classroom learning with industry practices, creating a strong foundation for future learning and innovation.