Gyanmanjari Institute of Technology Bhavnagar

Bisag-N MeitY

Industrial Visit Report

Visit Date : 11/02/2026

No. of Student	79
Department	Computer Engineering
Course	B.TECH.
Semester & Branch	4th	CE-CSE
Class	X,Y,Z
Faculty Co-ordinators	[1]. Prof. Prof. Vishrantiba D.Vadher [2]. Prof. Aditya V. Nair [3]. Prof. Darshan J. Gadhadara

Industry Profile:

Bhaskaracharya National Institute for Space Applications and Geo-informatics (**BISAG-N**) is a prestigious autonomous institute under the Government of India, operating under the Ministry of Electronics and Information Technology (MeitY). Established to provide cutting-edge solutions in **geospatial technology, remote sensing, satellite communication, and software development**, BISAG-N plays a crucial role in utilizing space-based technologies for various national and state-level projects.

Located in **Gandhinagar, Gujarat**, BISAG-N specializes in **geoinformatics, disaster management, satellite communication, and AI-driven spatial analysis**, assisting government agencies in decision-making processes. The organization provides technological solutions to **agriculture, water resource management, urban planning, disaster monitoring, environmental protection, and defense applications.**

Key Functions of BISAG-N

1. **Geospatial Applications** – Development of GIS-based solutions for agriculture, urban planning, and resource management.
2. **Satellite Remote Sensing** – Real-time data collection and analysis for monitoring environmental and infrastructural changes.
3. **Disaster Management Support** – Providing predictive analysis and real-time monitoring of natural disasters like floods, cyclones, and earthquakes.
4. **Broadcast and Communication Services** – Running dedicated satellite-based communication channels for education, governance, and rural development.
5. **AI & Big Data Integration** – Incorporating Artificial Intelligence (AI) and Machine Learning (ML) into GIS applications for improved data analysis and forecasting.
6. **Software and Application Development** – Designing innovative software solutions for national security, governance, and policy-making.

Notable Projects of BISAG-N

- **Bhuvan GIS Platform** – A satellite-based mapping service for land-use planning.
- **DISHA (Disaster Information System for Hazard Assessment)** – A disaster management support system.
- **AgriGIS** – A geospatial application supporting precision farming and crop monitoring.
- **SATCOM Network for Education & Governance** – A satellite communication-based digital education platform.

With its advanced R&D capabilities, BISAG-N continues to contribute to the **Digital India initiative, Smart Cities Mission, and various space-based governance projects**.

Objective of Visit

The **primary goal** of the industrial visit to **BISAG-N, Gandhinagar**, was to provide students with real-world exposure to **geospatial technologies, satellite-based applications, and AI-driven spatial data processing.**

The visit aimed to achieve the following key objectives:

1. Bridging the Gap Between Academia and Industry

- Students were introduced to the **practical implementation** of GIS, remote sensing, and satellite communication, enhancing their understanding of theoretical concepts.
- Exposure to **government-backed geospatial solutions** demonstrated the impact of technology in real-world decision-making.

2. Understanding Advanced Technologies at BISAG-N

- Insight into **GIS-based mapping, satellite imaging, and remote sensing applications**.
- Learning about **real-time data processing, AI-powered geospatial analytics, and cloud-based GIS solutions**.
- Observing the use of **drones and IoT (Internet of Things) in geospatial monitoring and disaster prediction**.

3. Exploring Career and Research Opportunities

- BISAG-N offers multiple career paths in **GIS, AI, remote sensing, and software development** for students pursuing technical fields.
- Learning about **government-funded research projects and internships** in geospatial data science.
- Understanding how **AI, Big Data, and Machine Learning are revolutionizing GIS applications**.

4. Interactive Learning Through Hands-on Demonstrations

- Observing **satellite-based disaster management systems in action**.
- Exploring **real-time GIS software applications** used for governance and infrastructure development.
- Engaging with **BISAG-N professionals for technical Q&A sessions and career guidance**.

This visit was an **essential step in preparing students** for **careers in space technology, GIS, and AI-powered analytics**, offering them valuable industry exposure beyond traditional classroom learning.

About Visit

Key Highlights of the Visit:

1. **Introduction Session:**
   - The visit commenced with an introduction to BISAG-N by industry experts, covering its history, objectives, and contributions to various governmental projects.
2. **Facility Tour:**
   - The students explored different departments, including the GIS and Remote Sensing Lab, Satellite Communication Division, and Research & Development sections.
   - A demonstration of real-time satellite imaging and data processing was presented.
3. **Technical Presentation:**
   - Experts provided an in-depth session on how geospatial technologies are used in disaster management, urban planning, and agriculture.
   - A live demonstration of GIS mapping tools and software solutions developed at BISAG-N was shown.
4. **Interactive Q&A Session:**
   - Students had an engaging discussion with BISAG-N professionals, asking questions about career opportunities, research projects, and industry applications of geospatial technology.
5. **Practical Exposure:**
   - Hands-on experience with GIS software and satellite communication techniques helped students understand theoretical concepts in a real-world scenario.

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