

SCHOOL OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING – DATA SCIENCE

Date: 13-02-2026

Academic Year: 2026-2027

Activity: A One Day **Industrial Visit** – “India Meteorological Department” (IMD),Hyderabad.



NALLA NARASIMHA REDDY
Education Society's Group of Institutions - Integrated Campus
(Approved by AICTE & PCI, New Delhi & Affiliated to JNTUH, Accredited by NAAC with A+ Grade)
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UGC AUTONOMOUS INSTITUTION
DEPARTMENT OF CSE (DATA SCIENCE)
In Association with IIC

INDUSTRIAL VISIT
to
INDIA METEOROLOGICAL DEPARTMENT
at
Begumpet, Hyderabad
13-02-2026

Accredited by
A+ NAAC
NBA NATIONAL BOARD OF ACCREDITATION
INSTITUTION'S INNOVATION COUNCIL
Ministry of Education, India

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Consolidated Report

The students of the Department of Data Science visited the India Meteorological Department (IMD), Hyderabad on 13th February 2026 as part of an industrial visit organized under the academic curriculum enrichment program. The visit aimed to provide students with practical exposure to real-life workflows and industry practices followed at the organization.

During the visit, students observed how the services and research activities of IMD contribute towards weather forecasting, climate monitoring, and disaster management, thereby supporting societal safety and sustainable development. They also gained a clear understanding of the role of Data Science in meteorology, including its applications in weather prediction, data analysis, and decision-making processes for natural disaster prevention.

A total of **130 III-Year CSD** students and **4 faculty** members actively participated in this Educational tour.

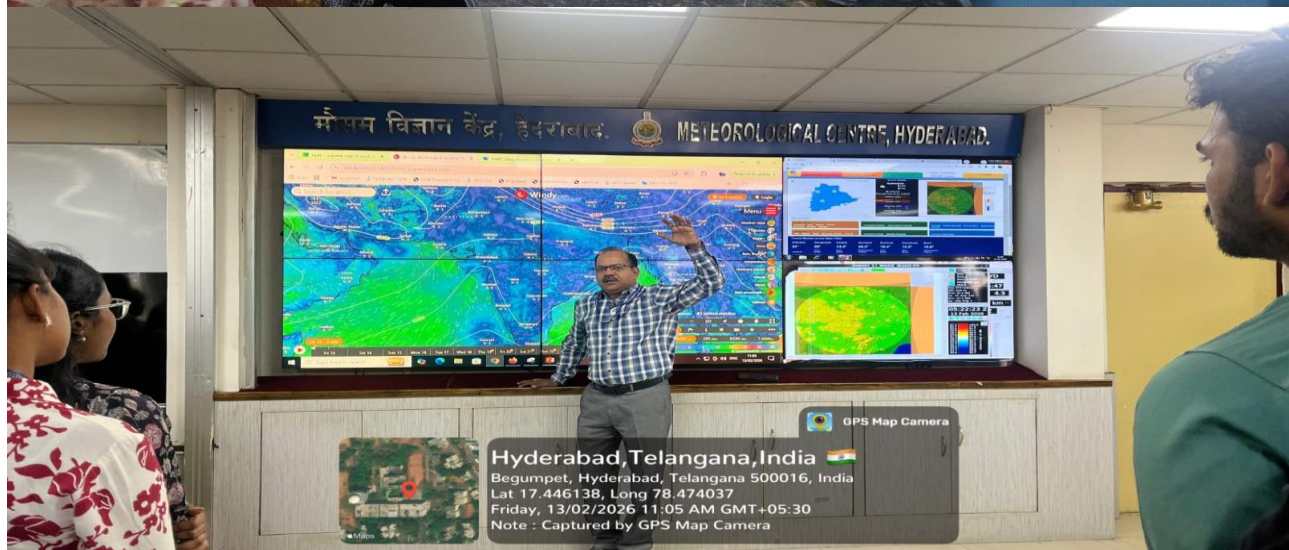
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Objectives:

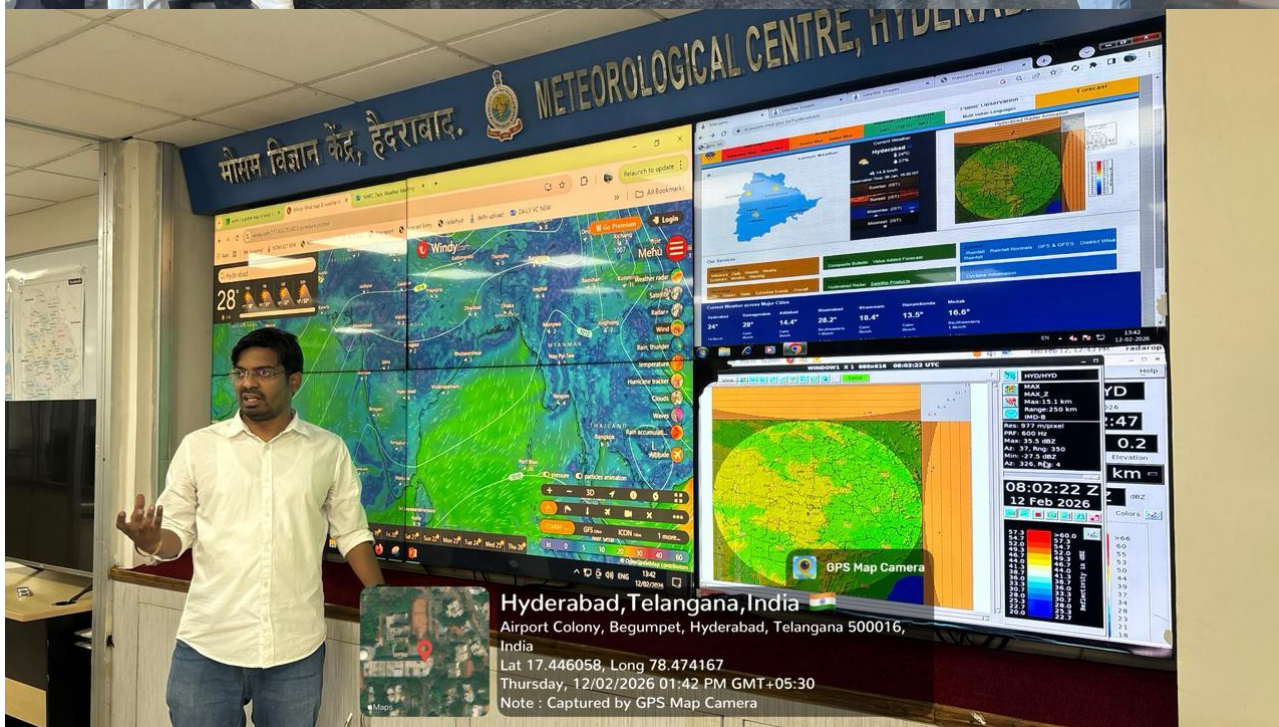
The main objectives of the industrial visit were:

- To understand the functioning of weather forecasting systems at the India Meteorological Department (IMD).
- To gain knowledge about meteorological instruments and data collection techniques.
- To explore how Data Science and technology are used in weather prediction and climate analysis.
- To understand the role of IMD in disaster management, including cyclone and flood warnings.
- To develop awareness about the importance of accurate weather forecasting for agriculture, aviation, and public safety.



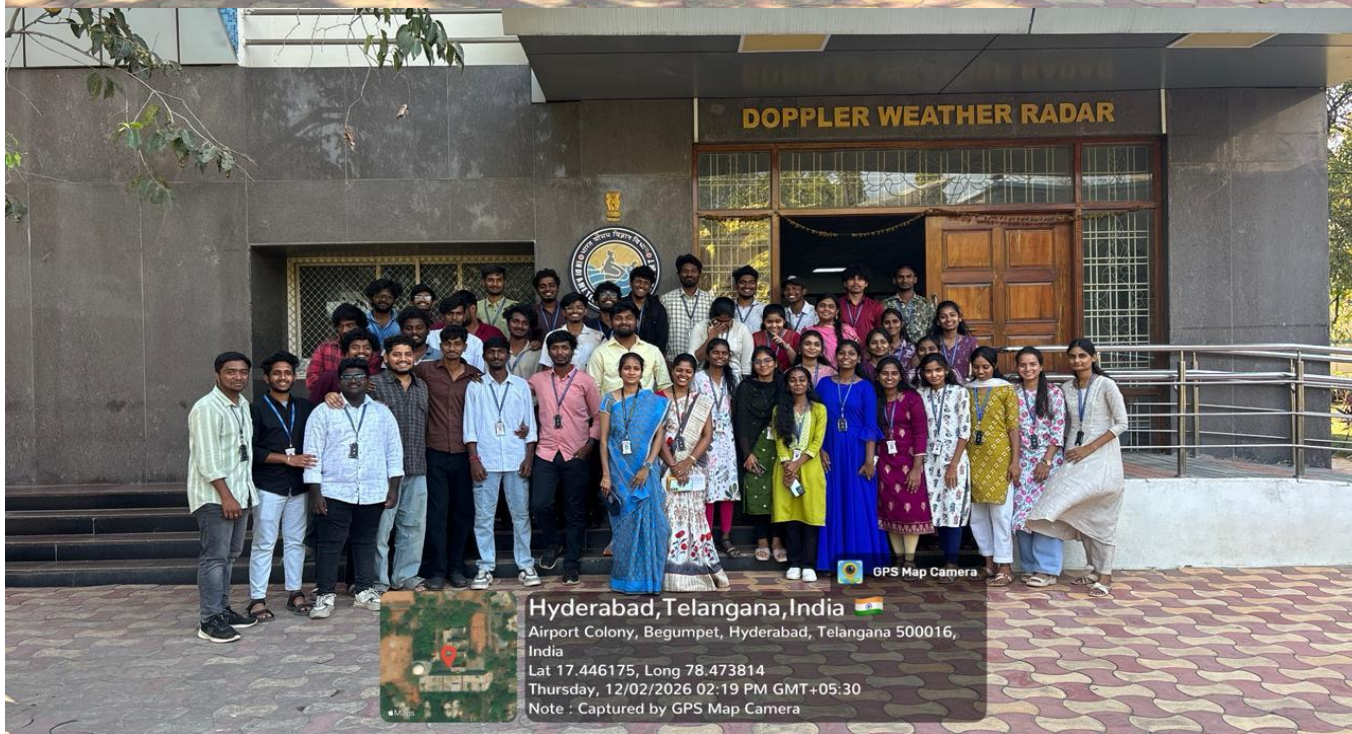
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Activities During the Visit:

1. Orientation Session :

Officials at the India Meteorological Department (IMD) welcomed the students and provided a brief introduction to the organization and its functions. They explained the importance of weather forecasting, climate monitoring, and the role of IMD in disaster management.

2. Presentation & Demonstration :

- During the presentation and demonstration session, experts from the India Meteorological Department (IMD) showcased various weather forecasting systems and technologies used in meteorology.
- They explained how weather data is collected through satellites, radars, and weather stations, and how it is applied in real-world scenarios such as predicting cyclones, rainfall, and temperature variations.
- Students were also introduced to the role of Data Science in analyzing meteorological data, improving forecasting accuracy, and supporting decision-making in disaster management.
- Additionally, the session covered the use of modern tools and software for weather prediction, including data visualization and real-time monitoring systems.

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3. Extension building Visit :

- As part of the industrial visit, students toured the facilities at the India Meteorological Department (IMD), Hyderabad.
- During this visit, they explored various sections such as weather monitoring units, forecasting centers, and instrument laboratories.
- The students observed meteorological instruments like thermometers, barometers, anemometers, and Doppler Weather Radar systems used for collecting and analyzing weather data.
- The visit provided insights into how IMD uses advanced technology and infrastructure for accurate weather forecasting, climate research, and disaster warning systems.



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Outcome:

From the industrial visit to the India Meteorological Department (IMD), Hyderabad, students gained several valuable insights. They developed an understanding of how weather forecasting systems operate and how meteorological data is collected and analyzed. Students also gained knowledge about the use of Data Science in predicting weather conditions and managing natural disasters. The visit helped them understand the importance of accurate weather predictions in sectors like agriculture, aviation, and public safety.

Conclusion:

The industrial visit to the India Meteorological Department (IMD), Hyderabad was highly informative and beneficial for the students. It provided a perfect blend of theoretical knowledge and practical exposure. The visit helped students understand the significance of meteorology, data analysis, and technology in real-world applications. Overall, the experience enhanced their knowledge, skills, and awareness of the role of weather forecasting in ensuring safety and sustainable development.



Faculty Co-ordinator



HOD – CSE (DS)