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A Report on Industrial Visit to "IIT Tirupati Navavishkar I-HUB Foundation (IITTNiF)" Organized by Department of CSE – Data Science on 13.10.2026



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Objectives of the Visit

- To gain exposure to an innovation and technology ecosystem associated with IIT Tirupati.
- To understand how research, innovation, and technology development can be connected with practical applications.
- To learn about opportunities for students to participate in innovation, entrepreneurship, and technology-oriented initiatives.
- To observe how academic knowledge can be translated into problem-solving, prototypes, and real-world solutions.
- To encourage students to explore research, interdisciplinary collaboration, and future career pathways

Introduction:

Madanapalle Institute of Technology & Science (MITS), through the Department of CSE – Data Science, organized an industrial visit to IIT Tirupati Navavishkar I-HUB Foundation (IITTNiF) on 13 October 2026. The visit was intended to provide students with exposure beyond the classroom and help them understand the role of innovation-focused institutions in supporting technology development and problem-solving.

The visit aimed to expose students to practical applications of Artificial Intelligence (AI), Global Positioning System (GPS), immersive technologies, and data analytics. Students explored innovative applications designed to address real-world challenges in agriculture, food recommendations, location-based services, and digital visualization.

The visit helped students understand how technological innovations can be developed by combining data collection, data storage, intelligent processing, and user-friendly application design. It also provided an opportunity to connect classroom concepts in Data Science and Artificial Intelligence with practical applications.

Program Overview and Execution

The educational visit provided students with an opportunity to explore innovative technology demonstrations and understand their practical relevance. The sessions focused on the use of GPS, AI-powered applications for agricultural data analysis and personalized food recommendations, immersive technologies, and data visualization.
Students observed how technological solutions can be designed to solve problems faced by individuals, farmers, and communities. The demonstrations highlighted the importance of collecting relevant data, storing it systematically, processing it using appropriate techniques, and presenting the results in an understandable format.
The visit also emphasized the role of interdisciplinary knowledge in developing innovative applications that combine software development, data analytics, artificial intelligence, and interactive technologies.

Session Highlights

5.1 Global Positioning System (GPS)

- Students learned about GPS and its importance in identifying geographical locations.
- Explored GPS applications in navigation, location tracking, and route identification.
- Understood the use of GPS in transportation, agriculture, and logistics.

5.2 AI-Based Agricultural Applications

- Students explored AI-based applications designed to help farmers.
- Learned how the application uses the previous five years of farming data to understand agricultural trends and their effects.
- Understood how historical data helps in comparing farming trends over time.
- Learned how AI applications can support farmers in making better decisions.

5.3 AI-Based Local Food Recommendations

- Students explored AI-based applications that suggest local food options.
- Learned how AI provides food recommendations based on location and user preferences.
- Understood the role of data in developing recommendation systems.
- Identified the use of AI in personalized digital services.

5.4 Augmented Reality (AR), Virtual Reality (VR), and Mixed Reality (MR)

- Students learned about AR, VR, and MR technologies.
- **AR:** Adds digital information and objects to the real-world environment.
- **VR:** Creates a computer-generated virtual environment.
- **MR:** Combines real and digital environments.
- Explored their applications in education, healthcare, gaming, and industrial training.
- Understood the importance of immersive technologies in developing interactive applications.

5.5 Data Collection, Storage, and Visualization Using Graphs

- Students learned how data is collected and stored for analysis.
- Understood the importance of organizing data for further processing.
- Explored how graphs are used to represent data visually.
- Learned about bar graphs and line graphs for comparing values and identifying trends.



Interactive Learning and Student Engagement

The educational visit provided students with an opportunity to observe innovative applications and understand how emerging technologies are applied to real-world problems.

- Students showed interest in the practical applications of AI in agriculture, personalized food recommendations, GPS-based services, and immersive technologies. The demonstrations encouraged them to think about how similar solutions could be developed as academic projects and prototypes.
- The exposure to data collection, storage, and visualization also helped students recognize the importance of data management and analytical skills in building reliable intelligent systems.

- Overall, the visit encouraged students to explore innovative ideas, improve their technical understanding, and consider interdisciplinary approaches to solving real-world problems.

Key Outcomes of the Visit

The major outcomes of the educational visit were:

1. Students gained practical exposure to emerging technologies and their real-world applications.
2. Participants understood the importance of GPS in location-based services and digital applications.
3. Students explored AI-powered agricultural applications that use historical farming information covering the previous five years.
4. Participants learned about AI-based food recommendation systems and their potential to provide personalized suggestions.
5. Students developed a basic understanding of AR, VR, and MR technologies and their applications.
6. Participants gained awareness of the stages involved in data collection, storage, processing, and visualization.
7. Students understood how graphs can be used to represent information, compare values, and identify trends.
8. The visit encouraged students to identify real-world problems that can be addressed using Artificial Intelligence and Data Science.
9. The program strengthened the connection between academic learning and practical technological applications.
10. Students were motivated to explore innovative project ideas involving AI, data analytics, and emerging technologies.

Feedback

- The educational visit to the IIT Tirupati Innovation Hub provided students with valuable exposure to emerging technologies and their practical applications.
- Students found the demonstrations of AI-based agricultural applications, local food recommendations, GPS technology, and immersive technologies particularly informative. The discussion on how data is collected, stored, and represented through graphs helped them understand the importance of data management and visualization in intelligent systems.
- The visit also encouraged students to think creatively about applying their academic knowledge to develop solutions for real-world problems.
- Overall, the visit was a valuable learning experience that enhanced students' awareness of technological innovation and the practical relevance of Artificial Intelligence and Data Science.



Acknowledgement

- The Department of CSE – Data Science, Madanapalle Institute of Technology & Science, expresses its sincere gratitude to the management of MITS for supporting initiatives that promote experiential learning and technological awareness among students.
- The department extends its appreciation to IIT Tirupati and the team associated with the Innovation Hub for providing students with an opportunity to explore innovative technologies and their real-world applications.
- Special thanks are extended to the faculty coordinators and all those who contributed to organizing and facilitating the visit. The department also appreciates the active participation and enthusiasm of the students, which contributed to the success of the educational visit.