



छोटुभाई गोपालभाई पटेल प्रौद्योगिकी संस्थान, वारडोल
Chhotubhai Gopalbhai Patel Institute of Technology, Bardol

Uka Tarsadia University

ChhotubhaiGopalbhai Patel Institute of Technology

Department of Civil Engineering

Field Visit at Adani Port Hazira, Surat



Chhotubhai Gopalbhai Patel Institute of Technology
Department of Civil Engineering
Uka Tarsadia University, Maliba Camous, Bardoli
One day field visit at Adani port Hazira, Surat on 17/02/2025
Diploma Semester 4 and 6, B. Tech Semester 6 and 8

Field Visit Report (Adani Port, Hazira, Surat)

Date of Visit: 17/02/2025

Total No. of Student: 30 (26- Boys and 04-Girls)

Total No. of Faculty: 02

Faculty Coordinators: Prof. (Dr.) Manoj Gundalia and Prof. Gunvant Solanki

Topics Covered during visit:

Building materials, Site survey, Construction management, construction technology

The Department of Civil Engineering arranged an educational field visit to Adani port Hazira, Surat for pre-final and final year Diploma and B.Tech students. The visit was organized with the prior permission and guidance of the Director, CGPIT and Head, Department of Civil Engineering.

Objective of the Visit:

The field visit to Adani Hazira Port was conducted to review its operational capabilities, infrastructure, and cargo handling efficiency, logistics, safety, and sustainability measures.

Outline of the Visit:

A field visit to Adani Port provides insights into its advanced logistics, cargo handling operations, and maritime infrastructure. Students can observe port facilities, including container terminals, warehousing, and control unit operation, automated systems that enhance efficiency and accuracy. The visit also highlights sustainability initiatives, security measures, and the port's role in global trade and economic growth.

Outcomes:

The field visit was arranged with co-operation of Adani Udaan Foundation. It offers a deeper understanding of its state-of-the-art infrastructure, logistics, and operational efficiency. It provides firsthand exposure to cargo handling, automation, and sustainability initiatives that drive global trade. The visit enhances knowledge of port management, supply chain dynamics, automation system, and the economic impact of maritime operations.

Details of Filed Visit

The purpose of this site visit to get students aware about construction materials, different equipments, working system of port and harbour. Adani Hazira Port is a key deep-water port with a capacity of 35 MMT (Million Metric Tonnes). It is an important trade hub for bulk, break bulk, liquid, and container cargo supporting regional and international trade. Mundra Port, the largest port in Adani's network, has a capacity of '260 MMT' and serves as a major gateway for trade. The project manager has given presentation about Adani ports in india. He explained the origin of the Adani foundation its working area, Adani port locations, and its importance in transportation. He also elaborated the working of loading unloading operations, Handling of storage warehouse, open storage and procurement of the different materials in warehouse or in tanks..

Key Observations

A. Infrastructure & Facilities

- The port has '6 jetties' for handling various types of cargo.
- Modern cranes and conveyor systems for efficient cargo handling,
- large warehousing and storage facilities, including liquid storage tanks

B. Cargo Handling Operations

- During the visit, 3 vessels were docked, actively engaged in cargo loading and unloading.
- Advanced digital tracking systems ensure smooth cargo movement.
- Dedicated terminals for dry bulk, liquid, and container cargo.

C. Logistics & Connectivity

- Well-connected to national highways and railway networks.
- Presence of logistics parks for cargo consolidation and distribution.

D. Safety & Security Measures

- 24/7 CCTV surveillance and access control systems.
- Firefighting and emergency response teams on standby.

E. Environmental & Sustainability Initiatives

- Implementation of green energy solutions.
- Strict pollution control measures and waste management systems.

4. Discussions & Key Takeaways

- Interaction with port officials on future expansion and operational efficiency.
- Potential for increasing automation and digitalization in port operations.
- Scope for improved hinterland connectivity and logistics support.

5. Suggestions & Recommendations

- Enhancing digital tracking for real-time cargo movement
- Further strengthening connectivity to improve supply chain efficiency.
- Exploring renewable energy sources for sustainable port operations.

Glimpse of Field Visit





Concluding Remarks:

The visit to **Adani Hazira Port** provided valuable insights into its advanced infrastructure, cargo handling capabilities, automatic operations, and logistical efficiency. From a **civil engineering perspective**, the port's well-planned design, robust jetty structures, high-capacity storage facilities, and efficient transportation networks highlight modern engineering excellence.

Key takeaways include the **strategic use of deep-water berths, innovative material handling systems, and sustainable development initiatives**. The integration of advanced construction techniques in jetty design, warehouse management, and connectivity infrastructure demonstrates the port's role as a critical trade hub.

The visit emphasized the importance of **structural durability, environmental sustainability, and technological advancements** in large-scale port development. The field visit provided a great learning experience for students and faculty members. Future opportunities in port engineering could focus on **enhanced coastal protection, resilient infrastructure, and eco-friendly construction methodologies**.

This experience has broadened our understanding of **maritime infrastructure and large-scale logistics**, reinforcing the significance of civil engineering in supporting industrial growth and global trade.

The **National Assessment and Accreditation Council (NAAC) criteria** are used to evaluate the quality of higher education institutions in India. In the context of a **field visit to Adani Port**, the following criteria are particularly relevant:

1. **Curricular Aspects** – The visit aligns with industry-based learning, bridging the gap between theory and practice in logistics, supply chain management, and port operations.
2. **Teaching-Learning and Evaluation** – It enhances experiential learning by providing real-world exposure to students, improving their analytical and observational skills.
3. **Research, Innovations, and Extension** – The visit encourages research opportunities on maritime trade, sustainability, and technological advancements in port management.
4. **Infrastructure and Learning Resources** – Observing world-class port facilities helps students understand the role of infrastructure in economic development.
5. **Student Support and Progression** – Such visits improve career awareness and professional networking, supporting students' future job prospects in logistics and port management.
6. **Governance, Leadership, and Management** – Insights into Adani Port's organizational structure and governance models offer valuable lessons in corporate leadership and operational efficiency.
7. **Institutional Values and Best Practices** – The visit highlights sustainability initiatives, ethical business practices, and corporate social responsibility efforts undertaken by Adani Ports.

Thus, a field visit to **Adani Port** provides **practical insights** that align with multiple **NAAC criteria**, enriching students' learning experience and employability.

Report prepared by: Prof. (Dr.) Manoj Gundalia

Date: 20-02-2025