



# D.A. D. ENGINEERING & TECHNOLOGY, MAHEMDABAD



## Adani (Mundra) Port Visit Report

24TH - 25TH APRIL 2019

B. E. – 4th SEMESTER & Diploma-4th,6th Semester (77 Students & 4 Faculty)  
MECHANICAL & CIVIL ENGINEERING DEPARTMENT

**PREPARED BY : (DADET STAFF)**

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**MS. MANALEE THAKORE**

# Industry Profile:

Company Name: Mundra Port & Special Economic Zone Ltd.

Address: Adani House, Nr. Mithakhali Circle Navrangpura, Ahmedabad, Gujarat. PIN Code: 380009.

Phone Tel : +91 79 2656 5555

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Homepage: [www.info@adani.com](http://www.info@adani.com)

Work profile: Natural gateway for the cargo hubs functioning in the Northern And Western states of India as well as the NCR.

## About Mundra Port

Mundra Port is the largest private port of India located on the north shores of the Gulf of Kutch near Mundra, Kutch district, Gujarat. Formerly it was operated by Mundra Port and Special Economic Zone Limited (MPSEZ) owned by Adani Group which later it was expanded into Adani Ports & SEZ Limited (APSEZ) managing several ports. In 2013-2014, Mundra Port has handled 100 million tonnes of cargo in a year becoming the first Indian port to do so. It also became India's biggest port by cargo handled.

## About Visit

The technical visit to Adani Mundra port started at 24 April 2019 at 4 AM from Vedant international school Isanpur. There were two buses containing total 76 students and 4 faculties.

The adani buses were boarded up to honest restaurant Halvad. The buses reached honest restaurant around 8:00 AM then from there the buses from Adani were taken up to Mundra port.

The buses reached Adani Shantivihar around 1:00 PM. The students were allocated specific rooms and then lunch was provided later.



Travelling Facility Provided Adani AC Luxury



Lunch Facility





1st Day visit



Degree students Group Photo





Diploma Students Group Photo

## Mundra Port

An infrastructural marvel, the mega port at Mundra is major economic gateway that caters to the land locked northern hinterland of India with multimodal connectivity.

Mundra Port is a deep draft, all-weather port that is today the largest commercial port of India with a high degree of mechanisation. In fact, it is the only port in the country with handling and storage facilities for crude oil, containers, dry bulk, break bulk, automobiles and liquid cargo. Mundra can berth the largest post panamax vessel and can handle four million TEUs or Twenty feet Equivalent Unit.



Ports & Terminals

## Location

Strategically situated on international maritime routes, Mundra Port on the Gulf of Kachchh offers multiple benefits for global trade. The Gulf acts as a natural shelter for the port, facilitating 24x7 safe berthing, un-berthing and vessel operations.

Compared to other ports on West Coast, Mundra Port enjoys logistical advantage in reaching the North-West hinterland of India. This makes it the preferred port for the cargo hubs functioning in the Northern and Western states and union territories of India.

## Adani Mundra Port

The multi-purpose terminals contain nine berths of a total 1.8 thousand meters long with alongside depths ranging from 9 to 16.5 meters. Berth 1 is 275 meters long with alongside depth of 15.5 meters and can accommodate vessels to 75 thousand DWT. Berth 2 is 180 meters long with alongside depth of 13 meters and can accommodate vessels to 30 thousand DWT. Accommodating vessels to 60 thousand DWT, Berths 3 and 4 are each 225 meters long; Berth 3 has alongside depth of 14 meters, and Berth 4 has alongside depth of 12 meters.

Berths 5 and 6 are each 250 meters long with alongside depth of 14 meters, and both can accommodate vessels to 150 thousand DWT. Berths 7 and 8 are each 175 meters long with alongside depth of 12 meters and can accommodate vessels to 40 thousand DWT.



The Barge Berth is 80 meters long with alongside depth of 6 meters and capacity for vessels of 2500 DWT.



#### Loading Unloading Berth

The Mundra Port offers 21 closed dockside warehouses with capacity for 137 thousand square meters to store wheat, sugar, rice, fertilizer and fertilizer raw materials, and de-oiled cakes. The port offers 880 thousand square meters of open storage for steel sheets, coils, plate, clinker, scrap, salt, coke, bentonite, and coal. An additional 26 thousand square meters of open storage is available alongside the railway. The port also offers a wheat-cleaning facility with capacity to handle 1200 metric tons per day and a rice-sorting and –grading facility that can handle 500 metric tons per day.

Adani Ports and Special Economic Zone Limited (APSEZ) is promoted by Adani Group, one of India's largest business conglomerates. The US\$11 bn Group has interests across resources -coal mining and trading; logistics- ports and logistics, shipping and rail; energy - renewable, thermal power generation and transmission; agro commodities and ancillary industries.

Adani Ports and Special Economic Zone Limited is India's largest ports developer and Operator Company. In less than two decades, we have built, acquired and developed an unparalleled portfolio of ports infrastructure and services across India - for India. Our ten strategically located ports and terminals represent 24% of the country's port capacity, handling cargo of vast hinterland, demonstrating that when it comes to servicing core national needs, Adani Ports is prepared with scale, scope and speed.

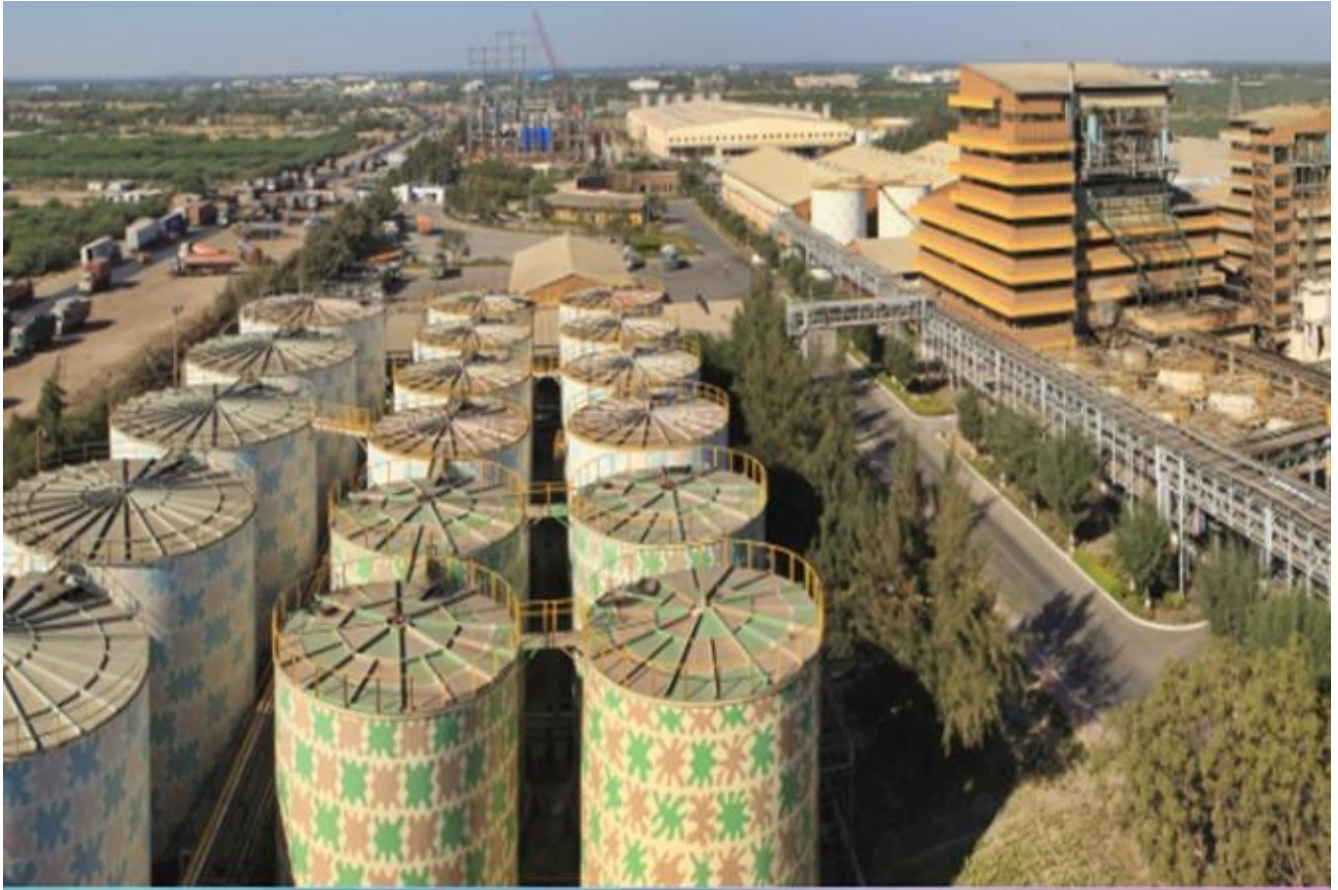


# Adani Wilmar Limited

Adani Wilmar Limited (AWL) is a joint venture incorporated in January 1999 between Adani Group & Wilmar International Limited - Singapore. Today, AWL owns refineries in 17 strategic locations across India, has 8 crushing units and 18 toll packing units. Cumulatively, this translates to a refining capacity of over 11000 tonnes per day, seed crushing capacity of 7500 tonnes per day and packaging capacity of 9000 tonnes per day. In the refining process, the first step was BLEACHING. Under bleaching, the major impurities were removed from the oil which deteriorated the colour of the oil.



Industrial land



The bleached oil was then **FILTERED** and the heavy impurities were taken out from it. Finally, the strong smell of crude was to be eliminated to get the final product. Thus the **DEODERIZATION** of oil was done. This process removed all the impurities which were deteriorating the odour of oil.

After knowing refining, students were taken to the packaging section of the oil industry. Uniform conveyer belt system that connected the whole packaging process into one. The oil bottles were filled and entered into the station where first they were shut with bottle caps. And then they were further passed to put on the Label. Afterwards, a packaging machine packed 36 bottles each at the same time into three different boxes i.e. 12 bottles in one box. Finally the boxes were sealed with tape and were further sent for storage or export.



The whole process was fully automatic and was working on PLCs. The PLCs made the work so easy that not a single human was involved in this process at any instance of time. ADANI WILMAR packaging unit has 6 cold storage units in which the temperature is slowly decreased up to -5 degree Celsius. The fully equipped Adani Wilmar can produce 6000-7000 liters of oil/hour in the industry.

## Exports

Adani Wilmar Limited's Export division was started in 2004, and our exports markets are the Middle East Countries, South-East Asian Countries, Africa, Ukraine, etc. AWL has been awarded the status of Trading House, by the Government of India. They were the first to launch Soyabean oil in a packed form in Middle East Countries. Fortune and Raag brands are registered in all Middle East countries. Today, they have distributors set all across the Middle East, covering all A / B class outlets.





### Logistics

The students have also viewed the Jetty and various ships from the bus. The students have also visited Shantinath Mahadev Temple during evening prayer followed by dinner and were engaged in fun games in the campus later. Next day 25th April 2019 morning was started by yoga followed by laughing session.



### Shantinath Mahadev Temple

After yoga session and laughing session everyone had breakfast. The students have check out their rooms for visiting West port and Adani power plant.

# Adani Power Plant

Adani's first power plant at Mundra was formed to cater to the Mundra port Adani ports was already the largest importer of coal, supplying over 50% of the country's imported coal needs and at Mundra, managed the world's largest import coal terminal. The Mundra Thermal Power Project was conceived to provide power for the captive consumption of APSEZ in Mundra. Thereafter the vision and the capabilities of the promoters has made Mundra Power project the largest single location Coal based Thermal Power Station in India and one of the top five in the World. All the nine units of Mundra power plant have been commissioned one after another in shortest possible time of 33 months.



Largest single location private coal based power plant in the world. Adani Power created history by synchronizing the first super-critical technology based 660MW generating unit at Mundra.

This is not only the first super-critical generating unit in the country but also the fastest project implementation ever by any power developer in the country with synchronization within 36 months from the inception. Mundra Thermal Power Station. A 4620 MW (4x330, 5x660 MW) coal-based thermal power plant at Mundra, Kutch district, Gujarat.

This plant is fully functional. It operates first power transmission project of 400 kV Double Circuit Transmission System from the Mundra plant to Dehgam (430 km). The Phase III of the Mundra Project, which is based on supercritical technology, has received 'Clean Development Mechanism (CDM) Project' certification from United Nations Framework Convention on Climate Change (UNFCCC).



This is the world's first thermal project based on supercritical technology to get registered as CDM Project under UNFCCC.



The power plant supplied 4620 Mega Watts of energy. Out of these 2000 is supplied to HARYANA, 2000 to GUJARAT government, & 620 is internally used. It uses HVDC (High Voltage DC) for transmission to HARYANA as it is a long distance transmission it is to be converted into DC first & then it is again recovered. Live status of frequency and power generated was available in the control room. The visit was ended after lunch and feedback to the officials. The buses have started from Mundra around 1:15 pm and reached Vedant International School Isanpur at 9:35 pm.

The visit was truly professional and well managed till the end. The staff and students were thankful to the Adani foundation and D.A.D Engineering college Mahemdabad for granting the permission for the visit.