

VISIT TO Adani Thermal Power Plant



Name of Place: Adani Thermal Power Plant (Mundra)

Date: 9th October ,2025

Venue: Mundra, Kutch

No. of Students Participated: 107 (2nd and 3rd Year EC and ICT students)

Faculty Coordinators: Dr. Hitesh Shah

Mr. Rohit Parmar

Mr. Pradeep Shah

Mr. Jay Pandya

Mr. Ramesh Sargara

1. Introduction

An industrial visit to the **Adani Thermal Power Plant, Mundra**, was organized by Electronics and Communication department on **9th October 2025** for the students of **Electronics & Communication (EC)** and **Information & Communication Technology (ICT)** branches of G H Patel College of Engineering and Technology, Vallabh Vidyanagar. The objective of the visit was to provide students with practical exposure to **large-scale thermal power generation**, plant automation, and power system operations.

Thermal power plants continue to play a vital role in meeting India's base-load electricity demand. This visit enabled students to understand the functioning of a coal-based thermal power plant and its importance in the national power infrastructure.

2. Overview of the Thermal Power Plant

The Adani Thermal Power Plant at Mundra is one of India's largest **coal-based power generation facilities**, strategically located near the port for efficient fuel logistics. The plant consists of multiple high capacity generating units supported by advanced control, protection, and monitoring systems.

Students were briefed about the overall plant layout, including **fuel handling systems, boiler units, turbines, generators, cooling systems, and transmission infrastructure**.

3. Power Generation Process

During the visit, engineers explained the **step-by-step thermal power generation process**, which includes:

- Coal handling and pulverization
- Steam generation in high-pressure boilers
- Conversion of thermal energy into mechanical energy using turbines
- Electrical energy generation through alternators
- Power evacuation through transformers and transmission lines

Students gained insight into how **thermal, mechanical, and electrical systems** are integrated to ensure continuous and reliable power generation.

4. Automation, Control, and Electrical Systems

Special emphasis was placed on **automation and control systems**, which are highly relevant for EC and ICT students. The following aspects were discussed:

- Distributed Control Systems (DCS)
- SCADA-based monitoring and control
- Protection relays and switchgear
- Instrumentation and sensor networks

The visit helped students relate theoretical concepts of **control systems, power electronics, and industrial communication** with real-time power plant operations.

5. Safety and Environmental Practices

The plant authorities highlighted strict **safety protocols and environmental management practices** followed at the facility. Students were briefed on:

- Electrical and mechanical safety measures
- Fire detection and emergency response systems
- Pollution control techniques such as electrostatic precipitators
- Ash handling and waste management systems

This session emphasized the importance of **safe and environmentally responsible power generation**.

6. Learning Outcomes

The industrial visit enabled students to:

- Understand the working of a large-scale thermal power plant
- Gain exposure to power generation, automation, and control systems
- Appreciate the role of EC and ICT engineers in the power sector
- Connect classroom learning with real-world industrial applications

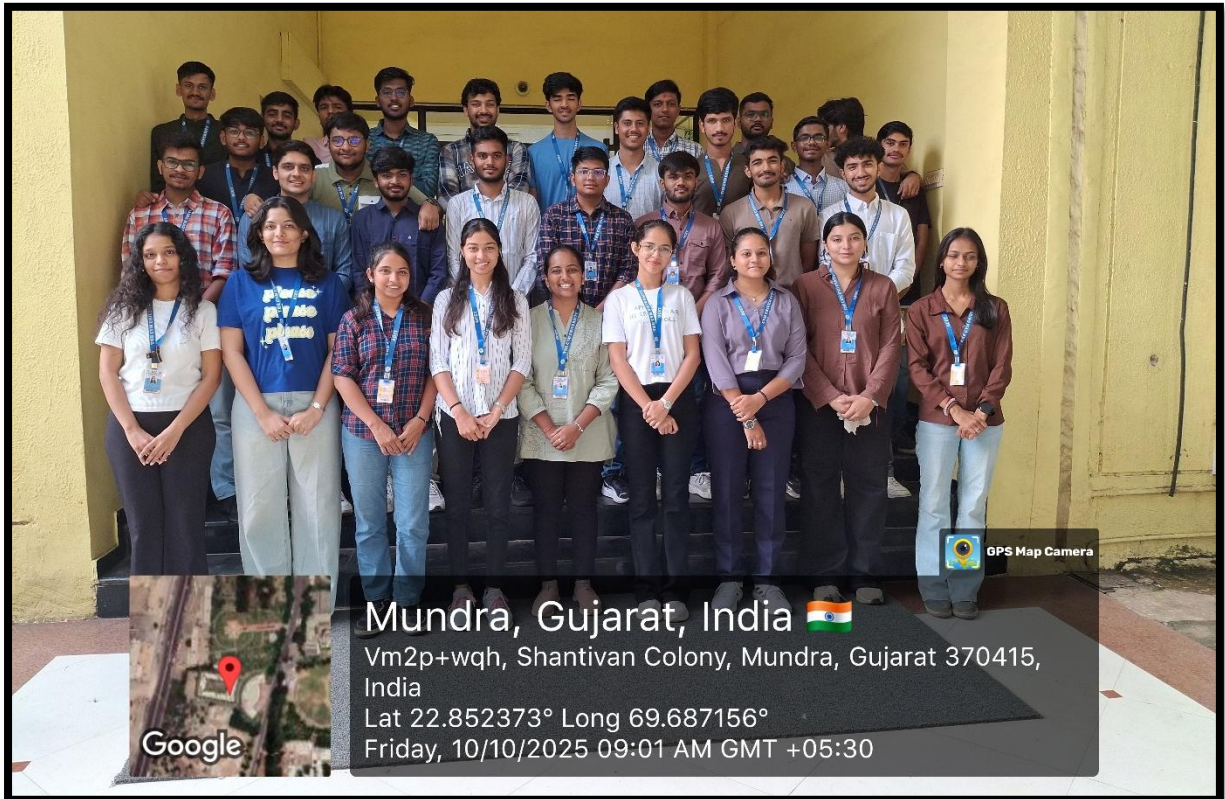
7. Conclusion

The industrial visit to the **Adani Thermal Power Plant, Mundra**, was an informative and valuable learning experience. It enhanced students' understanding of thermal power generation and modern power plant operations. Such visits play a crucial role in strengthening practical knowledge and preparing students for future challenges in the power and energy sector.

This Visit was organised in association of IEEE Student Chapter (GCET IEEE SB).

PHOTOGRAPHS:





SIGNATURE LIST:

Place of Visit: ADANI THERMAL POWER PLANT, APSEZ, MUNDRA

Date: 09/10/2025

SIGNATURE LIST

Sr. No	ENROLLMENT NO.	NAME OF STUDENT	LEVEL	SIGNATURE OF STUDENT
1	12302060501002	Aman Rambabu Singh	3rd Year	
2	12302060501003	Anushka Heman Shah	3rd Year	
3	12302060501004	Bhavya DHARMESHKUMAR Patel	3rd Year	
4	12302060501005	Darsh Ashok Upadhyay	3rd Year	
5	12302060501009	Divya Jayeshkumar Patel	3rd Year	
6	12302060501010	Drashti Arvindbhai Savaliya	3rd Year	
7	12302060501012	Shingala Himesh Prabhudasbhai	3rd Year	
8	12302060501013	Huzefa Imran Parekh	3rd Year	
9	12302060501017	Mantra Janardan Rajyaguru	3rd Year	
10	12302060501018	Meet Kiran Parekh	3rd Year	
11	12302060501019	Niraj Ravindra Keste	3rd Year	
12	12302060501020	Nirja Amar Fijiwala	3rd Year	
13	12302060501022	Parshwa Pankeshkumar Patel	3rd Year	
14	12302060501024	Rudresh Mehul Dave	3rd Year	
15	12302060501027	Siddhi JatinKumar Suthar	3rd Year	
16	12302060501032	Vishaal K Sugumar	3rd Year	
17	12302060501033	Vishu Shaileshbhai Porwal	3rd Year	
18	12302060501034	Zeel Paresk Kumar Agrawal	3rd Year	
19	12302060501035	Kritikaba Rajkumarsinh Zala	3rd Year	
20	12302060501038	Aadhya Vijaykumar Dave	3rd Year	
21	12302060501040	Neel Viralbhai Patel	3rd Year	
22	12302060501042	Sneh Manojkumar Mistry	3rd Year	
23	12302060501043	Vedant Nilesh Bhatt	3rd Year	
24	12302060501044	Dalwadi Hirangi Umeshbhai	3rd Year	
25	12302060601001	Darshan Dheerajbhai Jadav	3rd Year	
26	12302060601002	Dhyey Pragadeshbhai Patel	3rd Year	
27	12302060601003	Jaimin Ashokbhai Makwana	3rd Year	
28	12302060601004	Ujjawal Vachaspati Sharma	3rd Year	
29	12302060601005	Het Hiteshbhai Mehra	3rd Year	
30	12402050601004	Ananya thakar Samir thakar	2nd Year	
31	12402060501005	Patel Ansh Vishnubhai	2nd Year	

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32	12402060501006	Aryan Bhavesh Chokshi	2nd Year	A.B.Chokshi
33	12402060501007	Daksh Rajeshbhai Karia	2nd Year	Daksh
34	12402060501008	Dev Bhaveshkumar Patel	2nd Year	Dev
35	12402060501009	Dev Bhavikbhai Patel	2nd Year	Dev
36	12402060501010	Dhruv Hiteshkumar Patel	2nd Year	Dhruv
37	12402060501011	Dhruv Jigneshkumar Rana	2nd Year	Dhruv
38	12402060501012	Dhruvi Hiteshkumar Bhatt	2nd Year	Dhruvi
39	12402060501013	Dhruvil Nimeshkumar Shah	2nd Year	D.V.S
40	12402060501014	Dhruvkumar Nileshkumar Patel	2nd Year	Dhruv
41	12402060501015	Dhyan Priteshkumar Patel	2nd Year	Dhyan
42	12402060501017	Hem Prafulchandra Patel	2nd Year	Hem
43	12402060501018	Himani Sampatkumar Joshi	2nd Year	Himani
44	12402060501019	Hirva Pravinbhai Narigara	2nd Year	Hirva
45	12402060501020	Honey Hemant Sakalshawala	2nd Year	Honey
46	12402060501025	Krina Jagdipsinh Mahida	2nd Year	Krina
47	12402060501026	Krish Chimanbhai Vadukiya	2nd Year	Krish
48	12402060501027	Krutil Niravkumar Patel	2nd Year	Krutil
49	12402060501029	Malay Jagdishbhai Kansagara	2nd Year	M.J.K
50	12402060501030	Misty Yogesh Patel	2nd Year	Misty
51	12402060501032	MUSTANSIR MURTUJABHAI JADLIWALA	2nd Year	Mustansir
52	12402060501033	Neel Dharmeshkumar Vyas	2nd Year	Neel
53	12402060501034	Neel Jigarkumar Prajapati	2nd Year	Neel
54	12402060501035	Neeti Hitendrabhai Shah	2nd Year	Neeti Shah
55	12402060501037	Piyush Kuldeep Sharma	2nd Year	Piyush
56	12402060501038	PRERAK SANDIPKUMAR KA.PATEL	2nd Year	Prerak
57	12402060501040	Priyadarshini Ashokbhai Jankat	2nd Year	Priyadarshini
58	12402060501042	Pruthvikumar Sanjaybhai Jasani	2nd Year	P.S.J.
59	12402060501043	Raj Amitbhai Patel	2nd Year	Raj
60	12402060501044	ROHAN CHANDRAKANTEBHAI PATEL	2nd Year	Rohan
61	12402060501045	Rudra Dipakbhai Machhi	2nd Year	Rudra
62	12402060501046	Rutvi R Shah	2nd Year	Rutvi
63	12402060501048	Shiv Pankajkumar Chauhan	2nd Year	Shiv
64	12402060501049	Shreya Neel Patel	2nd Year	SNP

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65	12402060501050	Shreyansh Bipin Khuble	2nd Year	<i>Shubha</i>
66	12402060501051	Shruti Ajay Paldhikar	2nd Year	<i>Shruti</i>
67	12402060501052	Jeet Tushar Bhai Shukla	2nd Year	<i>Jeet</i>
68	12402060501055	Taksh Jaykumar Patel	2nd Year	<i>Taksh</i>
69	12402060501056	Taksha Hetal Patel	2nd Year	<i>Taksha</i>
70	12402060501057	PATEL Tirth ALPESHKUMAR	2nd Year	<i>Tirth</i>
71	12402060501058	PARMAR UTSAVRAJ NARESHKUMAR	2nd Year	<i>Utsav</i>
72	12402060501059	Ved Kalpeshkumar Contractor	2nd Year	<i>vedcontractor</i>
73	12402060501060	Ved Pareshkumar Prajapati	2nd Year	<i>Ved</i>
74	12402060501061	VEDANSH DARSHANKUMAR SUTHAR	2nd Year	<i>VEDANSH</i>
75	12402060501062	Vedantkumar Pankajbhai Prajapati	2nd Year	<i>Vedant</i>
76	12402060501063	Vedika Haresh Kanani	2nd Year	<i>Vedika</i>
77	12402060501064	Venisha Raiyani Dilipbhai	2nd Year	<i>venisha</i>
78	12402060501067	Viva Nirav Shah	2nd Year	<i>Viva</i>
79	12402060501068	Vrajesh Pareshkumar Rana	2nd Year	<i>Vrajesh</i>
80	12402060501069	Yakuta Hozefa Bhatia	2nd Year	<i>Yakuta</i>
81	12402060501070	Yash Hiteshkumar Panchal	2nd Year	<i>Panchal</i>
82	12402060501071	Bhavya Mineshkumar Brahmhatt	2nd Year	<i>Bhavya</i>
83	12402060501072	Dhruv Tushar Kumar Doshi	2nd Year	<i>Dhruv</i>
84	12402060501077	samrat Jasvant Kiri	2nd Year	<i>Samrat</i>
85	12402060501078	Ved Kalpeshkumar Divawala	2nd Year	<i>Ved</i>
86	12402060501079	Vidhi Jethva Jigneshbhai	2nd Year	<i>Vidhi</i>
87	12402060503001	Kishan Narendra Patel	3rd Year	<i>Kishan</i>
88	12402060503003	Priyanshu S. Shah	3rd Year	<i>Shah</i>
89	12402060603001	Gor Bhumika Harikrishna	3rd Year	<i>Gor</i>
90	12402230501003	Aniyaliya Akshay Arvindbhai	2nd Year	<i>Aniyaliya</i>
91	12402230501009	Dhrumi NileshBhai Vankar	2nd Year	<i>Dhrumi</i>
92	12402230501010	Hemany Vilasbhai Chaudhuri	2nd Year	<i>Hemany</i>
93	12402230501011	Ishan Prakashkumar Patel	2nd Year	<i>Ishan</i>
94	12402230501017	Krish Pravinkumar Deria	2nd Year	<i>Krish</i>
95	12402230501021	NISARG GANPATBHAI PATEL	2nd Year	<i>N. G. Patel</i>
96	12402230501026	CHAUHAN RUDRA SHANIKUMAR	2nd Year	<i>Rudra</i>
97	12402230501029	Umang Nandubhai Pawar	2nd Year	<i>Umang</i>

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98	12402230501030	Vatsal bharatbhai Khanpara	2nd Year	<i>Vatsal</i>
99	12403020605030	MAHEK VIRENDRASINH PUVAR	3rd Year	<i>Mahek</i>
100	25ECD001	Jinil Bhargavkumar Jani	2nd Year	<i>Jinil</i>
101	25ECD401	Het Manojkumar Parekh	2nd Year	<i>Hmparekh</i>
102	25ECD402	Preya Ashwinkumar Patel	2nd Year	<i>Preya</i>
103	25ECD403	Priyanshi Nileshbhai Patel	2nd Year	<i>Priyanshi</i>
104	25ICTD001	Shubham Rashmin Pandya	2nd Year	<i>SRPandya</i>
105	25ICTD003	Hansaliya Shyam Jitendrabhai	2nd Year	<i>Hansaliya</i>
106	25ICTD401	Sara Sanjeev Varghese	2nd Year	<i>Sara</i>
107	25ICTD402	Ved NimeshBhai Vaidhya	2nd Year	<i>Ved</i>
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