A.D. Patel Institute of Technology

New Vallabh Vidyanagar

Industrial Visit at",
"National Engineering Industries
(NBC Bearings), Manjusar"

Date: 14.09.2024

(Under the Banner of IIC)

- **Date:** 14.09.2024
- **Time:** 10:30 a.m to 04:00 p.m
- **Institute:** A.D. Patel Institute of Technology
- **Industry/company/agency:** NBC Bearings, Manjusar, Vadodara
- **Coordinator:** Prof. Satyavrat Patel, Prof. Sankalp Bhatiya
- **Convener: Dr. Bhagirath Prajapati**
- **Banners (Support from professional Societies)**

Sr. No		Name of Co-coordinator/Mentor/Counselor at A.D.I.T
1	Institution's Innovation Council (IIC)	• Dr. Bhagirath Prajapati (Convener) • Prof. Khushali Patel (Co-convener)
2	Applicable cell or professional society	•

- **Delegates:**

Sr. No	Name of the Speaker	Designation and Short Introduction of Speaker
1	Mr. Bhavesh Pathak	HR Manager, NBC Bearings

- **No of Students Participants: 33**
- **No. of staff Participants: 03**

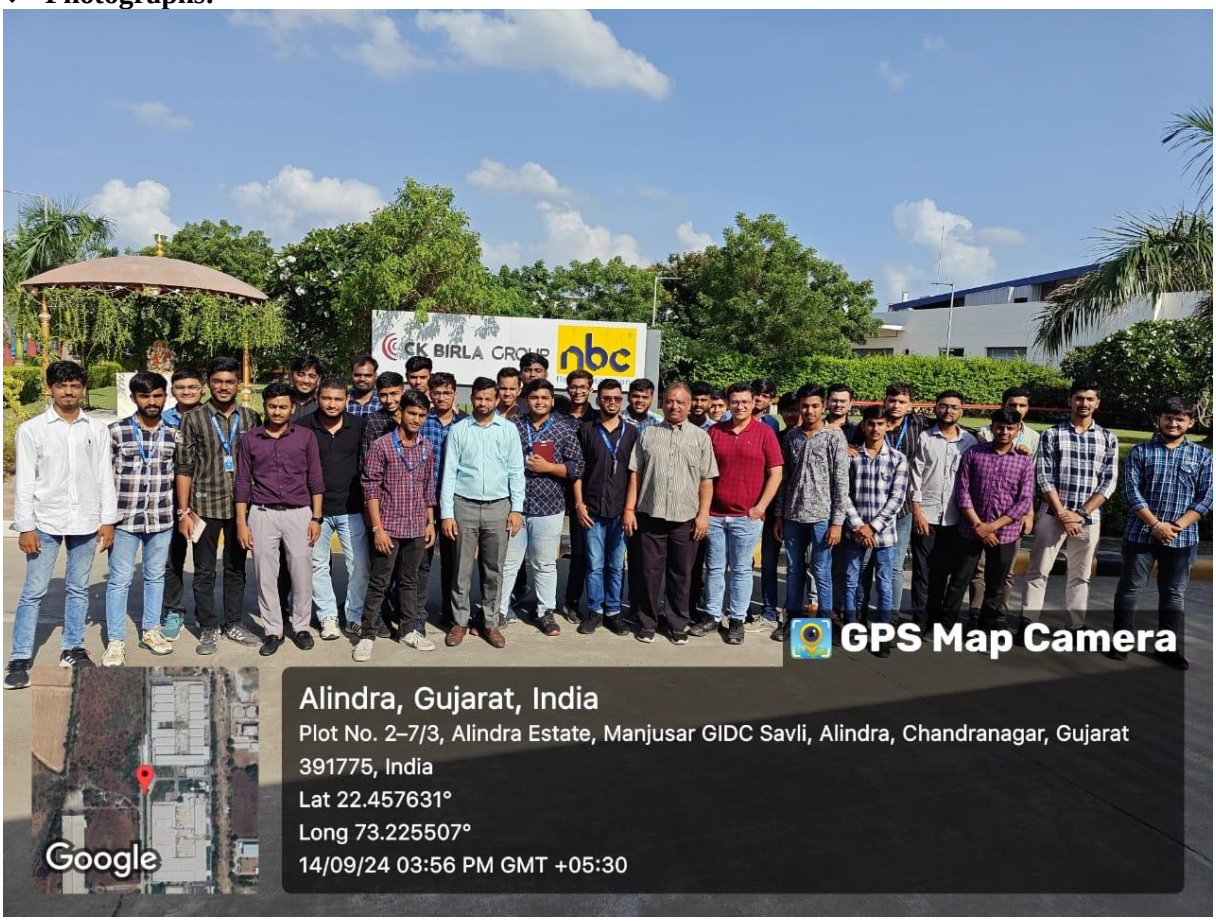
- **Objective, Outcomes and brief report of Industrial Visit:** The visit's objective was to allow students to interact with NBC Bearings expert and learn about the technical exposure of several bearing manufacturing, production lines, assembly departments, and heat treatment process .Industrial visit was carried out at NBC bearings Manjusar plant on 14th September 2024 for 2nd and 3rd year of B.Tech Automobile student and also for 2nd year Diploma Automobile students. The main objective behind the visit was to make student aware about how various activities related to manufacturing of bearings. I along with 33 students left for visit in college bus at 9:00 a.m. and took about one and half hour to cover the distance. The plant is located at manjusar, Vadodara .As soon as we reached the Plant we were guided by the resource person Mr. Manish Pandey, Plant head of NBC bearings who helped us to see the entire facility of plant. Further, students were divided in two groups. 1st group visited phase one that is manufacturing of ball bearings and 2nd group visited phase two that is manufacturing of tapered roller bearings and they visited departments like bearing manufacturing, production lines, assembly departments, and heat treatment process etc. and obtained the deep knowledge of the production and functioning of the organization. After completion of 1st phase we took lunch and after that they swipe the groups and visited another phase of plant. Students were quite impressed with the kind of facilities available over there and it was very good opportunity for us to see how the practical things like manufacturing of ball bearings and tapered roller bearings. The entire plant is divided into two phase. Phase one is manufacturing of ball bearings and second phase is manufacturing of tapered roller bearings. NBC bearings has partnered with automotive OEMs across continents to provide bespoke bearing solutions to the ever-changing needs of automotive manufacturers and work very closely with them to create bearings which are suitable for new-age vehicles. The imperative focus is on weight reduction, fuel efficiency and low noise bearings. We are also involved with domestic and international Electric Vehicles manufacturers to provide them bearings for the upcoming vehicles. This industry, as we all know, is slated to grow exponentially in the coming years. Ball bearings are essential components in numerous mechanical systems, ensuring smooth operation by reducing friction between moving parts. At the heart of these bearings are the races, which play a crucial role in the bearing's functionality and performance. The quality and performance of bearing races are significantly influenced by the materials used and the manufacturing processes employed.

  Bearing races are commonly made from high-grade steel, such as chrome steel (AISI 52100), due to its excellent hardness, wear resistance, and fatigue strength.

  In some specialized applications, other materials like stainless steel or ceramic may be used for their corrosion resistance or low weight.

- **Expenditure:** 712 INR

❖ **Photographs:**




CAPABILITY ENHANCEMENT CENTRE
nbc

❖ **List of Participants: (Attendance Sheet):**

CVM UNIVERSITY

ADIT
A D PATEL INSTITUTE OF TECHNOLOGY

Industrial Visit at NBC Bearings, Manjusar, vadodara on 14.9.2024

Sr No	Enroll No	Name	Sign
1	12302010601004	Prajapati Dharmik Poonambhai	
2	24D2DAE02	Montu Maniya	
3	24D2DAE05	Vyas Kuldeep M.	
4	24D2DAE03	Sarvaiya Rushirajsinh	
5	12302010601003	Jay Sargara	
6	12302010601006	Vahora Mohammad Zaid	
7	12302010601001	Harshil Shah	
8	24D2DAE06	Dev Lathia	
9	216040319143	Satyam B Patel	
10	12302010601002	Saiyad Mohammed Jasir Saiyad Mohammed Sajid	
11	24D2DAE01	Mepani Dhaval Sunilbhai	
12	12302010601005	Mohit Patel	
13	12302010603002	Solanki Badalkumar Umeshbhai	
14	12302010603007	Patel Shivam Hiteshkumar	
15	12302010603011	Modi Viral Mehul	
16	12302010603004	Maru Kartik Sandipkumar	
17	12302010603003	Mistri Dhruv Bharatkumar	AB
18	12302010603010	Patel Ved Dharmesh	AB
19	12302010603012	Vohramohmmad Zaid Anasbhai Vohra	
20	D2D24ME06	Rushi Jigneshbhai Luhar	AB
21	42302810601012	Parekh Dharm Bhaveshbhai	

22	42302810601008	Krish N Purohit	
23	42302810601011	Milap Paresh Bhai Barot	
24	408	Vadodaria Kirtan Manishbhai	
25	42302810601004	Bhoraniya Dharmikkumar Bipinbhai	
26	42302810601017	Patel Heer Tejas	
27	4230281060105	Macwan Priyanshu Arvindbhai	
28	24 C to D AE1	Parmar Mehulbhai Dilipsinh	
29	42302810601002	Sen Bhavin Vasantbhai	
30	42302810601005	Parmar Harpal Manojkumar	
31	42302810601003	Patel Devarshkumar Jitesh Bhai	
32	42302810601014	Prem Soni	
33	423028601001	Arpit Padhiyar	AB
34	1202090601005	Krish Patel	
35	24D2DME 05	Bhatiya Abhishek Atulbhai	
36	24D2DME10	Mansuri Ayaan Rafikahmed	
37	24D2DME01	Joshi Karan Shaileshkamar	AB
38	12302090601006	Kush Dineshbhai Thakor	AB
39	12302090601002	Jepar Hardas Valjibhai	
40	12302090601001	Abrarahemad Rafikhusen Malek	
41	Faculty	Satyavrat Pankajbhai Patel	
42	Faculty	Sankalp Bipinkumar Bhatiya	
43	Faculty	Shaileshbhai Patel	