



Sarvajanik College of Engineering & Technology, Surat

A report

on

Visit to

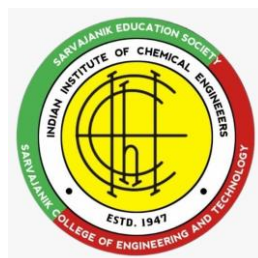
M/s. Aether Industries Limited, Sachin.

(For students of BE III SEM VI)

on

12.04.2023 & 13.04.2023

In Association with IChE Student Chapter, SCET



Shree Dhanshukhlal Thakordas
Department of Chemical Engineering
Sarvajanik College of Engineering & Technology,
Dr. R. K. Desai Marg, Athwalines, Surat- 395001

➤ **Objectives of the visit:** To make the students understand the various aspects of Process and production of various products.

Resource Person:	Dr. Aman Desai, Director, Aether Industries Ltd.
Venue:	Aether Industries Ltd., Sachin, Surat
Date and Time:	12-13 th April'2023 at 10:00 AM to 2:00 PM
Participants:	BE III SEM VI Students
Faculty Coordinator	Prof (Dr) Vaishali Umrigar.

Summary:

Aether is a pharmaceutical industry that produces specialty Chemicals and API (Intermediates). The date of incorporation of the company is 23 Jan 2013 for the manufacturer of basic chemicals which comes under the division MANUFACTURE OF BASIC CHEMICALS AND CHEMICAL PRODUCTS.

All the students and faculties were provided I-cards as visitors for the entry. After that, students went to their cafeteria, where Students met the H.R. of the company Mr. Harsh Vora. He explained every detail about the company's production facilities, establishments and achievements till date. Thereafter, Mr Vora had given the brief about the DO'S & DON'T'S, while visiting the company for safety as it was a hydrogenation-based plant, and as we know hydrogen is very dangerous and can be fatal too.

Further, he divided the visitors in 2 groups each with one faculty member, a guide, and a safety dept. head. Around 11 A.M. we started the visit. The guide explained firstly, about the hydrogenation plant the AUTOCLAVE REACTOR, and how it works. Students were being explained about how hydrogen gas is handled with utmost care. He also explained the 3-stage safety system i.e., 1) pressure relief valve (14 kg), 2) safety valve (16 kg), and 3) Ruptured Disc. Also, if by chance hydrogen leaks then there is a gas smoke sensor just above the reactor and there was a system in which hydrogen is collected in a CATCH POT. This way Students were enlightened about the safety and the process. The product from the reactor is filtered out in a candle filter and most of the catalyst is recovered.

Then, they introduced the Grignard reaction which until now they have seen in textbooks only, they briefed about how to manage the reaction which requires no moisture, around 0.001%. Students had been being explained about handling of magnesium and the reactors were assembled in series with internal REFLUX of solvent which helps to maintain the temperature of the system indirectly.

Thereafter, students had visited the D.C.S. CONTROL SYSTEM. It was mesmerizing how one can control each and every flow of material through valves just by sitting in a room. Even if there is any issue in the flow, one can easily detect it through the DCS system, also it provides different views, like; utility flow, each sectional view, pump, and valves view, etc.

At last, there was a visit of fire pump house. The industry person explained the different types of pumps working at different pressures & capacities for the handling of fire: 1) jockey pump, 2) Main pump, 3) Diesel pump, and one alternate pump.

Overall, it was an amazing experience, how an industry works in a synchronizing and careful way. Students have also learned many things like ANFD (AGITATED NUTSCHE FILTER & DRYER) which is one the advanced technology.

GLIMPSES OF THE VISIT:



Acknowledgements

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- **Managing trustees and office bearers of the Sarvajanik College of Engineering and Technology**
- Prof. (Dr.) Hiren Patel, **Principal, SCET**
- Dr. Vaishali Umrigar, **Head, Chemical Engineering Department**
- **IChE Student Chapter, SCET**

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