

Industrial visit report
27/02/2019
Amul Chocolate Unit-Food Complex
Mogar

In time: 10:30 a.m.

Out time: 12:30 p.m.

It was a chocolaty morning for the students of the final year Mechatronics department. The department had organised an industrial visit to the “**Amul Chocolate Unit-Food Complex**”, Mogar, Anand.

On reaching the plant we were welcomed graciously by their delegates. Soon we were escorted to their chocolate manufacturing unit. We were divided into two batches and started our tour from there onwards. The pleasant aroma of chocolates followed us on our entire journey. Firstly we were briefed about the entire plant dividing it into 5 major departments namely Amul chocolate plant, Bread spread plant, Ready to use therapeutic food, Malted milk products and finally Bakery department.

Then we proceeded towards the main manufacturing unit. At the beginning we saw the various ingredients involved in the making of chocolate. There we were explained about the different types of refinement grades. Moving ahead we went through the processing of cocoa nibs into fine liquid form. This liquid was further processed and other ingredients were added depending upon the flavour requirement followed by the churning process which was by ball mills. This was stored in conch where it was heated at 65 °C temperature. With the help of pipes this mixture was transferred to rotary depositors working on hydraulic mechanism to inject mixture into mould plates to produce bars of chocolate. The moulds are then stored at 7 °C to 8 °C temperature to let it solidify. Then with the help of twisting and hammering equipment the bars were removed from the mould plates and were ready for packaging. They moved on conveyors to the packaging department where robotic arms are being used. There was an entire thermal unit used to maintain the temperature of connecting pipes and prevent them from getting over heated or too cooled. The entire plant was completely automated and worked on PLC SCADA without any human interaction. Being the only fully automatic chocolate manufacturing

plant in india it was worth a visit for the students. Ending the tour on a sweet note we were offered with some delicious chocolates. We ended the day with some photographs and taken back some valuable information with us.