

A Report

On

**“Industrial Visit – Bosch Rexroth ”**

For the Students of Mechanical Engineering Department. (Semester – VIII)

On 13<sup>th</sup> April 2018. (Friday)

- **Objective:** “Training and Exposure on the working of a Hydraulic equipment , plant automation, Lean manufacturing , FMS related to the subject of Product Design and Value Engineering, Oil Hydraulics and Pneumatics and Computer aided Manufacturing in Sem VII and Sem VIII.”
- **Venue:** “Bosch Rexroth, Sanand, Ahmedabad, Gujarat.
- **Number of Students:** 70 (VIII semester, Mechanical Engineering)
- **Head of the Department:** Mr Tushar Thakar
- **Faculty Coordinator’s:**
  1. Mr. Milan D. Trivedi (Asst. Prof. Automobile Engg. Dept.)
  2. Mr. Amar R. Contractor (Asst. Prof. Automobile Engg. Dept.)
  3. Mr. Pravin B. Zinzala (Asst. Prof. Mechanical Engg. Dept.)
  4. Mr. Mitesh S. Arora (Asst. Prof. Mechanical Engg. Dept.)

## **1.1 OVERVIEW:**

The number of students who attended the visit was 70 accompanied by 4 faculty members. On the day of visit, the students and the faculty left the college campus at 1:40 PM and reached the venue at 2:30 PM. The students as well as faculty travelled on two buses hired by LJJET accordingly. Plant visit was completed upto 5:00 PM and we reached back to LJJET at 6:00 PM.

Initial seminar on the working of Bosch was given by Mr. Prakash Sir (Industrial Visit Coordinator ) to the students. They explained the working and safety measures of company, explained about what to do in case of emergency.

Under their guidance and along with 4 faculties, students were then led to visit Manufacturing unit of plant.

To put it briefly, following sections of the Bosch were visited.

- Electric Drives and control
- Industrial Hydraulics, Linear motion technology
- Assembly Technology
- CNC machines
- Deburring machine

## **1.2 Plant Details:**

Bosch Rexroth (India) Private Limited is one of the leading specialists in drive & control technology. The company supplies tailored solutions for driving, controlling and moving. Bosch Rexroth is partner for industrial applications (machinery applications & engineering and factory automation), mobile applications, thus a supplier choice of customers for high quality hydraulic, electric drives, and controls, linear motion and assembly technology components and systems.

Established in 1974, Bosch Rexroth India serves customers through manufacturing facilities at Ahmedabad and customized unit in Bengaluru with wide spread Sales and Service offices, Dealer's network all over India. The Drive and Control company offer its customers all drive and control technologies such as Industrial Hydraulics, Mobile Hydraulics, Linear Motion and Assembly Technology, Electric Drives and Controls. Rexroth is a reliable partner for its customers, supporting their production of safe and efficient machines and thereby contributing to the economical use of natural resources. The company is accredited to ISO 9001:2008, ISO 14001:2004, OHSAS18001:2007, ISO 50001 certification.

### **1.3 Manufacturing and Machine department:**

They Manufacture of hydraulic valves, blocks, cylinders and power unit.

Bosch Manufactures components with 1000th mm accuracy; creating multi-product automation lines engineered to efficiently manufacture lots of sizes; moving massive sluice gates weighing several metric tons and the most famous stages in the world; driving the agricultural machines that feed the world.

They are involved with Industrial Hydraulics, Mobile Hydraulics, Linear motion Technology, Assembly technology, Electric drives and control.

Plant was having number of CNC machines having these features:

1. Low space requirements to compact multi-axis control device in control cabinet.
2. Innovative CNC core with extensive technology functions
3. Open system platform
4. Highly configurable operator interface and standard operating concept for easy programming

### **1.4 Features of Company:**

- Employee: 800+

Multi-disciplinary know-how is the basis for innovative solutions that are used as components or customized systems. Because Rexroth offers a complete range of drives and controls, advice to customers is free of technological bias, resulting in the most appropriate solution for the task at hand. Rexroth technologies are used in all branches of industry. Comprehensive service offerings fortify Rexroth's leading position worldwide as a partner for machine and system manufacturers.

## **1.5 Photography**

Photography was prohibited inside plant premises, so group photo was taken outside the plant.





## **SUMMARY AND OUTCOME OF THE VISIT**

The visit enabled the students to

- Recognize the process units –Drives, Controls, Pumps and direction control valves
- Identify input and output for the process.
- Experience the importance of working safety.
- Understand the concept of Assembly lines, FMS and 5S.
- Understand how the product of the plant interfaces to the world.

Below are listed feedbacks of few of the students

1. Practical exposure to student.
2. The visit has helped them to understand their already learned subject.



### **ACKNOWLEDGEMENT**

The coordinators are grateful to the College authorities, Management and the Vice President – Dr. Manish Shah (LJK Trust) for supporting them to carry out such a program and for providing the support. Secondly, the coordinators would like to thank Dr. A.C. Suthar – Director (L.J.I.E.T.), who encouraged the coordinators for this program. Also, the coordinators extend their gratitude to the Head of the Department – Mr Tushar Thakar, who has played a major role by being there at the time of need. Last but not the least; the students did a wonderful job and the coordinators are proud of each of their students.

