



AJ INSTITUTE OF ENGINEERING & TECHNOLOGY

A Unit of Laxmi Memorial Education Trust ®

(Approved by AICTE, New Delhi, Affiliated to Visvesvaraya Technological University, Belgaavi)

Department of Mechanical Engineering

Report on Industrial Visit from 3rd April 2019 to 5th April 2019

Day 1(Morning)

Industry Name: CSIR-NAL, HAL Airport Road, Bengaluru

Date of Visit: 03/04/2019

Time: 9.00 AM-12.15 PM

The department of Mechanical Engineering had organized an industry visit for the VI semester Mechanical Engineering students to CSIR-NAL on 03 April 2019. A total of 21 students from the VI Semester along with faculty members Mr. Nithin Shet and Mr. Sudheer Kini K, Assistant Professor, Department of Mechanical Engineering visited CSIR-NAL campus situated on HAL Airport Road, Bengaluru at 9.00 AM.

The entire visit was guided by Mr. Somanarayanan, Principal Technical officer, KTMD, CSIR-NAL. He gave brief information on the research and development activities of NAL. He took the visiting team to Advanced Composites Division and explained about the need and application of composite materials in the field of Aerospace and also explained about its manufacturing using different fibers and resins. Afterwards he took in to CSMST Wind farm in the same campus and explained the technical details of wind-solar hybrid systems. The team was then taken out to another place, Belur campus situated at about 5km from the NAL main campus. He took the team to Trisonic Wind tunnel area, Acoustic Test facility and described the functioning of each with applications.

Photos





Day 1(Afternoon)

Industry Name: Festo India Private Limited, Bengaluru

Date of Visit: 03/04/2019

Time: 2.00 PM-5.00 PM

The department of Mechanical Engineering had organized an industry visit for the VI semester Mechanical Engineering students to Festo India Private Limited, Bengaluru on 03 April 2019. A total of 21 students from the VI Semester along with Mr. Nithin Shet and Mr. Sudheer Kini K, Assistant Professor, Department of Mechanical Engineering visited the campus at 2.00 PM.

Mr.Sathish and Mr. Karthik, Senior Engineer gave brief information about solutions for Factory and Process Automation products. He explained the complete range of low cost automation products offered by FESTO. Students took keen interest in knowing the applications of the automation modules and were motivated to apply some of the concepts in their projects. Later he had explained following displays.

STATIC DISPLAYS

S. NO	DESCRIPTION
1.	SYSTEMATIC GRIPING
2.	HANDLING TECHNOLOGY
3.	MINIATURE DRIVE
4.	VALVE TERMINAL WITH INTEGRATED FUNCTIONALITY
5.	ELECTRICAL DRIVES
6.	PART SENSING & VISION
7.	TUBING OPTIMIZATION
8.	COMPLETE RANGE OF PUSH-IN FITTING
9.	ULTRA COMPACT MAINTENANCE UNIT

DYNAMIC DISPLAYS

S. NO	DESCRIPTION
1.	HANDLING APPLICATION
2.	PICK-N-PLACE APPLICATION (ELECTRO-PNEUMATIC)
3.	PICK-N-PLACE APPLICATION (PNEUMATIC)
4.	LINEAR TO ROTARY CONVERTER
5.	PROCESS VALVES
6.	AIR DRYER
7.	ROTARY INDEXING TABLES
8.	SERVO DRIVES FOR PROCESS AUTOMATION
9.	CYLINDER VALVE COMBINATIONS

Photos





Day 2

Industry Name: Toyota Kirloskar Motor Pvt Ltd., Bengaluru

Date of Visit: 04/04/2019

Time: 2.00 PM-5.00 PM

The department of Mechanical Engineering had organized an industry visit for the VI semester Mechanical Engineering students to Toyota Kirloskar Motor Pvt Ltd., Bengaluru on 04 April 2019. A total of 21 students from the VI Semester along with faculties Mr. Nithin Shet and Mr. Sudheer Kini K, Assistant Professor, Department of Mechanical Engineering visited the campus from 2.00 PM to 5.00PM.

Mr. Gopinath.D, HR Officer took into the centre convention hall and presented about Toyota's business across the world and then onto their strong Indian foothold, steady growth of Toyota in Indian automotive market through their introduction video which consists of a car can be manufactured in just 1.5 mins at any given time by following its production system pillars of Just-in-Time and Jidoko (Autonomation). The video also revealed how Toyota has been able to sustain decades of leadership with the values they followed i.e., Quality, Durability and Reliability (QDR). He also mentioned how Toyota upheld the philosophy of continuous improvement (Kaizen), making it a way of life at Toyota.

After the break he took into the assembly plant, where students were surprised to see huge plants logistics and live operations. Students were introduced to designated industrial

pedestrian walkways within which students went through to view the manufacturing assembly of their rolling brand model of Etios hatchback and sedan car segment. Students were witnessed their robust e-Kanban system of handling raw materials as required for their production. Later students were taken to Toyota Technical Training Institute (TTTI) which imparts world-class skills training to young talents of rural Karnataka. Established by Toyota Kirloskar Motor in 2007 within the premises of Toyota's manufacturing plant at Bidadi, TTTI provides a dedicated three-year program that focuses on the holistic development of knowledge, skill, body and attitude.

Photos



Day 3

Place: Centre for Cryogenic Technology, Indian Institute of Science, Bengaluru

Date of Visit: 05/04/2019

Time: 11.00 AM-2.00 PM

The department of Mechanical Engineering had organized an industry visit for the VI semester Mechanical Engineering students to Centre for Cryogenic Technology, Indian Institute of Science, Bengaluru on 05 April 2019. A total of 21 students from the VI Semester along with Mr. Nithin Shet and Mr. Sudheer Kini K, Assistant Professor, Department of Mechanical Engineering.

Professor Kasturirengan and Mr.Nadig explained about Cryogenics and its working of liquid-nitrogen and liquid-helium plants. He also mentioned the various experiments like liquid-nitrogen evaporation, changes in physical properties of materials at cryogenic temperature, changes in resistance of metals at low temperatures, high temperature superconductivity etc. They also demonstrated an experiment on liquid nitrogen by using various things like leaves, rubber pipe etc. This showed the students about how things can changes its properties when it is dipped into liquid nitrogen. Later he briefed about the extraction of liquid nitrogen from the air.

The students and the faculties had a good interaction with the researchers. They were able to know the recent research works being conducted in CCT. The students found greater interest in the field of Cryogenics. The students were very enthusiastic and the visit was motivational for their further study and research.

Photos





HOD

PRINCIPAL

CCto:

1. President, LMET
2. Vice President, LMET
3. Office File