



NHCE

IN PURSUIT OF EXCELLENCE

**NEW HORIZON
COLLEGE OF ENGINEERING**

Autonomous College Permanently Affiliated to VTU Approved by AICTE
Accredited by NAAC with 'A' Grade

AUTO HORIZON

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Department of Automobile Engineering

Industrial visit to Toyota Kirloskar Pvt Ltd
Page 1

Guest Lectures
Page 2

Sports Events
Page 3

INDUSTRIAL VISIT TO TOYOTA KIRLOSKAR AUTO PVT LTD



On the 19th of November 2016, the students of eighth semester went on an industrial visit to Toyota Kirloskar Pvt Ltd, Bidadi, Ramnagar, organized by Automobile Engineering department in association with Institution of Engineers India.

Students were accompanied by Prof. Sunil Prashanth Kumar and Prof. Keerthana. Toyota operates two plants in the same facility. The old plant manufactures the Innova and Fortuner, while the new one produces the Altis, Etios and Liva. We had a chance to see the second of the two in operation. The press shop makes use of two heavy duty A Servo (1600 tonnes) and C Servo (3000 tonnes) machines which give shape to the metal sheets fed in. Together they produce 104 different parts for Etios, Liva, Innova and Fortuner. The press shop works in two shifts and has an annual production capacity of 1,20,000 parts. Even the fork lift drivers are specially trained to ensure quick movement of parts into the designated areas.

The weld shop takes pride in almost 47 percent automation. There are more than 160 robots employed to ensure quick and efficient processes. Samples are frequently checked at random to confirm the accuracy of the weld.

Just one of the things which is not usually seen in most of the other manufacturers facilities in India, is the use of AGV's (Automatically Guided Vehicles). These vehicles look small but are capable of much more. They can carry the body shells after welding and get them to the paint shop. They run without any tracks and use magnetic tape for direction, which is laid out on the floor to guide them. The computer makes sure that no two AGV's collide by ensuring a safe distance is maintained between any two vehicles.

The next stop was the paint shop. Toyota is committed to work for a greener future and undertakes various initiatives for a brighter tomorrow. In the paint shop, Toyota employs environment friendly painting processes, which uses only 10 percent solvent as compared to the 70 percent used by the conventional painting process. The 60 percent deficit is eliminated by using water. Besides the paint shop, Toyota also has a water recycling facility on the premises and also undertakes 'Green Tomorrow' initiatives such as afforestation. We too got a chance to be a part of this green initiative by planting a sapling in the premises.

The last stop in the plant was the assembly line. The assembly line uses 3 – 4 lines before the final product is ready. After getting off the assembly line, it passes through the shower test and rope test to ensure there is no leakage and unusual sound respectively.

Guest Lectures Conducted

- A Guest lecture was conducted on 5th October, 2016 by Mr. Prasad Shetty (Asst Manager, Business Development AECC global) on the topic "Guidance for higher education in Australia" for the students of III, V & VII semesters.
The topic covered included :
 - * List of colleges to apply for.
 - * The procedures for education in Australia.
- A guest lecture was conducted on 27th November, 2016 by Mr. Samudranil Chatterjee (Mentor and Educator, Educidate), on the topic "Guidance for higher education in US".
The following were the topics covered:
 - * GRE
 - * GRE score card
 - * TOEFL
 - * IELTS
- A guest lecture was conducted on 15th September, 2016 by Mr. Vikram (Training manager at Madhu Garage equipment), on the topic "Concepts of Wheel Alignment".
The discussion included steering geometry such as Camber, Castor, Toe-In, Toe-Out, King-pin inclination and their influence on vehicle stability and handling.

Expert Talk

An Expert talk on "Introduction to 3-D bar elements using numerical approach", by Mr. Bopanna (Asst. Professor NHCE) was conducted on 18th October, 2016 For the students of VII semester.

Sports Achievements

- John Ratnam (1NH15AU404), part of college volleyball team participated in event named “Momentum' 2016, Inter Engineering Collegiate Volleyball Tournament” , conducted by RVCE, Bangalore from 22-10-2016 to 24-10-2016 and secured 1st place.



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