



# ADHI COLLEGE OF ENGINEERING & TECHNOLOGY

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## DEPARTMENT OF MECHANICAL ENGINEERING

### REPORT ON IN-PLANT TRAINING

In-plant training was arranged in “**MAHLE FILTER SYSTEMS**” located at Mahindra City, Chennai on 23.01.2017. S. Praveen Kumar and G. Sanjeevi from Final Year Mechanical Engineering were taken to undergo designing, moulding, welding and assembling of air filter, frame and Engine head cover. Mr. S. Ilamurugan, HR department introduced about the organization and then, he highlighted the importance of the safety instructions followed in the organization.

Students were taken to design department where, they were explained on how to design the air filter, frames and engine head with the help of Auto CAD. Afterwards, they got to know about various processes involved in injection moulding machine. The materials used for manufacturing of air filters and air intake system of Engine are Nylon 6,6, and carbon, respectively.

In welding section, vibration welding technique is employed to weld the polymer material by using friction. Oil filter and air filter are assembled in assembly section. In Quality control, Coordinate measuring machine are used to check the dimensional accuracy and good surface finish. Then, the UTM machine is used to test the mechanical properties of the product. Also, visual machine system is used to verify the product dimensional accuracy. Finally, the students were taken to the dispatch section wherein, they were shown how the finished products are dispatched to Renault Nissan, TATA and SUZUKI companies.

Based on the students' feedback, indeed this In-plant training offered adequate knowledge about the various moulding machines and various testing methods in filter systems. This training would really stimulate the interest of the students towards the thrust areas of the manufacturing, for their future project works.

