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8.Three Phase Induction Motor Industrial Visit Report

- **Industrial Visit: -** Mallick Industries, Baramati.
- **Location: -** Mallick Industries, Baramati, India.E-40, MIDC.Industrial Area.413133.
- **Organized by: -** Department of Electrical Engineering, VPKBIET, Baramati
- **Name of Faculty/Coordinator: -**
  - **Chief Coordinator: -** Mr. S. D. Shelar,
  - **Coordinator: -** Mrs. S. D. Rokade.
  - **Coordinator: -** Mr. Ajinkya V. Golande.
- **Participants: -** TE Electrical Class.
- **TE Electrical Students: -** 46 Students (29 Boys and 17 Girls)
- **Subjects Covered: -** Computer Aided Design of Electrical Machines, Control System Engineering.
- **Date: -** 21 March 2025

Date of visit: 21.03.2025

On 21th March 2025 our department has organized a one-day industrial visit to Mallick industries, Baramati, as a part of syllabus of TE students for the subject Computer Aided Design of Electrical Machine (CADEM). A team of students (70) with faculty members (4) have taken part in this industrial visit.

Mallick industries works have facilities for repairing and rewinding the HT Motors, LT Motors. The entire work is done in two separate units i.e. one for low voltage machines and the other for high voltage machines. There we have seen the parts of motors like brushes, rotor, insulators, coils and also a different type transformer. H. Mallick sir has explained us everything in detail.

Squirrel Cage Induction Motor Rotor:

Squirrel Cage Rotor is one of the types of rotors in Induction Motor. This Squirrel Cage Rotor can also be made of two types:

1. Al dicasting
2. Copper bars

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Slip Ring Induction Motor Rotor:

Slip Ring Rotor is another type of rotor which is used in Induction Motors. The special thing about this slip ring rotor is that we can give supply directly to the rotor with the help of the rotor terminals. Slip rings will be as shown here:

Insulator:

Mica provides the best insulation and it is the mostly used material as an insulator in the machines.

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- We have also visited the coil shop where the coils are made in a systematic manner such that they get better settled in the machines.
- Impregnation (VPI) coil making involves the following steps
- Coils can be made with the help of two methods:

    1. Resin rich method
    2. Vacuum Pressure

1. Looping

2. Spreading

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Finally, we have completed our visit at Mallick Industries by 2:30 pm and started our return journey by 3:15 pm after a lunch. After a very great knowledge and we have reached college by 4:30 P.m. take this opportunity to thank our Principal Sir and our department for allowing us to go for this visit, our HOD sir and the other faculty who have accompanied us and has helped us to know many things at Mallick Industries.

Summary

We request to arrange such more visits to have industrial exposure which helps us a lot. Industrial visit is bridging students with core industries. Visit to above mentioned industries was knowledge gaining. This visit was a success for our team, as we all learned a lot about the manufacturing, design and other aspects of transformer, power electronic kits, which could not have been learned otherwise.

The students & faculties enjoyed the technical endeavor at these three organizations a lot. The company persons also appreciated our students. Visit seemed to be very informative and gives good learning experience. Students were well mannered and disciplined throughout the visit. No injury or anything bad happened during the industrial tour. All the students and staff members are extremely thankful to officials at organizations who grant the permission of visiting their organization and guide the students.

Mr.S.D.Shelar
Course Coordinator