REPORT FOR THE VISIT TO ORIENT ELECTRIC LIMITED

Kolkata; 20.12.2018:

On 20th December 2018 Department of Electrical Engineering of RCC Institute of Information Technology has organized an industrial visit to nearby Orient Electric Limited, Kadapara, Phool Bagan, Kolkata. As per the schedule given by the industry the interested students were divided into three groups and each group of 10- 11 3rd year EE students have visited the plant at 10.30 AM, 12 AM and at 3 PM respectively. Faculty members Professor Dr. Ashoke Mondal, Mr. Nizam-Ud-Din Molla and placement officer Mr. Anandrup Sarengi were present during the plant visit. The description of the plant is given in details as follows:

Stand and Wall Fan Making Section:

Orient Electric Kolkata mainly manufactures Wall and Stand fans in large numbers. There are two assembly lines for making stand and wall fans. The different core parts are not made here. The different parts like armature, stator, Yolk of the single phase induction motors, Regulators, Switches, stands, Condensers, Blades of fans, Shell and other parts of fans are not made here. Those parts are made at other plants of Orient Electric Limited. These parts are only taken to this plant for assembling. There is a Compressor in this plant which supplies the required pressure for switching on the pneumatic actuators such as automatic screw drivers, pneumatic press etc. The two assembly lines consists of the following process from the beginning as follows:

1. **Joining the Armature into the Stator.**
2. **Covering of the product by the segmented yolk.**
3. **Placing of Motor into the Predefined space of the shell of the fan.**
4. **Attachment of regulator into the shell.**
5. **Attachment of blades on the shaft of the motor.**
6. **Covering the blades by the cage.**

Then the Fans are further taken to the testing section where workers used to check the fans movement, speed and speed control by regulating, rotation of blades etc. If the fans are passed through these tests then a perfection tag is attached then these are taken to the insulation testing section of these fans where high voltage high current and other tests have been done. If the fans are now passed successfully through the tests they are taken to the packaging section. Here the workers pack the fans in a box with tapes and strings. Then these are taken to the storage sections. Now these are completely ready for market.

Ceiling Fan Section:

In this section there are also two assembly lines where the different parts of the ceiling fans are assembled together. The process of making ceiling fans is as follows:

1. **Joining of motor parts together.**
2. **Placing of motor inside the shell of the fan.**
3. **Attachment of bearing inside the shell.**

4. Attachment of condenser inside the shell.
5. Attachment of cover.
6. Attachment of Holding rod and other materials with the shell.
7. The blades and other parts are tested together and it directly goes to the packing section.

Then the main parts of the fans are tested with the same procedure as described in the stand and wall fans section. Then the fans are taken to the packing section. Then the fans are taken to the storage.

Material Testing Section:

The materials used in different parts of fans and the different parts of the fans tested in this section. The copper wires of different thickness used in the fans are tested here by different tests. The Different parts such as Armature of motors, Stator and Yolk are gone though different tests such as Surge testing, High voltage testing, High current testing etc. If the materials are okay then only the production of fans are allowed.

This is a short description of Orient Electric Limited plant, Kolkata.

The photo of the visit is attached here with—