

# **Visit Report**

## Industrial Visit- Visit to Thermal Power Plant, Eklahare, Nashik

- <u>Event Title</u>: Industrial Visit Organized by Electrical and Electronics Engineering Department SOET, Nashik at Thermal Power Plant, Eklahare, Nashik for 2<sup>nd</sup> & 3<sup>rd</sup> Year Students.
- **2.** <u>Event Date:</u> 6<sup>th</sup> May 2024.
- 3. Event Conduction Duration: Full Day
- 4. <u>Event Mode:</u> Field Visit
- 5. Event Resource Person Details:

Mr. Dipak Gangurde Assistant Engineer, Thermal Power Plant,Eklahare,Nashik.

#### 6. Name of Event Coordinator with contact details:

Mr. Harshal Chaughule & Ms Shraddha Zanjat , Assistant Prof., EEED, SOET, Nashik. **Report Prepared By:** Mr. Yogesh Kahandal , TA , EEED, SOET

#### 7. Event Outline & Outcome of the event:

#### **Objective of Program:**

The Objectives of this Industrial Visit:

- 1. To learn the functioning of a coal based steam power plant.
- 2. Understanding the coal to electricity cycle.
- 3. Understand the best and sustainable practices in running a coal based power plant.
- 4. To understand better the concept of Power Station
- Various Thermal Power Plant Equipments : 1. Coal Handling Plant 2. Ash Handling Plant 3.
  Boiler 4. Super heater 5. Air Pre-heater 6. Economizer 7. Turbine 8. Chimney 9. Feed
  Pump 10. Generator (Alternator) 11. Switch Yard 4 12. Exciter 13. Condenser 14.
  Transformer 15. Wagon Tippler

To provide practical exposure to second and third-year Engineering students on thermal power plant operations.

To understand the working principles of a thermal power plant and its components. To observe the generation of electricity from thermal energy sources. To learn about the environmental impact and safety measures associated with thermal power plants.

To interact with industry professionals to gain insights into real-world applications of theoretical knowledge.

## Output of Program:

### **Key Observations and Learnings**

Students observed the entire power generation process from coal handling, combustion, steam generation, to electricity generation.

#### **Main Components Explored**

**Boiler:** Students witnessed the combustion process and steam generation.

**Turbine:** Understanding the conversion of steam energy into mechanical energy.

Generator: Learning about electricity generation and transmission.

#### **Interactions with Plant Personnel**

Engaged with plant engineers and technicians to understand their roles and responsibilities. Discussed challenges faced in power generation and maintenance of equipment.

## **Importance of the Visit**

Enhanced understanding of theoretical concepts through practical exposure.

Insight into the real-world application of electrical engineering principles.

Enhanced understanding of the functioning of a thermal power plant.

Practical knowledge of the various components involved in electricity generation.

Insight into the environmental implications of using thermal energy for power generation.

Opportunities for students to ask questions and interact with industry experts.

Application of theoretical concepts learned in the classroom to real-world scenarios.

Potential inspiration for research projects or career paths in the field of thermal power generation.

Overall, the visit to Eklahare Thermal Power Plant provided valuable practical experience and knowledge to the Engineering students of Sandip University, Nashik, helping them bridge the gap between theoretical learning and real-world applications in the field of thermal power generation.

## Conclusion

The visit to the Eklahare thermal power plant was highly educational and provided valuable insights to the students.

It helped bridge the gap between theoretical knowledge and practical applications in the field of electrical and electronics engineering.

Recommendations

Suggest organizing more such industrial visits to provide students with hands-on experience. Encourage students to actively participate in discussions and ask questions during such visits

to maximize learning opportunities.

#### Acknowledgements

- Special thanks to the management of Eklahare thermal power plant for facilitating the visit and providing valuable insights to the students.
- This report highlights the enriching experience of the Sandip University Electrical and Electronics Engineering students during their visit to the Eklahare thermal power plant in Nashik.

#### Number Students Attended: 60

7. Event photos:















