Hope Foundation's

Finolex Academy of Management and Technology, Ratnagiri

Department of Electrical Engineering

Industrial Visit to Transmission Substation at Nivali, Ratnagiri

The Department of Electrical Engineering arranged an Industrial Visit for the students of **third-year Electrical Engineering** to the **Transmission Substation** at Nivali, Ratnagiri on **20th March 2025**.

A total of **49 students and 02 faculty members** participated in the visit. The visit was arranged as a part of the curriculum of Power System Protection & Switchgear Lab. The objective of this visit was to provide students with practical exposure to real-time power system operations, substation equipment and protection mechanisms employed at high voltage transmission substations.

During the visit, **Shri Ashutosh Tambe, Asst. Engineer, MSETCL,** along with the other officials, explained the SLD of the 220 kv/110 kv/33 kv substation and different substation equipment like LA, CB, CT, PT, isolators, PLCC, etc. their ratings with their installation. They discussed the types of conductors used for transmission lines of different lengths and capacities. During the visit, students were introduced to the following:

- Substation layout and single-line diagrams.
- Components like power transformers, circuit breakers, isolators, current and potential
- transformers, busbars, lightning arresters, and control panels.
- Protection relays and coordination schemes.
- Switchgear operation, interlocking mechanisms, and SCADA system demonstration.
- Safety procedures and maintenance practices are followed in high-voltage environments.

Prof. Priya Potdar was the event coordinator. **Prof. M.N. Tagare** and **Prof. S. S. Wamane** accompanied the students during the visit. The industrial visit provided an enriching learning experience that reinforced theoretical knowledge with practical insights. It effectively met the course objectives and contributed significantly to the students' holistic engineering education.

Photographs:

MSETCL Officer elaborating on the substation infrastructures to the students

Mr. Ashutosh Tambe instructing the students