

Report

Expert Talk – Electrical Machines

1. **Event Title:** Expert talk by Mr. Rakesh Jha on “**Electrical Machines**” for Second Year B.Tech. Engineering students.

2. **Event Date:** 13th May 2023

3. **Event Conduction Duration:** 11:00 AM to 01:00 PM

4. **Event Mode & Venue:** Offline, Electrical Department, SOET, SUN

5. **Event Resource Person Details:**

Prof. Rakesh Jha,
HOD Electrical
SIEM, Nashik

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

Mr. Harshal Shelar, Asst. Professor, EEED, SOET, SUN

Report Prepared By : Mr. Yogesh Kahandal , TA , EEED, SOET

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

Objective of Program:

In electrical engineering, electric machine is a general term for machines using electromagnetic forces, such as electric motors, electric generators, and others. They are electromechanical energy converters: an electric motor converts electricity to mechanical power while an electric generator converts mechanical power to electricity. The moving parts in a machine can be rotating (rotating machines) or linear (linear machines). Besides motors and generators, a third category often included is transformers, which although they do not have any moving parts are also energy converters, changing the voltage level of an alternating current.

Electric machines, in the form of generators, produce virtually all electric power on Earth, and in the form of electric motors consume approximately 60% of all electric power produced. Electric machines were developed beginning in the mid 19th century and since that time have been a ubiquitous component of the infrastructure.

Developing more efficient electric machine technology is crucial to any global conservation, green energy, or alternative energy strategy.

Output of Program:

Students Learned about:

Electrical Machines is a core subject within electrical engineering discipline that deals with the design, operation and applications of energy conversion devices. A system that converts electrical energy into other forms of energy is known as an Electrical Machine

The energy conversion between electrical and mechanical power is performed by the electrical machine in both directions. Electrical machines can be used for different ranges of speed. It can be used as motor particularly in traction, electrical vehicles, etc. or as generators in power station, wind turbines.

Number Students Attended: 20

8. Event photos







