

Department of Electronics and Telecommunication Engineering

Activity Report

Of

“Campus Study Tour to study the application of Power Electronics”



IEEE
Student Branch
STB20132SITRC



SANDIP
FOUNDATION

Organized by

IEEE Student Branch (Bombay Section), MoE IIC

In

Association With

Electronics & Telecommunication Engineering Department

Sandip Foundation's

Sandip Institute of Technology and Research Centre, Nashik

Department of Electronics and Telecommunication Engineering

Name of Event: “Campus Study Tour to study the application of Power Electronics”

Date of Event: 18th April 2024

Type of the Event: Study Tour

Duration of Event: 1 Hour

Tour Guide: Dr. Gayatri M. Phade

Name of Event Coordinator: Mr. Kalyan Mahajan

Detail of Participant: TE Students

Objective:

The purpose of this study trip is to provide students with an understanding of power electronics applications, their functioning, and career options in the field.

Event Highlights:

On April 18, 2024, a study visit is scheduled for the TE E&TC students, who are currently pursuing an academic study of power devices and circuits. There are many applications of PDC in the campus itself. So the study tour was planned to gain knowledge of subject application. and make them aware of the various career opportunities available in power electronics. This was done to help them understand how the devices mentioned in the subject actually work. Our study tour thus begins in the server room of our department, where students are instructed on the operation of the UPS. The following are a few of its points:

- **UPS System (Online UPS)**

An Online UPS (Uninterruptible Power Supply) is a type of UPS that continuously powers electronic devices from its internal batteries and uses the utility power to recharge its batteries. It provides a constant, clean power supply, making it ideal for sensitive electronic equipment like computers, servers, and networking equipment. The key feature of an Online UPS is that it filters and regulates the incoming AC power before passing it to the connected devices, ensuring a consistent voltage and frequency, and protecting against power surges, spikes, and other electrical disturbances.

- **Control Panel of Motor drive**

The control panel of a motor drive typically includes various components and interfaces that allow for the control and monitoring of the motor. The specific features and layout of the control panel may vary depending on the manufacturer and model of the motor drive. motor drives play a crucial role in modern industrial and commercial applications by providing efficient and precise control over electric motors, leading to improved performance, energy savings, and equipment longevity.

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- **SMPS stands for Switched-Mode Power Supply (in computer).** It is a type of power supply that uses a switching regulator to convert electrical power efficiently. Here's some information about SMPS:

In a computer, the SMPS (Switched-Mode Power Supply) is responsible for converting AC (alternating current) power from the wall outlet to the DC (direct current) power required by the computer's components. SMPSs are favored in computers due to their high efficiency, compact size, and ability to provide stable DC power even with varying input conditions

Outcomes: From This Study Tour Students learn about the Power devices and it's applications

Photographs:



Students Learning about the power devices and it's application



Prof. Priyanka Bhatamabrekar
Event Coordinator



Dr. Gayatri M. Phade
HOD-E&TC Dept