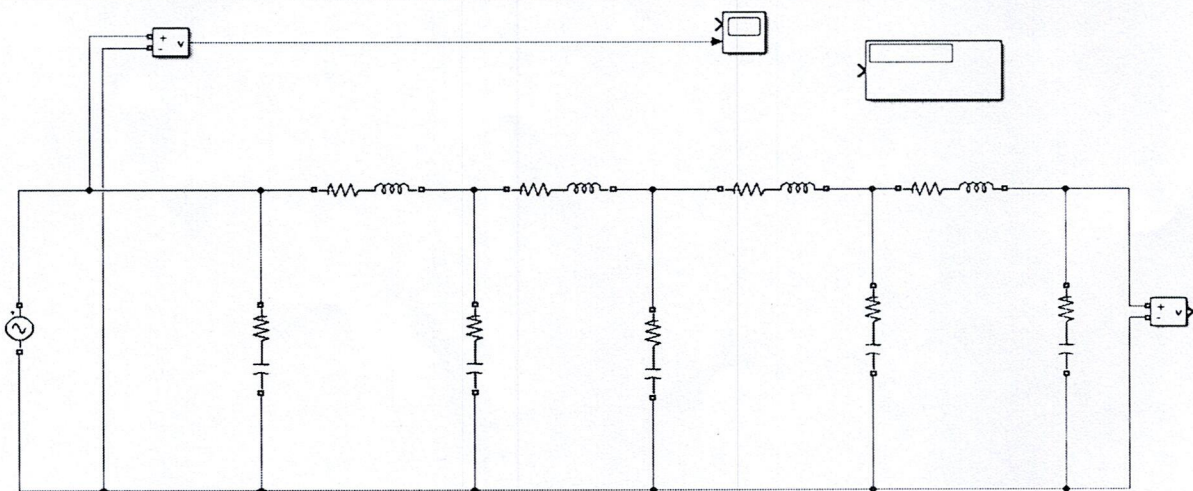
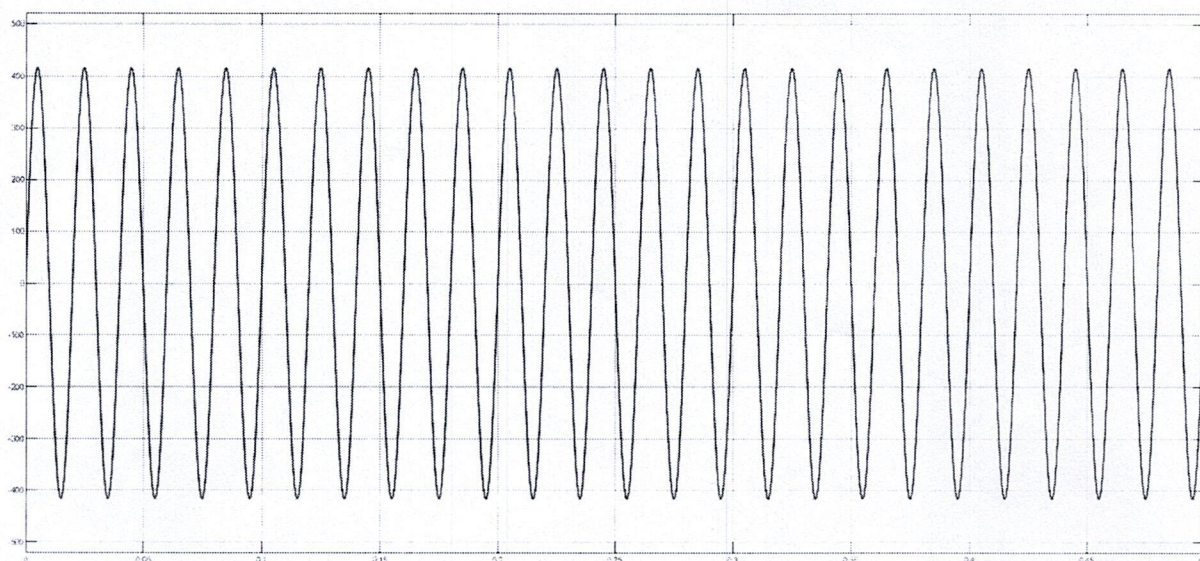
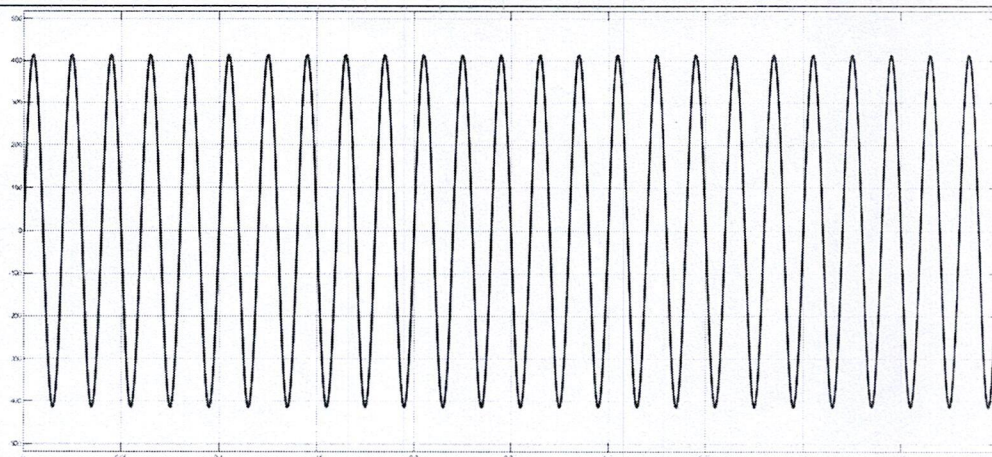


Department of Electrical Engineering**Activity: "Innovative Teaching Learning Pedagogy"****Date & Day:** 15/04/2025**Activity Name:** Simulation of Ferranti Effect**Subject :** Power System 1**Venue:** B201**Activity conducted by:** Mr. Digvijay B Kanase**Objectives:**

The objective of simulating the Ferranti effect is to understand and analyze how voltage at the receiving end of a long transmission line can exceed the sending end voltage under light-load or no-load conditions due to capacitive charging

Photographs:

Department of Electrical Engineering



Outcome:

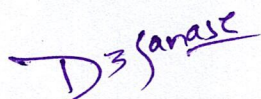
1. Students were able to simulate and observe the Ferranti Effect under various line parameters and no-load conditions using MATLAB.
2. They developed a clear conceptual understanding of the causes and implications of the Ferranti Effect in long transmission lines.
3. The activity enhanced students' ability to use simulation tools for analyzing power system behaviors and improved their technical problem-solving skills.
4. Learners gained practical exposure to modeling transmission lines and interpreting simulation results in a professional environment

Mapping of Pedagogy with POs and PSOs:

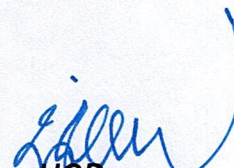
PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
3	3			3							3		3	3

Department of Electrical Engineering**Mapping of POs and PSOs with Justification:**

POs and PSOs Mapped	Justification
PO1	Students applied fundamental concepts of electrical engineering and transmission lines to model and simulate the Ferranti Effect using MATLAB.
PO2	Students analyzed the simulation results to understand the rise in voltage at the receiving end and interpreted the impact of line parameters and loading conditions
PO5	Students used MATLAB simulation software effectively, demonstrating their ability to apply modern tools for engineering practice
PO12	Students gained awareness of the real-world implications of theoretical concepts, preparing them for lifelong learning in evolving fields like power system analysis.
PSO1	Students acquired domain-specific knowledge related to power systems, particularly the behavior of long transmission lines under varying loads
PSO2	Students enhanced their technical proficiency in using simulation tools like MATLAB for power system analysis, aligning with program-specific outcomes


Course Coordinator


DAC


HOD