Unit-4: ELECTROMAGNETIC INDUCTION AND ALTERNATING CURRENT

LEARNING OBJECTIVES

In this unit, the student is exposed to

- ❖ The phenomenon of electromagnetic induction
- ❖ The application of Lenz's law to find the direction of induced emf
- ❖ The concept of Eddy current and its uses
- ❖ The phenomenon of self-induction and mutual-induction
- ❖ The various methods of producing induced emfs
- ❖ The construction and working of AC generators
- ❖ The principle of transformers and its role in long distance power communication
- ❖ The notion of root mean square value of alternating current
- ❖ The idea of phasors and phase relationships in different AC circuits
- ❖ The insight about power in an AC circuit and wattless current
- ❖ The understanding of energy conservation during LC oscillations