

Lecture-23

Tutorials and Videos

Lecture Delivered by



Objectives

At the end of this lecture, student will be able to:

- Explain Diamagnetic and Paramagnetic Materials
- Analyze Magnetism and Diamagnetism
- Describe Ferro Magnetic Materials
- Analyze Eddy Current
- Solve B-H Curve



Video on Diamagnetic and Paramagnetic Materials

<https://www.youtube.com/watch?v=2RRX8xmLR8E>



Video on Ferro Magnetic Materials

<https://www.youtube.com/watch?v=yyAUmX3ncBA>



Video on Eddy Current

<https://www.youtube.com/watch?v=zJ23gmS3KHY>



Problem No 1

- A circular ring of mean circumference of 63 cm and cross sectional area of 6 cm^2 is uniformly wound with a coil of 500 turns. Calculate
 - The current required to produce a flux of 0.45 mWb in the steel ring
 - The current required for the same amount of flux when a saw cut of 0.1 cm width is made in the ring.

$B \text{ Wb/m}^2$	0.6	0.72	0.785	0.815
$H \text{ AT/m}$	600	650	700	750

Summary

- Understand the properties of magnetic materials
- Understand and be able to use B-H curve

