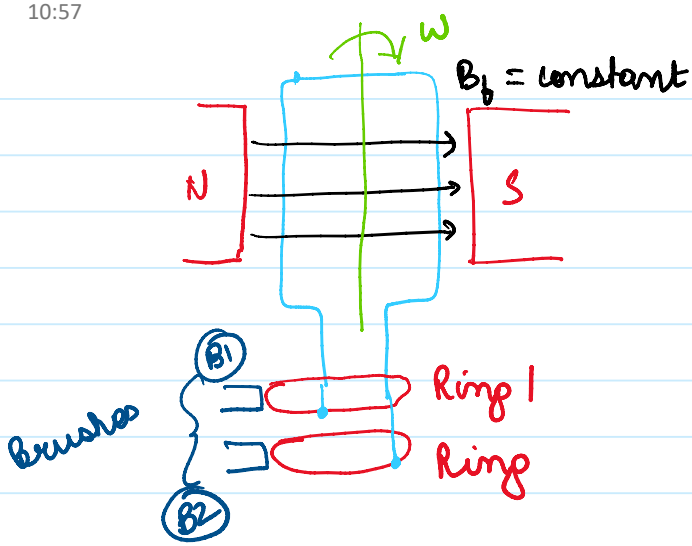
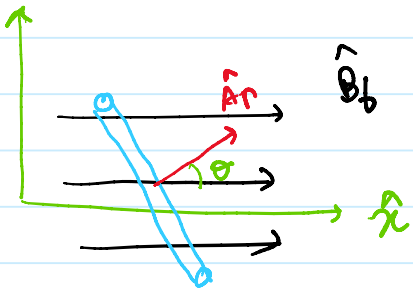
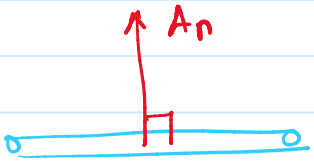
Lecture 02

22 February 2021 10:57







$$E = -\frac{d\phi}{dt}$$

$$E = -\frac{d}{dt}(B_f A \cos\theta)$$

$$E = -\frac{d}{dt}(B_f A \cos\omega t)$$

$$\phi = B_f A_{eff}$$

$$\phi = B_f A \cos\theta$$

$$\theta = \omega t$$

speed = ω rad/sec

B_f : constant

A = constant

$$E = -B_f A \frac{d}{dt}\cos(\omega t)$$

$$\boxed{E = \omega B_f A \sin\omega t}$$

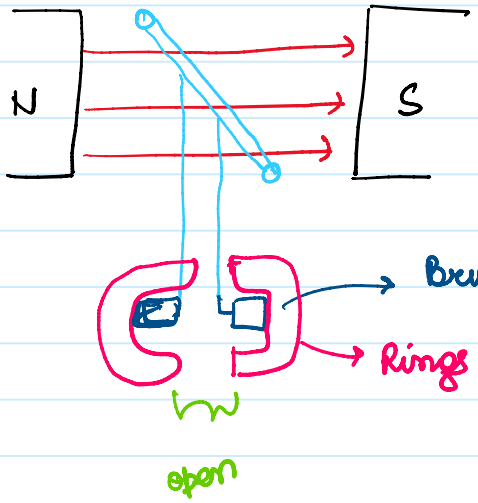
peak value of two signals (synchronized & same frequency) may occur different instances and this difference is termed as

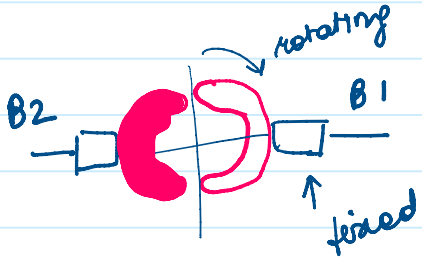
peak value of two signals (synchronized & same frequency) may occur different instances and this difference is termed as phase shift

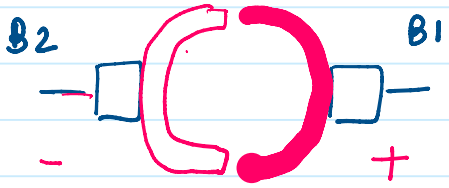
Air conditioners → large amount → three phase power supply

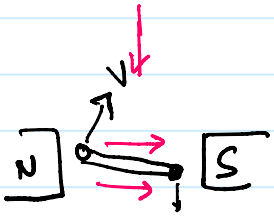
230 V 50Hz → single phase
400 - 440V 50Hz → three phase power supply

110 V → single phase supply (60Hz)





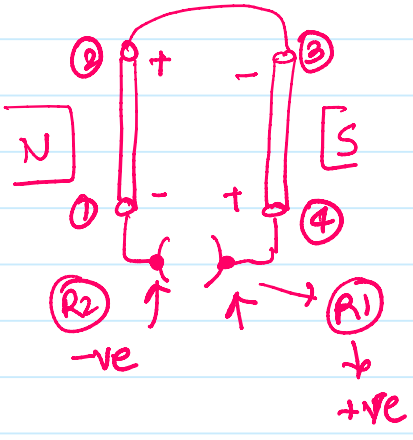




$$E = (V \times B) \cdot l$$

$$= (VB \sin\theta) \cdot l$$

$$E = BlV \sin\theta \leftarrow$$




DC voltage