Lecture 10: Equations

Home Activity: Describe the formula.

$$\varepsilon = -N\frac{\Delta\phi}{\Delta t}$$

Where,

- ε = induced voltage (emf)
- N = number of loops
- $\Delta\phi$ = change in magnetic flux
- Δt = change in time

The equation represents **Faraday's Law of Electromagnetic Induction**, which states that the induced electromotive force (emf) in a coil is proportional to the rate of change of magnetic flux through it.

The negative sign indicates **Lenz's Law**, which states that the induced emf opposes the change in magnetic flux.