Assignment 4

ID2090 Students

July 22, 2021

Contents

1 Introduction

Add a line to include your text as illustrated in the comment below.

2 ME19B103

Faraday's Law of Electromagnetic Induction

$$\oint \overrightarrow{E} \cdot d\overrightarrow{l} = -\frac{d[\int \overrightarrow{B}.d\overrightarrow{A}]}{dt} \tag{1}$$

(1) Integral Form

$$\nabla \times \overrightarrow{E} = -\frac{d\overrightarrow{B}}{dt} \tag{2}$$

(2)Differential Form

Faraday's law of electromagnetic induction is facinating. Without it we would not have the electricity that we use today. This equation has played a major role in the development of the whole world!
This law explains that changing magnetic flux in a closed circuit produces a current in the closed circuit that opposes this change.