Faculty of Engineering & Technology

Electromagnetic Fields

Information :

Course Code :	EED331	**Level** :	Undergraduate	**Course Hours :**	3.00- Hours

Department :	Electrical Power Engineering

Instructor Information :

Title	Name	Office hours
Professor	Fawzy Ibrahim Abdelghany Hamama	1
Professor	Fawzy Ibrahim Abdelghany Hamama	1
Teaching Assistant	Shahd Ahmad Samir Ibrahim	
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Description :

Different coordinate systems. It is divided in two parts:
Stationary electric field: force between electric charges. Coulomb's law. The electric field
arising from different charge distribution- definition of electric flux and electric flux
density- Gauss' law, and divergence theorem- electrostatic potential - gradient of potential electric dipole- Laplace's
and Poisson's equations- stored energy and capacitors- material
electrical properties.
Stationary magnetic fields: magnetic flux and flux density- Ampere' law- magnetic field
intensity- field of wire carrying current- magnetic flux of solenoid- inductance- magnetic
circuit- curl of a vector . Ácurl of magnetic field- divergence of magnetic flux density- Stoke'
theorem- magnetic field energy- magnetic materials.

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