Shri Sant Gajanan Maharaj College of Engineering Shegaon
Department of Electronics and Telecommunication Engineering

PPTs: https://drive.google.com/drive/folders/1fhrYzSF_ScNnMGI4bdHC0KMvk-pjRMQ6?usp=drive_link

Course Title & Course Code: Electromagnetic waves (Code: 3ETC04)
Class: Second year (2U)
Semester: IVth
Name of the Course Teacher: Dr. B. P. Harne
Title of the innovative practice: Power Point Presentation
Objectives/Goals of the practice:
The primary goal of this innovative teaching practice is:

1. Enhance Conceptual Understanding – Simplify complex topics by visually demonstrating vector concept, charge distribution in electric field, current distribution magnetic field, boundary condition and wave propagation.
2. Improve Student Engagement – Make learning more interactive and interesting compared to traditional lecture-based teaching.
3. Facilitate Retention & Recall – Visual memory aids help students retain key principles and recall them easily during exams and applications.
4. Make Self-Study More Effective – Provide an engaging resource that students can revisit for independent learning.

Use of Appropriate Methods:

To achieve the stated goals, the following methods were implemented:

1. Use of Animated PowerPoint Slides – Animations were carefully designed to illustrate:
    - Derivation of Electric Field Intensity due to standard charge distributions, helping students visualize how electric fields are formed.
    - Derivation of Magnetic Field Intensity due to standard current distributions, demonstrating how magnetic fields arise from moving charges.
    - Relationship between Electric Field and Potential, clarifying how potential gradients give rise to electric fields.

Effective Presentation:

1. Link was shared with all students
2. Short quiz was conducted to assess student understanding

Link for activity
https://forms.office.com/Pages/DesignPageV2.aspx?origin=shell

PO's & PSO's Mapped:
PO1, PO2, PO3, PO4, PO5, PO12, PSO1, PSO2

Reflective Critique:
The link of Power Point Presentations was shared with Dr. R. S. Mahamune who has experience of teaching this subject. He suggested to add animation for understanding of wave propagation.

Evidences of success:
Increased Student Engagement: 100% of students have gone through the PPTS and actively participated in classroom discussion and quiz.

Challenges faced during implementation:
--None

Link for peer review: https://forms.office.com/Pages/DesignPageV2.aspx?origin=shell