DYP DPU

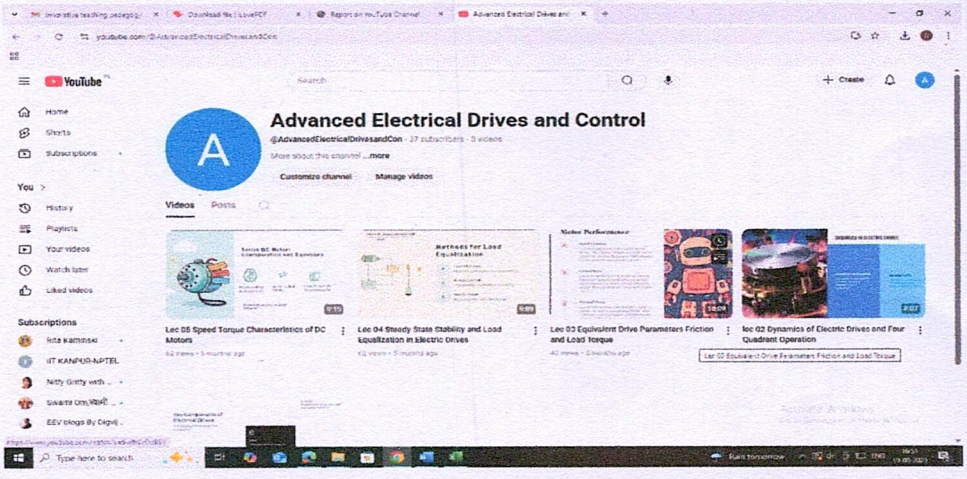
Dr. D. Y. Patil Unitech Society's

Dr. D. Y. Patil Institute of Technology

Pimpri, Pune

Department of Electrical Engineering

Activity: "Innovative Teaching Learning Pedagogy"

Date & Day : From 1st Jan 2025 till 20th April 2025
Activity Name: Video based Learning - Use of YouTube Channel
Subject : Advanced Electrical Drives and Control
Venue: Classroom / Online (Blended Learning)
Activity conducted by: Dr. Manasi P. Deore
Objectives: 1. To utilize digital learning resources for better conceptual clarity in Advanced Electrical Drives and Control. 2. To enhance student engagement through video-based demonstrations and animations. 3. To provide real-time industrial and practical exposure to drive systems through curated content. 4. To encourage self-learning beyond classroom teaching.
Photographs: 

Outcome:

1. Students gained a deeper understanding of power electronic converters, motor control techniques, and drive applications.
2. Improved visualization of complex concepts such as PWM techniques, braking methods, and speed control strategies.
3. Students actively referred to video content for assignments, case studies, and exam preparation.
4. Increased participation and curiosity about advanced topics beyond syllabus coverage

Mapping of Pedagogy with POs and PSOs :

Below is a refined mapping of how each lecture aligns with relevant Program Outcomes (POs) and Program-Specific Outcomes (PSOs):

Sr.No	Lecture	Core Topics Covered	Mapped POs	Mapped PSOs	Justification
1.	Intro to Electrical Drives	Fundamentals of drive systems	PO1 (Knowledge), PO12 (Self-learning)	PSO1 (Design & analysis)	Provides foundational knowledge and encourages independent learning.
2.	Dynamics & Four-Quadrant Operation	Dynamic behaviour; bidirectional control	PO2 (Problem-solving), PO4 (Modern tools), PO5 (Engineering solutions)	PSO1, PSO2 (Optimization)	Applies theory to analyze and control complex drive behaviour.
3.	Equivalent Parameters: Friction & Load Torque	System modelling, real-world effects	PO1, PO3 (Analysis), PO4	PSO1	Develops analytical modelling skills for practical drive systems.
4.	Steady State Stability & Load Equalization	Stability, load balancing	PO2, PO3, PO5, PO9 (Communication)	PSO2, PSO3 (Industry relevance)	Fosters problem-solving around system reliability and equips for team discussions.

5.	Speed-Torque Characteristics of DC Motors	Performance characteristics	PO1, PO2, PO4	PSO1, PSO2	Deepens technical understanding with applications in motor performance and drive optimization.

Course Coordinator **DAC** **HOD**

Dr. D. Y. Patil Institute Of Technology Pimpri Pune-411018