

Department of Electrical Engineering

Activity: "Innovative Teaching Learning Pedagogy"

Date & Day: 11/09/2024, Wednesday

Activity Name: Game on Motor Selection

Subject: EM II

Venue: Classroom

Activity conducted by: Mr. Shashikant Prasad

Objectives:

- Enable students to analyze application scenarios and select suitable electric motors.
- Promote critical thinking, teamwork, and communication through a game-based activity

Photographs:



Card 1: Squirrel Cage Induction Motor

- Type: 3-Phase Induction Motor
- Starting Torque: **Moderate**
- Speed Control: **Limited**
- Maintenance: **Low**
- Efficiency: **High**
- Environment: **Rugged, Industrial**
- Applications:
Pumps, fans, compressors, conveyor belts
- Pros:
Simple, reliable, cost-effective
- Cons:
Poor speed control, not suitable for variable loads

Card 1: Elevator System



- Requires high starting torque
- Frequent starts and stops
- Smooth speed control needed
- Operates under heavy load

Card 2: Industrial Water Pump



- Operates at constant speed
- Runs continuously for long hours
- Efficiency is important
- Minimal maintenance preferred





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Outcome:

- Students will identify and justify motor selection for various applications.
- Students will collaborate and present technical reasoning effectively in teams.

Mapping of Pedagogy with POs and PSOs:

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
-	-	-	-	-	2	2	-	2	2	2	3	3	3	3

Mapping of POs and PSOs with Justification:

POs and PSOs Mapped	Justification
PO6	Encourages awareness of motor safety and societal impact in real-world applications.
PO7	Promotes energy-efficient and sustainable motor choices.
PO9	Enhances teamwork through group-based decision-making.
PO10	Develops verbal communication and technical justification skills.
PO11	Introduces cost-performance trade-offs in motor selection.
PO12	Fosters independent, application-based learning for future readiness.
PSO1	Applies motor characteristics for analysis and selection.
PSO2	Supports sustainable system design via efficient motor use.
PSO3	Explores multidisciplinary motor applications across industries.


Course Coordinator


DAC




HOD