ATME College of Engineering

Department of EEE
Emitting Elite Energy

Department of Electrical & Electronics Engineering

Lesson Plan & Work-done Diary for AY:2025-26, ODD Semester

Faculty: KAVYASHREE S **Semester & Section: VII**

Class No.	Date planned (DD/M M)	Topics to be covered	TLP Planned	Class No.	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
		MODULE 1						
1	04.08.25	**Electrical Drives:** Introduction, Advantages of Electrical Drives	ICT					
2	05.08.25	Parts of Electrical Drives, Choice of Electrical Drives, Status of dc and ac Drives.	ICT					
3	06.08.25	**Dynamics of Electrical Drives:** Fundamental Torque Equations, Components of Load Torque	Chalk & Talk					
4	08.08.25	Speed Torque Conventions and Multi- quadrant Operation	Chalk & Talk					
5	11.08.25	Nature and Classification of Load Torques, Equivalent Values of Drive Parameters	Chalk & Talk					
6	12.08.25	Problems on Load Torque, Equivalent values of drive parameters	Chalk & Talk					
7	13.08.25	Calculation of Time and Energy Loss intransient Operations and Problems	Chalk & Talk					
8	18.08.25	Steady State Stability, Load Equalization	Chalk & Talk					
9	19.08.25	Steady State Stability, Load Equalization **Control Electrical Drives:** Modes of Operation	Chalk & Talk					
10	20.08.25	Speed Control and Drive Classifications and Closed loop Control of Drives	Chalk & Talk					
11	22.08.25	Summary of Module-1 VTU paper Discussion	ICT					

	Course with Code: Industrial Drives and Applications /BEE702				Faculty: KAVYASHREE S		Semester & Section: VII	
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	MODULE 2							
12	25.08.25	**Direct Current Motor Drives:** Controlled Rectifier Fed dc Drives, Single Phase Fully Controlled Rectifier Control of dc Separately Excited Motor	ICT					
13	29.08.25	Continued with Full Controlled rectifier derivation	Chalk & Talk					
14	01.09.25	Single Phase Half Controlled Rectifier Control of dc Separately Excited Motor, Three Phase Fully Controlled Rectifier Control of dc Separately Ex ted Motor	Chalk & Talk					
15	02.09.25	Continued with Half Controlled rectifier derivation	Chalk & Talk					
16	03.09.25	Three Phase Half Controlled Rectifier Control of dc Separately Excited Motor	Chalk & Talk					
17	05.09.25	Multi quadrant Operation of dc Separately Excited Motor Fed Form Fully Controlled Rectifier	Chalk & Talk					
18	08.09.25	Multi quadrant Operation of dc Separately Excited Motor Fed Form Fully Controlled Rectifier	Chalk & Talk					
19	09.09.25	Rectifier Control of dc Series Motor, S supply Harmonics	Chalk & Talk					
20	15.09.25	Power Factor and Ripple in Motor Current, Chopper Control of Series Motor	Chalk & Talk					
21	16.09.25	Chopper Control of Separately Excited dc Motor	Chalk & Talk					
22	17.09.25	Summary of Module-2 - VTU QPS	ICT					

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	MODULE-3							
23	19.09.25	**Induction Motor Drives:** Analysis and Performance of Three Phase Induction Motors	ICT					
24	22.09.25	Operation with Unbalanced Source Voltage and Single Phasing, Operation with Unbalanced Rotor Impedances	ICT					
25	23.09.25	Analysis of Induction Motor Fed From Non-Sinusoidal Voltage Supply	Chalk & Talk					
26	24.09.25	Numerical on Performance of 3 phase IM+ Starting, Braking, Transient Analysis	Chalk & Talk					
27	26.09.25	Speed Control Techniques Stator Voltage Control Variable Voltage Frequency Control from Voltage Sources	Chalk & Talk					
28	29.09.25	Voltage Source Inverter (VSI) Control	ICT					
29	03.10.25	Cycloconverter Control, Closed Loop Speed Control and Converter Rating for VSI and Cycloconverter Induction Motor Drives	Chalk & Talk					
30	08.10.25	Variable Frequency Control from a Current Source, Current Source (CSI) Control	Chalk & Talk					
31	10.10.25	Current regulated voltage source inverter control, speed control of single phase induction motors.	Chalk & Talk					

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	MODULE 4							
32	13.10.25	**Synchronous Motor Drives:** Operation from fixed frequency supply-starting	ICT					
33	24.10.25	Synchronous motor variable speed drives.	Chalk & Talk					
34	27.10.25	Variable frequency control of multiple synchronous motors	Chalk & Talk					
35	28.10.25	Self-controlled synchronous motor drive employing load commutated thruster inverter	Chalk & Talk					
36	29.10.25	Starting Large Synchronous Machines, Permanent Magnet ac (PMAC) Motor Drives	Chalk & Talk					
37	31.10.25	Sinusoidal PMAC Motor Drives, Brushless dc Motor Drives	Chalk & Talk					
38	03.11.25	**Stepper Motor Drives:** Variable Reluctance, Permanent Magnet	Chalk & Talk					
39	04.11.25	Important Features of Stepper Motors	ICT					
40	05.11.25	Drive Circuits for Stepper Motor.	ICT					
41	07.11.25	Torque Versus Stepping rate Characteristics	Chalk & Talk					
42	10.11.25	Summary and VTU Questions discussion	ICT					

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	MODULE 5							
43	12.11.25	**Energy conservation in Electrical Drives:** Losses in electrical drive system	ICT					
44	14.11.25	Measures for energy conservation in Electrical drives, Energy efficient operation of drive	Chalk & Talk					
45	17.11.25	Use of right rating motors, improvement of quality of supply.	Chalk & Talk					
46	18.11.25	**Solar powered Drives:** Solar powered pump drives	Chalk & Talk					
47	19.11.25	solar powered Electric vehicles	Chalk & Talk					
48	21.11.25	**Industrial Drives**: Textile Mills, Steel Rolling Mills, Cranes and Hoists	ICT					
49	26.11.25	Machine Tools, use of single to three phase semiconductor converters in rural applications.	ICT					
50	28.11.25	SRS Conduction and Revision	ICT					

	Activity	Planned	Actual	Remarks
1	Theory Classes	50		
2	Assignments/Quizzes/ Self study	SRS: 3 Write up: 1 Mock test :3 Group Assignment :1		
3	Tutorials/ Extra classes	-		
4	Internal Assessments	3		
5	ICT based Teaching (% of usage in Curriculum)	16/50= 32%		
Planning			**Execution**	
Faculty Signature:			**Faculty Signature:**	
HoD Signature:			**HoD Signature:**	