

## Lesson Plan & Work-done Diary for AY:2023-24, ODD Semester

	Course with Code: Industrial Drives and Applications / 18EE741				Faculty: Maria Sushma S		Semester & Section: VII	
Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Class No.	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
	MODULE-1							
1		<b>Electrical Drives:</b> Introduction, Advantages of Electrical Drives	ICT					
2		Parts of Electrical Drives, Choice of Electrical Drives, Status of dc and ac Drives.	ICT					
3		<b>Dynamics of Electrical Drives:</b> Fundamental Torque Equations, Components of Load	Chalk & Talk					
4		Speed Torque Conventions and Multi-quadrant Operation, Nature and Classification of Load Torques,	Chalk & Talk					
5		Equivalent Values of Drive Parameters	Chalk & Talk					
6		Calculation of Time and Energy Loss in Transient Operations, Steady State Stability, Load Equalization	Chalk & Talk					
7		<b>Control Electrical Drives:</b> Modes of Operation, speed Control and Drive Classifications	ICT					
8		Closed loop Control of Drives, Summary & Overview of Module-1 & QUIZ/SRS , VTU QPS	ICT					

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	MODULE-3							
9		Induction Motor Drives: Analysis and Performance of Three Phase Induction Motors	ICT					
10		Operation with Unbalanced Source Voltage and Single Phasing, Operation with Unbalanced Rotor Impedances	ICT					
11		Analysis of Induction Motor Fed From Non-Sinusoidal Voltage Supply	ICT					
12		Numerical on Performance of three phase Induction motor	ICT					
13		Starting, Braking, Transient Analysis	ICT					
14		Starting, Braking, Transient Analysis	ICT					
15		Speed Control Techniques Stator Voltage Control	ICT					
16		Variable Voltage Frequency Control from Voltage Sources. Summary of Module-3	ICT					

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	<b>MODULE 5</b>							
25		<b>Synchronous Motor Drives (continued):</b> Self controlled synchronous motor drive employing load commutated thruster inverter	ICT					
26		Starting Large Synchronous Machines, Permanent Magnet ac (PMAC) Motor Drives	ICT					
27		Sinusoidal PMAC Motor Drives, Brushless dc Motor Drives	ICT					
28		<b>Stepper Motor Drives:</b> Variable Reluctance Permanent Magnet, Important Features of Stepper Motors	ICT					
29		Torque Versus Stepping rate Characteristics, Drive Circuits for Stepper Motor	ICT					
30		<b>Industrial Drives:</b> Textile Mills,	ICT					
31		Steel Rolling Mills, Cranes and Hoists, Machine Tools.	ICT					
32		Summary of Module-5 & 4b	ICT					

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	Activity	Planned	Actual	Remarks
1	Theory Classes	40		
2	Assignments/Quizzes/ Self study	5		
3	Tutorials/ Extra classes	-		
4	Internal Assessments	3		
5	ICT based Teaching (% of usage in Curriculum)	32%		
Planning			Execution	
Faculty Signature:			Faculty Signature:	
HoD Signature:			HoD Signature:	