

DEPARTMENT OF MECHANICAL ENGINEERING

Lesson Plan & Work-done Diary for AY:2026-27, ODD Semester

Course with Code: Control Engineering – BME703					Faculty: Mr. Rohith S		Semester: 7 th	
Module	Class No.	Date planned	Topics to be covered	TLP Planned	Date of Conduction	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-1	1		Bridge Course, Introduction to Scheme and Syllabus	PPT				
	2		Components of a control system	Chalk & Talk				
	3		Open loop control systems with examples	Chalk & Talk				
	4		Closed loop control systems with examples	Chalk & Talk				
	5		Comparison between OLCS and CLCS, Requirements of CS	Chalk & Talk				
	6		Types of controllers: Proportional, Integral, Differential	PPT				
	7		Types of controllers: PI, and PID controllers	PPT				
	8		Modelling of Physical Systems: Mathematical Models of Mechanical Systems	PPT				
	9		Modelling of Physical Systems: Mathematical Models of Electrical systems	PPT				
	10		Revision and Quiz 1	PPT				

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MODULE-2	11		Block Diagrams and Signal Flow Graphs: Introduction to Block diagram and Reduction rule	Chalk & Talk				
	12		Numerical on Reduction rule	Chalk & Talk				
	13		Numerical on Reduction rule	Chalk & Talk				
	14		Introduction to Signal flow graphs and Gain formula	Chalk & Talk				
	15		Numerical on Signal flow graphs	Chalk & Talk				
	16		Numerical on Signal flow graphs	Chalk & Talk				
	17		Numerical on Signal flow graphs	Chalk & Talk				
	18		System Compensation: Series and feedback compensation	PPT				
	19		Concept of Lead compensator, Lag Compensator	PPT				
	20		Revision and Quiz 2	PPT				

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MODULE-4	21		System Stability- Introduction to Routh's criterion	Chalk & Talk				
	22		Numerical on Routh's criterion	Chalk & Talk				
	23		Numerical on Routh's criterion	Chalk & Talk				
	24		Numerical on Routh's criterion	Chalk & Talk				
	25		Root locus: Introduction to Root locus	PPT				
	26		Concept of phase and gain margin using root locus	Chalk & Talk				
	27		Numerical on root locus	Chalk & Talk				
	28		Numerical on root locus	Chalk & Talk				
	29		Numerical on root locus	Chalk & Talk				
	30		Revision and Quiz 3	PPT				

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Module	Class No.	Date planned	Topics to be covered	TLP Planned	Date of Conduction	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-5	31		Frequency Response Analysis - Introduction to Bode plot	PPT				
	32		Concept of phase and gain margin using Bode plot	Chalk & Talk				
	33		Numerical on Bode plot	Chalk & Talk				
	34		Numerical on Bode plot	Chalk & Talk				
	35		Numerical on Bode plot	Chalk & Talk				
	36		Introduction and Numerical on Polar Plot	Chalk & Talk				
	37		Numerical on Polar Plot	Chalk & Talk				
	38		Introduction and Numerical on Nyquist Plot	Chalk & Talk				
	39		Numerical on Nyquist Plot	Chalk & Talk				
	40		Revision and Quiz 4	PPT				

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MODULE-3	41		Introduction to test inputs	Chalk & Talk				
	42		Concepts of first order system response to step, ramp and impulse input	Chalk & Talk				
	43		Concepts of second order system response to step, ramp and impulse input	Chalk & Talk				
	44		Numerical on system of 1 st and 2 nd Order	Chalk & Talk				
	45		Concepts of time constant and its importance in speed of response	Chalk & Talk				
	46		Concept of Steady state error, error constants	Chalk & Talk				
	47		Numerical on steady state error	Chalk & Talk				
	48		Numerical on steady state error	Chalk & Talk				
	49		Revision and Quiz 5	PPT				
	50		Question paper discussion	PPT				

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	Activity	Planned	Actual	Remarks
1	Theory Classes	50		
2	Assignments/ Quizzes/ Self-study	2/5		
3	Tutorials/ Extra classes	-		
4	Internal Assessments	3		
5	ICT based Teaching (% of usage in Curriculum)	30%		
Planning			Execution	
Faculty Signature:			Faculty Signature:	
HoD Signature:			HoD Signature:	