

LESSON PLAN-2020-2021
SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR

Discipline- ELECTRICAL	Semester- 6TH	Name of teaching faculty-Sasmita kumari das
SUBJECT- CSE	No of days/ per week class allotted-	SEM From date-22/4/21 No of weeks-
Week	Class day	Theory Topics
		SIGNAL FLOW GRAPH
1st	22.04.21	1.1 Review of block diagrams and transfer functions of multivariable systems.
	23.04.21	1.1 Review of block diagrams and transfer functions of multivariable systems.
2nd	26.04.21	1.2 Construction of signal flow graph.
	27.04.21	solve problem regarding sfg
	28.04.21	solve problem regarding sfg
	29.04.21	1.3 Basic properties of signal flow graph.
	30.04.21	1.5 Construction of signal flow graph for control system.
		TIME RESPONSE ANALYSIS.
1st	03.05.21	2 . 1 Time response of control system.
	04.05.21	2 . 2 Standard Test signal.
	05.05.21	2.2.1. Step signal,
	06.05.21	2.2.2. Ramp Signal
	07.05.21	2.2.3. Parabolic Signal
2nd	10.05.21	2.2.4. Impulse Signal
	11.05.21	2 . 3 Time Response of first order system with:2.3.1. Unit step response
	12.05.21	2.3.2. Unit impulse response.
	13.05.21	2 . 4 Time response of second order system to the unit step input.
	14.05.21	2.4.1. Time response specification.
3rd	17.05.21	2.4.2. Derivation of expression for rise time, peak time, peak overshoot
	18.05.21	Settling time and steady state error.
	19.05.21	2.4.3. Steady state error and error constants.
	20.05.21	2 5 Types of control system.[Steady state errors in Type-0, Type-1, Type-2 system
	21.05.21	continue
4th	24.05.21	2 . 6 Effect of adding poles and zero to transfer function.
	25.05.21	2 . 7 Response with P, PI, PD and PID controller.
	26.05.21	continue
	27.05.21	continue

ANALYSIS OF STABILITY BY ROOT LOCUS TECHNIQUE		
	28.05.21	. 3 . 1 Root locus concept.
5th	31.05.21	3 . 2 Construction of root loci.
1st	01.06.21	3 . 3 Rules for construction of the root locus.
	02.06.21	solving numerical
	03.06.21	solving numericals
	04.06.21	solving numericals
2nd	07.06.21	3 . 4 Effect of adding poles and zeros to $G(s)$ and $H(s)$
FREQUENCY RESPONSE ANALYSIS.		
	08.06.21	4 .1 Correlation between time response and frequency response.
	09.06.21	4 .2 Polar plots.
	10.06.21	examples
	11.06.21	continue
3rd	14.06.21	solving numericals
	16.06.21	solving numericals
	17.06.21	4 .3 Bode plots.
	18.06.21	continue
4th	21.06.21	continue
	22.06.21	solving numericals
	23.06.21	solving numericals
	24.06.21	4 . 4 All pass and minimum phase system.
	25.06.21	4 . 5 Computation of Gain margin and phase margin.
5th	28.06.21	4 . 6 Log magnitude versus phase plot.
	29.06.21	4 . 7 Closed loop frequency response.
NYQUIST PLOT		
	30.06.21	5.5 Assessment of relative stability.
1st	01.07.21	5.1 Principle of argument.
	02.07.21	5.2 Nyquist stability criterion.
2nd	05.07.21	5.3 Niquist stability criterion applied to inverse polar plot.
	06.07.21	5.4 Effect of addition of poles and zeros to $G(S)$ $H(S)$ on the shape of Niquist plot.
	07.07.21	5.6 Constant M and N circle
	08.07.21	continue
	09.07.21	continue
3rd	13.07.21	5.7 Nicholas chart.
	14.07.21	5.7 Nicholas chart.
	15.07.21	solving numericals
doubt clearing class		
HOD		PRINCIPAL

