



Evaluation method :MARKS WILL BE GIVEN BASED ON THEIR PRESENTATION.

UNIT II-ANALYSIS OF CONTINUOUS TIME SIGNALS							
13	Fourier series of periodic signals	T1	1	BB	L2	CO2	PO1,PO2,PO3,PO4
14	Fourier series of periodic signals	T1,R2,R3	1	BB	L2	CO2	PO1,PO2,PO3,PO4
15	Fourier Transform	T1	1	BB	L2	CO2	PO1,PO2,PO3,PO4,PO5,PO6,PO12
16	Properties of Fourier Transform	T1	1	BB	L2	CO2	PO1,PO2,PO3,PO4,PO5,PO6,PO12
17	Laplace Transform	T1,R2,R3	1	BB	L2	CO2	PO1,PO2,PO3,PO4,PO5,PO6,PO12
18	Properties of Laplace Transform	T1	1	BB	L2	CO1,CO2	PO1,PO2,PO3,PO4,PO5,PO6,PO12
19	Tutorials	T1,R1,R2	1	BB	L3	CO2	PO1,PO2
20	Tutorials	T1,R1,R2	1	BB	L3	CO2	PO1,PO2
21	Tutorials	T1,R1,R2	1	BB	L3	CO1,CO2	PO1,PO2
22	Tutorials	T1,R1,R2	1	BB	L3	CO2	PO1,PO2
23	Tutorials	T1,R2,R3	1	BB	L3	CO2	PO1,PO2
24	Tutorials	T1,R2,R3	1	BB	L3	CO2	PO1,PO2
Suggested Activity: Assignment / Case Studies / Tutorials/ Quiz / Mini Projects / Model Developed/others Planned if any							
QUIZ							
Evaluation method :GOOGLE FORM							
UNIT III-LINEAR TIME INVARIANT -CONTINUOUS TIME SYSTEMS							
25	Impulse response	T1	1	BB	L3	CO3	PO1
26	Convolution integral	T1,R2,R3	1	BB	L2	CO3	PO1,PO2,PO3,PO4,PO5,PO6,PO12
27	Differential equation	T1	1	BB	L2	CO3	PO1,PO2,PO3
28	Fourier transforms in analysis of CT systems	T1,R2,R3	1	BB	L2	CO3	PO1,PO2,PO3,PO4,PO5,PO12
29	Laplace transforms in analysis of CT systems	T1,R1,R2	1	BB	L2	CO3	PO1,PO2,PO3,PO4,PO5,PO6,PO12
30	Systems connected in series / parallel.	T1	1	BB	L3	CO3	PO1,PO2,PO3,PO4,PO5,PO6
31	Tutorials	T1,R1,R2	1	BB	L3	CO3	PO1,PO2
32	Tutorials	T1,R1,R2	1	BB	L3	CO3	PO1,PO2
33	Tutorials	T1,R1,R2	1	BB	L3	CO3	PO1,PO2
34	Tutorials	T1,R1,R2	1	BB	L3	CO3	PO1,PO2
35	Tutorials	T1,R2,R3	1	BB	L3	CO3	PO1,PO2
36	Tutorials	T1,R2,R3	1	BB	L3	CO3	PO1,PO2
Suggested Activity: Assignment / Case Studies / Tutorials/ Quiz / Mini Projects / Model Developed/others Planned if any							
ASSIGNMENT-PROBLEMS							
Evaluation method :BASED THEIR SUBMISSION, MARKS WILL BE AWARDED.							
UNIT IV-ANALYSIS OF DISCRETE TIME SIGNALS							
37	Baseband Signal Sampling	T1	1	BB	L2	CO4	PO1,PO2,PO3,PO4,PO5,PO6,PO12
38	Baseband Signal Sampling	T1,R2,R3	1	BB	L2	CO4	PO1
39	Fourier Transform of discrete time signals (DTF)	T1	1	BB	L2	CO4	PO1,PO2
40	Properties	T1	1	BB	L2	CO4	PO1,PO2
41	Z-transform	T1,R2,R3	1	BB	L2	CO4	PO1,PO2,PO3,PO4,PO5,PO12
42	Properties of Z-transform	T1	1	BB	L2	CO4	PO1,PO2
43	Tutorials	T1,R2,R3	1	BB	L3	CO4	PO1,PO2
44	Tutorials	T1,R2,R3	1	BB	L3	CO4	PO1,PO2
45	Tutorials	T1,R2,R3	1	BB	L3	CO4	PO1,PO2
46	Tutorials	T1,R1,R2	1	BB	L3	CO4	PO1,PO2
47	Tutorials	T1,R2,R3	1	BB	L3	CO4	PO1,PO2
48	Tutorials	T1,R2,R3	1	BB	L3	CO4	PO1,PO2
Suggested Activity: Assignment / Case Studies / Tutorials/ Quiz / Mini Projects / Model Developed/others Planned if any							
MIND MAPPING							
Evaluation method :BASED THEIR SUBMISSION, MARKS WILL BE AWARDED.							

UNIT V-LINEAR TIME INVARIANT -DISCRETE TIME SYSTEMS														
49	Impulse response					T1	1	BB	L2	CO5	PO1,PO2			
50	Difference equations					T1	1	BB	L2	CO5	PO1,PO2,PO3			
51	Convolution Sum					T1	1	BB	L2	CO5	PO1,PO2,PO3			
52	Discrete Fourier transform analysis of Recursive and Non-Recursive systems					T1	1	BB	L2	CO5	PO1,PO2,PO3,PO4,PO5,PO12			
53	Z-Transform analysis of Recursive and Non-Recursive systems					T1	1	BB	L2	CO5	PO1,PO2,PO3,PO4,PO5			
54	DT systems connected in series and parallel					T1	1	BB	L2	CO5	PO1,PO2,PO3,PO4,PO5			
55	Tutorials					T1,R1,R2	1	BB	L3	CO5	PO1,PO2			
56	Tutorials					T1,R1,R2	1	BB	L3	CO5	PO1,PO2			
57	Tutorials					T1,R1,R2	1	BB	L3	CO5	PO1,PO2			
58	Tutorials					T1,R1,R2	1	BB	L3	CO5	PO1,PO2			
59	Tutorials					T1,R2,R3	1	BB	L3	CO5	PO1,PO2			
60	Tutorials					T1,R2,R3	1	BB	L3	CO5	PO1,PO2			
Suggested Activity: Assignment / Case Studies / Tutorials/ Quiz / Mini Projects / Model Developed/others Planned if any														
CASE STUDY ON LTI-DT SYSTEMS														
Evaluation method :BASED THE REPORT SUBMISSION, MARKS WILL BE AWARDED.														
Content Beyond the Syllabus Planned														
1	Application of Fourier Transforms													
2	Applications of LT and ZT													
Text Books														
1	Oppenheim, Willsky and Hamid, “Signals and Systems”, 2nd Edition, Pearson Education, New Delhi, 2015.(Units I - V)													
2	. Simon Haykin, Barry Van Veen, “Signals and Systems”, 2nd Edition, Wiley, 2002													
Reference Books														
1	. B. P. Lathi, “Principles of Linear Systems and Signals”, Second Edition, Oxford, 2009.													
2	M.J.Roberts, “Signals & Systems Analysis using Transform Methods & MATLAB”, Tata McGraw Hill, 2007.													
3	John Alan Stuller, “An Introduction to Signals and Systems”, Thomson, 2007.													
Website / URL References														
1	https://nptel.ac.in/courses/117/104/117104074/													
2	https://ocw.mit.edu/resources/res-6-007-signals-and-systems-spring-2011/video-lectures/lecture-6-systems-represented-by-differential-equations/													
3	https://www.youtube.com/watch?v=c_9JxwuEdqE													
Blooms Level														
Level 1 (L1) : Remembering					Lower Order Thinking	Fixed Hour Exams	Level 4 (L4) : Analysing				Higher Order Thinkin g	Projects / Mini Projects		
Level 2 (L2) : Understanding							Level 5 (L5) : Evaluating							
Level 3 (L3) : Applying							Level 6 (L6) : Creating							
Mapping syllabus with Bloom's Taxonomy LOT and HOT														
Unit No	Unit Name					L1	L2	L3	L4	L5	L6	LOT	HOT	Total
Unit 1	CLASSIFICATION OF SIGNALS AND SYSTEMS					1	2	9	0	0	0	12	0	12
Unit 2	ANALYSIS OF CONTINUOUS TIME SIGNALS					0	4	8	0	0	0	12	0	12
Unit 3	LTI-CT SYSTEMS					0	3	8	1	0	0	11	1	12
Unit 4	ANALYSIS OF DISCRETE TIME SIGNALS					0	4	8	0	0	0	12	0	12
Unit 5	LTI-DT SYSTEMS					0	5	6	1	0	0	11	1	12
Total						1	18	39	2	0	0	58	2	60
Total Percentage						1.6667	30	65	3.3333	0	0	96.667	3.3333	100
CO PO Mapping														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2 ,PSO3
CO1	3	3	3	1	0	0	0	0	0	0	0	1	1	0
CO2	3	3	3	1	1	0	0	0	0	0	0	1	1	0
CO3	3	3	3	1	1	1	0	0	0	0	0	1	1	0
CO4	3	3	3	1	1	0	0	0	0	0	0	1	1	0
CO5	3	3	3	1	1	1	0	0	0	0	0	1	1	0
Avg	3	3	3	1	1	1	0	0	0	0	0	1	1	0
Justification for CO-PO mapping														
CO1	PO1(3) Graduates will learn the basic knowledge of Signals and systems,PO2(3) Graduates will able to analyze the problems in the periodic signals,PO12(1),Graduates will be able to upgrades their knowledge in basic representation of signals by life long learning													
CO2	PO1(3) Graduates will be learn the fourier series and fourier transform systems,PO2(3) Graduates will able to analyze the Laplace and Fourier transform ,PO5(1),Graduates will be able to use modern tools usagee in Matlab													

CO3	PO2(3) Graduates will be able analyse the impulse response and frequency response, PO6(1) Graduates will able to slightly gain the contextual knowledge.PO12(1) Graduates will be able to evaluate the convolution integral..				
CO4	PO4(2) Graduates will be able apply Fourier transform and Z transforms.PO6(1) Graduates will be able to understand the difference between the CT and DT transforms				
CO5	PO2(3) Graduates will be able investigate at research level the impulse response and recursive structures. PO3(3) Graduates will able to convolve the sequences.PO5(2) Graduates will be able to use recent tools in Matlab for signal analysis.				
3	High level	2	Moderate level	1	Low level
Name & Sign of Faculty Incharge :JAYANTHIE,ASSISTANT PROFESSOR					
Name & Sign of Subject Expert :					
Head of the Department :					

Format No :231