LESSONPLAN–2022-2023

DISCIPLINE:ETC	SEMESTER:6TH	NAMEOFTHETEACHINGFACULTY:SRI SATYANARAYAN PANIGRAHI
SUBJECT:DIGITAL SIGNAL PROCESSING	NO.OFDAYS/PERWEEK CLASSALLOTTED:4	SEMESTERFROMDATE: 14/02/2023 TO DATE:23/5/2023 NO.OFWEEKS:15
WEEK	CLASSDAY	THEORY/PRACTICALTOPICS
1ST	1ST	BASICS OF SIGNALS , SYSTEMS
	2ND	CLASSIFICATION OF SIGNALS
	3RD	CLASSIFICATION OF SIGNALS
	4TH	CONTINUOUS TIME SINUSOIDAL SIGNAL DETAILS
2ND	1ST	DISCRETE TIME SINUSOIDAL SIGNAL DETAILS
	2ND	ANALOG TO DIGITAL SIGNAL CONVERSION PROCESS
	3RD	SAMPLING OF ANALOG SIGNAL,SAMPLING THEOREM
	4TH	QUANTIZATION OF CONTINUOUS AMPLITUDE SIGNALS.
3RD	1ST	CODING OF QUANTIZED SAMPLE
	2ND	DIGITAL TO ANALOG CONVERSION
	3RD	ANALYSIS OF DIGITAL SYSTEM SIGNALS AND DISCRETE TIME SIGNALS SYSTEMS.
	4TH	CONCEPT OF DISCRETE TIME SIGNALS.
4TH	1ST	DISCRETE TIME SYSTEM
	2ND	CLASSIFICATION OF DISCRETE TIME SYSTEM
	3RD	INTER CONNECTION OF DISCRETE TIME SYSTEM
	4TH	DISCRETE TIME INVARIANT SYSTEM
5TH	1ST	CONVOLUTION
	2ND	INTERCONNECTION OF LTI SYSTEM PROPERTIES
	3RD	RECURSIVE &NON RECURSIVE DISCRETE TIME SYSTEM
	4TH	DETERMINATION IMPULSE RESPONSE OF LTI RECURSIVE SYSTEM.
6TH	1ST	CORRELATION OF DISCRETE TIME SIGNALS
	2ND	Z-TRANSFORM & ITS APPLICATION TO LTI SYSTEM
	3RD	INVERSE Z-TRANSFORM DEFINITION
	4TH	VARIOUS PROPERTIES OF Z-TRANSFORM
7TH	1ST	RATIONAL Z-TRANSFORM
	2ND	POLES,ZEROS DEFINITION
	3RD	POLE LOCATION TIME DOMAIN BEHAVIOUR FOR CAUSAL SIGNALS.
	4TH	POLE LOCATION TIME DOMAIN BEHAVIOUR FOR CAUSAL SIGNALS.
8TH	1ST	SYSTEM FUNCTION OF A LTI SYSTEM
	2ND	SYSTEM FUNCTION OF A LTI SYSTEM
	3RD	VARIOUS QUESTION MODEL DISCUSSION ABOUT Z-TRANSFORM.
	4TH	VARIOUS QUESTION MODEL DISCUSSION ABOUT Z-TRANSFORM.
9TH	1ST	DISCUSSION ABOUT INVERSE Z-TRANSFORM
	2ND	INVERSE Z-TRANSFORM BY PARTIAL FRACTION EXPANSION.
	3RD	INVERSE Z-TRANSFORM BY CONTOUR INTEGRATION.
	4TH	VARIOUS QUESTION MODEL DISCUSSION ABOUT INVERSE Z-TRANSFORM.

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10TH	1ST	VARIOUS QUESTION MODEL DISCUSSION ABOUTINVERSE Z-TRANSFORM.
	2ND	CONCEPT OF DISCRETE FOURIER TRANSFORM
	3RD	FREQUENCY DOMAIN SAMPLING AND RECONSTRUCTION OF DISCRETE TIME SIGNALS
	4TH	DISCRETE TIME FOURIER TRANSFORM(DTFT)
11TH	1ST	DISCRETE FOURIER TRANSFORM(DFT)
	2ND	COMPUTATION OF DFT AS A LINEAR TRANSFORMATION.
	3RD	RELATION OF DFT TO OTHER TRANSFORMS
	4TH	PROPERTIES OF DFTS
12TH	1ST	MULTIPLICATION OF 2 DFTS
	2ND	CIRCULAR CONVOLUTION
	3RD	VARIOUS QUESTION MODEL DISCUSSION ABOUT DFTS
	4TH	VARIOUS QUESTION MODEL DISCUSSION ABOUT DFTS
13TH	1ST	VARIOUS QUESTION MODEL DISCUSSION ABOUT DFTS
	2ND	VARIOUS QUESTION MODEL DISCUSSION ABOUT DFTS
	3RD	COMPUTATION OF DFT & FFT ALGORITHMS
	4TH	DIRECT COMPUTATION OF DFT
14TH	1ST	DIVIDE & CONQUER APPROACH TO COMPUTATION OF DFT
	2ND	RADIX-2 ALGORITHM.
	3RD	APPLICATION OF FFT ALGORITHMS.
	4TH	INTRODUCTION TO DIGITAL FILTERS
15TH	1ST	INTRODUCTION TO DSP ARCHITECTURE.
	2ND	VARIOUS QUESTION MODEL DISCUSSION ABOUT FFTS
	3RD	VARIOUS QUESTION MODEL DISCUSSION ABOUT FFTS
	4TH	VARIOUS QUESTION MODEL DISCUSSION ABOUT FFTS