LESSON PLAN, SESSION-SUMMER-2024
SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR

DISCIPLINE-ETC ENGG.	SEMESTER- 6TH	NEME OF THE FACULTY-ER. SRIDHARA KUMAR RATH
SUBJECT- DSP	NO OF CLASS ALLOTED/WEEK-4	SEMESTER FROM- 16.01.2024 TO 26.04.2024

WEEK	DATE	TOPICS
3RD	16.01.2024	Introduction of Signals, Systems & Signal processing
	17.01.2024	Basics of Signals, Systems & Signal processing- basic element of a digital signal processing
	18.01.2024	Compare the advantages of digital signal processing over analog signal processing
	20.01.2024	Classify signals - Multi channel& Multi-dimensional signals Continuous time verses Discrete
4TH	22.01.2024	Concept of frequency in continuous time & discrete time signals Continuous-time
	24.01.2024	Analog to Digital & Digital to Analog conversion
	25.01.2024	Sampling of Analog signal, The sampling theorem, Quantization of continuous amplitude
	27.01.2024	Coding of quantized sample, Digital to analog conversion, Analysis of digital systems signals
5TH	29.01.2024	Coding of quantized sample, Digital to analog conversion, Analysis of digital systems signals
	30.01.2024	Class Test
	31.01.2024	DISCRETE TIME SIGNALS & SYSTEMS
1ST	01.02.2024	Revision
	03.02.2024	Concept of Discrete time signals
2ND	05.02.2024	Elementary Discrete time signals, Classification Discrete time signal, Simple manipulation of
	06.02.2024	Elementary Discrete time signals, Classification Discrete time signal, Simple manipulation of
	07.02.2024	Discrete time system
	08.02.2024	Input-output of system, Block diagram of discrete- time systems, Classify discrete time
	10.02.2024	Inter connection of discrete -time system
3RD	12.02.2024	Discrete time time-invariant system, Different techniques for the Analysis of linear system
	13.02.2024	Revision
	15.02.2024	Resolution of a discrete time signal in to impulse, Response of LTI system to arbitrary inputs
	17.02.2024	Resolution of a discrete time signal in to impulse, Response of LTI system to arbitrary inputs
4TH	19.02.2024	Convolution & interconnection of LTI system - properties
	20.02.2024	Study systems with finite duration and infinite duration impulse response
	21.02.2024	Discrete time system described by difference equation, Recursive & non-recursive discrete
	22.02.2024	Discrete time system described by difference equation, Recursive & non-recursive discrete
	24.02.2024	Determine the impulse response of linear time invariant recursive system
5TH	26.02.2024	Determine the impulse response of linear time invariant recursive system
	27.02.2024	Correlation of Discrete Time signals
	28.02.2024	THE Z-TRANSFORM & ITS APPLICATION TO THE ANALYSIS OF LTI SYSTEM
	29.02.2024	Z-transform & its application to LTI system
1ST	02.03.2024	Direct Z-transform, Inverse Z-transform
	04.03.2024	Direct Z-transform, Inverse Z-transform
2ND	05.03.2024	Revision
	06.03.2024	Various properties of Z-transform
	07.03.2024	Various properties of Z-transform
	09.03.2024	Rational Z-transform, Poles & zeros, Pole location time domain behaviour for casual
3RD	11.03.2024	Rational Z-transform, Poles & zeros, Pole location time domain behaviour for casual
	12.03.2024	System function of a linear time invariant system, Discuss inverse Z-transform
	13.03.2024	Inverse Z-transform by partial fraction expansion, Inverse Z-transform by contour
	14.03.2024	Inverse Z-transform by partial fraction expansion, Inverse Z-transform by contour

	16.03.2024	Inverse Z-transform by partial fraction expansion, Inverse Z-transform by contour
4TH	18.03.2024	DISCUSS FOURIER TRANSFORM: ITS APPLICATIONS PROPERTIES
	19.03.2024	Concept of discrete Fourier transform
	20.03.2024	Concept of discrete Fourier transform
	21.03.2024	Frequency domain sampling and reconstruction of discrete time signals
	23.03.2024	Frequency domain sampling and reconstruction of discrete time signals
5TH	25.03.2024	Discrete Time Fourier transformation(DTFT)
	27.03.2024	Discrete Fourier transformation (DFT)
	28.03.2024	Revision
	30.03.2024	Class Test
1ST	02.04.2024	Compute DFT as a linear transformation
	03.04.2024	Relate DFT to other transforms
	04.04.2024	Property of the DFT
	06.04.2024	Multiplication of two DFT & circular convolution
2ND	08.04.2024	Multiplication of two DFT & circular convolution
	09.04.2024	FAST FOURIER TRANSFORM ALGORITHM & DIGITAL FILTERS
	10.04.2024	Compute DFT & FFT algorithm
	11.04.2024	Compute DFT & FFT algorithm
	13.04.2024	Direct computation of DFT
3RD	15.04.2024	Divide and Conquer Approach to computation of DFT
	16.04.2024	Divide and Conquer Approach to computation of DFT
	17.04.2024	Radix-2 algorithm. (Small Problems)
	18.04.2024	Revision
	20.04.2024	Application of FFT algorithms
4TH	22.04.2024	Introduction to digital filters.(FIR Filters)& General considerations
	23.04.2024	Introduction to DSP architecture
	24.04.2024	familiarisation of different types of processor
	25.04.2024	Doubt Clearing Class

H. O. D.

DEAN(ACADEMICS)

PRINCIPAL

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ETC Engineering
S V.S E. T., Mandanpur

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