	LESSON PLAN	
	JHARSUGUDA ENGINEERING SCHOOL,JHARSUGUDA	
Name of the Faculty: Yasobanti Nayak		*Academic Year: 2021-22*
Course Code.: Th-3		*Course name: DSP*
Programme: Diploma		*Branch: E&TC*
Year/ Sem:-3rd /6th		*Section:*

Sl. No.	*Period*	*Time (min)*	*Unit*	*Topic to be Covered*	*Teaching Method*	*Suggested Reading(Book,Video, Online Sources etc.)*
1.	1.	55 min	1	*Introduction to signal, systems,& signal processing*	*Black board*	*Ramesh Babu, NPTEL Video*
2.	2.	55min	1	*Advantage of DSP over ASP*	*Black board*	*Ramesh Babu, NPTEL Video*
3.	3.	55min	1	*Classification of signals-Multichannel & multidimensional signal..*	*Black board*	*Ramesh Babu, NPTEL Video*
4.	4.	55min	1	*Concept of frequency in continuous time & discrete time signals, continuous discrete time sinusoidal signals- discrete time sinusoidal signals*	*Black board*	*Ramesh Babu, NPTEL Video*
5.	5.	55min	1	*Introduction to analog to digital & digital to analog*	*Black board*	*Ramesh Babu , NPTEL Video*
6.	6.	55min	1	*Sampling theorem, problem solve*	*Black board*	*Ramesh Babu*
7.	7.		1	*Quantization of continuous amplitude signals, coding of quantized signal*	*Black board*	*Ramesh Babu*

8.	8.	55min	1	Digital to analog conversion,analysis of digital systems signals vs. Discrete time signals systems	Black board	Ramesh Babu, NPTEL
9.	9.	55min	1	Digital to analog conversion,analysis of digital systems signals vs. Discrete time signals systems	Black board	Ramesh Babu
10	10.	55min	1	Concept of discrete time signals	Black board	Ramesh Babu
11	11.	55min	2	Concept of discrete time signals, elementary of discrete time signals	Black board	Ramesh Babu, NPTEL Video
12	12.	55 min	2	Classification of discrete time signals	Black board	Ramesh Babu,
13	13.	55 min	2	Block diagram, classification, inter connection of discrete time system	Black board	Ramesh Babu
14	14.	55min	2	Mathematical manipulation based on discrete time signals	Black board	Ramesh Babu
15	15.	55 min	2	Discrete invariant system ,Resolution of a discrete time signals into impulse	Black board	Ramesh Babu
16	16.	55 min	2	Convolution & inter connection of LTI system, study systems with finite duration & infinite duration impulse response	Black board	Ramesh Babu
17	17.	55min	2	Mathematical manipulation based on discrete time signal	Black board	Ramesh Babu
18	18.	55min	2	Discrete time system described by difference equation	Black board	Ramesh Babu
19	19.	55 min	2	Recursive & non recursive Discrete time system	Black board	Ramesh Babu
20	20.	55 min	2	Determine the impulse response of Linear recursive system	Black board	Ramesh Babu
21	21.	55 min	2	Determine the impulse response of Linear recursive system	Black board	Ramesh Babu
22	22.	55 min	2	finite duration & infinite duration impulse response	Black board	Ramesh Babu

23	23.	55 min	2	Introduction to LTI system & its application to LTI system	Black board	Ramesh Babu
24	24.	55 min	2	Direct z-transform, indirect z-transform	Black board	Ramesh Babu
25	25.	55 min	3	Introduction to LTI system & its application to LTI system	Black board	Ramesh Babu
26	26.	55 min	3	Direct z-transform, indirect z-transform	Black board	Ramesh Babu
27	27.	55 min	3	Problem solve on Direct z-transform, indirect z-transform	Black board	Ramesh Babu
28	28.	55 min	3	Various properties of z-transform	Black board	Ramesh Babu
29	29.	55min	3	Mathematical manipulation based on properties of z-transform	Black board	Ramesh Babu, NPTEL Video
30	30.	55min	3	Rational Z-transform, pole zeros, pole location time domain behaviour for casual signals	Black board	Ramesh Babu
31	31.	55 min	3	System function of a LTI system	Black board	Ramesh Babu
32	32.	55 min	3	Mathematical manipulation based on System function of a LTI system	Black board	Ramesh Babu
33	33.	55 min	3	Inverse z-tranform	Black board	Ramesh Babu
34	34.	55 min	3	Mathematical manipulation based on by partial fraction, contour integration	Black board	Ramesh Babu
35	35.	55 min	3	Mathematical manipulation based on Mathematical manipulation based on	Black board	Ramesh Babu
36	36.	55 min	3	Inverse z-tranform problem by partial fraction, contour integration	Black board	Ramesh Babu
37	37.	55 min	3	Assignment & Revision	Black board	Ramesh Babu
38	38.	55 min	3	Inverse z-tranform problem by partial fraction, contour integration	Black board	Ramesh Babu

39	39.	55 min	4	Concept of discrete fourier transform & its application	Black board	Ramesh Babu, NPTEL Video
40	40.	55 min	4	Discrete time fourier transformation(DTFT)	Black board	Ramesh Babu
41	41.	55 min	4	Discrete fourier transform(DFT)	Black board	Ramesh Babu
42	42.	55 min	4	Mathematical manipulation based on DFT	Black board	Ramesh Babu
43	43.	55 min	4	Compute DFT as a linear transformation, Relate DFT to other transforms	Black board	Ramesh Babu
44	44.	55 min	4	Property of DFT, problem solve	Black board	Ramesh Babu
45	45.	55 min	4	multiplication of two DFT & circular convolution	Black board	Ramesh Babu
46	46.	55 min	4	multiplication of two DFT & circular convolution	Black board	Ramesh Babu
47	47.	55 min	5	Introduction to FFT	Black board	Ramesh Babu
48	48.	55 min	5	Compute DFT & FFT algorithm	Black board	Ramesh Babu
49	49.	55 min	5	Direct computation of DFT	Black board	Ramesh Babu
50	50.	55 min	5	Compute DFT & FFT algorithm	Black board	Ramesh Babu
51	51.	55 min	5	Compute DFT & FFT algorithm	Black board	Ramesh Babu
52	52.	55 min	5	Divide & conquer approach to computation of DFT	Black board	Ramesh Babu
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54	54.	55 min	5	Radix-2 algorithm(small problems)	Black board	Ramesh Babu

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56	56.	55 min	5	Application & problem on FFT	Black board	Ramesh Babu
57	57.	55 min	5	Application & problem on FFT	Black board	Ramesh Babu
58	58.	55 min	5	Introduction to filter	Black board	Ramesh Babu
59	59.	55 min	5	Introduction to DSP architecture	Black board	Ramesh Babu
60	60.	55 min	5	PYQ	Black board	Ramesh Babu
61	61.	55 min	5	Assignment & Revision	Black board	Ramesh Babu
62	62.	55 min	5	Assignment & Revision	Black board	Ramesh Babu
63	63.	55 min	5	Class test	Black board	Ramesh Babu