

Aditya Institute of Technology and Management (Autonomous), Tekkali
III ECE-A, 2015-16 SEM-II

Subject: Digital Signal Processing

Subject Code: 13EC3020

Name of the faculty: Sri. D.Yugandhar

Semester: 6

Branch: ECE

Periods	Date (Tentative)	Topic	Unit No	Teaching Methodology	Remarks	Corrective Action Upon Review
1	04-01-2016	Need of signal processing. DSP Introduction	Unit I	BB		
2	05-01-2016	DSP Block diagram, advantage & drawbacks of DSP.		BB		
3	05-01-2016	Introduction to discrete time signals and sequences		BB		
4	08-01-2016	Types of standard discrete time signals		BB		
5	11-01-2016	Classification of discrete time systems		BB		
6	12-01-2016	Classification of discrete time systems		BB		
7	12-01-2016	Representation of differential and difference equations.		BB		
8	18-01-2016	Frequency domain representation of discrete time signals and systems.		BB		
9	19-01-2016	Introduction to discrete Fourier series (DFS), Problems on DFS.		BB		
10	19-01-2016	Properties of DFS		BB		
11	22-01-2016	Properties of DFS, Problems on DFS.		BB		
12	25-01-2016	Introduction to Discrete Time Fourier Transform (DTFT) and Discrete Fourier Transform (DFT)	Unit II	BB		
13	29-01-2016	Relation between DTFT and DFT,		BB		
14	01-02-2016	Properties of DFT		BB		
15	02-02-2016	Linear and Circular Convolution		BB		
16	02-02-2016	Problems on convolution		BB		

17	05-02-2016	Fast Fourier Transform (FFT)- FFT Computation using Decimation in time(DIT) – Radix 2 FFT algorithm, Problems		BB		
18	08-02-2016	FFT Computation using Decimation in frequency(DIF) – Radix 2 FFT algorithm		BB		
19	09-02-2016	FFT for composite N		BB		
20	16-02-2016	Introduction to Z-transform, Inverse Z-transform,.		BB		
21	16-02-2016	Properties of Z-transform		BB		
22	19-02-2016	Problems on Z-transform, Relation between Z-transform and DFT.		BB		
23	22-02-2016	IIR Digital filter introduction		BB		
24	23-02-2016	Block diagram representation of linear coefficient difference equation, Transfer function, Zeros and Poles representation.		BB		
25	23-02-2016	Basic structures of IIR systems		BB		
26	26-02-2016	Basic structures of IIR systems	Unit III	BB		
27	29-02-2016	Transposed form of IIR filters.		BB		
28	01-03-2016	Design of analog Butterworth Filter		BB		
29	01-03-2016	Design of analog Chebyshev Filter		BB		
30	04-03-2016	Frequency transformation in analog domain		BB		
31	07-03-2016	Design of IIR digital filters using impulse invariance technique and bilinear transformation.		BB		
32	08-03-2016	Prewarping, Problems on realization techniques		BB		
33	08-03-2016	Problems - Solutions		BB		
34	11-03-2016	Problems - Solutions	BB			
35	14-03-2016	FIR filters- introduction		BB		
36	15-03-2016	Basic structures of FIR filters		BB		

37	15-03-2016	Basic structures of FIR filters	Unit IV	BB		
38	21-03-2016	Design of FIR filter using windowing techniques		BB		
39	22-03-2016	Design of FIR filters using Fourier Series method.		BB		
40	22-03-2016	Design of FIR filters using frequency sampling techniques		BB		
41	28-03-2016	Comparison of FIR and IIR Filters		BB		
42	29-03-2016	Problems.		BB		
43	29-03-2016	Problems.		BB		
44	04-04-2016	Introduction to Multirate signal processing, Decimation (Down sampling), Interpolation (Up sampling)		BB		
45	05-04-2016	Multistage implementation of sampling rate conversion		BB		
46	08-04-2016	Problems on Sampling rate conversion, Applications of Multirate signal processing		BB		
47	11-04-2016	Problems		BB		
48	12-04-2016	Introduction to P-DSP Processors, Bus architecture, Pipe line concepts.	Unit V	BB/PPT		
49	12-04-2016	Addressing modes of P-DSP		BB		
50	18-04-2016	On chip peripherals,.		PPT		
51	19-04-2016	CISC & RISC architectures		PPT		
52	22-04-2016	Architecture of 320C5X DSP, Register Set.		PPT		

Signature of the faculty

Signature of HOD/ECE