AMRITA SAI INSTITUTE OF SCIENCE AND TECHNOLOGY

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Paritala (Post), Kanchikacherla (Mandal), Krishna District, Andhra Pradesh - 521180.
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Name of the Subject: DIGITAL COMMUNICATIONS **Year & Sem:** III/II

Dept: ECE – A, B&C

S.No	Date	Topic	Classes Planned	Cum Classes	SIGN
		UNIT 1: PULSE DIGITAL MODULATION			
1	20-11-2017	Introduction to digital modulation	1	1	
2	21-11-2017	Elements of digital communication systems	1	2	
3	22-11-2017	Advantages of digital communication systems	1	3	
4	23-11-2017	Elements of PCM	1	4	
5	24-11-2017	Sampling, Quantisation & Coding	1	5	
6	25-11-2017	Types of quantisation & working principle	1	6	
7	27-11-2017	Quantisation error	1	7	
8	28-11-2017	Compading in PCM systems	1	8	
9	29-11-2017	Differential PCM systems (DPCM)	1	9	
10	30-11-2017	Delta modulation	1	10	
11	1/12/2017	Draw backs of Delta Modulation	1	11	
12	4/12/2017	Adaptive Delta Modulation	1	12	
13	5/12/2017	Comparison of PCM and DM	1	13	
14	6/12/2017	Noise in PCM system	1	14	
15	7/12/2017	Noise in DM system	1	15	
		UNIT 2 : DIGITAL MODULATION TECHNIQUES			
16	8/12/2017	Introduction	1	16	
17	11/12/2017	ASKeying	1	17	
18	12/12/2017	FSKeying	1	18	
19	13/12/2017	PSKeying	1	19	
20	14/12/2017	DPSKeying	1	20	
21	15/12/2017	DEPSK,QPSKeying	1	21	
22	16/12/2017	M-ary PSK, ASK, FSK,	1	22	
23	18/12/2017	M-ary PSK, ASK, FSK,	1	23	
24	19/12/2017	Similarity of BFSK and BPSK	1	24	
		UNIT 3: DATA TRANSMISSION			
25	20/12/2017	Base band signal receiver	1	25	
26	21/12/2017	Probability of error	1	26	
27	22/12/2017	The optimum filter& matched filter	1	27	
28	23/12/2017	Probability of error using matched filter	1	28	

29	26/12/2017	Coherent reception	1	29	
30	27/12/2017	Non-coherent detection of FSK	1	30	
31	28/12/2017	Calculation of error probability of ASK	1	31	
32	29/12/2017	Calculation of error probability of BPSK	1	32	
33	30/12/2017	Calculation of error probability of BFSK	1	33	
34	2/1/2018	Calculation of error probability of QPSK	1	34	
35	3/1/2018	TUTORIAL FOR 1ST UNIT	1	35	
36	4/1/2018	TUTORIAL FOR 1ST UNIT	1	36	
37	5/1/2018	TUTORIAL FOR 1ST UNIT	1	37	
38	6/1/2018	TUTORIAL FOR 2ND UNIT	1	38	
39	8/1/2018	TUTORIAL FOR 2ND UNIT	1	39	
40	9/1/2018	TUTORIAL FOR 3RD UNIT	1	40	
41	10/1/2018	TUTORIAL FOR 3RD UNIT	1	41	
42	11/1/2018	TUTORIAL FOR 3RD UNIT	1	42	
		1st mid examinations from 15-1-2018 to 24-1-2018			
		UNIT 4 : INFORMATION THEORY			
43	25/1/2018	Discrete messages	1	43	
44	27/1/2018	Concept of amount of information and properties	1	44	
45	29/1/2018	Concept of amount of information and properties	1	45	
46	30/1/2018	Average information		46	
47	31/1/2018	Entropy and its properties	1	47	
48	1/2/2018	Entropy and its properties	1	48	
49	2/2/2018	Information rate	1	49	
50	3/2/2018	Mutual information and its properties,	1	50	
51	5/2/2018	Mutual information and its properties,	1	51	
		UNIT 5: SOURCE CODING			
52	6/2/2018	Introductions	1	52	
53	7/2/2018	Advantages of Shannon's theorem	1	53	
54	8/2/2018	Shanon-Fano coding	1	54	
55	9/2/2018	Huffman coding	1	55	
56	12/2/2018	Efficiency calculations	1	56	
57	14/2/2018	Channel capacity of discrete and analog Channels	1	57	
58	15/2/2018	Capacity of a Gaussian channel,	1	58	
59	16/2/2018	bandwidth –S/N trade off.	1	59	
		UNIT 6: LINEAR BLOCK CODES			
60	17/2/2018	Matrix description of Linear Block codes	1	60	
61	18/2/2017	Error detection & correction capabilities of LBC	1	61	
62	20/2/2018	Hamming codes	1	62	
63	21/2/2018	Binary cyclic codes	1	63	
64	22/2/2018	Algebraic structure	1	64	
65	23/2/2018	Encoding	1	65	
66	24/2/2018	Syndrome calculation	1	66	
67	25/2/2018	BCH Codes.	1	67	
68	27/2/2018	Encoding of convolution codes	1	68	

69	28/2/2018	Encoding of convolution codes	1	69	
70	29/2/2018	Time domain approach	1	70	
71	1/3/2018	Transfer domain approach	1	71	
72	3/3/2018	Graphical approach	1	72	
73	5/3/2018	state, tree and trellis diagram decoding using Viterbi Algorithm	1	73	
74	6/3/2018	TUTORIAL FOR 4Th UNIT	1	74	
75	7/3/2018	TUTORIAL FOR 4Th UNIT	1	75	
76	8/3/2018	TUTORIAL FOR 4Th UNIT	1	76	
77	9/3/2018	TUTORIAL FOR 5Th UNIT	1	77	
78	12/3/2018	TUTORIAL FOR 5Th UNIT	1	78	
79	13/3/2018	TUTORIAL FOR 6Th UNIT	1	79	
80	14/3/2018	TUTORIAL FOR 6Th UNIT	1	80	
		REVISION Schedule from 15-3-2018 to 19-3-2018			
		2nd mid examinations from 19-3-2018 to 24-3-2018			

Signature of the Faculty **HOD** **Principal**