

Department of Electronics and Communication

SEMESTER : VI
SECTIONS : A
SUBJECT : Digital Communication
SUBJECT CODE : 10EC61
NO OF HRS/WK : 6

NAME OF THE FACULTY : Vidya T V
DATE OF COMMENCEMENT : 01.02.2015
DATE OF CLOSING : 10.05.2015
CLASS STRENGTH : 55
TOTAL HRS : 70

Session No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	1/1	27/01	Introduction to Digital Communication: Block Diagram of Digital Communication Systems,	Board, chalk, duster		
2	2/1	28/01	Advantages of Digital Communication.	,,		
3	3/1	29/01	Introduction to Random Process: Definitions, Conditional Probability and Statistical Independence,	,,	Assignment 0	
4	4/1	30/01	PDF and CDF, Some Important PDFs,	,,		
5	5/1	03/02	Joint and Conditional Density Functions,	,,		
6	6/1	04/02	Random Processes,.	,,		
7	7/1	05/02	Wide Sense and Strict Sense Stationarity,	,,		
8	8/1	05/02	Autocorrelation and Power Spectral Density	Board, chalk, duster		
9	9/1	05/02	Problems	,,		
10	10/1	08/02	Problems	,,		

11	1/2	08/02	Gram-Schmidt Orthogonalization Procedure,	„		
12	2/2	11/02	Problems			
13	3/2	12/02	Problems	„		
14	4/2	13/02	Geometric Interpretation of Signals.	„		
15	5/2	13/02	Problems	„		
16	6/2	15/02	Problems			
17	1/3	15/02	Basic Signal Processing Operations in Digital Communication: Sampling Principles,		Assignm ent 1	
18	2/3	18/02	Sampling Theorem,			
19	3/3	22/02	Quadrature Sampling of Bandpass Signals,	„		
20	4/3	23/02	Practical Aspects of Sampling	„		
21	5/3	23/02	Signal Recovery,	„		
22	6/3	24/02	TDM.	„	Assignm ent 2	
23	7/3	24/02	Problems	„		
24	8/3	29/02	Problems			
25	9/3	01/03	Problems			
26	10/3	02/03	Problems	Board, chalk, duster		
27	1/4	02/03	Waveform Coding Techniques: PAM,	„		
28	2/4	03/03	PCM,	„		
29	3/4	03/03	Quantization Noise	„	Assignm ent 3	
30	4/4	08/03	SNR,	„		
31	5/4	09/03	Robust Quantization,	„		
32	6/4	10/03	DPCM,	„		
33	7/4	10/03	DM,	„		

34	8/4	11/03	Applications	„	Assignm ent 4	
35	9/4	11/03	Problems	Board, chalk, duster		
36	10/4	19/03	Problems	„		
37	1/5	21/03	Baseband Shaping for Data Transmission: Discrete PAM Signals,	„		
38	2/5	22/03	Power Spectra of Discrete PAM Signals,	„		
39	3/5	22/03	ISI,	„		
40	4/5	23/03	Nyquist's Criterion for Distortion less Baseband Binary Transmission,	„		
41	5/5	23/03	Correlative Coding,	„		
42	6/5	29/03	Eye pattern,	„	Assignm ent 5	
43	7/5	30/03	Baseband M-ary PAM Signals,			
44	8/5	31/03	Adaptive Equalization for Data Transmission	„		
45	9/5	31/03	Problems	„		
46	10/5	01/04	Problems	„	Assignm ent 6	
47	1/6	01/04	Detection of Known Signals in Noise: Correlation Receiver,	„		
48	2/6	05/04	Response of Bank of Correlators to Noisy Input,	„		
49	3/6	06/04	Matched Filter Receiver,	„		
50	4/6	07/04	Detection of Signals With Unknown Phase in Noise.	„		
51	5/6	07/04	Problems	„	Assignm ent 7	
52	6/6	11/04	Problems			
53	7/6	11/04	Problems	Board, chalk, duster		
54	8/6	15/04	Problems	„		
55	1/7	16/04	Digital Modulation Techniques: Digital Modulation Formats,	„		

56	2/7	18/04	Coherent Binary Modulation Techniques,	„		
57	3/7	18/04	Coherent Quadrature Modulation Techniques,	„	Assignment 8	
58	4/7	20/04	Coherent Quadrature Modulation Techniques,	„		
59	5/7	20/04	Non Coherent Binary Modulation Techniques.	„		
60	8/7	23/04	Non Coherent Binary Modulation Techniques.	„		
61	9/7	28/04	Problems	„		
62	10/7	29/04	Problems	„	Assignment 9	
63	11/7	29/04	Problems			
64	12/7	30/04	Problems	„		
65	1/8	30/04	Spread Spectrum Modulation: Pseudo Noise Sequences,	„		
66	2/8	04/05	Notion of Spread Spectrum,			
67	3/8	05/05	Direct Sequence Spread Spectrum,			
68	4/8	06/05	Coherent Binary PSK,			
69	5/8	06/05	Frequency Hop Spread Spectrum,		Assignment 10	
70	6/8	07/05	Applications.			

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Department of Telecommunication

SEMESTER : VI
BRANCH : TCE & ECE
SUBJECT : Microprocessor
SUBJECT CODE : 10EC62
NO OF HRS/WK : 6

NAME OF THE FACULTY : Mrs. Sophiya, Archana, Suma
DATE OF COMMENCEMENT : 27.01.2016
DATE OF CLOSING : 21.05.2016
CLASS STRENGTH : 43 & 46
TOTAL HRS : 71

Session No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	1/1	27/01/2016	Unit 1: 8086 processors: historical background, difference between Microprocessor and Microcontroller	Board, chalk, duster	Pre-Assignment	
2	2/1	28/01/2016	8086 CPU architecture	“		
3	3/1	29/01/2016	8086 CPU architecture	“		
4	4/1	30/01/2016	Addressing modes	“		
5	5/1	1/2/2016	Addressing modes	“		
6	6/1	2/2/2016	Instructions : Data transfer instructions, programs for lab Instruction execution timing	“		
7	7/1	3/2/2016	Instructions : Data transfer instructions, programs for lab Instruction execution timing	“	Assignment 1	
8	8/1	4/2/2016	Calculating the time required for the instruction for execution in different addressing modes	“		
9	9/1	5/2/2016	Calculating the time required for the instruction for execution in different addressing modes	“		
10	1/2	8/2/2016	Unit 2: Opcode format with examples	“		
11	2/2	9/2/2016	Arithmetic instructions with examples	“		
12	3/2	10/2/2016	Logical instructions and shift and rotate instructions Example programs.	Board, chalk, duster	Assignment 2	
13	4/2	11/2/2016	Directives and operators	“		
14	5/2	12/2/2016	Directives and operators	“		
15	6/2	13/2/2016	Memory addressing mode	“		
16	7/2	15/2/2016	Branch type instructions with example	“		

17	8/2	16/2/2016	Loop	“	Assignment 3	
18	9/2	17/2/2016	ASCII	“		
19	10/2	18/2/2016	Example programs on Procedures	“		
20	11/2	22/2/2016	Example programs on Procedures	“		
21	12/2	23/2/2016	Macros.	“		
22	13/2	24/2/2016	Macros.	“		
23	1/3	25/2/2016	Unit 3: BYTE AND STRING MANIPULATION: String instructions, REP Prefix	Board, chalk, duster		
24	2/3	26/2/2016	Example programs on String instructions	“		
25	3/3	29/2/2016	Table translation	“	Assignment 4	
26	4/3	1/3/2016	DOS interrupts:	“		
27	5/3	2/3/2016	Programming using keyboard.	“		
28	6/3	3/3/2016	Programming using video display.	“		
29	7/3	4/3/2016	NOP & HALT, flag manipulation, WAIT, LOCK instructions	“		
30	8/3	5/3/2016	Number format conversions	“		
31	9/3	8/3/2016	Number format conversions	“	Assignment 5	
32	1/5	9/3/2016	Unit 5: 8086 interfacing: 82C55 PPI, block diagram, working	“		
33	2/5	10/3/2016	Different modes of operation of 82C55	“		
34	3/5	11/3/2016	Interfacing microprocessor to keyboard (keyboard types)	Board, chalk, duster		
35	4/5	17/3/2016	Keyboard circuit connections and interfacing and related ALP.	“		
36	5/5	18/3/2016	Software keyboard interfacing	“		
37	6/5	19/3/2016	Interfacing to alphanumeric Displays (interfacing LED displays to microcomputer)	“	Assignment 6	
38	7/5	21/3/2016	Interfacing a microcomputer to a stepper motor. Delay Calculation	“		
39	8/5	22/3/2016	Interfacing a microcomputer to a stepper motor. Delay Calculation	“		
40	1/7	23/3/2016	Unit 7 : SYSTEM BUS STRUCTURE Difference between 8086 and 8088	“		
41	2/7	24/3/2016	Basic 8086 Configurations: minimum mode	“		
42	3/7	28/3/2016	Maximum mode	“		
43	4/7	29/3/2016	Bus Interface Peripheral component interconnect PCI bus,	“	Assignment 7	

44	5/7	30/3/2016	The parallel printer interface (LPT)	“		
45	6/7	31/3/2016	The universal serial bus (USB)	Board, chalk, duster		
46	7/7	1/4/2016	Delay calculation	“		
47	1/6	2/4/2016	Unit 6 : 8086 BASED MULTIPROCESSING SYSTEMS: Coprocessor configurations	“		
48	2/6	4/4/2016	The 8087 numeric data processor:	“		
49	3/6	5/4/2016	Data types.	“		
50	4/6	6/4/2016	Data types.	“	Assignment 8	
51	5/6	7/4/2016	Processor architecture Instruction set,	“		
52	6/6	11/4/2016	Instruction set Example programs	“		
53	7/6	12/4/2016	Instruction set Example programs	“		
54	1/4	13/4/2016	UNIT – 4 8086 INTERRUPTS: 8086 Interrupts and interrupt responses.	“		
55	2/4	15/4/2016	Hardware interrupt applications.	“		
56	3/4	16/4/2016	Software interrupt applications.	Board, chalk, duster		
57	4/4	18/4/2016	Interrupt examples.	“		
58	5/4	20/4/2016	More examples on interrupts.	“		
59	1/8	21/4/2016	The microprocessor-based Personal computer system Introduction to the 80386 microprocessor, Special 80386 registers, Introduction to the 80486 microprocessor. Introduction to the Pentium Processor	“	Assignment 9	
60	2/8	22/4/2016	Unit – 8 Introduction to the 80386 microprocessor	“		
61	3/8	23/4/2016	Introduction to the 80386 microprocessor	“		
62	4/8	28/4/2016	Special 80386 registers	“		
63	5/8	29/4/2016	Introduction to the 80486 microprocessor	“	Assignment 10	
64	6/8	30/4/2016	Introduction to the Pentium Processor	“		
65	7/8	2/5/2016	Introduction to the Pentium Processor	“		
66		3/5/2016	Revision	“		
67		5/5/2016	Revision	“		
68		6/5/2016	Revision	“		
69		7/5/2016	Revision	“		
70		10/5/2016	Revision	“		
71		11/5/2016	Revision	“		

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CMR INSTITUTE OF TECHNOLOGY

Session wise – Course Plan



Department of Electronics and Communication

SEMESTER : VI
Shanbhag/Aritri
BRANCH : ECE
SUBJECT : Microelectronics Circuits
SUBJECT CODE : 10EC63
NO OF LECTURES/WK : 06

NAME OF THE FACULTY: Nagaratna
DATE OF COMMENCEMENT : 27.01.2016
DATE OF CLOSING : 11.05.2016
CLASS STRENGTH : 55(A)/51(B)
TOTAL HRS : 65

Sessi on No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	1/Prerequisites	27.01.2016	Introduction to the Subject, discussion on diode, BJT	Board, chalk, duster		
2	2/ Prerequisites	28.01.2016	Basics on Amplifiers	„		
3	1/1	29.01.2016	Unit 1: Device Structure and Physical Operation,	„		
4	2/1	30.01.2016	V-I Characteristics	„		
5	3/1	01.02.2016	V-I Characteristics (Cntd..)	“		
6	4/1	02.02.2016	DC Biasing in MOS amplifier Circuits	„		
7	5/1	03.02.2016	DC Biasing in MOS amplifier Circuits (Cntd..)	„		
8	6/1	04.02.2016	Finite output resistance in saturation	„		
9	7/1	05.02.2016	Breakdown in MOSFET	„		
10	8/1	08.02.2016	Numericals on MOSFET biasing	„		
11	9/1	09.02.2016	Numericals on MOSFET biasing	„		
12	10/1	10.02.2016	Numericals on MOSFET biasing	Board, chalk, duster		
13	11/1	11.02.2016	Small Signal Operation and Models	„		

14	12/1	12.02.2016	Small Signal Operation and Models (Cntd..)	„		
15	13/1	13.02.2016	Small Signal Operation and Models (Cntd..)	„	Assignment- I	
16	14/1	15.02.2016	MOSFET as an amplifier and as a switch	„		
17	15/1	16.02.2016	MOSFET as an amplifier and as a switch (Cntd..)	„		
18	16/1	17.02.2016	Small signal operation models	„		
19	17/1	18.02.2016	Small signal operation models (Cntd..)	„		
20	18/1	22.02.2016	Single stage amplifiers	„		
21	19/1	23.02.2016	Single stage amplifiers (Cntd..)	„		
22	20/1	24.02.2016	Single stage amplifiers (Cntd..)	„		
23	21/1	25.02.2016	Single stage amplifiers (Cntd..)	“		
24	½	26.02.2016	Unit 2: IC Design philosophy	“		
25	2/2	29.02.2016	Comparison of MOSFET and BJT	“		
26	3/2	01.03.2016	Current sources	„	Assignment - II	
27	4/2	02.03.2016	Current mirrors	„		
28	5/2	03.03.2016	Current mirrors (Cntd..)	„		
29	6/2	04.03.2016	Current steering circuits	„		
30	7/2	05 .03.2016	Current steering circuits (Cntd..)	„		
31	8/2	08.03.2016	High frequency response	„		
32	9/2	09.03.2016	High frequency response (Cntd..)	„		
33	1/3	10.03.2016	Unit 3: CS and CF amplifiers with loads	Board, chalk, duster		
34	2/3	11.03.2016	High frequency response of CS and CF amplifiers	„	Assignment – III	
35	4/3	17.03.2016	High frequency response of CS and CF amplifiers (Cntd..)	„		
36	5/3	18.03.2016	CG and CB amplifiers with active loads	„		
37	6/3	19.03.2016	CG and CB amplifiers with active loads (Cntd..)	„		
38	7/3	21.03.2016	High frequency response of CG and CB amplifiers	„		

39	8/3	22.03.2016	Cascade amplifiers	„		
40	9/3	23.03.2016	CS and CE amplifiers with source (emitter) degeneration source and emitter followers	„		
41	10/3	24.03.2016	Some useful transfer parings	„		
42	11/3	28.03.2016	Some useful transfer parings (Cntd..)	„		
43	12/3	29.03.2016	Current mirrors with improved performance	„		
44	1/7&8	30.03.2016	Unit 7&8: Overview. Design and performance analysis of CMOS inverter	„		
45	2/7&8	31.03.2016	Design and performance analysis of CMOS inverter (Cntd..)	„	Assignmnt – IV	
46	3/7&8	01.04.2016	Logic Gate Circuits	„		
47	4/7&8	02.04.2016	Pass-transistor logic	„		
48	5/7&8	04.04.2016	Dynamic Logic Circuits	„		
49	6/7&8	05.04.2016	Dynamic Logic Circuits (Cntd..)	“		
50	1/5	06.04.2016	Unit 5: General Feedback structure	„		
51	2/5	07.04.2016	Properties of negative feedback	„		
52	3/5	11.04.2016	Four basic feedback topologies, Series-Shunt feedback	„	Assignment - V	
53	4/5	12.04.2016	Determining the loop gain	„		
54	5/5	13.04.2016	Stability problem	Board, chalk, duster		
55	6/5	15.04.2016	Effect of feedback an amplifier poles	„		
56	7/5	18.04.2016	Stability study using Bode plots	„		
57	8/5	20.04.2016	Frequency compensation	“		
58	1/6	21.04.2016	Unit 6: The two stage CMOS Op-amp	„		
59	2/6	22.04.2016	Folded cascade CMOS op-amp	„		
60	3/6	23.04.2016	741 op-amp circuit	„	Assignment - VI	
61	4/6	28.04.2016	DC analysis of the 741	„		
62	5/6	29.04.2016	Small signal analysis of 741	„		

63	6/6	30.04.2016	Gain, frequency response and slew rate of 741	„		
64	7/6	02.05.2016	Data Converters, A-D and D-A converters.	“		
65	1/4	03.05.2016	Unit 4: The MOS differential pair	„		
66	2/4	04.05.2016	Small signal operation of MOS differential pair	„	Assignment - VII	
67	3/4	05.05.2016	BJT differences pair	„		
68	4/4	06.05.2016	Other non-ideal characteristics and differential pair	„		
69	5/4	07.05.2016	Differential amplifier with active loads	„		
70	6/4	10.05.2016	Frequency response and differential amplifiers	„		
71	7/4	11.05.2016	Multistage amplifier	„		

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CMR INSTITUTE OF TECHNOLOGY

Session wise – Course Plan



Department of Electronics and Communication

SEMESTER : VI
Ninikrishna
BRANCH : ECE
SUBJECT : Antennas and Propagation
SUBJECT CODE : 10EC64
NO OF LECTURES/WK : 5

NAME OF THE FACULTY: Sutapa Sarkar /T

DATE OF COMMENCEMENT : 27.01.2016
DATE OF CLOSING : 11.05.2016
CLASS STRENGTH : 55/51
TOTAL HRS : 65

Sessi on No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
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1	1/Prerequisites	27.01.2016	Discussion of spherical coordinates, Poynting's theorem	Board, chalk, duster		
2	2/Prerequisites	28.01.2016	Retarded potential, concept of standing waves	„	Assignment on Prerequisites	
3	1/1	29.01.2016	Unit 1: Antenna and radiation mechanism, Radiation Patterns	„		
4	2/1	30.01.2016	Beam area , beam solid angle	„		
5	3/1	01.02.2016	Numerical, radiation intensity, beam efficiency	Board, chalk, duster		
6	4/1	02.02.2016	diversity and gain,	„		
7	5/1	03.02.2016	Antenna apertures, Effective aperture, Effective height,	„	Assignment- I	
8	6/1	04.02.2016	bandwidth, antenna efficiency	„		
9	7/1	05.02.2016	Antenna temperature and antenna field zones.	„		
10	8/1	08.02.2016	Numericals.	„		
11	1/2	09.02.2016	Unit 2: Introduction, point sources, power patterns, power theorem	„		
12	2/2	10.02.2016	radiation intensity, field patterns, Numericals	„	Assignment - II	
13	3/2	11.02.2016	phase patterns, Numericals	„		
14	4/2	12.02.2016	Array of two isotropic point sources, Broadside array	„		
15	5/2	13.02.2016	Array of two isotropic point sources, Endfire array			
16	6/2	15.02.2016	Numericals			
17	7/2	16.02.2016	Array of n isotropic point sources.			
18	8/2	17.02.2016	Numericals	„		
19	9/2	18.02.2016	ICP	„		
20	1/3	22.02.2016	Unit 3 short electric dipole, concept of retarded potential	„		
21	2/3	23.02.2016	Fields of a short dipole, Magnetic field components	„	Assignment – III	
22	3/3	24.02.2016	Electric field components	„		
23	4/3	25.02.2016	radiation resistance of short dipole	„		
24	5/3	26.02.2016	radiation resistances of $\lambda/2$ Antenna	„		

25	6/3	29.02.2016	thin linear antenna	Board, chalk, duster		
26	7/3	01.03.2016	long wire antenna,	„		
27	8/3	02.03.2016	folded dipole antennas	„		
28	9/3	03.03.2016	Derivation of R_r in folded dipole antenna	„		
29	10/3	04.03.2016	Low side lobe arrays,	„		
30	11/3	05.03.2016	Numericals- ICP	„		
31	1/4	08.03.2016	Unit 4&5: Small loop, comparison of far fields of small loop and short dipole	„	Assignmmt – IV	
32	2/4	09.03.2016	loop antenna general case,	„		
33	4/4	10.03.2016	far field patterns of circular loop,	Board, chalk, duster		
34	5/4	11.03.2016	radiation resistance, directivity	„		
35	6/4	17.03.2016	slot antennas, slot antenna types	„		
36	7/4	18.03.2016	Babinet's principle and complementary antennas,	„	Assignment - V	
37	1/5	19.03.2016	Impedance of complementary antennas	„		
38	2/5	21.03.2016	impedance of complementary and slot antennas,	„		
39	3/5	22.03.2016	patch antennas micro strip arrays,	„		
40	4/5	23.03.2016	Numericals	„		
41	5/5	24.03.2016	Numericals- ICP	„		
42	6/5	28.03.2016	Horn antennas, rectangular horn antennas,	„		
43	1/6	29.03.2016	Unit 6: Helical Antenna	„	Assignment - VI	
44	2/6	30.03.2016	Yagi-Uda array	„		
45	3/6	31.03.2016	log periodic antenna	„		

46	4/6	01.04.2016	corner reflectors	„		
47	5/6	02.04.2016	parabolic reflectors, lens antenna	„		
48	6/6	04.04.2016	antenna for special applications – sleeve antenna	„		
49	7/6	05.04.2016	turnstile antenna, Omni-directional antennas	Board, chalk, duster		
50	8/6	06.04.2016	antennas for satellite, antennas for ground penetrating radars	„		
51	9/6	07.04.2016	embedded antennas, ultra wide band antennas	„		
52	10/6	11.04.2016	plasma antenna, high-resolution data	„		
53	11/6	12.04.2016	intelligent antennas, Antenna for remote sensing.	„		
54	1/7	13.04.2016	UNIT - 7 & 8 RADIO WAVE PROPAGATION	„	Assignment - VII	
55	2/7	15.04.2016	Introduction, Ground wave propagation	„		
56	3/7	18.04.2016	Ground wave propagation	„		
57	4/7	20.04.2016	free space propagation	„		
58	5/7	21.04.2016	ground reflection, surface wave	„		
59	6/7	22.04.2016	diffraction	„		
60	1/8	23.04.2016	TROPOSPHERE WAVE PROPAGATION: Troposcopic scatter	„		
61	2/8	28.04.2016	Ionosphere propagation	„	Assignment - VIII	
62	3/8	29.04.2016	electrical properties of the ionosphere	„		
63	4/8	30.04.2016	effects of earth's magnetic field	„		
64	5/8	02.05.2016	Revision	„		
65	6/8	03.05.2016	Revision	„		

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CMR INSTITUTE OF TECHNOLOGY



Session wise – Course Plan

Department of Information Science and Engineering

SEMESTER	:VI	NAME OF THE FACULTY	:PRIYANKA R
BRANCH	:ECE	DATE OF COMMENCEMENT	:27.01.2016
SUBJECT	:Operating Systems	DATE OF CLOSING	: 11.05.2016
SUBJECT CODE	:10EC65	CLASS STRENGTH	:45
NO OF HRS/WK	:5	TOTAL HRS	:59

Session No	No of hrs planned /Chapter Number	Date	Topics planned for the session	Teaching Aids	Assignments/Tests planned for the chapter	Topics covered As per plan
1	1/1	28.1.2016	Briefing the syllabus,	Black		

			Mode of class and study, Prerequisites of the course, Expectation from the student.	Board, Chalk, Duster		
2	2/1	29.1.2016	UNIT 1 INTRODUCTION AND OVERVIEW OF OPERATING SYSTEMS: Operating system,	Black Board, Chalk, Duster		
3	3/1	01.2.2016	Goals of an O.S, Operation of an O.S	Black Board, Chalk, Duster		
4	4/1	02.2.2016	Resource allocation and related functions,	Black Board, Chalk, Duster		
5	5/1	02.2.2016	User interface related functions	Black Board, Chalk, Duster	Assignment-I	
6	6/1	04.2.2016	Classes of operating systems, O.S and the computer system	Black Board, Chalk, Duster		
7	7/1	09.2.2016	Batch processing system, Multiprogramming systems, Time sharing systems	Black Board, Chalk, Duster		
8	8/1	10.2.2016	Distributed operating systems	Black Board, chalk		
9	9/1	10.2.2016	Test on UNIT 1	Black Board, Chalk, Duster		
10	1/2	12.2.2016	UNIT-2 STRUCTURE OF THE OPERATING SYSTEMS: Operation of an O.S,	Black Board, Chalk, Duster		
11	2/2	13.2.2016	Structure of the supervisor	Black Board, Chalk, Duster		
12	3/2	16.2.2016	Configuring and installing of the supervisor	Black Board, Chalk, Duster		
13	4/2	17.2.2016	Operating system with monolithic structure	Black Board,		

				Chalk, Duster		
14	5/2	17.2.2016	layered design	Black Board, Chalk, Duster		
15	6/2	22.2.2016	Virtual machine operating systems	Black Board, Chalk, Duster	Assignment II	
16	7/2	23.2.2016	Kernel based operating systems, Microkernel based operating systems	Black Board, Chalk, Duster		
17	8/2	25.2.2016	Test on UNIT 2	Black Board, Chalk, Duster		
18	1/3	26.2.2016	UNIT- 3 PROCESS MANAGEMENT: Process concept	Black Board, Chalk, Duster		
19	2/3	26.2.2016	Programmer view of processes,	Black Board, Chalk, Duster		
20	3/3	01.3.2016	OS view of processes	Black Board, Chalk, Duster		
21	4/3	02.3.2016	Interacting processes	Black Board, Chalk, Duster		
22	5/3	04.3.2016	Threads , Processes in UNIX	Black Board		
23	6/3	05.3.2016	Threads in Solaris			
24	7/3	05.3.2016	Test on UNIT 3	Black Board, Chalk, Duster		
25	1/5	09.3.2016	UNIT- 5 VIRTUAL MEMORY: Virtual memory basics	Black Board, Chalk, Duster	Assignment III	
26	2/5	10.3.2016	Virtual memory using paging, Demand paging	Black Board, Chalk, Duster		

27	3/5	17.3.2016	Page replacement	Black Board, Chalk, Duster		
28	4/5	18.3.2016	Page replacement policies	Black Board, Chalk, Duster		
29	5/5	18.3.2016	Memory allocation to programs	Black Board, Chalk, Duster		
30	6/5	21.3.2016	Page sharing	Black Board, Chalk, Duster		
31	7/5	22.3.2016	UNIX Virtual Memory	Black Board, Chalk, Duster		
32	8/5	24.3.2016	Test on UNIT 5	Black Board, Chalk, Duster		
33	1/8	28.3.2016	UNIT -8 MESSAGE PASSING: Implementing message passing	Black Board, Chalk, Duster		
34	2/8	28.3.2016	Implementing message passing continued..	Black Board, Chalk, Duster		
35	3/8	30.3.2016	Mailboxes	Black Board, Chalk, Duster	Assignment IV	
36	4/8	31.3.2016	Mailboxes continued..	Black Board, Chalk, Duster		
37	5/8	02.4.2016	Inter process communication in UNIX	Black Board, Chalk, Duster		
38	6/8	04.4.2016	Inter process communication in UNIX continued..	Black Board, Chalk, Duster		
39	7/8	04.4.2016	Test on UNIT 8	Black Board, Chalk, Duster		

40	1/7	06.4.2016	UNIT-7 SCHEDULING: Fundamentals of scheduling	Black Board, Chalk, Duster		
41	2/7	07.4.2016	Long-term scheduling,	Black Board, Chalk, Duster		
42	3/7	12.4.2016	Medium and short term scheduling	Black Board, Chalk, Duster		
43	4/7	13.4.2016	Real time scheduling	Black Board, Chalk, Duster		
44	5/7	13.4.2016	Real time scheduling	Black Board, Chalk, Duster		
45	6/7	16.4.2016	Process scheduling in UNIX.	Black Board, Chalk, Duster	Assignment V	
46	1/6	18.4.2016	UNIT- 6 FILE SYSTEMS: File system and IOCS, Files and directories	Black Board, Chalk, Duster		
47	2/6	21.4.2016	Overview of I/O organization	Black Board, Chalk, Duster		
48	3/6	22.4.2016	Fundamental file organizations	Black Board, Chalk, Duster		
49	4/6	22.4.2016	Interface between file system and IOCS	Black Board, Chalk, Duster		
50	5/6	28.4.2016	Allocation of disk space	Black Board, Chalk, Duster		
51	6/6	29.4.2016	Implementing file access, UNIX File system	Black Board, Chalk, Duster		
52	7/6	02.5.2016	Implementing file access, UNIX File system	Black Board, Chalk, Duster	Assignment VI	

53	1/4	03.5.2016	UNIT 4 MEMORY MANAGEMENT: Memory allocation to programs	Black Board, Chalk, Duster		
54	2/4	03.5.2016	Memory allocation preliminaries	Black Board, Chalk, Duster		
55	3/4	05.5.2016	Contiguous and non contiguous allocation to programs	Black Board, Chalk, Duster		
56	4/4	06.5.2016	Contiguous and non contiguous allocation to programs	Black Board, Chalk, Duster		
57	5/4	10.5.2016	Memory allocation for program controlled data	Black Board		
58	6/4	11.5.2016	Memory allocation for program controlled data	Black Board		
59	7/4	11.5.2016	kernel memory allocation	Black Board		

**Signature of faculty
Principal**

Signature of HOD

Signature of

Syllabus for Internal Assessment Tests (IAT) *

IAT #	Syllabus
IAT-1 (14.3.2016-16.3.2016)	Class # 01 – 26
IAT-2 (25.4.2016-27.4.2016)	Class # 27-45
Improvement test (12.5.2016-14.5.2016)	Class # 46-59

*: See calendar of events for the schedules of IATs.

Literature:

Book Type	Code	Author & Title	<i>Publication information</i>	
			Edition // Publisher	ISBN #
Text Book	TB1	Anany Levitin: Introduction to the Design and Analysis of Algorithms	2nd Edition, Pearson Education, 2007	978-81-317-5895-3
Text Book	TB2	Ellis Horowitz, Sartaj Sahni, Sanguthevar Rajasekaran: Fundamentals of Computer Algorithms	2nd Edition, Universities Press, 2007	978-81-7371-612-6
Reference	RB1	Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest, Clifford Stein: Introduction to Algorithms	3rd Edition, PHI, 2010	978-81-203-4007-7
Reference	RB2	R.C.T. Lee, S.S. Tseng, R.C. Chang, Y.T. Tsai: Introduction to the Design and Analysis of Algorithms A Strategic Approach.	Tata McGraw Hill, 2005	0071243461/0-07-124346-1

CMR Institute of Technology, Bangalore			 CMR INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING			
Semester: 06	Section(s): A, B, C & D		
SATELLITE COMMUNICATION		10EC662	
			Lectures/week: 5
Course Instructor(s): Mrs. Shailee A Sisodia			
Course duration: 27 Jan., 2016 – 23 May 2016			

Class #	BOOKS/ SECTIONS	Topic	Percentage of portion covered	
			Reference	Cumulative
1-3	UNIT 1:- OVER VIEW OF SATELLITE SYSTEMS/TB 1 (1.1-1.5)	Unit 1:- Introduction Frequency allocation for satellite services INTEL Sat, U.S.Domsats, Polar orbiting satellite	5%	5%
4-17	UNIT 2:- ORBITS/ TB1 (2.1- 2.10) (3.1-3.8)	Unit 2:- Introduction, Kepler laws, Definitions, orbital element Apogee and perigee heights, Orbit perturbation, Inclined orbits, Calendars, universal time, sidereal time, Orbital plane ,local mean solar time ,Sun synchronous orbits ,Geostationary orbit: Introduction ,Antenna Look angles ,earth eclipse of satellite Polar mount antenna, limits of visibility, Earth eclipse of satellite, sun transit outage, Leandrag orbits.	17%	22%
18-26	UNIT 3:- PROPAGA TION IMPAIRME NTS AND SPACE LINK/ TB1 (4.1-4.5) (12.1-12.10)	Unit3:- Introduction, Atmospheric loss, Ionospheric effects Rain attenuation, Other propagation impairments SPACE LINK: Introduction, EIRP, Transmission losses, link power budget, System noise CNR, uplink, down link Effects of rain, combined CNR	13%	35%
27-34	UNIT 4:- SPACE SEGMENT / TB1 (7.1-7.8)	Unit4:- Introduction, Power supply units, Attitude control Station keeping, Thermal control, TT&C, Transponders Antenna subsystem.	13%	48%

35-49	UNIT 5&6:- EARTH SEGMENT INTERFERENCE AND SATELLITE ACCESS / TB1 (8.1-8.5) (14.1-14.9)	Unit5:- Introduction, Only home TV system, Outdoor unit Indoor unit, Master antenna TV system ,Community antenna TV system Transmit Receive Earth stations SATELLITE ACCESS: Introduction ,Interference between satellite circuits, Satellite access ,Single access, pre-assigned FDMA,SCPC (spade system),TDMA , Pre-assigned TDMA Demand assigned TDMA, Down link analysis	32%	80%
50-60	UNIT 7 & 8:- DBS, SATELLITE MOBILE AND UNIT 8 SPECIALIZED SERVICES/ TB1 (16.1-16.12) (17.1-17.6)	Comparison of uplink power requirements for TDMA & FDMA, on board signal processing satellite switched TDMA DBS:- Introduction, Orbital spacing, Power rating ,Frequency and polarization, Transponder capacity, Bit rates for digital TV Satellite mobile services, VSAT, RadarSat, GPS, Orb communication and Indian Satellite systems	20%	100%
61-64	Revision	Discussion of previous year question paper		

Syllabus for Sessionals :

Sessional #	Syllabus
T1	Class # 01 – 21
T2	Class # 22 - 43
T3	Class # 44 – 62

Literature:

Book Type	Code	Author & Title	<i>Publication info</i>	
			Edition & Publisher	ISBN #
Text Book	TB1	.Satellite Communications, Dennis Roddy,	4Edition, McGraw-Hill International edition, 2006.	978-0-07-007785-0
References	RB1	Satellite Communications, Timothy Pratt, Charles Bostian and Jeremy Allnutt,	2Edition, John Wiley Pvt. Ltd & Sons, 2008.	

Department of Computer Science and Engineering

SEMESTER : VI
BRANCH : EC/TC
SUBJECT : PROGRAMMING IN C++
SUBJECT CODE: 10EC661
TOTAL HRS : 63

NAME OF THE FACULTY : POONAM TIJARE
DATE OF COMMENCEMENT: 27 JAN 2016
DATE OF CLOSING : 11 MAY 2016
NO OF HRS/WK : 5

Sessi on No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignm ents/ Tests planned for the chapter	Topics covered As per plan
1	1/3	25/01/2016	Discussing Prerequisites Review of Functions Simple C and C++ Programs	Chalk & Talk		
2	2/3	27/01/2016	Simple C and C++ Programs cont..	„		
3	3/3	30/01/2016	Simple C and C++ Programs cont..			
4	1/8	30/01/2016	C++, AN OVERVIEW: Getting started, the C++ program,	„	Assignm ent- I	
5	2/8	2/02/2016	Pre-processor Directive	„		
6	3/8	3/02/2016	The Built-In Array Data Type	„		
7	4/8	3/02/2016	Dynamic Memory Allocation and Pointers	„		
8	5/8	4/02/2016	Dynamic Memory Allocation and Pointers	„		
9	6/8	5/02/2016	An Object – based Design, An Object-Oriented Design	„		
10	7/8	8/02/2016	An Exception – based Design	„		
11	8/8	10/02/2016	An array	„	Assignm ent -II	

12	1/8	12/02/2016	THE BASIC LANGUAGE Literal Constant, Variables,	”		
13	2/8	13/02/2016	Pointer Type, String Types	”		
14	3/8	15/02/2016	const Qualifier, Reference Types	”		
15	4/8	17/02/2016	the bool type, Enumeration types	”		
16	5/8	22/02/2016	Array types	“		
17	6/8	22/02/2016	Programs on arrays	”		
18	7/8	23/02/2016	The vector container type.	”		
19	8/3	24/02/2016	Programs on unit 2, review of unit2	”		
20	1/7	26/02/2016	OPERATORS: Arithmetic Operators, Equality	”	Assignm ent –III	
21	2/7	1/03/2016	Relational and Logical operators, Assignment operators	”		
22	3/7	1/03/2016	Increment and Decrement operator, The conditional Operator,	”		
23	4/7	2/03/2016	Bitwise operator, bitset operations.	”		
24	5/7	3/03/2016	Statements: if, switch	“		
25	6/7	5/03/2016	for Loop, while,	”		
26	7/7	9/03/2016	break, goto, continue statements. Review of unit 3	”		
27	1/7	9/03/2016	FUNCTIONS: Prototype, Argument pass ing	”	Assignm ent –IV	
28	2/7	10/03/2016	Types of functions	”		
29	3/7	11/03/2016	Programs on Argument passing	”		
30	4/7	18/03/2016	linear function.	”		
31	5/7	21/03/2016	Programs on linear function.	”		
32	6/7	21/03/2016	Recursion	”		
33	7/7	10/03/2016	Review on unit 4	“		
34	1/6	11/03/2016	EXCEPTION HANDLING: Throwing an Exception, Catching an exception,	”	Assignm ent -V	
35	2/6	11/03/2016	Programs on Throwing an Exception, Catching an exception,	”		
36	3/6	18/03/2016	Exception Specification and Exceptions and Design Issues.	”		

37	4/6	21/03/2016	Exception Specification and Exceptions and Design Issues.	”		
38	5/6	21/03/2016	Programs on Exception handling	”		
39	6/6	22/03/2016	Review of unit 5	”		
40	1/7	23/03/2016	CLASSES: Definition, Class Objects, Class Initialization, , Class Object	“		
41	2/7	28/03/2016	Programs on classes	”		
42	3/7	30/03/2016	Class constructor, Examples	”	Assignm ent -VI	
43	4/7	31/3/2016	The class destructor, Examples	”		
44	5/7	1/4/2016	Arrays of Objects, Examples	”		
45	6/7	4/4/2016	Vectors of Objects, Examples	”		
46	7/7	06/4/2016	Review on unit 6	”		
47	1/7	06/4/2016	Overload Operators,	”		
48	2/7	7/4/2016	Examples on Opearator Overloading	“	Assignm ent -VII	
49	3/7	11/4/2016	Operators ++ and --	”		
50	4/7	13/4/2016	Examples on Operators ++ and --	”		
51	5/7	16/4/2016	Operators new and delete.	”		
52	6/7	16/4/2016	Examples on Operators new and delete.	”		
53	7/7	18/4/2016	Review on unit 7	”		
54	1/7	20/4/2016	Multiple Inheritances	”	Assignm ent -VIII	
55	2/7	22/4/2016	Examples on Inheritances	”		
56	3/7	28/4/2016	public, private & protected inheritance,	“		
57	4/7	28/4/2016	Examples on public, private & protected inheritance	”		
58	5/7	29/4/2016	Class scope under Inheritance.	”		

59	6/7	30/4/2016	Cont...Class scope under Inheritance	”		
60	7/7	3/5/2016	Review on unit 8	”		
61	1/3	5/5/2016	Revision of Unit 1 & 2	”		
62	2/3	5/5/2016	Revision of Unit 3 & 4	”		
63	3/3	7/5/2016	Revision of Unit 5 & 6	”		

Syllabus for Internal Assessment Tests (IAT)*

IAT #	Syllabus
IAT-1	Class # 01 – 26
IAT-2	Class # 27 – 52
IMPROVEMENT	Class # 01 - 60

* : See calendar of events for the schedules of IATs.

Literature:

Book Type	Code	Author & Title	<i>Publication information</i>	
			Edition // Publisher	ISBN #
Text Book	TB1	C++ Primer, S. B. Lippman & J. Lajoie,	3rd Edition, Addison Wesley, 2000.	ISBN-10: 0-321-71411-3; ISBN-13: 978-0-321-71411-4
References	RB1	C++ Program Design: An Introduction to Programming and Object- Oriented Design. Cohoon and Davidson,	3rd Edn. TMH publication. 2004.	ISBN-13: 978-0-07-292196-0, ISBN: 0-07-292196-X.
References	RB2	Object Oriented Programming using C++, R. Lafore,	Galgotia Publications, 2004.	ISBN-10: 0672323087; ISBN-13: 978-0672323089

Signature of Faculty

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Department of Telecommunication

SEMESTER :VI
BRANCH : TCE
SUBJECT : DSDV
SUBJECT CODE : 10EC667
NO OF HRS/WK : 5

NAME OF THE FACULTY : Ms Shweta Sharma
DATE OF COMMENCEMENT : 27.01.2016
DATE OF CLOSING : 11.5.2016
CLASS STRENGTH : 24
TOTAL HRS : 60

Sessi on No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignm ents/ Tests planned for the chapter	Topics covere d As per plan
1	1/1	28.01.16	Digital Systems and Embedded Systems	Board, chalk, duster		
2	2/1	30.01.16	Binary representation and Circuit Elements	„		
3	3/1	2.02.16	Real-World Circuits	„		
4	4/1	4.02.16	Real-World Circuits(cont.)	„		
5	5/1	5.02.16	Models	„		
6	6/1	8.02.16	Design Methodology	„		
7	1/2	9.02.16	Design Methodology(cont.)	„	Assignm ent- I	
8	2/2	10.02.16	Boolean Functions	Board, chalk, duster		
9	3/2	12.02.16	Boolean Algebra	„		
10	4/2	13.02.16	Boolean Algebra(cont.)	„		

11	5/2	15.02.16	Binary Coding	„		
12	6/2	16.02.16	Combinational Components and Circuits	„		
13	7/2	17.02.16	Combinational Components and Circuits(cont.)	„	Assignm ent -II	
14	1/3	22.02.16	Verification of Combinational Circuits	„		
15	2/3	23.02.16	Example Programs			
16	3/3	24.02.16	Unsigned Integers			
17	4/3	25.02.16	Unsigned Integers(cont.)			
18	5/3	26.02.16	Signed Integers	„		
19	6/3	1.03.16	Signed Integers(cont.)	„	Assignm ent –III	
20	7/3	2.03.16	Fixed and Floating-point Numbers	„		
21	1/4	3.03.16	Fixed and Floating-point Numbers(cont.), Tutorials	„		
22	2/4	4.03.16	Storage elements	„		
23	3/4	5.03.16	Storage elements(cont.)			
24	4/4	9.03.16	Counters	Board, chalk, duster		
25	5/4	10.03.16	Sequential Datapaths and Control	„		
26	6/4	11.03.16	Clocked Synchronous Timing Methodology	„		
27	1/5	17.03.16	Clocked Synchronous Timing Methodology(cont.)	„	Assignm nt –IV	
28	2/5	18.03.16	Example Programs	„		
29	3/5	21.03.16	Concepts, Memory Types	„		
30	4/5	22.03.16	Memory Types	„		
31	5/5	23.03.16	Memory Types(cont.)	„		

32	6/5	24.03.16	Memory Types(cont.)	„		
33	1/6	28.03.16	Error Detection and Correction,	Board, chalk, duster	Assignment -V	
34	2/6	30.03.16	ICs	„		
35	3/6	31.03.16	PLDs	„		
36	4/6	1.04.16	Packaging and Circuit Boards, Interconnection and Signal Integrity, Tutorials	„		
37	5/6	2.04.16	Embedded Computer Organization	„		
38	6/6	4.04.16	Instruction and Data	„		
39	7/6	6.04.16	Instruction and Data(cont.)	„		
40	1/7	7.04.16	Instruction and Data(cont.)	„		
41	2/7	11.04.16	Interfacing with memory	„		
42	3/7	12.04.16	Interfacing with memory(cont.)	„		
43	4/7	16.04.16	Example Programs	„		
44	5/7	18.04.16	I/O devices	„		
45	6/7	20.04.16	I/O devices(cont.)	„		
46	1/8	21.04.16	I/O devices(cont.)	„		
47	2/8	22.04.16	I/O controllers	„		
48	3/8	28.04.16	Parallel Buses	„		
49	4/8	29.04.16	Parallel Buses(cont.)	Board, chalk, duster		
50	5/8	30.04.16	Serial Transmission	„		
51	6/8	2.05.16	I/O software	„		

52	7/8	3.05.16	I/O software(cont.), Tutorials	„		
53		5.05.16	Revision of Unit -1	„		
54		6.05.16	Revision of Unit – 2	„		
55		7.05.16	Revision of Unit –3	„		
56		10.05.16	Revision of Unit –4	„		
57		11.05.16	Revision of Unit –5	„		
58			Revision of Unit –6	„		
59			Revision of Unit –7	„		
60			Revision of Unit -8	„		

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