#132, AECS Layout, IT Park Road, Kundalahalli, Bangalore – 560 037

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CMR INSTITUTE

OF TECHNOLOGY

Session wise – Course Plan

Department of Telecommunication Engineering

SEMESTER: V

NAME OF THE FACULTY: CHITRALEKHA G

BRANCH: TCE

DATE OF COMMENCEMENT: 07.08.2017

SUBJECT: MANAGEMENT AND ENTREPRENEURSHIP

DATE OF CLOSING: 16.11.2017

SUBJECT CODE: 15ES51

CLASS STRENGTH: 43

NO OF HRS/WK: 5

TOTAL HOURS: 55

Session No	Chapter no (No of hrs planned for the chapter)	Date	Topics planned for the session	Teaching Aids	Assignments/Tests planned for the chapter	Topics covered as per plan
1	1/11	8/8/2017	Introduction	Board & chalk		
2	2/11	8/8/2017	**Module I- Management:** Definition, Importance – Nature and Characteristics of Management.	,,		
3	3/11	9/8/2017	Management Functions and Roles of Manager	,,		
4	4/11	10/8/2017	Levels of Management, Managerial Skills and Management and Administration	,,		
5	5/11	12/8/2017	Management as Science, Art and Profession	,,		

6	6/11	16/8/2017	**Planning**: Nature, Importance and Purpose of Planning, Types of Plans	,,		
7	7/11	16/8/2017	Types of Plans			
8	8/11	17/8/2017	Steps in Planning and Limitations of Planning	,,		
9	9/11	18/8/2017	Decision Making – Meaning, Types of Decisions.	,,		
10	10/11	21/8/2017	Types of Decisions and Steps in Decision Making	,,		
11	11/11	23/8/2017	Discussion Forum	,,	Assignment - I	
12	1/11	23/8/2017	**Module II – Organizing and Staffing:** Meaning, Nature and Characteristics of Organization.	,,		
13	2/11	24/8/2017	Process and Principles of Organization	Power Point Presentation		
14	3/11	28/8/2017	Departmentalization, Committees – Meaning and Types of Committees	Power Point Presentation		
15	4/11	30/8/2017	Centralization versus Decentralization of Authority and Responsibility and Span of Control	Board and Chalk		
16	5/11	1/9/2017	Nature and importance of Staffing, Process of Selection and Recruitment	,,		
17	6/11	1/9/2017	**Directing and Controlling:** Meaning and Nature of Directing and Leadership Styles	,,		
18	7/11	4/9/2017	Motivation Theories Communication – Meaning and Importance	,,		
19	8/11	5/9/2017	Motivation Theories Communication – Meaning and Importance	,,		

20	9/11	7/9/2017	Coordination – Meaning and Importance and Techniques of Coordination	,,		
21	10/11	9/9/2017	Controlling – Meaning and Steps in Controlling	,,		
22	11/11	9/9/2017	Discussion Forum	,,	Assignment - II	
23	1/11	11/9/2017	**Module III – Social Responsibilities of Business:** Meaning of Social Responsibility and Social Responsibilities of Business towards Different Groups	,,		
24	2/11	12/9/2017	Social Responsibilities of Business towards Different Groups and Social Audit	,,		
25	3/11	14/9/2017	Business Ethics and Corporate Governance	,,		
26	4/11	22/9/2017	**Entrepreneurship:** Definition, Importance and Concepts of Entrepreneurship and Characteristics of a Successful Entrepreneur	,,		
27	5/11	22/9/2017	Classification of Entrepreneurs	,,		
28	6/11	23/9/2017	Classification of Entrepreneurs, Intrapreneur – An Emerging Class and Comparison between Entrepreneur and Intrapreneur	,,		
29	7/11	25/9/2017	Myths of Entrepreneurship and Entrepreneurial Development models	,,		
30	8/11	27/9/2017	Entrepreneurial development cycle	,,		
31	9/11	3/10/2017	Problems faced by Entrepreneurs and Capacity building for Entrepreneurship	,,		
32	10/11	3/10/2017	Problems faced by Entrepreneurs and Capacity building for	,,		

			Entrepreneurship			
33	11/11	4/10/2017	Discussion Forum	,,	Assignment – III	
34	1/10	6/10/2017	**Module IV – Modern Small Business Enterprises:** Role of Small Scale Industries	,,		
35	2/10	9/10/2017	Concepts and Definitions of SSI Enterprises	,,		
36	3/10	11/10/2017	Government Policy and Development of the Small Scale Sector in India.	,,		
37	4/10	11/10/2017	Growth and Performance of Small Scale Industries in India	,,		
38	5/10	12/10/2017	Sickness in SSI sector and Problems for Small Scale Industries	,,		
39	6/10	13/10/2017	Impact of Globalization on SSI, Impact of WTO/GATT on SSIs.	,,		
40	7/10	16/10/2017	Ancillary Industry and Tiny Industry **Institutional Support for Business Enterprises:** Introduction	,,		
41	8/10	23/10/2017	Policies and Schemes of Central Level Institutions	,,		
42	9/10	23/10/2017	Policies and Schemes of State Level Institutions	,,		
43	10/10	24/10/2017	Discussion Forum	,,	Assignment –IV	
44	1/12	25/10/2017	**Module V – Project Management:** Meaning of Project, Project Objectives and Characteristics	,,		

45	2/12	27/10/2017	Project Identification – Meaning and Importance, Project Life Cycle, Project Scheduling	,,		
46	3/12	30/10/2017	Capital Budgeting, Generating an Investment Project Proposal	,,		
47	4/12	30/10/2017	Project Report - Need and Significance of Report, Contents, Formulation	,,		
48	5/12	31/10/2017	Project Analysis – Market, Technical, Financial, Economic and Ecological	,,		
49	6/12	2/11/2017	Project Evaluation and Selection, Project Financing	,,		
50	7/12	4/11/2017	Project Implementation Phase	,,		
51	8/12	10/11/2017	Human and Administrative aspects of Project Management, Prerequisites for Successful Project Implementation	,,		
52	9/12	10/11/2017	New Control Techniques – PERT and CPM	,,		
53	10/12	13/11/2017	Steps involved in developing the network	,,		
54	11/12	14/11/2017	Uses and Limitations of PERT and CPM	”	Assignment -V	
55	12/12	16/11/2017	Discussion Forum	”		

Signature of faculty Signature of HOD Signature of Principal

CMR Institute of Technology, Bengaluru		
Department: Telecommunication Engineering		
Semester: 05	Sections: ECE D and TCE B	
Subject: Digital Signal Processing	15EC/TE52	Lectures/week: 06
Course Instructor: Mr. Raveesh Hegde		
Course duration: Aug-Nov, 2017		

Lecture #	Topics	Portions Coverage %
1-10	Review of Signals and Systems: Fourier Series (FS), Fourier Transform (FT), Discrete-time Fourier series (DTFS), Discrete-time Fourier transform (DTFT), Z-Transform, Sampling Theorem, and Dirac Delta Functions. Assignment #0: Review of Signals and Systems	0
11-21	Discrete Fourier Transforms (DFT): Frequency domain sampling and reconstruction of discrete time signals. DFT as a linear transformation, its relationship with other transforms. Properties of DFT, multiplication of two DFTs-the circular convolution Assignment #1: Discrete Fourier Transform	20
22-32	Additional DFT properties, use of DFT in linear filtering, overlap-save and overlap-add method. Fast-Fourier-Transform (FFT) algorithms: Direct computation of DFT, need for efficient computation of the DFT (FFT algorithms). Assignment #2: Properties of DFT, Filtering of Long Sequences	20
33-43	Radix-2 FFT algorithm for the computation of DFT and IDFT–decimation-in-time and decimation-in-frequency algorithms. Goertzel algorithm, and chirp-z transform. Assignment #3: FFT Algorithms	20
44-54	Structure for IIR Systems: Direct form, Cascade form, Parallel form structures. IIR filter design: Characteristics of commonly used analog filter – Butterworth and Chebyshev filters, analog to analog frequency transformations.	20

	Design of IIR Filters from analog filter using Butterworth filter: Impulse invariance, Bilinear transformation. Assignment #4: Design and Implementation of IIR filters	
55-65	Structure for FIR Systems: Direct form, Linear Phase, Frequency sampling structure, Lattice structure. FIR filter design: Introduction to FIR filters, design of FIR filters using - Rectangular, Hamming, Hanning and Bartlett windows. Assignment #5: Design and Implementation of FIR Filters	20

Syllabus forInternal Assessment Tests(IAT)*

IAT	Portion
IAT-1	Class# 11 –30
IAT-2	Class# 21–55
IAT-3	Class# 56-65

*Seecalendarofeventsfor theschedulesof IATs.

Literature:

BookType	Code	Author&Title	Publication info
TextBook	TB	Proakis&Manolakis-Digital signal processing – Principles Algorithms & Applications	Pearson education, 4th Edition, New Delhi, 2007
Reference	RB1	Oppenheim & Schaffer- Discrete Time Signal Processing	PHI, 2003, 2nd edition
Reference	RB2	S. K. Mitra, Digital Signal Processing.	Tata Mc-Graw Hill, 3rd Edition, 2010
Reference	RB3	Lee Tan, Digital Signal Processing: Fundamentals and Applications	Elsevier publications, 2007

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CMR INSTITUTE OF TECHNOLOGY

Session wise – Course Plan

SEMESTER/SECTION:	5	NAME OF THE FACULTY:	Sophiya Susan S
BRANCH :	TCE	DATE OF COMMENCEMENT:	07/08/2017
SUBJECT :	Verilog HDL	DATE OF CLOSING:	16/11/2017
SUBJECT CODE :	15EC53	CLASS STRENGTH:	43(A sec)/44(B sec)
NO OF HRS/WEEK :	5	TOTAL HRS:	55

Session No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Testsplanned for the chapter	Topics covered As per plan
1.	**Prerequisites**	**7/08/2017**	Logic Design	Board, Chalk, Duster		
2.		**8/08/2017**	Logic Design	Board, Chalk, Duster	Assignment – 1	
3.	**Module 1 (Text 1: Chapter 1 & 2)**	**9/08/2017**	**Overview of Digital Design with Verilog HDL:** Evolution of CAD, Emergence of HDLs	Board, Chalk, Duster		
4.		**10/08/2017**	Typical HDL-flow	Board, Chalk, Duster		
5.		**11/08/2017**	Why Verilog HDL?	Board, Chalk, Duster		
6.		**14/08/2017**	Trends in HDLs	Board, Chalk, Duster		

7.		**16/08/2017**	**Hierarchical Modeling Concepts:** Top-down and bottom-up design methodology	Board, Chalk, Duster	Assignment – 2	
8.		**17/08/2017**	Differences between modules and Module instances	Board, Chalk, Duster		
9.		**18/08/2017**	Parts of a simulation	Board, Chalk, Duster		
10.		**19/08/2017**	Design block, Stimulus block	Board, Chalk, Duster		
11.	**Module 2 (Text 1: Chapter 3 & 4)**	**22/08/2017**	**Basic Concepts:** Lexical conventions	Board, Chalk, Duster		
12.		**23/08/2017**	Data types	Board, Chalk, Duster		
13.		**24/08/2017**	Data types(contd.)	Board, Chalk, Duster		
14.		**28/08/2017**	System tasks, Compiler directives	Board, Chalk, Duster	Assignment – 3	
15.		**29/08/2017**	**Modules and Ports:** Module definition, port declaration Connecting ports Hierarchical name referencing	Board, Chalk, Duster		
16.	**Module 3 (Text 1: Chapter 5 & 6)**	**31/08/2017**	**Gate-Level Modeling:** Modeling using basic Verilog gate primitives	Board, Chalk, Duster		
17.		**1/09/2017**	Description of and/or and buf/not type gates	Board, Chalk, Duster		
18.		**4/09/2017**	Rise, Fall delays	Board, Chalk, Duster		
19.		**5/09/2017**	Turn-off delays	Board, Chalk, Duster	Assignment – 4	
20.		**6/09/2017**	Min, Max, and Typical	Board,		

			delays	Chalk, Duster		
21.		**8/09/2017**	**Dataflow Modeling:** Continuous assignments	Board, Chalk, Duster		
22.		**9/09/2017**	Delay specification expressions	Board, Chalk, Duster		
23.		**11/09/2017**	Operators, Operands	Board, Chalk, Duster	Assignment – 5	
24.		**12/09/2017**	Operator types	Board, Chalk, Duster		
25.	**Module 4 (Text 1: Chapter 5 & 6)**	**13/09/2017**	**Behavioral Modeling:** Structured procedures	Board, Chalk, Duster		
26.		**15/09/2017**	Initial and Always Statements	Board, Chalk, Duster		
27.		**22/09/2017**	Blocking statements, Non-Blocking statements	Board, Chalk, Duster		
28.		**23/09/2017**	Delay control statements	Board, Chalk, Duster		
29.		**25/09/2017**	Generate statement, Event control statements	Board, Chalk, Duster	Assignment – 6	
30.		**26/09/2017**	Conditional statements, Multiway branching	Board, Chalk, Duster		
31.		**28/09/2017**	Loop statements	Board, Chalk, Duster		
32.		**3/10/2017**	Sequential and parallel blocks	Board, Chalk, Duster		
33.	**Module 5 (Text 2: Chapter 1 & 3)**	**4/10/2017**	**Introduction to VHDL Introduction:** Why use VHDL?	Board, Chalk, Duster		
34.		**6/10/2017**	Shortcomings	Board, Chalk, Duster		
35.		**7/10/2017**	Using VHDL for Design Synthesis	Board, Chalk,	Assignment – 7	

				Duster		
36.		**10/10/2017**	Design tool flow	Board, Chalk, Duster		
37.		**11/10/2017**	Font conventions	Board, Chalk, Duster		
38.		**12/10/2017**	**Entities and Architectures:** Introduction, A simple design,	Board, Chalk, Duster		
39.		**13/10/2017**	Design Entities	Board, Chalk, Duster		
40.		**14/10/2017**	Design Entities (Contd.)	Board, Chalk, Duster		
41.		**17/10/2017**	Identifier	Board, Chalk, Duster		
42.		**23/10/2017**	Data objects	Board, Chalk, Duster	Assignment – 8	
43.		**24/10/2017**	Data types	Board, Chalk, Duster		
44.		**25/10/2017**	Data types(Contd.)	Board, Chalk, Duster		
45.		**26/10/2017**	Attributes.	Board, Chalk, Duster		
46.		**28/10/2017**	Revision	Board, Chalk, Duster		
47.		**30-/10/2017**	Unit test – 3	-		
48.		**31-/10/2017**	Revision	Board, Chalk, Duster		
49.		**2/11/2017**	Revision	Board		
50.		**311/2017**	Revision	Board		
51.		**9/11/2017**	Revision	Board		
52.		**10/11/2017**	Revision	Board		
53.		**13/11/201**	Revision	Board		

		7				
54.		**14/11/2017**	Revision	Board		
55.		**15/11/2017**	Revision	Board		

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Lesson Plan

DEPARTMENT OF TELECOMMUNICATION ENGINEERING

SEM	: V	NAME OF THE FACULTY	: Shruthi M. L. J.
BRANCH	: TCE	DATE OF COMMENCEMENT	: 07.08.2017
SUBJECT	: ITC	DATE OF CLOSING	: 15.11.2017
SUBJECT CODE	: 15EC54	CLASS STRENGTH	: 60
NO OF HRS/WK	: 5	TOTAL HRS	: 55

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	-	07-08	Model of communication system, Introduction to Probabilities, Joint probabilities,	Board, chalk, duster		
2	-	08-08	Probability distribution function, Random variables, Discrete random variables,	"-"		
3	-	09-08	Continuous random variables, Random process, Noise in communication system Perquisite	"-"		
4	1/1	**10-08**	**Information theory:** Introduction, Measure of information,.	"-"	Assignment 1	
5	2/1	11-08	Average information content of symbols in long independent sequences	"-"		
6	3/1	14-08	Problems on information content, Calculation of entropy.	"-"		

7	4/1	16-08	Information rate, average information rate. Numerical calculations.	"-"		
8	5/1	17-08	Average information content of symbols in long dependent sequences.	"-"		
9	6/1	18-08	Numerical	"-"		
10	7/1	19-08	Markov statistical model for information source.	"-"		
11	8/1	22-08	Entropy and Information rate of markov source.	"-"		
12	9/1	23-08	Problems on markov sources. Key points.	"-"		
13	10/1	24-08	Revision and class test on Module-1	"-"		
14	1/2	**28-08**	**Source Coding:** Introduction to encoding the source output. Source coding theorem.	"-"	Assignment 2	
15	2/2	29-08	Prefix Codes Kraft McMillan Inequality Property	"-"		
16	3/2	31-08	Encoding of the Source Output, Shannon's Encoding Algorithm	"-"		
17	4/2	01-09	Shannon Fano Encoding Algorithm	"-"		
18	5/2	04-09	Huffman codes	"-"		
19	6/2	05-09	Numerical on Huffman codes	"-"		
20	7/2	06-09	Extended Huffman coding	"-"		
21	8/2	08-09	Arithmetic Coding	"-"		
22	9/2	09-09	Lempel – Ziv Algorithm	"-"		
23	10/2	11-09	Revision and class test on Module-2	"-"		
24	1/3	**12-09**	**Information Channels:** Communication Channels	"-"	Assignment 3	
25	2/3	13-09	Channel Models,	"-"		
26	3/3	15-09	Channel Matrix, Joint probability Matrix	"-"		
27	4/3	22-09	Binary Symmetric Channel,	"-"		
28	5/3	23-09	System Entropies, Mutual Information, Channel Capacity	"-"		
29	6/3	25-09	Channel Capacity of : Binary Symmetric Channel	"-"		
30	7/3	26-09	Binary Erasure Channel	"-"		
31	8/3	28-09	Muroga's Theorem	"-"		
32	9/3	03-10	Continuous channels	"-"		
33	10/3	04-10	Revision and class test on Module-3	"-"		
34	1/4	**06-10**	**Introduction to Error Control Coding:**	"-"		

			Examples of error control coding.			
35	2/4	07-10	Methods of Controlling Errors, Types of Errors, types of Codes.	"-"		
36	3/4	10-10	Linear Block Codes Matrix description	"-"		
37	4/4	11-10	Error detection and correction,	"-"		
38	5/4	12-10	Single Error Correcting hamming Codes	"-"		
39	6/4	13-10	Standard arrays and table look up for decoding. Numerical	"-"		
40	7/4	14-10	Algebraic Structure of Cyclic Codes	"-"		
41	8/4	17-10	Encoding using an (n-k) Bit Shift register, Syndrome Calculation	"-"		
42	9/4	23-10	Error Detection and Correction	"-"		
43	10/4	24-10	Revision and class test on Module-4	"-"		
44	1/5	**25-10**	**Cyclic Codes:** Golay Codes	"-"		
45	2/5	26-10	BCH Codes	"-"		
46	3/5	28-10	**Convolution Codes:** Introduction, Time domain approach	"-"		
47	4/5	30-10	Transform domain approach	"-"		
48	6/5	31-10	State table, state transition table.	"-"		
49	7/5	02-11	Trellis and State diagram. Code tree	"-"		
50	8/5	03-11	The Viterbi Algorithm	"-"		
51	9/5	09-11	Numerical and revision of Module-5	"-"		
52	10/5	10-11	Class test on Module-5	"-"	Assignment 5	
53		**13-11**	Revision	"-"		
54		14-11	Revision	"-"		
55		15-11	Revision	"-"		

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DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING

Department of Telecommunication and Engineering

SEMESTER : V
BRANCH : TCE
SUBJECT :Operating System
SUBJECT CODE : 15EC553
NO OF HRS/WK : 5

NAME OF THE FACULTY : Priyanka R
DATE OF COMMENCEMENT : 7/8/17
DATE OF CLOSING : 25/11/17
CLASS STRENGTH :
TOTAL HRS : 55

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**	7.8.17	Briefing the syllabus, Mode of class and study, Prerequisites of the course, Expectation from the student.	Chalk & Talk		
2	**2/1**	8.8.17	**UNIT 1 INTRODUCTION AND OVERVIEW OF OPERATING SYSTEMS:** Introduction about O.S	,,		
3	**3/1**	9.8.17	Goals of an OS, Operation of an OS,	,,		
4	**4/1**	12.8.17	Computational Structures, Resource allocation techniques,,	,,		
5	**5/1**	12.8.17	Efficiency, System Performance and User Convenience,	,,	Assignment-I	

6	**6/1**	14.8.17	Classes operating System,	,,		
7	**7/1**	16.8.17	Batch processing,	‘’		
8	**8/1**	17.8.17	Batch processing continued ..	,,		
9	**9/1**	21.8.17	Time Sharing Systems			
10	**10/1**	22.8.17	Real Time systems			
11	**11/1**	23.8.17	distributed Operating Systems			
12	**12/1**	24.8.17	distributed Operating Systems continued…			
13	**13/1**	30.8.17	**Test on UNIT 1**	,,		
14	**1/2**	30.8.17	**Unit 2:Process Management:** OS View of Processes	,,		
15	**2/2**	31.8.17	PCB	,,		
16	**3/2**	1.9.17	Fundamental State Transitions,	,,		
17	**4/2**	1.9.17	Threads,	,,		
18	**5/2**	4.9.17	Kernel and User level Threads,	,,		
19	**6/2**	7.9.17	Non-preemptive scheduling-FCFS	‘’	Assignment II	
20	**7/2**	7.9.17	SRN	,,		

21	**8/2**	8.9.17	Preemptive Scheduling- RR and LCN			
22	**9/2**	9.9.17	Long term medium term short term scheduling in a time sharing system			
23	**10/2**	11.9.17	**Test on UNIT 2**	,,		
24	**1/3**	14.9.17	**Unit 3:Memory Management:** Contiguous Memory allocation,	,,		
25	**2/3**	14.9.17	Non-Contiguos Memory Allocation,	,,		
26	**3/3**	15.9.17	Non-Contiguos Memory Allocation continued	,,		
27	**4/3**	22.9.17	Paging,	,,		
28	**5/3**	23.9.17	Paging continued..	,,		
29	**6/3**	27.9.17	Segmentation	‘’		
30	**7/3**	28.9.17	Segmentation continued			
31	**8/3**	3.10.17	Segmentation with paging,			
32	**9/3**	4.10.17	Segmentation with paging continued…	,,		
33	**10/3**	9.10.17	Virtual Memory Management,			
34	**11/3**	10.10.17	Virtual Memory Management continued…	,,	Assignment III	
35	**12/3**	11.10.17	Demand Paging,	,,		

36	**13/3**	12.10.17	Demand Paging continued…	,,		
37	**14/3**	16.10.17	VM handler FIFO LRU page replacement policies	,,		
38	**1/4**	17.10.17	**Unit 4 File Systems:** File systems and IOCS	,,		
39	**2/4**	23.10.17	File Operations	,,	Assignment IV	
40	**3/4**	27.10.17	File Organizations,	,,		
41	**4/4**	28.10.17	Directory structures,	,,		
42	**5/4**	30.10.17	File Protection,	,,		
43	**6/4**	31.10.17	Allocation of disk space,	‘’		
44	**7/4**	4.11.17	Implementing file access			
45	**8/4**	4.11.17	Interface between File system and IOCS,			
46	**1/5**	9.11.17	**Message Passing and Deadlocks**: Overview of Message Passing,	,,		
47	**2/5**	10.11.17	Implementing message passing, Mailboxes,	,,		
48	**3/5**	11.11.17	Deadlocks in resource allocation, Resource	,,	Assignment V	
49	**4/5**	12.11.17	state modelling, Deadlock detection algorithm	,,		
50	**5/5**	13.11.17	Deadlock Prevention	,,		

51	**6/5**	14.11.17	Deadlocks in resource allocation, Resource	,,		
52	**7/5**	15.11.17	Deadlock detection algorithm	,,		
53	**8/5**	16.11.17	Deadlock Prevention	,,	Assignment VI	
55	**9/5**	16.11.17	Deadlock Prevention continued…	,,		

Syllabus for Internal Assessment Tests (IAT)*

IAT #	Syllabus
IAT-1 (7.8.2017-11.9.2017)	Class # 01 – 23
IAT-2 (14.8.2017-27.10.2017)	Class # 24-27
Improvement test (28.10.2017-16.11.2017)	Class # 41-55

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

Literature:

Book Type	**Code**	**Author & Title**	**Publication information**	
			Edition // Publisher	**ISBN #**
Text Book	TB1	**Operating Systems – A concept based approachD. M. Dhamdhare,**	2nd Edition,McGraw Hill Education	978-0-07-061194
Reference	RB1	**Operating Systems Concepts**, Silberschatz and Galvin	John Wiley India Pvt. Ltd, 5th Edition, 2001.	
Reference	RB2	**Operating System – Internals and Design Systems**	Willaim Stalling, Pearson Education, 4th Ed, 2006.	978-81-203-4007-7
Reference	RB3	**Design of Operating Systems,** Tennambhaum,	Tata McGraw Hill,2005 TMH, 2001.	0071243461/0-07-124346-1

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Department of Information Science and Engineering

SEMESTER	: **V**	NAME OF THE FACULTY	: **Mrs. Anu Jose**
BRANCH	: **ISE**	DATE OF COMMENCEMENT	: **17/8/2017**
SUBJECT	: **Programming in Java**	DATE OF CLOSING	: **25/11/2017**
SUBJECT CODE	: **15CS561**	CLASS STRENGTH	: **60**
NO OF HRS/WEEK	: **4**	TOTAL HRS	: **40**

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**	17/08/2017	**Module1** **An Overview of Java:** Object-Oriented Programming.	Chalk & Talk		
2	**2/1**	18/08/2017	A First Simple Program, Two Control Statements, Using Blocks of Code.	”		
3	**3/1**	19/08/2017	Lexical Issues, The Java Class Libraries.	,,		
4	**4/1**	22/08/2017	Data Types, Variables, and Arrays: Java Is a Strongly Typed Language.	,,		
5	**5/1**	24/08/2017	The Primitive Types, Integers, Floating-Point Types, Characters, Booleans, A Closer Look at Literals	,,		
6	**6/1**	28/08/2017	Type Conversion and Casting, Automatic Type Promotion in Expressions	,,		
7	**7/1**	29/08/2017	Arrays, A Few Words About Strings	,,	Assignment- I	
8	**8/1**	31/08/2017	**Tutorials and Discussion** **Question Bank Creation and Discussions**	,,		
9	**1/2**	4/09/2017	**Module2** **Operators:** Arithmetic Operators, The Bitwise Operators	,,		

10	**2/2**	5/09/2017	Relational Operators, Boolean Logical Operators	,,		
11	**3/2**	6/09/2017	The Assignment Operator, The ? Operator, Operator Precedence, Using Parentheses	‘’		
12	**4/2**	8/09/2017	**Control Statements**: Java’s Selection Statements, Iteration Statements, Jump Statements.	,,	Assignment-II	
13	**5/2**	11/09/2017	**Tutorials and Discussion Question Bank Creation and Discussions**	”		
14	**1/3**	12/09/2017	**Module3** **Introducing Classes**: Class Fundamentals, Declaring Objects, Assigning Object Reference Variables	,,		
15	**2/3**	13/09/2017	Introducing Methods, Constructors, The this Keyword	,,		
16	**3/3**	15/09/2017	Garbage Collection, The finalize( ) Method, Overloading Methods, Using Objects as Parameters	,,		
17	**4/3**	23/09/2017	A Closer Look at Argument Passing, Returning Objects , Recursion	,,		
18	**5/3**	25/09/2017	Introducing Access Control, A Stack Class, A Closer Look at Methods and Classes	,,		
19	**6/3**	26/09/2017	Understanding static, Introducing final, Arrays Revisited	,,		
20	**7/3**	28/09/2017	**Inheritance:** Inheritance, Using super, Creating a Multilevel Hierarchy, When Constructors Are Called	‘’		
21	**8/3**	4/10/2017	Method Overriding, Dynamic Method Dispatch	,,		
22	**9/3**	6/10/2017	Using Abstract Classes, Using final with Inheritance (Already discussed in lecture 19), and The Object Class.	,,	Assignment- III	
23	**10/3**	7/10/2017	**Tutorials and Discussion Question Bank Creation and Discussions**	,,		
24	**1/4**	10/10/2017	**Module 4** **Exception Handling:** Exception-Handling Fundamentals, Exception	,,		

			Types,			
25	**2/4**	12/10/2017	Uncaught Exceptions, Using try and catch, Multiple catch Clauses,	,,		
26	**3/4**	13/10/2017	Nested try Statements, finally,	,,		
27	**4/4**	14/10/2017	throw, throws, Java's Built-in Exceptions	,,		
28	**5/4**	17/10/2017	Creating Your Own Exception Subclasses	,,		
29	**6/4**	24/10/2017	Chained Exceptions, Using Exceptions.	,,		
30	**7/4**	25/10/2017	Creating Your Own Exception	‘’		
31	**8/4**	26/10/2017	**Packages and Interfaces:** Packages, Access Protection, Importing Packages, Interfaces	,,	Assignment- IV	
32	**9/4**	28/10/2017	**Tutorials and Discussion Question Bank Creation and Discussions**	,,		
33	**1/5**	31/10/2017	**Module5** **I/O Basics:** Reading Console Input, Writing Console Output, The PrintWriter Class, Reading and Writing Files	,,		
34	**2/5**	2/11/2017	Applet Fundamentals	,,		
35	**3/5**	3/11/2017	The transient and volatile Modifiers, Using instanceof, strictfp, Native Methods,	,,		
36	**4/5**	9/11/2017	Using assert, Static Import, Enumerations, Type Wrappers, Invoking Overloaded Constructors Through this( )	,,		
37	**5/5**	13/11/2017	**String Handling :** The String Constructors, String Length, Special String Operations, Character Extraction, String Comparison, Searching Strings, Modifying a String, Data Conversion Using valueOf( ), Changing the Case of Characters Within a String,	,,	Assignment- V	
38	**6/5**	14/11/2017	Additional String Methods ,StringBuffer, StringBuilder	,,		

39	**7/5**	15/11/2017	**Tutorials and Discussion Question Bank Creation and Discussions**	‘’		
40		14/11/2017	Previous Year Question paper Discussions	”		

Syllabus for Internal Assessment Tests (IAT)*

Sessional #	Syllabus
T1	Class # 01 - 16
T2	Class # 16 –35
T3	Class # 35- – 40

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

Literature:

Book Type	Code	Author & Title	Publication info	
			Edition & Publisher	ISBN #
Text Book	TB1	Herbert Schildt- Java The Complete Reference	7th Edition, Tata McGraw Hill, 2007.	
References	RB1	Mahesh Bhave and Sunil Patekar- "Programming with Java"	First Edition, Pearson Education,2008.	9788131720806
References	RB2	Rajkumar Buyya,S Thamarasi selvi, xingchen chu, Object oriented Programming with java	Tata McGraw Hill education private limited.	
References	RB3	E Balagurusamy, Programming with Java A primer	Tata McGraw Hill companies.	
References	RB4	. Anita Seth and B L Juneja, JAVA One step Ahead	Oxford University Press, 2017.	

Signature of faculty Signature of HOD Signature of Principal

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CMR INSTITUTE
OF TECHNOLOGY

Session wise – Course Plan

Department of Telecommunication

SEMESTER : B.Tech 5th Sem
BRANCH : TCE
SUBJECT : AR
SUBJECT CODE :
NO OF HRS/WK : 4

NAME OF THE FACULTY : Laxmi Sharma
DATE OF COMMENCEMENT : 17.08.2017
DATE OF CLOSING : 25.11.2017
CLASS STRENGTH : 77
TOTAL HRS :

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**	17.08.2017	**Module-1** INTRODUCTION	Board, chalk, duster		
2	**2/1**	18.08.2017	REASONS FOR AUTOMATION	,,		
3	**3/1**	19.08.2017	AUTOMATION,HISTORY OF AUTOMATION	,,		
4	**4/1**	22.08.2017	REASONS FOR AUTOMATION,DISADVANTAGE	,,		
5	**5/1**	24.08.2017	AUTOAMTION SYSTEMS ,TYPES OF AUTOMATION-FIXED,PROGRAMMABLE AND FLEXIBLE AUTOMATION	,,		
6	**6/1**	28.08.2017	AUTOMATION STRATEGIES	,,	Assignment- I	
7	**7/1**	29.08.2017	AUTOMATED MANUFACTURING SYSTEMS	,,		
8	**8/1**	31.08.2017	COMPONENTS,CLASSIFICATION , OVERVIEW OF MANUFACTURING , FMS:TYPES OF FMS , APPLICATIONS & BENIFITS	Board, chalk, duster		

9	**1/2**	4.09.2017	**MODULE-2** ROBOTICS DEFINITION,HISTORY	,,		
10	**2/2**	4.09.2017	ROBOTICS MARKET, FUTURE PROSPECTS,ANATOMY			
11	**3/2**	6.09.2017	ROBOT CONFIGURATION, ROBOT MOTIONS,JOINTS			
12	**4/2**	6.09.2017	WORK VOLUME,ROBOT DRIVE SYSTEM	,,	Assignment –III	
13	**5/2**	11.9.2017	PRECISION OF MOVEMENT-SPATIAL RESOLUTION,ACCURACY	,,		
14	**6/2**	11.09.2017	REPEATABILTIY, END EFFECTORS-TOOLS AND GRIPPERS	,,		
15	**1/3**	13.9.2017	**MODULE-3** BASIC CONTROL SYSTEM CONCEPTS, MODELS	Board, chalk, duster		
16	**2/3**	13.09.2017	TRANSFER FUNCTIONS,BLOCK DIAGRAM	,,		
17	**3/3**	15.09.2017	CHARACTERISTIC EQUATION	,,	Assignmnt –IV	
18	**4/3**	15.09.2017	TYPE OF CONTROLLERS-ON-OFF,PROPORTIONAL,INTEGRAL	,,		
19	**5/3**	26.09.2017	DIFFERENTIAL,P-I	,,		
20	**6/3**	26.09.2017	P-D,P-I-D CONTROLLERS,CONTROL SYSTEM AND ANALYSIS	,,		
21	**7/3**	28.09.2017	ROBOT ACTUATION AND FEEDBACK COMPONENTS	,,		
22	**8/3**	28.09.2017	POSITION SENSORS-POTENTIOMETERS,RESOLVERS, ENCODERS,VELOCITY SENSORS	,,		
23	**9/3**	4.10.2017	ACTUATORS,PNEUMATIC AND HYDRAULIC ACTUATORS,ELECTRIC MOTORS,STEPPER MOTORS	,,	Assignment -V	
24	**10/3**	7.10.2017	SERVOMOTORS,POWER TRANSMISSION SYSTEM	Board, chalk, duster		

25	**1/4**	7.10.2017	**MODULE-4** ROBOT SENSORS AND MACHINEVISION SYSTEM -SENSORS IN ROBOT	,,		
26	**2/4**	10.10.2017	TACTILE SENSOR,PROXIMITY AND RANGE SENSOR	,,		
27	**3/4**	10.10.2017	USE OF SENSORS IN ROBOTICS	,,		
28	**4/4**	12.10.2017	MACHINE VISION SYSTEM:INTRODUCTION	,,		
29	**5/4**	14.10.2017	SENSING AND DIGITIZING FUNCTIONS IN MACHINE VISION	,,		
30	**6/4**	17.10.2017	IMAGE PROCESSING AND ANALYSIS	,,		
31	**7/4**	24.10.2017	TIMING AND VISION SYSTEM	,,		
32	**1/5**	24.10.2017	**MODULE-5** ROBOTS TECHNOLOGY IN FUTURE -ROBOT INTELLIGENCE	,,		
33	**2/5**	26.10.2017	ADVANCED SENSOR CAPABILITIES	,,		
34	**3/5**	28.10.2017	TELEPRESENCE AND RELATED TECHNOLOGIES	,,		
35	**4/5**	31.10.2017	MECHANICAL DESIGN FUTURE	,,		
36	**5/5**	3.11.2017	MOBILITY,LOCOMATION AND NAVIGATION	,,		
37	**6/5**	3.11.2017	THE UNIVERSAL HAND,SYSTEM INTEGRATION AND NETWORKING	,,		
38	**7/5**	09.11.2017	AI- GOALS OF AI RESEAERCH,AI TECHNIQUE	,,		
39	**8/5**	13.11.2017	KNOWLEDGE REPRESENTATION,PROBLEM SOLVING	,,		
40	**9/5**	13.11.2017	LISP PROGRAMMING	,,		
41	**10/5**		AI & ROBOTICS	,,		
42	**11/5**	15.11.2017	LISP IN THE FACTORY	,,		

Signature of faculty Signature of HOD Signature of Principal