



UG-Electronic and Communication Engineering

2021-22

(Sample Teaching Plans)

KKR & KSR INSTITUTE OF TECHNOLOGY AND SCIENCES(AUTONOMOUS)

(AFFILIATED TO JNTU, KAKINADA) (APPROVED BY ALL INDIA CONCIL FOR TECH.EDN., NEW DELHI)

Accredited by NAAC with 'A'


Vinjanampadu(V), Vatticherukuru Mandal, Guntur, Andhra Pradesh-522007

Date:10/06/2021

CIRCULAR

It is to inform to all the students of Electronics and Communication Engineering that Mentors have been allotted for counselling. The details of mentors and mentees will be placed in the department notice board.

Hence, all the students are instructed to contact their mentors as per the details given.


Head of the Department

C.c.to:

All the Faculty

Notice Board

Department Office

KKR & KSR INSTITUTE OF TECHNOLOGY & SCIENCES

(Approved by AICTE, Delhi, Affiliated to JNTU, Kakinada)

(AUTONOMOUS)

Electronics and Communication Engineering Department

Lesson Plan

Faculty Name: Dr.Sk.Sadulla/Ms.K. Leela Rani
Name of the Course: DIGITAL SYSTEM DESIGN
Subject Code :20EC3T02

A.Y : 2021-2022

Class: II Year I Sem

Lecture No.	Name of the topic	Teaching Aid	Text Book / Reference Book / Web	Text Book/ Reference Book Page No
	Unit-I: REVIEW OF NUMBER SYSTEMS & CODES			12
Lecture1	Representation of numbers of different radix	GCB	T2/	T2 (22)
Lecture2	conversion from one radix to another radix,	GCB	T2/	T2(26,50,53)
Lecture3	r-1's compliments and r's compliments of signed members	GCB	T2/	T2(23,25)
Lecture4	4 bit codes, BCD, Excess-3,	GCB	T2/	
Tutorial1				
Lecture5	2421, 84-2-1 9's compliment code etc.,	GCB	T2/	
Lecture6	Basic logic operations -NOT, OR, AND, Universal buildingblocks, EX-OR, EX-NOR - Gates, stdsop, stdpos, gray code	GCB	T2/	T2(64,67)
Lecture7	Error detection, error correction codes (parity checking, even parity, odd parity.	GCB	T2/	T2(65,69)
Lecture8	Hamming code	GCB	T2/	T2(111)
Tutorial2				
Lecture9	NAND-NAND and NOR-NOR realizations.	GCB	T2/	T2(150)
Lecture10	Realization of 3 level logic circuits	GCB	T2/	T2(75,80)
Lecture11	Study of pin diagrams of ic 7400,7402,7404,7408,7432,7486	GCB	T2/	T2(80)
Lecture12	Boolean theorems, Principle of complementation & duality, Boolean theorems	GCB	T2/	T2(159)
Tutorial3				
	Unit-II:MINIMIZATION			12

	TECHNIQUES AND COMBINATIONAL LOGIC CIRCUIT DESIGN			
Lecture13	Minimization of logic functions using Boolean theorems.	GCB	T2/	T2(128,131)
Lecture14	Minimization of switching functions using K-Map 2,3,4variables	GCB	T2/	T2(140)
Lecture15	Minimization of switching functions using K-Map 5,6 variables	GCB	T2/	T2(137)
Lecture16	Tabular minimization, Problem solving (code-converters using K-Map etc..)	GCB	T2/	T2(142)
Tutorial4	Design of Half adder, full adder,			
Lecture17	Design of half subtractor, full subtractor, applications of full adders.	GCB	T2/	T2(203,209,216)
Lecture18	4-bit binary subtractor, adder-subtractor circuit.	GCB	T2/	T2(224,228)
Lecture19	BCD adder circuit, Excess 3 adder circuit.	GCB	T2/	T2(262,265,312)
Tutorial5	Look-a-head adder circuit			
	Unit-III:COMBINATIONAL LOGIC CIRCUITS DESIGN USING MSI,LSI			12
Lecture20	multiplexer, higher order multiplexing	GCB	T2/	T2(289)
Lecture21	Demultiplexer, higher order demultiplexing	GCB	T2/	T2(294)
Lecture22	Encoder, priority encoder	GCB	T2/	T2(299,300)
Lecture23	Design of decoder	GCB	T2/	T2(305,307)
Tutorial6	Design of 7 segment decoder			
Lecture24	Realization of Boolean functions using decoders, multiplexers	GCB	T2/	T2(300,352)
Lecture25	4-bit digital comparator.	GCB	T2/	T2(361)
Lecture26	Basics structures	GCB	T2/	T2(337,341)
Lecture27	Realization of Boolean function with PLDs	GCB	T2/	T2(344)
Tutorial7	Programming tables of PLDs			
Lecture28	Merits & demerits of PROM, PAL, PLA comparison.	GCB	T2/	T2(350)
Lecture29	Realization of Boolean functions using PROM,PLA,PAL	GCB	T2/	T2(364)
Lecture30	Study of pin diagrams of ic 7442,7447,7485,74154	GCB	T2/	T2(334)
Tutorial7				
	Unit-IV :SEQUENTIAL LOGIC DESIGN			9
Lecture31	Classification of sequential circuits (synchronous and asynchronous);	GCB	T2/	T2(434,414,421)

Lecture32	Basic flip-flops, truth tables and excitation tables (nand RS latch, nor RS latch, RS flip-flop.)	GCB	T2/	T2(434,414,421)
Lecture33	JK flip-flop, T flip-flop, D flip-flop with reset and clear terminals	GCB	T2/	T2(434,414,421)
Lecture34	Conversion from one flip-flop to flip-flop.	GCB	T2/	T2(439)
Tutorial9	Design of ripple counters.			
Lecture35	Design of synchronous counters	GCB	T2/	T2(434,414,421)
Lecture36	Johnson counter, ring counter	GCB	T2/	T2(434,414,421)
Lecture37	Design of registers - Buffer register,	GCB	T2/	T2(434,414,421)
Lecture38	Control buffer register,	GCB	T2/	T2(434,414,421)
Tutorial10	Shift register, bi-directional shift register, Universal shift register			
Lecture39	Finite state machines	GCB	T2/	T2(434,414,421)
	Unit-V:INTRODUCTION TO DIGITAL LOGIC FAMILIES			12
Lecture40	Introduction To Digital Logic Families	GCB	T2/	
Lecture41	Resistor Transistor Logic	GCB	T2/	T2(486)
Lecture42	Transistor Transistor Logic standard	GCB	T2	T2(512,514)
Tutorial11				
Lecture43	Transistor Transistor Logic Totempole	GCB	T2/	T2(519)
Lecture44	Transistor Transistor Logic Direct coupled	GCB	T2	
Lecture45	Diode Transistor Logic	GCB	T2/	
Lecture46	Introduction to CMOS			
Tutorial12				
Lecture47	CMOS NAND	GCB	T2/	
Lecture48	CMOS NOR	GCB	T2/	
Lecture49	Properties of logic families	GCB	T2/	T2(526)
Lecture50	Emitter Couples Logic	GCB	T2/	T2(526)
Tutorial13				T2(525,531)
Lecture51	Differences between logic families	GCB	T2	T2(534)

TEXT BOOKS:


1. Switching Theory and Logic Design by Hill and Peterson Mc-Graw Hill TMH edition.
2. Switching Theory and Logic Design by A. Anand Kumar
3. Digital Design by Mano PHL

- #### REFERENCE BOOKS:
1. Modern Digital Electronics by RP Jain, TMH
 2. Fundamentals of Logic Design by Charles H. Roth Jr, Jaico Publishers
 3. Microelectronics by Milliman MH edition.

WEB REFERENCES:

1. <https://en.wikipedia.org/wiki/Automation>


Signature of the faculty


Signature of the HOD

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(Accredited by NBA, Accredited by NAAC - 'A' Grade)

Lesson Plan

Name: K.Sowjanya

Class: II Year II Sem

Sub: C222-AC

A.Y. 2021-22

Class No:	Unit no.	Name of the topic	Reference	Page No	Teaching Aid
1	Unit-01	Introduction to communication system	T1	(1-4)	Chalk & Talk/ Lectures/ Blackboard Teaching
2		Block diagram of Communication system	T1	(1-4)	Chalk & Talk/ Lectures/ Blackboard Teaching
3		Simplex and duplex communication system	T1	(5-8)	Chalk & Talk/ Lectures/ Blackboard Teaching
4		Modes of Communication Broadcast and point to point communication	T1	(8-10)	Chalk & Talk/ Lectures/ Blackboard Teaching
5		Tutorial 1: Schematic diagram of Communication system			Tutorials
6		Need for modulation	T1	5	Chalk & Talk/ Lectures/ Blackboard Teaching
7		Types of Modulation	T2	14	Chalk & Talk/ Lectures/ Blackboard Teaching
8		Sampling Theorem and pulse analog modulation	T2	503&530	Chalk & Talk/ Lectures/ Blackboard Teaching
9		Multiplexing TDM & FDM	W4	(384-385)	PPTs/Presentation (Still & Videos)
10	Unit-02	Introduction to Amplitude Modulation	T2	115	Chalk & Talk/ Lectures/ Blackboard Teaching
11		Mathematical Analysis and Expressions for AM	T2	116	Chalk & Talk/ Lectures/ Blackboard Teaching
12		Modulation Index calculations	T2	119	Chalk & Talk/ Lectures/ Blackboard Teaching
13		Time domain and Frequency domain Spectrum of AM	W4	(114-117)	Chalk & Talk/ Lectures/ Blackboard Teaching
14		Power Calculation in AM	W4	(117-119)	Chalk & Talk/ Lectures/ Blackboard Teaching
15		Tutorial 2: Time domain and Frequency domain Spectrum of AM			Tutorials
16		Generation methods of AM	W4	(119-122)	Chalk & Talk/ Lectures/ Blackboard Teaching
17		Low level and High level Modulation	T2	130	Chalk & Talk/ Lectures/ Blackboard Teaching
18		DSB SC Generation methods	T2	140-141	Chalk & Talk/ Lectures/ Blackboard Teaching
19		Tutorial 3: Generation methods of AM			Tutorials
20	SSB SC Generation methods	W4	(141-143)	Chalk & Talk/ Lectures/ Blackboard Teaching	
21	ISB Generation methods			Chalk & Talk/ Lectures/ Blackboard Teaching	

19		VSB Generation methods	W4	(149-155)	Chalk & Talk/ Lectures/ Blackboard Teaching
20		Comparison of different modulation schemes	T2	178	Chalk & Talk/ Lectures/ Blackboard Teaching
		Problems			Chalk & Talk/ Lectures/ Blackboard Teaching
21	Unit-03	Introduction to Angle Modulation	T2	245	Chalk & Talk/ Lectures/ Blackboard Teaching
22		Mathematical Analysis and Expressions for FM and PM	T2	245-247	Chalk & Talk/ Lectures/ Blackboard Teaching
23		Modulation Index calculations for FM and PM	T2	249	Chalk & Talk/ Lectures/ Blackboard Teaching
		Tutorial 4:Mathematical Analysis and Expressions for FM and PM			Tutorials
24		Time domain and Frequency domain Spectrum of FM	T2	253	Chalk & Talk/ Lectures/ Blackboard Teaching
25		Bandwidth of Frequency Modulation	T2	265	Chalk & Talk/ Lectures/ Blackboard Teaching
26		NBFM	T2	257-258	Chalk & Talk/ Lectures/ Blackboard Teaching
27		WBFM	T2	258-259	Chalk & Talk/ Lectures/ Blackboard Teaching
28		Generation methods of FM Direct Method	T2	287	Chalk & Talk/ Lectures/ Blackboard Teaching
		Tutorial 5:NBFM,WBFM			Tutorials
29		Generation methods of FM Indirect Method	W4	(200-201)	Chalk & Talk/ Lectures/ Blackboard Teaching
30		Pre-emphasis and De-emphasis	T2	299-300	Chalk & Talk/ Lectures/ Blackboard Teaching
31		Comparison of AM,FM and PM			Chalk & Talk/ Lectures/ Blackboard Teaching
32		Introduction to Pulse Modulation	T2	494	Chalk & Talk/ Lectures/ Blackboard Teaching
33		Types of Pulse Modulation PAM,PWM,PPM	T2	494-498	Chalk & Talk/ Lectures/ Blackboard Teaching
34		Generation of Pulse Amplitude Modulation(PAM)	T2	531-536	Chalk & Talk/ Lectures/ Blackboard Teaching
35		Generation of Pulse Width Modulation(PWM)	T2	540-541	Chalk & Talk/ Lectures/ Blackboard Teaching
36		Generation of Pulse Position Modulation(PPM)	T2	543-544	Chalk & Talk/ Lectures/ Blackboard Teaching
		Tutorial 6:Pre-Emphasis&De-Emphasis			Tutorials
37		Detection of Pulse Amplitude Modulation(PAM)	T2	537	3rd and 4th year faculty please post the attendance from 1st Feb to 28th Feb 2022 as per regular timetable on or before March 2nd
38	Detection of Pulse Width Modulation(PWM)	T2	542	Chalk & Talk/ Lectures/ Blackboard Teaching	

39		Detection of Pulse Position Modulation(PPM)	T2	545	PPTs/Presentation (Still & Videos)	
		Problems			Chalk & Talk/ Lectures/ Blackboard Teaching	
40	Unit-04	Introduction to Radio Receivers	T1	(158-162)	Chalk & Talk/ Lectures/ Blackboard Teaching	
41		Performance Characteristics of Radio receivers Sensitivity, Selectivity and Fidelity	T1	(122-125)	Chalk & Talk/ Lectures/ Blackboard Teaching	
42		Image frequency and Image frequency Rejection Ratio	T1	(134-136)	Chalk & Talk/ Lectures/ Blackboard Teaching	
43		Tracking and Double Spotting of Radio receiver	T1	(128-133)	Chalk & Talk/ Lectures/ Blackboard Teaching	
44		Tuned Radio Frequency(TRF)Receiver	T1	(119-120)	Chalk & Talk/ Lectures/ Blackboard Teaching	
		Tutorial 7: Generation of PAM,PWM			Tutorials	
45		Super Hetrodyne Receiver	T1	(120-122)	Chalk & Talk/ Lectures/ Blackboard Teaching	
46		RF amplifier, Local oscillator and mixer, IF amplifier	T1		Chalk & Talk/ Lectures/ Blackboard Teaching	
47		Automatic Gain Control(AGC)	T1	(136-140)	Chalk & Talk/ Lectures/ Blackboard Teaching	
		Tutorial 8: TRF Receiver and SHR			Tutorials	
48		Detection methods of AM: Envelope detector and practical diode detector	W4	(123-125)	Chalk & Talk/ Lectures/ Blackboard Teaching	
49		Detection methods of FM: Slope detector, Phase Discriminator and ratio detector	W4	(200-207)	Chalk & Talk/ Lectures/ Blackboard Teaching	
50		Unit-05	Introduction to Noise	T2	402	Chalk & Talk/ Lectures/ Blackboard Teaching
51			Sources of Noise	T2	403-404	Chalk & Talk/ Lectures/ Blackboard Teaching
52			Classification of Noise	T2	402	PPTs/Presentation (Still & Videos)
			Tutorial 9:Phase discrimination method of FM and Envelope detector of AM			Tutorials
53	Noise Calculations(Thermal Noise)		T2	407	Chalk & Talk/ Lectures/ Blackboard Teaching	
54	Signal to Noise Ratio(SNR)		T2	426	Chalk & Talk/ Lectures/ Blackboard Teaching	
55	Noise Figure		T2	427	Chalk & Talk/ Lectures/ Blackboard Teaching	
56	Noise Factor		T2	427	Chalk & Talk/ Lectures/ Blackboard Teaching	
57	Noise Temperature		T2	428	Chalk & Talk/ Lectures/ Blackboard Teaching	
58	SNR for AM,DSB		W3	458	Chalk & Talk/ Lectures/ Blackboard Teaching	

	Tutorial 10: SNR for AM,DSB			Tutorials
59	SNR for SSB	W3	460	Chalk & Talk/ Lectures/ Blackboard Teaching
60	Problems	T2	453	Chalk & Talk/ Lectures/ Blackboard Teaching
Teaching Aids used:				

Text Books:

T1:	Kennedy & Davis, "Electronic Communication System" Tata Mc Graw Hill
T2:	Analog Communication System" Sanjay Sharma
T3:	Communication Systems – B.P. Lathi, BS Publication, 2006

References Books

R1:	Anokh Singh, "Principles of communication engineering" S Chand
R2:	Roddy & Coulon, "Electronic communication" PHI
R3:	Taub & Schilling "Principles of communication systems" Tata Mc Graw Hill

Web References:

W1:	http://www.uta.edu/faculty/krrao/dip/Courses/EE4330/comparison%20of%20modulation%20methods.pdf
W2:	https://PULSE POSITION MODULATION PPT
W3:	http://nptel.ac.in/courses/117106090/Pdf/1_10.pdf
W4:	Principles of Communication Systems - Simon Haykin, John Wiley, 2nd Ed. 5

Topics Beyond Syllabus:

S.No	Name of the Topic	Related PO
1	Phase Locked Loop	PO4
2		
3		

Gaps in Syllabus:

S.No	Name of the Topic	Related PO
1	NIL	
2		
3		


Faculty VC
K.Sowjanya


HOD
(Dr. Sk. Sadulla)

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Lesson Plan

Name: K.GOPI TEJA
Class: II Year II Sem

Sub: C224-CS
A.Y. 2021-22

Class No:	Unit no.	Name of the topic	Reference	Page No	Teaching Aid
1	Unit-01	Mathematical Modeling of Control Systems -Introduction	T1	1.6-1.7	Chalk & Talk/ Lectures/ Blackboard Teaching
2	Unit-01	open loop and closed loop control systems ,Classification of Control systems,Transferfunction of Linear Systems	T1	1.1-1.7	Chalk & Talk/ Lectures/ Blackboard Teaching
3	Unit-01	Feedback Characteristics	R1	191-203	Chalk & Talk/ Lectures/ Blackboard Teaching
4	Unit-01	Differential Equations of Electrical Networks	T1	1.22-1.24	Chalk & Talk/ Lectures/ Blackboard Teaching
5	Unit-01	Translational mechanical systems	T1	1.7-1.9	Chalk & Talk/ Lectures/ Blackboard Teaching
6	Unit-01	Problems on Translational mechanical systems	T1	1.9-1.16	Chalk & Talk/ Lectures/ Blackboard Teaching
7	Unit-01	Rotational mechanical systems	T1	1.17-1.19	Chalk & Talk/ Lectures/ Blackboard Teaching
8	Unit-01	Problems on Rotational mechanical systems	T1	1.19-1.22	Chalk & Talk/ Lectures/ Blackboard Teaching
9	Unit-01	Force-current Analogy,Force-Voltage Analogy	T1	1.29-1.32	Chalk & Talk/ Lectures/ Blackboard Teaching
10	Unit-01	Problems	T1	1.32-1.45	Chalk & Talk/ Lectures/ Blackboard Teaching
11	Unit-01	Torque-current Analogy,Torque-Voltage Analogy	T1	1.46-1.48	Chalk & Talk/ Lectures/ Blackboard Teaching
12	Unit-01	Problems	T1	1.49-1.55	Chalk & Talk/ Lectures/ Blackboard Teaching
13	Unit-01	Block Diagram Reduction Techniques	T1	1.58-1.60	Chalk & Talk/ Lectures/ Blackboard Teaching
14	Unit-01	Problems on Block Diagram Reduction Techniques	T1	1.60-1.80	Tutorials
15	Unit-01	representation by signal flow graph	T1	1.81-1.83	Chalk & Talk/ Lectures/ Blackboard Teaching
16	Unit-01	problems on signal flow graph	T1	1.85-1.101	Tutorials
17	Unit-01	reduction using Mason's gain formula.	T1	1.83-1.84	Chalk & Talk/ Lectures/ Blackboard Teaching

18	Unit-02	Time Response Analysis Introduction	T1	3.1	Chalk & Talk/ Lectures/ Blackboard Teaching
19	Unit-02	Standard Test Signals	T1	3.2-3.3	Chalk & Talk/ Lectures/ Blackboard Teaching
20	Unit-02	time response of first order systems	T1	3.8-3.9	Chalk & Talk/ Lectures/ Blackboard Teaching
21	Unit-02	time response of second order systems	T1	3.9-3.16	Chalk & Talk/ Lectures/ Blackboard Teaching
22	Unit-02	time domain Specifications	T1	3.16-3.21	Chalk & Talk/ Lectures/ Blackboard Teaching
23	Unit-02	Problems on time domain Specifications	T1	3.27-3.33	Tutorials
24	Unit-02	steady state errors and error constants	T1	3.37-3.38	Chalk & Talk/ Lectures/ Blackboard Teaching
25	Unit-02	Problems on steady state errors and error constants	T1	3.45-3.53	Tutorials
26	Unit-02	Effects of PI, PD and PID Controllers	T1	3.21-3.23	Chalk & Talk/ Lectures/ Blackboard Teaching
27	Unit-03	Frequency Response Analysis and Compensation Introduction	T1	4.1-4.2	Chalk & Talk/ Lectures/ Blackboard Teaching
28	Unit-03	frequency domain specifications	T1	4.3-4.7	Chalk & Talk/ Lectures/ Blackboard Teaching
29	Unit-03	Bode Plot	T1	4.9-4.17	Chalk & Talk/ Lectures/ Blackboard Teaching
30	Unit-03	Bode Plot	T1	4.18-4.21	Tutorials
31	Unit-03	problems on Bode Plot	T1	4.22-4.38	Chalk & Talk/ Lectures/ Blackboard Teaching
32	Unit-03	polar plot	T1	4.39-4.41	Chalk & Talk/ Lectures/ Blackboard Teaching
33	Unit-03	polar plot	T1	4.42-4.43	Chalk & Talk/ Lectures/ Blackboard Teaching
34	Unit-03	Problems on polar plot	T1	4.44-4.52	Chalk & Talk/ Lectures/ Blackboard Teaching
35	Unit-03	Lag Compensator	T1	6.4-6.8	Chalk & Talk/ Lectures/ Blackboard Teaching
36	Unit-03	Problems on Lag Compensator	T1	6.11-6.15	Chalk & Talk/ Lectures/ Blackboard Teaching
37	Unit-03	lead compensator	T1	6.28-6.32	Chalk & Talk/ Lectures/ Blackboard Teaching
38	Unit-03	Problems on lead compensator	T1	6.35-6.40	Chalk & Talk/ Lectures/ Blackboard Teaching

39	Unit-03	lag-lead compensator	T1	6.53-6.55	Chalk & Talk/ Lectures/ Blackboard Teaching
40	Unit-03	Problems on lag-lead compensator	T1	6.59-6.65	Tutorials
41	Unit-04	Stability Analysis The Concept of Stability	T1	5.1	Chalk & Talk/ Lectures/ Blackboard Teaching
42	Unit-04	Location of Poles on s-Plane for Stability	T1	5.3-5.8	Chalk & Talk/ Lectures/ Blackboard Teaching
43	Unit-04	Routh's Stability Criterion & Limitations of Routh's Stability	T1	5.9-5.12	Chalk & Talk/ Lectures/ Blackboard Teaching
44	Unit-04	Problems on Routh's Stability Criterion	T1	5.13-5.20	Chalk & Talk/ Lectures/ Blackboard Teaching
45	Unit-04	Problems on Routh's Stability Criterion	T1	5.21-5.26	Tutorials
46	Unit-04	Root Locus	T1	5.63-5.66	Chalk & Talk/ Lectures/ Blackboard Teaching
47	Unit-04	Root Locus	T1	5.67-5.71	Chalk & Talk/ Lectures/ Blackboard Teaching
48	Unit-04	Problems on Root Locus	T1	5.71-5.87	Chalk & Talk/ Lectures/ Blackboard Teaching
49	Unit-04	Problems on Root Locus	T1	5.87-5.99	Tutorials
50	Unit-04	Nyquist Stability Criterion	T1	5.30-5.33	Chalk & Talk/ Lectures/ Blackboard Teaching
51	Unit-04	Nyquist Stability Criterion	T1	5.33-5.36	Chalk & Talk/ Lectures/ Blackboard Teaching
52	Unit-04	Problems on Nyquist Stability Criterion	T1	5.36-5.47	Tutorials
53	Unit-05	State Space Analysis: Introduction	T1	571	Chalk & Talk/ Lectures/ Blackboard Teaching
54	Unit-05	Concepts of state, state variables and state model	T1	572-576	Chalk & Talk/ Lectures/ Blackboard Teaching
55	Unit-05	state space representation of transfer function	T1	576-578	Chalk & Talk/ Lectures/ Blackboard Teaching
56	Unit-05	State Transition Matrix and its Properties	T1	627-629	Chalk & Talk/ Lectures/ Blackboard Teaching
57	Unit-05	problems	T1	630-641	Chalk & Talk/ Lectures/ Blackboard Teaching
58	Unit-05	concepts of controllability	T1	655-658	Chalk & Talk/ Lectures/ Blackboard Teaching
59	Unit-05	problems	T1	658-662	Tutorials

60	Unit-05	concepts of observability.	T1	662-663	Chalk & Talk/ Lectures/ Blackboard Teaching
61	Unit-05	problems	T1	663-664	Tutorials

Teaching Aids used:

Chalk and Talk,.....

Text Books:

- T1: Control Systems by A.NAGOOR KANURBA Publications,Third Edition
- T2: Control Systems by A.Anand Kumar
- T3:

References Books

- R1: M.Gopal,Control System.Principle and design,4th ed.,McGraw Hill Education,2012
- R2:
- R3:

Web References:

- W1:
- W2:
- W3:

Topics Beyond Syllabus:

S.No	Name of the Topic	Related PO
1		
2		

3		
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Gaps in Syllabus :

S.No	Name of the Topic	Related PO
1		
2		
3		

K. Gopi Teja
Faculty In-
(K.GOPI TEJA)

Dr. Sk. Sadulla
HOD
(Dr. Sk. Sadulla)

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Lesson Plan

Name: Mrs.Bhavani.T

Class: II Year II Sem

Sub: C223-EMWTL

A.Y. 2021-22

Class No:	Unit no.	Name of the topic	Reference	Page No	Teaching Aid
1	Unit-4	Types, Parameters,	T1	415,205-207	Chalk & Talk/ Lectures/ Blackboard Teaching
2	Unit-4	T&π Equivalent Circuits, Transmission Line Equations,	R1	421	Chalk & Talk/ Lectures/ Blackboard Teaching
3	Unit-4	Primary & Secondary Constants,	R1	4,18,425	Chalk & Talk/ Lectures/ Blackboard Teaching
4	Unit-4	Expressions for Characteristic Impedance	R1	433	Chalk & Talk/ Lectures/ Blackboard Teaching
5	Unit-4	Propagation Constant, Phase and Group Velocities,	R1	429	Chalk & Talk/ Lectures/ Blackboard Teaching
6	Unit-4	distortion less lines,	R1	427	Chalk & Talk/ Lectures/ Blackboard Teaching
7	Unit-4	Loading - Types of Loading	R1	430	PPTs/Presentation (Still & Videos)
8	Unit-4	expression for impedance	R1	432	Chalk & Talk/ Lectures/ Blackboard Teaching
9	Unit-4	Illustrative Problems	R4	318-319	Chalk & Talk/ Lectures/ Blackboard Teaching
10	Unit-4	Illustrative Problems	R4	320-327,332-333	Chalk & Talk/ Lectures/ Blackboard Teaching
11	Unit-4	illustrated problems	E2,R4	2.37-2.41,61	Chalk & Talk/ Lectures/ Blackboard Teaching
12	Unit-4	Input Impedance Relations	R1	423	Chalk & Talk/ Lectures/ Blackboard Teaching
13	Unit-4	lossless line and infinite line	R1	427	Chalk & Talk/ Lectures/ Blackboard Teaching
14	unit-5	SC and OC Lines,	R1	435	Chalk & Talk/ Lectures/ Blackboard Teaching
15	unit-5	Reflection Coefficient, VSWR	R1	434	Chalk & Talk/ Lectures/ Blackboard Teaching
16	unit-5	Low loss radio frequency lines and UHF Transmission lines,	R1	437	Chalk & Talk/ Lectures/ Blackboard Teaching
17	unit-5	UHF Lines as Circuit Elements	R1	437	Chalk & Talk/ Lectures/ Blackboard Teaching

18	unit-5	Impedance Transformations $\lambda/4$, $\lambda/2$, $\lambda/8$ Lines	R1	4,23,435	Chalk & Talk/ Lectures/ Blackboard Teaching
19	unit-5	Smith Chart – Construction and Applications	R1	450	Videos
20	unit-5	Quarter wave transformer	R1,R6	460-462	Chalk & Talk/ Lectures/ Blackboard Teaching
21	unit-5	Stub Matching-single & double	R1	453	Chalk & Talk/ Lectures/ Blackboard Teaching
22	unit-5	Illustrative Problems	R6	465	Chalk & Talk/ Lectures/ Blackboard Teaching
23	unit-5	Illustrative Problems	R6	466	Chalk & Talk/ Lectures/ Blackboard Teaching
24	unit-5	Illustrative Problems	R6	467-469	Chalk & Talk/ Lectures/ Blackboard Teaching
25	unit-5	Illustrative Problems	R6	470-479	Chalk & Talk/ Lectures/ Blackboard Teaching
26	unit-1	Review of Co-ordinate Systems	T1	5 to 15	Chalk & Talk/ Lectures/ Blackboard Teaching
27	unit-1	Electrostatics; Coulomb's Law	T1	71	Chalk & Talk/ Lectures/ Blackboard Teaching
28	unit-1	Electric Field Intensity, Electric Flux Density	T1	90	Chalk & Talk/ Lectures/ Blackboard Teaching
29	unit-1	Gauss Law and Applications	T1	92	Chalk & Talk/ Lectures/ Blackboard Teaching
30	unit-1	Electric Potential, Maxwell's Two Equations for Electrostatic Fields	T1,R6	94-101,107,89-93	Chalk & Talk/ Lectures/ Blackboard Teaching
31	unit-1	Energy Density, Illustrative Problems	T1	114	Chalk & Talk/ Lectures/ Blackboard Teaching
32	unit-1	Convection and Conduction Currents	T1	134	Chalk & Talk/ Lectures/ Blackboard Teaching
33	unit-1	Dielectric Constant, Continuity Equation, Relaxation Time,	T1	146-147	Chalk & Talk/ Lectures/ Blackboard Teaching
34	unit-1	Capacitance – Parallel Plate, Coaxial Capacitors, Illustrative Problems	T1	214	Chalk & Talk/ Lectures/ Blackboard Teaching
35	unit-1	illustrated problems	E2,R4	2.37-2.41,61	Chalk & Talk/ Lectures/ Blackboard Teaching
36	UNIT-2	Biot-Savart Law, Ampere's Circuital Law:	T1,E2,T2	230,47,86	Chalk & Talk/ Lectures/ Blackboard Teaching
37	UNIT-2	and Applications, Magnetic Flux Density,	T1	2,41,249	Chalk & Talk/ Lectures/ Blackboard Teaching
38	UNIT-2	maxwell's equations practice			Tutorials

39	UNIT-2	Maxwell's Two Equations for Magnetostatic Fields,	T1	2,41,251	Chalk & Talk/ Lectures/ Blackboard Teaching
40	UNIT-2	Magnetic Scalar and Vector Potentials, Forces due to Magnetic Fields,	T1	252	Chalk & Talk/ Lectures/ Blackboard Teaching
41	UNIT-2	Ampere's Force Law, Inductances and Magnetic Energy.	T1,T2	256,300 T0303,87-89	Chalk & Talk/ Lectures/ Blackboard Teaching
42	UNIT-2	Illustrative Problems. [1,5] Maxwell's Equations (Time Varying Fields)	T1,R4	112-113,140	Chalk & Talk/ Lectures/ Blackboard Teaching
43	UNIT-2	Faraday's Law and Transformer emf, Inconsistency of Ampere's Law	T1	3,28,330	Chalk & Talk/ Lectures/ Blackboard Teaching
44	UNIT-2	and Displacement Current Density,	T1	339	Chalk & Talk/ Lectures/ Blackboard Teaching
45	UNIT-2	Maxwell's Equations in Different Final Forms and Word Statements.	T1	342	Chalk & Talk/ Lectures/ Blackboard Teaching
46	UNIT-2	Conditions at a Boundary Surface : Dielectric-Dielectric and	T1,R6	295,201-203	Chalk & Talk/ Lectures/ Blackboard Teaching
47	UNIT-2	Dielectric-Conductor Interfaces	R4	296,140-142	Chalk & Talk/ Lectures/ Blackboard Teaching
48	UNIT-2	Illustrative Problems	E1	5.3, APPENDIX-19	Tutorials
49	UNIT-3	Wave Equations for Conducting	R1	286	Chalk & Talk/ Lectures/ Blackboard Teaching
50	UNIT-3	boundary conditions	R1	290	Chalk & Talk/ Lectures/ Blackboard Teaching
51	UNIT-3	and Perfect Dielectric Media	R1	306	Chalk & Talk/ Lectures/ Blackboard Teaching
52	UNIT-3	Uniform Plane Waves – Definition,	R1	287	Chalk & Talk/ Lectures/ Blackboard Teaching
53	UNIT-3	All Relations Between E & H,	R1	291	Chalk & Talk/ Lectures/ Blackboard Teaching
54	UNIT-3	Sinusoidal Variations, Wave Propagation in Lossy dielectrics,	R1	2,95,296	Chalk & Talk/ Lectures/ Blackboard Teaching
55	UNIT-3	lossless dielectrics, free space, wave propagation in good conductors	R1	295	Chalk & Talk/ Lectures/ Blackboard Teaching
56	UNIT-3	skin depth, Polarization & Types	R1	310-314	Chalk & Talk/ Lectures/ Blackboard Teaching
57	UNIT-3	Illustrative Problems	R1,E2	5.3	Tutorials
58	UNIT-3	Reflection and Refraction of Plane Waves	R1	318	Chalk & Talk/ Lectures/ Blackboard Teaching
59	UNIT-3	Normal and Oblique Incidences, for both Perfect Conductor	R1	318	Chalk & Talk/ Lectures/ Blackboard Teaching

60	UNIT-3	and Perfect Dielectrics, Brewster Angle,	R1,R6	329-333,330-332	Chalk & Talk/ Lectures/ Blackboard Teaching
61	UNIT-3	Critical Angle and Total Internal Reflection,	R1	334	Chalk & Talk/ Lectures/ Blackboard Teaching
62	UNIT-3	Surface Impedance, Poynting Vector and Poynting Theorem	R1	337	Chalk & Talk/ Lectures/ Blackboard Teaching
63	UNIT-3	Applications, Power Loss in a Plane Conductor	R1	341	Chalk & Talk/ Lectures/ Blackboard Teaching
64	UNIT-3	Illustrative Problems	R4	24,42,42,236	Chalk & Talk/ Lectures/ Blackboard Teaching
65	UNIT-3	Illustrative Problems	R4	253	Chalk & Talk/ Lectures/ Blackboard Teaching
66	UNIT-3	Illustrative Problems	R4	- 255	Tutorials

Teaching Aids used:

Chalk and Talk,.....

Text Books:

- T1: 1 Elements of Electromagnetic – Matthew N.O. Sadiku, Oxford Univ. Press, 3rd ed., 2001 2nd Edition.
- T2: Electromagnetic Waves and Radiating Systems – E.C. Jordan and K.G. Balmain, PHL
- T3:

References Books

- R1: Electromagnetic Fields and Wave Theory –GSN Raju, Pearson Education 2006
- R2: 2. Engineering Electromagnetics Nathan Ida, Springer(India)Pvt.Ltd, New Delhi, 2nd ed., 2005
- R3: Engineering Electromagnetics – William H. Hayt Jr. and John A. Buck, TMH, 7th ed., 2006. Ras, Wiley India 2013 Prakashan (T)
- R4: Electromagnetic Field Theory and Transmission Lines. G SasiBhushana

Web References:

W1:

W1. <http://nptel.ac.in/>

W2	W2. www.dce.kar.nic.in
W3	W3. https://ccit.aui.ac.in

Topics Beyond Syllabus:

S.No	Name of the Topic	Related PO
1	Double Submarking	PO1
2	Divergence Theorem	PO1
3		

Gaps in Syllabus :

S.No	Name of the Topic	Related PO
1		
2		
3		



Faculty I/C
(Mrs. Bhavani T)

HOD
(Dr. Sk. Sadulla)

KKR & KSR INSTITUTE OF TECHNOLOGY & SCIENCES

(Approved by AICTE, Delhi, Affiliated to JNTU, Kakinada)

DEPARTMENT OF Electronics and Communication Engineering

Name: Dr. K.Madhu Sudhana Rao

Class: III B.Tech I sem

Subject: EMI

Branch: ECE

Academic Year: 2021-22

L No/ T No:	NAME OF THE TOPIC	Teaching Aid	Text Book/ Reference Book /Web	Page. No.
Unit-I: Characteristics of instruments, Static characteristics				
L-1	Static characteristics, Accuracy, Resolution, Precision, Expected value, Error, Sensitivity.	GB & CP	T1/R1	2/1
L-2	Errors in Measurement	GB & CP	T1	5
L-3	Dynamic Characteristics-speed of response, Fidelity, Lag and Dynamic error	GB & CP	T1	9
L-4	Problems on statistical analysis			
L-5	DC Voltmeters- Multi-range	GB & CP	T1	75
L-6	Range extension/Solid state and differential voltmeters	GB & CP	T1	78
L-7	AC voltmeters- multi range, range extension shunt	GB & CP	T1/R1	96/29
L-8	Universal shunt design	GB & CP	T1/R1	67/29
L-9	Thermocouple type RF ammeter	GB & CP	T1/R1	102/35
L-10	Ohmmeters series type	GB & CP	T1	102
L-11	Ohmmeters shunt type	GB & CP	T1	105
L-12	Multimeter for Voltage measurement	GB & CP	T1/R1	107/52
L-13	Current and resistance measurements	GB & CP	T1/R1	108/53
Unit-II: Specifications and designing aspects of Signal Generators				
L-14	Signal Generator- introduction, Types	GB & CP	T1	220
L-15	AF sine and square wave signal generators	PPT	T1/WR 2	225
L-16	Function Generator	PPT	T1/WR 2	226
L-17	Random noise Generator	GB & CP	T1	55
L-18	Arbitrary waveform Generator	GB & CP	T1/R1	230/91
L-19	Wave Analyzers-Resonant type	GB & CP	T1	248
L-20	Wave Analyzers-Freq selective, Heterodyne type	GB & CP	T1	249
L-21	Harmonic Distortion Analyzers-TYPES	GB & CP	T1/R1	252/90
L-22	Spectrum Analyzers Types	GB & CP	T1	254
L-23	Spectrum Analyzers Types ,Digital Fourier Analyzers.	GB & CP	T1	254/258
L-24	Digital Fourier Analyzers.	GB & CP	T1	258
Unit-III : Oscilloscopes				
L-25	General purpose CRO-Block diagram			
L-26	Functions of Vertical, Horizontal sections	GB & CP	T1/R1/ WR3	175/101
L-27	Controls on front panel of CRO	PPT	T1/R1/	179/101

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DEPARTMENT OF Electronics and Communication Engineering

			WR3	
L-28	Probes for CRO- Active , Passive	GB & CP	T1	205
L-29	Applications of CRO	GB & CP	T1	210
L-30	Lissajous method of frequency measurement	GB & CP	T1	194
L-31	sampling oscilloscope	GB & CP	T1	189
L-32	Storage oscilloscope Analog	GB & CP	T1	190
L-33	Digital storage oscilloscope	GB & CP	T1	193
L-34	Standard specifications of CRO	GB & CP	T1	203
L-35	Standard specifications of CRO	GB & CP	T1	203
Unit-IV: Bridgecircuits				
L-36	Measurement of Wheat stone Bridge	GB & CP	T1	305,312
L-37	Maxwell's bridge, Anderson bridge.	GB & CP	T1	323
L-38	Measurement of capacitance -Schearing Bridge	GB & CP	T1	327
L-39	Wien Bridge	GB & CP	T1	329
L-40	Errors and precautions in using bridges	GB & CP	T1	335
L-41	Q-meter	GB & CP	T1	274
L-42	Problems on bridges	GB & CP	T1	336
L-43	Counters			
L-44	Problems			
Unit- V:Transducers				
L-45	Passive transducers Resistance, transducer	GB & CP	T1	134
L-46	Capacitance transducer	GB & CP	T1	135
L-47	Inductance transducer	PPT	T1	143
L-48	Strain gauges	PPT	T1	143
L-49	LVDT	GB & CP	T1	151
L-50	Piezo electric Transducer	GB & CP	T1	162
L-51	Thermocouples	GB & CP	T1	180
L-52				
L-53	Thermistors	PPT		
L-54	Sensistors.	GB & CP	T2	63
L-55	Measurement of force	GB & CP	T2	65
L-56	Measurement of pressure	GB & CP	T2	66
L-57	Measurement of Velocity	GB & CP	T2	70
L-58	Measurement of acceleration.	GB & CP	T2	70

GB & CP: Glass Broad & Chalk piece.**TEXT BOOKS:**

T1. Electronic instrumentation, second edition _ H.S Kalsi, Tata McGraw hill, 2004

T2. Modern Electronic instrumentation and Measurement Techniques-A.D Helfrick and W.D Cooper PHI,5th Edition,2002

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REFERENCE BOOKS:

R1. Electronic Instrumentation & Measurement –David A. Bell, PHI, 2nd Edition, 2003

R2. Electronic Test Instrumentation, Analog and digital Measurement –Robert A. Write, Pearson Education 2nd ed.2004.

WEB REFERENCES:

WR1 <https://www.slideshare.net/nsihag/transducers-17950953>

WR2 <https://en.wikipedia.org/wiki/Transducer>

WR3 <https://www.youtube.com/watch?v=7wVoN39OkoE>



Signature of the faculty



Signature of the HOD



UG-Electrical and Electronics Engineering

2021-22

(Sample Teaching Plans)

Department of Electrical And Electronics Engineering

IDENTIFIED WEAK LEARNERS


SN O	REGDNO	NAME	2_1	2_2	AGGREGATE
1	19JR1A0202	DURGEMPUDI JYOTHI	6 sgpa	5 sgpa	5.50
2	19JR1A0207	JORIGE HANUMATHI DEVI	7 sgpa	6 sgpa	6.50
3	19JR1A0213	PEDAMALLU VENNELA	6 sgpa	6 sgpa	6.00
4	19JR1A0215	SIDDAVATAM ANUSHA	6 sgpa	6 sgpa	6.00
5	19JR1A0216	SRIRAM DIVYASRI HARSHITA	6 sgpa	6 sgpa	6.00
6	19JR1A0217	THIRUMALA GAYATHRI DEEPIKA	6 sgpa	6 sgpa	6.00
7	19JR1A0218	TIPPAREDDY PRAVALLIKA	6 sgpa	6 sgpa	6.00
8	19JR1A0221	BANDLA OMSAI	6 sgpa	3 sgpa	4.50
9	19JR1A0223	BOYAPATI VENKATA RAGHAVA LOKESH	6 sgpa	6 sgpa	6.00
10	19JR1A0225	JAVVAJI MANOHAR KUMAR	6 sgpa	6 sgpa	6.00
11	19JR1A0227	PATHAN IMRAN KHAN	6 sgpa	6 sgpa	6.00
12	19JR1A0229	SHAIK MOHAMMED ABRAAR	6 sgpa	3 sgpa	4.50
13	19JR1A0231	TIRUVALLURU NIRANJAN RAJU	6 sgpa	6 sgpa	6.00
14	20JR5A0205	BETHAPUDI SUNIL KUMAR	6 sgpa	6 sgpa	6.00
15	20JR5A0206	BEZAWADA PURNA CHANDU	6 sgpa	7 sgpa	6.50
16	20JR5A0208	DASARI MANIKYA RAO	7 sgpa	6 sgpa	6.50
17	20JR5A0210	ERLLA RAMA KRISHNA VARA PRASAD	6 sgpa	6 sgpa	6.00
18	20JR5A0211	GUNTI SIVA SHANKAR	6 sgpa	6 sgpa	6.00
19	20JR5A0212	KANCHARLA KIRAN	6 sgpa	6 sgpa	6.00
20	20JR5A0218	MADUPU VAMSY	6 sgpa	6 sgpa	6.00
21	20JR5A0219	MUNIPALLI ASHOK KUMAR	7 sgpa	6 sgpa	6.50
22	20JR5A0222	SHAIK AKHIL REHAMAT ZANI	6 sgpa	6 sgpa	6.00
23	20JR5A0224	THOTA NAVEEN	6 sgpa	6 sgpa	6.00

RESULT ANALYSIS INCHARGE

HOD

Department of Electrical And Electronics Engineering**IDENTIFIED ADVANCED LEARNERS**

SN O	REGDNO	NAME	2_1	2_2	AGGREGATE
1	18JR1A0252	VENKATA VENU MADHAV PABBISSETTY	6 sgpa	8 sgpa	7.00
2	19JR1A0203	ETUKURI MOUNIKA	7 sgpa	7 sgpa	7.00
3	19JR1A0204	GADE CHANDANA PRIYA	8 sgpa	7 sgpa	7.50
4	19JR1A0210	NARNE HEMA CHOWDARY	7 sgpa	7 sgpa	7.00
5	19JR1A0219	VANAPALLI SATYA PRAMILA	8 sgpa	7 sgpa	7.50
6	19JR1A0220	YENNA SAHITHI	7 sgpa	7 sgpa	7.00
7	19JR1A0224	GOBBURI NARAYANA SAI GANESH	8 sgpa	7 sgpa	7.50
8	19JR1A0226	NELLURI AJAY KUAMR	7 sgpa	7 sgpa	7.00
9	20JR5A0214	KAPPAGANTULA S KAMESWARI SANKARA PRASAD	8 sgpa	8 sgpa	8.00
10	20JR5A0221	PULUSU SAI GOPI	7 sgpa	7 sgpa	7.00


RESULT ANALYSIS INCHARGE
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Form 03: REMEDIAL CLASSES

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ACADEMIC YEAR: 2021-22

SEMESTER-III-I

REMEDIAL CLASSES

PERIOD: FROM 25-10-2021 To: 10-11-2021 TIME: 08:00AM-10:00AM			PS-I	PS-II	PS-II	PE	PE	PE	DSP	DSP	DSP	LICA	LICA	LICA	AMP	MPM	MPM	MPM
S.No	Reg.No.	Name of the Students	25/10/26/10	27/10/28/10	28/10/29/10	30/10	1/11/	2/11	3/11	4/11	5/11	6/11	8/11	9/11	10/11			
1	19JR1A0202	DURGEMPUDI JYOTHI	✓		✓	✓	✓		✓	✓		✓	✓	✓			✓	
2	19JR1A0207	JORIGE HANUMATHI DEVI	✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓	✓
3	19JR1A0213	PEDAMALLU VENNELA	✓	✓		✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓
4	19JR1A0215	SIDDAVATAM ANUSHA	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
5	19JR1A0216	SRIRAM DIVYASRI HARSHITA	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓			
6	19JR1A0217	THIRUMALA GAYATHRI DEEPIKA		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓			✓	
7	19JR1A0218	TIPPAREDDY PRAVALIKA	✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓			✓
8	19JR1A0221	BANDLA OMSAI	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓		✓	✓
9	19JR1A0223	BOYAPATI VENKATA RAGHAVA LOKESH	✓	✓	✓		✓	✓	✓			✓	✓	✓	✓			✓
10	19JR1A0225	JAVVAJI MANOHAR KUMAR	✓		✓	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
11	19JR1A0227	PATHAN IMRAN KHAN		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
12	19JR1A0229	SHAIK MOHAMMED ABRAAR		✓		✓		✓		✓	✓	✓		✓	✓		✓	✓
13	19JR1A0231	TIRUVALLURU NIRANJAN RAJU		✓	✓	✓	✓	✓		✓	✓	✓	✓		✓		✓	✓
14	20JR5A0203	KOKKILIGADDA SANDHYA			✓	✓	✓	✓	✓		✓	✓			✓			✓

15	20JRSA0205	BETHAPUDI SUNIL KUMAR	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
16	20JRSA0206	BEZAWADA PURNA CHANDU		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	20JRSA0208	DASARI MANIYA RAO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	20JRSA0210	ERLLA RAMA KRISHNA VARA PRASAD		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
	20JRSA0211	GUNTI SIVA SHANKAR		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	20JRSA0212	KANCHARLA KIRAN	✓		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
	20JRSA0218	MADUPU VAMSY	✓	✓			✓	✓			✓	✓		✓	✓	✓	✓
	20JRSA0219	MUNIPALLI ASHOK KUMAR		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	20JRSA0222	SHAIK AKHIL REHAMAT ZANI		✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
	20JRSA0224	THOTA NAVEEN			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	20JRSA0225	THULLURU SWARUP CHAKRAVARTHI	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓


HEAD OF THE DEPARTMENT


FACULTY IN CHARGE