Course File contents

- 1. Title page
- 2. Vision and mission of the institution and the department
- 3. PEOs and POs
- 4. Syllabus
- 5. Course objectives
- 6. Course outcomes
- 7. Prerequisites
- 8. Lesson plan
- 9. Micro lesson plan
- 10. Textbooks
- 11. Websites
- 12. Lecture notes (5 Units in A4 size sheets, handwritten)
- 13. Small questions and answers (5 Units in A4 size sheets, handwritten)
- 14. Objective questions and answers (Either handwritten or printed, unit-wise)
- 15. Syllabus beyond the curriculum
- 16. Gaps between the continuation (Printed or written)
- 17. Assignment questions and answers (5 Units in A4 size sheets, handwritten)
- 18. Mid question papers
- 19. Result analysis and performance
- 20. PPTs for 5 units
- 21. Timetable should be pasted on the left flap of the boxfile
- 22. Course file contents list printout should also be pasted on the left flap of the boxfile
- 23. Previous year university question paper

DEPARTMENT

OF

ELECTRONICS & COMMUNICATION ENGINEERING

FACULTY COURSE FILE

(EC405ES)ANALOG COMMUNICATIONS

YEAR-II B.TECH II SEMESTER ECE (R16)





Approved by AICTE, Affiliated to JNTU, Hyderabad. Vyasapuri, Bandlaguda, Post: Keshavgiri, Hyderabad-500005.

Name of the Faculty : NENAVATH RAVI KUMAR

Designation: Assistant professor

Department: Electronics and Communication Engineering

MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY

Vision

To be a centre of excellence in technical education with research orientation and develop human resources to serve the society and nation building.

Mission

To provide comprehensive technical education programmes in various disciplines and to contribute effectively to the profession and the society.

Establishing centre of excellence in inter disciplinary areas which are important and relevant to industry and employment with scope for research.

To inculcate human values and ethical practices to the graduates through co-curricular and extracurricular activities.

DEPARTMENT OF ECE

Vision

To impart technical education with latest art of technology with scope for research and development and groom the students with leadership skill to suit the challenging needs industry and society.

Mission

Provide contemporary technical education programs, in the field of ECE and prepare for competitive employment and higher studies.

Provide comprehensive in depth knowledge with research orientation which are important and relevant to industry, society, environment and global needs.

Organize specific programs to inculcate values and ethical practices to the students through co-curricular and extracurricular activities.

to

Program Outcomes (POs):

After the completion of the course Engineering Graduates will be able to:

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering

fundamentals, and an engineering specialization to the solution of complex engineering problems.

2. **Problem analysis**: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. **Design/development of solutions**: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. **Conduct investigations of complex problems**: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. **Modern tool usage**: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

6. **The engineer and society**: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. **Environment and sustainability**: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. **Individual and team work**: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. **Communication**: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. Project management and finance: Demonstrate knowledge and understanding of the

engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Educational Objectives:

PEO 1	Imparting knowledge on latest art of technology in curriculum to mould the
	Student for higher Education.
PEO 2	Produce graduates to the challenging needs of the Industry.
PEO 3	Develop the Professional and Ethical values for Society upliftment
PEO 4	To develop interest in lifelong learning process through professional memberships
	active participation.

Program Specific Outcomes (PSOs):

1. Impart Engineering knowledge through teaching, learning & participative process.

2. Ensure engineering fundamental concepts learning with emphasis on self learning process through lab practices and project development programs.

3. Develop Team building, Ethical values and create interest for Continuous Learning Process.

Syllabus

(EC405ES) ANALOG COMMUNICATIONS

Year-II B.Tech II semester ECE R16

UNIT I

INTRODUCTION : Introduction to communication system, Need for modulation, Amplitude Modulation, Definition, Time domain and frequency domain description, power relations in AM waves, Generation of AM waves, square law Modulator, Switching modulator, Detection of AM Waves; Square law detector, Envelope detector.

DSB MODULATION : Double side band suppressed carrier modulators, time domain and frequency domain description, Generation of DSBSC Waves, Balanced Modulators, Ring Modulator, Coherent detection of DSB-SC Modulated waves, COSTAS Loop. Radio Transmitters-Classification of Transmitters, AM transmitter block diagram and explanation of each block.

UNIT II

SSB MODULATION: Frequency domain description, Frequency discrimination method for generation of AM SSB Modulated Wave, Time domain description, Phase discrimination method for generating AM SSB Modulated waves. Demodulation of SSB Waves, Vestigial side band modulation: Frequency description, Generation of VSB Modulated wave, Time domain description, Envelope detection of a VSB Wave pulse Carrier, Comparison of AM Techniques, Applications of different AM Systems.

UNIT III

ANGLE MODULATION CONCEPTS: Basic concepts, Frequency Modulation: Single tone frequency modulation, Spectrum Analysis of Sinusoidal FM Wave, Narrow band FM, Wide band FM, Constant Average Power, Transmission bandwidth of FM Wave-Comparison of FM a & AM systems.

ANGLE MODULATION METHODS: Generation of FM Waves: Direct Method: Parametric Variation Method: Varactor Diode, Reactance Modulator, Indirect method: Armstrong Method, Detection of FM Waves: Balanced Frequency discriminator, Zero crossing detector, Phase locked loop, Foster Seeley Discriminator, Ratio detector, FM transmitter block diagram and explanation of each block.

UNIT IV

NOISE : Noise in Analog communication System, Noise in DSB& SSB System, Noise in AM System, Noise in Angle Modulation System, Threshold effect in Angle Modulation System, Pre-emphasis & de-emphasis

RECEIVERS : Radio Receiver - Receiver Types - Tuned radio frequency receiver, Superhetrodyne receiver, RF section and Characteristics - Frequency changing and tracking, Intermediate frequency, AGC, FM Receiver, Comparison with AM Receiver, Amplitude limiting.

UNIT V

PULSE MODULATION :Types of Pulse modulation, PAM (Single polarity, double polarity) PWM: Generation & demodulation of PWM, PPM, Generation and demodulation of PPM

TEXTBOOKS :

- 1. Principles of Communication Systems H Taub & D. Schilling, Gautam Sahe, TMH, 2007 3rd Edition.
- 2. Principles of Communication Systems Simon Haykin, John Wiley, 2nd Ed.,.

REFERENCES :

- 1. Electronics & Communication System George Kennedy and Bernard Davis, TMH 2004.
- 2. Analog Communications-KN Hari Bhat & Ganesh Rao, Pearson Publications, 2nd Edition-2008.
- 3. Communication Systems Second Edition R.P. Singh, SP Sapre, TMH, 2007.
- 4. Communication Systems- B.P.Lathi, BS Publication, 2006

WEBSITES: 1) http://www.nptel.iitm.ac.in

2) http://www.rfdesign.com

JOURNALS

International Journal of Digital & Analog Communication Systems

Course Objectives:

ANALOG COMMUNICATIONS (EC405ES)

This course will provide students with the theoretical underpinnings of Analog Communications, allowing them to work out quantitative values and theoretical descriptions for case examples in Analog Communications.

Students completing this course should be able to:

- Describe analog modulation and demodulation techniques.
- Develop and compare the functional blocks and performance parameters of amplitude and angle modulation and demodulation for communication systems.
- Performance evaluation of communication systems in the presence of noise.
- Develop Modern trends in communication systems and transmitter/receiver circuits.

Subject: ANALOG COMMUNICATIONS (EC405ES)

Course Outcomes:

Upon successfully completing the course, the students should be able to:

- Describe different types of noise and predict its effect on various analog communication systems.
- Analyze energy and power spectral density of the signal.
- Express the basic concepts of analog modulation schemes
- Evaluate analog modulated waveform in time /frequency domain and also find modulation index.
- Develop understanding about performance of analog communication systems
- Calculate bandwidth and power requirements for analog systems.
- Analyze different characteristics of receiver.

LESSON PLAN:

Subject	(EC405ES): ANALOG COMMUNICATI	ONS	R16							
Faculty	Mr. NENAVATH RAVI KUMAR									
Text Boo	oks									
T1	Principles of Communication Systems – H Taub & D. Schilling, Gautam Sahe, TMH, 2007 3 rd Edition.									
T2	Principles of Communication Systems - Simon Haykin, John Wiley, 2 nd Ed.,.									
R	eference Books									
R1	Electronics & Communication System – George Kennedy and Bernard Davis, TMH 2004.									
R2	Analog Communications-KN Hari Bhat & Ganesh Rao, Pearson Publications, 2 nd Edition-2008.									
R3	Communication Systems Second Edition – R.P.	Singh	, SP S	Sapre,	TMH	, 2007	•			
R4	Communication Systems- B.P.Lathi, BS Publica	tion,	2006							
Unit	Торіс	Cha	pter	s Nos			No of			
		T1	T2	T3	R1	R2	classes			
I	Introduction DSB-SC modulation and demodulation	1,2	1	1	1	1	10			
II	SSB-SC Modulation and Demodulation	6,7	5	2,3	2,3	2,3	12			
III	Angle Modulation Concepts and Methods	8	6	4	4,5	4	10			
IV	Noise and Receivers	9	7,8	8	6	6,7	12			
V	Analog pulse modulation	10	9	9	7,8	8	10			
Contact	classes for syllabus coverage	1	1	1		1	54			
Special I	Descriptive Tests						2			
Tutorial	classes						5			
Remedia	Remedial classes									
Total No	o. of classes						66			

MICROLESSON PLAN:

Year-II B.Tech II semester ECE R16 Subject: (EC405ES) Analog Communications

Lecture Duration: 50 Min

S.N o	LecturTopics as per JNTUModules/sub modulesDatesyllabus.for each topicnumber		Date	Suggest ed books	Teac hing aids.	
1	L1	Overview of the course	Unit-wise overview of the course and all the reference books	15/12/2017	T1,T2, R1,	TAI, TA2
		UNIT I: AN	IPLITUDE MODULATIO	NS	R2,R3	
2	L2	Introduction to Communication Systems	Elements of a communication System, Classifications	15/12/2017	T1,T2,R 2	TAI
3	L3, L4	Need for modulation,	Need for modulation, Different types of modulation systems,	16/12/2017	T1,T2,R 2	TAI, TA2
4	L5, L6	Amplitude modulation Definition. Time and Frequency domain description of AM.	Introduction, Spectrum of AM wave, Modulation Index or factor, Linear and over modulation	18/12/2017 , 19/12/2017	T1,R1	TAI
5	L7	Problems on AM	Bandwidth calculation, modulation index	22/12/2017	T1,R1	TAI
6	L8	Single Tone Modulation	Analytical Evaluation	23/12/2017	T1,R2	TAI
7	L9	Power relations in AM waves.	Calculation of power content in single tone and multi-tone AM signal	29/12/2017 ,	T1,R2	TAI
8	L10, L11	Generation of AM waves- Square law and switching modulators	Circuit description and working principle	29/12/2017 , 30/12/2017	T1,R2	TAI
9	L12, L13	Detection of AM waves- Square law detector and Envelope	Circuit description and working principle. Errors in envelope detection	02/01/2017 ,	T1,R1	TAI , TA4

		detector		02/01/2017		
10	L14	DSB Modulation	Disadvantages of DSB- FC. Introduction to DSB- SC	05/01/2017	T1,T2,R 2	TA1
11	L15	Time domain and Frequency domain description of DSB-SC	Time domain waveforms and Spectrum of DSB-SC AM wave	05/01/2017	T1,T2,R 2	TA1
12	L16	Generation of DSB-SC waves- Balanced Modulators	Circuit description and working principle	06/01/2017	T1,R2	TA1, TA2
13	L17	Generation of DSB-SC waves- Ring Modulators	Circuit description and working principle	08/01/2017	T1,R1	TAI, TA2
14	L18	Detection of DSB waves- Coherent detection	Circuit description and working principle, Errors in Coherent detection	09/01/2017	T1,T2	TA1
15	L19	Detection of DSB waves- COSTAS loop	Circuit description and working principle	09/01/2017	T1,T2,R 1	TAI, TA2
16	L20	Frequency division Multiplexing	Concept of multiplexing, FDM	12/01/2017	T1,T2,R 1	TAI, TA2
17	Tu1	EM spectrum	Concepts of transmission BW	12/01/2017		TA6
		UNIT II: SING	LE SIDEBAND MODULA	TION		
18	L21	Frequency domain description of SSB	Spectrum of SSB modulated wave	19/01/2017	T1,R2	TAI
19	L22	Frequency Discrimination method for generation of AM SSB Modulated wave	Circuit description and working principle	19/01/2017	T1,T2,R 2	TAI, TA2
20	L23	Time domain description of SSB	Time domain waveforms and description	20/01/2017	T1,T2,R 2	TAI
21	L24	Phase Discrimination method for generation of AM SSB Modulated wave	Circuit description and working principle	22/01/2017	T1,R2	TAI , TA4
22	L25	Demodulation of SSB waves	Coherent SSB Demodulation	23/01/2017	T1,R2	TAI

23	L26	Vestigial side band modulation: Frequency domain description of VSB modulated wave	Introduction, Spectrum of VSB modulated wave	13/01/2017	T1,T2,R 2	TAI, TA2
24	L27	Generation of VSB modulated wave	Circuit description and working principle	27/01/2017	T1,T2,R 2	TAI , TA2
25	L28	Time domain description of VSB modulated wave	Time domain waveforms and description	29/01/2017	T1,T2,R 3	TAI
26	L29	Envelope Detection of a VSB wave pulse carrier	Circuit description and working principle	30/01/2017	T1,T2,R 3	TAI, TA3
27	L30, L31	Comparison of AM techniques. Applications of different AM systems	Comparison of different parameters for AM, DSB- SC, SSB and VSB modulated systems and their applications.	30/01/2017	T1,T2	TAI, TA2, TA4
28	Tu2	Tutorial		02/02/2017		TAI
		UNIT-II	I: ANGLE MODULATION	I		1
29	L32	Basic concepts	Introduction to angle modulation. General mathematical analysis	02/02/2017	T1,T2,R 3	TA1
30	L33	Frequency modulation: Single tone frequency modulation	Frequency deviation, mathematical expression for FM, Modulation Index	03/02/2017	T1,T2,R 3	TA1
31	L34	Spectrum analysis of sinusoidal FM wave	Spectrum of FM modulated wave	05/02/2017	T1,T2,R 3	TAI
32	L35	Narrow band FM,	Types of FM, Performance comparison and spectrum analysis	06/02/2017	T1,T2,R 3	TAI
33	L36	Wide band FM	Performance comparison and spectrum analysis	06/02/2017	T1,T2,R 3	TAI
34	L37	Constant average power	Power relations of FM wave	10/02/2017	T1,T2,R 3	TA1
35	L38	Transmission bandwidth of FM wave	Discussion	12/02/2017	T1,T2,R 3	TA1, TA2

36	L39	Generation of FM waves- Direct FM	Circuit description and working principle	13/02/2017	T1,T2,R 3	TA1
37	L40 Detection of FM waves: Balanced frequency discriminator				T1,T1,R 3	TA1
38	L41	Zero crossing detector	Circuit description and working principle	16/02/2017	T1,T2	TA1, TA4
39	L42	Phase locked loop	Circuit description and working principle	16/02/2017	T1	TA1
40	L43 Comparison of FM and AM		Performance comparison of FM and AM systems, SNR	17/02/2017	T1,T2,R 3	TAI, TA4
41	Tu3	Tutorial		02/02/2017		TA6
		UNIT-IV: NOISE IN A	ANALOG COMMUNICATI	ION SYSTEM	1	
42	L44	Types of noise: Resistive (thermal) noise source	Introduction, Sources of noise, Classification	19/02/2017	T1,T2,R 2	TA1, TA5
43	L45	Shot noise, Extraterrestrial noise	Description of Shot noise, Extraterrestrial noise	20/02/2017	T1,T2,R 2	TA1
44	L46	Arbitrary noise sources, white noise	Description of Arbitrary noise sources, white noise	20/02/2017	T1,T2,R 2	TA1
45	L47	Narrowband noise-In phase and quadrature phase components and its properties	Narrowband noise – definition and analysis.	23/02/2017	T1,T2,R 2	TAI, TA2
46	L48	Modelling of noise sources	Mathematical modeling of noise sources	23/02/2017	T1,T2,R 2	TA1
47	L49	Average noise bandwidth	Noise bandwidth description	24/02/2017	T1,T2,R 2	TA1
48	L50	Effective noise temperature	Equivalent noise temperature calculation	26/02/2017	T1,T2,R 2	TA1
49	L51	Average noise figures, Average noise figure of cascaded networks	Mathematical analysis	27/02/2017	T1,T2,R 2	TAI
50	L52	Noise in DSB and SSB	Output SNR and Figure of	27/02/2017	T1,T2,R	TA1

		system	merit		2	
51	L53	Noise in AM system	Noise in envelope detector and threshold effect	03/03/2017	T1,T2,R 2	TA1
52	L54	Noise in Angle modulation system	Output SNR and Figure of merit	05/03/2017	T1,T2,R 2	TA1
53	L55	Noise triangle in Angle modulation system	Effect of modulating frequency	06/03/2017	T1,T2,R 2	TAI
54	L56	Pre- emphasis and de- emphasis	Threshold improvement through Pre- emphasis and de- emphasis	06/03/2017	T1,T2,R 2	TA4
55	Tu4	Tutorial		09/03/2017		TA3
		U	NIT V: RECEIVERS			
56	L57	Radio Receiver	Introduction: Function of a Radio Receiver	09/03/2017	T1,R1	TA1
57	L58	Receiver types-TunedClassification of Radio10/03/20178RF receiversReceivers- Tuned RF receivers-drawbacks10/03/2017		T1,R1	TA2	
58	L59	Superhetrodyne Receivers	Basic elements, advantages.	12/03/2017	T1,R1	TA2
59	L60	RF section and characteristics - Frequency changing and tracking	Tracking or tuning, Image frequency and its rejection	13/03/2017	T1,R1	TAI , TA4
60	L61	Intermediate Frequency, AGC	IF Amplifiers, AGC Characteristics	13/03/2017	T1,T2,R 1	TAI, TA2
61	L62	FM receiver and	Receiver characteristics – sensitivity, selectivity, fidelity	16/03/2017	T1,T2,R 1	TAI, TA4
		Comparison of FM receiver with AM receiver.	comparison	16/03/2017		
62	L63	Amplitude limiting	Discussion	17/03/2017	T1,R1	TAI
63	L64	Pulse modulation: Types of pulse modulation	Introduction and classification of pulse modulation	19/03/2017	T1,R1	TAI,
	L65	PAM - Single polarity	Graphical analysis	20/03/2017	T1,T2,R	TA1

					1	
65	L66	PAM - Double polarity	Graphical analysis	20/03/2017	T1,T2,R 1	TAI
66	L67	PWM: Generation of PWM	Circuit description and working principle	23/03/2017	T1,T2,R 1	TAI, TA2
67	L68	PWM: Demodulation of PWM	Circuit description and working principle	23/03/2017	T1,T2,R 1	TAI
68	L69	PPM: Generation of PPM	Circuit description and working principle	24/03/2017	T1,T2,R 1	TAI
69	L70	PPM: Demodulation of PPM	Circuit description and working principle	26/03/2017	T1,T2,R 1	TAI
70	L71	Time Division Multiplexing	Concept of multiplexing, FDM	27/03/2017	T1,T2,R 1	TA5
71	L72	Spread Spectrum	Techniques, advantages, applications	27/03/2017	T1,T2,R 1	TA6
72	Tu5	Tutorial		31/03/2017		
73	Re1	Revision		02/04/2017		TAI
74	Re2	Revision		03/04/2017		TAI

TEXT BOOK :

- 1. Communication Systems Simon Haykin, 2 Ed, Wiley Publications
- 2. Communication Systems B. P. Lathi, BS Publications, 2004

REFERENCES :

- 1. Electronics and Communication Systems George Kennedy and Bernard Davis, 4th Edition, 2009
- Principles of Communication Systems H Taub, D. Schiling, Gautam Sahe, 3rd Edition, McGraw-Hill, 2007
- 3. Analog and Digital Communication K Sam Shanmugam, Wiley, 2005

TEACHING AIDS:

- 1. Chalk and Talk
- 2. Power point presentation
- 3. Quiz
- 4. Role Play
- 5. Games
- 6. Brainstorming

WEB	WEB SOURCE REFERENCES:							
1	http://www.nptel.iitm.ac.in							
2	http://www.rfdesign.com							

OBJECTIVE TYPE QUESTIONS

UNIT-1: INTRODUCTION

1.	The process o signal is	f varying the	parameters of h	igh frequency signal ac	cording to low-frequency
2		h of Amplitu	de Modulation is		
	a) ω _m	b) ω _m /2		 d)2 ω _m	
3.	-			Aodulation is	
	The efficiency				
5.	The AM is use				
	The disadvant				
с. 7.		-		wave, we have	
	a) SSB	b) VSB	c) DSB-SC	d) None	
8.	-	-		Detection of Modulating	g signal from AM is
			wing FM techniq		
	a) NBFM		c) Both	d) None	
10.	-	•		n what is the % of Moc	lulation is
	a) 50%		c) 20%	d) 40%	
11	•	•	-		ation indices 0.4 and 0.6
			tion index of AM	•	
	a) 0.72		c) 0.5	d) 0.6	
2	The condition	-			
			-	Modulation index is less	s than one
		-			ex is less than or equal to
	one			.,	
13.		ge of Modula	tion of AM is 60%	what is the Modulatic	n index
	a) 0.3	b) 0.6	c) 0.4	d) 0.2	
4.	-	•		ge V _c and modulating $\$	/oltage V_m is
			c) K _a V _m d) I		0 <u></u>
15.	-	-		is $\omega_c t$ and Am cos $\omega_c t$ th	ne AM signal is
	a) A _c (1+m cos			$lc (1+M \cos_m t) \cos \omega_c t$	u
			-	$m(1 + m \cos \omega_m t) \cos \omega_m t$	ω _c t
			,	(…)	·
	The unit of Ka				
L7.	The disadvant	-			
	-		less transmitted		
	-	-	ransmitted powe		
	-		gh transmitted p		
	-		s transmitted pov	ver	
18.	The modulation				
		-	reduced the ante	enna size	
	c) for efficien		· ·		· · · · · · · · · · · · · · · · · · ·
19.				alues of envelope of th	e Modulated wave then
	the modulation				
	a) $A_{max} + A_{min}/A$		-	-	
20			d)A _{max} – A _n M then the ratior		er to the total power in
	the Modulate				
	a) $M^{2}/(2+M^{2})$		- M2 /(1 +M²)	c)M ² /(2-M ²)	d)M ² / (1-M ²)
	~/··· / \ <u>~</u> ' \vi /	5,1			~,··· / (± ivi)

- 21. The total power in the two side-frequencies of the resulting AM wave is only _____ of the total power in the modulat3ed wave.
- 22. The recovering of Modulating signal from Modulated signal is called as ____
- 23. With modulation index 'm' is the upper side frequency of lower side band frequency power is ____
- 24. The unmodulated carrier Amplitude is A_c and Modulating signal is m(t) then Modulated carrier Amplitude is ____

a) $m_2 A_c^2$ b) $m_2 A_c^2/8$ c) $m_2 A_c^2/2$ d) $m_2 A_c^2/4$

- 25. The total radiated power due to AM with modulation index 'm' and carrier power 'P_c' is _____ a)P_c $(1+m^2/4)$ b)P_c $(1+m^2/2)$ c) P_c $(1+m^2)$ d)P_c $(1+m^2/8)$
- 26. The Amplitude Modulated signal is $A_c(1 + 0.2 cos\omega_m t) cos\omega_c t$, the modulation index of AM is

a)20% b)40% c) 80% d)60%

- 27. Low power AM Modulators are ____
- 28. A carrier is simultaneously modulated by two sine waves with modulation indicates of 0.3 and 0.6 of the carrier power is 10Kw, the total modulated power will be ____
- 29. For a signal amplitude Modulated to a depth of 100% by a sinusoidal signal the power is ______ as power of un-modulated carrier.
 - a) 1.5 time b)2 times

c)same d)√2 times

- 30. AM is used for ____
 - a) Short radio wave Propagation
 - c) long radio wave Propagation
- b) Medium-radio wave Propagationd) a&b

ANSWERS	

1)	2) d	3)	4)	5)Short	6)	7) C	8) Envelop	9)	10) d
Modulat		P _c	Acmax-Acmin Acmax+Acmin	wave and	Excess		detection	А	
ion		$(1 + \frac{m^2}{2})$	X 100	medium	bandwi				
				wave	dth and				
				propagatio	wastage				
				n	of				
					power				
11) a	12)d	13)b	14)a	15)b	16)per volt	17)c	18)d	19)c	20)a
21)b	22)de modul ation or detecti on	23)d	24)b	25)b	26)a	27)Swi tching modula tor	28)12.25 KW	29)a	30) d

DSB-SC MODULATION

1.	P roduct mo	dulatorsareus	ed in	
	(a)AM-FC	(b)PM	(c)DSB-SC (d))FM
2.	The transmissi	on Band width o	of DSB is	
	a) w _m	b)2wm	c) $\omega_m/2$ d)	$\omega_{\rm m}/4$
3.	The DSB-SC I	Modulation is us	ed for	
4.	The ring modu	llator is used for	which type a modula	tion
	a)AM	B)SSB	C)DSB-SC	D)VSB
5.	The DSB-SC e	expression with o	carrier signal c(t) and	modulating signal m(t) is
6.	The Balance M	Iodulator genera	tes the	
	a)SSB	B) DSB-SC	C) AM D)	VSB
7.	Frequency trar	nslation of DSB a	are	
	a) $f_c \pm f_m$	$b)f_{c}-\!\!f_{m}$	c) $f_c + f_m$	$d)f_c + 2 f_m$
8.	The power sav	ing due to suppr	ression of carrier in A	M Modulated wave is
	a)66.6%	b)33%	c) 44%	d)100%
9.	The saving in	power in a DSB-	SC system modulated	1 at 80% is
	a) 75.16%	b)75.36%	c)75.56%	d)75.76%
10.	In a low level	modulation AM	system, the following	amplifiers can be used
	a)Linear ampli	fiers.	b) Harmonic genera	ators
	c) Class 'c' po	wer amplifier	d) Class B tuned an	nplifiers
11.	The radiated p of 0.6 is a		insmitter is 10Kw the	power in the carrier for modulation index
	a) 8.2Kw	b) 8.47 Kw	c) 9.26 Kw d)	9.6 Kw
12.	The choice of govern ed by _	-	s an envelope detecto	r using a diode and an R-C circuit is
	a) Both lowest	and highest mo	dulation frequencies.	
	b)Only the dep	ot5h of modulatio	on	
	c) The depth o	f modulation and	d the lowest modulati	on frequency. D) None.
13.	In a higher lev	el modulation A	M system the followi	ng amplifiers can be used.
	a) Linear ampl	ifiers.	b) Harmon	ic generations
	c) Class 'C' po	ower amplifier	d) Class B	tuned amplifiers

ANSWERS

1) c	2)b	3)Point to point communication	4) c	5)c(t) m(t)	6) b	7)a
8)b	9)d	10)d	11)b	12) c	13) c	

UNIT-II: SSB MODULATION

1.The bandwidth of VSB is _____

	a)	fm-fv	b) $f_m + f_v$	$c)f_m \pm f_v$	d) none
--	----	-------	----------------	-----------------	---------

2. For Television signal broad casting the following modulation is useful

SSB b)DSB-SC c)VSB d)AM

3.For generation of SSB which method is very useful

a) Filter method b) Phase Method C) Weavers Method d) None

4. SSB is used for ____ communication

5. The bandwidth of SSB is _____

a) ω_m b) 2 ω_m c) $\omega_m/2d$) $\omega_m/4$

6. The carrier and modulating signals are $A_c \cos \omega_c t$ and $A_m \cos \omega_m t$ then SSB signal is

a) $\frac{1}{2}$. A _c A _m Cos $\omega_c t$	b) $A_c A_m \cos (\omega_c + \omega_m) t$
c) 1/2. $A_c A_m \cos \omega_m t$	d) $\frac{1}{2}$. A _c A _m cos ($\omega_c + \omega_m$)t

7. The power saving due to SSB is _____

8. The total transmitted power due to SSB with Modulation index 'ma' and carrier power Pc is ____

9. The carrier signal frequency is 100KHz and modulating signal frequency 1 KHz the upper sideband frequency is ____

a) 100 KHz b) 101 KHz c) 99 KHz d) 98 KHz

10. The carrier signal frequency is 100 KHz and modulating signal frequency 1 KHz then the upper sideband frequency is_____

a) 100 KHz b)101 KHz c)99 KHz d) KHz

- 11. For detection of modulating signal from SSB and VSB which type of detection is widely useful ____
- 12. Application of SSB is____
- 13. In VSB vestigial band is useful for _____
- 14. SSB system is used for _____

a) Short-wave transmission b) Long-wave transmission

c)Medium-wave transmission d) None.

15.	In VSB vestigial	side band is ir	ncreased to the w	width of full side	e band then we have				
	a) SSB b) DSBSC	C) AM	d) NBF					
16.	In VSB vestigial	side band is ir	ncreased to the v	width of full side	e band then we have				
	a) SSB b) DSBSC	C)AM	d) NBF					
17.	Weaver's method for the generation of SSB is combination of and								
18.	VSB is expressed as								
19.	SSB can be used to transmit								
	a) two side bands			b) one	e side band				
	c) one side band a	and vestigial s	ide band	d) Vestigial si	de band				
20.	VSB can be used	to transmit							
	a) two side bands			b) one side bar	nd				
	c) one side band a	and vestigial s	side band d) Ves	stigial side band					
21	DSB can be used	l transmit							
	a) two side bands	s		b) one	e side band				
	c) one side band a	and vestigial s	side band	d) Vestigial si	de band				
22.	VSB can be used	l to transmit							
	a) audio signal	b)vedi	o signal	c) both	d) neither 'a' nor 'b'				
23.	The total bandwic vestigial band is _	dth of VSB is	5.5KHz, then n	nodulation signa	ll bandwidth is 5 KHz then th	he			
	a)1KHz	b) 0.5I	KHz	c)1.5KHz	d)2KHz				
24.	The total bandwic	dth of SSB is :	5 KHz, then mo	dulation signal b	oandwidth is				
	a)5 KHz		b) 10KHz	c) 15]	KHz d) 20 KHz				
25.	The amplitude of signal is A _m	the side band	of SSB with car	rrier amplitude A	A _c and modulating amplitude	•			
	a) A _c A _m	b) $\frac{AcAt}{4}$	m	c) $\frac{Ac\ Am}{2}$	d) $\frac{AcAm}{8}$				
26.	If you want to ext	tract lower sid	le band from DS	B, the frequency	y range of filter is				
	a) $f_c - f_m \le f \le f_c b$	$f_c \leq f \leq f_c + f_c$	f_c c) $f_c \leq f \leq f_c - f_c$	$f_m d$) $f_c + f_m \le f \le$	f_c				
27.	If you want extrac	ct upper side b	band from DSB,	the frequency ra	ange of filter is				
	a) $f_c - f_m \le f \le f_c b$	$f_c \le f \le f_c + f_c$	f_c c) $f_c \leq f \leq f_c - f_c$	$f_m d) f_c + f_m \le f \le$	\mathbf{f}_{c}				

ANSWERS

1)b	2) c	3)b	4) line	5) a	6) d	7)	$8)\frac{pcm2a}{4}$	9)b
			communication			83.3%		
10)c	11)coherent detection	12)for frequency multiplexing	13) audio signal	14)c	15)b	16)a	17) filter and phase method	$18)\frac{x}{y} A_{c}m(t) \cos\omega_{c}t$ $-\frac{1}{2} A_{c}ms(t) \sin\omega_{c} t$
19)b	20)c	21)a	22)c	23)b	24)a	25)c	26)a	27)b

UNIT-III: ANGLE MODULATION CONCEPTS

- 1. The angle of the carrier signal varies according to the modulating signal is _____ modulation.
- 2. The instantaneous frequency of the FM is with carrier frequency fc and 3. Modulating signal m(t) is. a) fi=fc + Kf m(t). b) fi = fc - Kf m(t)c) fi = fc \pm Kf m(t) d) fc - m(t) 4. The relation between angular frequency ' ω ' and ' θ ' is b) $\theta = d \omega/dt$ c) $\omega = d^2\theta / dt^2$ d) $\theta = d^2 \omega / dt^2$ a) $\omega = d\theta / dt$ 5. The FM Signal with carrier signal Accoswct and modulating signal Amcoswmt 6. and modulating index B of FM is. (a) Ac cos ($\omega_c t + \beta$ Am sin $\omega_m t$) b) Ac cos ($\omega_c t + \beta$ Am cos $\omega_m t$) c) Ac cos ($\omega_{c}t + \beta \sin \omega_{m}t$) d) Ac cos ($\omega_c t + \beta \cos \omega_m t$) 7. If the modulating signal is $A_m \cos \omega_m t$ then the Modulation index β Of FM is ____ a) $K_f A_m / f_m$ b) $K_f A_m / \omega_m$ C) $K_f A_m f_m$ C) all of the above. 8. If the Modulation index is β according to Carson's rule the bandwidth is a) 2 βf_m b) 2 β+f_m c) 2f_m (β +1) d) 2f_m (β -1) 9. The phase of the carrier signal varies according to the Modulating signal is Modulation. 10. The PM signal with carrier signal Ac $\cos \omega_c t$ and modulating signal m(t) is a) Ac cos ($\omega_c t$ + Kp m(t)). b) Ac cos ($\omega_c t + Km \int m(t) dt$). d) Ac cos ($\omega_c t$ - Km $\int m(t) dt$). c) Ac cos ($\omega_c t$ - Kp m(t)). 11. As per standards the maximum frequency deviation is c). 100 KHz a).50 KHz b) 75 KHz d) 125 KHz 12. The modulation index β of FM less than one then the type of FM is _____ 13. For β = 2 the total no of side frequencies are _____ 14. The modulating signal frequency is 5 KHz. The frequency deviation is 50 KHz. 15. Then the modulation index β is a) 20 b) 10 c) 15 d) 25. 16. The modulation index β in terms of frequency deviation and modulation 17. signal frequency f_m is ____ a) $\Delta f / f_m$ b) $f_m / \Delta f c$) 1 + $\Delta f / f_m$ d) 1 + $f_m/\Delta f$ 18. Which one is the correct relation? a). $B_T = 2(f_m + \Delta f)$ b). $B_T = 2 f_m (\beta + \Delta f)$ c). $B_T = 2 \Delta f (1+1/\beta)$ d). all. 19. For β =5 what are the total number of side frequencies _____. 20. For WBFM, the modulation index of FM is 21. The Application of NBFM is _____ 22. The application of WBFM is 23. For NBFM, the number of side frequencies are 24. The NBFM is compared with _____ Modulation.

	a) SSB-SC	b) DSB-SC	c) AM	d)VSB	
25.	. The FM signal i	s Ac cos ($\omega_c t + 0$.5 sin 2π * 1000	t) then the freq	uency deviation is
	a) 1500 Hz.	b) 1000 Hz	c) 500 Hz	d) 1250 Hz.	
26.	. The FM signal i	s Ac (cos (ω _c t + s	in ω_m t) and its f	requency deviat	tion is 200 Hz. Then the
	modulating sig	nal frequency is			
	a) 400 Hz	b) 100 Hz.	c) 200 Hz	d) 300 Hz.	
27.	. The power of F	M signal with ca	rrier amplitude	Ac and Bessel fu	ınctions Jn (β) is
	a) A² _C ∑ J²n (β)	b) 1/2 A ² _C ∑ J ² n	(β)	c) A ² c	d) b & c.
28.	. The frequency	sensitivity of FM	is 10 KHz per v	olt and modulat	ing signal amplitude is 5v then
	frequency devi	ation is			
	a) 25 KHz	b) 50 KHz	c) 100	KHz	d) 150 KHz.
29.	. The Application	n of phase modu	lation is		
30.	. The FM signal i	s Ac cos ($\omega_{c}t + 0$	2 sin 50πt) and	frequency sensi	tivity parameter is 1 Hz/v
	then the modu	lating signal is			
	a) Cos 50πt	b) 2 Cos 50πt	 c) 5 Cc	os 50πt	d) 4 Cos 50πt
31.	The Maximum	frequency devia	tion of NBFM is		
32.	. The WBFM is a	pplication in	_ frequency rar	ige	
	a) VHF b) LHF		d) SHF		
33.	. WBFM is gener	rated from NBFM	1 using		
	-	ivision. b) Freq		r.	
	c) Mixer		d) None.		
34.	. The most usefu	al method for the	e generation of	WBFM is	
	a) Filter Metho	d	-	b) Phase Meth	od.
	c) Filter metho	d and Phase met	hod	d) none.	
35.	. The modulating	g signal frequend	y range of NBFI	VI is	
36.	. An FM signal w	vith bandwidth, 🕯	່ is passed throເ	ugh a frequency	tippler, then the β of the
	output signal is	5			
37.	. In WBFM spect	trum the maximu	im frequency de	eviation is	
	a) 15 KHz	b) 75 K	Hz c) 200	KHz d) 5.2	MHz
38.	. In the generati	on of Modulated	l signal, a varact	or diode can be	used for
	a) AM b) FM	c) PM	d) Bot	h AM and PM.	
39.	. FM signal is 10	cos (2π10 ⁵ t + 15	sin 2π100t) wit	h Modulating si	gnal, m(t) = 5 cos 2π100t.
	Then the FM b	andwidth is			
	a) 0.1 KHz	b) 1 KH	z	c) 3.2 KHz	d) 100 KHz
40.	. The maximum	frequency deviat	tion for NBFM is	5	
	a)lOK	b)15K	c)5K	d)20K	

ANSWERS

1) Angle modulation	2) a	3) a	4) c	5) a	6) c	7) Phase modulation	8) a	9) b	10) NBFM
11) 8	12) b	13) a	14) d	15) 16	16) >> 1	17) Mobilecommunication,police wireless,ambulance, taxi cabs,short range VHF,	18) Radio broadc asting	19) 2	20) c

						ship to shore			
21) c	22) c	23) b	24) b	25) to avoid the distortio n due to interfaci ng signal	26) c	27) 5 KHz	28) a	29) b	30) a
31) 0 to 5 K	32) 3β	33) b	34) b	35) c	36) c	37) c	38) d	39) c	40)c

ANGLE MODULATON METHODS

1.	Direct method for generating frequency modulated signal is using
	a) FET b) BJT c) Varactor diode d) All
2.	2. In direct method of FM the electronic device isto tuned circuit
	a) Series b) Parallel c) Both d) None 1
3.	For generating WBFM from MBFM the multiplication factors are
	a)2&.3 b)2&.5 c)2&.4 d)4&.3
4.	WBFM is generated using NBFM modulator by using method
5.	The slope detector is used for converting
	a) FM to AM b) A to FM c) FM to PM d) PM to FM
6.	Balanced slope detector uses
	a) single tuned circuit b) two tuned circuits
	c) four tuned circuits d) three tuned circuits
7.	The advantage of balanced slope detector is
8.	Drawback of slope detector is
9.	Ratio detector is widely used as FM detector because of
	a) it gives an excellent noise free output b) requries no limitter
	c) Fewer components are required d) all
10	Drawback of ratio detector is
	. Foster-Seley discriminator uses
	a) single tuned circuit b) double tuned circuit
	a) single tuned circuit b) double tuned circuit
	c) both d) None
12.	c) both d) None Faster-Seley discriminator response curve is
	c) both d) None . Faster-Seley discriminator response curve is a) Linear b) Non-linear c) Both d) None
13.	c) both d) None Faster-Seley discriminator response curve is a) Linear b) Non-linear c) Both d) None Linearity of response curve of ratio detector is inferior to discriminator
13.	 c) both d) None Faster-Seley discriminator response curve is a) Linear b) Non-linear c) Both d) None Linearity of response curve of ratio detector is inferior to discriminator The response curve of slope detector is
13. 14.	 c) both d) None Faster-Seley discriminator response curve is a) Linear b) Non-linear c) Both d) None Linearity of response curve of ratio detector is inferior to discriminator The response curve of slope detector is a) Linear b) non-linear c) both d) None
13. 14.	 c) both d) None Faster-Seley discriminator response curve is a) Linear b) Non-linear c) Both d) None Linearity of response curve of ratio detector is inferior to discriminator The response curve of slope detector is a) Linear b) non-linear c) both d) None RC capacitive reactance tube behaves as capacitance of value
13. 14. 15.	 c) both d) None Faster-Seley discriminator response curve is a) Linear b) Non-linear c) Both d) None Linearity of response curve of ratio detector is inferior to discriminator The response curve of slope detector is a) Linear b) non-linear c) both d) None RC capacitive reactance tube behaves as capacitance of value
13. 14. 15. 16.	c) both d) None Faster-Seley discriminator response curve is a) Linear b) Non-linear c) Both d) None Linearity of response curve of ratio detector is inferior to discriminator The response curve of slope detector is a) Linear b) non-linear c) both d) None RC capacitive reactance tube behaves as capacitance of value a) C_R b) $g_m C_R$ c) g_m / C_R d) $1/g_m C_R$ Capacitive reactance tube using RC network, its is so arranged that: a) $R << \omega_c$ b) $R >> \omega_c$ c) $R = 1/\omega_c$ d) $1/\omega_c$
13. 14. 15. 16.	c) both d) None Faster-Seley discriminator response curve is a) Linear b) Non-linear c) Both d) None Linearity of response curve of ratio detector is inferior to discriminator The response curve of slope detector is a) Linear b) non-linear c) both d) None RC capacitive reactance tube behaves as capacitance of value a) C_R b) $g_m C_R$ c) g_m / C_R d) $1/g_m C_R$ Capacitive reactance tube using RC network, its is so arranged that:

- 18. Inductive reactance tube using RC network behaves as an inductance of value _____a) C_R b) $g_m C_R$ c) g_m / C_R d) $1 / g_m C_R$
- 19. RC capacitive reactance FET behaves as capacitance of value _____a) CRb) gmCRc) CR/gmd) 1/gmCR
- 20. In capacitive reactance FET, it is so arranged that____ a) Xc >>R b) Xc << R c) Xc = R d) Xc = 10R
- 21. In RC inductive reactance FET, it is so arranged thata) Xc >>Rb) Xc << R</td>c) Xc = Rd) Xc = 10R
- 22. Inductive reactance FET using RC network behaves as an inductance of value: a) C_R b) $g_m C_R$ c) $C_{R/} g_m$ d) $1/g_m C_R$

ANSWERS

1)d	2)b	3)a	4) Filter method	5)a	6)b	7) avoids the amplitude variations	8) Amplitude variations
9)d	10) Long period variation in signal strength	11)b	12)a	13) Faster- Seley	14)a	15)b	16)a
17)b	18)b	19)b	20)a	21)b	22)c		

UNIT-IV: NOISE

4	D				•.		
1.		-		al to noise ratio	IS		
	a) P _R /2WN ₀	b) P _R /WN _O	c) P _R /4WN _O	d) P _R /8WN _O			
2.	The output SN	R of DSB is					
	a)P _R /2WN _O	b) P _R /WN _O	c) P _R /4WN ₀	d) P _R /8WN _O			
3.	The output SN	IR of SSB is					
	a) P _R /2WN _O	b) P _R /WN _O	c) P _R /4WN _O	d) P _R /8WN _O			
4.	The output SN	R of DSB compa	red with output	SNR of SSB is			
	a) greater	b) sma	aller c) equ	ual d) nor	าย		
5.	The output SN	R of AM with me	odulation index	'm' is			
	a) (m²/1+m²) (S/N) _b b) (m ²	/1-m²)(S/N) _b	c) (m²/2+m²)(S/N) _b d) (m ²	/2-m²)(S/N) _b	
6.	The band pass	n noise is expre	ssed as				
7.	The envelope	of band pass no	ise is				
8.	3. The phase of band pass noise is						
9.	The output of	SNR of FM with	modulation ind	ex β is			
	a) β ²(S/N) _b	b) 3/2	β ²(S/N) _b	c) 1/2β ² (S/N)	_b d) 3β ²(S/N) _b		
10	. The output SN	R of PM with mo	odulation index	β is			
	a) β ²(S/N) _b	b) 3/2	β ²(S/N) _b	c) 1/2β ² (S/N)	_b d) 3β ²(S/N) _b		
11	. The received n	ioise component	t after demodu	lation in DSB cas	e is		
	a) in-phase component b) quadrature component c) both d) none						
12	12. The received noise component after demodulation in SSB case is						
	a) in-phase co	mponent b) qua	drature compo	nent	c) both	d) none	
13	. The received n	ioise component	t after demodul	ation in AM case	is		

a) in-phase co	mponent b) qua	drature compor	nent	c) both		d) none
14. The received	noise componen	t after demodula	ation in FM case	is		
a) in-phase co	mponent b) qua	drature compon	ent		c) both	d)
None						
15. The received	noise componen	t after demodula	ation in PM case	is		
a) in-phase co	mponent b) qua	drature compor	nent	c) both	d) None	2
16. The output no	oise power of DS	B is				
a) WN _o	b) 2 W	/N _o		c) 4 WN	1 ₀	d) None
17. The output no	oise power of SSE	3 is				
a) 2WN _o		b) 4 WN _o			c) WN _c	d) None
18. 18 The output	noise power of	AM is				
a) WN _o	b) 2 W	/N _o	c) 4 WN _o			d) None
19. The output no	oise power of PN	is				
a) WN _o /A ² c	b) WN	$l_0 / 2A^2_c$ c) 2W	N _o /A ² c d) WN	I₀ /3 A² _C		
20. The function of	of pre-emphasis	is				
21. The function of	of de-emphasis is	s similar tofil	lter			
a) low pass	b) high bass	c) band pass	d) band rejecti	on		
22. The function of	of pre-emphasis	is similar to				
a) low pass	b) high bass	c) band pass	d) band rejecti	on		
23. The de-empha	asis is used in					
a) transmitter	b) receiver	c) both	d) Neither a or	b		
24. The pre-emph	asis is used in					
a) transmitter	b) receiver	c) both	d) Neither a or	b		
25 The threshold	offect in domed	ulation is				

25. The threshold effect in demodulation is _____

ANSWERS

1)b	2) c	3) d	4) c	5) a	$\begin{array}{c} 6) n_i(t) \\ cos \omega_c t - \\ n_q(t) sin \omega_c t \end{array}$	7) $\sqrt{n2i(t) + n2Q(t)}$	8) arc. Tan($n_Q(t)/n_I(t)$)	9) d	
10) a	11) a	12) b	13) a	14) c	15) c	16) b	17) c	18) b	
19) c	20) boosted the high frequency signal	21) b	22) a	23) b	24) a		rapid fall on (S/N)b when the b fall below at a particular level		

RECEIVERS

- The image channel rejection in a super heterodyne receiver comes from

 a) IF stage only
 b) RF stage only
 c) detector and RF stage only
 d) detector, RF and IF stages only
- 3. improvement in selectivity and sensitivity (d) better alignment
- 4. The received signal frequency of a super-heterodyne receiver having IF = 456 KHz, is 1 MHz. The corresponding image signal is

	a) within its medium band (b) outside the medium band
	(c) depends on modulation index (d) depends on modulating frequency
5.	The resonant frequency of an RF amplifier is 1 MHz and its bandwidth is 10 kHz. The Q-
	factor will be
	(a) 10 (b) 100 (c) 0.01 (d) 0.1
6.	
	and recovers the base band sgnal from it.
	a) radio transmitter b) amplifier c) radio receiver d) attenuator
7.	6.The disadvantage of TRF receiver is
	a) poor selectivity b) high gain c) no signal d) all of the above
8.	The radio waves contain electrical energy in the form of
9.	8. The process of selecting the desired signal and rejecting the unwanted signal is called
	a) sensitivity b) reproduction c) amplification d)detectin
10	is the process of recovering a baseband signal from a modulated carrier
	a) sensitivity b) reproduction c) amplification d)detectin
11.	is the process by which an electrical signal is converted into a desired physical
	message.
	a) sensitivity b) reproduction c) amplification d)detectin
12	. TRF receiver works satisfactorily at wave frequencies
	a) very high b) medium c) high d) all of the above
13	. 12. The performance of a receiver is judged from its various features such as
	a) selectivity b)sensitivity c) fidelity d) all of the above
14	is the receivers ability to distinguish between two adjacent carrier frequencies
	a) selectivity b) sensitivity c) fidelity d) all of the above
15	. The ability of a receiver to detect the weakest possible signal is known as
	a) selectivity b)sensitivity c) fidelity d) all of the above
16	The ability of a receiver to reproduce faithfully all frequency components present in the
	baseband signal is called
1.	The RF amplifier in a radio receiver is a class tued voltage amplifier
	a) class A b) class B c) class C d) class D
2.	17.Hetrodyning is a process of translation.
3.	The relation between quality factor, Q, resonant frequency, fo and band width, B is
	given by
4.	19.In super-heterodyne receiver al the incoming carrier frequencies are converted into
	fixed IF frequency of KHz

- a) 124 b) 245 c) 356 d) 455
- 5.20. The adventages of TRF receiver are _____a) simplerb) cheaperc) both a and bd) none of the above

ANSWERS

1)a	2)c	3) a	4) b	5) a	6) a	7)electromagnetic waves	8)a	9)d	10) b
11)b	12)d	13) a	14) b	15) c	16) c	17)frequency	18)q=fo/B	19)d	20) c

UNIT-V: PULSE MODULATION

1. The maximum permissible distance between two samples of a 2 KHz signal is

2. Pick the odd man out	2.	Pick	the	odd	man	out
-------------------------	----	------	-----	-----	-----	-----

(a) PWM (b) PPM (c) PDM (d) PLM

3. The main advantage of TDM over FDM is that it

(a) needs less power (b) needs less bandwidth

(c) needs simple circuitry (d) gives better S/N ratio

4. The PWM needs

(a) more power than PPM (b) more samples per second than PPM

(c) more bandwidth than PPM (d) none of the above

5. The PAM signal can be detected by _____

(a) bandpass filter (b) bandstop filter (c) high pass filter (d) low pass filter

6. In the present day standard digital voice communication, the amplitude of the voice signal is sampled at a rate of around

(a) 2000 samples/sec (b) 800 samples/sec (c) 16000 samples/sec (d) 8000 samples/sec

7. Four independent messages have bandwidths of 100 Hz, 100 Hz, 200 Hz, and 400 Hz, respectively. Each is sampled at Nyquist rate, and samples are Time Division Multiplexed (TDM) and transmitted. The transmitted sample rate (in Hz) is _____

(a) 800 (b) 1600 (c) 400 (d) 3200

8. Flat-top sampling leads to _____

(a) an aperture effect	(b) aliasing	(c) loss of signal	(d) none

9. Aliasing occurs, when the Nyquist rate is _____

a) $2 f_m$ (b) $3 f_m$ (c) $2.5 f_m$ (d) $1.2 f_m$

10. A PAM signal can be detected by using _____

(a) an ADC (b) an integrator (c) a bandpass filter (d) a highpass filter

STATE TRUE OR FALSE

11. The guard time between pulses increases transmission efficiency

(a) True (b) False

12. Noise can	be reduced	bv	increasing	sampling rate
		$\sim J$	mereasing	Sumpring rare

(a) True (b) False

13. TDM system is more immune to interchannel cross-talk as compared to FDM system.

(a) True (b) False

- 14. ____ is used for pulse width modulation
 - a) 741 b) 555 timer c)8085 d) 74x138

15.The holding circuit is used in _____ of PAM signals

a) generation b) demodulation c) both a and b d) none

16. The function of the low pass filter in PAM demodulation is _____

- a) to smooth the pulses b) to allow only high frequencies
- c) to attenuate the low frequency signals d) all of the above
- 17. PPM can be generated from _____ signals
 - a) PAM b) PWM c) both a and b d) none
- 18) The pulse modulation technique in which the width of the carrier is varied according to the instantaneous value of the message signal is called _____
- 19. The minimum band width required to transmit the PAM signal with frequency fm is _____
 - a) fm b) 2fm c) 4fm d) 8fm

20. In pulse modulation system, the carrier wave is ____ and the message wave is _____

a) square, square b) square, sinusoidal c) sinusoidal, square d) sinusoidal, sinusoidal

ANSWERS

1. (c)	2. (b)	3. (c)	4. (a)	5. (d)	6. (d)	7. (d)	8. (a)	9. (d)	10. (b)
11. (b)	12. (b)	13. (a)	14) b	15) b	16) a	17) b	18) pulse width modulatin	19) b	20) b

UNIT-I: INTRDOUCTION

- 1. a) With necessary expressions, waveforms and spectrums, Explain AM for an arbitrary baseband signal m(t).
 - b) The output power of an AM transmitter is 1KW when sinusoidally modulated to a depth of 100%. Calculate the power in each side band when the modulation depth is reduced to 50%.
- 2. a) What are the main objectives of a communication system design? What are the primary resources of any communication system.
 - b) The RC load for a diode envelope detector consists of a 1000 pF capacitor in parallel with a 10-K resistor. Calculate the maximum modulation depth that can be handled for sinusoidal modulation at a frequency of 10 KHz if diagonal peak clipping is to be avoided.
 - c) A broadcast AM transmitter radiates 50 KW of carrier power. What will be the radiated power at 85 % of modulation and what is the side band power?
- 3. a) Draw the one cycle of AM wave and calculate the modulation index of it in terms of Vmax and Vmin voltages.
 - b) A modulating signal consists of a symmetrical triangular wave having zero dc component and peak to peak voltage of 12V. It is used to amplitude modulate a carrier of peak voltage 10V. Calculate the modulation index and the ratio of the side lengths L1/L2 of the corresponding trapezoidal pattern.
 - c) The rms antenna current of an AM transmitter is 10 A when un-modulated and 12 A when sinusoidally modulated. Calculate the modulation index.
- 4. a) Draw the one cycle of AM wave and calculate the modulation index of it in terms of Vmax and Vmin voltages.
 - b) The rms antenna current of an AM transmitter is 10 A when un-modulated and 12 A when sinusoidally modulated. Calculate the modulation index.
- 5. a) Explain the collector modulation method for generating AM wave with a neat circuit diagram and waveforms.
 - b) An AM amplifier provides an output of 106 W at 100% modulation. The internal loss is 20 W
 - i. What is un-modulated carrier power?
 - ii. What is the side band power?
- 6. a) Write AM equation. Define modulation index, and percentage modulation.

- b) Define under-modulation and over-modulation. Explain why over modulation is undesirable.
- c) The output of a diode envelope detector is fed through a dc blocking capacitor to an amplifying stage, which has an input resistance of 10 K. If the diode detector load resistor is 5 K, determine the maximum depth of sinusoidal modulation the detector can handle without negative peak clipping.
- 7. a) Explain operation of square law detector with circuit diagram and waveforms.
 - b) An AM transmitter has un-modulated carrier power of 10 KW. It can be modulated by sinusoidal modulating voltage to a maximum depth of 40%, without overloading. If the maximum modulation index is reduced to 30%. What is the extent up to which the un modulated carrier power can be increased to avoid over loading.
- 8. a) Draw the one cycle of AM wave and calculate the modulation index of it in terms of Vmax and Vmin voltages.
 - b) A modulating signal consists of a symmetrical triangular wave having zero dc component and peak to peak voltage of 12V. It is used to amplitude modulate.
- 9. a) Define communication. Explain with block diagram the basic communication system. Write about modern communication system.
 - b) A carrier wave of frequency 10 MHz and peak value of 10 V is amplitude modulated by a 5 KHz sine wave of amplitude 6 V. Determine the modulation index and draw the one sided spectrum of modulated wave.
- 10. a) An AM wave is given by $s(t) = 25(1 + 0.7 \cos 5000t 0.3 \cos 10000t) \sin 5*106 t$.

i. What are the amplitudes and frequencies of the carrier and the side bands?

ii. Draw the one sided amplitude spectrum.

iii. Determine the bandwidth.

b) A diode envelope detector with a load resistance R = 250 K in parallel with a capacitor C = 100 pF is used to detect an AM carrier with 60 % modulation. Find the highest modulation frequency that can be detected without distortion.

DSB MODULATION

- 1. a) Draw the circuit diagram for balanced ring modulator and explain its operation indicating all the waveforms and spectrums.
 - b) In an AM-SC system, modulating signal is a single tone sinusoid 4 cos 2_103t, which modulates a carrier signal 6 cos 2_106t. Write the equation of modulated wave. Plot the two sided spectrum of the modulated wave. Calculate the amount of power transmitted.
- 2. Considering the modulating and carrier waves as sinusoids, Explain the single tone

modulation and demodulation of DSB-SC wave with necessary expressions, waveforms and spectrums and explain how only one side band is necessary for transmission of information.

- 3. a) Explain about the quadrature null effect of coherent detector.
 - b) In DSB-SC, suppression of carrier so as to save transmitter power results in receiver complexity Justify this statement.
- 4. a) Explain the DSB-SC generation by balanced modulator using diodes.
 - b) The modulating signal in an AM-SC system is a multiple-tone signal given by m(t) = A1 cos $\omega 1t + A2 \cos \omega 2t + A3 \cos \omega 3t$. The signal m(t) modulates a carrier Ac cos ωct . Plot the single sided spectrum and find the bandwidth of the modulated signal. Assume that $\omega 3 > \omega 2 > \omega 1$ and A1 > A2 > A3.
- 5. Explain the operation of Costas loop for demodulating DSB-SC waves.
- 6. a) Explain the concept of frequency translation using the spectrum of DSB-SC wave.
 - b) For the balanced ring modulator circuit, the carrier input frequency fc = 500kHz and modulating input signal frequency ranges from 0 to 5 kHz. Determine output frequency range and output frequency for a single input frequency of 3.4 KHz.
- 7. a) Consider the wave obtained by adding a non coherent carrier Ac cos $(2\pi fc t + \varphi)$ to DSB-SC wave m(t) cos $(2 \pi fc t)$ where X (t) is the message waveform. This waveform is applied to an ideal envelope detector. Find the resulting detector out put. Evaluate the output for.

i. ϕ = 0 and

ii. φ 6= 0 and |X (t)| << Ac/2.

- b) Explain the DSB-SC generation by balanced modulator using FET amplifiers.
- 8. a) Explain the DSB-SC generation by balanced modulator using FET amplifiers.
 - b) The output current of a 60 % AM generator is 1.5 A. To what value will this current rise if the generator is modulated additionally by another audio wave, whose modulation index is 0.7? What would be the percentage of power saving if the carrier is suppressed before transmission took place?
- 9. a) Classify radio transmitters in detail.
 - b) Compare low level modulation and high level modulation of radio transmitters.
- 10. a) Classify radio transmitters according to the type of modulation and according to the frequency range involved.
 - b) With the help of block diagram explain AM transmitter with modulation at low carrier power level.

11. a) Discuss about the requirements of carrier frequency with respect to a radioTransmitter.

b) A carrier wave of 1MHz frequency and amplitude of 3volts is frequency modulated by a sinusoidal modulating signal frequency of 500Hz and of peak amplitude of 1volt.The frequency deviation is 1Khz.The peak level of the modulating wave form is changed to 5volts and the modulating frequency is changed to 2KHz.Write the expression for the new Modulated wave.

UNIT-II: SSB MODULATION

4.

- 1. a) Describe the time domain band-pass representation of SSB with necessary sketches.
 - b) Find the percentage of power saved in SSB when compared with AM system.
- 2. A synchronous detection of SSB signal shows phase and frequency discrepancy.

Consider S(t) = $\sum_{i=1}^{N} [\cos(\omega_c t) \cos(\omega_i t + \phi_i) - \sin(\omega_c t) \sin(\omega_i t + \phi_i)]$ is an SSB signal. The signal is multiplied by the locally generated carrier cos $\omega_c t$ and then passed through a low-pass filter.

- 3. a) Prove that the modulating signal can be completely recovered if the cut-off frequency of the filter is $f_N < f_o < 2f_c$.
 - b) Determine the recovered signal when the multiplying signal is $\cos[\omega_{ct} + \varphi_{i}]$.
 - c) Determine the recovered signal when the multiplying signal is $\cos \omega ct$.
 - a) Why VSB system is widely used for TV broadcasting Explain?
 - b) An AM transmitter of 1KW power is fully modulated. Calculate the power transmitted if it is transmitted as SSB.
 - c) Calculate the filter requirement to convert DSB signal to SSB Signal, given that the two side bands are separated by 200HZ. The suppressed carrier is 29MHZ.
- 5. Describe the single tone modulation of SSB. Assume both modulating and carrier signals are sinusoids. Write SSB equation and plot all the waveforms and spectrums.
- 6. a) Why SSB transmission is the preferred than DSB-SC?
 - b) i. Prove that the signal s(t) = S(t) = $\sum_{i=1}^{N} [\cos(\omega_c t) \cos(\omega_i t + \phi_i) - \sin(\omega_c t) \sin(\omega_i t + \phi_i)]$ is an SSB signal (fc>> fN), where ω_c = 2fc, carrier angular frequency and ω_i = 2 π fi is modulating angular frequency. Identify the side band.
 - ii. Obtain an expression for missing side band.
 - iii. Obtain an expression of the total DSB-SC signal.
- 7. a) Explain the Third method of generating SSB modulated waves.

- b) Explain the coherent detection of SSB signals.
- a) Explain the envelope detection of VSB wave plus carrier.
 - b) Calculate the percentage power saving when the carrier and one of the sidebands are suppressed in an AM wave modulated to a depth of

i. 100 %

8.

ii. 50 % .

- 9. Explain with block diagram, the phase discrimination method of generating SSB modulated waves.
- Explain about Diagonal Clipping in a diode detector. How to avoid it?a)
 - A 45Volts(rms) sinusoidal carrier is amplitude modulated by a 30Volts(rms) b)

sinusoidal base band signal. Find the Modulation index of the resulting signal.

UNIT-III: ANGLE MODULATION CONCEPTS

- 1. a) Describe generation of FM carrier by Transistor reactance modulator with necessary diagrams.
 - b) Compare the phasor diagram of narrow band FM signal and AM signal and discuss about the similarities and differences of the two signals.
- 2. a) FM Give the procedure to determine the effective bandwidth of an signal.
 - b) Which method of FM signal generation is the preferred choice, when the stability of the carrier frequency is of major concern? Discuss about the method in detail.
- 3. a) An FM wave with modulation index $\beta = 1$ is transmitted through an ideal band pass filter with mid band frequency fc and bandwidth is 5fm, where fc is the carrier frequency and fm is the frequency of the sinusoidal modulating wave. Determine the amplitude spectrum of the filter output.
 - b) An angle modulated signal has the form $v(t) = 100 \cos (2\pi fct+4 \sin 2000 \pi t)$ when fc =10 MHz.
 - i. Determine average transmitted power.
 - ii. Determine peak phase deviation.
 - iii. Determine the peak frequency deviation.

iv. Is this an FM or a PM signal? Explain.

- 4. a) Compute the bandwidth requirement for the transmission of FM signal having a frequency deviation 75 KHz and an audio bandwidth of 10KHz.
 - b) An FM radio link has a frequency deviation of 30 kHz. The modulating frequency is 3 kHz. Calculate the bandwidth needed for the link. What will be the bandwidth if the deviation is reduced to 15 kHz?

c) Determine the Bandwidth occupied by a sinusiodally frequency modulated carrier for which the modulation index is 2.4 and modulating signal frequency is 3 KHz.

ANGLE MODULATION METHODS

- a) Explain the operation of the balanced slope detector using a circuit diagram and draw its response characteristics. Discuss in particular the method of combining the outputs of the individual diodes. In what way is this circuit an improvement on the slope detector and in turn what are the advantages?
 - b) Compute the bandwidth requirement for the transmission of FM signal having a frequency deviation 75 KHz and an audio bandwidth of 10KHz.
- 2. Explain demodulation of FM signal with the help of PLL.
- 3. a) Explain the operation of the balanced slope detector using a circuit diagram and draw its response characteristics. Discuss in particular the method of combining the outputs of the individual diodes. In what way is this circuit an improvement on the slope detector and in turn what are the advantages?
 - b) Compute the bandwidth requirement for the transmission of FM signal having a frequency deviation 75 KHz and an audio bandwidth of 10KHz.
- 4. a) Explain the operation of limiter circuit in fm demodulation.
 - b) An FM radio link has a frequency deviation of 30 kHz. The modulating frequency is 3 kHz. Calculate the bandwidth needed for the link. What will be the bandwidth if the deviation is reduced to 15 kHz?
 - c) Determine the Bandwidth occupied by a sinusiodally frequency modulated carrier for which the modulation index is 2.4 and modulating signal frequency is 3 KHz.
- 5. a) Explain about FM generation using transistor reactance tube modulator.
 - b) Explain balanced ratio detector for detecting FM signal.
- 6. a) Why are limiters and preemphasis filters used in FM radio.
 - b) Classify radio transmitters based on the type of modulation and Service involved.
- 7. a) Classify radio transmitters in detail.
 - b) Compare low level modulation and high level modulation of radio transmitters.
- 8. Draw the black diagram of FM stereo broadcast transmitters and explain its operation.

UNIT-IV: NOISE

1. a) Find the output SNR in a PM system for tone modulation.

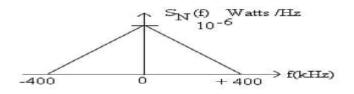
b) A phase modulation (PM) system, with the modulated wave defined by S (t) =

Ac Cos $[2\pi fct + kpm(t)]$ where kp is a constant and m(t) is the message signal. The additive noise n(t) at the phase detector input is n(t) = n_I(t) cos $(2\pi fc t)-n_Q(t)$ sin $2\pi fc$ t Assuming that the carrier-to-noise ratio at the detector input is high compared with unity, determine

i. the output signal-to-noise ratio and

ii. the figure of merit of the system

- 2. Explain how S/N ratio is a figure of merit incase of performance of a communication channel.
- 3. Derive the expression for figure of merit of AM system for large case.
- 4. Explain the noise performance of SSB SC receiver and prove its S/N Ratio is unity.
- 5. Compare noise performance of PM and FM system.
- 6. a) Explain the equivalent model of a generalized communication system for noise calculation.
 - b) Explain the noise performance of DSB -SC scheme with the help of block diagram.
- 7. Explain the noise performance of SSB SC receiver and prove its S/N Ratio is unity.
- 8. a) Derive the expression for the S/N ratio of AM system.
 - b) What is capture effect? Explain FM Threshold effect.
- 9. a) Prove that the figure of merit of AM system for single stone modulation with 100% modulation is 1/3.
 - b) An AM system with envelope detection is operating at threshold. Determine the power gain in decibels needed at the transmitter to produce $(S/N)_0 = 30$ dB for tone modulation with m = 1.
- 10. a) Prove that the figure of merit of DSB SC system is 1.
 - b) A DSB-SC modulated is transmitted over a noisy channel, with the power spectral density of the noise being as shown in figure below. The message bandwidth is 4 kHz and the carrier frequency is 200 kHz. Assuming that the average power of the modulated wave is 10 watts, find the output signal-to-noise ratio of the receiver.



11. Prove that narrow band FM offers no improvement in SNR over AM.

RECEIVERS

- 1. a) With the aid of the block diagram explain TRF receiver. Also explain the basic superheterodyne principle.
 - b) List out the advantages and disadvantages of TRF receiver.
- 2. a) Describe the circuit of an FET amplitude limiter, and with the aid of the transfer characteristic explain the operation of the circuit.
 - b) What can be done to improve the overall limiting performance of an FM receiver? Explain the operation of the double limiter and also AGC in addition to a limier.
- 3. a) Discuss how the of an ac gain amplifier can be controlled by a dc AGC level, Give the relevant circuit details to support your answer.
 - b) When a super heterodyne receiver is tuned to 555 KHz, its local oscillator provides the mixer with an input at 1010 KHz what is the image frequency ? The antenna at receiver is connected to mixer via a tuned circuit whose loaded Q is 40. What will be rejection ratio for the calculated image frequency ?
- 4. a) Explain the working of TRF receiver with its block diagram.
 - b) A TRF receiver is turned to 1000 KHz AM radio broadcast signal by a variable tuned circuit with 1 KHz bandwidth. Find the bandwidth when receiver is returned to 1550 KHz and 550 KHz. Determined the recovered baseband.
- 5. a) What is meant by the term 'tracking error'? Draw a typical tracking error curve. What is meant by the term adjacent channel selectivity?
 - b) Find the image frequency for a standard broadcast band AM receiver using a 455 kHz IF and tuned to a station at 640 kHz.
- 6. a) Explain the purpose and working of Tracking circuits.
 - b) Explain the purpose of pre emphasis and de emphasis circuits and the working of these circuits.
- 7. a) List and discuss the factors influencing the choice of the intermediate frequency for a radio receiver.
 - b) What is simple automatic gain control? What are its functions?
- 8. a) What factors govern the choice of intermediate frequency ?
 - b) In a broadcast super heterodyne receiver having no RF amplifier, the loaded Q of the antenna coupling circuit is 100. If the IF frequency is 455 kHz, determine the image frequency and its rejection ratio for tuning at 1.1. kHz a station.
- 9. a) Discuss about the alignment of Radio receiver with all details.

b) Discuss about the need for limiter and de-emphasis circuits in FM receivers.

Unit-V: PULSE MODULATION

- 1. a) Describe the synchronization procedure for PAM, PWM and PPM signals.
 - b) Discuss about the spectra of PWM and PDM signals.
- 2. a) Describe the generation and demodulation of PPM with the help of block diagram and hence discuss its spectral characteristics.
 - b) Define and distinguish between PTM and PAM schemes. Sketch and explain their waveform for a single tone sinusoidal input signal.
- 3. a) How is PDM wave converted into PPM system.
 - b) Explain why a single channel PPM of system requires the transmission of synchronization signal, where as a single channel PAM or PDM system does not it.
- 4. a) What is the fundamental difference between pulse modulation, on the one hand, and frequency and amplitude modulation on the other?
 - b) What is pulse width modulation? What other names does it have? How is it demodulated?
- 5. Why is cross talk present in PTM system? Explain the generation and demodulation of PDM signals with suitable diagrams.
- 6. a) How is PDM wave converted into PPM system.
 - b) Explain why a single channel PPM of system requires the transmission of synchronization signal, where as a single channel PAM or PDM system does not it.
- 7. a) Why is cross talk present in PTM system ? Explain the generation and demodulation of PDM signals with suitable diagrams.
 - b)

How a PPM signal can be generated from a PWM signal.

ASSIGNMENT QUESTIONS

UNIT-1: INTRODUCTION

- 1. Distinguish between negative peak clipping and diagonal peak clipping in anenvelope detector. The output of a diode envelope detector is fed through a DC blocking capacitor to an amplifying stage, which has an input resistance of 10 kilo-ohms. If the diode load resister is 5k-ohm, determine the maximum depth of sinusoidal modulation the detector can handle without negative peak clipping.
- 2. Define amplitude modulation? And describe the basic operation of an AM modulator?
- 3. A broadcast AM transmitter radiates 50kW of carrier power. What will be the radiated power at 80percent modulation?
- 4. Describe the relationship between the carrier and sideband powers in an AM wave?

DSB MODULATION

- 1. Consider a composite wave obtained by adding a non coherent carrier Ac $cos(2\pi f_c t + \varphi)$ to DSB-SC wave X(t)= $cos(2\pi f_m t)$ where X (t) is the message waveform. This composite waveform is applied to ideal envelope detector. Find the resulting detector output. Evaluate this for .
 - i. $\phi = 0$ and
 - ii. ii. $\varphi = 0$ and $|X(t)| \ll Ac$
- 2. Name the constituent stages of A.M. radio transmitter and briefly give the function of each stage.
- 3. What are the main requirements of a radio transmitter regarding the carrier frequency? Briefly discuss these requirements.
- 4. Explain the modulation and demodulation of DSB-SC?

UNIT-2 : SSB MODULATION

- 1. Explain with the help of sketches and mathematical expressions how VSB Modulation can be obtained and mention its applications.
- 2. An AM broadcast station has a modulation index, which is 0.75 on the aver-age. What would be the average power saving if it could go over to SSB-SC transmission, while having to maintain the same signal strength in the reception area?
- 3. (a) Explain the operation of ISB transmitter with block diagram. Where it is used?
 - (b) What is the function of crystal filters in SSB transmitter?
 - (c) State and explain with respect to 'Q', various types of filters used to separateside bands?
- 4. Draw the circuit and explain the generation of SSB-SC wave using phase shift method?

UNIT-3: ANGLE MODULATION CONCEPTS

- The equation of an angle-modulated voltage v (t) = 10 sin (108t + 3 sin 104t), what form of angle modulation is this? Calculate the carrier and modulating frequencies, the modulation index and deviation and power dissipated in a 100-ohm resistor.
- A single tone modulating signal cos(10π103t) frequency modulates a carrier of10MHz and produces a frequency deviation of 75kHz.Find

 the modulation index and
 - ii. phase deviation produced in the FM wave.

iii. if another modulating signal produces a modulation index of 100 while maintaining the same deviation, find the frequency and amplitude of the modulating signal,, assuming Kf =10kHz/V.

- 3. Compute the bandwidth requirement for the transmission of FM signal having a frequency deviation 75 KHz and an audio bandwidth of 10KHz.
- 4. Compare FM and AM systems
- 5. Differentiate between narrow band FM and wide band FM.

ANGLE MODULATION METHODS

- 1. Draw the complete block diagram of the Armstrong frequency modulation system and explain the function of the mixer and multipliers. In what circumstances can we dispense with the mixer?
- 2. Draw the block diagram and describe the working of a simple FM transmitter using reactance modulator.
- 3. What is the principle of sources of frequency drift in reactance modulator FM transmitter and how can such a drift be reduced.
- 4. Draw the circuit and explain the working of reactance modulator FM transmitter using AFC frequency stabilization.

UNIT-4: NOISE

- 1. Derive an expression for SNR and figure of merit coherent reception of SSB modulated wave.
- 2. Define Noise, Figure of Merit, and Signal to Noise ratio. List out the assumptions of Noise calculation in communication system.
- 3. Give the general representation of noise in communication system and Calculate the power spectral density of it.
- 4. Calculate the power spectral density of Noise in case of DSB-SC and also calculate Figure of merit.

RECEIVERS

- 1. What is meant by fading? Explain with suitable figures and example. Explain the principle of frequency and space diversity techniques employed to reduce the effect of fading.
- 2. (a) Distinguish between simple AGC and delayed AGC.
 - (b) Draw a block diagram of a super-heterodyne receiver and explain the function of each stage.(c) What is meant by the term \tracking error"? Explain.
- 3. Draw the block diagram and explain the working of a TRF receiver. List out its advantages and disadvantages.
- 4. Explain the necessity of a mixer in a receiver. Give a circuit schematic and explain.
- 5. Discuss the need for limiter and de-emphasis circuit in FM receivers
- 6. Illustrate the FM detection by a PLL with the help of its Schematic

UNIT-5: PULSE MODULATION

- 1. What is meant by Pulse Amplitude Modulation and explain any one-modulation technique in detail.
- 2. What is meant by Pulse Width Modulation Explain the generation of Pulse width modulation?
- 3. What is meant by Pulse Width Modulation Explain the demodulation of Pulse width modulation?
- 4. What is meant by Pulse Position Modulation Explain the generation of Pulse Position modulation?

- 5. What is meant by Pulse Position Modulation Explain the demodulation of Pulse Position modulation?
- 6. Compare the performance of PAM, PWM, and PPM7. What is Pulse modulation? Explain in brief various types of pulse modulation with neat sketches.

Mahaveer Institute of Science and Technology, Hyderabad

Department of ECE

I Mid Examination Question Paper

Time: 1 Hr

Date:09-02-20198

Analog Communications (AC)

Set 1

Max .Marks: 10M

Branch: ECE A

Answer any TWO questions.

- 1. Draw the circuit diagram of Ring modulator and explain its operation and indicate all the waveforms and spectrums.
- 2. Explain the switching modulator for generating AM wave with a neat block diagram and necessary mathematical expressions.
- 3. Consider the message signal m(t)= $30\cos 2\pi t$ volts and the carrier wave c(t)= $50\cos 100\pi t$: i. Give the time domain expression for the resulting conventional AM wave for 75% modulation ii. Find the power developed across a load of 100Ω due to this AM wave.
- 4. Evaluate the condition for distortion less demodulation of VSB signal, initially generated by passing a DSB signal through a VSB filter, using synchronous detection.

Mahaveer Institute of Science and Technology, Hyderabad

Department of ECE

II-B.Tech II- Semester	I Mid Examination Questio	n Paper
	Analog Communications (AC)	Set 2
Max .Marks: 10M	Time: 1 Hr	
Branch: ECE A	Date:09-02-2018	

Answer any TWO questions.

- 1. Define modulation. Explain the need and importance of modulation.
- 2. Consider the message signal $m(t)=30\cos 2\pi t$ volts and the carrier wave $c(t)=50\cos 100\pi t$: i. Give the time domain expression for the resulting conventional AM wave for 75% modulation ii. Find the power developed across a load of 100Ω due to this AM wave.
- 3. Define SSBSC modulation. Describe the SSBSC modulation with frequency spectrum. Also discuss the advantages, applications and disadvantages of it.
- 4. Describe with suitable block diagram the coherent detection of DSB-SC modulated wave using Coastas receiver.

II-B.Tech II- Semester

Mahaveer Institute of Science and Technology, Hyderabad

Department of ECE

II-B.Tech II- Semester

I Mid Examination Question Paper

Analog Communications (AC)

Set 3

Max .Marks: 10M

Time: 1 Hr

Branch: ECE A

Date:09-02-2018

Answer any TWO questions.

- 1. Compare various Amplitude modulation schemes ii. Explain with neat block diagram phase discrimination method for the generation of SSB waves.
- 2. Consider the message signal m(t)= $30\cos 2\pi t$ volts and the carrier wave c(t)= $50\cos 100\pi t$: i. Give the time domain expression for the resulting conventional AM wave for 75% modulation ii. Find the power developed across a load of 100Ω due to this AM wave.
- 3. Consider the message signal m(t)= $30\cos 2\pi t$ volts and the carrier wave c(t)= $50\cos 100\pi t$: i. Give the time domain expression for the resulting conventional AM wave for 75% modulation ii. Find the power developed across a load of 100Ω due to this AM wave.
- 4. Explain the concept of frequency division multiplexing with relevant block diagram.

Faculty: Nenavath Ravi Kumar

Department:ECE

Sl.n o	Subject	Course	Academi c Yr.	Branch	Sem	No. of students appeare d	passed	Failed	% Of Pass
1	PTSP	B.TECH	2012- 2013	II ECE-A	Ι	69	56	13	81.15
2	DLD	B.TECH	2012- 2013	IICSE -A	Ι	59	45	14	76.2
3	DFTS	M.TECH	2012- 2013	VLSI	Ι	9	8	1	88.89
4	PDC	B.TECH	2012- 2013	II ECE-A	Ξ	65	61	4	93.84
5	VLSI	B.TECH	2013- 2014	IV ECE B	Ι	67	60	7	89.5

Designation: Assistant professor

Course:B.Tech

6	MPI	B.TECH	2013- 2014	III CSE- A	I	59	50	9	84.75
7	ECA	B.TECH	2013- 2014	II ECE-A	Ш	59	49	10	83
8	EMI	B.TECH	2014- 2015	III ECE- C	I	36	33	3	92
9	MWE	B.TECH	2015- 2016	IV ECE- B	Ι	56	44	12	78.57
10	RS	B.TECH	2015- 2016	IV ECE- B	Ш	56	48	8	85.71
11	LDICA	B.TECH	2016- 2017	III ECE- A	I	45	25	20	55.55
12	DLD	B.TECH	2017- 2018	II CSE-A	I	56	35	21	62.55

- Describe different types of noise and predict its effect on various analog communication systems.
- Analyze energy and power spectral density of the signal.
- Express the basic concepts of analog modulation schemes
- Evaluate analog modulated waveform in time /frequency domain and also find modulation index.
- Develop understanding about performance of analog communication systems
- Calculate bandwidth and power requirements for analog systems.
- Analyze different characteristics of receiver.

Vysapuri, Bandlaguda Post:Keshavgiri,Hyderabad-500005,Telangana,INDIA Tel:040-29880086,8978380692,Fax:040-24455003 E-mail: <u>principal@mist.ac.inprincipal.</u> <u>mahaveer@gmail.com,</u> Website:<u>www.mist.ac.in,</u>



1.4.1 Institution obtains feedback on the syllabus and transaction at the Institutionfrom

the followng stakeholders

CounselingCode: MHVR, UniversityCode: E3

SUMMARY REPORT

S.No.	Feedback
1	Feedback from Students
2	Feedback Teachers
3	Feedback from Employers
4	Feedback from Alumni



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STUDENTS FEEDBACK FORM

Name ent to which ets their state Pre-Requisi this course role of Elec elopment abus content	19 E 31 A 0 115 Civil 2020 ~ 20 21 ale:5-Excellent, 4-Very Goo Parameters of the Subject -> the syllabus of the Course of Objectives . te courses are appropriate tive courses in professional	1 60r 4 5	2 EG G G		ot Satisf IECT 4 P&S 5	Class: Seni: 'Section: actory 5 FM 4	2nd Yi 1st
Rating Sc Name ent to which ets their state Pre-Requisi this course role of Elec elopment abus content	ale:5-Excellent, 4-Very Goo Parameters of the Subject -> the syllabus of the Course of Objectives . te courses are appropriate tive courses in professional	1 60m ん	2 EGr 4	SUB. - 3 50M-I 3	ot Satisf IECT 4 P&S 5	s 5 FM	6
Name ent to which ets their state Pre-Requisi this course role of Elec elopment abus content	ale:5-Excellent, 4-Very Goo Parameters of the Subject -> the syllabus of the Course of Objectives . te courses are appropriate tive courses in professional	1 60m ん	2 EGr 4	SUB. - 3 50M-I 3	PES	5 FM	250
Name ent to which ets their state Pre-Requisi this course role of Elec elopment abus content	of the Subject -> the syllabus of the Course d Objectives . te courses are appropriate tive courses in professional	607 Ц 5	€G 4	· 3 SoM-I 3	'4' Pes 5	fM	250
Name ent to which ets their state Pre-Requisi this course role of Elec elopment abus content	of the Subject -> the syllabus of the Course d Objectives . te courses are appropriate tive courses in professional	607 Ц 5	€G 4	50M-I 3	PES 5	fM	250
ent to which ets their state Pre-Requisi this course role of Elec elopment labus content	the syllabus of the Course of Objectives . te courses are appropriate tive courses in professional	ц 5	4	3	5		
ets their state Pre-Requisi this course role of Elec elopment abus content	d Objectives . te courses are appropriate tive courses in professional	5	1.000			4	125
this course role of Elec elopment abus content	tive courses in professional	19	ч	5	5		
elopment labus content	22	E			2	5	
		0	4	3	3	4	
mical skills t	t is sufficient to acquire o meet Industry demands.	ч	3	5	·ų	5	
	theoretical syllabus is ctical application.	ц	5	u	5	3	k
erage of the	Syllabus in Class Room	ч	5	ü	5		
ent to which (Course Outcomes were	5	4	3	s	4	1. 17
	THE FOUR AND RECOVERED FOR THE RECEIPTION OF THE RECTOR	ч	ч	5	3	3	à.
and the second sec		ч	ч	5	3	4	2
		3	5	3	5	4	•
e l a cil	nt to which wed Provision of ry/Campus opriate carning and rage studer werall envir	Provision of learning resources in the ry/Campus was adequate and opriate cearning and Teaching Methods trage student participation. overall environment in the class was acive for learning	nt to which Course Outcomes were eved 5 Provision of learning resources in the ry/Campus was adequate and 4 opriate Learning and Teaching Methods trage student participation. 4 overall environment in the class was active for learning 3	nt to which Course Outcomes were eved 5 4 Provision of learning resources in the ry/Campus was adequate and 4 opriate Learning and Teaching Methods trage student participation. 4 overall environment in the class was active for learning 5 1 1 1 1 1 1 1 1 1 1 1 1 1	nt to which Course Outcomes were 5 4 3 Provision of learning resources in the ry/Campus was adequate and 4 4 5 carning and Teaching Methods trage student participation. 4 5 werall environment in the class was active for learning 5 3 5 3	nt to which Course Outcomes were eved 5 4 3 5 Provision of learning resources in the ry/Campus was adequate and 4 5 3 carning and Teaching Methods trage student participation. 4 4 5 3 overall environment in the class was active for learning 5 4 5 5 5 5 5	trage of the Syllabus in Class Room4545nt to which Course Outcomes were eved5435'4Provision of learning resources in the rry/Campus was adequate and opriate44533.carning and Teaching Methods arage student participation.44534.verall environment in the class was acive for learning35354

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Signature of the Student

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INSTITUTE OF SCIENCE & TECHNOLOGY Approved by AICTE, Affilitated to JNTUH, Hyd.



STUDENTS FEEDBACK FORM

28	Hall Ticket No:	Pavalbaui Mahuh 19E3IA0122				- 6 E - 1	Class:	and YI
	Branch:	Civit.			W		Sem:	Ist.
1	Academic Year:	2020-2021.	1.5			5	'Section:	
	Rating Sc	ale:5-Excellent, 4-Very Goo	d,3-Good	I, 2-Satisf	actory, 1-N	ot Satisfa	actory	10
s.	Parameters SUBJECT							
D. No.	1	rarameters	1	2	3	· 4	5	6
0000000		of the Subject ->	SUY	EGH	SOM-T	181	FM.	
1.	meets their state		5	4	3	s	4	•
2.	The Pre-Requisi for this course	te courses are appropriate	ч	5	. q	5	3	
3.	The role of Elec development	tive courses in professional	۰ ۲	ч	3	4	5	1 (B
4.		t is sufficient to acquire o meet Industry demands.	ч	5	ч	2	3	
5.	The second se	theoretical syllabus is ctical application.	3	5	પ	2	5	1.14
6.		Syllabus in Class Room	5	4	5	u	3	
7.	Extent to which achieved	Course Outcomes were	4	5	5	y'	5	1.4.6
8.	TO ME AND A CONTRACT OF A CONTRACT	learning resources in the was adequate and	3	ų	s	પ	3	
9.	The Learning and encourage studer	d Teaching Methods at participation.	ч	2	3	5	4	
10.	The overall envir conducive for lea	conment in the class was	5	ч	5	ч	5	•

PAL MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 005.

P. Mahuh Signature of the Student



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STUDENTS FEEDBACK FORM

0000000	of the Student: Hall Ticket No:	RASALA SANDHYA				X	Class:	T	Yr
-	and served sectors served.	20E3SA0104		_			Semi:		
1000	Branch:	CVI			-	1	Section:	ĩ	_
3	Academic Year:	2020-2021		_		1	1.		_
	Rating Sc	ale:5-Excellent, 4-Very Goo	od,3-Good	, 2-Satisf			actory		
S.		Parameters			SUB	JECT	-		
No.			1	2	3	4	5	6	Ł
	Name	of the Subject ->	SUR	EG	SOM-I	785	FM		
E	Extent to which meets their state	the syllabus of the Course d Objectives .	4	4	3	4	5		
2.	The Pre-Requisi for this course	te courses are appropriate	3	4	.5	4	4		
3.	The role of Elect development	tive courses in professional	5	3	4	5	4	ų .	14
4.	A 1970 CONTRACTOR STORES	is sufficient to acquire o meet Industry demands.	4	· 3	5	5	4		
5.	1 100 (000766) (001 (0010) 001	theoretical syllabus is ctical application.	4	4	5	5	3		
6.	Coverage of the	Syllabus in Class Room	5	5	4	3	4	5	
7.	Extent to which achieved	Course Outcomes were	4	4	4	4	4		
8.	22.503 (http://www.sci.com/ 10.001/2010/2010/00/2010/2010/2010/2010/	learning resources in the was adequate and	5	4	3	5	5		
9.	The Learning and encourage studen	d Teaching Methods at participation.	4	3	3	4	4		
10.	The overall envir conducive for lea	onment in the class was rning	5	4	4	4	5		

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Signature of the Student



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STUDENTS FEEDBACK FORM

Name	e of the Student:	Sridar							
	Hall Ticket No:	18635A0	206					Class:	IV YI
	Branch:	EEE			*	41.1	1		A
24	Academic Year:	2.20-)	1				-	Section:	
	Rating Se	ale:5-Excellent, 4-Very God	d,3-Good	l, 2-Satisf:	actory, I-N	iot Sa	isfa	ictory	
S.		Parameters			SUB.	JECT	1:	1. 6.	10 th
No.		rarameters	1	2	3	4		5	6
	Name	of the Subject ->	RES	EDS	VER		1	1	
ŧ.	Extent to which meets their stated	the syllabus of the Course d Objectives .	г	u	5	~		-	÷
2.	The Pre-Requisit for this course	e courses are appropriate	u	2	3	-	I.	æ	-
3,	The role of Elect development	ive courses in professional	u	5	3	-	-	-	~
4.		is sufficient to acquire meet Industry demands.	З	'u	5	-	ŧ)	1	-
5.	Extent to which t helpful in its prac	heoretical syllabus is rical application.	5	u	3	-		-	-
6.	Coverage of the S	Syllabus in Class Room	U.	3	2	-	T	-	-
7.	Extent to which 0 achieved	Course Outcomes were	u	5	3		THE O		-
8.		learning resources in the was adequate and	כ	ч	2	-		-	
9.	The Learning and encourage studen	Teaching Methods t participation.	5	u	3	X		-	-
10.	The overall enviro conducive for lear	onment in the class was	3	u	5	-	1112 and		·~
ny ot	her comments:			(A)(A	ar (1990) an 1943			1	

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Signature of the Student



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STUDENTS FEEDBACK FORM

Nam	e of the Student:	VISHNU VARDM	AN					
_	Hall Ticket No:	18E 31 A 0217					Class:	6.0
22	Branch:	(ff					0.0000.0000	ØJ Y
3	Academic Year:	. 7.02.0-21					Seni:	Tr
	Rating Se	ale:5-Excellent, 4-Very Go	od,3-Good	2-Satisfa	ctory, 1-	Not Satisfa	'Section:	
s.	1	Parameters	1			JECT	ciory	
No.		- analiteters	1	2	3	4	5	6
_	Name	of the Subject ->	NCES	PSD	22	MASHE	PSOC	
\mathbf{I}_{τ}	meets their state	the syllabus of the Course d Objectives .	5	5	3	q	3	
2.	for this course	te courses are appropriate	3	¢	5	3	5	-
3.	The role of Elect development	tive courses in professional	4	4	3	5	3	-
4.	Syllabus content technical skills to	is sufficient to acquire o meet Industry demands.	q	3	5	3	5	125
55	Extent to which	theoretical syllabus is ctical application.	5	4	3	3	100	
6		Syllabus in Class Room	3	5	and a second second		4	_
75	Extent to which achieved	Course Outcomes were	3	5	<u>3</u> 9	4	5	-
8.	The Provision of Library/Campus appropriate	learning resources in the was adequate and	5	5	4	2	4	
9.	encourage studen	1 Teaching Methods et participation.	3	3	5	a	5	-
10,	The overall envir conducive for lea	onment in the class was	5	4	5.	9	3	-
ny ot	her comments:			1	1	4	2	

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Signature of the Student



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STUDENTS FEEDBACK FORM

	Hall Ticket No:	Maryula 19E31A0216					Class:	Y Yr
2	Branch:	EEE					Semi:	55
1	Academic Year:	1 3.040-11					'Section:	
	Rating Se	ale:5-Excellent, 4-Very God	d,3-Good	, 2-Satisfac	tory, 1-N	Not Satisf	actory	
		Building of the second			SUB	JECT		
No.		Parameters	1	2	3	4	5	6
	Name	of the Subject ->	LINMA	W Gm-E	De	03	PS-17	-
t.	Extent to which meets their state	the syllabus of the Course ed Objectives .	5	3	5	4	4	
2.	The Pre-Requis for this course	ite courses are appropriate	4	5	4	5	3	12
$\boldsymbol{3}_{ij},$	The role of Elec development	tive courses in professional	3	3	5	5	4	-
4.	11 6.70 10 90 40 00 46 0 1900 s	t is sufficient to acquire to meet Industry demands.	4	'q	3	3	5	-
5.		theoretical syllabus is actical application.	3	÷	5	3	4	-
, 6,	Coverage of the	Syllabus in Class Room	5	4	4	5	9	~
7.	Extent to which achieved	Course Outcomes were	3	3	4	5	3	-
8.		f learning resources in the s was adequate and	5	s	3	5	5	
9,		nd Teaching Methods int participation.	4	5	5	5	5	~
10.	The overall env conducive for le	ironment in the class was arning	3	4	5	5	4	•

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Ma Signature of the Student

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STUDENTS FEEDBACK FORM

	of the Student:	TEJAVATH SR	IKANT	ŧ1				
	Hall Ticket No:	16E 31A 0337					Class:	4th VI
	Branch:	Mechanical					Semi:	94
1	cademic Year:	2020-21					Section:	*
	Rating Se	ale:5-Excellent, 4-Very Go	od,3-Good,	2-Satisf	actory. 1-N	Not Satisfa	ctory	
s.		Parameters			VEHICLE I	JECT		
No.		rarameters	1	2	3	4	5	6
	and a second	of the Subject ->	CADICAM	Ics	PPE	REATIS	AMT	
I.	meets their state		5	4	5	4	5	
2,	for this course	te courses are appropriate	5	4	5	5	4	
3.	The role of Elec development	tive courses in professional	5	4	4	3	4	
4.		is sufficient to acquire o meet Industry demands.	5	.3	4	5	4	
5.		theoretical syllabus is ctical application.	4	5	5	4	5.	
6.		Syllabus in Class Room	5	4	3	E	3	
7.	Extent to which achieved	Course Outcomes were	4	5	5	4	3	
8.		learning resources in the was adequate and	3	5	2	3	5	
9.	encourage studer		5	4	5	5	4	
10.		conment in the class was	5	4-	4	5	5	·
iny of	her comments:						1	

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-Jeika HA Signature of the Student



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Name	of the Student:	MADHAGONE	AKHII	TEJ	A			
	Hall Ticket No:	16E31A0 362	and the second				Class:	4th Y
	Branch:	Mychanical			4	- Die	Semi:	24
1	Academic Year:	2020-21					Section:	A
	Rating Se	ale:5-Excellent, 4-Very Go	od,3-Good,	2-Satisfa	ctory. 1-N	ot Satisfa	ctory	
2		B STOCKED STOC	1		SUB	JECT		
S. No.	1	Parameters	1	2	3	4	5	6
	Name	of the Subject ->	CFOLCAM	ICS	TPE	REBOTIS	AMT	
1,	Extent to which meets their state	the syllabus of the Course d Objectives .	5	5	5	3	4	(3)
2,	The Pre-Requisit for this course	e courses are appropriate	5	4	5	5	5	
31	The role of Elect development	ive courses in professional	4	5	5	4-	4	
4.		is sufficient to acquire meet Industry demands.	5	4	3	5	4-	
5.	Extent to which the helpful in its practice	heoretical syllabus is rtical application.	5	5	5	4	5	
6,	Coverage of the	Syllabus in Class Room	3		4-	5	4	
Ÿ.	Extent to which 0 achieved	Course Outcomes were	5	5	3	Ś	5	
8.		learning resources in the was adequate and	5	4	5	4	5	2
9	The Learning and encourage studen	I Teaching Methods t participation.	3	5	5	5	5	
10.	The overall enviro conducive for lea	onment in the class was rning	4	5	5	5	4	•

STUDENTS FEEDBACK FORM

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WI A H A W LE IS R RETITUTE OF SCIENCE & TECHNOLOGY Prondlegorida, thydrifol 005.

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Anhiteteja Signature of the Student

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STUDENTS FEEDBACK FORM

	Hall Ticket No:	16E31 A0338	IN IL LINE				Class:	4th Yr
	Branch:	Mechanical			¥.		Semi:	15+
	Academic Year:	2020-21				14	Section:	1
- 112	Rating Sc	ale:5-Excellent, 4-Very Go	od.3-Good.	2-Satisfa	ctor 7. 1-3	Not Satisfa	ALCONTRACTOR A	200
			1					
s.		Parameters	1	2	3	JECT 4	5	6
No.	Name	of the Subject ->	CAD/CAM		PPE	Robotics	2	1.101
ĵ.	the based of the second s	the syllabus of the Course	5	4	5	T	4	34
2.	The Pre-Requisite courses are appropriate for this course		4	5	4	4	3	
Ĵ,	The role of Elective courses in professional development		5	- 4-	5	5	4	
4.	10.007/000000000000000000000000000000000	is sufficient to acquire meet industry demands.	4	. 2_	٤	5	5	
5.	그 그 그 귀에 있는 것 같아. 전 이가 안 가 많이 같	heoretical syllabus is rtical application.	5	4	3	5	4	
6.	Coverage of the	Syllabus in Class Room	4	5	5	5	5	
7,	Extent to which (achieved	Course Outcomes were	5	4	5	ų	4	
8.	CALCULATE CONTRACT OF A DECISION OF A DECISIONO OF A DECISI	learning resources in the was adequate and	4	5	4	5	5	1
9.	The Learning and encourage studen	I Teaching Methods t participation.	4	5	5	4	4	
10.	The overall envir conducive for lea	onment in the class was rning	5	4	5	5	5	•
ny oth	her comments:					11		

MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlagoda, Hyd-500 005.

T. Natayana Signature of the Student

Vysapun: BandiagudaPost Keshavgiri. Hyderabad 500 005 TELANGANA, INDIA Tel: 040-54596978 \$978380692 Fax: 040-24455003 E-mail: principal mahavper@bomail.com. Website: www.mist.ac.m.





STUDENTS FEEDBACK FORM

	Hall Ticket No. 18 C 5/A 0 1 (0 1					Class:	MI VI
	Branch: 4 C.C.					Sem:	TI
	Academic Year: - 2+32-2071				(†)	Section:	A
	Rating Scale:5-Excellent, 4-Very G	ord, J-Good	d, 2-Satisfi	ictory. 1-N	Not Satisf	actory	
	No. of Contract of			SUB	JECT		
S. No.	Parameters	1	2	3	4	5	6
. 795	Name of the Subject ->	EMI	MPANC	DON	CS	BEFA	IPP-
£.	Extent to which the syllabus of the Course meets their stated Objectives .	5	5	5	5	5	.5
21	The Pre-Requisite courses are appropriate for this course	5	5	5	4	5	5
201	The role of Elective courses in professional development	5	5	5	5	5	5
4.	Syllabus content is sufficient to acquire technical skills to meet Industry demands.	5	5	5	5	ч	5
\$	Extent to which theoretical syllabus is helpful in its practical application.	4	2	ч	5	5	4
6.	Coverage of the Syllabus in Class Room	5	4	5	5	5	5
7.	Extent to which Course Outcomes were achieved	5	5	5	5	5	5
8	The Provision of learning resources in the Library Campus was adequate and appropriate	5	5	Z	4	5	.5
9,	The Learning and Teaching Methods encourage student participation.	4	4	5	5	4	4
10.	The overall environment in the class was conducive for learning	5	5	5	5	5	5



MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 005.

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Signature of the Student

Head, Electronics & Comm. Engg. Dept. M:Maveer Institute of Science & Technology Bondlaguda, Hyderabad - 500 005

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STUDENTS FEEDBACK FORM

-	Hall Ticket No: 18 4 31 A CTU	09				Class:	TIFN
	Branch: C C E	M				Sem:	T
9	Academic Year: 2010 200				S.	Section:	A
	Rating Scale 5-Excellent, 4-Very	Good 3 Good	2-Satisfi	actory. I-N	ot Satisfa	ectory	
S.	Parameters			SUB.	ECT		
No.		1	2	3	4	5	6
_	Name of the Subject >	East	mein	L DON	65	REA	TPP
1	Extent to which the syllabus of the Course meets their stated Objectives .	5	5	5	5	5	.5
2	The Pre-Requisite courses are appropriate for this course	5	5	5	5	u	5
3.	The role of Elective courses in profession, development	1 5	5	a	5	5	
4	Syllabus content is sufficient to acquire technical skills to meet Industry demands.	5	5	5	5	5	5
5.	Extent to which theoretical syllabus is helpful in its practical application.	ų	5	5	5	5	5
6,	Coverage of the Syllabus in Class Room	S	ü	5	5	2	1.
7.	Extent to which Course Outcomes were achieved	5	5	5	u	5	4 5
8	The Provision of learning resources in the Library/Campus was adequate and appropriate	5	5	5	5	ц	-5
9.	The Learning and Teaching Methods encourage student participation.	5	5	5	5	5	5
10,	The overall environment in the class was conducive for learning	5	5	ч	5	5	5

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Head, Electronics & Certim, Prog. 6-11 Mahaveer Institute nº Science & Technolog, Bandlaguta, Hys. Jabad, 500,005

PRINCIPAL MAHAVEER Instituti of scilisce & If Child Bandlaguete, Hyd. 500,005.

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Signature of the Student

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Visiacum, BandiagunaPost Keshavgin, Inioviacian-SO 005, TELANGANA, INDIA Tw. 040-54596979.8978380692 Fax: 040-24455003 E-mail: philoipal.mahaveen@smail.com. Virds.lic: www.mist.ac.in, ADDRESS DE AICTE, AMUILAINE TO UNTURINO



STUDENTS FFEDBACK FORM

	Hall Licket No: 18 (31 HORIS					Class:	TH In
	Branch: ECE					Sem:	TI
	Academic Year: 2030 - 2021 Rating Scale:S-Excellent, 4-Very God	d.3-Good	. 2-Satisfa	ctor . 1-N	ot Satisf	Section:	A
27					ET		
Ne	Parameters	1	2	3	4	5	Đ.
(12)	Name of the Subject ->	ENT	MIME	Deal	65	BEFA	314
	Extent to which the syllabus of the Course meets their stated Objectives .	15	3	C.	5	S	.5
	The Pre-Requisite courses are appropriate for this course	S	51	5	5	5	5
	The role of Elective courses in professional development	5	5	s."	5	И	ч
4	Syllabus content is sufficient to acquire technical skills to meet industry demands.	15	.4	5	5	5	5
4	Extent to which theoretical syllabus is helpful in its practical application.	1	5	ч	6	S	
0	Coverage of the Syllabus in Class Room	5	5	6	5	G	5
\overline{t}_i	Extent to which Course Outcomes were achieved	5	\$	550	5	4	5 - 5
8	The Provision of learning resources in the Library Campus was adequate and appropriate	Lj	5	5	ч	5	. 4
9	The Learning and Teaching Methods encourage student participation.	S	ч	5	5	5	S
10	The overall environment in the class was conducive for learning	5	5	5	5	5	.5

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Signature of the Student

STUDENTS FEEDBACK FORM

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INSTITUTE OF SCIENCE & TECHNOLOGY

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	Hall Ticket No: 17E31A12	16				Class:	IV Y
	Branch: IT Academic Year:			*):		Sem:	T
	7070-707	1			1	Section:	
_	Rating Scale: 5-Excellent, 4-Very Ge	ood,3-Good	l, 2-Satisfa	ctory, 1-Ne	ot Satisfa	ictory	
S.	Parameters			SUBJ			
No.		1	2	3	4	5	6
-	Name of the Subject >	MIS	MSE	411	artic	1	
1.	Extent to which the syllabus of the Course meets their stated Objectives .	5	5	3			
2.	for this course	11	4	1	_		
3.	The role of Elective courses in professional development	7	13	4			
4.	Syllabus content is sufficient to acquire	3	3	5			
	accunical skills to meet Industry demands	12	3	3			
5.	Extent to which theoretical syllabus is helpful in its practical application.	3		5			
6.	Coverage of the Syllabus in Class Room		5	and the second se	_	-	
7.	Extent to which Course Outcomes were achieved	3 5	4 5	4 5			-
8.	The Provision of learning resources in the	2	2	2	-		_
77.	Library/Campus was adequate and appropriate	4	3	5		1	(K)
9.	The Learning and Teaching Methods encourage student participation.	4	4	4	-		
0.	The overall environment in the class was conducive for learning	3	3	5			•

Gopal Reddy

Dr.A. HOD, Dept.of Information Technology Mahaveet Institute at 1 & Technology

PRINCIPAL MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-S00 005,

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Signature of the Student

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STUDENTS FEEDBACK FORM

	Hall Ticket No: 17 E314/21 Branch: 0.0	9				Class:	IVY				
	Academic Van		1			Sem:	TP				
	62 123 D D = 0	1			¥.	'Section:					
S .	a valid of excellent, 4-Very	Good,3-Good	od,3-Good, 2-Satisfactory, 1-Not Satisfactory								
No.	Parameters			SUB	ECT						
	Name of the Subject ->	1	2 .	3	4	5	6				
1.	Antent to which the sullat	MIS	MSE	HCL							
2.	The Pre-Requisite converse		5	4	See. 1		2.5				
3.			5	4							
24	The role of Elective courses in profession development	nal	*	Junio	-	-					
4.	Syllabus content is sufficient to acquire	4	4	5							
5.	Extent to which theoretical - 11	s. 3	5	4							
6.	mapped in its practical application	4	5	5							
	Coverage of the Syllabus in Class Room	4	4	4	-						
7.	Extent to which Course Outcomes were achieved	6	5		+	1000	_				
8.	The Provision of learning resources in th	5	2	5	-						
o,	appropriate	3	3	5			Al Contraction				
9.	The Learning and Teaching Methods encourage student participation.	4									
0.	The overall environment in the class was conducive for learning		4	5							
y oth	her comments:	9	1	3.							

Dr.A.Nanda Const Reddy

HOD, Depter Information Schoology Mahavear Institute of Science & Technology Vyasepuri, Bandieraux, Post Keshevgin Hyderabad-500005.

PRINCIPAL MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 005.

Signature of the Student

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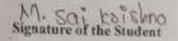


Name	of the Student:	STUDENTS F		1			-	-		
-	Hall Ticket No: Branch:	M. Sai Kist MESIADIS	aha			-/-	Class:-	IV YI		
A	cademic Year;				Seni:					
	and the second se	12020-2021					Section:			
8		ale: 5-Excellent, 4-Very Goo	Good, 3-Good, 2-Satisfactory, 1-Not Satisfactory							
S. No.		Parameters			SUBJ					
	Name of the Subject ->		1	2	3	4	5	6		
1.	Extent to which	the syllabur of the C	MIS	MSE	HCI					
	HALL	d Onechuse.	5	4						
2.	for this course	te courses are appropriate	11		3					
3,	The role of Elective courses in profession		4	4	5	1	4			
	and a submittelli	t is sufficient to acquire	3	3	4					
4.	seeminear skins i	o meet Induction d		250			1			
5.	successing on Autority	theoretical syllabus is actical application.	4	5	3		-			
. 6	Coverage of the	Syllabus in Class Room	3	3	5		1			
7.	Extent to which	Course Outcomes were	3	5	4					
	achieved		5	u	3		1.00			
8.	appropriate	f learning resources in the s was adequate and	4	3						
9.	encourage stude	nd Teaching Methods ant participation.	3	1	5					
10.	The overall env conducive for k	ironment in the class was	ÿ	5	4			•		
Апу о	ther comments:			2	2					

Dr.A.Manda Gonal Reddy

HOD, Dept.of Information Technology Mahaveer Institute of Action 5 Tec. "Y Vyasapuri, Bandlogoda, Formata a ..." Hyderabad-500005.

PRINCIPAL MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 005,



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STUDENTS FEEDBACK FORM

	Hall Ticket No:	MESIA & LOS					Class:	STV 1
X	Branch:	Acomptical					Sem:	GP
1	Academic Year:	2020 - 21				8	Section:	A
	Rating S	cale:5-Excellent, 4-Very Go	od,3-Good	ctory				
8.		Parameters						
No.	L		HE	2 Gunto	EIA	4	5	6
		c of the Subject ->	OF-3	PEE	PE-6			
1.	meets their state	the syllabus of the Course ed Objectives	11	5	11			2
2	for this course	ite courses are appropriate	3	11	5		1	
ŝ	The role of Elec development	tive courses in professional	4	5	5			
Ă,	Syllabus conten technical skills (t is sufficient to acquire to meet Industry demands.	4	3	21			
5	Extent to which	theoretical syllabus is actical application.	5	4	5			
0,	Coverage of the	Syllabus in Class Room	21	-1	10			
7		Course Outcomes were	21	H	4		41	
\$	The Provision o Library/Campus appropriate	f learning resources in the s was adequate and	5	S	24			
<u>0</u>	encourage stude		4	11	5			
10.	The overall envi conducive for le	ronment in the class was arning	24	5	21			•

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Signature of the Student

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Approved by AICTE, Affilitated to JNTUH, Hyd



STUDENTS FEEDBACK FORM

	Hall Licket No: AE31 A2113	100 a	alithi			Class:	41
	Branch: Acheratical					Sem:	ũ.
	Academic Year: 2020 -20	2.1			62	Section:	A
	Rating Scale:5-Excellent, 4-Very Go	od,3-Good	2-Satisfac	of Satisfa			
N.,	Parameters			SUBJ	ECT		
Kep.	, analierers	1	2	3	4	5	0
	Name of the Subject ->	HE OC-3	CAVAD PE-5	PEG			
Ę.,	Extent to which the syllabus of the Course meets their stated Objectives .	1 ic	ч	5			*
8.	The Pre-Requisite courses are appropriate for this course	ч	5	ц			
ŝ.	The role of Elective courses in professional development	S	ч	ŝ			
ŀ,	Syllabus content is sufficient to acquire technical skills to meet Industry demands.	Ц	S	S			
i.	Extent to which theoretical syllabus is helpful in its practical application.	ч	S	\$			
6	Coverage of the Syllabus in Class Room	5	ч	ч			
ti.	1 stent to which Course Outcomes were achieved	4	S	\$	2		
ě.	The Provision of learning resources in the 1 ibrary/Campus was adequate and appropriate	\$	ч	\$			
li.	The Learning and Teaching Methods encourage student participation.	5	S	S			
).	The overall environment in the class was conducive for learning	S	Ś	5			
o	her comments:						_

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STUDENTS FEEDBACK FORM

	Hall Ticket No:	GUDISE VINA	1 100	may			Class:	9-1511
	Branch:	AcoptionAical					Senī:	9 Sen
, já	Academic Year:	Dodo+ 2021				8	Section:	1
	Rating Sc	ale:5-Excellent, 4-Very Goo	d,3-Good	2-Satisfa	ctory, 1-N	of Satisf	actory	
s.		Parameters			SUBJ	ECT		
No.		randeters	HE	2	3	4	5	6
	Name	of the Subject ->	DE2	PEC	128 A			
4.	Extent to which meets their state	the syllabus of the Course d Objectives .	5	4	5			
2.	The Pre-Requisit for this course	te courses are appropriate	4	5	-2			
3.	The role of Elect development	ive courses in professional	5	4	5			
4.	The second s	is sufficient to acquire o meet Industry demands.	5	1	5			
5,		theoretical syllabus is ctical application.	5	4	5			
, 6,	Coverage of the	Syllabus in Class Room	5	5	5			
7.	Extent to which achieved	Course Outcomes were	5	4	-	45	U)	
8.		learning resources in the was adequate and	e	4				-
9.	encourage studer		5	9				
10,	The overall envir conducive for lea	onment in the class was rning	5	4	5			
ny ot	her comments:	13	10000	1				

Signature of the Student





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STUDENTS FEEDBACK FORM

Hall Ticket No: 20E31A2108 Branch: AERO Academic Year: 2020-21 Pating Scala:5 Excellent 4 Versi (T Yr		
	THERU			¥.		Semi:	I
Distance of the second	and the second				194E.C	'Section:	
Rating Se	ale:5-Excellent, 4-Very Goo	d,3-Good	ictory				
		1		SUL	JECT		3
	Parameters	1	2	3	4	5	6
Name	of the Subject ->	MTT	FC	EM	ENG		
			4	5	3		÷.
The Pre-Requisi for this course	te courses are appropriate	ч	5	3	4		
The role of Elect development	ive courses in professional	5	3	4	5		
CARLON AND SHARES TO DR		5	14	5	5		
	1. A STATE LANCAS AND AND A STATE	Ц	5	5	5		
		5	5	5	5	1 S	
Extent to which achieved	Course Outcomes were	3	5	5	3		
		5	4	5	5		
A CARLES AND A CARLES AND A CARLES AND A	NU VI C VI COTT ACCO	4	5	5	4		
	김 씨가 나라 가슴 가슴 가슴 가슴 가슴 가슴 가 다 같아?	5	4	3	5		8
I THE TAX IN THE TAX INTENT OF TAX INTENT OF TAX INTENT OF TAX IN THE TAX INTENT OF TAX INTENT	Extent to which meets their state The Pre-Requisit for this course The role of Elect development Syllabus content technical skills to Extent to which helpful in its pra Coverage of the Extent to which achieved The Provision of Library/Campus appropriate The Learning an encourage studer	The role of Elective courses in professional development Syllabus content is sufficient to acquire technical skills to meet Industry demands. Extent to which theoretical syllabus is helpful in its practical application. Coverage of the Syllabus in Class Room Extent to which Course Outcomes were achieved The Provision of learning resources in the Library/Campus was adequate and appropriate The Learning and Teaching Methods encourage student participation. The overall environment in the class was conducive for learning	Name of the Subject ->MTILExtent to which the syllabus of the Course meets their stated Objectives5The Pre-Requisite courses are appropriate for this course4The role of Elective courses in professional development5Syllabus content is sufficient to acquire technical skills to meet Industry demands.5Extent to which theoretical syllabus is helpful in its practical application.4Coverage of the Syllabus in Class Room5Extent to which Course Outcomes were achieved3The Provision of learning resources in the Library/Campus was adequate and appropriate5The Learning and Teaching Methods encourage student participation.4The overall environment in the class was conducive for learning5	Name of the Subject ->MTILECExtent to which the syllabus of the Course meets their stated Objectives .54The Pre-Requisite courses are appropriate for this course45The role of Elective courses in professional development53Syllabus content is sufficient to acquire technical skills to meet Industry demands.54Extent to which theoretical syllabus is helpful in its practical application.45Coverage of the Syllabus in Class Room55Extent to which Course Outcomes were achieved35The Provision of learning resources in the Library/Campus was adequate and appropriate54The Learning and Teaching Methods meourage student participation.45The overall environment in the class was conducive for learning54	Name of the Subject ->MTILECFMExtent to which the syllabus of the Course meets their stated Objectives545The Pre-Requisite courses are appropriate for this course453The role of Elective courses in professional development534Syllabus content is sufficient to acquire technical skills to meet Industry demands.545Extent to which theoretical syllabus is helpful in its practical application.455Coverage of the Syllabus in Class Room555Extent to which Course Outcomes were achieved355The Provision of learning resources in the Library/Campus was adequate and appropriate545The Learning and Teaching Methods encourage student participation.455The overall environment in the class was conducive for karning543	Name of the Subject ->MTILECEMENGExtent to which the syllabus of the Course meets their stated Objectives5453The Pre-Requisite courses are appropriate for this course4534The role of Elective courses in professional development5345Syllabus content is sufficient to acquire technical skills to meet Industry demands.5455Extent to which theoretical syllabus is helpful in its practical application.4555Coverage of the Syllabus in Class Room5555Extent to which Course Outcomes were achieved3553The Provision of learning resources in the Library/Campus was adequate and appropriate5455The Learning and Teaching Methods mecurage student participation.4554The overall environment in the class was conducive for learning5435	Name of the Subject ->MTILECEMENGExtent to which the syllabus of the Course meets their stated Objectives.5453The Pre-Requisite courses are appropriate for this course4534The role of Elective courses in professional development5345Syllabus content is sufficient to acquire technical skills to meet Industry demands.5455Extent to which theoretical syllabus is helpful in its practical application.4555Coverage of the Syllabus in Class Room5555Extent to which Course Outcomes were achieved3553The Provision of learning resources in the Library/Campus was adequate and appropriate5455The Learning and Teaching Methods encourage student participation.4554The overall environment in the class was conducive for learning5435

Department of Humanities & Sciences Mahaveer Institute of Science & Technolog, HYDERABAD

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PRINCIPAL MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 005.

G. Vorsh Signature of the Student

signature of the stude

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Name of the Student: chawan Sandeep Hall Ticket No: 20E31A0204 Class: Yr T Branch: ē. Sem: EEE TL Academic Year: Section: 2020-21 Rating Scale:5-Excellent, 4-Very Good, 3-Good, 2-Satisfactory, 1-Not Satisfactory SUBJECT S. Parameters 1 2 3 4 5 6 No. Name of the Subject -> M-I AP PPS EGI Extent to which the syllabus of the Course E. 5 3 5 meets their stated Objectives . 4 1 The Pre-Requisite courses are appropriate 2 5 5 4 3 for this course. The role of Elective courses in professional 3. 5 5 5 4 development Syllabus content is sufficient to acquire 4 5 4 technical skills to meet Industry demands. 4 5 Extent to which theoretical syllabus is 5 Б 3 4 5 helpful in its practical application. 6. Coverage of the Syllabus in Class Room 4 4 5 S Extent to which Course Outcomes were 7. 5 achieved 5 5 4 The Provision of learning resources in the 8. Library/Campus was adequate and 5 5 4 4 appropriate The Learning and Teaching Methods 9. 5 5 5 5 encourage student participation. The overall environment in the class was ٠ 16. 5 4 3 5 conducive for learning Any other comments:

STUDENTS FEEDBACK FORM

Department of Humanities & Science Mahavoer Institute of Science & Technology, HYDERABAD

c. Sandeep Signature of the Student

PRINCIPAL MAHAVEER INSTITUTE OF SCIPICIF & TECHNOLOGY Bandlaguda, Hyd-500 005.





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		STUDENTS	TEDBA(K FORM	L.			
Name	of the Student:	& Venkatesh						
	Hall Ticket No:	DOE 31A 0417					Class:	I Yr
	Branch:	ECE			3		Seni:	T
	Academic Year:	1 2020-21					Section:	
	Rating S	cule:5-Excellent, 4-Very Go	od,3-Good	l, 2-Satisfa	actory, 1-1	Not Satisfi	actory	
~		Parameters			SUE	STECT		
S. No.		rarameters	0	2	3	4	5	6
		e of the Subject ->	MI	Ec	BEE	ENG		
3.1	Extent to which meets their state	the syllabus of the Course of Objectives .	4	5	L	5		
2	for this course	ne courses are appropriate	5	4	5	4		
	The role of Eles	tive courses in professional	4	4	3	5		1
45		t is sufficient to acquire to meet industry domands.	5	5	5	4		
i de la		theoretical syllabus is actical application.	4	5	5	4		
_ 62	Coverage of the	Syllabua in Class Room	5	4	3	2		
7.	Extent to which achieved	Course Outcomes were	5	5	5	3	-	
80	The Provision o Library/Campos appropriate	f learning resources in the swas adequate and	5	5	4	5		
	The Learning an encourage stude	al Teaching Methods or participation.	4	5	5	4		
		conment in the class way	5	5	4	5		20
Any lis	her comments-							

G. Vertalish

Signature of the Student

HOD Department of Humanities & Science Milhaeder Institute of Science & Technology, HYDERABAD

MAHAVEER MAHAVEER INSTITUTE OF STERKES TECHNO ST Bandlaguda, Hyd-S00 005.

INSTITUTE OF SCIENCE & TECHNOLOGY

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TEACHERS FEEDBACK FORM

Name of the Faculty: K. Sai Pradeel				Academic '	Year:	2020-202)		
Name of the Faculty: K. Sai Pradeel Designation: AW Prof						: IL Yr		
Department: Chuil Fouse				1	Isem			
Name of the Subject: Bullens materials av			setter	See	ction:	-		
	Rating Scale:5-Excellent, 4-Very Good, 3-G			tory, 1-Not S	Satisfac	tory		
S.No.	· Parameters	1	2	3	4	5		
1	Curriculum is based on the needs of the stake holders	4	5	4	4	5		
2	Extent to which the course content meets Industrial requirement	4	L	+ 5	J	4		
3	Availability of Text Books/Reference Books to the prescribed syllabus	ç	LL	5	5	5		
4	How manageable is the syllabus load to the student	4	4	4	5	4		
5	Extent to which the course content helps the student in his real time applications	4	S	5	4	5		
6	The course offers good balance between theory and its practical applications		4	÷ s	5	5		
7	Teaching Facilities provided for adopting latest trends in research and technology.		Lt	5	4	5		
8	The number of periods allotted to the course is sufficient to cover syllabus	4	1. 1	+ 4	5	3		
ny oth	er comments:		1.					
10	N 8			1 2	5			

PRINCIPAL MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 005.

Signature of the Teacher

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INSTITUTE OF SCIENCE & TECHNOLOGY

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TEACHERS FEEDBACK FORM

Name of the Faculty: B. VARALAKSHMI		1		Academic Y	2020-202			
Designation: ASSY P-rD7					Class		T Yr	
Department: CIVIL ENGG Name of the Subject: SURVEYING AND		CIVIL ENGG				2		
		SURVEYING AND GEOMETRICS			See			
	Rating Scale:5	Excellent, 4-Very Good, 3-Go	od, 2-Sa	tisfact	ory, 1-Not S	Satisfa	ctory	
S.No.	- S	Parameters	1 '	2	3	4	5	
1	Curriculum is based on the needs of the stake holders		4	5	3	4	. 5	
2	Extent to which the course content meets Industrial requirement		4	4	4	5	- 3	
3	Availability of Text Books/Reference Books to the prescribed syllabus		4	5	4	5	- 4 .	
4	How manageable is the syllabus load to the student		3	4	- 5	4	3	
5	Extent to which the course content helps the student in his real time applications		4	5	4	5	4	
6	The course offers good balance between theory and its practical applications		3	4	5	5	- 4	
7	Teaching Facilities provided for adopting latest trends in research and technology.		4	4	5	4	- 5	
8 .	The number of periods allotted to the course is sufficient to cover syllabus		3	4	5	4	3	
Any oth	er comments:					1	· · · · · · · · · · · · · · · · · · ·	
	15 ×				15 3	5		

PRINCIPAL MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 005.

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ONO Signature of the Teacher

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TEACHERS FEEDBACK FORM

Name of the Faculty:		R KALYANI			Academic Year:			2020-21		
Designation:		Asst Prof			Class:			Y		
Department: Name of the Subject:		Power System Protection (PS.P)			Sem:			T		
					Sec	-				
	Rating Scale:5	-Excellent, 4-Very Good, 3-Go	od, 2-Sa	tisfactory	, 1-Not S	atisfa	ctor	9		
S.No.		Parameters	1	2	3	4		5		
1	Curriculum is stake holders	based on the needs of the	3	4	5	6	4	3		
2	Extent to whic Industrial requ	h the course content meets irement	ち	4	3		ē	. 4		
3	Availability of Text Books/Reference Books to the prescribed syllabus		5	3	4	et et		4		
4	How manageable is the syllabus load to the student		3	ち	4	3		• 15		
5	227 - 254 - MARK	h the course content helps the real time applications	3	5	4	*363	3	4		
6	theory and its	ers good balance between practical applications	3	4	3	4		3		
7	[11] Y. H. C. C. C. S. C. S. C. C. S	lities provided for adopting . research and technology.	4	5	3	4	t	5		
8 '		periods allotted to the course cover syllabus	দ	5	3	4	t	5		
Any oth	er comments:		\$ 8				6			
	1.250				••					

L. Kalyani Signature of the Teacher

PRINCIPAL MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 005.

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TEACHERS FEEDBACK FORM

Name of the Faculty: T. Hima bindy					Academic Year:			2020-21		
Designation: ASL. Port					Clas			X X		
Department: E.E.E. Name of the Subject: Digit-1 El-cetrinics (D			2		Sem: Section:			#		
			E.)							
	Rating Scale:5-	Excellent, 4-Very Good, 3-Go	od, 2-Sa	tisfactor	y, 1-Not S	atisfa	ctor	y		
S.No.	- Parameters		1 '	2	3		4 5			
1	Curriculum is based on the needs of the stake holders		3	5	ų	3	5	Ч		
2	Extent to which the course content meets Industrial requirement		5	3	4	3		5		
3	Availability of Text Books/Reference Books to the prescribed syllabus		կ	5	3	ч	3	5	3	
4	How manageable is the syllabus load to the student		3	ч	3	5	53			
5	Extent to which the course content helps the student in his real time applications		5	4	.4		3	4	0.0	
6		rs good balance between ractical applications	5	5 3 5		3	5			
7	[10] S. M. S. M. S. M.	ties provided for adopting . research and technology.	μ	3	5	5	4	3		
8.	The number of is sufficient to	periods allotted to the course cover syllabus	3	Ч	Ч	1	3	5		
Any oth	er comments:					70	9 02 - 2	<u>)</u>		
	2 R					_			_	

PRINCIPAL MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 005.

-Hime Signature of the Teacher

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Any other comments:

Academic Year: 2020-21 Name of the Facultya frikarth Reddy. mid Yr Class: Designation: Assident prodefiel Sem: Department: mechanical 1 Section: Dynamice of machinesy Name of the Subject: Rating Scale:5-Excellent, 4-Very Good, 3-Good, 2-Satisfactory, 1-Not Satisfactory 5 4 3 1 2 Parameters S.No. Curriculum is based on the needs of the 1 stake holders Extent to which the course content meets 2 Industrial requirement Availability of Text Books/Reference Books 3 to the prescribed syllabus How manageable is the syllabus load to the 4 student Extent to which the course content helps the 5 student in his real time applications The course offers good balance between 6 theory and its practical applications Teaching Facilities provided for adopting 7 latest trends in research and technology. The number of periods allotted to the course

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TEACHERS FEEDBACK FORM

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is sufficient to cover syllabus

Signature of the Teacher



Vysapuri, BandlagudaPost:Keshavgiri, Hyderabad-500 005, TELANGANA, INDIA Tel: 040-64596979,8978380692,Fax: 040-24455003 E-mail: <u>principal.mahaveer@gmail.com</u>, Website: www.mist.ac.in,

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TEACHERS FEEDBACK FORM

Name o	of the Faculty:	B. NAGESOOP	18		Ac	ademic Y	'ear:	2	0-21
	Designation:	- A light				С	lass:	n	Yr
	Department:	Mechanical (Engine	.r.u			Sem:		ĩ
Name	of the Subject:	Thermal Engineen.	I II	- /		Sec	tion:	A	1
	Rating Scale:5	-Excellent, 4-Very Good, 3-Go	60, 2-Sa	tisfac	tory,	1-Not S	atisfa	ctor	y
S.No.		Parameters	1	2	8	3	4		5
1	Curriculum is stake holders	based on the needs of the		5					~
2	Extent to whic Industrial requ	h the course content meets irement							V
3	Availability of to the prescrib	Text Books/Reference Books ed syllabus							~
4	How managea student	ble is the syllabus load to the					L	/	•
5	and the second sec	h the course content helps the eal time applications				9	tta b		1
6	theory and its	ers good balance between practical applications					ι	/	
7		ities provided for adopting . research and technology.		-		-			~
8 -		periods allotted to the course cover syllabus							V
Any oth	er comments:		1						
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Signature of the Teacher

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Ysapuri, BandlagudaPost:Keshavgiri, Tyderabad-500 005, TELANGANA, INDIA Fel: 040-64596979,8978380692,Fax: 040-24455003 Fmail: <u>principal.mahaveer@gmail.com</u>. Vebsite: www.mist.ac.in,

> Name of the Faculty: Soylanya Academic Year: 21 Designation: Class: 20 +02503 ٧r Department: FCF Sem: Name of the Subject: Micolocoave Engeneoin Section: Rating Scale:5-Excellent, 4-Very Good, 3-Good, 2-Satisfactory, 1-Not Satisfactory S.No. Parameters 1 2 3 4 5 Curriculum is based on the needs of the 1 stake holders Extent to which the course content meets 2 Industrial requirement Availability of Text Books/Reference Books 3 to the prescribed syllabus How manageable is the syllabus load to the 4 student Extent to which the course content helps the ŝ student in his real time applications The course offers good balance between 6 theory and its practical applications Teaching Facilities provided for adopting 7 latest trends in research and technology. The number of periods allotted to the course 8 is sufficient to cover syllabus Any other comments: Should 60 filled between Theosy and Industry VSit Peratti ca ta 205with

TEACHERS FEEDBACK FORM

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Head, Electromits & Comm. Engl. (Hep), Mishaveer Institute of Science & Technology Randbucka, itelevated - Sciences

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MAHAVEER MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 005.

Signature of the Teacher

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Vysapuri, BandlagudaPost Keshavgiri, Hyderabad-500 005, TELANGANA, INDIA Tel: 040-64596979,8978380692 Fax: 040-24455003 E-mail: grincipal.mahaveer@gmail.com. Website: www.mist.ac.in,





TEACHERS FEEDBACK FORM

Name	of the Faculty:	Ch. Sundeep kun	nac		Academic '	Year:	2020-20
	Designation:	Asst Professol			(lass:	TV Y
	Department:	ELE				Sem:	I
Name	of the Subject:	VLSI Design			Sec	tion:	-
	Rating Scale:5	-Excellent, 4-Very Good, 3-Go	ood, 2-Sat	isfacto	ry, 1-Not S	satisfa	ctory
S.No.	10	Parameters	1	2	3	4	5
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2	Extent to whic Industrial requ	h the course content meets irement					~
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4	How manageat student	ble is the syllabus load to the			131	v	~
5		h the course content helps the eal time applications				V	-
6	theory and its p	ers good balance between mactical applications				V	
7	latest trends in	ities provided for adopting . research and technology.					V
8	The number of is sufficient to	periods allotted to the course cover syllabus				~	
Any oth	er comments:		EC.				
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Mahaveer Institute of Science & Technology Bandleguda, invalidabad - 580,095

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Bandlaguda, Hyd-500 005.

sapuri, BandlagudaPost;Keshavgiri, derabad-500 005, TELANGANA, INDIA I: 040-64596979,8978380692,Fax: 040-24455003 mail: <u>principal.mahaveeri@gmail.com</u>. ebsite: www.misLac.in, INTITUTE OF SCIENCE & TECHNOLOGY

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TEACHERS FEEDBACK FORM

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Name o	Tthe Faculty: N. Ashenan Ku	man	A	cademic Ye	C.R.F.	2020	1-21
		IQUER -		Cł	ass:	T	Y
	Designation: Asst Pools			S	em:	T	
Name e	I the Subject: Parta storictu	liet.		Sect	ion:	A	
	Rating Scale:5-Excellent, 4-Very Good, 3-Go	od, 2-Sati	sfactor	y, 1-Not Sa	tisfact	ory	
S.No.	Parameters	1	2	3	4		5
1	Curriculum is based on the needs of the stake holders						V
2	Extent to which the course content meets Industrial requirement			V			-
3	Availability of Text Books/Reference Books to the prescribed syllabus			V			
4	How manageable is the syllabus load to the student				V	-	
5	Extent to which the course content helps the student in his real time applications						V
6	The course offers good balance between theory and its practical applications						V
7	Teaching Facilities provided for adopting latest trends in research and technology.				V	1	
8	The number of periods allotted to the course is sufficient to cover syllabus				N	1	
Any of	her comments:	15					

Signature of the Teacher

Head of the Department Computer Science & Engineering Vyesspuri, Bandlaguda Post:Kessvagin,Hyderabad-500005 , Telangana, India

PRINCIPAL MAHAVEER INSTITUTE OF SCHENCE & TECHNOLOGY Banclaguda, Hyd-500 006. ysapuri, BandiagudaPost:Keshavgiri, yderabad-500 005, TELANGANA, INDIA ol: 040-64596979,8978380692 Fax: 040-24455003 mail: principal mahaveenti gmail.com absite: www.mist.ac.in.

MAHAVE INSTITUTE OF SCIENCE & TECHNOLOG Approved by AICTE, Affilitated to JNTUH, Hyd.



TEACHERS FEEDBACK FORM

	Designation: Acc. +			Academ	ic Year:	2020-	H
	Departmente pr	resor			Class:	14	Yr
Name	0.20				Sem:	T	
		Formi	42		Section:	B	
S.No.	Rating Scale:5-Excellent, 4-Very Good, 3- Parameters	Good, 2-S:	atisfact	tory, 1-N	ot Satisfa	ctory	
1	Curriculum is based on the needs of the stake holders	1	2	3	4	5	100
2	Extent to which the course content meets Industrial requirement		-	-	-		
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5	Extent to which the course content helps the student in his real time applications	10.50	-			-	-
6	The course offers good balance between theory and its practical applications		-		-	-	
7	Teaching Facilities provided for adopting latest trends in research and technology.				-		-
8	The number of periods allotted to the course is sufficient to cover syllabus				C	/	
ny othe	r comments:				_	_	
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Head of the Department Computer Science & Engineering Vyasapuri, Bandlaguda Post:Kasavagiri,Hyderabad-500005 Telangana, India

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Signature of the Teacher

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Vysapuri, BandlagudaPost:Keshavgiri, Hyderabad-500 005, TELANGANA, INDIA Tel: 040-64596979,8978380692,Fax: 040-24455003 E-mail: principal.mahaveer@umail.com. Website: www.mist.ac.in.

TEACHERS FEEDBACK FORM

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same e	of the Faculty: B. T	Mallach			Acad	emic Y	car:	20	20-10
-	Designation: ASSA	Mallaich	k			CI	2652	th	Z yr
	Department: TT	and had not	-			S	em:	1	
Name o	of the Subject: 140	T		-		Sect	iou:		
	Rating Scale:5-Excelle	nt, 4-Very Good, 3-Go	od, 2-8a	tisfact	ory, 1	-Not Sa	itisfa	ctory	r
S.No.	- Paran		1	2		3	4		5
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2	Extent to which the co- Industrial requirement	urse content meets			1			1	
3	Availability of Text Bo to the prescribed syllab	ooks/Reference Books				1	~		
4	How manageable is the student								./
5	Extent to which the co student in his real time	urse content helps the applications	1	1	-		2	1	
6	The course offers good theory and its practical	d balance between			-				/
7	Teaching Facilities pro- latest trends in research	ovided for adopting		21			1	/	
8	The number of periods is sufficient to cover s	s allotted to the course					,	/	
Any oth	er comments:							~	

Dr.A.Nanda Gopal Reddy OD, Dept.of Information Tech Mahavear Institute of Lenence & Te Vyasapuri, Bandlepudg, Post Kess Hydersbad-500005.

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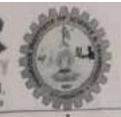
PRINCIPAL MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-SOG 005

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Signature of the Teacher

Vysapuri, BandlagudaPost;Keshavgiri, Hyderabad-500 005, TELANGANA, INDIA Tel: 040-64596979,8978380692,Fax: 040-24455003 E-mail: <u>principal.mahavpen@gmail.com</u>, Website: www.mist.ac.in,

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TEACHERS FEEDBACK FORM

Name	of the Faculty:	K Prinneka			Acade	mic Y	(ear:	2.0	20-21
-	Designation:	K Prinjanka Assistant Professor		-	000110000	11111	Tass:	9	¥ 1
-	Department:	IT			-	11	Sem:	H	
Name	of the Subject:	I MIS			_	Sec	tion:	-	
	Rating Scale:5	Excellent, 4-Very Good, 3-Go	al 2.80	electrone.				ctor	v
S.No.		Parameters	1	2	July, K	3	1 4		5
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3	Availability of to the prescrib		-					1	
4	How managea student	ble is the syllabus load to the						T	. /
5	Extent to which student in his s	h the course content helps the real time applications	2012	2.7.	-			10,0	1
6	The course of theory and its	ers good balance between						1	
7	reaching Fact	lities provided for adopting . research and technology.		1		E			1
8	The number o	f periods allotted to the course cover syllabus						-	1
Any oth	er comments:		+	-				*	1
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Dr.A.Nanda Gopal Reddy HOD, Dept.of Information Technology Mahaveer Institution Science & Tech Vyssepuri, Bandliguili, Post Kess Hyderabad-S00005.

PRINCIPAL MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 005.

K. Peryout Signature of the Teacher

Vysapuri, BandlagudaPost Keshavgiri, Hyderabad-500 005, TELANGANA, INDIA Tel: 040-64596979.8978380692, Fax: 040-24455003 E-mail: principal.mahaveer@gmail.com, Website: www.mist.ac.in,

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TEACHERS FEEDBACK FORM

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Vysapuh, BandlagudaPost,Keshavgiri, Hyderabad-500.005, TELANGANA, INDIA Tel. 040-64596979,8978380692,Fax: 040-24455003 E-mail: <u>principal.mahaveeri@gmail.com</u>, Website: www.mist.ac.in.

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MAHAVEE

TEACHERS FEEDBACK FORM

Name o	of the Faculty: D+ Noveev	9		Academic Y	ear:	2020-2
	Decignations	ester		C	lass:	$\sqrt{V} = V_{1}$
	Department: AEvonautic	and the second se	min	1	Sem:	55
Name	of the Subject: Environment in		-	Sec	tion:	5
	Rating Scale:5-Excellent, 4-Very Goo			ory, 1-Not S	atisfac	tory
S.No.	Parameters	1	2	3	4	5
1	Curriculum is based on the needs of the stake holders	e		V		
2	Extent to which the course content me Industrial requirement	ets		~		
3	Availability of Text Books Reference to the prescribed syllabus	Books			V	
4	How manageable is the syllabus load t student	o the			V	< .
5	Extent to which the course content hel student in his real time applications	ps the		V		
6	The course offers good balance betwee theory and its practical applications	en		122	/	
7	Teaching Facilities provided for adopt latest trends in research and technolog	10.27 P. 10			v	1
8	The number of periods allotted to the o is sufficient to cover syllabus	course				~
Any oth	er comments:					I/
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ı/ Signature of the Teacher

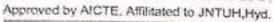
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Vysapuri, BandlagudaPost:Keshavgiri, Hyderabad-500 005, TELANGANA, INDIA Tel: 040-64596979,8978380692,Fax: 040-24455003 E-mail: <u>principal.mahaveer@gmail.com</u>. Website: www.mist.ac.in,







TEACHERS FEEDBACK FORM

Designation: Department:	Assistant profes	sor.			2710 ALC: 1	- College	20-21
epartment:					Class:		TY
ame of the Subject: Mathematics		Sences	(HAS)	}	Sem:	1	Г
the Subject:		1.4		5	Section:	-	-
ating Scale:5	the second se	od, 2-Sa	tisfact	ory, 1-No	t Satisfa	ctor	v
	Parameters	1	2			-	5
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he course off heory and its p	ers good balance between practical applications		2		~	~	
eaching Facil	ities provided for adopting			V			
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	ating Scale:5 	A stating Scale:5-Excellent, 4-Very Good, 3-Good - Parameters Curriculum is based on the needs of the take holders Extent to which the course content meets Industrial requirement Availability of Text Books/Reference Books to the prescribed syllabus How manageable is the syllabus load to the	ating Scale:5-Excellent, 4-Very Good, 3-Good, 2-Sa Parameters 1 Curriculum is based on the needs of the take holders 1 Extent to which the course content meets industrial requirement 1 Availability of Text Books/Reference Books of the tudent 1 Extent to which the course content meets industrial requirement 1 Availability of Text Books/Reference Books of the prescribed syllabus 1 How manageable is the syllabus load to the tudent 1 Extent to which the course content helps the tudent in his real time applications 1 The course offers good balance between heory and its practical applications 1 The course offers good balance between heory and its practical applications 1 The number of periods allotted to the course 1	ating Scale:5-Excellent, 4-Very Good, 3-Good, 2-Satisfact Parameters 1 Durriculum is based on the needs of the take holders Extent to which the course content meets industrial requirement Availability of Text Books/Reference Books o the prescribed syllabus How manageable is the syllabus load to the tudent Extent to which the course content helps the tudent Extent to which the course content helps the tudent in his real time applications The course offers good balance between heory and its practical applications Teaching Facilities provided for adopting atest trends in research and technology. The number of periods allotted to the course	ating Scale:5-Excellent, 4-Very Good, 3-Good, 2-Satisfactory, 1-Na Parameters 1 2 3 Curriculum is based on the needs of the take holders 1 2 3 Curriculum is based on the needs of the take holders 1 2 3 Extent to which the course content meets industrial requirement 1 2 3 Availability of Text Books/Reference Books 1 2 3 Interpret of the prescribed syllabus 1 1 2 3 How manageable is the syllabus load to the tudent 1	ating Scale:5-Excellent, 4-Very Good, 3-Good, 2-Satisfactory, 1-Not Satisfa Parameters 1 2 3 4 Curriculum is based on the needs of the take holders V V 4 Curriculum is based on the needs of the take holders V V 4 Extent to which the course content meets is ndustrial requirement V V V Availability of Text Books/Reference Books of the tudent V V V Invariant to which the course content helps the tudent V V V Invariant to which the course content helps the tudent V V V Invariant to which the course content helps the tudent V V V Invariant to which the course content helps the tudent V V V Invariant to which the course content helps the tudent V V V Invariant to which the course content helps the tudent is practical applications V V V Invariant to which the course content helps the tudent is practical applications V V V Invariant to which the course content helps the tudent is practical applications V V V Invariant to which the course offers good balance between heory and its practical applications V V V Invariant tends in research and tec	ating Scale:5-Excellent, 4-Very Good, 3-Good, 2-Satisfactory, 1-Not Satisfactor Parameters 1 2 3 4 Curriculum is based on the needs of the take holders 1 2 3 4 Curriculum is based on the needs of the take holders 1 2 3 4 Curriculum is based on the needs of the take holders 1 2 3 4 Curriculum is based on the needs of the take holders 1 2 3 4 Curriculum is based on the needs of the take holders 1 2 3 4 Curriculum is based on the needs of the take holders 1 1 2 3 4 Curriculum is based on the needs of the take holders 1

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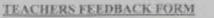
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Vysapuri, BandlagudaPost,Keshavgiri, Hyderabad-500 005, TELANGANA, INDIA Tol: 040-64596979,8978380692 Fax: 040-24455003 E-mail: principal.mahaveen@gmail.com, Website: www.mist.ac.in,



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Name (of the Faculty:	Dr. K. Madhusudhana			As	ademic Y	car:	202	0-2021
	Designation:	Assistant profes	glor			C	laisi:		TY
	Department:						iem:	T	
Name o	of the Subject:	Appleed Physics.	aine sa th			Sect	ion:		
	Rating Scale:5	Excellent, 4-Very Good, 3-Go	od, 2-Sa	tisfact	ory	, I-Not S	atisfa	ctory	<u>6</u>
S.No.		Parameters	1	2		3	-	F.	5
Ъ	Curriculum is stake holders	based on the needs of the				~			
2	Extent to which Industrial requ	h the course content meets irrement		V	1				
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8	and the second of the second sec	f periods allotted to the course cover syllabus					1	1	
ny oth	er comments:							1	
Any oth	er comments:					4. +)			

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Signature of the Teacher

HOD

Department of Humanities & Sciences Matuweer Institute of Science & Technolo, HYDERABAD



Counseling Code: MHVR, University Code: E3





EMPLOYERS FEEDBACK

Dear Employer,

Greetings.

We greatly acknowledge you, for showing continuous interest in recruiting our graduates in your esteemed organization. Hoping that our graduates are performing up to your expected level. To enhance the performance of future graduates, we have been conducting stakeholder survey yearly. As you are one of our esteemed stakeholders, we request you to spend your valuable time in the process.

Your opinions and suggestions will help us for the continuous improvement of the quality of our academic programs, and we appreciate your time in filling out this survey.

Name of the Employee	:	Shirisha Eeshwaroju
Designation	:_	Software Testing engineer
Branch of Engineering/PG	:_	ECE

	Rating Scale : 5-Excellent, 4-Very Good, 3-Good, 2-Satifactory, 1.	Not Sa	tisfacț	ory		
S.No	How satisfied are you with the employee/s (Our student/s) work performance and the academic system in these areas.	5	4	3	2	1
1.	Extent of the Curriculum fulfillment in attaining the Industrial Needs,		~			
2.	Extent of the Curriculum in supporting the Usage of the Modern Tools.		1			
3.	Extent of the Curriculum enhancement in the Managerial and Financial handling capabilities,		1			
4.	Extent of the Curriculum support for the creative and practical solutions to work place Challenges.					
5.	Curriculum effectiveness in building leadership qualities and team spirit.	1				
6.	Extent to which Curriculum supports in enhancing communication skills	5				
7.	Extent of the Curriculum support in the fulfillment of R & D activities of the Industry.	\checkmark				
8.	Curriculum effectiveness to work in Multi-Disciplinary Teams.					
9.	Extent to which Curriculum has good balance between theory and application to bridge the Industry-Academia gap.					
10.	Curriculum effectiveness in offering ample range of optional /electives /value-added courses			1		

On a	scale of 1 to	10, 10% 00	you rate y	our overall	saustactio	n with our alumni	and the currici	ilum.
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Head, Electronics & Comm. Engli. Dept. Mahaveer Institute of Science & Tachnology Bandlagude Kys. stad - CCC 000

PRINCIPAL NAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 005.

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Suggestions for the program/s improvement, if any		
Good		
Contact information for future correspondence. Email.ID: chandru.g@tcs.com Phone: 7569502682		
Name: Garigala Chandru	Designation: Lead.HealthCare	
Company/Organization: TATA CONSULTA	NCY SERVICES-TCS	

Date: 22-4-2022

Signature: _____chandu

Head, Electro

Mahaveer Institute of Science & Technolog Bandlaguda, Hyderabad - 500 005

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PRINCIPAL MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 005.





Counseling Code: MHVR, University Code: E3

EMPLOYERS FEEDBACK

Dear Employer,

Greetings.

We greatly acknowledge you, for showing continuous interest in recruiting our graduat. I is entermed organization. Hoping that our graduates are performing up to your expected level. To influence the performance of future graduates, we have been conducting stakeholder survey yearly. As you are one of our esteemed stakeholders, we request you to spend your valuable time in the process.

Your opinions and suggestions will help us for the continuous improvement of the quality of our researche programs, and we appreciate your time in filling out this survey.

Name of	ſı	hc	Emp	loyce

Designation

Branch of Engineering/PG

:	Giv-66am mani Rupak
:	Project Engineer
:	computer science engineering

	Rating Scale : 5-Excellent, 4-Very Good, 3-Good, 2-Satifactory, 1	-	1			1
S.No	How satisfied are you with the employee/s (Our student/s) work performance and the academic system in these areas.	5	4	3	2	1
1.	Extent of the Curriculum fulfillment in attaining the Industrial Needs.	V		5		
2	Extent of the Curriculum in supporting the Usage of the Modern Tools.		V			
3.	Extent of the Curriculum enhancement in the Managerial and Financial handling capabilities.		V			
4.	Extent of the Curriculum support for the creative and practical solutions to work place Challenges.	1				
5.	Curriculum effectiveness in building leadership qualities and team spirit.	\bigvee				
6.	Extent to which Curriculum supports in enhancing communication skills		1			
7.	Extent of the Curriculum support in the fulfillment of R & D activities of the Industry.	V.	2			
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10.	Curriculum effectiveness in offering ample range of optional /electives /value-added courses	1	1		6.1	

On 2	scale of 1 to	10, how de	o you rate y	our overall	satisfaction	with our	alumnt au	nd the coordinatum?
1	2	3	4	5	6	7	8	- S Cion

MAHAVEER DISTITUTE OF SCIENCE & TECHNOLOW Bandlaguda, Hyd-500 005. Suggestions for the program's improvement, if any,

Contact in formation for luture correspondence. Email.ID: guttommanitupaltegmail. Com

Phone: 9133809715

same: Asveb De	Designation: Delivery Excellence Leader
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Company Organization: wipso Limited

Date: 20/04/22

Signature: G. Mani Rupate

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MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 005.

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Counseling Gode: MHVR, University Code: E3

MAHAVEER



Approved by AICTE, Affilitated to JNTUH, Hyd

EMPLOYERS FEEDBACK

Dear Employer,

Greetings,

We greatly acknowledge you, for showing continuous interest in recruiting our graduates in your esteemed organization. Hoping that our graduates are performing up to your expected level. To enhance the performance of future graduates, we have been conducting stakeholder survey yearly. As you are one of our esteemed stakeholders, we request you to spend your valuable time in the process.

Your opinions and suggestions will help us for the continuous improvement of the quality of our academic programs, and we appreciate your time in filling out this survey.

Name of the Employee Designation Branch of Engineering/PG

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(A. 1.)	G. Shr	reya	. Stant
	50ftwa.	re Engin	ern
1 ⁹⁹ :	Compute		

	Rating Scale : 5-Excellent, 4-Very Good, 3-Good, 2-Satifactory, 1.	Not Sa	lisfacto	ry	1	10
S.No	How satisfied are you with the employee/s (Our student/s) work performance and the academic system in these areas.	5	4	3	2.	1
1.	Extent of the Curriculum fulfillment in attaining the Industrial Needs.	1	~		•	
2.	Extent of the Curriculum in supporting the Usage of the Modern Tools.	1	$\begin{array}{c} \Delta_{ij}(t,t) \\ (0,t,t) = 0 \\ (1,t,t) = 0 \end{array}$	4		54-14 1-1-12
3.	Extent of the Curriculum enhancement in the Managerial and Financial handling capabilities.	1		A AL		1000
4.	Extent of the Curriculum support for the creative and practical solutions to work place Challenges.	·	V	14.2	2.941. 	
5.	.Curriculum effectiveness in building leadership qualities and team spirit.	V				11.4
6.	Extent to which Curriculum supports in enhancing communication skills	1	W.	- Kert		573
7.	Extent of the Curriculum support in the fulfillment of R & D activities of the Industry.	1	13.	1	14	
8.	Curriculum effectiveness to work in Multi-Disciplinary Teams.		1			11.1
9.	Extent to which Curriculum has good balance between theory and application to bridge the Industry-Academia gap.	1			101-	
10.	Curriculum effectiveness in offering ample range of optional /electives /value-added courses		1			

On a scale of 1 to 10, how do you rate your overall	satisfaction	with our alumni	and the curriculum?
	101 Del 10	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	and the second state and a second state
	in the second		· · · · · · · · · · · · · · · · · · ·

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INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 005.

VEER

Suggestions for the program's improvement, if any. 1. Organizing more cultural Events 2. Conducting sessions on Team Building. Contact information for future correspondence. Email. ID: Shreyagauecharyol@gmail.com /gauecharyshreya@accenture Phone: 8247862281 Designation: Arst. Manager Name: Snidhar Goud Company/Organization: Accentuse private Solutions Date: 18/04/22 Signature: ____ PRINCIPAL MAHA VEER INSTITUTE OF SCIENCE & TECHNOCCO. Bandlaguda, Hyd-500 005.





CounselingCode: MHVR, UniversityCode: E3

ALUMNI FEEDBACK

Dear Alumni, Greetings,

We are happy that you have spent your valuable years pursuing higher education in this Institution. To enhance the performance of the future graduates, We are conducting feedback survey. We shall be thankful if you can spare some of your valuable time to fill up this alumni feedback form and give us your valuable suggestions. Your opinions and suggestions will help us continuously improve the quality of our academic programs, and we appreciate your time in filling out this survey.

Name of the Alumni:	B. Kishore	Email:	kishore boda kuntag 7 89malo
H.T.No:	14E-31 AO 306.	Contact No:	9441984553
Branch:	mechanical	Year of Passing:	2018

Rating Scale: 5-Excellent, 4-VeryGood, 3-Good, 2-Satifactory, 1.Not Satisfactory

S. No.	Parameters	Grade
1	The extent to which syllabus and curriculum augment the technical skill set and communication skills.	5
2	The extent to which syllabus and curriculum meet the current job requirements	5
3	The extent to which syllabus and curriculum augments for higher education	4
4	The extent to which syllabus and curriculum enhances problem solving skills and modern tools used for real time engineering	4
5	The extent to which syllabus and curriculum augment managerial skills and finance handing capability	5
6	Curriculum fulfillment in attaining real time industry requirement	5
7	Curriculum effectiveness in improving planning and organizational skills.	4
8	Curriculum effectiveness in building leadership qualities and team spirit	5
9	Curriculum support in enhancing communication skills	4
10	The extent to which the syllabus meets the expected learning values, life skills, human values with societal responsibilities	5
	Average Grading:	5



Approved by AICTE, Affilitated to JNTUH, Hyd.

CounselingCode: MHVR, UniversityCode: E3

Present Position:

Company/University/Entrepreneur	Designation/Degree/License	Address
steel Infra solutions prtUd	Ergineer.	Steel Infra solutions put 122 Bhilai, CH.

Suggestions if Any:	

Lashoer B Signature of the Alumni

PRINCIPAL MANAVEER INSTITUTE OF SCIENCES ITCHNOLOGY Bandlagusse, Hyd-500 605.





CounselingCode:MHVR,UniversityCode:E3

ALUMNI FEEDBACK

Dear Alumni, Greetings,

We are happy that you have spent your valuable years pursuing higher education in this Institution. To enhance the performance of the future graduates, We are conducting feedback survey. We shall be thankful if you can spare some of your valuable time to fill up this alumni feedback form and give us your valuable suggestions. Your opinions and suggestions will help us continuously improve the quality of our academic programs, and we appreciate your time in filling out this survey.

Name of the Alumni:	B. RAMA	Email:	thukygsamlal garan
H.T.No:	16F35A0302	Contact No:	6305445270
Branch:	DEChanical	Year of Passing:	2019

Rating Scale: 5-Excellent, 4-VeryGood, 3-Good, 2-Satifactory, 1.Not Satisfactory

S. No.	Parameters	Grade
1	The extent to which syllabus and curriculum augment the technical skill set and communication skills.	5
2	The extent to which syllabus and curriculum meet the current job requirements	ч
3	The extent to which syllabus and curriculum augments for higher education	5
4	The extent to which syllabus and curriculum enhances problem solving skills and modern tools used for real time engineering	4
5	The extent to which syllabus and curriculum augment managerial skills and finance handing capability	5
6	Curriculum fulfillment in attaining real time industry requirement	ч
7	Curriculum effectiveness in improving planning and organizational skills.	5
8	Curriculum effectiveness in building leadership qualities and team spirit	CI
9	Curriculum support in enhancing communication skills	5
10	The extent to which the syllabus meets the expected learning values, life skills, human values with societal responsibilities	4
	Average Grading:	5



Approved by AICTE, Affilitated to JNTUH, Hyd.

CounselingCode: MHVR,UniversityCode: E3

Present Position:

Company/University/Entrepreneur	Designation/Degree/License	Address

Suggestions if Any: need to Improve Subjects. Related auto nation and Rapid photping manufiliting

Signature of the Alumni

PRINCIPAL MAHAVEER

MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 005.





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Counseling Code MHVR, University Code: E3

EMPLOYERS FEEDBACK

Dear Employer.

Greetings.

We greatly acknowledge you, for showing continuous interest in recruiting our graduates in your esteened organization. Hoping that our graduates are performing up to your expected level. To enhance the performance of future graduates, we have been conducting stakeholder survey yearly. As you are one of our esteemed stakeholders, we request you to spend your valuable time in the process.

Your opinions and suggestions will help us for the continuous improvement of the quality of our academic programs, and we appreciate your time in filling out this survey.

Name of the Employee	: R. Vayupidhra
Designation	: Associate Design Engineer
Branch of Engineering/PG	: Mechanical

	Rating Scale : 5-Excellent, 4-Very Good, 3-Good, 2-Satifactory,		-	1		
S.No	How satisfied are you with the employee/s (Our student/s) work performance and the academic system in these areas.	5	4	3	2	1
1.	Extent of the Curriculum fulfillment in attaining the Industrial Needs.	1				
2	Extent of the Curriculum in supporting the Usage of the Modern Tools.	1				
3.	Extent of the Curriculum enhancement in the Managerial and Financial	1				
4.	Extent of the Curriculum support for the creative and practical solutions to work place Challenges.	V				
5.	Curriculum effectiveness in building leadership qualities and team spirit.					
6.	Extent to which Curriculum supports in enhancing communication skills	1				
7.	Extent of the Curriculum support in the fulfillment of R & D activities of the Industry.	1				
3.	Curriculum effectiveness to work in Multi-Disciplinary Teams.	1				
	Extent to which Curriculum has good balance between theory and application to bridge the Industry-Academia gap.	1				
5.	Curriculum effectiveness in offering ample range of optional /electives /value-added courses	1				

Ona	scale of I to	9 10, how d	o you rate y	our overan	satistaction	i with our :	numni and	d the curricu	um ?
	1	-		5	6	7	0	0.11	

Suggestions for the program/s improvement, if any,

a Meccel to improve Subjects for Industrial Requirements

Contact in formation for future correspondence. Email. ID: Wayuputhra@gmail.Com Phone: 8801940252

Designation: Accerial - Design Engineer Name: R. Vayupetture. Company/Organization: Tech Molundro Limited Signature: 10 our rather Date: 19 04 2022

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MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 COS.

Counseling Code: MHVR, University Code: E3

MAHAVEER



EMPLOYERS FEEDBACK

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Your opinions and suggestions will help us for the continuous improvement of the quality of our academic programs, and we appreciate your time in filling out this survey.

Name of the Employee	: Kishore B	
Designation	: Engineer	
Branch of Engineering/PG	: Mechanical	

	Rating Scale : 5-Excellent, 4-Very Good, 3-Good, 2-Satifactory, 1.	Not Sa	tisfacto	ry		
S.No	How satisfied are you with the employee/s (Our student/s) work performance and the academic system in these areas.	5	4	3	2	1
1.	Extent of the Curriculum fulfillment in attaining the Industrial Needs.	11				
2.	Extent of the Curriculum in supporting the Usage of the Modern Tools.		~			
3.	Extent of the Curriculum enhancement in the Managerial and Financial handling capabilities.	1				
4.	Extent of the Curriculum support for the creative and practical solutions to work place Challenges.	/				
5.	Curriculum effectiveness in building leadership qualities and team spirit.	\checkmark				
6.	Extent to which Curriculum supports in enhancing communication skills	1				
7.	Extent of the Curriculum support in the fulfillment of R & D activities of the Industry.		~			
8.	Curriculum effectiveness to work in Multi-Disciplinary Teams.					
9.	Extent to which Curriculum has good balance between theory and application to bridge the Industry-Academia gap.		/			
10.	Curriculum effectiveness in offering ample range of optional /electives /value-added courses		1			

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Ona	cale of 1 to	TO, now ut	you rate yo	our overan	Saustactio	n with our a	lumni and	the curric	ulum?
									aram.
						T	r		

Suggestions for the program's improvement, if any. 1. Conducting more practical printe on cose oriented religion. 2. Interactive septions on helation ship management 3. Enteractive septions building series. 3. communication / Team building series.

Contact information for future correspondence. Email.ID: kdeypale, reddy @ Simol.in Phone: 9030817500

Name: K Dupak Leddy	Designation: Asit. Manager
Name	gupa Solutions Put und (SISCOL)
Date: 1404/2022	Signature:
Date:	Δ

PRINCIPA MAHAVEER INSTITUTE OF SCIENCE & TECHNOLOGY Bandlaguda, Hyd-500 005.



CounselingCode: MHVR, UniversityCode: E3

ALUMNI FEEDBACK

Dear Alumni, Greetings,

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Name of the Alumni:	ALUMNI FEED BACK	Email:	shirisha2514@gmail.com
H.T.No:	17E31A0421	Contact No:	7731983260
Branch:	ECE	Year of Passing:	2021

S. No.	Parameters	Grade
1	The extent to which syllabus and curriculum augment the technical skill set and communication skills.	4
2	The extent to which syllabus and curriculum meet the current job requirements	3
3	The extent to which syllabus and curriculum augments for higher education	3
4	The extent to which syllabus and curriculum enhances problem solving skills and modern tools used for real time engineering	4
5	The extent to which syllabus and curriculum augment managerial skills and finance handing capability	3
6	Curriculum fulfillment in attaining real time industry requirement	3
7	Curriculum effectiveness in improving planning and organizational skills.	4
8	Curriculum effectiveness in building leadership qualities and team spirit	5
9	Curriculum support in enhancing communication skills	3
10	The extent to which the syllabus meets the expected learning values, life skills, human values with societal responsibilities	5

Average Grading:

1

Head, Electronics & London Annual Annual Mahaveer Institute of Science & Technolog, Bandlayuda, Hyderabad - 500 005

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Bandlaguda, Hyd-500 005.

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CounselingCode: MHVR, UniversityCode: E3

Present Position:

Company/University/Entrepreneur	Designation/Degree/License	Address
TCS	Software testing engineer	Adibatla unit-I SEZ, Hyderabad, Telangana

Suggestions if Any:

I am glad to provide Alumni feedback .My overall experience about the college is good and college is having an amazing infrastructure and college has provided me with a number of opportunities to grow and explore my skills.

> shirisha Signature of the Alumni

> > 1

Head, Electronics & Comm. Engg. Dept. Mahaveer Institute of Science & Technology 2 Bandlard 205

