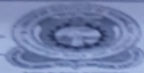


**Dr. Ambedkar Institute of Technology**  
**Department of Electronics & Telecommunication Engineering**

The enclosed documents are verified and approved.

*S. S. T.*  
for HoD H. O. D  
Dept. of Electronics & Telecommunication Engg.  
Dr. Ambedkar Institute of Technology  
Bengaluru-560 056

Dr. Ambedkar Institute of Technology  
Bengaluru-560 056



DR AMBEDKAR INSTITUTE OF TECHNOLOGY, BANGALORE

Department of Telecommunication Engineering

LESSON PLANNING

SUBJECT TITLE: *Satellite Communication - 6th Sem*

Faculty Name: *Dr. Sudha. Thimmiah.*

REFERENCE DOC NO : *Dr AIT/DEAN/7.1 DOC-03*

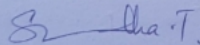
SUBJECT CODE: *18TEG34* NO OF CREDITS : *-03-*

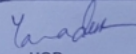
ISSUE NO /DATE : *Dr AIT/DEAN/ 209*

NO OF HOURS : *-39-*

PLANNED			ACTUAL					
No of Classes	Unit No	Planned Lesson	Unit No	Date	Lesson Covered	No of students	Faculty sign	Remarks
1	1.	Orbit - Intra Kepler's laws	1.	1/4	Introduction to Sat Com	54	<i>[Signature]</i>	
2		definitions, Orbital elements,		5/4	Aspects of Sat Link	62	<i>[Signature]</i>	
3		Apogee & Perigee heights.		7/4	Block Diagrams -	65	<i>[Signature]</i>	
4		Orbital perturbations,		8/4	freq. bands.	62	<i>[Signature]</i>	
5		Sidereal Time, Orbital		12/4	Orbital elements.	67	<i>[Signature]</i>	
6		plane, Sun-synchronous		15/4	Definition.	66	<i>[Signature]</i>	
7		orbit - Radio-wave		19/4	Apogee & Perigee hts	65	<i>[Signature]</i>	
8		propagation - relevant prob.		21/4	Orbital perturbation	66	<i>[Signature]</i>	
9				22/4	Sun-transit, Sidereal	67	<i>[Signature]</i>	
10	2.	Geostationary Orbit - Antenna		26/4	time, radio wave	65	<i>[Signature]</i>	
11		look angles, H <sub>min</sub> Mt. limits		28/4	propagation	64	<i>[Signature]</i>	
12		of visibility, Earth Eclipse,		29/4	Relevant problems:	61	<i>[Signature]</i>	
13		Sun Transit Outage, launching &		3/5	look angles, p <sub>max</sub>	60	<i>[Signature]</i>	
14		orbits - relevant prob.		5/5	max, limits of visi-	65	<i>[Signature]</i>	
15				6/5	bility, Eclipse, Sun	66	<i>[Signature]</i>	
16	3.	Space Link - EIRP, Txom		10/5	transit outage, laun-	62	<i>[Signature]</i>	
17		losses, Link Power Budget,		12/5	ching orbits	61	<i>[Signature]</i>	
18		System Noise, CNR,		13/5	Relevant problems.	60	<i>[Signature]</i>	
19		Uplink/Downlink, Combined	3.	17/5	EIRP, losses, link	65	<i>[Signature]</i>	
20		CNR - relevant prob.		19/5	power budget.	64	<i>[Signature]</i>	
21				20/5	System Noise CNR-	62	<i>[Signature]</i>	
22	4.	Space Segments - Power		24/5	Uplink, Downlink.	63	<i>[Signature]</i>	
23		Supply, Altitude Control.		26/5	Combined CNR	66	<i>[Signature]</i>	

24		Station keeping, Thermal		27/5	Relevant problems	62	✓
25		Control, TTx C, Subsystem, 4		31/5	Power supply, altitude	67	✓
26		Transponder		02/6	control, Station keeping	62	✓
27		Scanner, Satt mobile		3/6	TTx C, Transponder,	64	✓
28		Scanner, VSATs, Radarsat,		7/6	Subsystems	65	✓
29		GPS.		9/6	Scanners - Satt mobile	60	✓
30				10/6	VSATs, Radarsat	58	✓
31	5.	Earth Segment, Receive		14/6	GPS.	57	✓
32		only home TV System	5.	16/6	Receive only home	52	✓
33		Outdoor unit, indoor		17/6	TV System - DBS,	62	✓
34		MATV, CATV, Tx-Rx		21/6	Outdoor Unit.	63	✓
35		Earth station.		23/6	Indoor Unit.	61	✓
36				24/6	MATV	64	✓
37				28/6	CATV	65	✓
38				30/6	Tx-Rx - Earth station	62	✓
39				5/7	Relevant Numericals	60	✓

  
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HOD



LESSON PLANNING (2022)

SUBJECT TITLE: COMPUTER COMMUNICATION NETWORKS

Faculty Name: Dr. Vidya Honguntikar

ISSUE NO / DATE: Dr.AIT/DEAN/ 209

SUBJECT CODE: 18ET61

NO OF CREDITS : 4

NO OF HOURS : 4

PLANNED			ACTUAL					
No of Classes	Unit No	Planned Lesson	Unit No	Date	Lesson Covered	No of students	Faculty sign	Remarks
1	I	Syllabus discussion & Introduction	I	28.03.2022	Syllabus discussion & Introduction			
2		Layered Tasks, need and number		28.03.2022	Layered Tasks, need and number	50		
3		OSI model		31.03.2022	OSI model	51		
4		Functions of each layer		01.04.2022	Functions of each layer	48		
5		TCP/IP Protocol Suite		04.04.2022	TCP/IP Protocol Suite	45		
6		comparison between OSI and TCP/IP		06.04.2022	comparison between OSI and TCP/IP	50		
7		Addressing Modes		06.04.2022	Addressing Modes	48		
8		Continuation of addressing modes		07.04.2022	Continuation of addressing modes	51		
9		Circuit switched Networks		08.04.2022	Circuit switched Networks, Datagram Networks	52		
10		Datagram Networks		18.04.2022	Virtual Circuit Networks	53		
11		Virtual Circuit Networks		20.04.2022	Problems on Unit I	54		
12		Problems on Unit I	II	21.04.2022	Data Link Control	53		
13	II	Data Link Control		22.04.2022	Framing, types etc.	52		
14		Framing, types etc Flow and error control		25.04.2022	Flow and error control	51		
15		Bit & Byte Stuffing		27.04.2022	Noiseless Simplex Protocol, Noiseless Stop & wait	54		
16		Noiseless Simplex Protocol, Noiseless Stop & wait		30.04.2022	Noisy stop & wait Protocol	53		
17		Noisy stop & wait Protocol		08.05.2022	Go-back-N protocol, Selective Repeat protocol	54		
18		Go-back-N protocol, Selective Repeat protocol		08.05.2022	HDL C frame format and types	51		
19		HDL C frame format and types		11.05.2022	Multiple Access protocols	52		
20		CSMA, CSMA/CD, CSMA/CA,		12.05.2022	Random access, Pure and slotted Aloha	48		
21		Controlled access protocols-Reservation & Polling		16.05.2022	CSMA	47		
22		Token Passing, Channelization		18.05.2022	CSMA/CD, CSMA/CA	50		
23		FDMA, TDMA, CDMA		19.05.2022	Controlled access protocols	52		
24		Examples & Problems		19.05.2022	Reservation & Polling, Token Passing	54		
25	III	Wired & Wireless LANs		23.05.2022	Channelization-FDMA, TDMA	53		
26		IEEE Sids		24.05.2022	CDMA	47		
27		Standard Ethernet	III	23.05.2022	Wired & Wireless LANs	50		
28		Changes in Standard		25.05.2022	IEEE Sids	52		
29		Fast Ethernet		26.05.2022	Standard Ethernet	54		
30		Wireless LANs		26.05.2022	Changes in Standard	53		
31		IEEE 802.11 Standard		30.05.2022	Fast Ethernet	47		
32		Bluetooth, connecting devices		30.05.2022	Examples & Problems	50		
33		Passive hubs, Repeaters		01.06.2022	Wireless LANs	52		
34		Active hub, bridges and Routers		02.06.2022	Wireless LANs	54		
35	IV	Network Layer		02.06.2022	Wireless LANs	53		
36		Internetworking, IPV4, IPV6		06.06.2022	IEEE 802.11 Standard	53		
37		Transition from IPV4 to IPV6		08.06.2022	Bluetooth, connecting devices	49		
38		Delivery, Forwarding techniques and Process		08.06.2022	Passive hubs, Repeaters	50		
39		Unicast Routing Protocols	IV	09.06.2022	Active hub, bridges and Routers	55		
40		Distance vector Routing,		09.06.2022	Network Layer	51		
41		Link State Routing,		13.06.2022	Internetworking, IPV4, IPV6	47		
42		Dijkstra's Algorithm, examples		15.06.2022	Transition from IPV4 to IPV6	50		
43	V	Transport layer protocols: User Datagram protocol		16.06.2022	Delivery, Forwarding techniques and Process	52		
44		User Datagram		16.06.2022	Unicast Routing Protocols, Distance Vector Routing	54		
45		UDP services, UDP Applications	V	18.06.2022	Link state and Dijkstra's Algorithm	53		
46		Transmission Control Protocol		20.06.2022	Transport layer protocols: User Datagram protocol	53		
47		TCP Services		22.06.2022	User Datagram	53		
48		TCP Features		25.06.2022	UDP services, UDP Applications	47		
49		Segment, Connection		25.06.2022	Transmission Control Protocol	50		
50		windows in TCP		01/07/2022	TCP Services, TCP Features	52		
51		Flow control Error control		01/07/2022	TCP Features, Segment, Connection	54		
52		TCP congestion control		04/07/2022	windows in TCP	53		
				06/07/2022	Flow control Error control	47		
				07/07/2022	TCP congestion control	50		

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Signature of Faculty

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**DR AMBEDKAR INSTITUTE OF TECHNOLOGY BANGALORE**  
Department of Telecommunication Engineering  
**LESSON PLANNING**

SUBJECT TITLE: **ARM PROCESSOR & EMBEDDED SYSTEM DESIGN**  
REFERENCE DOC NO: **DI/AIT/CEANT/1/DOC-03**  
ISSUE NO/DATE: **DI/AIT/CEANT/209**

Faculty Name: **USHA RANI M.A**  
SUBJECT CODE: **18TES4 / 18ET54** NO OF CREDITS: **4**  
NO OF HOURS: **52**

PLANNED		ACTUAL						
No of Classes	Unit No	Planned Lesson	Unit No	Date	Lesson Covered	No of Students	Faculty sign	Remarks
1	1	Introduction	1	21/10/21	Introduction E.S	50	UR	
2	1	Overview of embedded systems	1	5/10/21	Definition overview	51	UR	
3	1	embedded system design challenges	1	9/10/21	Challenges	49	UR	
4	1	common design metrics	1	12/10/21	Common design	52	UR	
5	1	and optimizing	1	16/10/21	E.S design metrics	50	UR	
6	1	Survey of different embedded system design	1	10/10/21	Optimization	51	UR	
7	1	Survey of different embedded system design technologies	1	21/10/21	Survey of Different	49	UR	
8	1	Explanation	1	26/10/21	E.S designs	48	UR	
9	1	Survey of different embedded system design technologies	1	29/10/21	Design to challenges	50	UR	
10	1	trade-offs	1	30/10/21	problems	51	UR	
11	2	Single Purpose Processors	2	3/11/21	Single purpose processor	50	UR	
12	2	Hardware	2	4/11/21	star drive	51	UR	
13	2	Combinational Logic	2	6/11/21	combinational logic	52	UR	
14	2	Sequential Logic	2	13/11/21	design of problems	50	UR	
15	2	RT level Combinational	2	15/11/21	sequential logic	52	UR	
16	2	RT level Sequential Components	2	16/11/21	design, RT-level	52	UR	
17	2	Optimizing single purpose processors	2	18/11/21	combinational, RT	51	UR	
18	2	Single Purpose Processors	2	20/11/21	level sequential	50	UR	
19	2	Software Basic Architecture	2	20/11/21	single purpose pr	51	UR	
20	2	Operation	2	21/11/21	S/W architecture	52	UR	
21	3	Standard Single Purpose Peripherals	3	29/11/21	performance	54	UR	
22	3	Timers, Counters, UART	3	2/12/21	S/W solutions	53	UR	
23	3	PWM, LCD Controllers	3	5/12/21	timed problems	55	UR	
24	3	Keyboard controllers, Stepper Motor Controller	3	6/12/21	counted problems	51	UR	
25	3	A to D Converters, Examples	3	20/12/21	UART, Phone	50	UR	
			3	10/1/22	CD controller	52	UR	
			3	11/1/22	keypad + stepper motor	52	UR	

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DI/AIT/CEANT/209

28	3	Memory Hierarchy and Cache.	13/12/21	memory Hierarchy	47	✓
29	3	Advanced RAM, Interfacing, Communication Basics	14/12/21	Cache, Ad. RAM	49	✓
30	3	Microprocessor Interfacing	15/12/21	Micropr Interface	50	✓
31	4	Interrupts: Basics	12/12/21	Interrupts	51	✓
32	4	Shared Data Problem	16/12/21	shared data, pro	52	✓
33	4	Interrupt latency	21/12/21	code, soln	53	✓
34	4	Survey Of Software Architecture	23/12/21	Interrupt latency, su	54	✓
35	4	Round Robin, Round Robin with Interrupts	25/12/21	Survey of SW. Arch	55	✓
36	4	Function Queues	28/12/21	Round Robin	56	✓
37	4	scheduling - RTOS architecture.	30/12/21	function Queue	57	✓
38	4	Introduction to RTOS:	31/12/21	Scheduling RTOS	58	✓
39	4	Tasks - states - Data	31/12/21	TASK, TASK STATE	59	✓
40	4	Semaphores and shared data	31/12/21	RTOS; problem	59	✓
41	5	INTRODUCTION TO ARM PROCESSOR	6/1/22	ARM Proc Intro	52	✓
42	5	Acorn RISC Machine	8/1/22	Acorn RISC machine	51	✓
43	5	Architecture Inheritance	10/1/22	Architectural	52	✓
44	5	ARM Programming Model	11/1/22	model of mprgr	53	✓
45	5	ARM Development Tools	13/1/22	ARM Dev tools	54	✓
46	5	3 and 5 Stage Pipeline ARM Organization	15/1/22	3 & 5 stage pipe	52	✓
47	5	3 and 5 Stage Pipeline ARM Organization	17/1/22	ARM Instruction	53	✓
48	5	ARM Instruction Execution	17/1/22	Execution	53	✓
49	5	Implementation	18/1/22	Implementation	52	✓
50	5	Implementation	19/1/22	Implementation	51	✓
51	5	ARM Co-Processor	20/1/22	ARM Co-Pr	52	✓
52	5	ARM Co-Processor Interface (Blended learning)	24/1/22	ARM Co-Pr Inter	51	✓

Usha Rani M.A

Jae Y. H. 100



DR AMBEDKAR INSTITUTE OF TECHNOLOGY , BANGALORE

Department of Electronics & Telecommunication Engineering

**LESSON PLANNING**

SUBJECT TITLE : Digital Communication		Faculty Name: Kavitha Narayan BM	
REFERENCE DOC NO : Dr AIT/DEAN/7.1 DOC-03		SUBJECT CODE: 18ET63	NO OF CREDITS :4
ISSUE NO /DATE : DrAIT/DEAN/ 209 /2011-12, 30.01.2012			NO OF HOURS :56

PLANNED				ACTUAL				
No of Classes	Unit No	Planned Lesson	Unit No	Date	Lesson Covered	No of students	Faculty sign	Remarks
1	1	Basic signal processing operations in digital communication	1	3/28/2022	Basic signal processing operations in digital communication	50	5	
2	1	Sampling Principles,	1	3/29/2022	Sampling Principles,	50	5	
3	1	Sampling Theorem	1	3/30/2022	Sampling Theorem	51	5	
4	1	Quadrature sampling of Band pass signal	1	3/31/2022	Quadrature sampling of Band pass signal	52	5	
5	1	Quadrature sampling of Band pass signal	1	4/4/2022	Quadrature sampling of Band pass signal	52	5	
6	1	Practical aspects of sampling and signal recovery	1	4/5/2022	Practical aspects of sampling and signal recovery	52	5	
7	1	Practical aspects of sampling and signal recovery	1	4/6/2022	Practical aspects of sampling and signal recovery	50	5	
8	1	Practical aspects of sampling and signal recovery	1	4/7/2022	Practical aspects of sampling and signal recovery	49	5	
9	1	TDM,	1	4/11/2022	TDM,	48	5	
10	1	Problems	1	4/11/2022	Problems	48	5	
11	2	Waveform Coding Techniques	2	4/12/2022	Waveform Coding Techniques	47	5	
12	2	PCM	2	4/18/2022	PCM	45	5	
13	2	PCM	2	4/19/2022	PCM	46	5	
14	2	Quantization noise and SNR	2	4/20/2022	Quantization noise and SNR	45	5	

15	2	Quantization noise and SNR	2	4/21/2022	Quantization noise and SNR	52	5	
16	2	robust quantization DPCM	2	4/25/2022	robust quantization DPCM	50	5	
17	2	DM	2	4/26/2022	DM	51	5	
18	2	Adaptive Delta modulation	2	4/27/2022	Adaptive Delta modulation	54	5	
19	2	applications	2	4/28/2022	applications	52	5	
20	2	Problems	2	5/9/2022	Problems	47	5	
21	3	Base-Band Shaping for Data Transmission	3	5/10/2022	Base-Band Shaping for Data Transmission	46	5	
22	3	Discrete PAM signals	3	5/11/2022	Discrete PAM signals	44	5	
23	3	power spectra of discrete PAM signals	3	5/12/2022	power spectra of discrete PAM signals	46	5	
24	3	ISI,	3	5/16/2022	ISI,	48	5	
25	3	Nyquist's criterion for distortion less base-band binary transmission, correlative coding	3	5/16/2022	Nyquist's criterion for distortion less base-band binary transmission, correlative coding	50	5	
26	3	eye pattern, base-band M-ary PAM systems	3	5/17/2022	eye pattern, base-band M-ary PAM systems	52	5	
27	3	adaptive equalization for data transmission	3	5/18/2022	adaptive equalization for data transmission	53	5	
28	3	Problems	3	5/19/2022	Problems	54	5	
29	4	Digital Modulation Techniques: Digital Modulation formats	4	5/23/2022	Digital Modulation Techniques: Digital Modulation formats	50	5	
30	4	Coherent binary modulation techniques	4	5/24/2022	Coherent binary modulation techniques	48	5	
31	4	Coherent binary modulation techniques	4	5/25/2022	Coherent binary modulation techniques	47	5	
32	4	Coherent binary modulation techniques	4	5/26/2022	Coherent binary modulation techniques	48	5	
33	4	Coherent quadrature modulation techniques	4	5/30/2022	Coherent quadrature modulation techniques	46	5	



34	4	Coherent quadrature modulation techniques	4	5/31/2022	Coherent quadrature modulation techniques	47	5	
35	4	Non-coherent binary modulation techniques.	4	1/6/2022	Non-coherent binary modulation techniques.	46	5	
36	4	Spread Spectrum Modulation	4	6/2/2022	Spread Spectrum Modulation	48	5	
37	4	Pseudo noise sequences	4	6/6/2022	Pseudo noise sequences	49	5	
38	4	notion of spread spectrum	4	6/7/2022	notion of spread spectrum	50	5	
39	4	direct sequence spread spectrum	4	6/7/2022	direct sequence spread spectrum	54	5	
40	4	coherent binary PSK	4	6/13/2022	coherent binary PSK	51	5	
41	4	frequency hop spread spectrum	4	6/13/2022	frequency hop spread spectrum	52	5	
42	4	applications	4	6/14/2022	applications	53	5	
43	5	<b>Detection And Estimation:</b>	5	6/14/2022	<b>Detection And Estimation:</b>	50	5	
44	5	Model of DCS	5	6/15/2022	Model of DCS	47	5	
45	5	Gram-Schmidt Orthogonalization procedure	5	6/16/2022	Gram-Schmidt Orthogonalization procedure	45	5	
46	5	geometric interpretation of signals	5	6/20/2022	geometric interpretation of signals	46	5	
47	5	response of bank of correlators to noisy input Detection of known signals in noise	5	6/20/2022	response of bank of correlators to noisy input Detection of known signals in noise	52	5	
48	5	response of bank of correlators to noisy input Detection of known signals in noise	5	6/22/2022	response of bank of correlators to noisy input Detection of known signals in noise	50	5	
49	5	response of bank of correlators to noisy input Detection of known signals in noise	5	6/22/2022	response of bank of correlators to noisy input Detection of known signals in noise	50	5	
50	5	correlation receiver	5	6/23/2022	correlation receiver	52	5	
51	5	correlation receiver	5	6/24/2022	correlation receiver	53	5	
52	5	matched filter receiver	5	6/24/2022	matched filter receiver	52	5	

53	5	matched filter receiver	5	6/25/2022	matched filter receiver	54	5	
54	5	detection of signals with unknown phase in noise.	5	6/25/2022	detection of signals with unknown phase in noise.	54	5	
55	5	detection of signals with unknown phase in noise.	5	7/1/2022	detection of signals with unknown phase in noise.	54	5	
56	5	problems	5	7/1/2022	problems	54	5	

  
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