# SCHEME FOR LEARNING OUTCOME

_	LO Code	CO Code	de	urse Co	Co	le	ranch Cod	В
Format No. 4	1	1	3	0	4	3	0	Ε

COURSE NAME	igital Communication							
CO Description	lentify different digital signals and their parameters							
LO Description	lassify different digital signals							

### **SCHEME OF STUDY**

S. No.	Learning Content	Teaching – Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks
LO-01	Analog vs Digital Signal, Types of Digital signal: Binary, Tertiary, Octal, Hexadecimal, Advantages of Digital Communication, Baseband Transmission vs Broadband Transmission	Interactive classroom lecture, PPT, demonstration, quiz, assignments	Teacher will explain the contents and provide handouts to students. Teacher will conduct quiz/ assignments/ tutorial.	6	0	Text Books, PPT, Handouts, chalk board, charts.Videos lectures- NPTEL& others	

#### **SCHEME OF ASSESSMENT**

S. No.	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal
LO-01	End Semester Theory Exam	<ol> <li>Student will be asked to(and/or):</li> <li>Define Binary, Tertiary, Octal, Hexadecimal signals</li> <li>Differentiate Baseband and Broadband signals</li> <li>Describe advantages of Digital Communication</li> </ol>	10	Question paper, Rating scale	External

# SCHEME FOR LEARNING OUTCOME

_	LO Code	CO Code	de	ourse Co	Co	le	ranch Cod	В
Format No. 4	2	1	3	0	4	3	0	E

COURSE NAME	Digital Communication					
<b>CO</b> Description	Identify different digital signals and their parameters					
LO Description	Define different parameters related to digital signals					

### **SCHEME OF STUDY**

S. No.	Learning Content	Teaching – Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks
LO-02	Bitrate, Bandwidth, Baudrate, Transmission impairment: Attenuation, Distortion, Noise, BER, Jitter, Nyquist rate for noiseless channel, Shannon capacityfor noisy channel, Frequency and Time-Domain representation of periodic and non-periodic Digital Signal, frequency, bandwidth	Interactive classroom lecture, PPT, demonstration, quiz, assignments, tutorial	Teacher will explain the contents and provide handouts to students. Teacher will conduct quiz/assignments/ tutorial to make students practice their knowledge.	8	0	Text Books, PPT, Handouts, chalk board, charts, Numerical Problems Workbook	

### **SCHEME OF ASSESSMENT**

S. No.	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal
LO-02	End Semester Theory Exam	<ol> <li>Student will be asked to(and/or):</li> <li>Define Bitrate, Baudrate, Attenuation,         Distortion, Jitter</li> <li>State Nyquist theorem for noiseless channel</li> <li>State Shannon's theorem for noisy channel</li> <li>Calculate bitrate for given channel.</li> </ol>	10	Question paper, Rating scale	External

ome Wing \ Dhenel	A THE IVIL ELIKE LAKINING	Branch Code			Course Code			LO Code		
oma wing ) Bhopai		E	0	3	4	0	3	1	3	Format No. 4
Digital Communication										
Identify different digital sign	nals and their parameters									
		Ioma Wing ) Bhopal  OUTCOME  Digital Communication	Ioma Wing ) Bhopal  OUTCOME  Digital Communication	Ioma Wing ) Bhopal  OUTCOME  Digital Communication	Ioma Wing ) Bhopal  OUTCOME  E Digital Communication	Ioma Wing ) Bhopal OUTCOME  E Digital Communication	OUTCOME  E Digital Communication	OUTCOME  E Digital Communication  OUTCOME  E 0 3 4 0 3	OUTCOME  E Digital Communication  OUTCOME  E 0 3 4 0 3 1	SCHEME FOR LEARNING OUTCOME    Digital Communication   SCHEME FOR LEARNING   Branch Code   Co

со

LO

### **SCHEME OF STUDY**

**LO Description** 

Analyze variousdigital signal

S. No.	Learning Content	Teaching —Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks
LO-03	Time-Domain representation of given periodic and non-periodic digital signal, calculation of frequency, bandwidth and other parameters.	Lab demonstration, hands on practice, lab assignments, V-Lab.	<ul> <li>Teacher will explain the content in class/lab.</li> <li>Teacher with support from lab staff will demonstrate the procedure of lab experiments.</li> <li>Student will conduct lab assignment based on these experiments.</li> </ul>	0	6	Lab manual, charts, experimental trainer instruments/kit with measuring instruments, computer with relevant simulation software and high speed internet.	

### **SCHEME OF ASSESSMENT**

S. No.	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal
LO-03	Practical test in laboratory	Student will be asked to  1. Evaluate parameters of given waveform using CRO/DSO	10	Rubrics/Rating scale	Internal

# SCHEME FOR LEARNING OUTCOME

	LO Code	CO Code	de	ourse Co	Co	le	ranch Cod	В
Format No.	4	2	3	0	4	3	0	Ε

COURSE NAME	Digital Communication
CO Description	Explain different steps of signal processing in PCM and digital line codes.
LO Description	Describe various signal processing methods in pulse code modulation.

### **SCHEME OF STUDY**

S. No.	Learning Content	Teaching – Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks
LO-04	Nyquist Sampling Theorem, Impulse sampling, Natural sampling- sample and hold operation –Quantization, Quantization levels, Quantization noise, PCM Encoding, Companding, Scrambling. Interleaving. Functional Block Diagram of PCM	Interactive classroom lecture, PPT, demonstration, quiz,assignments, tutorial	Teacher will explain the contents and provide handouts to students. Teacher will conduct assignments/ quiz/tutorial to make students practice their knowledge.	8	0	Text Books, PPT, Handouts, chalk board, charts, Video lecture- NPTEL and others.	

## **SCHEME OF ASSESSMENT**

S. No.	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal
LO-04	End Semester Theory Exam	<ol> <li>Student will be asked to(and/or):</li> <li>Define Nyquist Sampling Theorem.</li> <li>Describe Quantization, Quantization levels, Quantization noise, companding.</li> <li>Calculate bitrate of given PCM signal.</li> <li>Explain operation of PCM encoder</li> </ol>	10	Question paper, Rating scale	External

## SCHEME FOR LEARNING OUTCOME

_	LO Code	CO Code	de	ourse Co	Co	le	ranch Coc	В	
Format No. <b>4</b>	5	2	3	0	4	3	0	E	

COURSE NAME	Digital Communication
CO Description	Explain different steps of signal processing in PCM and digital line codes.
LO Description	Compare various digital line codes

### **SCHEME OF STUDY**

S. No.	Learning Content	Teaching – Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks
LO-05	Digital Line Codes: non return-to-zero(NRZ), return-to-zero (RZ), Manchester code	Interactive classroom lecture, PPT, Video, demonstration, quiz, assignments.	Teacher will explain the contents and provide handouts to students. Teacher will conduct assignments/ quiz/tutorial to make students practice their knowledge.	5	0	Text Books, PPT, Handouts, chalk board, charts, Video lecture- NPTEL and others.	

### **SCHEME OF ASSESSMENT**

S. No.	Method of Assessment	Description of Assessment	Maximu m Marks	Resources Required	External / Internal
LO-05	End Semester Theory Exam	Student will be asked to(and/or):  1.Describe (NRZ), return-to-zero (RZ), Manchester code  2. Calculate bitrate and bandwidth of given Line code	10	Question paper + Rating scale.	External

DCD)	دادادا /	ma Mina	r \ Bhanal	Bran	ch Code	Course C	ode	CO LO Code Code		<i>1</i>	
NGPV	סואוט	ilia vving	g ) Bhopal	OUTCOME	E	0 3	4 0	3	2	6	Format No.
COURS	E NAME	Digital Comm	nunication								
CO Des	cription	Explain diffe	rent steps of sig	nal processing in PCM and digital line code	es.						
LO Des	cription										
				SCHEME OF STUDY							
S. No.	Learnir	ng Content	Teaching - Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.		LRs R	equire	ed	Remark
LO-06	PerformPCM modulation /demodulation considering various signal processing steps Viz., Different type of Sampling, Quantization, Quantization levels, Quantization noise, Encoding. (On Trainer Kits/ Simulation Software)		Lab demonstration PPT , hands o practice, lab assignments.	' stati wili uciliulistiate tile i	0	6	Lab ma Hando trainer measu compu simula high sp	uts, ex instru ring in ter wi tion so	speriments strume th rele	ental /kit wit ents, vant e and	h
				SCHEME OF ASSESSME	NT						
S. No.	Metho	d of Assessn	nent	Description of Assessment	Maximur	n Marks	Resou	urces	Requi	red	External / Internal

LO-06	End S	Semester <sub>I</sub> Exam	practical	<ol> <li>Student will be asked to</li> <li>Perform PCM modulation/demodulation on trainer kit/ simulation software</li> </ol>				10		Rubrics, Rating scale				ale	External
				ADDIT	TIONAL INSTRUCTION	ONS FOR THE HOD	/ FAC	ULTY	(IF AN	Y)					
2001	. /5: 1				SCHEME FOR	LEARNING		Branch C	ode	Co	urse Cod	de	CO Code	LO Code	
RGP	/ (Diplo	ma W	ing ) Bho	pal	OUTC	OME	E	0	3	4	0	3	3	7	Format No. <b>2</b>
COURS	SE NAME	Digital C	communication									'			
CO Des	cription	Identify	different digit	tal modula	ation, demodulation	techniques and thei	appl	ication	า.						
LO Des	cription	Illustrate	e different dig	gital modul	lation and demodula	tion techniques									
					SCH	HEME OF STUDY									
S. No.		Learnir	ng Content		Teaching – Learning Method	Description of Process	T-L	-	Teach Hrs.	/	act. Tut Irs.	LF	Rs Req	uired	Remarks
LO-07	block dia	gram,ASK Demodula	on technique K, FSK BPSK,GN ation techniqu K, FSK, BPSK, G	MSK. ues with	Interactive classroom lecture, PPT, Video, demonstration, quiz, assignments.	Teacher will explain contents and provide handouts to student Teacher will conduct assignments/ quiz/t to make students put their knowledge.	le s. ct utoria		8		0	PP' cha	xt Bool F, Han alk boa arts, Vid ture- N d other	douts, rd, deo IPTEL	
	·				SCHEM	TE OF ASSESSMEN	Γ								· · · · · · · · · · · · · · · · · · ·
	Moth	od of							Max	imun	n	Re	sourc	es	External /

Lo-07	End Sei Theory		<ol> <li>Descri</li> <li>Explain</li> </ol>	dent will be asked to(and/or): Describe ASK, FSK BPSK,GMSK modulation. Explain ASK, FSK BPSK,GMSK demodulation. Differentiate between ASK, FSK BPSK,GMSK.								Question paper, Rating scale			External
				AD	DITIONAL INS	TRUCTIONS FOR THE HOD	/ FACU	LTY	(IF AN	IY)					
					SCHEM	E FOD I EADNING	Bra	nch Co	nda	C	ourse Co	da	со	LO	
RGPV	/ (Diplo	ma W	/ing ) Bh	opal		E FOR LEARNING OUTCOME	E	0	3	4	0	3	Code 3	Code 8	Format No. 4
COLIDS	E NAME	Digital (	Communicatio	nn		JUTCOIVIE				7				0	
	cription				dulation demo	dulation techniques and thei	annlica	tion							
	cription		<u> </u>		•	ulation and demodulation tec	• •								
LO Des	cription	Outillic		ilcations	or digital illout	SCHEME OF STUDY	miques	) <b>.</b>							
S. No.	Lear	ning Co	ontent		aching – ing Method	Description of T-L Process	Tead Hrs		_	act. : Hrs.		LRs R	equire	ed	Remarks
LO-08	Application modulation Mobile configuration Fi, Blueto Technological Technological Procession Figuration Figur	on techn ommunio oth, DTI	niques in cation, Wi- H, DSL	Interacional Classro	tive om lecture, ideo, stration, quiz,	Teacher will explain the contents and provide handouts to students. Teacher will conduct assignments/ quiz/tutorial to make students practice their knowledge.	6		(	0	Ha boa Vic	ndout ard, cl leo le	oks, PF s, chall narts, cture- and oth	K	
	1			1		SCHEME OF ASSESSMEN	Τ		1						
S. No.	Metho Assessr				Description	of Assessment		N	/laxim Mark	_	Res	ource	s Req	uired	External / Internal

LO-08	Mid semester Exam Assignment, Quiz	<ol> <li>Student will be asked to (and/or):</li> <li>CompareASK, FSK BPSK,GMSK.</li> <li>Explore Modulation,demodulation techniques usedinWi-Fi, Bluetooth, DTH, DSL Technologies, FTTH</li> </ol>	10	Question paper, Rating scale	Internal	
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RGPV (Diploma Wing ) Bhopal		SCHEME FOR LEARNING	E	Branch Code			Course Code			LO Code	
KGPV (Dipio	ma wing ) Bhopai	OUTCOME	E	0	3	4	0	3	3	9	Format No. 4
COURSE NAME	Digital Communication										
CO Description	O Description Identify different digital modulation, demodulation techniques and their application.										
LO Description	Description Verify digital modulation and demodulation.										

### **SCHEME OF STUDY**

S. No.	Learning Content	Teaching – Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks
LO-09	Perform digital modulation – ASK, FSK, BPSK & GMSK and observe output waveform and verify it. Perform digital demodulation– ASK, FSK, BPSK & GMSK and observe output waveform and verify it. (On Trainer Kits/ Simulation Software)	Lab demonstration, PPT , hands on practice, lab assignments.	<ul> <li>Teacher with support from lab staff will demonstrate the procedure of lab experiments.</li> <li>Student will conduct lab assignment based on these experiments.</li> </ul>	0	8	Lab manual, charts, Handouts, experimental trainer instruments /kit with measuring instruments, computer with relevant simulation software and high speed internet.	

### **SCHEME OF ASSESSMENT**

S. No.	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal
LO-09	End Semester practical Exam	<ol> <li>Student will be asked to</li> <li>Perform ASK, FSK BPSK,GMSK         Digital Modulation on trainer kit/         simulation software</li> <li>Perform ASK, FSK BPSK,GMSK         Digital Demodulation on trainer         kit/ simulation software</li> </ol>	10	Rubrics, Rating scale	External

## SCHEME FOR LEARNING OUTCOME

	LO Code	CO Code	de	ourse Co	Co	le	ranch Coc	В
Format No.	10	4	3	0	4	3	0	Ε

COURSE NAME	Digital Communication
CO Description	Analyze different Multiplexing and Multiple Access methods and their applications.
LO Description	Compare different Multiplexing and Multiple Access techniques.

## **SCHEME OF STUDY**

S. No.	Learning Content	Teaching – Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks
LO-10	Difference between Multiplexing and Multiple Access. Need of multiplexing, Comparison of Time division multiplexing (TDM), Frequency division multiplexing (FDM), Orthogonal Frequency	Interactive classroom lecture, PPT, Video, demonstration, quiz, assignments.	Teacher will explain the contents and provide handouts to students. Teacher will conduct assignments/ quiz/tutorial to make students practice their knowledge.	8	0	Text Books, PPT, Handouts, chalk board, charts, Video lecture- NPTEL and others.	

		AD	DITIONAL INSTRUCTIONS FOR THE HODY	TACOLIT (IF ANT)		
	1		DITIONAL INSTRUCTIONS FOR THE HOD/	FACULTY (IF ANY)	1	ı
LO-10	End Semester Theory Exam	<ol> <li>Explain</li> <li>Desc</li> <li>Diffe</li> <li>Explain</li> <li>Desc</li> <li>Diffe</li> </ol>	will be asked to (and/or): in need of multiplexing. ribe TDM, FDM, OFDM. rentiate between TDM, FDM, OFDM. in need of multiple access. ribe& Compare TDMA, FDMA, OFDMA. rentiate between Multiplexing and iple Access	10	Question paper, Rating scale.	External
6. No.	Method of Assessment		Description of Assessment	Maximum Marks	Resources Required	External / Internal
	maniple addess(G211111)		SCHEME OF ASSESSMENT	•		
	access(FDMA), Code Division Multiple access(CDMA)	1				
	Multiple access(TDMS), Frequency Division Multiple					
	Comparison of Time Division					
	Division Multiplexing (OFDM).  Need of multiple Access,					

DCD\/ /D: .l.	Marian Nobel and	SCHEIVIE FOR LEARNING		Branch Code				Course Code			
RGPV (Diploma Wing ) Bhopal		OUTCOME	E	0	3	4	0	3	4	11	Format No. 4
COURSE NAME	OURSE NAME Digital Communication										
CO Description	Description Analyze different Multiplexing and Multiple Access methods and their applications.										
LO Description	LO Description List out various applications of Multiplexing and Multiple Access techniques.										
		SCHEME OF STUDY									

S. No.	Learning Content	Teaching – Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks
LO-11	Application of FDM, TDM, OFDM in PSTN, Mobile communication, Wi-Fi, Bluetooth, DTH, DSL Technologies, FTTH Application of FDMA, CDMA, OFDMA in Mobile communication, Wi-Fi, Bluetooth, DTH, DSL Technologies, FTTH.	Interactive classroom lecture, PPT, Video, demonstration, quiz, assignments.	Teacher will explain the contents and provide handouts to students. Teacher will conduct assignments/ quiz/tutorial to make students practice their knowledge.	6	0	Text Books, PPT, Handouts, chalk board, charts, Video lecture- NPTEL and others.	

### **SCHEME OF ASSESSMENT**

S. No.	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal
LO-11	Mid semester Exam,Assignment, Quiz	<ol> <li>Student will be asked to(and/or):</li> <li>Write carrier frequencies and channel bandwidth of Wi-Fi, DTH,DSL,FTTH,PSTN, mobile comm.</li> <li>Differentiate FDM, TDM, OFDM.</li> </ol>	10	Question paper, Rating scale.	Internal

# SCHEME FOR LEARNING OUTCOME

	LO Code	CO Code	de	urse Co	Co	le	ranch Cod	В
Format No. 4	12	4	3	0	4	3	0	E

COURSE NAME	Digital Communication
<b>CO Description</b>	Analyze different Multiplexing and Multiple Access methods and their applications.
LO Description	Verify different Multiplexing and Multiple Access techniques.

### **SCHEME OF STUDY**

S. No.	Learning Content	Teaching – Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks
LO-12	Perform and verify different Multiplexing and Multiple Access techniques-FDM, TDM, OFDM, FDMA, TDMA,CDMA, OFDMA. (On Trainer Kits/ Simulation Software)	Lab demonstration, PPT, hands on practice, lab assignments.	<ul> <li>Teacher with support from lab staff will demonstrate the procedure of lab experiments.</li> <li>Student will conduct lab assignment based on these experiments.</li> </ul>	0	8	Lab manual, charts, Handouts, experimental trainer instruments/kit with measuring instruments, computer with relevant simulation software and high speed internet.	

### **SCHEME OF ASSESSMENT**

S. No.	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal
LO-12	Practical test in laboratory	<ol> <li>Student will be asked to</li> <li>Perform TDM,FDM,OFDM on trainer kits/Simulation software.</li> <li>Perform TDMA,FDMA,OFDMA on trainer kits/Simulation software.</li> </ol>	10	Rubrics, Rating scale	Internal

# SCHEME FOR LEARNING OUTCOME

	LO Code	CO Code	de	urse Co	Co	le	ranch Cod	В
Format No. 4	13	5	3	0	4	3	0	E

COURSE NAME	Digital Communication						
<b>CO Description</b>	Explain different Spread Spectrum methods and their applications.						
LO Description	Compare different Spread Spectrum methods						

### **SCHEME OF STUDY**

S. No.	Learning Content	Teaching – Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks
O-13	Advantages of spread spectrum systems – Pseudo noise sequence- Functional block diagram and operation of Direct sequence spread spectrum systems(DSSS), Functional block diagram and operation of Frequency hoppingspread spectrum system (FHSS)	Interactive classroom lecture, PPT, Video, demonstration, quiz, assignments.	Teacher will explain the contents and provide handouts to students. Teacher will conduct assignments/ quiz/tutorial to make students practice their knowledge.	8	0	Text Books, PPT, Handouts, chalk board, charts, Video lecture- NPTEL and others.	

### **SCHEME OF ASSESSMENT**

S. No.	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal
LO-13	End Semester Theory Exam	<ol> <li>Student will be asked to(and/or):</li> <li>Explain pseudo noise sequence.</li> <li>Explain functional block diagram and operation of Direct sequence spread spectrum systems(DSSS)</li> <li>Explain functional block diagram and operation of Frequency hoppingspread spectrum system (FHSS)</li> </ol>	10	Question paper, Rating scale.	External

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KGP	/ (Dibio	oma Wing ) Bh	юраі	(	OUTCOME	Ε	0	3	4	0	3	5	14	Format No. <b>4</b>
COURS	SE NAME	Digital Communicat	ion											
CO Des	cription	Explaindifferent Sp	read Spectrum	methods	and their applications.									
LO Des	cription	Outline different a	pplications of DS	SSS and I	FHSS.									
					SCHEME OF STUDY									
S. No.	Lea	rning Content	Teaching M	_	Description of T-L Process	Tea Hi	ach rs.		act. t Hrs.		LRs R	equire	ed	Remarks
LO-14 Application of DSSS, FHSS in Mobile comm., Wi-Fi, Bluetooth, DTH, DSL Technologies, FTTH.		bile comm., Wi-Fi, classroom lecture, contents and provide handouts to students.		6		0		Text Books, PPT, Handouts, chalk board, charts, Video lecture- NPTEL and others.						
					SCHEME OF ASSESSMENT	Γ								
S. No.	Metho	d of Assessment	De	escriptio	n of Assessment	Ma	aximu	ım Ma	arks	Re	sourc	es Rec	quired	External / Internal
LO-14 Mid semester Exam, Assignment, Quiz		<ol> <li>Describe A communica</li> <li>Technologie</li> </ol>	II be asked to (and/or): Application of,FHSS, DSSS in Mobile ication, Wi-Fi, Bluetooth, DTH, DSL ogies, FTTH. E FHSS and DSSS.			1	10		Que		paper, scale.	Rating	Internal	

DCD)	//Diplo	ma Wina \ Ph	onal	<b>SCHEM</b>	E FOR LEAR	RNING	Branch C	ode	Co	urse Co	de	CO Code	LO Code					
KGPV	/ (Dipid	oma Wing ) Bh	Opai		OUTCOME				OUTCOME E 0 3 4 0		OUTCOME   E   0   3   4   0   3   5		OUTCOME E 0 3 4 0		: 0 3 4 0 3 5		<i>15</i>	Format No.
COURS	E NAME	Digital Communication	on															
CO Des	cription	Explain different Sp	Spread Spectrum methods and their applications.															
LO Des	cription	Simulate and verify	FHSS and	DSSS.														
					SCHEME O	F STUDY												
S. No.	Lea	rning Content		aching – ing Method	Description Proce		Teach Hrs.		act. Hrs.	I	LRs Re	equire	d	Remarks				
LO-15	Simulate and PerformDirect sequence spread spectrum systems(DSSS), Frequency hoppingspread spectrum system (FHSS) and verify it. (On Trainer Kits/ Simulation Software)			-			0		8		Lab manual, charts, Handouts, experimental trainer instruments/kit with measuring instruments, computer with relevant simulation software and high speed internet.							
					SCHEME OF A	SSESSMENT	-											
S. No.	Metho	od of Assessment	De	scription of A	ssessment	Maximun	n Marks		Reso	urce	s Requ	uired		External Internal				

LO-15	Practical test in laboratory	<ol> <li>Student will be asked to</li> <li>Perform DSSS on trainer kits/Simulation software.</li> <li>Perform FSSS on trainer kits/Simulation software.</li> </ol>	10	Rubrics, Rating scale	Internal
		ADDITIONAL INSTRUCTIONS FOR	THE HOD/ FACULTY	(IF ANY)	