

ORISSA SCHOOL OF ENGINEERING & POLYTECHNIC
DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION
LESSON PLAN FOR THE SESSION 2023-24

SUBJECT- **WAVE PROPAGATION & BROADBAND COMM.**

BRANCH-E&TC

NAME OF THE FACULTY-SIDHARTH KUMAR SETHI

SEMESTER-5TH

MODULE	DATE	LECTURE NO.	TOPIC TO BE COVERED
1	15/09/2023	1	EFFECTS OF ENVIRONMENTS ON WAVE PROPAGATION SUCH AS REFLECTION, REFRACTION , INTERFERENCE
	16/09/2023	2	DIFFRACTION, ABSORPTION AND ATTENUATION
	20/09/2023	3	CLASSIFICATION BASED ON MODES OF PROPAGATION – GROUND WAVE , IONOSPHERE
	21/09/2023	4	SKYWAVE PROPAGATION, SPACEWAVE PROPAGATION
	22/09/2023	5	CRITICAL FREQUENCY, MAX. USABLE FREQUENCY , SKIP DISTANCE , FADING (DEFINATION ONLY)
	23/09/2023	6	DUCT PROPAGATION AND TROPOSPHERE SCATTER PROPAGATION,ACTUAL HEIGHTAND VIRTUAL HIEGHT
	27/09/2023	7	DEFINE ANTENNA , ANTENNA GAIN , DIRECTIVE GAIN,DIRECTIVITY
	28/09/2023	8	EFFECTIVE APERTURE , POLARIZATION,ANTENNA EFFICIENCY
	29/09/2023	9	RADIATION RESISTANCE , BANDWIDTH , BEAM WIDTH, RADIATION PATTERN
	30/09/2023	10	TYPES OF ANTENNA- MONO POLE, DI-POLE AND OMNI DIRECTIONAL
	11/10/2023	11	OPERATION OF THE HIGH DIRECTIONAL ANTENNA (YAGI AND ROHMBUS), ITS ADVANTAGES AND APPLICATION
	12/10/2023	12	OPERATION OF UHF AND MICROWAVE ANTENNA (DISH AND HORN ANTENNA) ITS ADVANTAGES AND APPLICATION
2	13/10/2023	13	FUNDAMENTAL OF TRANSMISSION LINE
	14/10/2023	14	EQUIVALENT CIRCUIT OF TRANSMISSION LINE & RF EQUIVALENT CIRCUIT
	18/10/2023	15	CHARACTERISTICS IMPENDANCE OF TRANSMISSION LINE
	19/10/2023	16	PRIMARY AND SECONDARY PARAMETER OF TRANSMISSION LINE
	20/10/2023	17	NUMERICAL SOLVED ON TRANSMISSION LINE
	21/10/2023	18	LOSSES IN TRANSMISSION LINE
	25/10/2023	19	SWR , REFLECTION CO-EFFICIENT AND SIMPLE NUMERICAL
	26/10/2023	20	QUARTER WAVE AND HALF WAVE LENGTH LINE
	27/10/2023	21	IMPENDANCE MATCHING AND STUB
	28/10/2023	22	NUMERICALS ON TRANSMISSION LINE

3	01/11/2023	23	DEFINE ASPECT RATIO , FLICKER, HORIZONTAL RESOLUTION , VIDEO BANDWIDTH
	02/11/2023	24	INTERLASED SCANNING, COMPOSITE VIDEO SIGNAL, SYNCHRONISING PULSES
	03/11/2023	25	MONOCHROME TV TRANSMITTER – BLOCK DIAGRAM & FUNCTION OF EACH BLOCK
	04/11/2023	26	MONOCHROME TV RIECEVER- BLOCK DIAGRAM & FUNCTION OF EACH BLOCK
	09/11/2023	27	INTRODUCTIO TO COLOUR TV SIGNAL (LUMINANCE & CHROMINANCE SIGNAL)
	10/11/2023	28	I&Q , U&V SIGNALS
	11/11/2023	29	DIGITAL LIGHT PROCESSING , LCD
	15/11/2023	30	ORGANIC LED (OLED) DISPLAY , Q LED – ONLY COMPARISION BASED ON APPLICATION
	16/11/2023	31	DISCUSS THE PRINCIPLE OPERATION OF LCD DISPLAY
	17/11/2023	32	CA TV SYSTEM AND ITS TYPES
	18/11/2023	33	DIGITAL TV TECHNOLOGY- DIGITAL TV SIGNAL
	22/11/2023	34	TRANSIMMISSION OF DIGITAL TV SIGNAL
4	23/11/2023	35	MODES OF PROPAGATION
	24/11/2023	36	MICROWAVE WAVE GUIDES AND ITS ADVANTAGES
	25/11/2023	37	TYPES OF WAVE GUIDE & DIFFERNTIATE BETWEEN TRANSMISSION LINE AND WAVE GUIDE
	29/11/2023	38	PRINCIPLE OF OPERATION OF CAVITY RESONATOR
	01/12/2023	39	MICROWAVE DIRECTIONAL COUPLER
	02/12/2023	40	TWO HOLE DIRECTIONAL COUPLER
	06/12/2023	41	SOLVE NUMERICALS
	07/12/2023	42	MICROWAVE ISOLATOR AND CIRCULATOR
	08/12/2023	43	MICROWAVE TUBES – PRINCIPLE OF OPERATION OF TWO CAVITY KLYSTRON
	09/12/2023	44	OPERATION OF TRAVELLING WAVE TUBES (TWT)
	13/12/2023	45	SOLID STATE DEVICES, GUNN EFFECT DEVICES
	14/12/2023	46	OPERATION OF GUNN DIODE AND ITS APPLICATION
	15/12/2023	47	OPERATION OF TUNNEL DIODE
	16/12/2023	48	OPERATION OF TUNNEL DIODE AND ITS APPLICATION
	20/12/2023	49	OMR TEST
	21/12/2023	50	DISCUSSION OF OMR TEST
5	22/12/2023	51	INTRODUCTION TO BROADBAND COMMUNICATION SYSTEM- FUNDAMENTAL COMPONENTS
	23/12/2023	52	NETWORK ARCHITECTURE AND ITS FUNCTION
	27/12/2023	53	CABLE BROADBAND DATA NETWORK - ARCHITETURE

28/12/2023	54	FUTURE OF BROADBAND COMMUNICATION INTERNET BASED NETWORK
29/12/2023	55	SONET - TOPOLOGY, ADVANTAGES & DISADVANTAGES
30/12/2023	56	ISDN DEVICES ARCHITECTURE AND APPLICATION
02/01/2023	57	BISDN - INTERFACE AND TERMINALS, PROTOCOL, ARCHITECTURE AND APPLICATION
03/01/2023	58	CLASS TEST
04/01/2023	59	PREVIOUS SEMESTER QUESTION DISCUSSION
05/01/2023	60	PREVIOUS SEMESTER QUESTION DISCUSSION

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