

Badriprasad Institute of Technology, Sambalpur

Lesson plan for Theory -4, WAVE PROPAGATION & BRODBAND COMMUNICATION

Semester & Branch : 5TH SEM, ETC Engineering

Total Periods-60

Name of the faculty : MR. MALAYA BASANT TRIPATHY

No of periods /week-4

WEEK	CLASS DAY	THEORY
1ST	1ST	REFLECTION ,REFRACTION,INTERFERNCE,DIFRACTION,ABSORPTION,ATTENUATION
	2ND	GROUND WAVE PROPAGATION
	3RD	IONOSPHERE
	4TH	SKY WAVE PROPAGATION
2ND	1ST	SPACE WAVE PROPAGATION
	2ND	CRITICAL FREQUENCY,MAXIMUM USEABLE FREQUENCY,SKIP DISTANCE,HEADING
	3RD	DUCT PROPAGATION & TROPOSPHERE SCATTER PROPAGATION
	4TH	ACTUAL HEIGHT,VIRTUAL HEIGHT
3RD	1ST	RADIATION MECHANISM OF ANTENNA-MAXWELL EQUATION
	2ND	ANTENNA GAINS,DIRECTIVE GAIN,DIRECTIVITY,EFFECTIVE APERATURE,POLARISATION
	3RD	INPUT IMPEDANCE,EFFICIENCY,RADIATOR RESISTANCE,BANDWIDTH,BEAM WIDTH,RADIATION PATTERN
	4TH	MONOPOLE AND DIPOLE ANTENNA AND OMNIDIRECTIONAL ANTENNA
4TH	1ST	YAGI ANTENNA AND ROHMBUS ANTENNA
	2ND	PARABOLIC REFLECTOR ANTENNA AND HORN ANTENNA
	3RD	BASIC CONCEPTS OF SMART ANTENNA
	4TH	FUNDAMENTAL OF TRANSMISSION LINE,EQUIVALENT CIRCUIT OF TRANSMISSION LINE
5TH	1ST	RF EQUIVALENT CIRCUIT
	2ND	CHARACTERISTICS IMPEDANCE,METHODS OF CALCULATION,SIMPLE NUMERICAL
	3RD	LOSSES IN TRANSMISSION LINE
	4TH	SWR,VSWR,REFLECTION COEFFICIENT,SIMPLE NUMERICAL
6TH	1ST	QUARTER WAVE AND HALF WAVE LENGTH LINE
	2ND	SINGLE STUBS IMPEDANCE MATCHING
	3RD	DOUBLE STUBS IMPEDANCE MATCHING
	4TH	PRIMARY AND SECONDARY CONSTANT OF TRANSMISSION LINE
7TH	1ST	DEFINE MICROWAVE GUIDES,OPERATION OF RECTANGULAR WAVE GUIDES&ITS ADVANTAGE
	2ND	PROPAGATION OF EM WAVE THROUGH WAVEGUIDE WITH TE&TM MODES
	3RD	CIRCULAR WAVEGUIDE
	4TH	OPERATIONAL CAVITY RESONATOR
8TH	1ST	WORKING OF DIRECTIONAL COUPLER
	2ND	WORKING OF ISOLATORS
	3RD	WORKING OF CIRCULATORS
	4TH	PRINCIPLE OF OPERATION OF TWO CAVITY KLYSTRON
9TH	1ST	PRINCIPLE OF OPERATION OF TRAVELLING WAVE TUBES
	2ND	PRINCIPLE OF OPERATION OF CYCLOTRON
	3RD	PRINCIPLE OF OPERATION OF TUNNEL DIODE
	4TH	PRINCIPLE OF OPERATION OF GUN DIODE
10TH	1ST	ASPECT RATIO,RECTANGULAR RATIO,FLICKER,HORIZONTAL RESOLUTION,VIDEO BANDWIDTH
	2ND	INTERLACED SCANNING,COMPOSITE VIDEO SIGNAL,SYNCHRONIZATION PULSES
	3RD	BLOCK DIAGRAM AND FUNCTION OF TV TRANSMITTER
	4TH	BLOCK DIAGRAM AND FUNCTION OF MONOCHROME TV RECEIVER
11TH	1ST	COLOUR TV SIGNALS
	2ND	TYPES OF TELEVISION BY TECHNOLOGY-CATHODE RAY TUBE,TVs,PLASMA DISPLAY PANEL
	3RD	TYPES OF TELEVISION BY TECHNOLOGY-DLP,LCD
	4TH	TYPES OF TELEVISION BY TECHNOLOGY-OLED,QLED

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12TH	1ST	PRINCIPLE OF OPERATION OF LCD DISPLAY,LARGE SCREEN DISPLAY
	2ND	CATV SYSTEMS &TYPES & NETWORKS
	3RD	DIGITAL TV TECHNOLOGY-DIGITAL TV SIGNAL,TRANSMISSION OF DIGITAL TV SIGNAL
	4TH	DIGITAL TV RECEIVER VIDEO PROGRAMME PROCESSOR UNIT
13TH	1ST	BROADBAND COMMUNICATION SYSTEM FUNDAMENTAL OF COMPONENTS AND NETWORK ARCHITECTURE
	2ND	CABLE BROADBAND DATA NETWORK-ARCHITECTURE
	3RD	IMPORTANCE & FUTURE OF BROADBAND TELECOMMUNICATION INTERNET BASED NETWORK
	4TH	SONET(SYNCHRONOUS OPTICAL NETWORK) SIGNAL FRAME COMPONENTS TOPOLOGIES
14TH	1ST	ADVANTAGES,DISADVANTAGES AND APPLICATION OF SONET
	2ND	ISDN DEVICES INTERFACES, SERVICES
	3RD	ISDN ARCHITECTURE,APPLICATION
	4TH	BISDN INTERFACES & TERMINALS
15TH	1ST	BISDN ARCHITECTURE APPLICATON
	2ND	OBJECTIVE TYPES QUESTION DISCUSSION
	3RD	EXAM PATTERN QUESTION DISCUSSION
	4TH	MOCK TEST EXAM PATTERN

Sign of Faculty

Sign of HOD