LESSON PLAN-2021-22SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR (WINTER - 2021)		
DISCIPLINE-ETC	**Semester-5TH**	**Name of teaching faculty-Ashok Ku. Prusty**
SUBJECT-WPBC	**No of days/ per week class- 4**	**SEM From date- 01/09/2021 No of weeks-16**
Week	**Class day**	**Theory Topics**
1st	01.10.21	Effects of environments such as reflection, refraction, interference, diffraction, absorption and attenuation (Definition only)
	02.10.21	Classification based on Modes of Propagation-Ground wave, Ionosphere
2ND	05.10.21	Sky wave propagation, Space wave propagation
	06.10.21	Definition – critical frequency, max. useable frequency, skip distance, fading, Duct propagation
	07.10.21	Radiation mechanism of an antenna-Maxwell equation
	08.10.21	Definition - Antenna gains, Directive gain, Directivity, effective aperture, polarization
	09.10.21	Input impedance, efficiency, Radiator resistance, Bandwidth, Beam width, Radiation
3RD	12.10.21 to 20.10.21	DUSSERA Input impedance, efficiency, Radiator resistance, Bandwith, Beam widths Radiation
4TH	21.10.21	Operation of following antenna with advantage & applications. a) Directional high frequency antenna
	22.10.21	Basic Concepts of Smart Antennas- Concept and benefits of smart antennas
	23.10.21	Fundamentals of transmission line.
5TH	26.10.21	Equivalent circuit of transmission line & RF equivalent circuit
	27.10.21	Characteristics impedance, methods of calculations & simple numerical.
	28.10.21	Losses in transmission line.
	29.10.21	Standing wave – SWR, VSWR, Reflection coefficient, simple numerical.
	30.10.21	Quarter wave & half wavelength line
1ST	02.11.21	Impedance matching & Stubs – single & double
	03.11.21	Primary & secondary constant of X-mission line.
	05.11.21	Define-Aspect ratio, Rectangular Switching. Flicker, Horizontal Resolution
	06.11.21	Video bandwidth, Interlaced scanning, Composite video signal, Synchronization pulses
2ND	09.11.21	TV Transmitter – Block diagram & function of each block
	10.11.21	Monochrome TV Receiver -Block diagram & function of each block
	11.11.21	Colour TV signals (Luminance Signal & Chrominance Signal,(I & Q,U & V Signals)
	12.11.21	Types of Televisions by Technology- cathode-ray tube TVs, Plasma Display Panels
	13.11.21	Digital Light Processing (DLP),Liquid Crystal Display (LCD)
3RD	16.11.21	Discuss the principle of operation - LCD display, Large Screen Display.
	17.11.21	CATV systems & Types & networks
	18.11.21	Digital TV Technology-Digital TV Signals, Transmission of digital TV signals
	20.11.21	Define Microwave Wave Guides.

4TH	23.11.21	Operation of rectangular wave gives and its advantage.
	24.11.21	Propagation of EM wave through wave guide with TE & TM modes.
	25.11.21	Circular wave guide.
	26.11.21	Operational Cavity resonator
	27.11.21	Working of Directional coupler, Isolators & Circulator.
5TH	30.11.21	Microwave tubes-Principle of operational of two Cavity Klystron.
1ST	01.12.21	DURGA POOJA HOLIDAYS
	02.12.21	Principle of Operations of Travelling Wave Tubes
	03.12.21	Principle of Operations of Cyclotron
	04.12.21	Principle of Operations of Tunnel Diode & Gunn diode
2ND	07.12.21	Broadband communication system-Fundamental of Components and Network architecture
	08.12.21	Cable broadband data network- architecture, importance
	09.12.21	SONET(Synchronous Optical Network)-Signal frame components topologies
	10.12.21	Topologies advantages applications, and disadvantages
	11.12.21	ISDN - ISDN Devices interfaces, services
3RD	14.12.21	ISDN - ISDN Devices , Architecture, applications
	15.12.21	BISDN -interfaces & Terminal
	16.12.21	BISDN - protocol architecture applications
	17.12.21	Organic Light-Emitting Diode
	18.12.21	Future of broadband telecommunication internet based network.
4TH	21.12.21	Troposphere scatter propagation actual height and virtual height
	22.12.21	Yagi & Rohmbus only b) UHF &Microwave antenna.: Dish antenna (with parabolic reflector)
	23.12.21	Horn antenna
	24.12.21	Digital TV receiver Video programme processor unit.

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