

BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

**SIVARAM VIHAR, GHATAKESWAR HILLS
MOHADA, BERHAMPUR (GM.)**



STUDENT'S ATTENDANCE REGISTER

Time	9:05	9:55	10:45	02:45		
Day	9:55	10:45	08:35			
TUE		✓				
THU	✓					
SAT	✓			✓		


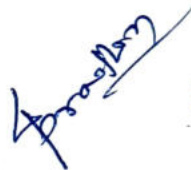





Year/ Session	3rd year, 2021-22
Semester & Branch	5th Semester, ETC Branch.
Subject with Code	TH-4, CNP 21BC
Name of the Faculty Member	En. Suchismita Gou.

B.I.E.T.

SYLLABUS COVERAGE









TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
<u>UNIT-01</u>			
<u>WAVE PROPAGATION & ANTENNA</u>			
1.1 Effects of environments such as reflection, refraction, interference, diffraction, absorption and attenuation (Definition only).	15/9/22	Hoop	
1.2 Classification based on modes of propagation - Ground wave, ionosphere, sky wave propagation, space wave propagation.	20/9/22 21/9/22	Hoop	
1.3 Definition - Critical frequency, max. useable frequency, skip distance, fading. MUF propagation & Troposphere scatter propagation actual height and virtual height.	22/9/22	Hoop	
1.4 Radiation mechanism of an antenna - Maxwell equation.	24/9/22	Hoop	
		Seen Pradyun 12.9.22	Upachy 12/9/22

B.I.E.T. SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
1.5. Definition - Antenna gain, Directive gain, effective aperture, polarization, input impedance efficiency, Radiator resistance, Bandwidth, Beam width, Radiation pattern.	24/9/22		
1.6 Antenna. types of antenna, Monopole and dipole antenna, and omni directional antenna	27/9/22		
1.7 Operation of following antenna with advantage & applications.	28/9/22		
(a) Directional high frequency antenna: yagi & Rhombus only.	29/9/22		
(b) UHF & microwave antenna: Dish antenna (with parabolic reflector) & Horn antenna.	11/10/22		
	12/10/22		
1.8 Basic concepts of smart antenna: concept and benefits of smart antenna.			





B.I.E.T.

SYLLABUS COVERAGE








TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
- <u>UNIT - 02</u> -			
- <u>TRANSMISSION LINES</u> -			
1. Fundamentals of transmission line	13/10/22		
2. Equivalent circuit of transmission line & RF equivalent circuit.			
3. Characteristic impedance, methods of calculations & simple numerical.	15/10/22		
4. Losses in transmission line.	18/10/22		
5. Standing wave - SWR, VSWR, Reflection co-efficient, Simple numerical.	19/10/22 20/10/22		
6. Quarter wave & half wavelength line.	22/10/22		
7. Impedance matching & stubs - Single & double.	25/10/22		
8. Primary & Secondary constant of transmission line.	26/10/22		
		Seen Pradyum 12.9.22	

B.I.E.T.

SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
- ! <u>UNIT-03</u> ! -			
<u>TELEVISION ENGINEERING</u>			
3.1 Define - Aspect ratio, Rectangular switching, Flicker, Horizontal resolution, video bandwidth, interlaced scanning, Composite video signal, Synchronization pulses.	22/11/22		
3.2 TV transmitter - Block diagram & function of each block.	22/11/22		
3.3 Monochrome Tv receiver - Block diagram & function of each block.	21/11/22		
3.4 Colour Tv signal (Luminance signal & chrominance signal (I, Q, U & V signals))	31/11/22		












B.I.E.T. SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
3.5 Types of television by technology.	5/11/22		
Cathode-ray tube TVs, Plasma display panels, Digital light processing (DLP), Liquid crystal display (LCD), Organic light-emitting diode (OLED) display. Quantum Light-emitting Diode (QLED) - Only comparison based on application.	9/11/22		
3.6 Discuss the principle of operation LCD display, Large Screen display.	10/11/22		
3.7 CATV systems & types & networks.	12/11/22		
3.8 Digital TV technology - display TV signals, Transmission of digital TV receiver video programme processor unit.	15/11/22		
	16/11/22		








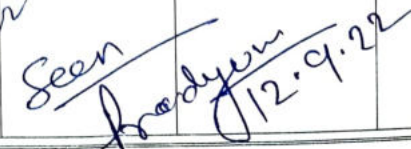

Upadhyay
12/9/22

B.I.E.T.

SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
- <u>UNIT-04</u> :-			
4.1 Define microwave wave guides.	21/11/22		
4.2 Operation of rectangular wave guides and its advantage.	23/11/22		
4.3 Propagation of EM wave through wave guide with TE & TM modes.	22/11/22		
	23/11/22		
4.4 Circular wave guide.	24/11/22		
4.5 Operational cavity resonator.	26/11/22		
4.6 Working of Directional coupler, Isolator & circulator.	29/11/22		
	30/11/22		
4.7 Microwave tubes - Principle of operational of two cavity klystron.	1/12/22		
4.8 Principle of operation of travelling wave tubes.	3/12/22		
4.9 Principle of operation of cyclotron.	6/12/22		
4.10 Principle of operation of Tunnel diode & Gunn diode.	7/12/22		
	8/12/22		

B.I.E.T. SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
<u>UNIT-05</u>			
<u>BROADBAND COMMUNICATION</u>			
5.1 Broadband communication system - fundamental of components and Network architecture.	12/12/22 13/12/22		
5.2 Cable broadband data network architecture, importance & future of broadband telecommunication internet based network.	14/12/22 15/12/22		
5.3 SONET (Synchronous Optical Network) signal frame components topologies advantages applications and disadvantages.	17/12/22 20/12/22		
5.4 ISMN - ISMN Mexican interfaces, Services, Architecture applications.	21/12/22		
5.5 BISMN - Interfaces & terminals, protocol architecture applications.	22/12/22		
 18/11/22  12.9.22		 21/1/22	