



BAPATLA WOMEN'S ENGINEERING COLLEGE::BAPATLA

AN ISO 9001:2015 CERTIFIED INSTITUTION

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Class/Sem: III/IV B. Tech, II Sem

A.Y: 2023-24

Course Outcomes

After Successful completion of this course, Students should be able to learn

Course Name: Microwave Engineering		Code:EC321,R20
CO No.	Course Outcome Statement	Bloom's Taxonomy Level
C321.1	Summarize the importance of Microwave Frequency ranges and various waveguides	Understand
C321.2	Compute Microwave measurement of impedance frequency power VSWR,S-parameters in waveguides	Apply
C321.3	Analyze the characteristics of microwave tubes	Analyze
C321.4	Explain different types of semiconductor microwave devices and its application	Understand
Course Name: Digital Communication		Code: EC-322, R-20
CO No.	Course Outcome Statement	Bloom's Taxonomy Level
C322.1	Understand the models of digital Communication system and Information theory.	Understand
C322.2	Describe and Analyze the Digital Pulse modulation and Digital modulation Techniques.	Analyze
C322.3	Demonstrate the principle operation of spread spectrum modulation scheme.	Analyze
C322.4	Apply error control coding techniques for efficient communication.	Apply
Course Name: Antennas and Wave Propagation		Code: EC-323, R-20
CO No.	Course Outcome Statement	Bloom's Taxonomy Level
C323.1	Discuss radiation phenomena associated with various types of antennas.	Understand
C323.2	Examine basic parameters and characteristics of various types of antennas.	Analyze
C323.3	Distinguish various types of Antenna arrays.	Analyze
C323.4	Demonstrate the various propagation methods of radio waves.	Apply
Course Name: Fiber Optic Communication		Code: EC-324/1 , R-20
CO No.	Course Outcome Statement	Bloom's Taxonomy Level
C324.1	Determine the understanding of optical fiber transmission link ,structure, propagation and transmission properties of an optical fiber and fiber types	Apply

C324.2	Estimate the losses and Analyse the propagation characteristics of an optical signal and fiber types	Understand
C324.3	Describe the principles of optical sources, Detectors and power launching coupling methods	Describe
C324.4	Design fiber optic link based on budgets. Access the different techniques to improve the capacity of the system	Create
Course Name: Embedded Systems		Code: EC325/1-R20
CO No	Course Outcome Statement	Bloom's Taxonomy Level
C325.1	Understand the concept and design process of an embedded systems.	Understand
C325.2	Discuss the various mechanisms used for device and communication buses to a device network.	Analyze
C325.3	Understand the various device drivers and interrupt service mechanisms used for an Embedded system.	Understand
C325.4	Understand the concepts of threads, tasks, process, semaphores and RPC for IPC.	Understand
C325.5	Develop embedded systems modules using RTOS.	Create
Course Name: Microwave & Optical Communication Lab		Code: EC361-R20
CO No.	Course Outcome Statement	Bloom's Taxonomy Level
C361.1	Verify characteristics of Reflex Klystron	Analyze
C361.2	Analyze various parameters of Waveguide Components and RF Components such as directional Couplers.	Analyze
C361.3	Demonstrate characteristics of various optical sources.	Apply
C361.4	Estimate data Rate, Numerical Aperture and Losses in Optical Link.	Understand
Course Name: Digital Communication Lab		Code:EC362 R20
CO No.	Course Outcome Statement	Bloom's Taxonomy Level
C322.1	Understand Generation and Detection of Time Division Multiplexing.	Understand
C322.2	Evaluate the performance of PCM, DPCM, Delta Modulation Schemes.	Analyze
C322.3	Analyze Different Digital modulation Schemes like ASK, FSK, PSK, DPSK, QPSK.	Analyze
C322.4	Simulate Error Detection and Correction using hamming code using MATLAB.	Apply
Course Name: Electronic Circuit Simulation Lab		Code:EC363 R20
CO No.	Course Outcome Statement	Bloom's Taxonomy Level
C363.1	Understand Pspice Simulation Software Used in Circuit Design.	Understand
C363.2	Design and Analyze different Types of Diodes, Rectifiers and Frequency Response of Amplifiers.	Analyze
C363.3	Design and Analyze a Differentiator, Integrator, Filters and Oscillators using OPAMP.	Analyze
C363.4	Implement the Different types of Modulators and Demodulators.	Apply

Course Name: HDL Programming Lab		Code:EC364 R20
CO No.	Course Outcome Statement	Bloom's Taxonomy Level
C364.1	Understand the Simulations of various Logic gates	Understand
C364.2	Demonstrate knowledge on implementation of combinational circuits, sequential circuits, counters and state machines.	Analyze
C364.3	Design and develop a traffic light controller	Create
C364.4	Implement the counters, shift registers and traffic light controller	Create
C364.5	Analyze the simulation results for all Digital logic circuits.	Analyze