



**DEPARTMENT OF ELECTRONICS & COMMUNICATION
ENGINEERING**

COURSE OUTCOMES (COs)

Semester: VI

Course Name: Digital Signal Processing		Course Code: EC-601
Students will be able to:		
CO1:	Illustrate the Signals with its classification & LTI system.	
CO2:	Explain the Z transform, inverse Z transform of various discrete sequence, ROC & their various properties, & analysis of LTI system in z- domain.	
CO3:	Explain the discrete time Fourier series, discrete time Fourier transform & its properties.	
CO4:	Estimate the FFT, DIT & DIF algorithms.	
CO5:	Design of IIR and FIR digital filters.	

Course Name: Antenna & Wave propagation		Course Code: EC-602
Students will be able to:		
CO1:	Identify the far field shading characteristics of a radiator apply it to wire & loop antenna.	
CO2:	Determine the electrical properties of an array antenna by controlling the elements of the array.	
CO3:	Analyze the various types of antennas & its electrical and mechanical properties.	



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CO4:	Analyze the various techniques involved in various antennas parameter measurements.
CO5:	Compare the various radio wave propagation mechanisms and its applications.

Course Name: Departmental Elective (Data Communication)		-Course Code: EC-603(A)
Students will be able to:		
CO1:	Describe the data communication using Networks, Protocols and standards.	
CO2:	Explain the various types of OSI model, Functions of the layers. Transmission media and network devices.	
CO3:	Explain the concept of flow control, error control and LAN protocols.	
CO4:	Analyze the working principles of LAN and the concepts behind physical and logical addressing.	
CO5:	Measure the functions performed by a Network Management System, connection establishment and TCP / IP protocol.	

Course Name: Open Elective (Microcontroller & Embedded System)		Course Code: EC-604(A)
Students will be able to:		
CO1:	Discuss the fundamental features of digital circuits used in external hardware peripherals devices for interfacing with microcontroller through software programming.	
CO2:	Explain the different hardware Features of advanced microcontroller.	



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CO3:	Examine the fundamental features of embedded system used for designing of various applications.
CO4:	Analyze the architecture & technology of microcontroller and processor used in designing of embedded system.
CO5:	Select the various input/output and hardware peripherals devices for designing of embedded system

Course Name: Microcontroller & Embedded system Lab		Course Code: EC-606
Students will be able to:		
CO1:	To demonstrate the understanding of programming tools for 8051/ATMEL microcontrollers.	
CO2:	Apply knowledge of mathematics and 8051 architecture to develop assembly language programs to perform bit manipulation operation.	
CO3:	Apply knowledge of 8051 architecture to verify timer and serial operation.	
CO4:	Develop interface between 8051 and display devices such as seven segment, LED and LCD.	
CO5:	Develop interface between 8051 and input devices such as keyboard, buttons and analog sensors using GPIOs and external ADC.	

HOD EC