SWARNANDHRA COLLEGE OF ENGINEERING & TECHNOLOGY
AUTONOMOUS
ELECTRONICS AND COMMUNICATION ENGINEERING

VII SEM COURSE OUTCOMES (R16)

SUBJECT NAME	COURSE OUT COMES
Microwave And Optical Communications	CO1. Summarize about different types of modes in wave guides and how to decrease the transmission and power losses, different types of microwave solid state devices and their applications CO2. Attain the knowledge about how these microwaves are generated transmitted, amplified and finally measured using Passive devices. CO3. Describe the fundamentals, advantages ,Ray theory transmission in Optical Communication and effect of dispersion of the signal, types of fiber materials, different losses in fibers CO4. Gain knowledge about Optical transmitters, receivers and estimation of link and power budget analysis.
Digital Signal Processing	**CO1**: Analyze the Discrete system in Time and Frequency domain through its respective tools **CO2**: Demonstrate about Fourier series, DFT and to solve the FFT using DIT & DIF algorithms **CO3**: Apply Z-transform and Discrete Fourier transform to analyze a digital system. **CO4**: Design IIR and FIR digital filters for various applications.
Radar Engineering	**CO1**. Describe the basic concepts of radar and analyze radar range equation. **CO2**. Demonstrate the operation and applicability of CW radar**.** **CO3**. Summarize the operation and applicability of MTI and tracking radar**.** **CO4**. Illustrate the functioning of radar antennas and radar receivers with noise performance.
Cellular & Mobile Communications	**CO1.** Design Hexagonal shaped cells and how these are implemented in real world. **CO2.** Explain different types of antenna systems in mobile communication. **CO3.** Analyze Handoffs and different types of handoffs and Dropped call rates and their evaluation. **CO4**. Describe applications of GSM Architecture and GSM channels, multiple access scheme, TDMA, CDMA.

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V SEM COURSE OUTCOMES (R19)

SUBJECT NAME	COURSE OUT COMES
Linear And Digital Ic Applications	**CO1:** Demonstrate different applications based on operational amplifier. **CO2:** Explain the applications of waveform generators based on operational amplifier and IC **CO3:** Design and implementation of Combinational circuits using digital ICs. **CO4:** Design and implementation of Sequential circuits using digital ICs.
Microprocessor And Micro Controller	**CO1:** Explain architecture, instructions and addressing modes of 8086Microprocessor. **CO2:** Develop Assembly programs for various industrial requirements. **CO3:** Analyze 8086 interfacing with different peripherals and implement programs. **CO4:** Design a minimum workable system with 8051Microcontroller.
Antennas & Wave Propagation	**CO1:** Describe different types of antenna parameters. **CO2:** Solve the fields radiated by various types of antennas. **CO3:** Explain various categories of antennas and antenna arrays. **CO4**: Analyze and identify the characteristics of radio wave propagation.
Operating Systems Concepts	**CO1**. Define the Basic concepts about Operating System and its functions. **CO2**. Describe Process management, CPU scheduling and Deadlocks. **CO3**. Analyze Memory management **CO4**. Describe and Implement File systems & Disk Structures . **CO5**. Perform Case Study on LINUX,WINDOWS and Android OS

III SEM COURSE OUTCOMES (R20)

SUBJECT NAME	COURSE OUT COMES
Complex Variables And Random Process	CO1.solve the fundamentals of the theory of analytic functions CO2.expand the given function in Tailors series, Maclaurin's series and Laurent's series. CO3.find residues at singular points, able to evaluate integrals. CO4.construct the probability distribution function of random variables. CO5.calculate expectations of random variables like variance and moments.
Electronic Circuits-I	CO1: Explain the characteristics of different semiconductor diodes and its applications (K2) CO2 Describe the characteristics of Transistors, FET and biasing. (K1) **CO3:** Construct the wave shaping circuits of non sinusoidal signals. (K3) CO4: Analyze and design the Multi vibrators using BJT(K4)
Digital Electronics	CO1: Describe the different types of number systems and Boolean algebra.(K1) CO2: Explain the minimization techniques and universal gates.(K2) CO3: Construct the logic circuits of various combinational circuits.(K3) CO4: Explain the behavior of various sequential circuits.(K2,K4)
Signals And Systems	CO1:Describe the signal fundamentals in terms of types and how to represent the various signals. (K1) CO2:Explain the concept of Fourier series and Fourier transforms to determine the signal and system characteristics. (K2, K4) CO3:Demonstrate the concept of sampling theorem, convolution and correlation and also signal transmission through linear systems. (K3) CO4:Demonstrate the concept of ROC (Region Of Convergence) using Laplace and Z- Transforms to analyze the continuous and discrete time systems. (K3, K4)
Analog Communications	CO1: Understand the concept of communication system, need for modulation, modulation and demodulation techniques in AM. CO2: Describe the concepts of DSB-SC, SSB, FM and Pulse Analog modulation techniques. CO3: Analyze the transmission and reception of a signal in a communication system by using different types of transmitters and receivers. CO4: Estimate the effect of noise on AM, DSB-SC, SSB and FM.