



LORDS INSTITUTE OF ENGINEERING AND TECHNOLOGY (A)
Approved by AICTE | Affiliated to Osmania University | Estd.2002 | Accredited 'A' grade by NAAC
Department of Electronics and Communication Engineering

Course Outcomes of Odd sem 2024-2025

IV YEAR VII SEM

Microwave Engineering

CO. No.	Description
C471.1	Analyze the propagation of Guided waves in different modes between parallel planes.
C471.2	Evaluate different parameters for Rectangular & Circular Waveguides & Cavity Resonators.
C471.3	Determine Scattering parameters of different microwave components and analyze their properties
C471.4	Illustrate the Concept of microwave tubes and its operation
C471.5	Analyze the principle, operation and characteristics of different microwave solid state devices.

Cellular Mobile Communications

CO. No.	Description
C472.1	Outline the method of selection and reuse of a set of frequency channels
C472.2	Comprehend the methods of mobile radio propagation models.
C472.3	Identify the different methods of mobile access technologies and which of them suitable for mobile cellular solutions
C472.4	Interpret the features and operational details of wireless systems and standards.
C472.5	Compare and contrast the development and limitations of different wireless communication Technologies

Internet Of Things And Protocol

CO. No.	Description
----------------	--------------------

C473.1	Comprehend the essentials of IoT and its applications.
C473.2	Illustrate the concepts of IoT Architecture Reference model and IoT reference architecture
C473.3	Analyze various IoT Application layer Protocols.
C473.4	Apply IP based protocols and Authentication Protocols for IoT
C473.5	Design IoT-based systems for real-world problems.

Radar Systems

CO. No.	Description
C474.1	Analyze the basic principle of Radar system and develop Radar range equation
C474.2	Illustrate the functioning of CW Radar, their variations and displays in Radar
C474.3	Interpret the different types of MTI, non-coherent MTI Radar and their operation
C474.4	Illustrate on radar tracking methods and differences among them.
C474.5	Derive the matched filter response characteristics and explain about antennas used in radars.

Microwave Engineering Lab

CO. No.	Description
C476.1	Evaluate of mode characteristics of Reflex klystron and V-I Characteristics of Gunn diode.
C476.2	Analyze frequency, Wave length, SWR and Impedance for Reflex klystron Oscillator by using its equation
C476.3	Analyze of the characteristics of Circulator, Isolator, Directional Coupler, Tees like (Magic tee, E & H plane tees) using the Scattering parameters.
C476.4	Generate the Radiation pattern of different antennas like Yagi-Uda and Horn Antenna and measure the gain of the antennas.
C476.5	Understand the characteristics of Microwave Sources.

Technical seminar

C477.1	Interpretation and Solution of real life engineering problems by applying Knowledge.
C477.2	Conduct literature survey on a current topic based on peer reviewed literature & Identify research gap in the literature
C477.3	Develop presentation slides / report arranging the material coherently
C477.4	Compile the content and prepare comprehensive report.
C477.5	Demonstrate skills required for preparation of a technical report Present seminar and Write precise technical reports in a nutshell.
C477.6	Participates effectively in multi-disciplinary and heterogeneous teams exhibiting team work, Interpersonal relationships, conflict management and leadership quality.

Total Quality Management

C478.1	Have an overview on quality dimensions and quality system awards and guidelines
C478.2	Have an insight of quality measurement tools
C478.3	Acquire knowledge on various techniques of total quality management
C478.4	Understand the six sigma and problem solving approach
C478.5	Enhance knowledge on implementation of TQM in service sector

Technical Report Writing

C479.1	Develop report writing skills thoroughly.
C479.2	Construct business proposals professionally.
C479.3	Compose different types of reports systematically.
C479.4	Design project report relevantly.
C479.5	Illustrate the use of notices, circulars and memos officially.

III YEAR V-SEM

Business Economics & Financial Analysis

C351.1	Apply the concepts of business and economics during his professional and personal life
C351.2	Understand the elasticity of the demand of the product, different types, and measurement of elasticity of demand and factors influencing on elasticity of demand
C351.3	Recognize the production function, features of Iso - Quants and Ios - Costss, different types, of internal economies, external economies and law of returns with appropriate examples
C351.4	Prepare the financial statements of the firm
C351.5	To Analyze the financial statements using ratio analysis and cash flow techniques

Microprocessor & Microcontrollers

C352.1	Analyze the internal architecture, organization and assembly language programming of 8086 processors.
C352.2	Analyze the internal architecture, organization and assembly language programming of 8051 Controllers
C352.3	Implement the interfacing techniques to 8051 based systems
C352.4	Apply the Serial Communication and Bus Interface concept
C352.5	Demonstrate the internal architecture of ARM processors and basic concepts of ARM processors

Digital Communication

C353.1	Demonstrate the concept of pulse digital modulation schemes and compare their performance
C353.2	Interpret the concept of information theory and apply source coding schemes.
C353.3	Demonstrate various error controlschemes and develop the encoding and decoding techniques to detect and correct the errors
C353.4	Analyze different digital modulation schemes and can compute the bit error performance
C353.5	Identify and apply spread spectrum modulation techniques.

Control Systems

C354.1	Understand different mathematical models for any electromechanical LTI systems and determine the transfer function of an LTI system using block diagram & signal flow graph
C354.2	Analyze the given first and second order systems based on their performance parameters &PID controllers
C354.3	Analyze absolute and relative stability of an LTI system using time domain techniques
C354.4	Analyze the stability of an LTI system using frequency domain techniques and understand the concepts of compensators.
C354.5	Develop various state space models for LTI systems and to determine its Controllability and Observability

Electronic Measurement and Instrumentation

C355.1	Implement the standards of measurement and its application for measurement of various physical parameters.
C355.2	Illustrate the different types of transducers and bridges.
C355.3	Demonstrate the characteristics of electronic sensors and signal analyzers
C355.4	Analyze the different oscilloscopes working and its applications.
C355.5	Analyze the usage of Bio Medical Instrumentation in daily life.

Disaster Preparedness and Management

C356.1	Apply the concepts of disaster management to evaluates a disaster situation
C356.2	Classify the various categories of disaster and their specific characteristics

C356.3	Select appropriate pre-disaster, during disaster and post-disaster measures and frameworks
C356.4	Apply the geo informatics technology in disaster situation
C356.5	Identify the disaster management acts and frameworks specific to India relevant to a situation

Microprocessor & Microcontrollers Lab

C357.1	Summarize the internal architecture, organization and assembly language programming of 8086 processors
C357.2	Verify the internal architecture of 8051
C357.3	Interpret the organization and assembly language programming of 8051 controllers
C357.4	Demonstrate the interfacing techniques to 8086
C357.5	Utilize the interfacing techniques to 8051

Analog and Digital Communication Lab

C358.1	Demonstrate and simulate modulation and demodulation of AM and FM
C358.2	Construct and understand the need for pre-emphasis and de-emphasis at the transmitter and receiver respectively
C358.3	Demonstrate the generation of PAM, PWM circuits
C358.4	Determine the generation and detection of baseband transmission PCM, DM, and ADM
C358.5	Generation of ASK, FSK, DPSK and QPSK

Summer Internship

C359.1	Design/develop a small and simple product in hardware or software
C359.2	Complete the task or realize a pre specified target, with limited scope, rather than taking up a complex task and leave it.
C359.3	Learn to find alternate viable solutions for a given problem and evaluate these alternatives with

	reference to pre specified criteria.
C359.4	Implement the selected solution and document the same

II YEAR III-SEM

Probability and Statistics

C231.1	Determine the probability , Random variables, distributions and its application
C231.2	Apply the knowledge of some standard discrete probability distributions and moments
C231.3	Calculating parameters of standard continuous probability distributions
C231.4	Find the parameters and concepts of correlation, regression and obtain the knowledge of sampling of sampling theory with context to test of hypothesis
C231.5	Analyze and check the validity of statement using testing of hypothesis for various

English for Technical Communication

C232.1	Apply technical communication skills effectively
C232.2	Adapt different types of official correspondence successfully
C232.3	Construct report writing productively using various techniques
C232.4	Develop the skills of manual writing adequately
C232.5	Interpret the information transfer from verbal to non-verbal data and vice-versa completely

Electronic Devices

C233.1	Demonstrate the characteristics of various Diodes
C233.2	Design rectifier circuits with filters Calculate ripple factor, efficiency and percentage regulation of rectifier circuits
C233.3	Compare and Contrast the characteristics of BJT in various configurations
C233.4	Distinguish the working principles of FET & MOSFET
C233.5	Demonstrate the properties and applications of special purpose devices.

Signals and Systems

C234.1	Define and differentiate types of signals and systems in continuous and discrete time
C234.2	Apply the properties of Fourier transform for continuous time signals.
C234.3	Relate Laplace transforms to solve differential equations and to determine the response of the Continuous Time Linear Time Invariant Systems to known inputs.
C234.4	Interpret the process of sampling and Linear Convolution of discrete time signals using graphical representation.
C234.5	Apply Z-transforms for discrete time signals to solve difference equations.

Digital Electronics

C235.1	Outline the fundamental concepts in number systems and Boolean algebra.
C235.2	Implement various combinational circuits.
C235.3	Implement various Sequential circuits like flip flops.
C235.4	Design sequential circuits such as registers, counters using flip-flops
C235.5	Represent a sequential circuit using Finite State machine and apply state minimization techniques to design an FSM

Digital Electronics Lab

C236.1	Demonstrate the truth table of various logic gates.
C236.2	Design, test and evaluate various combinational circuits such as adders, subtractors, comparators, multiplexers and demultiplexers.
C236.3	Construct flip-flops, counters and shift registers.
C236.4	Simulate full adder and up/down counters.

Electronic Devices Lab

C237.1	Demonstrate the characteristic behavior of PN junction diode, Zener diode and special purpose semiconductor diodes.
C237.2	Design various non-linear wave shaping circuits using diodes for a given specification.
C237.3	Analyze the behavior of non-linear wave shaping circuits using diodes.
C237.4	Examine the characteristics of BJT and FET in various configurations.
C237.5	Evaluate and compare the significant parameters obtained from the characteristics of BJT and FET.

Basic Simulation Lab

C238.1	Write OCTAVE/ MATLAB codes for the generation of signals
C238.2	Apply various transforms on signals to find it's Spectrum using OCTAVE/ MATLAB
C238.3	Correlate two signals and can remove noise using correlation
C238.4	Find the response of the system using convolution function in OCTAVE/ MATLAB.
C238.5	Perform sampling of continuous time signals.

Soft Skills Development Lab

C2310.1	Utilize soft skills at professional level effectively
C2310.2	Function efficiently in multidisciplinary settings by using leadership skills
C2310.3	Build confidence through interpersonal skills utterly
C2310.4	Write Resume/CV and cover letter comprehensively
C2310.5	Enhance the skills of group discussion and interview perfectly

Effective Communication Skills Lab

C2312.1	Listen and interpret spoken language productively
C2312.2	Speak English with neutralized pronunciation, stress and intonation
C2312.3	Present themselves confidently in formal and informal situations

C2312.4	Expand critical thinking and acknowledge team work effectively
C2312.5	Develop creativity and speak confidently in individual and group activity
C2312.6	Create formal presentations dynamically