AISSMS
COLLEGE OF ENGINEERING
ज्ञानम् सकलजनहिताय
(Accredited by NAAC with grade A+)

Department of Electronics and Telecommunication Engineering

COURSE OUTCOME 2019 PATTERN

VISION of Department
Society Growth and Welfare through Competent Electronics and Telecommunication Engineering Graduates

MISSION of Department
• To facilitate E & TC graduates with sight of innovation. • To provide a stimulating learning environment with modern tools & technologies. • To produce dynamic graduates with ethics and moral values. • To impart quality education in the field of E & TC engineering to solve societal and industrial problems

CLASS: SE SEMESTER-I

COURSE: ENGINEERING MATHEMATICS III	
Course Outcome	**Statement**
CO207005.1	Solve higher order linear differential equation using appropriate techniques for modeling, analyzing of electrical circuits and control systems.
CO207005.2	Apply concept of Fourier transform & Z-Transform & its applications to continuous & discrete systems, signal & image processing and communication systems.
CO207005.3	Solve special cases of differential equations by applying suitable numerical methods.
CO207005.4	Analyze the vector fields by applying concepts of vector differentiation for electromagnetic fields and wave theory.
CO207005.5	Analyze the vector fields by applying concepts of vector integration for electromagnetic fields and wave theory.
CO207005.6	Compute contour integration which is applicable to electrostatics, digital filters, signal and image processing.

COURSE: ELECTRONIC CIRCUITS	
Course Outcome	**Statement**
CO204181.1	Outline the physics, characteristics and parameters of MOSFET as amplifier
CO204181.2	Design MOSFET as oscillator and amplifiers, with and without feedback
CO204181.3	Analyze the performance of linear and switching regulators
CO204181.4	Recall the fundamental concepts and principles related to operation of differential amplifier
CO204181.5	Develop simple signal processing circuit using differential amplifier.
CO204181.6	Study DACs/ADCs and PLL.

COURSE: DIGITAL CIRCUITS	
Course Outcome	**Statement**
CO204182.1	Classify various Digital Logic Families with their characteristics.
CO204182.2	Compute Boolean expressions using reduction techniques of Digital Logic Circuits
CO204182.3	Implement Combinational Logic Circuits
CO204182.4	Execute Sequential Circuits
CO204182.5	Analyze FSM using Mealy and Moore Machines.
CO204182.6	Compare Semiconductor Memories.

COURSE: ELECTRICAL CIRCUITS	
Course Outcome	**Statement**
CO204183.1	Apply various network theorem to AC and DC circuits.
CO204183.2	Analyze driven and source free RL and RC circuits.
CO204183.3	Calculate 2-port network parameters.
CO204183.4	Demonstrate the characteristics of DC Machines .
CO204183.5	Illustrate the construction, working, characteristics and applications of Single Phase & Three Phase AC Motors.
CO204183.6	Classify various special purpose motors on basis of Applications.

COURSE: DATA STRUCTURE	
Course Outcome	**Statement**
CO20184.1	Apply the knowledge of C programming to solve mathematical problems
CO20184.2	Compare the space and time complexity of searching techniques
CO20184.3	Describe how arrays, records, linked structures are represented in memory and usethem in algorithms
CO20184.4	Develop stacks & queues for various applications
CO20184.5	Discuss applicability of various terminologies and traversals of trees and use them for various applications.
CO20184.6	Understand various terminologies and traversals of graphs and use them for various applications

COURSE: EMPLOYABILITY SKILL DEVELOPMENT	
Course Outcome	**Statement**
CO204199.1	Articulate short-term and long-term goals for personal and career goals using introspective skills and SWOC assessment.
CO204199.2	Demonstrate communication skills effectively through listening, reading, writing, and speaking
CO204199.3	Take part in activities to showcase self- management, Problem solving and team building.
CO204199.4	Comprehend the importance of professional ethics, etiquettes & morals
CO204199.5	Develop practically deployable skill set involving effective presentations and leadership qualities

CLASS: SE SEMESTER-II

COURSE: SIGNALS AND SYSTEMS	
Course Outcome	**Statement**
CO204191.1	Compute operations on signals by classifying basic signals and systems
CO204191.2	Apply the Knowledge of classification and impulse response to find input output relation of LTI system using convolution.
CO204191.3	Analyze the signals in frequency domain using Fourier series
CO204191.4	Execute signals in frequency domain using Fourier Transform
CO204191.5	Analyze LTI system using Laplace Transform
CO204191.6	Compute probability of a given event, model CDF and PDF

COURSE: CONTROL SYSTEMS	
Course Outcome	**Statement**
CO204192.1	Recall the various techniques used in control system analysis
CO204192.2	Analyze the transient and steady-state response of control systems based on their time domain characteristics
CO204192.3	Evaluate system stability using the Root Locus and Routh-Hurwitz stability criterion
CO204192.4	Sketch Polar, Nyquist and Bode plot for stability analysis of control system.
CO204192.5	Express system equations in state variable form.
CO204192.6	Differentiate various digital controllers based on their Industrial application

COURSE: PRINCIPLES OF COMMUNICATION SYSTEMS	
Course Outcome	**Statement**
CO204193.1	Analyze signals in time and frequency domain
CO204193.2	Evaluate the performance of different Amplitude modulated systems
CO204193.3	Examine techniques of generation and detection for FM systems
CO204193.4	Exhibit sampling theorem for pulse modulation techniques
CO204193.5	Compare various digital representation techniques
CO204193.6	Illustrate various aspects in baseband digital transmission

COURSE: OBJECT ORIENTED PROGRAMMING	
Course Outcome	**Statement**
CO20184.1	Describe the principles of object oriented programming
CO20184.2	Apply the concepts of data encapsulation, inheritance in C++
CO20184.3	Understand Operator overloading and friend functions in C++
CO20184.4	Execute inheritance and polymorphism in C++ using classes & methods
CO20184.5	Apply Templates, Namespaces and Exception Handling concepts to write programs in C++
CO20184.6	Describe use of File handling in C++.

COURSE: DATA ANALYSIS	
Course Outcome	**Statement**
CO204198.1	Summarize the data by reading the dataset.
CO 204198.2	Utilize various visualization tools to visualize data
CO 204198.3	Make use of data cleaning techniques offered by Pandas to clean the data
CO 204198.4	Analyze statistical variation of the data
CO 204198.5	Examine data by applying mathematical tools such as Numpy.
CO 204198.6	Build a regression model using pandas

COURSE: EMPLOYABILITY SKILL DEVELOPMENT	
Course Outcome	**Statement**
CO204199.1	Articulate short-term and long-term goals for personal and career goals using introspective skills and SWOC assessment.
CO204199.2	Demonstrate communication skills effectively through listening, reading, writing, and speaking
CO204199.3	Take part in activities to showcase self- management, Problem solving and team building.
CO204199.4	Comprehend the importance of professional ethics, etiquettes & morals
CO204199.5	Develop practically deployable skill set involving effective presentations and leadership qualities

COURSE: PROJECT BASED LEARNING	
Course Outcome	**Statement**
CO204200.1	Formulate aim and objectives for real-world problem (possibly of interdisciplinary nature) through a rigorous literature survey
CO204200.2	Contribute to society through proposed solution by strictly following professional ethics and safety measures
CO204200.3	Propose a suitable solution based on the fundamentals of electronics and communication engineering by possibly the integration of previously acquired knowledge
CO204200.4	Analyze the results and arrive at valid conclusion
CO204200.5	Demonstrate learning in oral and written form by using Modern Tools and technology in proposed work
CO204200.6	Develop ability to work as an individual and as a team member