DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

SE E&TC (2019 Pattern) Semester-III

Course Name :	Engineering Mathematics - III	Course Code :	207005
CO`s No.	**CO Statements**		
CO.1	Solve higher order linear differential equation using appropriate techniques for modelling, analyzing of electrical circuits and control systems.		
CO.2	Apply concept of Fourier transform & Z-transform and its applications to continuous &discrete systems, signal & image processing and communication systems.		
CO.3	Obtain Interpolating polynomials, numerically differentiate and integrate functions, numerical solutions of differential equations using single step and multi-step iterative methods used in modern scientific computing.		
CO.4	Perform vector differentiation & integration, analyze the vector fields and apply to electro-magnetic fields &wave theory.		
CO.5	Analyze Complex functions, Conformal mappings, Contour integration applicable to electrostatics, digital filters, signal and image processing.		

JCEI's, Jaihind College of Engineering Kuran Tal.Junnar Dist.Pune 410511 EN-6609

Course Teacher
Prof. Doke Kalyani

Head of Department
Head of Department
(E & TC)
JCEI's Jaihind College of Engineering,
Kuran, Tal-Junnar, Dist. Pune

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

SE E&TC (2019 Pattern) Semester-III

Course Name :	Electronic Circuits	Course Code :	204181
CO`s No	**CO Statements**		
CO.1	Assimilate the physics, characteristics and parameters of MOSFET towards its application as amplifier.		
CO.2	Design MOSFET amplifiers, with and without feedback, & MOSFET oscillators, for given specifications.		
CO.3	Analyze and assess the performance of linear and switching regulators, with their variants, towards applications in regulated power supplies.		
CO.4	Explain internal schematic of Op-Amp and define its performance parameters.		
CO.5	Design, Build and test Op-amp based analog signal processing and conditioning circuits towards various real time applications.		
CO.6	Understand and compare the principles of various data conversion techniques and PLL with their applications.		

Course Teacher
(Dr. R. Mujkar)

JCEI's, Jaihind College of Engineering
Kuran
Tal.Junnar
Dist.Pune
410511
EN-6609

Head of Department
Head of Department
(E & TC)
JCEI's Jaihind College of Engineering,
Kuran, Tal-Junnar, Dist. Pune

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

SE E&TC (2019 Pattern) Semester-III

Course Name :	**Digital Circuits**	**Course Code :**	**204182**
CO`s No	**CO Statements**		
CO.1	Identify and prevent various hazards and timing problems in a digital design.		
CO.2	Use the basic logic gates and various reduction techniques of digital logic circuit.		
CO.3	Analyze, design and implement combinational logic circuits.		
CO.4	Analyze, design and implement sequential circuits.		
CO.5	Differentiate between Mealy and Moore machines.		
CO.6	Identify and prevent various hazards and timing problems in a digital design.		

C.B. Gadekar

Course Teacher

Prof. Gadekar C.B.

JCEI's, Jaihind College of Engineering, Kuran Tal.Junnar Dist.Pune 410511 EN-6609

Head of Department

Head of Department
(E & TC)
JCEI's Jaihind College of Engineering,
Kuran, Tal-Junnar, Dist. Pune

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

SE E&TC (2019 Pattern) Semester-III

Course Name :	**Electrical Circuits**	**Course Code :**	**204183**
CO`s No	**CO Statements**		
CO.1	Analyze the simple DC and AC circuit with circuit simplification techniques.		
CO.2	Formulate and analyze driven and source free RL and RC circuits.		
CO.3	Formulate & determine network parameters for given network and analyze the given network using Laplace Transform to find the network transfer function.		
CO.4	Explain construction, working and applications of DC Machines / Single Phase & Three Phase AC Motors.		
CO.5	Explain construction, working and applications of special purpose motors & understand		
CO.6	Analyze and select a suitable motor for different applications.		

JCEI's Jaihind College of Engineering Kuran Tal.Junnar Dist.Pune 410511 EN-6609

Course Teacher

(Prof. S. L. Rahane)

Head of Department

Head of Department (E & TC) JCEI's Jaihind College of Engineering Kuran, Tal-Junnar, Dist. Pune

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

SE E&TC (2019 Pattern) Semester-III

Course Name :	**Data Structures**	**Course Code :**	**204184**
CO`s No	**CO Statements**		
CO.1	Solve mathematical problems using C programming language.		
CO.2	Implement sorting and searching algorithms and calculate their complexity.		
CO.3	Develop applications of stack and queue using array.		
CO.4	Demonstrate applicability of Linked List.		
CO.5	Demonstrate applicability of nonlinear data structures - Binary Tree with respect to its time complexity.		
CO.6	Apply the knowledge of graph for solving the problems of spanning tree and shortest path algorithm		

JCEI's Jaihind College of Engineering Kuran Tal.Junnar Dist.Pune 410511 EN-6609

Course Teacher
(Prof. Punde P.S.)

Head of Department
Head of Department
(E & TC)
JCEI's Jaihind College of Engineering,
Kuran, Tal-Junnar, Dist. Pune

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

SE E&TC (2019 Pattern) Semester-IV

Course Name :	Signals & Systems	Course Code :	204191
CO`s No	**CO Statements**		
CO.1	Determine and use models of physical systems in forms suitable for use in the analysis anddesign of control systems.		
CO.2	Determine the (absolute) stability of a closed-loop control system.		
CO.3	Perform time domain analysis of control systems required for stability analysis.		
CO.4	Perform frequency domain analysis of control systems required for stability analysis.		
CO.5	Apply root-locus, Frequency Plots technique to analyze control systems.		
CO.6	Express and solve system equations in state variable form.		

JCEI's, Jaihind College of Engineering Kuran Tal.Junnar Dist.Pune 410511 EN-6609

Course Teacher
(Dr. R. Mulajkar)

Head of Department
Head of Department
(E & TC)
JCEI's Jaihind College of Engineering,
Kuran, Tal-Junnar, Dist. Pune

EPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

SE E&TC (2019 Pattern) Semester-IV

Course Name :	Control Systems	Course Code :	204192
CO`s No	CO Statements		
CO.1	Determine and use models of physical systems in forms suitable for use in the analysis anddesign of control systems.		
CO.2	Determine the (absolute) stability of a closed-loop control system.		
CO.3	Perform time domain analysis of control systems required for stability analysis.		
CO.4	Perform frequency domain analysis of control systems required for stability analysis.		
CO.5	Apply root-locus, Frequency Plots technique to analyze control systems.		
CO.6	Express and solve system equations in state variable form.		

Ms. Bhingarde M.A.
Course Teacher

JCEI's Jaihind College of Engineering, Kuran, Tal.Junnar, Dist.Pune 410511 EN-6609

Head of Department

Head of Department
(E & TC)
JCEI's Jaihind College of Engineering,
Kuran, Tal-Junnar, Dist. Pune

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

SE E&TC (2019 Pattern) Semester-IV

Course Name :	Principles of Communication Systems	Course Code :	204193
CO`s No	**CO Statements**		
CO.1	To compute & compare the bandwidth and transmission power requirements by analyzing time and frequency domain spectra of signal required for modulation schemes under study.		
CO.2	Describe and analyze the techniques of generation, transmission and reception of Amplitude Modulation Systems.		
CO.3	Explain generation and detection of FM systems and compare with AM systems.		
CO.4	Exhibit the importance of Sampling Theorem and correlate with Pulse Modulation technique (PAM, PWM, and PPM).		
CO.5	Characterize the quantization process and elaborate digital representation techniques (PCM, DPCM, DM and ADM).		
CO.6	Illustrate waveform coding, multiplexing and synchronization techniques and articulate their importance in baseband digital transmission.		

JCEI's Jaihind College of Engineering Kuran Tal.Junnar Dist.Pune 410511 EN-6609

Course Teacher
(Prof. S. L. Rahane)

Head of Department
Head of Department
(E & TC)
JCEI's Jaihind College of Engineering,
Kuran, Tal-Junnar, Dist. Pune

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

SE E&TC (2019 Pattern) Semester-IV

Course Name :	Object Oriented Programming	Course Code :	204194
CO`s No	**CO Statements**		
CO.1	Describe the principles of object-oriented programming.		
CO.2	Apply the concepts of data encapsulation, inheritance in C++.		
CO.3	Understand Operator overloading and friend functions in C++.		
CO.4	Apply the concepts of classes, methods inheritance and polymorphism to write programsC++.		
CO.5	Apply Templates, Namespaces and Exception Handling concepts to write programs in C++.		
CO.6	Describe and use of File handling in C++.		

JCEI's Jaihind College of Engineering Kuran Tal.Junnar Dist.Pune 410511 EN-6609

Course Teacher

(Chaugale Sonali D.)

Head of Department

Head of Department (E & TC) JCEI's Jaihind College of Engineering, Kuran, Tal-Junnar, Dist. Pune

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

SE E&TC (2019 Pattern) Semester-IV

Course Name :	Employability Skills Development	Course Code :	204199
CO`s No	**CO Statements**		
CO.1	Define personal and career goals using introspective skills and SWOC assessment. Outline and evaluate short-term and long-term goals.		
CO.2	Develop effective communication skills (listening, reading, writing, and speaking), self- management attributes, problem solving abilities and team working & building capabilities in order to fetch employment opportunities and further succeed in the workplace.		
CO.3	Be a part of a multi-cultural professional environment and work effectively by enhancing inter-personal relationships, conflict management and leadership skills.		
CO.4	Comprehend the importance of professional ethics, etiquettes & morals and demonstrate sensitivity towards it throughout certified career.		
CO.5	Develop practically deployable skill set involving critical thinking, effective presentations and leadership qualities to hone the opportunities of employability and excel in the professional environment.		

JCEI's Jaihind College of Engineering Kuran Tal.Junnar Dist.Pune 410511 EN-6609

Course Teacher
(P. K. Raut)

Head of Department
Head of Department
(E & TC)
JCEI's Jaihind College of Engineering,
Kuran, Tal-Junnar, Dist. Pune

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

SE E&TC (2019 Pattern) Semester-IV

Course Name :	Project Based Learning	Course Code :	204200
CO`s No	**CO Statements**		
CO.1	Identify the real-world problem (possibly of interdisciplinary nature) through a rigorous literature survey and formulate / set relevant aim and objectives.		
CO.2	Contribute to society through proposed solution by strictly following professional ethics and safety measures.		
CO.3	Propose a suitable solution based on the fundamentals of electronics and communication engineering by possibly the integration of previously acquired knowledge.		
CO.4	Analyze the results and arrive at valid conclusion.		
CO.5	Use of technology in proposed work and demonstrate learning in oral and written form.		

JCEI's Jaihind College of Engineering Kuran Tal.Junnar Dist.Pune 410511 EN-6609

Course Teacher
(P. K. Raut.)

Head of Department
Head of Department
(E & TC)
JCEI's Jaihind College of Engineering,
Kuran, Tal-Junnar, Dist. Pune