VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

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Department of Electronics and Communication Engineering
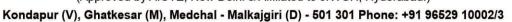
II B.Tech II Semester

SUBJECT: LAPLACE TRANSFORMS NUMERICAL METHODS & COMPLEX VARIABLES (C240)

After learning the contents of this paper the student must be able to

SNO	COURSE OUTCOMES	BT Level
C240.1	Use the Laplace transforms techniques for solving ODE's	3
C240.2	Find the root of a given equation.	4
C240.3	Estimate the value for the given data using interpolation	2
C240.4	Analyze the complex function with reference to their analyticity, integration using Cauchy's integral and residue theorems.	4
C240.5	Understand Taylor's and Laurent's series expansions of complex Function	2

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C240.1	3	3	2	2	1	-	-	-	1	-	-	1	3	1	-
C240.2	3	3	2	2	1	-	-	-	1	-	-	-	3	1	-
C240.3	3	3	2	2	1	-	-	-	1	-	-	-	3	1	-
C240.4	3	3	2	2	2	1	1	1	2	1	1	-	3	2	1
C240.5	3	3	2	2	1	-	-	-	1	-	-	-	3	1	-
Average	3	3	2	2	1.2	1	1	1	1.2	1	1	1	3	1.2	1

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II B.Tech II Semester

SUBJECT: ELECTROMAGNETIC FIELDS AND WAVES (C241)

After learning the contents of this paper the student must be able to

SNO	COURSE OUTCOMES	BT Level
C241.1	Get the knowledge of Basic Laws, Concepts and proofs related to Electrostatic Fields.	1
C241.2	Get the knowledge of Basic Laws, Concepts and proofs related to Magnetostatic Fields.	1
C241.3	Distinguish between the static and time-varying fields, establish the corresponding sets of Maxwell's Equations and Boundary Conditions.	2
C241.4	Analyze the Wave Equations for good conductors, good dielectrics and evaluate the UPW Characteristics for several practical media of interest.	4
C241.5	Analyze completely the rectangular waveguides, their mode characteristics, and design waveguides for solving practical problems.	4

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C241.1	3	3	2	1	1	-	1	-	-	1	-	-	3	1	-
C241.2	3	3	2	1	1	-	2	-	-	1	-	-	3	1	-
C241.3	3	3	2	1	1	-	1	-	-	1	-	-	3	1	-
C241.4	3	3	3	2	2	1	2	1	1	2	1	1	3	2	1
C241.5	3	3	3	2	2	1	2	1	1	2	1	-	3	2	1
Average	3	3	2.4	1.4	1.4	1	1.6	1	1	1.4	1	1	3	1.4	1

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II B.Tech II Semester

SUBJECT: ANALOG AND DIGITAL COMMUNICATIONS (C242)

After going through this course the student will be able to

SNO	COURSE OUTCOMES	BT Level
C242.1	Analyze and design of various continuous wave and amplitude modulation and demodulation techniques	4
C242.2	Understand the effect of noise present in continuous wave and angle modulation techniques.	2
C242.3	Attain the knowledge about AM , FM Transmitters and Receivers	1
C242.4	Analyze and design the various Pulse Modulation Techniques.	4
C242.5	Understand the concepts of Digital Modulation Techniques and Baseband transmission**.**	2

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C242.1	3	3	3	2	1	1	1	1	1	1	1	1	3	2	1
C242.2	3	3	2	1	-	-	1	-	-	-	-	-	3	1	-
C242.3	3	3	2	1	-	-	1	-	-	-	-	-	3	1	-
C242.4	3	3	3	2	1	1	1	1	1	1	1	1	3	2	1
C242.5	3	3	2	1	-	-	-	-	-	-	-	-	3	1	-
Average	3	3	2.4	1.4	1	1	1	1	1	1	1	1	3	1.4	1

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II B.Tech II Semester

SUBJECT: LINEAR IC APPLICATIONS (C243)

After going through this course the student will

SNO	COURSE OUTCOMES	BT Level
C243.1	Understand and analyze the IC 741 operational amplifier and its characteristics.	2
C243.2	Design the solution for linear & non-linear applications using IC741	5
C243.3	Elucidate and design the active filters and oscillators.	5
C243.4	Attain the knowledge of functional diagrams and applications of IC 555 and IC 565	1
C243.5	Acquire the knowledge about the Data converters.	1

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C243.1	2	3	3	2	-	-	-	-	-	-	-	-	3	2	-
C243.2	3	3	3	3	1	1	1	1	1	1	1	1	3	3	1
C243.3	3	3	3	3	1	1	1	1	1	1	1	1	3	3	1
C243.4	2	3	3	3	-	-	-	-	-	-	-	-	3	2	-
C243.5	2	3	1	1	-	-	-	-	-	1	-	-	3	2	-
Average	2.4	3	2.6	2.4	1	1	1	1	1	1	1	1	3	2.4	1

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II B.Tech II Semester

SUBJECT: ELECTRONIC CIRCUIT ANALYSIS (C244)

After going through this course the student will be able to

SNO	COURSE OUTCOMES	BT Level
C244.1	Design and analysis of the DC bias circuitry of BJT	5
C244.2	Design and analysis of the DC bias circuitry of FET	5
C244.3	Analyze the different types of the amplifiers, operation and its characteristics	4
C244.4	Design circuit like amplifiers.	5
C244.5	Design circuit like oscillators using the transistors, diodes	5

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C244.1	3	2	3	3	2	1	-	-	2	1	3	3	2	3	1
C244.2	3	2	3	3	1	1	-	-	1	1	2	3	2	3	-
C244.3	2	3	3	3	1	1	-	-	2	1	3	3	3	2	1
C244.4	2	3	3	2	1	1	1	-	2	1	3	3	3	2	1
C244.5	3	3	3	3	2	1	-	1	2	1	3	3	3	3	1
Average	2.6	2.6	3	2.8	1.4	1	1	1	1.8	1	2.8	3	2.6	2.6	1

Department of Electronics and Communication Engineering

II B.Tech II Semester

SUBJECT: ANALOG AND DIGITAL COMMUNICATIONS LAB (C245)

After going through this course the student will

SNO	COURSE OUTCOMES	BT Level
C245.1	Demonstrate generation and detection of analog and digital modulation techniques.	1
C245.2	Explain sampling, PCM, delta modulation, adaptive delta modulation and superheterodyne receiver.	2
C245.3	Compare the different analog and digital modulation techniques.	4
C245.4	Distinguish various line coding schemes used for digital data transmission.	4
C245.5	Apply time division multiplexing concepts in different pulse modulation techniques.	3

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C245.1	3	3	1	3	1	-	-	-	2	3	1	3	3	3	-
C245.2	3	3	1	3	1	-	-	-	2	3	1	3	3	3	-
C245.3	3	3	1	3	-	1	-	-	2	3	-	3	3	3	-
C245.4	3	3	1	3	-	-	1	-	2	3	-	3	3	3	-
C245.5	3	3	1	3	-	-	-	1	2	3	1	3	3	3	1
Average	**3**	**3**	**1**	**3**	**1**	**1**	**1**	**1**	**2**	**3**	**1**	**3**	**3**	**3**	**1**

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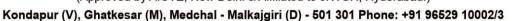**SUBJECT: IC APPLICATIONS LAB (C246)**

After going through this course the student will be able to

SNO	COURSE OUTCOMES	BT Level
C246.1	Understand the basics of Op-Amp and implement the linear applications of 741 IC	1
C246.2	Design the first order filters and generate different types of input signals using 741 IC	5
C246.3	Design the multivibrator circuits using IC555 and determine the frequency of oscillation	5
C246.4	Determine the Hysteresis voltage of Schmitt trigger using 741 Op-Amp	4
C246.5	Construct and analyze voltage regulator circuits	5

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C246.1	3	2	3	3	3	3	1	-	3	3	2	3	3	3	1
C246.2	3	3	2	3	2	1	1	-	2	1	2	3	2	3	1
C246.3	3	3	3	3	2	1	1	-	2	1	2	3	3	3	1
C246.4	2	3	3	3	2	1	2	1	2	1	2	2	2	2	2
C246.5	3	3	3	3	2	1	1	-	2	1	2	3	3	3	1
Average	**2.8**	**2.8**	**2.8**	**3**	**2.2**	**1.4**	**1.2**	**1**	**2.2**	**1.4**	**2**	**2.8**	**2.6**	**2.8**	**1.2**

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SUBJECT: ELECTRONIC CIRCUIT ANALYSIS LAB (C247)

After going through this course the student will

SNO	COURSE OUTCOMES	BT Level
C247.1	Design common emitter amplifier, two stage RC coupled amplifier and simulate in simulation laboratory using Multi-Sim software	5
C247.2	Design feedback amplifiers and simulate in simulation laboratory using Multi-Sim software	5
C247.3	Design phase shift oscillators and simulate it in simulation laboratory using Multi-Sim software	5
C247.4	Design class A, class B complimentary symmetry amplifier and simulate in simulation laboratory using Multi-Sim software	5
C247.5	Quantify their ability to communicate effectively through weekly written reports and lab notebooks.	4

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C247.1	2	3	3	3	2	1	1	1	2	1	1	1	3	2	1
C247.2	3	3	3	2	2	1	-	1	1	1	1	-	2	3	1
C247.3	3	3	2	3	2	-	1	-	1	2	-	1	3	2	-
C247.4	3	3	3	3	2	1	1	1	1	1	1	-	2	3	1
C247.5	3	2	3	3	2	2	1	1	1	1	1	-	3	3	1
Average	2.8	2.8	2.8	2.8	2	1.25	1	1	1.2	1.2	1	1	2.6	2.6	1

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SUBJECT: GENDER SENSITIZATION LAB (C230)

After going through this course students will

SNO	COURSE OUTCOMES	BT Level
C230.1	Develop a better understanding of important issues related to gender in contemporary India.	5
C230.2	Sensitized to basic dimensions of the biological, sociological, psychological and legal aspects of gender. This will be achieved through discussion of materials derived from research, facts, everyday life, literature and film.	5
C230.3	Acquire insight into the gendered division of labor and its relation to politics and economics.	3
C230.4	Men and women students and professionals will be better equipped to work and live together as equals.	3
C230.5	Develop a sense of appreciation of women in all walks of life.	5

MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C230.1	-	-	-	-	-	1	1	2	1	-	-	1	-	-	2
C230.2	-	-	-	-	-	2	1	2	-	1	-	1	-	1	2
C230.3	-	-	-	-	-	2	-	1	1	1	-	-	-	-	1
C230.4	-	-	-	-	-	2	1	1	1	1	-	1	-	-	2
C230.5	-	-	-	-	-	2	1	1	1	-	-	1	-	-	2
Average	-	-	-	-	-	1.8	1	1.4	1	1	-	1	-	1	1.8