

**SHRIDEVI INSTITUTE OF ENGINEERING  
AND TECHNOLOGY, TUMKUR**

**DEPARTMENT OF ECE**

**CO-PO ATTAINMENT**

**ACADEMIC YEAR**

**2018-19**

**ODD SEM**



**SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY**  
**SIRA ROAD, TUMKUR- 572 106**  
**DEPARTMENT OF MATHEMATICS**  
**(COMMON TO ALL BRANCHES)**  
**ACADEMIC YEAR: 2018-2019**



**SUBJECT: ENGINEERING MATHEMATICS -III**

**SUBJECT CODE: 17MAT31/15MAT31**

**COURSE OUTCOMES:**

- CO1: 1. Know the use of periodic signals and Fourier series to analyze circuits and system communications.
- CO2: Explain the general linear system theory for continuous-time signals and digital signal processing using the Fourier Transform and z-transform.
- CO3: . Employ appropriate numerical methods to solve algebraic and transcendental equations.
- CO4. Apply Green's Theorem, Divergence Theorem and Stokes' theorem in various applications in the field of electro-magnetic and gravitational fields and fluid flow problems.
- CO5 : Determine the extremals of functionals and solve the simple problems of the calculus of variations.

	APPLY KNOWLEDGE	ANALYSIS	DESIGN	INVESTIGATION	MODERN TOOLS	SOCIETY	ENVIRONMENT	ETHICS	TEAM WORK	COMMUNICATION	PROJ MGMT FINANCE	LIFE LONG LEARN
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO1	2	3	0	0	0	0	0	0	0	0	0	1
CO2	2	3	0	0	0	0	0	0	0	0	0	1
CO3	2	3	0	0	0	0	0	0	0	0	0	1
CO4	2	3	0	0	0	0	0	0	0	0	0	1
CO5	2	3	0	0	0	0	0	0	0	0	0	1
AVG	2	3	0	0	0	0	0	0	0	0	0	1

MAPPING CORRELATION	LOW	MODERATELY	HIGHLY	NO
	1	2	3	0

**SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY, TUMKUR-06**

(An ISO 9001-2008 Certified Institution)

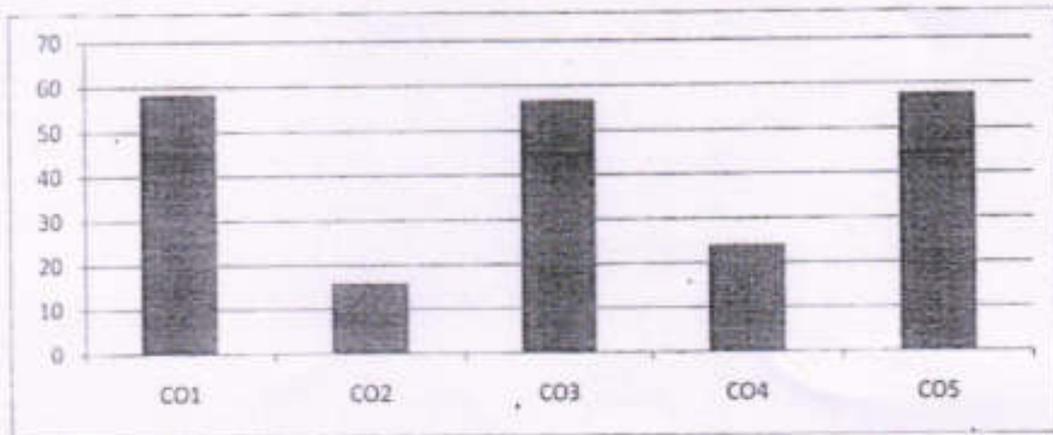
**DEPARTMENT OF MATHEMATICS**



COLLEGE		SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY			
FACULTY NAME		Dr. CHETANA C/Prof. RASHMI S B			
BRANCH		ECE/EEE/CSE/CVE/ISE/ME	ACADEMIC YEAR		2018-19
COURSE	B.E	SEMESTER		III	SECTION
SUBJECT		ENGINEERING MATHEMATICS -III		SUBJECT CODE	17MAT31

**CO & PO MAPPING**

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	58	1.17	1.75	0	0	0	0	0	0	0	0	0	0.58
CO2	16	0.32	0.48	0	0	0	0	0	0	0	0	0	0.16
CO3	57	1.14	1.71	0	0	0	0	0	0	0	0	0	0.57
CO4	24	0.48	0.72	0	0	0	0	0	0	0	0	0	0.24
CO5	58	1.16	1.73	0	0	0	0	0	0	0	0	0	0.58
AVG	43	1	1	0	0	0	0	0	0	0	0	0	0
Final attainment level													1.33



*[Signature]*  
Staff in-charge

*[Signature]*  
HOD

*[Signature]*  
Principal

*[Signature]*  
PRINCIPAL  
SIET, TUMAKURU.



*Ramesh Kumar*

PRINCIPAL  
SIET, TUMAKURU.

1SV17M0015	3	6	9	4	4	8	3	4	2	2	2	2	2	2	8	8	1	8	8	23	13	16	10	17	38.0	23.7	55.7	38.5	38.6
1SV17M0016	3	5	5	4	4	8	5	3	3	2	2	2	2	2	0.8	3.8	2.9	0.8	0.8	13.8	7.9	3.8	2.8	52.8	21.7	6.4	30.1	9.7	26.1
1SV17M0017	1	10	11	5	5	10	1	10	11	2	2	2	2	2	1	1	1	1	1	29	1	11	3	9	32.2	6.8	44.8	10.3	20.5
1SV17M0018	10	2	12	10	1	11	10	2	12	2	2	2	2	2	2.5	1.8	2.7	2.8	2.8	26.8	4.8	8.8	4.8	15.8	45.4	10.9	21.4	59.6	15.8
1SV17M0019	2	10	12	5	5	10	6	6	12	2	2	2	2	2	3	3	0	0	0	35	2	12	2	33	25.4	4.5	41.4	6.9	29.3
1SV17M0020	10	4	14	10	4	14	10	3	13	2	2	2	2	2	2.4	3.4	2.4	2.4	2.4	27.4	4.4	8.4	8.4	18.4	46.4	10.0	29.0	35.7	41.8
1SV17M0021	2	6	8	3	6	8	4	6	8	2	2	2	2	2	3.8	2.8	1.8	1.8	1.8	18	3.8	3.8	3.8	13.8	21.8	8.8	23.8	13.1	31.4
1SV17M0022	6	3	9	4	4	8	3	9	2	2	2	2	2	2	1.8	6	1.6	1.6	1.6	16.6	1.6	6.6	3.6	13.6	28.1	8.2	22.8	12.4	30.5
1SV17M0023	6	3	9	4	4	8	3	9	2	2	2	2	2	2	2.2	2.2	2.2	2.2	2.2	22.2	2.2	7.2	4.2	11.2	34.2	9.5	24.8	14.5	25.3
1SV17M0024	15	15	30	15	15	30	15	15	30	2	2	2	2	2	9.8	9.8	9.8	9.8	9.8	58.8	11.8	26.8	11.8	41.8	96.1	26.8	92.4	40.7	56.0
1SV17M0025	5	5	10	5	5	10	5	4	9	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	22.2	4.2	11.2	8.2	16.2	34.2	10.1	28.6	21.4	38.8
1SV17M0026	6	5	11	5	5	10	1	10	11	2	2	2	2	2	1.6	1.6	1.6	1.6	1.6	16.6	1.6	6.6	3.6	9.6	41.7	8.2	29.7	12.4	21.8
1SV17M0027	5	14	29	14	14	28	14	15	29	2	2	2	2	2	1.8	1.8	1.8	1.8	1.8	18.8	1.8	17.8	3.8	13.8	81.0	8.6	61.4	13.1	77.3
1SV17M0028	4	15	29	14	15	29	14	14	28	2	2	2	2	2	9.2	9.2	9.2	9.2	9.2	53.2	11.2	26.2	11.2	40.2	90.2	25.5	90.3	38.6	31.4
1SV17M0029	9	9	18	10	9	18	10	9	19	2	2	2	2	2	5	5	5	5	5	35	1	16	2	26	54.1	15.9	55.2	24.1	54.1
1SV17M0030	10	10	20	9	10	19	10	10	20	2	2	2	2	2	6	6	6	6	6	37	8	38	8	28	62.7	18.2	62.1	27.6	63.6
1SV17M0031	14	14	28	14	14	28	14	13	27	2	2	2	2	2	10.4	10.4	10.4	10.4	10.4	53.4	12.4	26.4	12.4	40.4	90.5	28.7	91.0	42.8	91.8
1SV17M0032	10	15	25	14	10	24	10	15	25	2	2	2	2	2	8.6	8.6	8.6	8.6	8.6	46.6	10.6	25.6	10.6	30.6	84.1	24.3	88.1	30.5	69.5
1SV17M0033	4	4	8	6	3	9	4	3	9	2	2	2	2	2	3	3	3	3	3	18	3	9	5	14	30.5	11.4	31.0	17.2	31.8
1SV17M0034	15	14	28	14	14	28	14	15	29	2	2	2	2	2	7	7	7	7	7	33	9	23	9	37	89.8	20.5	79.1	31.0	84.1
1SV17M0035	10	4	14	10	4	14	10	3	13	2	2	2	2	2	3.2	3.2	3.2	3.2	3.2	16.2	3.2	9.2	5.2	19.2	47.8	11.8	31.1	17.9	43.6
1SV17M0036	14	10	24	14	10	24	13	10	24	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	22.2	4.2	16.2	6.2	29.2	74.9	14.1	55.9	21.4	66.4
1SV17M0037	4	5	11	2	10	12	10	2	2	2	2	2	2	2	1	1	1	1	1	13	2	8	2	23	22.0	6.8	27.6	10.3	52.3
1SV17M0038	15	15	30	14	15	29	15	15	30	2	2	2	2	2	9.1	9.1	9.1	9.1	9.1	52.1	11.1	26.1	11.1	41.1	93.6	25.9	90.1	38.6	93.6
1SV17M0039	15	14	29	14	15	29	14	14	28	2	2	2	2	2	9.2	9.2	9.2	9.2	9.2	54.2	11.2	25.2	11.2	40.2	91.9	25.3	88.9	38.6	91.4
1SV17M0040	13	10	23	11	11	22	13	10	23	2	2	2	2	2	5.4	5.4	5.4	5.4	5.4	23.4	7.4	17.4	7.4	31.4	70.2	16.8	60.0	25.5	71.4
1SV17M0041	4	4	8	6	3	9	4	3	9	2	2	2	2	2	0.4	0.4	0.4	0.4	0.4	2.4	2.4	2.4	2.4	11.4	26.1	5.3	22.1	8.1	25.9
1SV17M0042	13	15	28	15	10	25	13	13	26	2	2	2	2	2	8.6	8.6	8.6	8.6	8.6	46.6	10.6	25.6	10.6	30.6	84.1	24.1	88.1	30.5	76.4
1SV17M0043	13	13	27	14	13	27	13	13	26	2	2	2	2	2	6	6	6	6	6	30	8	21	8	34	83.1	18.2	72.4	27.6	77.3
1SV17M0044	13	14	24	10	13	23	12	12	24	2	2	2	2	2	4.6	4.6	4.6	4.6	4.6	24.6	6.6	20.6	6.6	11.6	65.4	15.0	71.0	22.8	71.8
1SV17M0045	11	11	22	10	11	21	10	11	22	2	2	2	2	2	7.6	7.6	7.6	7.6	7.6	38.6	9.6	20.6	9.6	32.6	73.9	21.8	71.0	33.1	34.1
1SV17M0046	14	15	29	14	14	28	15	14	29	2	2	2	2	2	10.6	10.6	10.6	10.6	10.6	54.6	12.6	27.6	12.6	41.6	92.5	28.6	95.2	43.4	84.5
1SV17M0047	14	13	27	14	13	27	13	13	26	2	2	2	2	2	7.6	7.6	7.6	7.6	7.6	38.6	9.6	22.6	9.6	35.6	85.8	21.8	77.9	33.1	80.9
1SV17M0048	3	6	11	6	6	12	6	6	12	2	2	2	2	2	0	0	0	0	0	19	2	8	2	14	32.2	4.5	27.6	6.9	31.8
1SV17M0049	14	15	29	14	14	28	15	14	29	2	2	2	2	2	9.4	9.4	9.4	9.4	9.4	51.4	11.4	26.4	11.4	40.4	90.5	25.9	91.0	39.3	91.8
1SV17M0050	11	12	23	11	11	22	11	12	23	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	20.2	6.2	18.2	6.2	28.2	68.1	14.1	62.8	21.4	64.1
1SV17M0051	11	13	26	10	15	25	13	13	26	2	2	2	2	2	8.8	8.8	8.8	8.8	8.8	46.8	10.8	23.8	10.8	36.8	79.3	24.5	82.1	17.2	88.3
1SV17M0052	10	11	21	10	10	20	11	10	21	2	2	2	2	2	4.6	4.6	4.6	4.6	4.6	26.6	6.6	17.6	6.6	27.6	62.0	15.0	60.7	22.8	62.7
1SV17M0053	10	13	23	11	11	22	10	13	23	2	2	2	2	2	7.2	7.2	7.2	7.2	7.2	37.2	9.2	23.2	9.2	30.2	73.2	20.9	76.6	11.7	68.6
1SV17M0054	3	6	9	4	4	8	3	6	9	2	2	2	2	2	3.6	3.6	3.6	3.6	3.6	18.6	5.6	11.6	5.6	12.6	31.5	12.7	40.0	19.3	28.6
1SV17M0055	10	6	16	10	5	15	10	6	15	2	2	2	2	2	0	0	0	0	0	28	2	8	2	17	47.5	4.5	27.6	6.9	38.6
1SV17M0056	4	10	18	2	10	17	8	10	18	2	2	2	2	2	6.8	6.8	6.8	6.8	6.8	33.8	8.8	26.8	8.8	26.8	57.3	20.0	64.8	30.3	60.9
1SV17M0057	10	6	16	10	5	15	10	6	15	2	2	2	2	2	2.4	2.4	2.4	2.4	2.4	12.4	4.4	10.4	4.4	19.4	53.5	10.0	35.9	15.2	44.1
1SV17M0058	13	10	21	10	10	20	11	10	21	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	26.2	7.2	17.2	7.2	28.2	64.7	16.4	59.1	24.8	64.1
1SV17M0059	15	11	21	10	10	20	10	11	21	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	21.2	6.2	17.2	6.2	26.2	63.2	14.1	59.3	21.4	59.5
1SV17M0060	12	12	24	11	11	22	12	12	24	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	21.2	6.2	18.2	6.2	27.2	64.7	14.1	62.8	21.4	61.8
1SV17M0061	10	10	20	9	10	19	10	10	20	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	30.8	7.8	17.8	7.8	27.8	62.0	17.5	60.7	26.2	62.7
1SV17M0062	10	13	23	10	12	22	10	13	23	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	21.2	6.2	19.2	6.2	28.2	66.4	14.1	66.2	21.4	64.1
1SV17M0063	6	10	16	10	5	15	10	6	16	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	22.2	6.2	16.2	6.2	21.2	47.8	14.1	55.9	21.4	48.2
1SV17M0064	10	10	20	9	10	19	10	10	20	2	2	2	2	2	4.6	4.6	4.6	4.6	4.6	25.6	6.6	16.6	6.6	26.6	60.3	15.0	57.2	22.8	60.5
1SV17M0065	14	14	28	13	14	27	14	14	28	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	28.2	7.2	21.2	7.2	35.2	81.7	16.4	73.1	24.8	80.0
1SV17M0066	11	11	22	11	10	21	11	11	22	2	2	2	2	2	5.6	5.6	5.6	5.6	5.6	30.6	7.6	18.6	7.6	28.6	68.8	17.3	64.1	26.2	65.0
1SV17M0067	4	10	14	6	7	13	7	7	14	2	2	2	2	2	6.6	6.6	6.6	6.											





**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**

<b>SUBJECT</b>	<b>ELECTRONICS INSTRUMENTATION</b>	<b>SUBJECT CODE</b>	<b>17EC32</b>
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**COURSE OUTCOME**

Course Outcomes: After studying this course, students will be able to:

- CO1: Describe instrument measurement errors and calculate them.
- CO2: Describe the operation of Ammeters, Voltmeters, Multimeters and develop circuits for multirange Ammeters and Voltmeters.
- CO3: Describe functional concepts and operation of Digital voltmeters and instruments to measure voltage, frequency, time period, phase difference of signals, rotation speed, capacitance and pH of solutions.
- CO4: Describe functional concepts and operation of various Analog measuring instruments to measure field Strength, impedance, stroboscopic speed, in/out of phase, Q of coils, insulation resistance.
- CO5: Describe and discuss functioning and types of Oscilloscopes, Signal generators and Transducers.

**PROGRAM OUTCOMES**

- PO1** Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.
- PO2** Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO3** Design / development of solutions: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.
- PO4** Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.
- PO5** Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities.
- PO6** The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.
- PO7** Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8** Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9** Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10** Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.
- PO11** Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.
- PO12** Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME	Mr. Madhu B.C											
BRANCH	ECE			ACADEMIC YEAR				2018-19				
COURSE	B.E	SEMESTER			III	SECTION			ECE			
SUBJECT	ELECTRONICS INSTRUMENTATION					SUBJECT CODE			17EC32			
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	1	1								2
CO2	1	3	1	2								1
CO3	1	2	1	1								1
CO4	2	3	2	1								1
CO5	2	2	1	1								2
AVERAGE	1.6	2.4	1.2	1.2								2.2
OVERALL MAPPING OF SUBJECT												1.4

#### CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	49.1954	0.98	0.98	0.49	0.49								0.98
CO2	49.60055	0.49	1.48	0.49	0.99								0.49
CO3	47.83699	0.47	0.95	0.47	0.47								0.47
CO4	48.25496	0.96	1.45	0.96	0.48								0.48
CO5	48.04598	0.96	0.96	0.48	0.48								0.96
AVERAGE		0.77	1.16	0.58	0.58								0.67
FINAL ATTAINMENT LEVEL													0.75

COURSE INSTRUCTOR

HOD  
Dept of E&C  
SIET, Tumkur-6

PRINCIPAL  
SIET, Tumkur-6





**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**

SUBJECT	AE	SUBJECT CODE	17EC33
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**COURSE OUTCOME**

After studying this course, students will be able to:

- CO1: Describe the working principle and characteristics of BJT, FET, Single stage, cascaded and feedback amplifiers.
- CO2: Describe the Phase shift, Wien bridge, tuned and crystal oscillators using BJT/FET/UJT.
- CO3: Calculate the AC gain and impedance for BJT using  $r_e$  and  $h$  parameters models for CE and CC configuration.
- CO4: Determine the performance characteristics and parameters of BJT and FET amplifier using small signal model.
- CO5: Determine the parameters which affect the low frequency and high frequency responses of BJT and FET amplifiers and draw the characteristics.
- CO6: Evaluate the efficiency of Class A and Class B power amplifiers and voltage regulators.

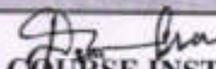
**PROGRAM OUTCOMES**

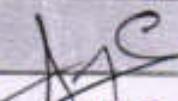
- PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.
- PO2 Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO3 Design / development of solutions: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.
- PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.
- PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities.
- PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.
- PO7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10 Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.
- PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.
- PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME	Mrs. Prabitha D K											
BRANCH	ECE			ACADEMIC YEAR				2018-19				
COURSE	B.E	SEMESTER			III	SECTION			ECE			
SUBJECT	AE					SUBJECT CODE			17EC33			
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	1	1	2	1								
CO2	1	2	1	1								
CO3	2	3	1	1								
CO4	3	2	1	2								
CO5	2	1	1	1								
CO6	2	1	3	1								
AVERAGE	1.8	1.6	1.5	1.1								
OVERALL MAPPING OF SUBJECT												1.5

#### CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	47.04284	0.47	0.47	0.94	0.47								
CO2	46.29477	0.46	0.92	0.46	0.46								
CO3	46.31139	0.92	1.38	0.46	0.46								
CO4	44.84848	1.34	0.89	0.44	0.89								
CO5	44.84848	0.89	0.44	0.44	0.44								
CO6	47.77429	0.89	0.44	0.44	0.44								
AVERAGE		0.82	0.75	0.53	0.53								
FINAL ATTAINMENT LEVEL													2.23

  
COURSE INSTRUCTOR

  
HOD  
Dept of E&C  
SIET Tumkur-6

  
PRINCIPAL  
PRINCIPAL  
SIET, TUMAKURU

Roll No.	USN	Name	2018-2019 DOB					SEM. III SKM					SUBJ					ENGE (ANALOG ELECTRONICS)					TOTAL AVERAGE					
			T1	T2	T3	CO1-18	CO2-18	CO3-18	CO4-18	CO5-18	CO1-2	CO2-2	CO3-2	CO4-2	CO5-2	60	CO1-12	CO2-12	CO3-12	CO4-12	CO5-12	CO1-29		CO2-29	CO3-29	CO4-29	CO5-29	
1	DEVTEC001	RITHVI KUMAR C	21	24	14	13	9	13	11	10	4	2	2	2	2	2	30	6	6	6	6	6	17	30	18	18	12	18.3
2	DEVTEC045	RIYATHA S R	28	26	25	15	13	15	11	15	10	2	2	2	2	2	27	7.4	7.4	7.4	7.4	7.4	22.6	37.4	20.4	24.4	18.4	23
3	DEVTEC017	AFFA FATHIMA	17	30	13	11	6	15	18	7	6	2	2	2	2	2	30	6	6	6	6	6	14	25	20	15	14	21.5
4	DEVTEC010	ABHINAV V	11	22	4	9	3	15	8	0	4	2	2	2	2	2	22	4.4	4.4	4.4	4.4	4.4	5.4	24.4	14.4	6.4	10.4	16
5	DEVTEC040	DANIEL S	29	30	27	15	15	15	15	15	12	2	2	2	2	2	36	7.8	7.8	7.8	7.8	7.8	24.8	38.8	24.8	24.8	21.8	26.1
6	DEVTEC036	GEETHA M P	27	27	27	12	14	15	12	12	15	2	2	2	2	2	37	7.4	7.4	7.4	7.4	7.4	23.4	38.4	21.4	21.4	24.4	26.5
7	DEVTEC043	DITHENDRA H	23	18	15	12	13	13	9	9	6	2	2	2	2	2	29	5.9	5.9	5.9	5.9	5.9	20.9	31.9	13.9	13.9	16.9	22.8
8	DEVTEC044	METAI HIRSHADI	20	24	22	10	10	15	11	13	6	2	2	2	2	2	32	6.4	6.4	6.4	6.4	6.4	18.4	31.4	19.4	21.4	17.4	20.7
9	DEVTEC007	NEHA NAWAZ	27	30	26	14	13	15	15	13	15	2	2	2	2	2	36	7.8	7.8	7.8	7.8	7.8	22.8	37.8	24.8	22.8	22.8	23.8
10	DEVTEC048	NEHA H	21	18	11	11	10	10	8	2	6	2	2	2	2	2	27	5.4	5.4	5.4	5.4	5.4	17.4	27.4	15.4	8.4	16.4	21.8
11	DEVTEC034	NEELATHA NAWAZ	28	24	20	15	13	12	9	15	15	2	2	2	2	2	38	7.8	7.8	7.8	7.8	7.8	22.8	37.8	18.8	16.8	24.8	21.4
12	DEVTEC001	RAKESH K L	18	16	12	11	7	10	6	6	6	2	2	2	2	2	28	5	5	5	5	5	14	24	11	13	13	20.5
13	DEVTEC041	REKHA K N	20	16	21	13	7	10	9	10	8	2	2	2	2	2	30	6	6	6	6	6	13	25	16	21	18	17
14	DEVTEC038	SARANYA G P	20	16	11	11	6	8	10	8	5	2	2	2	2	2	27	5.4	5.4	5.4	5.4	5.4	16.4	25.4	17.4	13.4	12.4	17.8
15	DEVTEC042	SAYBEDUNNHA	13	21	18	5	6	14	7	9	9	2	2	2	2	2	26	5.6	5.6	5.6	5.6	5.6	15.6	26.6	14.6	16.6	16.6	17.8
16	DEVTEC030	TEJASWEE D	14	16	13	8	6	10	3	5	6	2	2	2	2	2	25	5	5	5	5	5	13	20	10	12	15	16.9
17	DEVTEC047	DIVYASHREE H	21	22	18	12	9	13	9	9	10	2	2	2	2	2	31	6.2	6.2	6.2	6.2	6.2	17.2	30.2	17.2	16.2	18.2	17.5
18	DEVTEC040	HEMA K P	25	14	24	11	14	14	10	12	12	2	2	2	2	2	35	7	7	7	7	7	20	37	19	21	21	22
19	DEVTEC040	LOKESHA G H	24	27	21	11	13	12	15	15	9	2	2	2	2	2	35	7	7	7	7	7	22	34	24	24	18	24.3
																							18.36842	31.47968	18.21051	17.84211	17.36842	

*[Signature]*  
COURSE INSTRUCTOR

*[Signature]*  
**HOD**  
Dept of E&C  
SIET, Tumkur-6

PRINCIPAL

45.59% 45.59% 45.17% 45.28% 45.29%

*[Signature]*  
PRINCIPAL  
SIET, TUMAKURUP  
*[Stamp]*



**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**

<b>SUBJECT</b>	DIGITAL ELECTRONICS	<b>SUBJECT CODE</b>	17EC34
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**COURSE OUTCOME**

After studying this course, students will be able to:

- CO1: Develop simplified switching equation using Karnaugh Maps and Quine-McClusky techniques.
- CO2: Explain the operation of decoders, encoders, multiplexers, demultiplexers, adders, subtractors and comparators.
- CO3: Explain the working of Latches and Flip Flops (SR, D, T and JK).
- CO4: Design Synchronous/Asynchronous Counters and Shift registers using Flip Flops.
- CO5: Develop Mealy/Moore Models and state diagrams for the given clocked sequential circuits.
- CO6: Apply the knowledge gained in the design of Counters and Registers.

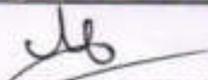
**PROGRAM OUTCOMES**

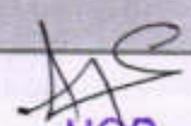
- P01** Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.
- P02** Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- P03** Design / development of solutions: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.
- P04** Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.
- P05** Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities.
- P06** The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.
- P07** Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- P08** Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- P09** Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- P010** Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.
- P011** Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.
- P012** Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

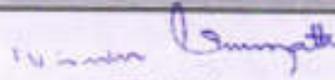
COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME	Mr. Madhu B.C											
BRANCH	ECE			ACADEMIC YEAR				2018-19				
COURSE	B.E	SEMESTER			III	SECTION			ECE			
SUBJECT	DIGITAL ELECTRONICS					SUBJECT CODE			17EC34			
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	1	1	1									
CO2	1	3	2									
CO3	3	3	2									
CO4	3	1	2									
CO5	2	2	1									
CO6	3	2	1									
AVERAGE	2.16	2	1.5									
OVERALL MAPPING OF SUBJECT												1.88

#### CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	48.52665	0.48	0.48	0.48									
CO2	51.2259	0.51	1.53	1.02									
CO3	47.16823	1.41	1.41	0.94									
CO4	49.98955	1.49	0.49	0.99									
CO5	49.98955	1	1	0.49									
CO6	49.98955	1.49	0.99	0.49									
AVERAGE		1.06	0.98	0.73									
FINAL ATTAINMENT LEVEL													0.92

  
COURSE INSTRUCTOR

  
HOD  
Dept of E&C  
SLET Tumkur-6

  
PRINCIPAL  
SLET, Tumkur-6



**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**

<b>SUBJECT</b>	<b>NETWORK ANALYSIS</b>	<b>SUBJECT CODE</b>	<b>17EC35</b>
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**COURSE OUTCOME**

After studying this course, students will be able to:

- CO1: Determine currents and voltages using source transformation/ source shifting/mesh/ nodal analysis and reduce given network using star-delta transformation/source transformation/ source shifting.
- CO2: Solve network problems by applying Superposition/ Reciprocity/ Thevenin's/Norton's/ Maximum Power Transfer/ Millman's Network Theorems and electrical laws to reduce circuit complexities and to arrive at feasible solutions.
- CO3: Calculate current and voltages for the given circuit under transient conditions.
- CO4: Apply Laplace transform to solve the given network.
- CO5: Evaluate for RLC elements/ frequency response related parameters like resonant frequency, quality factor, half power frequencies, voltage across inductor and capacitor, current through the RLC elements, in resonant circuits
- CO6: Solve the given network using specified two port network parameter like Z or Y or T or h.

**PROGRAM OUTCOMES**

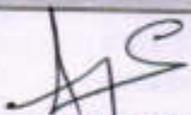
- P01 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.
- P02 Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- P03 Design / development of solutions: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.
- P04 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.
- P05 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities.
- P06 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.
- P07 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- P08 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- P09 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- P010 Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.
- P011 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.
- P012 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

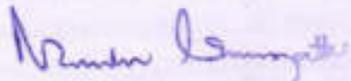
COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME	Mrs. Haripriya R											
BRANCH	ECE			ACADEMIC YEAR				2018-19				
COURSE	B.E	SEMESTER		III	SECTION			ECE				
SUBJECT	NETWORK ANALYSIS					SUBJECT CODE			17EC35			
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	1	-	1	1	2							
CO2	1	1	1	3	2							
CO3	2	1	1	2	1							
CO4	2	2	1	1	2							
CO5	1	1	2	3	2							
CO6	2	1	1	2	2							
AVERAGE	1.6	1	1.16	2	1.83							
OVERALL MAPPING OF SUBJECT												1.51

#### CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	48.81923	0.48	-	0.48	0.48	0.98							
CO2	50.48209	0.50	0.50	0.50	1.51	1							
CO3	48.81923	0.97	0.48	0.48	0.97	0.48							
CO4	49.65517	0.99	0.99	0.49	0.49	0.99							
CO5	49.65517	0.49	0.49	0.99	1.48	0.99							
CO6	48.92372	0.97	0.48	0.48	0.97	0.97							
AVERAGE		0.73	0.58	0.57	0.98	0.90							
FINAL ATTAINMENT LEVEL													0.75

  
COURSE INSTRUCTOR

  
HOD  
Dept of E&C  
SIET, Tumkur-6

  
PRINCIPAL  
SIET, TUMAKURU





**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**

<b>SUBJECT</b>	<b>ENGINEERING ELECTROMAGNETICS</b>	<b>SUBJECT CODE</b>	<b>17EC36</b>
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**COURSE OUTCOME**

After studying this course, students will be able to:

- CO1: Evaluate problems on electric field due to point, linear, volume charges by applying conventional methods or by Gauss law.
- CO2: Determine potential and energy with respect to point charge and capacitance using Laplace equation.
- CO3: Calculate magnetic field, force, and potential energy with respect to magnetic materials.
- CO4: Apply Maxwell's equation for time varying fields, EM waves in free space and conductors.
- CO5: Evaluate power associated with EM waves using Poynting theorem.

**PROGRAM OUTCOMES**

- PO1** Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.
- PO2** Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO3** Design / development of solutions: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.
- PO4** Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.
- PO5** Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities.
- PO6** The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.
- PO7** Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8** Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9** Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10** Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.
- PO11** Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.
- PO12** Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

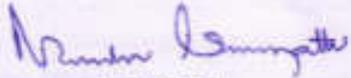
COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME	Mr. Harish B											
BRANCH	ECE			ACADEMIC YEAR				2018-19				
COURSE	B.E	SEMESTER			III	SECTION			ECE			
SUBJECT	ENGINEERING ELECTROMAGNETICS						SUBJECT CODE		17EC36			
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	1	2								
CO2	2	2	1	2								
CO3	2	3	2	2								
CO4	1	2	1	2								
CO5	1	1	2	1								
AVERAGE	1.6	2.2	1.4	1.8								
OVERALL MAPPING OF SUBJECT												1.75

#### CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	49.59248	0.99	1.48	0.49	0.99								
CO2	49.93113	0.99	0.99	0.49	0.99								
CO3	49.1745	0.98	1.47	0.98	0.98								
CO4	49.279	0.49	0.98	0.49	0.98								
CO5	49.279	0.49	0.49	0.98	0.49								
AVERAGE		0.78	1.08	0.68	0.88								
FINAL ATTAINMENT LEVEL													0.85

  
COURSE INSTRUCTOR

  
HOD  
HOD  
Dept of E&C  
SIET, Tumkur-6

  
PRINCIPAL  
PRINCIPAL

Roll No.	USN	Name	2018-2019-000																									TOTAL AVERAGE
			SEM III SEM					PROF. HARISH S					SUB: EVOE ELECTROMAGNETICS					SEE MARKS					Final					
			T1	T2	T3	T4	T5	CO1-1S	CO2-1S	CO3-1S	CO4-1S	CO5-1S	CO1-2	CO2-2	CO3-2	CO4-2	CO5-2	60	CO1-12	CO2-12	CO3-12	CO4-12	CO5-12	CO1-2S	CO2-2S	CO3-2S	CO4-2S	
1	18V17EC005	RITHVIKA S H M A R E D D	21	24	14	18	9	15	11	10	4	2	2	2	2	2	30	8	8	8	8	8	17	30	18	18	11	19.3
2	18V17EC043	NIRITHA Y S	28	28	25	18	15	18	11	18	12	2	2	2	2	2	37	7.4	7.4	7.4	7.4	7.4	22.4	37.4	25.4	24.4	19.4	21
3	18V17EC008	APRA KATERINA	17	30	13	11	8	16	16	7	8	2	2	2	2	2	35	8	8	8	8	8	14	29	23	15	14	21.8
4	18V17EC090	ANVISH V	11	23	4	8	3	16	8	0	4	2	2	2	2	2	22	4.4	4.4	4.4	4.4	4.4	9.4	24.4	19.4	8.4	10.4	18
5	18V17EC090	DANIEL S	29	30	27	18	18	18	18	18	12	2	2	2	2	2	39	7.8	7.8	7.8	7.8	7.8	24.8	39.8	24.8	24.8	21.8	20.1
6	18V17EC094	GEETHA M E	27	27	27	13	14	18	10	12	16	2	2	2	2	2	37	7.4	7.4	7.4	7.4	7.4	23.4	36.4	21.4	21.4	24.4	24.5
7	18V17EC040	ITHENDRA H	23	18	18	10	13	13	8	8	8	2	2	2	2	2	28	5.8	5.8	5.8	5.8	5.8	20.8	31.8	13.8	13.8	16.8	22.8
8	18V17EC094	MILTAJ HUSSAIN	20	24	22	10	10	13	11	12	8	2	2	2	2	2	32	6.4	6.4	6.4	6.4	6.4	18.4	31.4	19.4	21.4	17.4	20.7
9	18V17EC097	NIDA NAWAZ	27	30	26	14	13	18	15	13	13	2	2	2	2	2	38	7.6	7.6	7.6	7.6	7.6	22.6	37.6	24.6	22.6	22.6	23.8
10	18V17EC008	NIRHA H	21	18	17	11	10	10	8	2	8	2	2	2	2	2	27	5.4	5.4	5.4	5.4	5.4	17.4	27.4	15.4	9.4	16.4	21.8
11	18V17EC008	NIRHATI NAWAZ	28	24	30	18	13	18	9	18	15	2	2	2	2	2	38	7.6	7.6	7.6	7.6	7.6	22.6	37.6	28.6	24.6	21.4	
12	18V17EC043	RAKESH K L	18	18	12	11	7	10	8	6	6	2	2	2	2	2	25	5	5	5	5	5	14	24	13	13	13	20.3
13	18V17EC043	REKHA K N	20	18	21	13	7	10	8	13	8	2	2	2	2	2	30	6	6	6	6	6	15	25	16	21	16	17
14	18V17EC044	SAHANA G G	20	18	11	11	9	8	10	6	3	2	2	2	2	2	27	5.4	5.4	5.4	5.4	5.4	16.4	25.4	17.4	13.4	12.4	17.8
15	18V17EC043	SAVEDHUNNHA	13	21	18	8	8	14	7	8	8	2	2	2	2	2	28	5.8	5.8	5.8	5.8	5.8	15.8	25.8	14.8	16.8	16.8	17.8
16	18V17EC094	TEJASWINI D	14	16	13	8	6	10	3	8	8	2	2	2	2	2	28	5	5	5	5	5	13	26	10	12	15	16.9
17	18V17EC040	DEVYANSHRETI	21	22	18	12	8	13	8	8	10	2	2	2	2	2	31	6.2	6.2	6.2	6.2	6.2	17.2	30.2	17.2	16.2	18.2	17.5
18	18V17EC043	HEMA K P	25	14	24	11	14	14	10	12	12	2	2	2	2	2	35	7	7	7	7	7	23	37	19	21	21	22
19	18V17EC040	LEKSHA C H	24	27	21	11	13	12	15	15	8	2	2	2	2	2	35	7	7	7	7	7	22	34	24	24	18	24.3
																							18.36842	31.47968	18.21053	17.84211	17.36842	

COURSE INSTRUCTOR

*AAC*  
HOD  
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PRINCIPAL

49.50% 49.89% 49.17% 49.29% 49.29%

*N. Srinivas*  
PRINCIPAL  
SIET, TUMAKURU



**DEPARTMENT OF ECE**

SUBJECT	SUBJECT CODE
	15ES51

**COURSE OUTCOME**

- CO1-.Understand the fundamental concepts of Management and Entrepreneurship ·
- CO2-.Select a best Entrepreneurship model for the required domain of establishment ·
- CO3-Describe the functions of Managers, Entrepreneurs and their social responsibilities ·
- CO4-.Compare various types of Entrepreneurs ·
- CO5-Analyze the Institutional support by various state and central government agencies.

**PROGRAM OUTCOMES**

- PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.
- PO2 Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO3 Design / development of solutions: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.
- PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.
- PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities.
- PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.
- PO7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10 Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.
- PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.
- PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME	Mrs.Suchitra											
BRANCH	ECE	ACADEMIC YEAR					2018-19					
COURSE	B.E	SEMESTER			V							
SUBJECT	MANAGEMENT AND ENTREPRENEURSHIP DEVELOPMENT						SUBJECT CODE			15ES51		
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1											3	
CO2											3	
CO3								3	2		3	
CO4											3	
CO5											3	
AVERAGE	---	---	---	---	---	---	---	3	2	---	3	
OVERALL MAPPING OF SUBJECT												2.66

### CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	56.57										1.70		
CO2	58.31										1.75		
CO3	68.53								2.06	1.37	2.06		
CO4	70.32										2.11		
CO5	64.09										1.92		
AVERAGE	63.57								2.06	1.37	1.90		
FINAL ATTAINMENT LEVEL													1.77

*Suchitra*  
FACULTY

*AS*  
HOD

*Manjunath*  
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PRINCIPAL

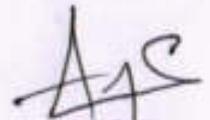
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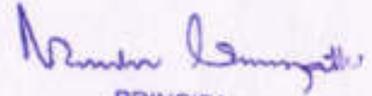
**5th Semester  
Management And Entrepreneurship Development**

AY - 2018-19

SEM: U	IA TEST 1			IA TEST 2			IA TEST 3			Assignment and Seminar					SEE					Total					% of Individual CO				
USN	CO1	CO2	TOTAL	CO3	CO4	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1	CO2	CO3	CO4	CO5	CO1	CO2	CO3	CO4	CO5	CO1	CO2	CO3	CO4	CO5
	7	8	15	8	7	15	7	8	15	1	1	1	1	1	16	16	16	16	16	24	25	25	31	25					
15V15EC005	5	4	9	8	7	15	6	5	11	1	1	1	1	1	10	10	10	10	10	16	15	19	24	16	66.67	60	76	77.42	64
15V15EC007	6	4	10	8	7	15	6	7	13	1	1	1	1	1	9.8	9.8	9.8	9.8	9.8	17	15	19	24	18	70	59.2	75.2	76.77	71.2
15V15EC013	5	6	11	6	5	11	5	6	11	1	1	1	1	1	9.8	9.8	9.8	9.8	9.8	16	17	17	21	17	65.83	67.2	67.2	67.1	67.2
15V15EC018	2	3	5	8	7	15	6	6	12	1	1	1	1	1	7.4	7.4	7.4	7.4	7.4	10	11	16	21	14	43.33	45.6	65.6	69.03	57.6
15V15EC027	1	5	6	8	7	15	6	5	11	1	1	1	1	1	9.4	9.4	9.4	9.4	9.4	11	15	18	23	15	47.5	61.6	73.6	75.48	61.6
15V15EC035	3	5	8	6	6	12	5	7	12	1	1	1	1	1	9.6	9.6	9.6	9.6	9.6	14	16	17	22	18	56.67	62.4	66.4	69.68	70.4
15V15EC049	6	4	10	5	5	10	5	7	12	1	1	1	1	1	7.8	7.8	7.8	7.8	7.8	15	13	14	19	16	61.67	51.2	55.2	60.65	63.2
15V15EC052	2	6	8	8	7	15	3	6	9	1	1	1	1	1	8.6	8.6	8.6	8.6	8.6	12	16	18	20	16	48.33	62.4	70.4	63.23	62.4
15V16EC402	3	5	8	8	7	15	7	6	13	1	1	1	1	1	7.8	7.8	7.8	7.8	7.8	12	14	17	23	15	49.17	55.2	67.2	73.55	59.2
<b>Total</b>	<b>33</b>	<b>42</b>	<b>75</b>	<b>65</b>	<b>58</b>	<b>123</b>	<b>49</b>	<b>55</b>	<b>104</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>80.2</b>	<b>80.2</b>	<b>80.2</b>	<b>80.2</b>	<b>80.2</b>	<b>122.2</b>	<b>131.2</b>	<b>154.2</b>	<b>196.2</b>	<b>144.2</b>	<b>509.2</b>	<b>524.8</b>	<b>616.8</b>	<b>632.9</b>	<b>576.8</b>
<b>No. of students</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>
<b>Average</b>	<b>3.667</b>	<b>4.667</b>	<b>8.33333</b>	<b>7.222</b>	<b>6.444</b>	<b>13.6667</b>	<b>5.444</b>	<b>6.111</b>	<b>11.5556</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>8.911</b>	<b>8.911</b>	<b>8.911</b>	<b>8.911</b>	<b>8.911</b>	<b>13.58</b>	<b>14.58</b>	<b>17.13</b>	<b>21.8</b>	<b>16.02</b>	<b>56.57</b>	<b>58.31</b>	<b>68.53</b>	<b>70.32</b>	<b>64.09</b>

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**Department of Electronics & Communication Engineering****Course Outcomes and CO-PO- Articulation Matrix****2015 Scheme**  
**ACADEMIC YEAR 2018-19****Semester-V**

Subject: Verilog HDL Prof. Sandhya R						Subject Code: 15EC53						
<b>Course Outcomes</b>												
CO1	Differentiate between Verilog and VHDL descriptions.											
CO2	Learn different Verilog HDL and VHDL constructs.											
CO3	Familiarize the different levels of abstraction in Verilog.											
CO4	Understand Verilog Tasks and Directives.											
CO5	Understand timing and delay Simulation.											
<b>CO-PO Mapping</b>												
COs	Pos											
	1	2	3	4	5	6	7	8	9	10	11	12
CO1	1	2										
CO2	1	1	2	1	2							
CO3	2	2	3	3	2							
CO4	2	2	2	3	3							
CO5	2	1	2	1	2							
Average												

ATTAINMENT TABLE													
COs	AVG	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	65%	0.65	1.3										
CO2	61.23%	0.61	0.61	1.2	0.61	1.2							
CO3	68.94%	1.37	1.37	2.06	2.06	1.37							
CO4	59.82%	1.19	1.19	1.19	1.79	1.79							
CO5	72.10%	1.14	0.72	1.14	0.72	1.14							
<b>AVERAGE</b>		<b>0.99</b>	<b>1.03</b>	<b>1.39</b>	<b>1.29</b>	<b>1.37</b>							
<b>TOTAL ATTAINMENT</b>												<b>1.214</b>	

*S. Sandhya R*  
Course Instructor

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Principal  
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No	Nama	1997-1998		1998-1999		1999-2000		2000-2001		2001-2002		2002-2003		2003-2004		2004-2005		2005-2006		2006-2007		2007-2008		TOTAL ANGKAS I
		TRIM I	TRIM II																					
1	ISV18EC00 SANDA E	28	15	26	14	12	8	7	18	15	1	1	1	1	1	1	1	1	1	1	1	1	1	22.2
2	ISV18EC00 KARDINI BECAM H	20	20	22	14	12	15	5	10	22	1	1	1	1	1	1	1	1	1	1	1	1	1	23.24
3	ISV18EC00 ARUN C O	29	22	30	14	15	15	7	15	15	1	1	1	1	1	1	1	1	1	1	1	1	1	25.34
4	ISV18EC00 BHAYANA N	23	0	20	15	8	0	0	15	15	1	1	1	1	1	1	1	1	1	1	1	1	1	34.2
5	ISV18EC00 GAGANA S K	24	23	25	14	10	15	8	10	15	1	1	1	1	1	1	1	1	1	1	1	1	1	22
6	ISV18EC00 KAVYA S	21	14	30	14	7	8	6	15	15	1	1	1	1	1	1	1	1	1	1	1	1	1	30.4
7	ISV18EC00 MOCHA ATISHA	5	12	20	0	0	7	8	15	15	1	1	1	1	1	1	1	1	1	1	1	1	1	15.2
8	ISV18EC00 RACHUBAIG K	25	20	30	10	15	10	10	15	15	1	1	1	1	1	1	1	1	1	1	1	1	1	26.8
9	ISV18EC00 USHA Y M	27	14	25	13	14	7	7	10	15	1	1	1	1	1	1	1	1	1	1	1	1	1	22.6
10	ISV18EC00 VISHWAS P	24	11	30	10	14	7	4	15	15	1	1	1	1	1	1	1	1	1	1	1	1	1	15
11	ISV18EC00 ANURSHA T P	24	23	30	14	10	10	13	15	15	1	1	1	1	1	1	1	1	1	1	1	1	1	26

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*Surya*

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## Department of Electronics & Communication Engineering

### Course Outcomes and CO-PO- Articulation Matrix

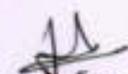
#### 2015 Scheme

#### ACADEMIC YEAR 2018-19

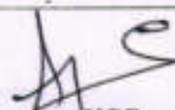
#### Semester-V

Subject: Information Theory & Coding Prof. Haripriya R							Subject Code: 15EC54					
<b>Course Outcomes</b>												
CO1	Understand the concept of Entropy, Rate of information and order of the source with reference to dependent and independent source.											
CO2	Study various source encoding algorithms.											
CO3	Model discrete & continuous communication channels.											
CO4	Study various error control coding algorithms.											
CO5	Understand error detecting & correcting Algorithms											
<b>CO-PO Mapping</b>												
COs	Pos											
	1	2	3	4	5	6	7	8	9	10	11	12
CO1	2	2			1							2
CO2	2	2	1	1	1	1						2
CO3	2	2	2	1	1							1
CO4	1	2	2	2	2	1						2
CO5	1	2	2	2	2	1						2
Average	2.66	2	1.75	1.5	1.4	1						1.8

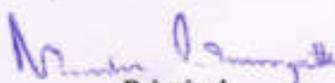
COs	AVG	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	54.82%	1.09	1.09				0.54						1.09
CO2	55.2%	1.1	1.1	0.55	0.55	0.55	0.55						1.1
CO3	50.73%	1.01	1.01	1.01	0.5	0.5							0.5
CO4	49.03%	0.49	0.98	0.98	0.98	0.98	0.49						0.98
CO5	51.30%	0.51	1.02	1.02	1.02	1.02	0.51						1.02
AVERAGE		0.84	1.04	0.89	0.76	0.76	0.52						0.938
<b>TOTAL ATTAINMENT</b>													<b>0.821</b>



Course Instructor



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Principal  
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**Department of Electronics & Communication Engineering****Course Outcomes and CO-PO- Articulation Matrix****2015 Scheme****ACADEMIC YEAR 2018-19****Semester-V**

<b>Subject: Digital Signal Processing</b> <b>Prof. Pradeepkumar S S</b>	<b>Subject Code: 15EC52</b>
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**Course Outcomes**

<b>CO1</b>	Understand the frequency domain sampling and reconstruction of discrete time signals
<b>CO2</b>	Study the properties and the development of efficient algorithms for the computation of DFT
<b>CO3</b>	Realization of FIR and IIR filters in different structural forms.
<b>CO4</b>	Learn the procedures to design of IIR filters from the analog filters using impulse invariance and bilinear transformation.
<b>CO5</b>	Study the different windows used in the design of FIR filters and design appropriate filters based on the specifications.

**CO-PO Mapping**

COs	Pos												
	1	2	3	4	5	6	7	8	9	10	11	12	
CO1	2												2
CO2	3		3										2
CO3	3	3											2
CO4	3		2	2	2								2
CO5	3		3	2									2
<b>Average</b>	2.8	3	2.66	2	2								2

COs	AVG	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	52.94%	1.05											1.05
CO2	58.97%	1.74		1.74									1.17
CO3	51.85%	1.55	1.55			1.04	1.04						1.04
CO4	54.03%	1.62		1.08	1.88	1.08							1.08
CO5	51.85%	1.55		1.55	1.03	1.15	1.15						1.15
<b>AVERAGE</b>		<b>1.30</b>	<b>1.55</b>	<b>1.45</b>	<b>1.45</b>	<b>1.09</b>	<b>1.09</b>						<b>1.09</b>
<b>TOTAL ATTAINMENT</b>													<b>1.28</b>

*Pradeepkumar S S*  
Course Instructor

*Pradeepkumar S S*  
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SIET, Tumkur-6

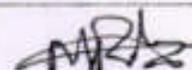
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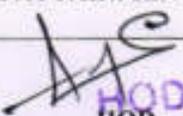


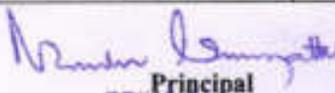
**Department of Electronics & Communication Engineering****Course Outcomes and CO-PO- Articulation Matrix****2015 Scheme**  
**ACADEMIC YEAR 2018-19****Semester-V**

Subject: Operating System Prof. Maltesh Bajantri											Subject Code: 15EC553		
<b>Course Outcomes</b>													
CO1	Understand the services provided by an operating system.												
CO2	Understand how processes are synchronized and scheduled.												
CO3	Understand different approaches of memory management and virtual memory management.												
CO4	Understand the structure and organization of the file system												
CO5	Understand interprocess communication and deadlock situations.												
<b>CO-PO Mapping</b>													
COs	Pos												
	1	2	3	4	5	6	7	8	9	10	11	12	
CO1	3	2											1
CO2	1	3											1
CO3		3											1
CO4	1	3											1
CO5	2												1
Average	1.4	2.75											1

ATTAINMENT TABLE													
COs	AVG	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	62.72%	1.88	1.25										0.62
CO2	61.93%	0.61	1.85										0.61
CO3	57.72%		1.73										0.57
CO4	62.27%	0.62	1.88										0.62
CO5	66.76%	1.33											0.66
AVERAGE		1.11	1.67										0.616
TOTAL ATTAINMENT													1.132

  
Course Instructor

  
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Sl. No.	IDN	Name	18EC553		2018-2019 OOD						SEM. IV SEM		TSP Prof. Mallesh Basanth					SEM. V SEM					TOTAL MARKS													
			T18E	T218E	T18E	T1		T2		T3		SEMESTER IV					SEMESTER V																			
						001-18	002-18	000-18	004-18	004-18	008-18	001-18	002-18	003-18	004-18	008-18	001-18	002-18	004-18	008-18																
1	18V14EC026	RAMYA K.	8	15	21	5	4	8	7	10	11	1	1	1	1	1	40	8	8	8	8	8	14	21	17	18	19	27.0								
2	18V14EC029	RASHMIN BSGAM H	0	16	27	0	0	8	8	12	15	1	1	1	1	1	41	8.2	8.2	8.2	8.2	8.2	8.2	17.2	17.2	17.2	21.0	28.4								
3	18V15EC008	ARUN C D	25	14	21	12	13	8	6	10	11	1	1	1	1	1	40	8	8	8	8	8	28.4	18.4	17.4	19.4	26.4	30.4								
4	18V15EC007	BHAVANA N	30	18	26	15	15	10	8	13	13	1	1	1	1	1	62	12.4	12.4	12.4	12.4	12.4	22.4	20.4	18.4	24.4	26.4	27.2								
5	18V15EC013	GAGANA S K	20	13	28	12	8	7	6	14	16	1	1	1	1	1	47	9.4	9.4	9.4	9.4	9.4	15.8	24.8	14.8	22.8	24.8	23								
6	18V15EC018	KAVYA S	13	18	28	7	8	10	8	14	16	1	1	1	1	1	38	7.8	7.8	7.8	7.8	7.8	22.4	11.8	18.8	13.8	13.8	23.92								
7	18V15EC027	NOOR AYISHA	28	27	26	13	15	12	15	15	11	1	1	1	1	1	42	8.4	3.8	3.8	3.8	3.8	22.2	15.2	22.2	26.2	22.2	25.4								
8	18V15EC035	BAGHURAJ K	23	24	28	12	13	12	12	16	12	1	1	1	1	1	55	9.2	9.2	9.2	9.2	9.2	22.4	11.4	13.4	20.4	21.4	23								
9	18V15EC049	USHA Y M	24	18	21	12	12	8	8	10	11	1	1	1	1	1	47	9.4	9.4	9.4	9.4	9.4	20.2	27.2	11.2	17.2	20.2	23								
10	18V15EC052	VISHWAS P	27	10	23	13	14	8	4	10	13	1	1	1	1	1	31	6.2	6.2	6.2	6.2	6.2	22.8	17.8	22.8	20.8	18.4	19.2								
11	18V16EC002	ANUSHA T P	23	26	19	12	13	14	12	10	9	1	1	1	1	1	49	9.8	9.8	9.8	9.8	9.8						24.56								
																					20.075	29.209	18.473	19.827	21.764	21.789										
																					62.727	61.934	57.727	62.273	66.761	62.385										

*MRI*  
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Dept of E&C  
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SIET, Tumkur-6

**Department of Electronics & Communication Engineering****Course Outcomes and CO-PO- Articulation Matrix****2015 Scheme****ACADEMIC YEAR 2018-19****Semester-V**

Subject: Object Oriented Programming using C++						Subject Code: 15EC562						
Prof. Madhu B C												
<b>Course Outcomes</b>												
CO1	Define Encapsulation, Inheritance and Polymorphism.											
CO2	Solve the problem with object oriented approach.											
CO3	Analyze the problem statement and build object oriented system model.											
CO4	Describe the characters and behavior of the objects that comprise a system.											
CO5	Explain function overloading, operator overloading and virtual functions.											
<b>CO-PO Mapping</b>												
COs	Pos											
	1	2	3	4	5	6	7	8	9	10	11	12
CO1	2											2
CO2	2											2
CO3	2	2	2	1	1							
CO4	1	2	2	2	2							
CO5	1	2	2	2	2							
Average	2.66	2	2	1.66	1.66							2

**ATTAINMENT TABLE**

COs	AVG	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	64.03%	1.28											1.28
CO2	50.71%	1.01											1.01
CO3	52.04%	1.04	1.04	1.04	0.52	0.52							
CO4	65.96%	0.65	1.31	1.31	1.31	1.31							
CO5	71.93%	0.71	1.43	1.43	1.43	1.43							
<b>AVERAGE</b>		<b>0.93</b>	<b>1.26</b>	<b>1.26</b>	<b>1.08</b>	<b>1.08</b>							<b>1.145</b>
<b>TOTAL ATTAINMENT</b>													<b>1.125</b>

  
 Course Instructor

  
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Sl. No.	ID No.	Name	2018-2019 ODS						SEM IV SEM						TSP Prof. Nadhu B C						Total Address							
			EMCS42		11		12		13		14		15		16		17		18			19						
			TS01	TS02	TS03	TS04	TS05	TS06	TS07	TS08	TS09	TS10	TS11	TS12	TS13	TS14	TS15	TS16	TS17	TS18		TS19	TS20					
1	1SV148C006	RAMYA K	27	14	30	13	14	8	8	15	15	1	1	1	1	1	44	8.8	8.8	8.8	8.8	8.8	32.8	33.8	17.8	35.8	24.8	22.8
2	1SV148C003	RASHMIN BEGAM H	0	18	30	0	0	8	13	15	15	1	1	1	1	1	45	9	8.8	8.8	8.8	8.8	30	14.8	34.8	23.8	24.8	37.44
3	1SV158C005	ARUN C G	17	9	30	15	2	5	4	15	15	4	1	1	1	1	34	6.8	6.8	6.8	6.8	6.8	20.8	26.8	12.8	20.8	31.8	37
4	1SV158C007	BHAVANA K	28	20	30	14	14	6	14	15	15	1	1	1	1	1	28	5.8	5.8	5.8	5.8	5.8	21.4	27.4	13.4	21.4	17.4	20.8
5	1SV158C003	GAGANA S K	25	18	22	13	12	7	11	15	9	1	1	1	1	1	37	7.4	7.4	7.4	7.4	7.4	21.4	13.4	15.4	22.4	22.4	23.4
6	1SV158C018	KAVYA S	16	12	30	14	2	4	8	15	15	1	1	1	1	1	32	6.4	6.4	6.4	6.4	6.4	17.8	18.8	17.8	23.8	21.8	35
7	1SV158C007	NOOR AYISHA	12	16	30	8	3	7	9	15	15	1	1	1	1	1	30	7.8	7.8	7.8	7.8	7.8	22.4	30.4	18.4	23.4	23.4	20.4
8	1SV158C005	BAGHURAJ C K	28	23	30	14	14	13	10	15	15	1	1	1	1	1	37	7.4	7.4	7.4	7.4	7.4	23.2	26.2	19.2	22.2	24.2	24.8
9	1SV158C049	LSHA Y M	26	15	28	14	12	8	10	13	15	1	1	1	1	1	41	8.2	8.2	8.2	8.2	8.2	18.2	17.2	9.2	22.2	22.2	33
10	1SV158C052	VISHWAS S P	19	4	30	11	8	2	2	15	15	1	1	1	1	1	31	6.2	6.2	6.2	6.2	6.2	24.8	30.8	23.8	25.8	25.8	17.8
11	1SV168C402	ANUSHA T P	28	28	30	14	12	13	15	15	15	1	1	1	1	1	48	9.6	9.6	9.6	9.6	9.6						27.4
																							20.491	23.836	16.655	21.109	23.018	0
																							64.034	58.716	52.045	65.986	71.932	60.919

*As*  
Course Instructor

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**Department of Electronics & Communication Engineering****Course Outcomes and CO-PO- Articulation Matrix****2015 Scheme****ACADEMIC YEAR 2018-19****Semester-VII**

<b>Subject: Microwave &amp; Antenna</b>		<b>Subject Code: 15EC71</b>											
<b>Faculty Name : Prof. Pradeepkumar S S</b>													
<b>Course Outcomes</b>													
CO1	Describe the microwave properties and its transmission media												
CO2	Describe microwave devices for several application												
CO3	Understand the basics of antenna theory												
CO4	Select antennas for specific applications												
CO5	Can able to study different types of Antenna												
<b>CO-PO Mapping</b>													
COs	Pos												
	1	2	3	4	5	6	7	8	9	10	11	12	
CO1	1	2											
CO2	1	1	2	1	2								
CO3	2	2	3	3	2								
CO4	2	2	2	3	3								
CO5	2	1	2	1	2								
Average	1.6	1.6	1.8	1.6	1.8								

ATTAINMENT TABLE													
COs	AVG	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	68.93 %	0.68	1.36										
CO2	83.42%	0.83	0.83	1.66	0.83	1.66							
CO3	85.95%	1.7	1.7	2.55	2.55	1.7							
CO4	51.57%	1.02	1.02	1.02	1.53	1.53							
CO5	53.32%	1.06	0.53	1.06	0.53	1.06							
<b>AVERAGE</b>		<b>1.058</b>	<b>1.088</b>	<b>1.44</b>	<b>1.36</b>	<b>1.48</b>							
<b>TOTAL ATTAINMENT</b>													<b>1.28</b>

*Prof. Pradeepkumar S S*  
FACULTY

*Prof. Pradeepkumar S S*  
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Roll No	USN	Name	2018-2019 ODD															SEM V: SEM I: Prof. Padmakumar V.S.										TOTAL AVERAGE										
			T1					T2					T3					ASSIGNMENT					SEE						SEE MARKS					T4				
			T1(01)	T2(01)	T3(01)	18	19	18	19	18	19	18	19	CO-1	CO-2	CO-3	CO-4	CO-5	01	02	03	04	05	06	07	08	09		10	11	12	13	14	15	16	17	18	19
1	1SV1SEC001	LAHARI N.RAJ	0	12	8	15	8	6	6	4	4	1	1	1	1	1	15	7	7	7	7	7	7	23	22	16	14	12	19									
2	1SV1SEC002	AMRUTEK G SHEELVAN	12	13	4	12	11	6	7	3	7	1	1	1	1	1	37	7.4	7.4	7.4	7.4	7.4	7.4	20.4	25.4	15.4	15.4	11.4	17.6									
3	1SV1SEC003	AISHWARYA S M	12	16	8	15	2	8	6	6	2	1	1	1	1	1	40	8	8	8	8	8	8	24	19	15	15	15	17.6									
4	1SV1SEC004	AKSHAYA BIRADAR	15	15	14	7	10	10	6	7	7	1	1	1	1	1	12	2.4	2.4	2.4	2.4	2.4	2.4	10.4	28.4	9.4	9.4	10.4	13.4									
5	1SV1SEC005	AMEENA ROUSHINE	14	15	15	12	15	11	6	7	8	1	1	1	1	1	35	7	7	7	7	7	7	20	32	14	14	15	19									
6	1SV1SEC010	CL BALAJI	13	15	13	0	6	8	8	6	7	1	1	1	1	1	12	2.4	2.4	2.4	2.4	2.4	2.4	3.4	17.4	11.4	11.4	9.4	10.6									
7	1SV1SEC011	CHAITHRA M	9	15	14	0	12	0	15	7	7	1	1	1	1	1	21	4.2	4.2	4.2	4.2	4.2	4.2	5.2	17.2	20.2	30.2	12.2	18									
8	1SV1SEC012	D CHANDANA	14	13	15	15	12	0	11	7	8	1	1	1	1	1	32	6.4	6.4	6.4	6.4	6.4	6.4	22.4	19.4	18.4	18.4	14.4	18.6									
9	1SV1SEC014	DEEPIKA H P	13	15	14	14	15	0	8	8	6	1	1	1	1	1	28	5.6	5.6	5.6	5.6	5.6	5.6	20.6	27.6	14.6	14.6	14.6	16.4									
10	1SV1SEC016	GEETA RAMESHAPPA H	12	14	14	14	14	4	0	8	6	1	1	1	1	1	28	5.6	5.6	5.6	5.6	5.6	5.6	20.6	24.6	6.6	6.6	14.6	14.6									
11	1SV1SEC017	HARDINI D C	13	13	14	15	13	7	0	6	8	1	1	1	1	1	28	5.6	5.6	5.6	5.6	5.6	5.6	21.6	26.6	6.6	6.6	12.6	14.8									
12	1SV1SEC020	S KAVITHA	6	12	8	11	9	8	0	7	7	1	1	1	1	1	35	7	7	7	7	7	7	19	25	14	14	15	17.4									
13	1SV1SEC026	MAMATHA M S	12	13	4	14	14	0	6	7	8	1	1	1	1	1	37	7.4	7.4	7.4	7.4	7.4	7.4	23.4	31.4	14.4	14.4	13.4	19.6									
14	1SV1SEC028	NITHYA SHREE B T	12	14	8	14	15	0	0	6	7	1	1	1	1	1	40	8	8	8	8	8	8	23	24	15	15	18.4										
15	1SV1SEC030	PADMA M A	15	15	14	12	13	7	0	7	7	1	1	1	1	1	12	2.4	2.4	2.4	2.4	2.4	2.4	15.4	25.4	7.4	7.4	10.4	13.2									
16	1SV1SEC031	POOJA K S	14	13	15	0	12	6	7	7	8	1	1	1	1	1	35	7	7	7	7	7	7	12	27	15	15	16.8										
17	1SV1SEC032	PRABIN KARKI	13	15	13	0	0	7	8	8	6	1	1	1	1	1	12	2.4	2.4	2.4	2.4	2.4	2.4	3.4	10.4	11.4	11.4	11.4	9.6									
18	1SV1SEC033	PRASHANT CHOUDRI	9	15	14	14	12	6	5	8	6	1	1	1	1	1	21	4.2	4.2	4.2	4.2	4.2	4.2	19.2	23.2	30.2	10.2	13.2	15.2									
19	1SV1SEC034	PREETHI BAL B L	14	13	15	14	0	6	7	3	1	1	1	1	1	1	32	6.4	6.4	6.4	6.4	6.4	6.4	21.4	22.4	14.4	14.4	10.4	16.6									
20	1SV1SEC036	PRIVANKA K	15	15	14	12	13	8	6	6	2	1	1	1	1	1	28	5.6	5.6	5.6	5.6	5.6	5.6	18.6	20.6	12.6	12.6	12.6	17.2									
21	1SV1SEC038	RAKSHA M V	12	14	14	14	15	15	8	7	7	1	1	1	1	1	28	5.6	5.6	5.6	5.6	5.6	5.6	20.6	26.6	14.6	14.6	13.6	20									
22	1SV1SEC039	RAMYA M G	13	13	14	12	10	11	6	7	8	1	1	1	1	1	28	5.6	5.6	5.6	5.6	5.6	5.6	18.6	27.6	12.6	12.6	13.6	17									
23	1SV1SEC040	RANGITHA B M	6	12	8	14	14	8	6	6	7	1	1	1	1	1	35	7	7	7	7	7	7	22	30	14	14	14	18.8									
24	1SV1SEC041	ROBHITH P	12	13	4	14	8	0	4	7	7	1	1	1	1	1	37	7.4	7.4	7.4	7.4	7.4	7.4	22.4	16.4	12.4	12.4	15.4	15.8									
25	1SV1SEC042	SAVITA HOSALLI	12	14	8	13	14	0	7	7	8	1	1	1	1	1	40	8	8	8	8	8	8	24	23	16	16	19										
26	1SV1SEC043	SHALINI N	15	15	14	15	140	6	8	8	6	1	1	1	1	1	12	2.4	2.4	2.4	2.4	2.4	2.4	18.4	149.4	11.4	11.4	11.4	40.4									
27	1SV1SEC044	SONA K R	14	13	15	0	14	4	5	8	6	1	1	1	1	1	35	7	7	7	7	7	7	8	26	13	13	16	15.2									
28	1SV1SEC046	SOURMYA D H	13	15	13	14	12	7	7	6	8	1	1	1	1	1	12	2.4	2.4	2.4	2.4	2.4	2.4	17.4	22.4	10.4	10.4	9.4	14									
29	1SV1SEC047	SUSHMA T N	9	15	14	9	14	11	6	7	8	1	1	1	1	1	21	4.2	4.2	4.2	4.2	4.2	4.2	14.2	30.2	11.2	11.2	12.2	15.8									
30	1SV1SEC051	THORSHITHA	14	13	15	15	14	8	6	6	7	1	1	1	1	1	32	6.4	6.4	6.4	6.4	6.4	6.4	22.4	29.4	13.4	13.4	13.4	18.4									
31	1SV1SEC400	VINAY S P	15	15	14	15	9	0	4	7	7	1	1	1	1	1	28	5.6	5.6	5.6	5.6	5.6	5.6	21.6	15.6	10.6	10.6	13.6	14.4									
32	1SV1SEC401	ABDUL NAZEERSAB A K	12	14	14	10	11	0	7	7	4	1	1	1	1	1	28	5.6	5.6	5.6	5.6	5.6	5.6	16.6	17.6	13.6	13.6	13.6	15									
33	1SV1SEC403	AISHWARYA K S	13	13	14	4	14	6	8	8	7	1	1	1	1	1	28	5.6	5.6	5.6	5.6	5.6	5.6	10.6	26.6	14.6	14.6	14.6	16.2									
34	1SV1SEC404	BINDUSHREE G S	14	13	15	5	13	4	5	8	8	1	1	1	1	1	35	7	7	7	7	7	7	13	25	13	13	16	16									
35	1SV1SEC407	CHIRANJEVI K M	13	13	13	10		7	7	6	5	1	1	1	1	1	37	7.4	7.4	7.4	7.4	7.4	7.4	18.4	15.4	13.4	13.4	14.4	13.8									
	1SV1SEC408	MANJUNATH B YANNI	9	15	14	9	6	11	6	7	7	1	1	1	1	1	40	8	8	8	8	8	8	18	26	15	15	16	18									
38	1SV1SEC410	MORHANKUMAR D	14	13	15	9	10	8	6	6	6	1	1	1	1	1	12	2.4	2.4	2.4	2.4	2.4	2.4	12.4	21.4	9.4	9.4	9.4	12.4									
39	1SV1SEC411	NANDINI L	13	13	14	9	7	0	4	7	6	1	1	1	1	1	35	7	7	7	7	7	7	17	15	12	12	15	14.2									
40	1SV1SEC412	POOJA A	12	14	16	6	8	0	7	7	4	1	1	1	1	1	12	2.4	2.4	2.4	2.4	2.4	2.4	9.4	11.4	10.4	10.4	40.4	10.4									
41	1SV1SEC413	RAMYA N K	13	13	14	11	14	6	8	8	6	1	1	1	1	1	21	4.2	4.2	4.2	4.2	4.2	4.2	16.2	25.2	13.2	13.2	13.2	16.2									
42	1SV1SEC414	RAMYASHREE M	15	15	14	12	15	4	5	8	6	1	1	1	1	1	32	6.4	6.4	6.4	6.4	6.4	6.4															
																								17.2002	26.8076	12.8076	12.8076	12.8076	16.8076	16.8076								
																								16.8000	24.4000	05.5000	11.5000	16.5000										

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**SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY**

**SIRA ROAD, TUMKUR- 572 106.**

**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**

<b>SUBJECT</b>	DIGITAL IMAGE PROCESSING	<b>SUBJECT CODE</b>	<b>15EC72</b>
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**COURSE OUTCOME**

After studying this course, students will be able to:

<b>CO1</b>	Understand the fundamentals of digital image processing
<b>CO2</b>	Understand the image transform used in digital image processing
<b>CO3</b>	Understand the image enhancement techniques used in digital image processing
<b>CO4</b>	Understand the image restoration techniques and methods used in digital image processing

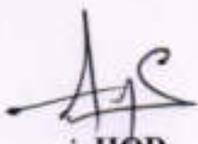
<b>COLLEGE</b>	<b>SHRIDEVI INSTITUTE OF ENGINEERING &amp; TECHNOLOGY</b>											
<b>FACULTY NAME</b>	<b>MR.Raghavendra D</b>											
<b>BRANCH</b>	<b>ECE</b>			<b>ACADEMIC YEAR</b>				<b>2018-19</b>				
<b>COURSE</b>	<b>B.E</b>	<b>SEMESTER</b>		<b>7<sup>TH</sup></b>	<b>SECTION</b>			<b>ECE</b>				
<b>SUBJECT</b>	<b>DIGITAL IMAGE PROCESSING</b>				<b>SUBJECT CODE</b>			<b>15EC72</b>				
<b>CO &amp; PO MAPPING</b>												
	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>	<b>PO11</b>	<b>PO12</b>
<b>CO1</b>	1	1	2	1								2
<b>CO2</b>	1	1	1	1								1
<b>CO3</b>	1	1	1	1								1
<b>CO4</b>	2	2	2	1								1
<b>AVERAGE</b>	1.25	1.25	1.5	1								1.25
<b>OVERALL MAPPING OF SUBJECT</b>												<b>1.25</b>

**CO AND PO ATTAINMENT**

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	<b>78.67</b>	0.78	0.78	1.56	0.78								1.56
CO2	<b>89.67</b>	0.89	0.89	0.89	0.89								0.89
CO3	<b>84.55</b>	0.84	0.84	0.84	0.84								0.84
CO4	<b>87.32</b>	1.74	1.74	1.74	0.87								0.87
AVERAGE		1.06	1.06	1.25	0.84								1.04
<b>FINAL ATTAINMENT LEVEL</b>													<b>1.05</b>

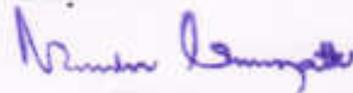


**COURSE INSTRUCTOR**



**HOD  
HOD  
Dept of E&C  
SIET, Tumkur-6**

**PRINCIPAL**



**PRINCIPAL  
SIET, TUMAKURU.**

Academic year	SEM/VII	2016-19		SEM - 7TH		Total strength				41				Subject				DIP				ISECT2				SEE Tot		
		IA TEST 1(30M)		IA TEST 2(30M)		IA TEST 3(30M)		SSIGNEMENT / QUIZ(10 N		SEE MARKS(60)				Total Cos ATTAINMENT				% of Individual CO										
		CO1	CO2	CO1	CO2	CO3	CO4	CO1	CO2	CO3	CO4	CO1=1	CO2	CO3	CO4	CO1=2	CO2=4	CO3=2	CO4=2	CO1	CO2	CO3	CO4	60M				
1SV14EC015	LAHARI N RAJ	14	4	18	14	15	29	15	15	30	2	2	2	2	7.0	7.0	7.6	7.6	23.0	18	24.6	24.6	81.38	40.91	84.83	84.83	38	7.0
1SV15EC001	ABHISHEK G SHEELVANT	11	16	27	15	15	30	14	13	27	2	2	2	2	8.2	8.2	8.2	8.2	21.2	41.2	25.2	24.2	73.1	93.64	86.9	83.45	41	8.2
1SV15EC002	AISHVARYA S M	10	11	21	14	14	28	13	12	27	2	2	2	2	10.6	10.6	10.6	10.6	22.8	37.8	26.6	27.6	77.93	85.45	91.72	95.17	33	10.6
1SV15EC003	AKSHAYA BRADAR	12	13	25	14	13	27	14	11	25	2	2	2	2	9.4	9.4	9.4	9.4	23.4	38.4	24.4	25.4	80.69	87.27	84.14	87.59	47	9.4
1SV15EC004	AMEENA ROUSHNIE	15	19	34	19	18	37	14	12	26	2	2	2	2	7	7	7	7	24	35	22	23	82.78	79.55	75.86	79.31	35	7
1SV15EC009	CL BALAJI	9	12	21	13	15	28	12	12	24	2	2	2	2	8.4	8.4	8.4	8.4	19.4	35.4	25.4	22.4	68.9	80.45	87.59	77.24	42	8.4
1SV15EC010	CHAITHIRA M	12	13	25	14	12	26	12	13	25	2	2	2	2	8.4	8.4	8.4	8.4	22.4	37.4	22.4	22.4	77.24	85	77.24	77.24	42	8.4
1SV15EC011	D CHANDANA	13	13	26	14	13	27	15	13	28	2	2	2	2	10.8	10.8	10.8	10.8	25.8	39.8	25.8	27.8	88.97	90.45	88.97	95.86	54	10.8
1SV15EC012	DEEPIKA H P	12	6	18	11	15	26	15	13	28	2	2	2	2	9	9	9	9	28	28	26	26	78.31	83.84	89.66	89.66	45	9
1SV15EC014	GEETA BAMESHAPPA HANCHI	12	13	24	11	13	24	15	13	28	2	2	2	2	12	12	12	12	26	37	27	29	89.68	84.09	93.1	100	60	12
1SV15EC016	HARINI D C	12	9	21	11	8	19	14	14	28	2	2	2	2	9.2	9.2	9.2	9.2	23.2	31.2	19.2	25.2	80	70.91	66.21	86.9	48	9.2
1SV15EC017	S KAVITHA	15	8	23	10	9	19	7	14	21	2	2	2	2	8.6	8.6	8.6	8.6	15.6	18.6	19.6	17.6	88.28	85	87.59	60.69	43	8.6
1SV15EC020	MAMATHA M S	10	8	18	15	15	30	15	15	30	2	2	2	2	10.2	10.2	10.2	10.2	22.2	35.2	27.2	27.2	76.55	80	93.79	83.79	51	10.2
1SV15EC026	NITHYA SHREE B T	12	13	25	13	15	28	15	15	30	2	2	2	2	8	8	8	8	22	36	25	25	75.86	81.82	86.21	86.21	40	8
1SV15EC028	PADMA M A	13	14	27	14	15	29	12	14	26	2	2	2	2	11.2	11.2	11.2	11.2	26.2	41.2	28.2	25.2	90.34	93.64	97.24	86.9	56	11.2
1SV15EC030	Pooja K S	12	12	24	15	15	30	15	15	30	2	2	2	2	9.8	9.8	9.8	9.8	23.8	36.8	26.8	26.8	82.07	83.64	92.41	92.41	40	9.8
1SV15EC031	PRAHIN KARIKI	14	14	28	12	13	25	15	15	30	2	2	2	2	10.2	10.2	10.2	10.2	28.2	40.2	27.2	29.2	97.24	91.36	93.79	78.45	61	10.2
1SV15EC032	PRASHANT CHOUDERI	8	2	11	9	13	22	15	15	30	2	2	2	2	11.0	11.0	11.0	11.0	22.0	24.0	28.0	28.0	77.93	55.91	91.72	98.62	58	11.0
1SV15EC033	PREETHI BAI B L	13	0	13	11	12	23	15	15	30	2	2	2	2	11.4	11.4	11.4	11.4	26.4	24.4	25.4	28.4	91.03	55.45	87.59	97.93	57	11.4
1SV15EC034	PRIYANKA K	15	15	30	14	15	29	15	15	30	2	2	2	2	10.2	10.2	10.2	10.2	27.2	27.2	42.2	26.2	93.79	93.79	97.93	90.34	51	10.2
1SV15EC036	RAKSHA M V	15	14	29	15	13	28	14	13	27	2	2	2	2	10.0	10.0	10.0	10.0	25.0	26.0	39.0	27.0	88.28	91.72	90.34	95.17	53	10.0
1SV15EC038	RAMYA M G	11	7	18	9	14	23	15	15	30	2	2	2	2	9.8	9.8	9.8	9.8	22.8	18.8	29.8	20.8	78.62	64.83	95.17	71.72	49	9.8
1SV15EC039	RANITHA B M	14	11	25	8	14	22	15	15	30	2	2	2	2	11.6	11.6	11.6	11.6	27.6	24.6	38.6	21.6	95.17	84.83	71.72	74.48	58	11.6
1SV15EC040	RCHITHI P	12	12	24	14	14	28	15	15	30	2	2	2	2	10.8	10.8	10.8	10.8	24.8	24.8	36.8	26.8	85.52	85.52	74.48	92.41	54	10.8
1SV15EC041	SAVITA HOBALLI	12	7	19	13	15	30	15	15	30	2	2	2	2	10	10	10	10	24	19	31	27	82.78	65.52	92.41	93.1	50	10
1SV15EC042	SHALINI N	13	14	27	14	13	27	14	12	26	2	2	2	2	10.8	10.8	10.8	10.8	25.8	26.8	39.8	26.8	88.97	92.41	93.1	92.41	54	10.8
1SV15EC043	SONA K R	15	11	26	13	15	28	15	15	30	2	2	2	2	9.2	9.2	9.2	9.2	26.2	22.2	37.2	24.2	90.34	76.55	92.41	83.45	46	9.2
1SV15EC044	SOUMYA D H	13	14	27	14	12	26	15	15	30	2	2	2	2	10.8	10.8	10.8	10.8	25.8	26.8	39.8	26.8	88.97	92.41	83.45	92.41	54	10.8
1SV15EC046	SUSHMA T N	12	8	20	5	13	18	15	15	30	2	2	2	2	9.6	9.6	9.6	9.6	23.6	19.6	31.6	16.6	81.38	67.59	92.41	57.24	48	9.6
1SV15EC047	THOSHITHA	13	14	27	1	14	15	15	15	30	2	2	2	2	8.6	8.6	8.6	8.6	23.6	24.6	37.6	11.6	81.38	84.83	57.24	40	43	8.6
1SV15EC051	VINAY S P	14	15	29	15	15	30	15	15	30	2	2	2	2	10.4	10.4	10.4	10.4	26.4	26.4	41.4	25.4	91.03	91.03	94.48	87.59	47	10.4
1SV16EC400	ABDUL NAZEER S A KANAVALLI	15	15	30	14	13	27	15	14	29	2	2	2	2	9.4	9.4	9.4	9.4	26.4	26.4	41.4	25.4	91.03	91.03	94.48	87.59	47	9.4
1SV16EC401	AISHVARYA K S	14	14	28	15	12	27	13	14	27	2	2	2	2	9.4	9.4	9.4	9.4	25.4	25.4	39.4	26.4	87.59	87.59	87.59	91.03	47	9.4
1SV16EC403	BINDUSHREE G S	14	13	27	14	11	25	15	15	30	2	2	2	2	10.8	10.8	10.8	10.8	26.8	25.8	39.8	26.8	92.41	88.97	91.03	92.41	54	10.8
1SV16EC404	CHIRANJEEVI K M	13	13	26	14	12	26	14	12	26	2	2	2	2	8.6	8.6	8.6	8.6	23.6	23.6	36.6	24.6	81.38	81.38	92.41	84.83	43	8.6
1SV16EC407	MANJUNATH B YANNI	13	15	28	12	12	24	13	13	26	2	2	2	2	9.8	9.8	9.8	9.8	24.8	26.8	39.8	23.8	85.52	92.41	84.83	82.07	49	9.8
1SV16EC408	MOHANKUMAR D	14	12	26	12	13	25	13	14	27	2	2	2	2	9.6	9.6	9.6	9.6	25.6	23.6	37.6	23.6	88.28	81.38	88.28	81.38	48	9.6
1SV16EC410	NANDINI L	14	13	27	15	13	28	14	13	27	2	2	2	2	10.4	10.4	10.4	10.4	26.4	25.4	39.4	27.4	91.03	87.59	88.97	94.48	52	10.4
1SV16EC411	Pooja A	11	15	26	15	13	28	15	15	30	2	2	2	2	7.8	7.8	7.8	7.8	20.8	24.8	35.8	24.8	71.72	85.52	123.4	85.52	39	7.8
1SV16EC412	RAMYA N K	11	13	24	15	13	28	15	15	30	2	2	2	2	9.8	9.8	9.8	9.8	22.8	24.8	35.8	26.8	78.62	85.52	123.4	92.41	49	9.8
1SV16EC413	RAMYASHREE M	11	8	19	14	14	28	15	15	30	2	2	2	2	11	11	11	11	24	21	32	27	82.78	72.41	91.72	93.1	55	11
1SV16EC414	SOWNDARYA A	10	9	19	7	14	21	15	15	30	2	2	2	2	12.4	12.4	12.4	12.4	24.4	23.4	33.4	21.4	84.14	80.69	94.48	73.79	62	12.4

*[Signature]*  
Faculty

*[Signature]*  
**HOD**  
Dept of E&C  
SIET, Tumkur-6

78.67 | 88.67 | 84.55 | 87.32

*[Signature]*  
Principal  
PRINCIPAL  
SIET, TUMAKURU.



**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**

<b>SUBJECT</b>	<b>POWER ELECTRONICS</b>	<b>SUBJECT CODE</b>	<b>15EC73</b>
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**COURSE OUTCOME**

After studying this course, students will be able to:

- CO1: Describe the characteristics of different power devices and identify the various applications associated with it.
- CO2: Illustrate the working of power circuit as DC-DC converter.
- CO3: Illustrate the operation of inverter circuit and static switches.
- CO4: Determine the output response of a thyristor circuit with various triggering options.
- CO5: Determine the response of controlled rectifier with resistive and inductive loads.

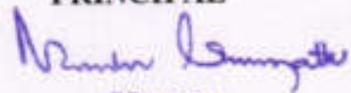
<b>COLLEGE</b>	<b>SHRIDEVI INSTITUTE OF ENGINEERING &amp; TECHNOLOGY</b>											
<b>FACULTY NAME</b>	<b>MRS. Haripriya R</b>											
<b>BRANCH</b>	<b>ECE</b>			<b>ACADEMIC YEAR</b>				<b>2018-19</b>				
<b>COURSE</b>	<b>B.E</b>	<b>SEMESTER</b>		<b>7<sup>TH</sup></b>	<b>SECTION</b>			<b>ECE</b>				
<b>SUBJECT</b>	<b>POWER ELECTRONICS</b>					<b>SUBJECT CODE</b>			<b>15EC73</b>			
<b>CO &amp; PO MAPPING</b>												
	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>	<b>PO11</b>	<b>PO12</b>
<b>CO1</b>	1	2	2	1	1							
<b>CO2</b>	1	2	1	3	1							
<b>CO3</b>	2	1	1	1	1							
<b>CO4</b>	1	2	1	1	2							
<b>CO5</b>	1	1	1	2	1							
<b>AVERAGE</b>	1.2	1.6	1.2	1.6	1.2							
<b>OVERALL MAPPING OF SUBJECT</b>												<b>1.36</b>

**CO AND PO ATTAINMENT**

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	74.59	0.75	1.51	1.51	0.75	0.75							
CO2	64.09	0.64	1.28	0.64	1.92	0.64							
CO3	85.41	1.70	0.85	0.85	0.85	0.85							
CO4	85.67	1.03	2.06	1.03	1.03	2.06							
CO5	73.39	0.73	0.73	0.73	1.46	0.73							
AVERAGE		0.97	1.28	0.95	0.61	1.00							
<b>FINAL ATTAINMENT LEVEL</b>													<b>0.962</b>

  
**COURSE INSTRUCTOR**

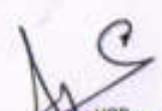
  
**HOD**  
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**SIET, Tumkur-6**

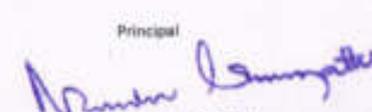
**PRINCIPAL**  
  
**PRINCIPAL**  
**SIET, TUMAKURU.**

Academic year	SEM-VII	2018-19			SEM VIII			Total strength			Subject					Power Electronics					ISEC 7)					% of individual CO						
		IA TEST 1(30M)			IA TEST 2(30M)			IA TEST 3(30M)			ASSIGNMENT / QUIZ(10 M)					SEE MARKS(60)					Total Cos ATTAINMENT											
USN	NAME	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	01=1	CO2	CO3	CO4	CO5	01=2	02=4	03=2	04=2	05=2	CO1	CO2	CO3	CO4	CO5		
15V14EC015	LAHARI N RAJ	8	10	18	11	7	18	15	13	28	2	2	2	2	2	6.6	6.6	6.6	6.6	6.6	14.6	16	15.6	16.6	20.54	30.36	51.79	91.72	81.38			
15V15EC001	ADHISHHEK G SHEELVAN	8	7	15	6	13	19	10	13	23	2	2	2	2	2	8	8	8	8	8	8	18	23	23	29	20	62.07	52.27	79.51	97.88	88.97	
15V15EC002	ASHWARYA S M	13	14	27	13	15	30	10	13	23	2	2	2	2	2	10.4	10.4	10.4	10.4	10.4	29.4	41.4	27.4	42.4	22.4	87.99	94.09	94.48	67.98	77.24		
15V15EC003	AKSHATA BILADAR	6	9	15	5	15	20	10	13	23	2	2	2	2	2	10.2	10.2	10.2	10.2	10.2	18.2	26.2	17.2	32.2	22.2	62.76	59.55	83.79	56.98	76.55		
15V15EC004	AMEENA BOUSHNIE	15	15	30	11	6	17	15	15	30	2	2	2	2	2	8.4	6.4	6.4	6.4	6.4	23.4	34.4	14.4	25.4	29.4	80.89	78.18	49.66	87.59	80.69		
15V15EC009	CL BALAJI	15	12	27	9	7	16	15	15	30	2	2	2	2	2	9.6	9.6	9.6	9.6	9.6	26.6	32.6	18.6	27.6	26.6	91.72	74.09	84.14	95.17	91.72		
15V15EC010	CHAITHRA M	14	13	27	10	10	20	15	14	29	2	2	2	2	2	8.8	8.8	8.8	8.8	8.8	24.8	33.8	20.8	30.8	25.8	85.52	76.82	71.72	56.89	88.97		
15V15EC011	D CHANDANA	14	3	17	9	13	24	15	14	29	2	2	2	2	2	7.2	7.2	7.2	7.2	7.2	23.2	21.2	14.2	33.2	24.2	80	48.18	83.45	98.54	83.45		
15V15EC012	DEEPIKA H P	13	5	18	14	*7	21	15	15	30	2	2	2	2	2	9.8	9.8	9.8	9.8	9.8	24.8	30.8	18.8	32.8	26.8	85.52	70	84.83	95.4	92.41		
15V15EC014	GEETA RAMESHAPPA I	15	7	22	6	7	13	15	14	29	2	2	2	2	2	6.2	6.2	6.2	6.2	6.2	39.2	21.2	15.2	21.2	23.2	80	48.18	52.41	73.1	80		
15V15EC016	HARINI D C	15	12	27	4	6	10	15	14	29	2	2	2	2	2	8.2	8.2	8.2	8.2	8.2	25.2	26.2	14.2	10.2	25.2	88.9	59.55	48.97	35.17	86.9		
15V15EC017	S KAVITHA	12	3	15	0	7	7	15	15	30	2	2	2	2	2	5.6	5.6	5.6	5.6	5.6	19.6	10.6	14.6	14.6	27.6	67.99	34.09	50.34	50.34	77.93		
15V15EC020	MAMATHA M S	15	15	30	15	15	30	10	13	23	2	2	2	2	2	6.2	6.2	6.2	6.2	6.2	23.2	36.2	23.2	38.2	18.2	80	86.82	80	67.95	62.76		
15V15EC026	NITHYA SHREE B T	12	7	19	11	14	25	15	15	30	2	2	2	2	2	11.8	11.8	11.8	11.8	11.8	19.8	31.6	27.8	38.8	28.8	88.28	71.82	95.17	89.34	98.62		
15V15EC028	PADMA M A	5	3	10	11	14	25	15	14	29	2	2	2	2	2	12.6	12.6	12.6	12.6	12.6	19.6	30.6	28.2	39.6	29.6	67.99	69.55	98.62	87.95	102.1		
15V15EC030	POOJA K S	11	8	19	13	15	38	15	14	29	2	2	2	2	2	9.6	9.6	9.6	9.6	9.6	22.6	32.6	29.6	39.6	26.6	77.99	74.09	91.72	67.99	91.72		
15V15EC031	PRABIN KARKI	15	12	27	13	6	18	15	14	29	2	2	2	2	2	7.2	7.2	7.2	7.2	7.2	34.2	33.2	15.2	27.2	34.2	75.45	52.41	93.79	83.45			
15V15EC032	PRASHANT CHOUDRI	7	8	15	14	7	21	10	15	25	2	2	2	2	2	6.8	6.8	6.8	6.8	6.8	15.8	30.6	15.8	29.6	18.6	55.79	69.55	53.79	88.67	64.14		
15V15EC033	PREETHI BAI B L	15	6	21	11	14	25	15	14	29	2	2	2	2	2	10.8	10.8	10.8	10.8	10.8	27.8	29.8	26.8	37.8	27.8	95.88	67.73	92.41	98.67	95.88		
15V15EC034	PRIYANKA K	15	12	27	6	13	19	15	14	29	2	2	2	2	2	9.2	9.2	9.2	9.2	9.2	26.2	23.2	38.2	30.2	17.2	90.34	80	56.88	87.9	59.31		
15V15EC036	RAKSHA M V	15	14	29	3	13	16	15	14	29	2	2	2	2	2	7.4	7.4	7.4	7.4	7.4	24.4	23.4	38.4	25.4	12.4	84.14	80.69	88.98	87.59	42.76		
15V15EC038	RAMYA M G	8	7	15	4	14	18	15	15	30	2	2	2	2	2	5.6	5.6	5.6	5.6	5.6	15.6	14.6	22.6	25.6	11.6	33.79	50.34	77.93	88.28	40		
15V15EC039	RANITHA B M	11	2	13	10	8	16	15	15	30	2	2	2	2	2	8.2	8.2	8.2	8.2	8.2	21.2	12.2	23.2	26.2	20.2	79.1	42.07	80	90.34	69.66		
15V15EC040	ROHITH P	4	6	10	0	13	13	8	14	22	2	2	2	2	2	6.4	6.4	6.4	6.4	6.4	12.4	14.4	18.4	21.4	8.4	42.76	49.66	83.45	73.79	28.97		
15V15EC041	SAVITA HOSALLI	15	11	26	6	15	21	15	14	29	2	2	2	2	2	8.8	8.8	8.8	8.8	8.8	25.8	21.8	36.8	31.8	16.8	88.97	75.17	65.89	43.89	57.93		
15V15EC042	SHALINI N	7	10	17	8	15	23	15	15	30	2	2	2	2	2	8.4	8.4	8.4	8.4	8.4	17.4	20.4	27.4	33.4	18.4	60	70.34	94.48	56.78	63.45		
15V15EC043	SONA K R	7	4	11	14	13	27	15	15	30	2	2	2	2	2	6.8	6.8	6.8	6.8	6.8	15.8	12.8	29.8	35.8	22.8	54.48	44.14	68.28	78.88	78.62		
15V15EC044	SOUMYA D H	12	12	24	15	6	21	15	14	29	2	2	2	2	2	6.6	6.6	6.6	6.6	6.6	20.6	20.6	32.6	29.6	23.6	71.03	71.03	89.56	79.99	81.98		
15V15EC046	SUSHMA T N	13	6	19	5	10	15	10	14	24	2	2	2	2	2	5.6	5.6	5.6	5.6	5.6	20.6	13.6	26.6	22.6	12.6	71.03	46.9	91.72	77.93	43.45		
15V15EC047	THOSHITHA	14	15	29	9	15	24	15	15	30	2	2	2	2	2	10.2	10.2	10.2	10.2	10.2	20.2	10.2	26.2	27.2	41.2	36.2	21.2	90.34	93.79	98.76	89.56	73.1
15V15EC051	VINAY S P	15	14	29	14	15	29	13	15	27	2	2	2	2	2	9	9	9	9	9	26	25	40	40	25	89.66	86.21	87.66	76.99	86.21		
15V16EC400	ABDUL NAZEER S A B	14	2	16	9	13	22	15	13	28	2	2	2	2	2	5.6	5.6	5.6	5.6	5.6	23.6	9.6	23.6	29.6	16.6	74.48	33.1	81.38	98.76	57.24		
15V16EC401	ASHWARYA K S	15	7	22	7	8	15	15	14	29	2	2	2	2	2	7	7	7	7	7	24	16	14	16	16	82.76	55.17	76	82.76	55.17		
15V16EC403	BINDUSHEEJI G S	6	6	12	7	7	14	15	15	30	2	2	2	2	2	8.6	8.6	8.6	8.6	8.6	16.6	16.6	22.6	24.6	17.6	57.24	57.24	77.93	84.83	60.69		
15V16EC404	CHIRANJEVI K M	9	0	9	5	10	15	10	15	25	2	2	2	2	2	6.4	6.4	6.4	6.4	6.4	17.4	8.4	17.4	23.4	13.4	60	28.97	40	80.89	46.21		
15V16EC407	MANJUNATH B YANNI	4	3	7	6	12	18	10	14	24	2	2	2	2	2	6.6	6.6	6.6	6.6	6.6	13.6	11.6	15.6	26.6	14.6	43.45	40	53.79	91.72	50.34		
15V16EC408	MOHANKUMAR D	8	6	14	4	3	7	10	10	20	2	2	2	2	2	6.8	6.8	6.8	6.8	6.8	16.8	14.8	22.8	15.8	12.8	57.93	51.03	78.62	54.48	44.14		
15V16EC410	NANDINI L	15	13	28	15	14	29	10	12	22	2	2	2	2	2	10.6	10.6	10.6	10.6	10.6	27.6	25.6	40.6	41.6	32.6	95.17	88.28	77.89	97.66	95.17		
15V16EC411	POOJA A	13	11	24	14	14	28	13	20	33	2	2	2	2	2	8.6	8.6	8.6	8.6	8.6	23.6	21.6	34.6	38.6	34.6	81.38	74.48	98.67	87.89	84.83		
15V16EC412	RAMYA N K	15	13	28	10	13	23	15	14	29	2	2	2	2	2	9.6	9.6	9.6	9.6	9.6	26.6	24.6	39.6	34.6	21.6	91.72	84.83	87.89	95.45	74.48		
15V16EC413	RAMYASHREE M	14	7	21	13	13	26	15	14	29	2	2	2	2	2	10.4	10.4	10.4	10.4	10.4	28.4	19.4	33.4	38.4	25.4	91.03	66.9	89	87.89	87.59		
15V16EC414	SOWNDARYA A	7	4	11	11	14	25	15	15	30	2	2	2	2	2	7.6	7.6	7.6	7.6	7.6	16.6	13.6	20.6	34.6	20.6	57.24	46.9	71.03	76.98	71.03		

74.59 64.09 75.52 85.67 73.4

  
Faculty

  
HOD  
Dept of E&C  
SIET, Tumkur-6

Principal  
  
PRINCIPAL  
SIET, TUMAKURU.



SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY

SIRA ROAD, TUMKUR- 572 106.

**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**

SUBJECT	REAL TIME SYSTEMS	SUBJECT CODE	15EC743
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**COURSE OUTCOME**

After studying this course, students will be able to:

CO1: Understand the basics and importance of RTS Using a generalized Computer Control System

CO2: Describe the process control applications and types of control strategies.

CO3: Summarize the major features of the microprocessors using Schematic diagram.

CO4: Describe the standard interfacing techniques and communication methodology

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME	MRS. SANDYA R											
BRANCH	ECE			ACADEMIC YEAR				2018-19				
COURSE	B.E	SEMESTER		7 <sup>TH</sup>	SECTION			ECE				
SUBJECT	REAL TIME SYSTEMS				SUBJECT CODE			15EC743				
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	1	1	2	1	2							
CO2	1	1	1	1	1							
CO3	1	1	1	1	1							
CO4	2	2	2	1	1							
AVERAGE	1.25	1.25	1.5	1	1.25							
OVERALL MAPPING OF SUBJECT												1.25

*S. Uppa*

*Nandini Sanyal*  
PRINCIPAL  
SIET, TUMAKURU.

**CO AND PO ATTAINMENT**

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	87.67	0.87	0.87	1.74	0.87	1.74							
CO2	99.70	0.99	0.99	0.99	0.99	0.99							
CO3	86.55	0.86	0.86	0.86	0.86	0.86							
CO4	85.32	1.7	1.7	1.7	0.85	0.85							
AVERAGE		1.10	1.10	1.32	0.89	1.11							
<b>FINAL ATTAINMENT LEVEL</b>													<b>1.10</b>

*S. Rupa*

**COURSE INSTRUCTOR**

*[Signature]*  
HOD

**HOD**  
**Dept of E&C**  
**SIET, Tumkur-6**

**PRINCIPAL**

*[Signature]*  
**PRINCIPAL**  
**SIET, TUMAKURU.**

Academic year	SEM/VII	2018-19			SEM 7TH			Total strength			42				Subject				RTS				ISECT43				% of individual CO				SEE Tot
		IA TEST 1(30M)			IA TEST 2(30M)			IA TEST 3(30M)			ASSIGNMENT / QUIZ(10 X)				SEE MARKS(40)				Total Cos ATTAINMENT												
USN	NAME	CO1	CO2	TOTAL	CO1	CO2	TOTAL	CO3	CO4	TOTAL	CO1	CO2	CO3	CO4	Q1=1	CO2	CO3	CO4	CO1-2	CO3-4	CO3-2	CO4-2	CO1	CO2	CO3	CO4	60M				
1SV16EC015	LAHARI N RAJ	14	4	18	14	15	29	15	15	30	2	2	2	2	7.0	7.0	7.0	7.0	23.8	18	24.6	24.6	81.38	40.91	94.83	84.83	38	7.6			
1SV16EC001	ABHINAV G SHREELVANT	11	16	27	15	15	30	15	15	30	2	2	2	2	8.2	8.2	8.2	8.2	11.2	41.2	25.2	25.2	73.1	83.64	86.8	86.9	41	8.2			
1SV16EC002	ABHINAV S M	10	11	21	14	14	28	15	15	30	2	2	2	2	10.8	10.8	10.8	10.8	22.6	37.6	26.6	27.6	77.93	85.45	91.72	95.17	53	10.6			
1SV16EC003	AKSHATA BIDARAR	13	13	26	14	13	27	15	15	30	2	2	2	2	9.4	9.4	9.4	9.4	23.4	38.4	24.4	26.4	80.69	87.27	84.14	91.03	47	9.4			
1SV16EC004	AMEENA ROUSHINIE	13	13	26	13	13	26	15	15	30	2	2	2	2	7	7	7	7	24	35	22	24	82.76	79.53	75.88	82.76	35	7			
1SV16EC009	CL BALAJI	9	12	21	13	15	28	8	13	21	2	2	2	2	8.4	8.4	8.4	8.4	19.4	35.4	25.4	18.4	66.9	80.45	87.59	83.45	42	8.4			
1SV16EC010	CHAITRA M	12	13	25	14	12	26	14	12	26	2	2	2	2	8.4	8.4	8.4	8.4	22.4	37.4	22.4	24.4	77.24	85	77.24	86.14	42	8.4			
1SV16EC011	D CHANDANA	13	13	26	14	13	27	13	13	26	2	2	2	2	10.8	10.8	10.8	10.8	25.8	39.8	25.8	25.8	88.97	90.45	88.97	88.97	54	10.8			
1SV16EC012	DEEPIKA H P	13	6	19	13	15	28	15	15	30	2	2	2	2	9	9	9	9	23	28	26	20	79.31	63.64	89.66	89.66	45	9			
1SV16EC014	GEETA RAMESHAPPA HANCHI	13	12	25	13	13	26	14	12	26	2	2	2	2	12	12	12	12	12	12	12	12	89.66	84.09	93.1	96.55	60	12			
1SV16EC016	HARINI D C	13	9	22	11	8	19	15	15	30	2	2	2	2	9.2	9.2	9.2	9.2	23.2	31.2	19.2	25.2	80	70.51	86.31	86.9	46	9.2			
1SV16EC017	S KAVITHA	15	8	23	10	9	19	15	15	30	2	2	2	2	8.6	8.6	8.6	8.6	21.6	28.6	19.6	25.6	88.26	83	67.59	88.26	43	8.6			
1SV16EC020	MAMATHA M S	10	8	18	15	15	30	15	15	30	2	2	2	2	10.2	10.2	10.2	10.2	21.2	35.2	27.2	27.2	76.55	80	93.79	93.79	51	10.2			
1SV16EC026	NITHYA SHREE B T	12	13	25	13	15	28	15	15	30	2	2	2	2	8	8	8	8	22	36	25	25	75.86	81.82	86.21	86.21	40	8			
1SV16EC028	PADMA M A	13	14	27	14	15	29	12	14	26	2	2	2	2	11.2	11.2	11.2	11.2	26.2	41.2	28.2	25.2	90.34	93.64	87.24	86.9	56	11.2			
1SV16EC030	POOJA K S	12	13	25	13	15	28	15	15	30	2	2	2	2	9.8	9.8	9.8	9.8	23.8	36.8	26.8	26.8	82.07	83.64	92.41	92.41	49	9.8			
1SV16EC031	PRABIN KARKI	14	14	28	13	13	26	15	15	30	2	2	2	2	12.2	12.2	12.2	12.2	28.2	40.2	27.2	29.2	97.34	91.38	93.79	100.7	61	12.2			
1SV16EC032	PRASHANT CHOUDRI	9	2	11	9	13	22	15	15	30	2	2	2	2	11.6	11.6	11.6	11.6	22.6	34.6	26.6	28.6	77.93	55.91	91.72	88.62	58	11.6			
1SV16EC033	PREETHI BAI B L	13	0	13	11	12	23	15	15	30	2	2	2	2	11.4	11.4	11.4	11.4	26.4	34.4	25.4	28.4	91.03	55.45	87.59	87.59	57	11.4			
1SV16EC034	PRIYANKA K	13	15	28	14	15	29	15	15	30	2	2	2	2	10.2	10.2	10.2	10.2	27.2	37.2	27.2	26.2	93.79	93.79	97.93	90.34	51	10.2			
1SV16EC036	RAKSHA M V	13	14	27	15	13	28	14	13	27	2	2	2	2	10.6	10.6	10.6	10.6	25.6	36.6	30.6	27.6	88.28	91.72	90.34	95.17	53	10.6			
1SV16EC038	RAMYA M G	11	7	18	9	14	23	15	15	30	2	2	2	2	9.8	9.8	9.8	9.8	22.8	30.8	20.8	20.8	78.62	64.83	95.17	71.72	49	9.8			
1SV16EC039	RANITHA B M	14	11	25	8	14	22	15	15	30	2	2	2	2	11.6	11.6	11.6	11.6	27.6	34.6	24.6	26.6	95.17	84.83	71.72	74.48	58	11.6			
1SV16EC040	ROHITH P	12	12	24	14	14	28	15	15	30	2	2	2	2	10.8	10.8	10.8	10.8	24.8	34.8	26.8	26.8	85.52	85.52	74.48	92.41	54	10.8			
1SV16EC041	SAVITA HOSALLI	12	7	19	15	15	30	15	15	30	2	2	2	2	10	10	10	10	24	31	27	27	82.76	65.52	92.41	93.1	50	10			
1SV16EC042	SHALINI N	13	14	27	14	13	27	14	12	26	2	2	2	2	10.8	10.8	10.8	10.8	25.8	35.8	26.8	26.8	88.97	92.41	93.1	92.41	54	10.8			
1SV16EC043	SJONA K R	13	11	24	13	15	28	15	15	30	2	2	2	2	9.2	9.2	9.2	9.2	26.2	32.2	37.2	24.2	90.34	76.55	92.41	83.45	46	9.2			
1SV16EC044	SOUMYA D H	13	14	27	14	12	26	15	15	30	2	2	2	2	10.8	10.8	10.8	10.8	25.8	35.8	26.8	26.8	88.97	92.41	83.45	92.41	54	10.8			
1SV16EC046	SUSHMA T N	12	8	20	5	13	18	15	15	30	2	2	2	2	9.6	9.6	9.6	9.6	23.6	31.6	16.6	16.6	81.38	84.83	57.24	40	43	8.6			
1SV16EC047	THOSHITHA	13	14	27	1	14	15	15	15	30	2	2	2	2	10.4	10.4	10.4	10.4	27.4	34.4	27.4	27.4	94.48	56.55	67.59	94.48	52	10.4			
1SV16EC051	VINAY S P	15	4	19	13	15	28	15	15	30	2	2	2	2	10.4	10.4	10.4	10.4	27.4	34.4	27.4	27.4	94.48	56.55	67.59	94.48	52	10.4			
1SV16EC400	ABDUL NAZEERSAB A KANAVALL	12	13	25	14	13	27	15	14	29	2	2	2	2	9.4	9.4	9.4	9.4	23.4	34.4	24.4	24.4	80.69	84.14	87.59	87.59	47	9.4			
1SV16EC401	ABHINAV K S	13	14	27	15	12	27	13	14	27	2	2	2	2	9.4	9.4	9.4	9.4	24.4	34.4	25.4	26.4	84.14	87.59	87.59	91.03	47	9.4			
1SV16EC403	BINDUSHREE G S	15	12	27	14	11	25	15	15	30	2	2	2	2	10.8	10.8	10.8	10.8	27.8	34.8	26.8	26.8	95.86	85.52	91.03	92.41	54	10.8			
1SV16EC404	CHIRANJEEVI K M	15	13	28	14	12	26	14	13	27	2	2	2	2	8.6	8.6	8.6	8.6	25.6	33.6	24.6	24.6	88.28	81.38	92.41	84.83	43	8.6			
1SV16EC407	MANJUNATH B YANNI	14	10	24	12	12	24	13	13	26	2	2	2	2	9.8	9.8	9.8	9.8	25.8	31.8	23.8	23.8	88.97	75.17	84.83	82.07	49	9.8			
1SV16EC408	MCHANKUMAR D	14	15	29	12	13	25	13	14	27	2	2	2	2	9.6	9.6	9.6	9.6	25.6	36.6	40.6	23.6	88.28	91.72	88.28	81.38	48	9.6			
1SV16EC410	NANDINI L	14	15	29	15	13	28	14	13	27	2	2	2	2	10.4	10.4	10.4	10.4	26.4	37.4	41.4	27.4	91.03	94.48	88.97	94.48	52	10.4			
1SV16EC411	POOJA A	12	5	17	15	13	28	15	15	30	2	2	2	2	7.8	7.8	7.8	7.8	21.8	28.8	26.8	26.8	75.17	51.03	92.41	85.52	39	7.8			
1SV16EC412	RAMYA N K	10	1	11	15	15	30	15	15	30	2	2	2	2	9.8	9.8	9.8	9.8	21.8	28.8	22.8	26.8	75.17	44.14	78.62	92.41	49	9.8			
1SV16EC413	RAMYASHREE M	13	8	21	14	14	28	15	15	30	2	2	2	2	11	11	11	11	26	34	27	27	89.66	72.41	91.72	93.1	55	11			
1SV16EC414	SOWNDARYA A	13	14	27	7	14	21	15	15	30	2	2	2	2	12.4	12.4	12.4	12.4	27.4	38.4	41.4	21.4	94.48	97.93	94.48	73.79	62	12.4			

87.67 99.7 86.55 85.32

*S. Nagar*

Faculty

*[Signature]*  
HOD  
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SIET, Tumkur-6

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SIET., TUMAKURU.

**SHRIDEVI INSTITUTE OF ENGINEERING  
AND TECHNOLOGY, TUMKUR**

**DEPARTMENT OF ECE**

**CO-PO ATTAINMENT**

**ACADEMIC YEAR**

**2018-19**

**EVEN SEM**



SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY  
SIRA ROAD, TUMKUR- 572 106  
DEPARTMENT OF MATHEMATICS



(COMMON TO ALL BRANCHES)  
ACADEMIC YEAR: 2018-2019

SUBJECT: ENGINEERING MATHEMATICS -IV  
SUBJECT CODE: 17MAT41/15MAT41

**COURSE OUTCOMES:**

**CO1:** Solve first and second order ordinary differential equation arising in flow problems using single step and multistep numerical methods.

**CO2:** Illustrate problems of potential theory, quantum mechanics and heat conduction by employing notions and properties of Bessel's functions and Legendre's polynomials.

**CO3:** Explain the concepts of analytic functions, residues, poles of complex potentials and describe conformal and Bilinear transformation arising in field theory and signal processing.

**CO4:** Develop probability distribution of discrete, continuous random variables and joint probability distribution occurring in digital signal processing, information theory and design engineering

**CO5:** Demonstrate testing of hypothesis of sampling distributions and illustrate examples of Markov chains related to discrete parameter stochastic process

	APPLY KNOWLEDGE	ANALYSIS	DESIGN	INVESTIGATION	MODERN TOOLS	SOCIETY	ENVIRONMENT	ETHICS	TEAM WORK	COMMUNICATION	PROJ MGMT FINANCE	LIFE LONG LEARN
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO1	2	3	0	0	0	0	0	0	0	0	0	1
CO2	2	3	0	0	0	0	0	0	0	0	0	1
CO3	2	3	0	0	0	0	0	0	0	0	0	1
CO4	2	3	0	0	0	0	0	0	0	0	0	1
CO5	2	3	0	0	0	0	0	0	0	0	0	1
AVG	2	3	0	0	0	0	0	0	0	0	0	1

MAPPING CORRELATION	LOW	MODERATELY	HIGHLY	NO
	1	2	3	0

**SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY, TUMKUR-06**

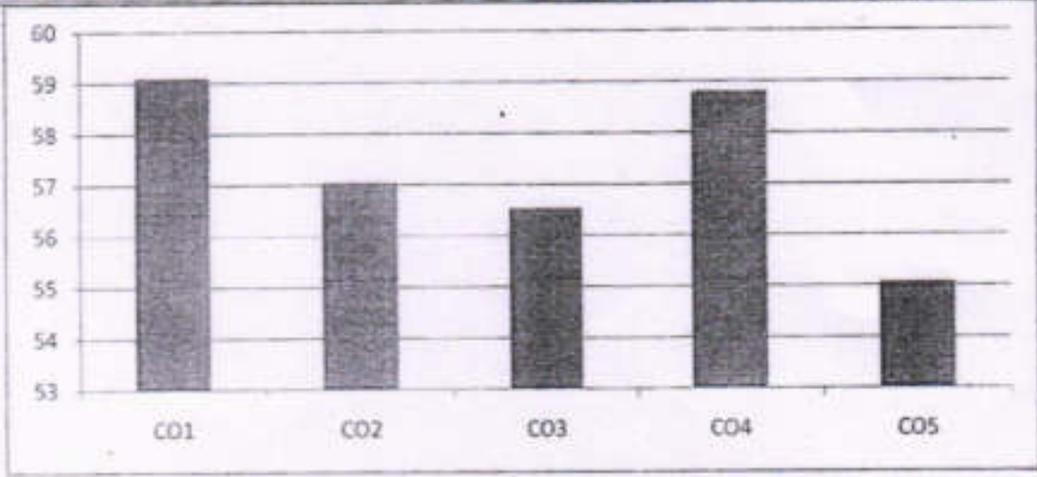
(An ISO 9001-2008 Certified Institution)

**DEPARTMENT OF MATHEMATICS**



COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	Dr. CHETANA C/Prof. RASHMI S B				
BRANCH	ECE/EEE/CSE/CVE/ISE/ME	ACADEMIC YEAR	2018-19		
COURSE	B.E	SEMESTER	IV	SECTION	-
SUBJECT	ENGINEERING MATHEMATICS-IV		SUBJECT CODE	17MAT41	

CO & PO MAPPING													
	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	59	1.18	1.77	0	0	0	0	0	0	0	0	0	0.59
CO2	57	1.14	1.71	0	0	0	0	0	0	0	0	0	0.57
CO3	57	1.13	1.70	0	0	0	0	0	0	0	0	0	0.57
CO4	59	1.18	1.76	0	0	0	0	0	0	0	0	0	0.59
CO5	55	1.10	1.65	0	0	0	0	0	0	0	0	0	0.55
AVG	57	1	2	0	0	0	0	0	0	0	0	0	1
Final attainment level													1.93



*[Signature]*  
Staff in-charge

*[Signature]*  
HOD

*[Signature]*  
Principal

*[Signature]*  
PRINCIPAL  
SIET, TUMAKURU.



*Nandha Kumaran*

PRINCIPAL  
SIET, TUMAKURU

	10	2	12	2	10	12	5	6	11	2	2	2	2	2	2.4	2.4	2.4	2.4	2.4	14.4	6.4	16.4	9.4	10.4	49.7	22.1	32.1	32.4	35.9
1SV17E009	7	10	17	9	7	16	15	2	17	2	2	2	2	2	6.4	6.4	6.4	6.4	6.4	19.4	17.4	25.4	23.4	10.4	53.1	60.0	57.7	60.7	35.5
1SV17E010	11	10	21	11	11	23	15	7	22	2	2	2	2	2	10.8	10.8	10.8	10.8	10.8	23.8	23.8	33.2	27.8	19.8	62.1	62.1	76.8	95.9	68.3
1SV17E011	10	7	12	3	10	13	10	1	11	2	2	2	2	2	6.2	6.2	6.2	6.2	6.2	18.2	18.2	20.9	18.2	9.8	64.8	37.2	47.2	64.8	33.8
1SV17E012	13	13	24	13	13	30	13	11	30	2	2	2	2	2	3.6	3.6	3.6	3.6	3.6	20.6	20.6	33.4	20.6	20.6	71.8	71.8	80.9	71.8	71.8
1SV18E001	6	6	12	2	6	13	6	7	13	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	12.2	11.2	18.2	12.2	11.2	42.1	45.5	43.4	42.1	45.5
1SV18E002	10	9	13	10	2	12	10	3	13	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	17.8	17.8	12.8	17.8	10.8	61.4	61.4	29.1	51.4	37.2
1SV18E003	10	9	19	9	10	19	8	10	18	2	2	2	2	2	3.4	3.4	3.4	3.4	3.4	15.4	14.4	24.4	13.4	15.4	53.1	49.7	55.5	49.7	53.1
1SV18E004	11	11	22	10	11	21	10	12	22	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	18.8	17.8	29.8	17.8	19.8	64.8	61.4	67.7	61.4	68.3
1SV17S001	15	15	30	15	15	30	15	15	30	2	2	2	2	2	9.8	9.8	9.8	9.8	9.8	26.8	26.8	42.8	26.8	26.8	92.4	92.4	95.0	92.4	92.4
1SV17S002	5	5	10	5	4	9	5	1	10	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	11.2	11.2	15.2	15.2	7.2	38.6	38.6	34.5	52.4	24.5
1SV17S003	6	4	10	5	6	11		10	1	2	2	2	2	2	1.6	1.6	1.6	1.6	1.6	9.6	8.6	13.6	3.6	13.6	33.1	29.7	30.9	12.4	46.9
1SV17S004	15	14	29	14	15	29	14	14	28	2	2	2	2	2	1.8	1.8	1.8	1.8	1.8	18.8	17.8	32.8	17.8	17.8	64.8	61.4	74.5	51.4	61.4
1SV17CS001	10	8	18	7	10	17	8	10	18	2	2	2	2	2	7	7	7	7	7	19	16	27	17	19	63.5	55.2	63.4	60.0	47.8
1SV17CS002	8	8	16	10	5	16	10	5	15	2	2	2	2	2	5.4	5.4	5.4	5.4	5.4	15.4	17.4	20.4	17.4	12.4	53.2	60.0	46.4	60.0	47.8
1SV17CS003	13	15	10	15	15	30	15	15	30	2	2	2	2	2	7.8	7.8	7.8	7.8	7.8	24.8	24.8	39.8	24.8	24.8	85.5	95.5	90.5	85.5	85.5
1SV17CS004	14	14	28	14	13	27	11	13	28	2	2	2	2	2	8.2	8.2	8.2	8.2	8.2	24.2	24.2	37.2	25.2	23.2	83.4	81.4	88.5	88.5	80.0
1SV17CS005	10	3	13	4	10	14	11	3	14	2	2	2	2	2	3	3	3	3	3	15	9	16	16	8	51.7	31.0	40.9	55.2	27.6
1SV17CS006	15	15	30	15	15	30	15	15	30	2	2	2	2	2	8.8	8.8	8.8	8.8	8.8	25.8	25.8	40.8	25.8	25.8	89.0	89.0	92.7	89.0	89.0
1SV17CS008	10	2	12	5	6	11	8	4	12	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	16.2	11.2	14.2	14.2	10.2	55.9	38.6	32.3	49.0	35.2
1SV17CS009	3	12	25	12	13	25	12	12	24	2	2	2	2	2	5.4	5.4	5.4	5.4	5.4	20.4	19.4	32.4	19.4	19.4	70.1	66.9	73.6	66.9	66.9
1SV17CS011	10	2	12	10	1	11	10	2	12	2	2	2	2	2	1	1	1	1	1	13	13	6	13	5	44.8	44.8	13.4	44.8	17.2
1SV17CS012	14	13	27	14	14	28	15	13	28	2	2	2	2	2	8.4	8.4	8.4	8.4	8.4	24.4	24.4	37.4	23.4	23.4	84.1	84.1	85.0	87.6	80.7
1SV17CS013	15	3	28	15	12	27	14	14	28	2	2	2	2	2	9.2	9.2	9.2	9.2	9.2	26.2	26.2	36.2	25.2	25.2	90.3	90.3	59.5	96.9	86.9
1SV17CS014	15	2	17	2	15	17	15	1	16	2	2	2	2	2	7.2	7.2	7.2	7.2	7.2	24.2	11.2	26.2	24.2	10.2	83.4	38.6	59.5	83.4	35.2
1SV17CS015	5	4	9	4	4	8	3	4	9	2	2	2	2	2	0.4	0.4	0.4	0.4	0.4	7.4	6.4	10.4	7.4	6.4	25.5	22.1	23.0	25.5	27.1
1SV17CS016	13	12	25	13	13	26	13	13	26	2	2	2	2	2	8.2	8.2	8.2	8.2	8.2	23.2	23.2	35.2	23.2	23.2	80.0	80.0	80.0	80.0	80.0
1SV17CS017	14	14	28	13	14	27	14	14	28	2	2	2	2	2	6.4	6.4	6.4	6.4	6.4	22.4	21.4	36.4	22.4	22.4	77.2	73.8	82.7	77.2	77.2
1SV17CS019	13	13	26	13	13	26	13	12	25	2	2	2	2	2	4.8	4.8	4.8	4.8	4.8	19.8	19.8	12.8	19.8	19.8	68.3	68.3	74.5	68.3	64.8
1SV17CS020	10	10	20	15	4	19	10	10	20	2	2	2	2	2	8.2	8.2	8.2	8.2	8.2	20.2	25.2	24.2	20.2	20.2	69.7	86.9	55.0	69.7	69.7
1SV17CS021	25	13	28	15	12	27	14	14	28	2	2	2	2	2	10.2	10.2	10.2	10.2	10.2	27.2	27.2	37.2	26.2	26.2	93.8	93.8	84.5	90.3	90.3
1SV17CS023	13	14	27	13	15	28	15	13	28	2	2	2	2	2	5	5	5	5	5	20	20	36	22	20	69.0	69.0	81.8	75.9	69.0
1SV17CS024	8	5	11	6	6	12	10	7	12	2	2	2	2	2	0	0	0	0	0	8	8	13	12	4	27.6	27.6	29.5	41.4	13.8
1SV17CS025	15	15	30	15	15	30	15	15	30	2	2	2	2	2	8.6	8.6	8.6	8.6	8.6	25.6	25.6	40.6	25.6	25.6	88.3	88.3	92.1	88.3	88.3
1SV17CS026	4	10	14	3	10	13	11	3	14	2	2	2	2	2	6	6	6	6	6	22	11	28	19	11	41.4	37.9	63.6	65.5	37.9
1SV17CS028	15	7	22	11	11	22	15	6	21	2	2	2	2	2	8	8	8	8	8	25	21	28	25	16	86.2	72.4	83.6	86.2	55.2
1SV17CS030	10	10	20	9	10	19	15	5	20	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	17.8	16.8	27.8	22.8	12.8	60.7	57.2	62.7	77.9	43.4
1SV17CS031	15	1	16	15	2	17	15	2	17	2	2	2	2	2	4.6	4.6	4.6	4.6	4.6	21.6	21.6	9.6	21.6	8.6	74.5	74.5	21.8	74.5	29.7
1SV17CS032	5	3	8	4	5	9	5	4	9	2	2	2	2	2	2.8	2.8	2.8	2.8	2.8	9.8	8.8	12.8	9.8	8.8	33.8	30.3	29.1	33.8	30.3
1SV17CS033	7	8	15	8	8	16	8	8	16	2	2	2	2	2	0	0	0	0	0	9	10	18	10	10	31.0	34.5	40.9	34.5	34.5
1SV17CS035	10	8	18	9	10	19	9	10	19	2	2	2	2	2	6.4	6.4	6.4	6.4	6.4	18.4	17.4	28.4	17.4	18.4	63.4	60.0	60.0	60.0	63.4
1SV17CS036	5	4	9	5	5	10	8	2	10	2	2	2	2	2	3.6	3.6	3.6	3.6	3.6	10.6	10.6	14.6	13.6	7.6	36.6	36.6	33.3	45.9	26.2
1SV17CS037	7	8	15	8	8	16	10	6	16	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	14.2	15.2	23.2	17.2	13.2	49.0	52.4	52.7	59.3	45.5
1SV17CS038	13	0	15	1	13	16	15	1	16	2	2	2	2	2	8.4	8.4	8.4	8.4	8.4	23.4	9.4	23.4	23.4	9.4	60.7	32.4	53.2	80.7	32.4
1SV17CS039	5	4	9	5	5	10	5	5	10	2	2	2	2	2	6.2	6.2	6.2	6.2	6.2	13.2	13.2	17.2	13.2	13.2	45.5	45.5	39.1	45.5	45.5
1SV17CS040	9	13	3	14	5	19	13	4	19	2	2	2	2	2	5	5	5	5	5	16	21	27	22	11	55.2	72.4	61.4	75.9	37.8
1SV17CS041	6	6	12	7	4	13	10	3	13	2	2	2	2	2	5.4	5.4	5.4	5.4	5.4	13.4	14.4	17.4	17.4	10.4	46.2	49.7	39.5	60.0	35.9
1SV17CS042	10	3	13	10	4	14	10	4	14	2	2	2	2	2	7	7	7	7	7	19	19	16	19	13	65.5	65.5	36.4	65.5	44.8
1SV15CS070	13	13	26	13	14	27	13	14	27	2	2	2	2	2	8.2	8.2	8.2	8.2	8.2	23.2	23.2	37.2	23.2	24.2	80.0	80.0	84.5	80.0	83.4
1SV17CV001	13	13	26	14	13	27	14	13	27	2	2	2	2	2	5	5	5	5	5	20	21	33	21	20	69.0	72.4	75.0	72.4	69.0
1SV17CV002	13	13	26	13	14	27	13	14	27	2	2	2	2	2	5	5	5	5	5	20	20	34	20	21	69.0	69.0	77.3	69.0	72.4
1SV17CV004	10	7	17	10	8	18	10	8	18	2	2	2	2	2	4.8	4.8	4.8	4.8	4.8	16.8	16.8	21.8	16.8	14.8	57.9	57.9	49.1	57.9	51.0
1SV17CV005	13	10	23	12	12	24	12	12	24	2	2	2	2	2	9	9	9	9	9	24	23	33	23	23	82.8	79.3			

15V17CV006	10	11	23	12	12	24	12	12	24	2	2	2	2	2	9	9	9	9	9	21	23	34	23	23	72.4	79.3	81.8	79.3	79.3
15V17CV007	12	10	22	11	10	21	11	11	22	2	2	2	2	2	7.2	7.2	7.2	7.2	7.2	21.2	20.2	29.2	20.2	20.2	73.1	69.7	68.4	69.7	69.7
15V17CV008	5	5	10	6	3	9	5	5	10	2	2	2	2	2	3.4	3.4	3.4	3.4	3.4	10.4	11.4	13.4	10.4	10.4	35.0	39.3	30.5	35.9	35.9
15V17CV010	3	6	9	4	4	8	3	6	9	2	2	2	2	2	1.5	1.5	1.5	1.5	1.5	4.5	7.8	13.6	6.5	9.8	22.8	26.2	30.9	27.8	33.1
15V17CV011	6	3	9	4	4	8	6	3	9	2	2	2	2	2	1.8	1.6	1.6	1.6	1.6	9.6	7.6	10.6	9.6	6.4	11.1	26.2	24.1	33.1	32.8
15V17CV012	9	10	19	8	10	18	9	10	19	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	13.2	14.2	16.2	16.2	16.2	57.4	49.0	59.5	52.4	55.9
15V17CV013	8	3	9	4	4	8	6	3	9	2	2	2	2	2	1	1	1	1	1	9	7	10	9	8	11.0	24.1	22.2	31.0	20.7
15V17CV014	1	6	9	4	4	8	3	6	9	2	2	2	2	2	1	1	1	1	1	6	7	13	8	9	20.7	24.1	29.5	20.7	31.0
15V17CV015	10	11	21	10	10	20	10	11	21	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	17.8	17.8	19.8	17.8	18.8	61.4	61.4	65.5	61.4	64.8
15V17CV016	10	10	20	9	10	19	10	10	20	2	2	2	2	2	8	8	8	8	8	20	13	30	20	20	69.0	65.5	68.2	69.0	69.0
15V17CV017	15	10	29	14	14	28	14	15	29	2	2	2	2	2	8	8	8	8	8	25	24	38	24	25	86.2	82.8	86.4	82.8	86.2
15V17CV018	15	10	25	14	14	24	15	15	25	2	2	2	2	2	6.8	6.8	6.8	6.8	6.8	23.8	22.8	32.8	23.8	23.8	81.4	77.9	74.1	64.1	83.4
15V17CV019	14	14	28	14	14	27	14	14	28	2	2	2	2	2	6.6	6.6	6.6	6.6	6.6	24.6	24.6	17.6	24.6	24.6	84.8	84.8	85.5	84.8	84.8
15V17CV021	15	15	30	15	15	30	15	15	30	2	2	2	2	2	10.2	10.2	10.2	10.2	10.2	27.2	27.2	27.2	27.2	27.2	93.8	93.8	95.9	93.8	93.8
15V17CV022	11	11	22	10	11	21	10	12	22	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	18.8	17.8	21.8	17.8	19.8	64.0	61.4	67.7	61.4	68.2
15V17CV023	12	11	22	11	10	21	12	10	22	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	18.8	18.8	28.8	19.8	17.8	64.0	64.8	65.5	68.1	61.4
15V17CV024	12	12	24	12	12	24	10	13	24	2	2	2	2	2	10	10	10	10	10	24	24	36	27	25	82.8	82.8	81.8	75.0	86.2
15V17CV025	14	14	24	14	14	24	13	10	24	2	2	2	2	2	10	10	10	10	10	26	26	40	25	22	89.7	89.7	90.5	86.2	75.9
15V17CV026	15	15	30	15	15	30	15	15	30	2	2	2	2	2	10	10	10	10	10	27	27	42	27	27	93.1	93.1	95.5	93.1	93.1
15V17CV027	10	9	19	9	10	19	8	10	18	2	2	2	2	2	6.8	6.8	6.8	6.8	6.8	18.8	17.8	27.8	18.8	18.8	64.8	61.4	63.2	57.9	64.8
15V18CV000	10	11	21	10	11	21	10	10	20	2	2	2	2	2	4.6	4.6	4.6	4.6	4.6	16.6	16.6	26.6	16.6	16.6	57.2	57.2	65.0	57.2	57.2
15V18CV001	6	6	12	6	6	12	6	5	11	2	2	2	2	2	4.6	4.6	4.6	4.6	4.6	12.6	12.6	18.6	12.6	11.6	43.4	43.4	42.3	43.4	40.0
15V18CV002	10	15	25	10	11	25	14	10	24	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	17.2	17.2	17.2	21.2	17.2	55.3	55.3	64.5	73.1	59.3
15V18CV003	15	10	25	15	10	25	10	14	24	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	22.2	22.2	27.2	17.2	21.2	76.6	76.6	61.8	59.3	73.1
15V18CV004	6	6	12	6	6	12	5	5	11	2	2	2	2	2	4.6	4.6	4.6	4.6	4.6	12.6	12.6	18.6	11.6	12.6	43.4	43.4	42.3	40.0	43.4
15V18CV005	4	10	14	4	10	14	3	13	13	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	11.2	11.2	17.2	10.2	17.2	35.6	38.0	61.8	35.2	59.3
15V18CV006	10	13	23	10	13	23	10	12	22	2	2	2	2	2	4.4	4.4	4.4	4.4	4.4	16.4	16.4	22.4	16.4	18.4	56.6	56.6	73.6	56.6	63.4
15V18CV007	17	10	22	12	10	22	11	10	21	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	18.2	18.2	26.2	17.2	16.2	62.8	62.8	59.5	59.3	35.9
15V18CV008	13	4	14	10	4	14	10	3	13	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	17.2	17.2	15.2	17.2	10.2	59.3	59.3	34.5	59.3	35.2
15V18CV009	3	10	14	4	10	14	3	10	13	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	11.2	11.2	27.2	10.2	17.2	38.6	38.6	61.8	38.2	59.3
15V18CV010	3	2	5	2	3	5	0	4	4	2	2	2	2	2	1.8	1.8	1.8	1.8	1.8	6.8	5.8	8.8	3.8	7.8	23.4	20.0	20.0	13.1	26.9
15V18CV011	8	10	18	8	10	18	7	10	17	2	2	2	2	2	5.6	5.6	5.6	5.6	5.6	15.6	15.6	27.6	14.6	17.6	53.8	53.8	62.7	50.3	60.7
15V18CV012	10	8	18	10	8	18	10	7	17	2	2	2	2	2	5.6	5.6	5.6	5.6	5.6	17.6	17.6	23.6	17.6	14.6	60.7	60.7	53.6	60.7	50.3
15V18CV013	11	11	22	11	11	22	11	10	21	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	18.2	18.2	29.2	18.2	17.2	62.8	62.8	66.4	62.8	59.3
15V18CV014	6	3	9	6	3	9	4	4	8	2	2	2	2	2	3.4	3.4	3.4	3.4	3.4	11.4	11.4	11.4	9.4	9.4	39.3	39.3	25.9	32.4	32.4
15V18CV015	6	5	11	5	6	11	5	5	10	2	2	2	2	2	2.2	2.2	2.2	2.2	2.2	10.2	9.2	15.2	9.2	9.2	35.2	31.7	34.5	31.7	31.7
15V18CV016	10	12	22	10	12	22	10	11	21	2	2	2	2	2	6.2	6.2	6.2	6.2	6.2	18.2	18.2	32.2	18.2	19.2	62.8	62.8	73.2	62.8	66.2
15V18CV017	11	11	22	11	11	22	11	10	21	2	2	2	2	2	6.2	6.2	6.2	6.2	6.2	19.2	19.2	30.2	19.2	18.2	66.2	66.2	68.6	66.2	62.8
15V18CV018	14	13	27	13	14	27	13	13	26	2	2	2	2	2	7.8	7.8	7.8	7.8	7.8	23.8	22.8	36.8	22.8	22.8	82.1	79.6	81.6	78.6	78.6
15V18CV019	14	13	27	13	14	27	13	13	26	2	2	2	2	2	7.8	7.8	7.8	7.8	7.8	23.8	22.8	36.8	22.8	22.8	82.1	79.6	83.6	78.6	78.6

Staff

HOD

PRINCIPAL  
SIET, TUMAKURU  
PRINCIPAL

Principal  
PRINCIPAL  
SIET, TUMAKURU.



**Department of Electronics & Communication Engg**  
**Course Outcomes and CO-PO-PSO Articulation Matrix**

**2017 Scheme**  
**Semester-IV**

<b>Subject:</b> SIGNALS AND SYSTEMS <i>Academic year: 2018-19</i>	<b>Subject Code:</b> 17EC42
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Course Outcomes	
CO1	Classify the signals as continuous/discrete, periodic/apperiodic, even/odd, energy/power and deterministic/random signals.
CO2	Determine the linearity, causality, time-invariance and stability properties of continuous and discrete time systems
CO3	Compute the response of a Continuous and Discrete LTI system using convolution integral and convolution sum.
CO4	Determine the spectral characteristics of continuous and discrete time signal using Fourier analysis
CO5	Compute Z-transforms, inverse Z-transforms and transfer functions of complex LTI systems

CO-PO Mapping												
COs	Pos											
	1	2	3	4	5	6	7	8	9	10	11	12
CO1	2	2	1	1	2					1		1
CO2	2	2	2	2	1					1		1
CO3	2	2	2	2	2					2		1
CO4	2	2	2	2	1					1		2
CO5	2	2	2	2	2					1		1
<b>Average</b>	2	2	1.8	1.8	1.6					1		1.2

**ATTAINMENT TABLE**

COs	AVG	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	63.34%	1.26	1.26	0.63	0.63	0.63					0.63		0.63
CO2	71.53%	1.43	1.43	1.43	1.43	0.71					0.71		0.71
CO3	62.79%	1.25	1.25	1.25	1.25	1.25					1.25		0.62
CO4	61.52%	1.23	1.23	1.23	1.23	0.61					0.61		1.23
CO5	59.89%	1.19	1.19	1.19	1.19	1.19					0.59		0.59
<b>AVERAGE</b>		<b>1.3</b>	<b>1.3</b>	<b>1.15</b>	<b>1.15</b>	<b>0.88</b>					<b>0.76</b>		<b>0.75</b>
<b>TOTAL ATTAINMENT</b>													<b>1.04</b>

*Adarsh*  
COURSE INSTRUCTOR

*AS*  
HOD  
Dep. HOD, E&C  
SIFT Tumkur-6

*Principals*  
PRINCIPAL  
SIFT, TUMKURU





**SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY**

**SIRA ROAD, TUMKUR- 572 106.**

**ACADEMIC YEAR 2018-19**

**Department of Electronics & Communication Engg**  
**Course Outcomes and CO-PO-PSO Articulation Matrix**

**2017 Scheme**

**Semester-IV**

<b>Subject:</b> LIC	<b>Subject Code:</b> 17EC45
<b>FACULTY NAME:</b> PROF: PRABITHA D K	

**Course Outcomes**

<b>CO1</b>	Explain Op-Amp circuit and parameters including CMRR, PSRR, Input & Output Impedances and Slew Rate.
<b>CO2</b>	Design Op-Amp based Inverting, Non-inverting, Summing & Difference Amplifier, and AC Amplifiers including Voltage Follower
<b>CO3</b>	Test circuits of Op-Amp based Voltage/ Current Sources & Sinks, Current, Instrumentation and Precision Amplifiers.
<b>CO4</b>	Test circuits of Op-Amp based linear and non-linear circuits comprising of limiting, clamping, Sample & Hold, Differentiator/ Integrator Circuits, Peak Detectors, Oscillators and Multiplier & Divider.
<b>CO5</b>	Design first & second order Low Pass, High Pass, Band Pass, Band Stop Filters and Voltage Regulators using Op-Amps.

**CO-PO Mapping**

COs	Pos											
	1	2	3	4	5	6	7	8	9	10	11	12
CO1	2	2	1	1	2					1		1
CO2	2	2	2	2	1					1		1
CO3	2	2	2	2	2					2		1
CO4	2	2	2	2	1					1		2
CO5	2	2	2	2	2					1		1
<b>Average</b>	2	2	1.8	1.8	1.6					1		1.2

**ATTAINMENT TABLE**

COs	AVG	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	63.34%	1.26	1.26	0.63	0.63	0.63					0.63		0.63
CO2	71.53%	1.43	1.43	1.43	1.43	0.71					0.71		0.71
CO3	62.79%	1.25	1.25	1.25	1.25	1.25					1.25		0.62
CO4	61.52%	1.23	1.23	1.23	1.23	0.61					0.61		1.23
CO5	59.89%	1.19	1.19	1.19	1.19	1.19					0.59		0.59
<b>AVERAGE</b>		<b>1.3</b>	<b>1.3</b>	<b>1.15</b>	<b>1.15</b>	<b>0.88</b>					<b>0.76</b>		<b>0.75</b>
<b>TOTAL ATTAINMENT</b>													<b>1.04</b>

*[Signature]*  
**COURSE INSTRUCTOR**

*[Signature]*  
**HOD**  
**Dept of E&C**  
**SIET, Tumkur-6**

*[Signature]*  
**PRINCIPAL**  
**SIET, TUMAKURU.**

Roll No.	USN	Name	CHECKS			2018-2019 EVEN						SEM-IV SEM					Sub	IC	SEE	SEE MARKS					Final			TOTAL AVERAGE								
			T1(30)	T2(30)	T3(30)	T1	T2	T3	CO1-18	CO2-18	CO3-18	CO4-18	CO5-18	CO1-2	CO2-2	CO3-2				CO4-2	CO5-2	60	CO1-12	CO2-12	CO3-12	CO4-12	CO5-12		CO1-29	CO2-29	CO3-29	CO4-29	CO5-29			
1	18V12C002	VIJESH K NAGARAJ	21	24	14	12	8	12	11	10	4	2	2	2	2	2	30	5	5	5	5	5	17	30	19	28	22	19.3								
2	18V12C004	SHRUTHI Y K	28	28	25	18	13	15	11	12	10	2	2	2	2	2	37	7.4	7.4	7.4	7.4	7.4	22.4	27.6	22.4	24.4	19.4	22								
3	18V12C006	ARFA KATIRAJ	17	30	13	11	8	15	15	7	8	2	2	2	2	2	30	5	5	5	5	5	14	29	25	23	14	21.9								
4	18V12C008	AMITHA V	11	23	4	8	3	15	9	2	4	2	2	2	2	2	22	4.4	4.4	4.4	4.4	4.4	9.4	24.4	14.4	6.4	10.4	16								
5	18V12C009	DANIEL S	26	30	27	18	15	15	15	15	10	2	2	2	2	2	38	7.6	7.6	7.6	7.6	7.6	24.8	29.8	24.8	24.8	21.8	20.1								
6	18V12C004	GEETHA M S	27	27	27	13	14	15	12	12	15	2	2	2	2	2	37	7.4	7.4	7.4	7.4	7.4	25.4	28.4	21.4	21.4	24.4	26.5								
7	18V12C004	DEEPIKA H	23	19	15	10	13	13	8	8	9	2	2	2	2	2	29	5.8	5.8	5.8	5.8	5.8	20.8	23.8	13.8	19.8	16.8	22.8								
8	18V12C006	ADYAI MURARI	20	24	22	10	10	13	11	13	9	2	2	2	2	2	32	6.4	6.4	6.4	6.4	6.4	18.4	21.4	18.4	21.4	17.4	20.7								
9	18V12C007	REKA NAWAZ	27	30	26	14	13	15	15	12	13	2	2	2	2	2	38	7.6	7.6	7.6	7.6	7.6	22.6	27.6	24.6	22.6	22.6	23.8								
10	18V12C008	ANHA H	21	18	11	11	10	10	8	2	8	2	2	2	2	2	27	5.4	5.4	5.4	5.4	5.4	17.4	22.4	13.4	9.4	16.4	21.4								
11	18V12C009	SHIBATHI NAWAZ	28	24	30	15	13	15	9	15	15	2	2	2	2	2	38	7.6	7.6	7.6	7.6	7.6	22.6	27.6	18.6	24.6	24.6	21.4								
12	18V12C005	SADESH K L	18	18	12	11	7	10	8	8	8	2	2	2	2	2	25	5	5	5	5	5	14	24	13	13	13	20.5								
13	18V12C004	BEENA K H	20	18	21	13	7	10	8	13	8	2	2	2	2	2	30	6	6	6	6	6	15	25	18	21	18	17								
14	18V12C004	SAHANA G R	20	18	11	11	8	9	10	5	5	2	2	2	2	2	27	5.4	5.4	5.4	5.4	5.4	16.4	25.4	17.4	13.4	12.4	17.8								
15	18V12C005	SAVEENKUMAR	13	21	18	5	8	14	7	9	8	2	2	2	2	2	28	5.6	5.6	5.6	5.6	5.6	18.6	23.6	14.6	16.6	16.6	17.8								
16	18V12C006	HEJAMINI D	14	16	13	8	6	15	3	5	8	2	2	2	2	2	25	5	5	5	5	5	13	26	10	12	13	16.9								
17	18V12C009	DEVASHREE H	21	22	18	12	9	13	6	8	10	2	2	2	2	2	31	6.2	6.2	6.2	6.2	6.2	17.2	20.2	17.2	16.2	18.2	17.5								
18	18V12C001	HIMA K P	25	14	24	11	14	14	10	12	12	2	2	2	2	2	35	7	7	7	7	7	23	27	19	21	21	22								
19	18V12C001	LAKSHMI C H	24	27	21	11	13	12	15	15	9	2	2	2	2	2	35	7	7	7	7	7	22	24	24	24	18	24.3								
																											18.30842	21.47268	18.21053	17.84211	17.36842					
																											63.34%	71.53%	62.70%	61.52%	59.80%					

*Dr. Vidya*  
COURSE INSTRUCTOR

*AS*  
HOD

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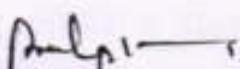
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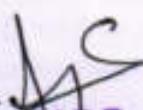
*Manjunath*  
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SIET, TUMAKURU.

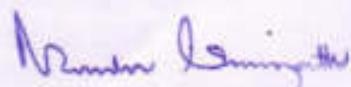
COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME	PROF. PRADEEPKUMAR S S											
BRANCH	ECE			ACADEMIC YEAR				2018-19				
COURSE	B.E	SEMESTER		IV	SECTION			ECE				
SUBJECT	MICRO PROCESSOR					SUBJECT CODE			17EC46			
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	1	1								2
CO2	2	3	1	1								2
CO3	1	2	1	1								1
CO4	3	3	1	1								2
CO5	2	3	1	1								3
AVERAGE	2	2.8	1	1								1.4
OVERALL MAPPING OF SUBJECT												1.72

#### CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	69.86	1.15	1.72	1.5848	0.4848								1.15
CO2	75.04	1.25	1.87	1.5848	0.4848								1.25
CO3	64.32	0.534	1.068	1.5848	0.4848								0.534
CO4	73.41	1.76	1.76	1.5848	0.4848								1.17
CO5	72.58	1.08	1.626	1.5848	0.4848								1.626
AVERAGE		1.154	1.608	1.5848	0.4848								1.146
FINAL ATTAINMENT LEVEL													1.195

  
SUBJECT CO-ORDINATOR

  
HOD  
HOD of E&C  
SIET, Tumkur-6

  
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PRINCIPAL

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

<b>SUBJECT</b>	<b>MICRO PROCESSOR</b>	<b>SUBJECT CODE</b>	<b>17EC46</b>
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**COURSE OUTCOME**

**CO1.** Analyze the different types of signals and systems.

**CO2.** •Determine the linearity, causality, time-invariance and stability properties of continuous and discrete time systems.

**CO3.** • Represent continuous and discrete systems in time and frequency domain using different transforms Test whether the system is stable.

**CO4**• Represent continuous and discrete systems in time and frequency domain using different transforms Test whether the system is stable

**CO5.** • Explain the signals and systems

**PROGRAM OUTCOMES**

**PO1** Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

**PO2** Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

**PO3** Design / development of solutions: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

**PO4** Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

**PO5** Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities.

**PO6** The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

**PO7** Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

**PO8** Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**PO9** Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO10** Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.

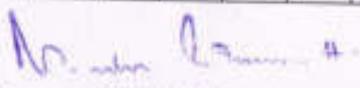
**PO11** Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

**PO12** Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

Roll No	UGP	SUB CODE	Name	2018-2019 EVEN															SEM IV MM					SUB	MICRO PROCESOR					TOTAL AVERAGE
				T1			T2			T3			ASSIGNMENT DUE					MR	SEE MARKS						Final					
				T1(S)	T2(S)	T3(S)	CO1-18	CO2-18	CO3-18	CO4-18	CO5-18	CO1-2	CO2-2	CO3-2	CO4-2	CO5-2	CO1-19		CO2-19	CO3-19	CO4-19	CO5-19								
1	INSTRUC	RITHVI KUMAR U M	23	25	26	10	12	10	18	12	18	2	3	2	2	2	28	3.0	3.0	3.0	3.0	3.0	20.8	30.0	22.8	20.8	22.8	23.8		
2	INSTRUC	RUSHIYA Y E	26	22	28	15	11	12	8	13	10	2	2	2	2	2	27	3.4	3.4	3.4	3.4	3.4	18.4	21.4	16.4	20.4	22.4	20.1		
3	INSTRUC	ARNA PATARNA	12	30	20	10	2	10	10	12	14	2	3	2	2	2	27	3.4	3.4	3.4	3.4	3.4	9.4	24.4	22.4	19.4	21.4	20.8		
4	INSTRUC	ANWILK	14	10	27	7	7	6	12	12	10	2	2	2	2	2	27	4.2	4.2	4.2	4.2	4.2	13.2	19.2	18.2	18.2	11.2	18.8		
5	INSTRUC	DARSH S	38	26	30	13	18	14	15	16	16	2	2	2	2	2	27	3.4	3.4	3.4	3.4	3.4	22.4	26.4	22.4	22.4	22.4	21.7		
6	INSTRUC	LEKSHA M E	16	27	30	12	7	12	16	16	16	2	2	2	2	2	32	3.4	3.4	3.4	3.4	3.4	15.4	22.4	20.4	22.4	20.4	21.0		
7	INSTRUC	ITHRESHIKA H	13	8	23	6	7	7	1	11	12	2	2	2	2	2	18	3.2	3.2	3.2	3.2	3.2	12.2	18.2	9.2	16.2	17.2	18.0		
8	INSTRUC	DEEPTA DEBMANI	19	27	27	10	8	10	12	14	13	2	2	2	2	2	11	3.2	2.2	2.2	2.2	2.2	13.2	18.2	16.2	18.2	17.2	18.0		
9	INSTRUC	RIYA NARAY	13	30	30	12	3	10	10	16	15	2	2	2	2	2	22	7.8	4.4	4.4	4.4	4.4	12.8	24.4	21.4	21.4	21.4	18.4		
10	INSTRUC	SRINIA H	6	17	30	6	3	7	10	10	10	2	2	2	2	2	32	3.4	3.4	3.4	3.4	3.4	11.4	18.4	18.4	21.4	18.4	19.42		
11	INSTRUC	SRINATH NARAY	24	30	25	13	11	10	10	10	10	2	2	2	2	2	22	4.4	4.4	4.4	4.4	4.4	17.4	22.4	21.4	21.4	21.4	19.62		
12	INSTRUC	SAKSHI S L	14	10	20	7	7	8	11	15	8	2	2	2	2	2	29	3.8	3.8	3.8	3.8	3.8	14.8	22.8	18.8	22.8	12.8	20.9		
13	INSTRUC	SIDDHA S N	17	20	26	10	7	7	10	11	10	2	2	2	2	2	28	3.2	3.2	3.2	3.2	3.2	14.2	21.2	22.2	18.2	22.2	20.8		
14	INSTRUC	SAHANA C P	7	21	30	7	0	10	0	10	10	2	2	2	2	2	28	3.0	3.0	3.0	3.0	3.0	7.0	22.0	13.0	22.0	22.0	19		
15	INSTRUC	SHAYESHKUNDA	14	24	28	7	7	7	10	10	14	2	2	2	2	2	27	3.4	3.4	3.4	3.4	3.4	14.4	21.4	21.4	22.4	22.4	18.8		
16	INSTRUC	TEJASWINI D	7	19	30	7	0	10	0	10	10	2	2	2	2	2	11	2.2	2.2	2.2	2.2	2.2	4.2	14.2	13.2	18.2	18.2	18.1		
17	INSTRUC	SHYAMBE S	18	30	30	9	0	10	10	10	10	2	2	2	2	2	10	3.2	3.2	3.2	3.2	3.2	14.2	19.2	20.2	20.2	20.2	17.1		
18	INSTRUC	SRINA K P	10	28	20	10	4	12	10	10	14	2	2	2	2	2	14	2.0	2.0	2.0	2.0	2.0	6.0	21.0	19.0	18.0	18.0	17.4		
19	INSTRUC	SANDHIA C H	28	28	30	18	13	14	14	15	10	2	2	2	2	2	20	3	3	3	3	3	20	34	21	22	22	19.1		
																							13.9804	25.04211	18.97995	20.60318	20.71578	20.8		
																							48.00%	57.37%	65.44%	71.20%	71.43%			

  
COURSE INSTRUCTOR

  
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**Department of Electronics & Communication Engg**  
**Course Outcomes and CO-PO-PSO Articulation Matrix**

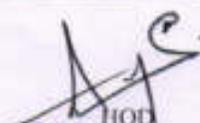
2015 Scheme ACADEMIC YEAR- 2018-19

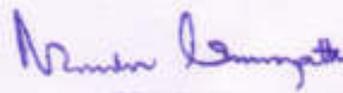
**Semester-VI**

<b>Subject: DIGITAL COMMUNICATION</b>		<b>Code: 15EC61</b>											
<b>Faculty Name : Prof.Haripriya</b>													
<b>CO1</b>	Associate and apply the concepts of Bandpass sampling to well specified signals and channels.												
<b>CO2</b>	Analyze and compute performance parameters and transfer rates for low pass and bandpass symbol under ideal and corrupted non band limited channels.												
<b>CO3</b>	Test and validate symbol processing and performance parameters at the receiver under ideal and corrupted bandlimited channels.												
<b>CO4</b>	Demonstrate that bandpass signals subjected to corruption and distortion in a bandlimited channel can be processed at the receiver to meet specified performance criteria.												
<b>CO5</b>	Understand the principles of spread spectrum communications.												
<b>COs</b>	<b>Pos</b>												
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	
<b>CO1</b>	3	2	1										
<b>CO2</b>	3	2	2										
<b>CO3</b>	3	2	2										
<b>CO4</b>	3	2	2										
<b>CO5</b>	3	2	2										
<b>Average</b>	<b>2</b>	<b>2</b>	<b>1.8</b>										

ATTAINMENT TABLE													
COs	AVG	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	75.06%	2.25	1.50	0.75									
CO2	77.35%	2.32	1.54	1.54									
CO3	28.58%	0.85	0.57	0.57									
CO4	38.37%	1.15	0.76	0.76									
CO5	34.80%	0.34	0.696	0.69									
<b>AVERAGE</b>		<b>1.38</b>	<b>1.01</b>	<b>0.86</b>									
<b>TOTAL ATTAINMENT</b>													<b>1.083</b>

  
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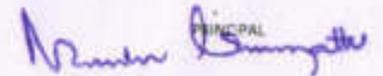
  
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Roll No.	SEM	Name	SEM I					SEM II					SEM III					SEM IV	SEM V					Final	TOTAL AVERAGE		
			T1	T2	T3	CO1-14	CO2-7	CO3-4	CO4-4	CO5-7	CO1-7	CO2-7	CO3-7	CO4-7	CO5-7	CO1-14	CO2-14		CO3-14	CO4-14	CO5-14	CO1-21	CO2-21			CO3-21	CO4-21
1	19V14EC09	RAMYA K	10	9	12	25	10	10	16	15	1	1	1	1	1	55	11	4	4	4	4	37	15	15	23	20	22
2	19V14EC09	RASHMIDHIGANHI	12	10	14	24	5	5	12	8	1	1	1	1	1	48	9.8	9.8	9.8	9.8	9.8	34.8	15.8	15.8	25.8	18.8	22
3	19V14EC09	ARUN C C	9	12	12	15	10	10	12	13	1	1	1	1	1	45	9	9	9	9	9	25	20	20	25	23	22.8
4	19V14EC09	BHAVANAN	10	14	10	14	9	9	15	15	1	1	1	1	1	10.4	4.6	4.6	4.6	4.6	4.6	19.6	14.6	14.6	23.6	20.6	18.8
5	19V14EC09	AGANARAJ	15	12	14	13	10	10	11	12	1	1	1	1	1	30	6	6	6	6	6	20	17	17	21	19	18.8
6	19V14EC09	KAVYAS	10	15	12	10	11	12	10	8	1	1	1	1	1	45	9	9	9	9	9	20	21	22	23	18	20.8
7	19V14EC09	NEELAVESHA	9	10	11	9	7	8	14	14	1	1	1	1	1	48	9.6	9.6	9.6	9.6	9.6	19.6	17.6	18.6	27.6	24.6	21.8
8	19V14EC09	RAGHUBALAKRISHNAN	12	12	10	14	10	15	15	15	1	1	1	1	1	45	9	9	9	9	9	24	20	25	28	25	24.4
9	19V14EC09	URVA Y M	10	10	8	14	5	5	10	10	1	1	1	1	1	48	9.8	9.8	9.8	9.8	9.8	24.8	15.8	15.8	23.8	20.8	20.2
10	19V14EC09	VISHWAS P	12	8	7	0	10	5	12	13	1	1	1	1	1	60	12	12	12	12	12	13	23	18	28	26	21.6
11	19V14EC09	ANUSHA T P	10	14	13	14	12	13	14	14	1	1	1	1	1	58	11.6	11.6	11.6	11.6	11.6	26.6	24.6	25.6	29.6	26.6	26.8
																						34.018	18.564	7.3448	9.5981	8.3517	

  
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**Department of Electronics & Communication Engg**  
**Course Outcomes and CO-PO-PSO Articulation Matrix**

**2015 Scheme ACADEMIC YEAR- 2018-19**

**Semester-VI**

<b>Subject: ARM MICROCONTROLLER &amp; EMBEDDED SYSTEMS</b>		<b>Code: 15EC62</b>											
<b>Faculty Name : Prof.Raghavendra D</b>													
<b>CO1</b>	Be familiar with the composition, design, and implementation of embedded systems,												
<b>CO2</b>	Be familiar with both medium level and high level languages appropriate for embedded systems development techniques (e.g., C and Python)												
<b>CO3</b>	Be familiar with reading and understanding processor and component datasheets												
<b>CO4</b>	Be familiar with driving use contexts, including human-computer interaction, environment sensing and actuation, etc.,												
<b>CO5</b>	Be familiar with the basics of interfacing hardware and software,												
<b>COs</b>	<b>Pos</b>												
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	
<b>CO1</b>	3	2	1										
<b>CO2</b>	3	2	2										
<b>CO3</b>	3	2	2										
<b>CO4</b>	3	2	2										
<b>CO5</b>	3	2	2										
<b>Average</b>	<b>2</b>	<b>2</b>	<b>1.8</b>										

ATTAINMENT TABLE													
COs	AVG	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	73.06%	2.19	1.46	0.73									
CO2	72.35%	2.16	1.44	1.44									
CO3	28.58%	0.84	0.56	0.56									
CO4	55.37%	1.65	1.1	1.1									
CO5	34.80%	1.02	0.68	0.68									
<b>AVERAGE</b>		<b>1.58</b>	<b>1.04</b>	<b>0.90</b>									
<b>TOTAL ATTAINMENT</b>													<b>1.17</b>

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Sl No	USN	Name	15WCA20C 2018-2019 EVEN 15															SEM VI SEM TSP Prof Raghavendra D										ARM MICROCONTROLLER & EMBEDDED SYSTEMS										TOTAL AVERAGE							
			T1			T2			T3			T4			ASSIGNMENT 3/3			SEE	SEE MARKS					Final																					
			T1	T2	T3	CO1-15	CO2-7	CO3-8	CO4-8	CO5-7	CO1-1	CO2-1	CO3-5	CO4-1	CO5-1	CO1-15	CO2-16		CO3-16	CO4-16	CO5-16	CO1-32	CO2-24	CO3-25	CO4-26	CO5-24																			
1	15V14EC026	BAMYA K	10	8	12	25	10	10	15	15	1	1	1	1	1	55	11	4	4	4	4	37	15	15	23	20	22																		
2	15V14EC029	BASHMIN BEGAM H	12	10	14	24	5	5	12	8	1	1	1	1	1	48	9.8	9.8	9.8	9.8	9.8	34.8	15.6	15.6	25.6	18.6	22																		
3	15V15EC005	ARUN C G	9	12	12	15	10	10	12	13	1	1	1	1	1	45	9	9	9	9	9	25	20	20	25	21	22.4																		
4	15V15EC007	BHAVANA N	10	14	10	14	8	8	15	15	1	1	1	1	1	10.4	4.6	4.6	4.6	4.6	4.6	19.6	14.6	14.6	23.6	20.6	18.6																		
5	15V15EC013	GAGANA S K	18	12	14	13	10	10	11	12	1	1	1	1	1	30	6	6	6	6	6	20	17	17	21	19	18.8																		
6	15V15EC018	KAVYA S	10	15	12	10	11	12	10	8	1	1	1	1	1	45	9	9	9	9	9	20	21	22	23	19	20.8																		
7	15V15EC027	NCKR AYISHA	8	10	11	9	7	8	14	14	1	1	1	1	1	48	9.8	9.8	9.8	9.8	9.8	19.8	17.8	15.8	27.8	14.8	21.6																		
8	15V15EC035	RACHURAJ C K	12	12	10	14	10	15	15	15	1	1	1	1	1	45	9	9	9	9	9	24	20	25	28	25	24.4																		
9	15V15EC049	USHA Y M	10	10	8	14	5	5	10	10	1	1	1	1	1	49	9.8	9.8	9.8	9.8	9.8	24.8	15.8	15.8	23.8	20.8	20.2																		
10	15V15EC052	VISHWAS P	12	8	7	8	10	5	12	13	1	1	1	1	1	60	12	12	12	12	12	13	23	18	28	26	21.6																		
11	15V16EC402	ANURHA T P	10	14	13	14	12	13	14	14	1	1	1	1	1	58	11.8	11.8	11.8	11.8	11.8	25.8	24.8	25.8	29.8	25.8	26.6																		
																					-					34.018	18.564	7.1448	9.5933	8.3517															
																										73.06%	72.35%	28.58%	55.37%	34.80%															

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**Department of Electronics & Communication Engg**  
**Course Outcomes and CO-PO-PSO Articulation Matrix**

**2015 Scheme ACADEMIC YEAR- 2018-19**

**Semester-VI**

<b>Subject: VLSI DESIGN</b>	<b>Code: 15EC63</b>
<b>Faculty Name :Prof.Manohar B N</b>	

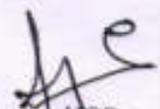
<b>CO1</b>	Understand the insights of the MOS devices and its characteristics.
<b>CO2</b>	Develop the sequential circuits and clocking schemes.
<b>CO3</b>	Design the CMOS combinational logic circuits and its layout
<b>CO4</b>	Appreciate the different VLSI process technologies.
<b>CO5</b>	Explain the importance of Logic Synthesis in IC design and its design flow.

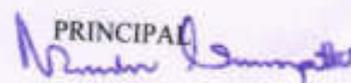
COs	Pos												
	1	2	3	4	5	6	7	8	9	10	11	12	
CO1	1	1	1										
CO2	2	2	2										2
CO3	3	2	2										2
CO4	3	2	2										2
CO5	1	2	2										2
Average	2	1.8	1.8										2
													2

**ATTAINMENT TABLE**

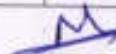
COs	AVG	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	70.06%	0.70	0.70	0.70									1.4
CO2	68.35%	1.36	1.36	1.36									1.36
CO3	34.58%	1.02	0.68	0.68									0.68
CO4	57.37%	1.71	1.14	1.14									1.14
CO5	36.80%	0.36	0.72	0.72									0.72
AVERAGE		1.03	0.92	0.92									1.06
<b>TOTAL ATTAINMENT</b>													0.98

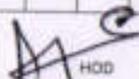
  
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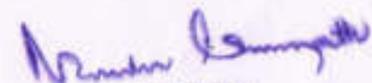
Sl No	USN	Name	15EC63 DC 2018-2019 EVEN			15		SEM IV SEM		TSP Prof. Manohar B N					SEE	SUB: VLSI DESIGN										TOTAL AVER									
			T1	T2	T3	T1		T2		ASSIGNMENT 5/5						SEE MARKS					Final														
						CO1-15	CO2-7	CO3-8	CO4-8	CO5-7	CO1-1	CO2-1	CO3-1	CO4-1		CO5-1	CO1-16	CO2-16	CO3-16	CO4-16	CO5-16	CO1-32	CO2-24	CO3-25	CO4-25		CO5-24								
1	15V14EC026	RAMIYA K	10	9	12	26	10	10	15	15	1	1	1	1	1	80	11	4	4	4	4	4	37	15	15	23	20	22							
2	15V14EC029	RASHMIN BEGAM H	12	10	14	24	5	5	12	8	1	1	1	1	1	48	9.6	9.6	9.6	9.6	9.6	34.6	15.6	15.6	25.6	18.6	22								
3	15V15EC005	ARUN C G	9	12	12	15	10	10	12	13	1	1	1	1	1	45	9	9	9	9	9	26	20	20	25	22	22.6								
4	15V15EC007	BHAVANA N	10	14	10	14	9	9	15	15	1	1	1	1	1	10.4	4.6	4.6	4.6	4.6	4.6	19.6	14.6	14.6	23.6	20.6	18.6								
5	15V15EC013	GAGANA S K	15	12	14	13	10	10	11	12	1	1	1	1	1	30	6	6	6	6	6	20	17	17	21	19	18.8								
6	15V15EC018	KAVYA S	10	15	12	10	11	12	10	8	1	1	1	1	1	45	9	9	9	9	9	20	21	22	23	18	20.8								
7	15V15EC027	NOOR AYESHA	9	10	11	9	7	8	14	14	1	1	1	1	1	48	9.6	9.6	9.6	9.6	9.6	19.6	17.6	18.6	27.6	24.6	21.6								
8	15V15EC035	BAGHURAJ G K	12	12	10	14	10	15	15	15	1	1	1	1	1	45	9	9	9	9	9	24	20	25	28	25	24.4								
9	15V15EC049	USHA Y M	10	10	8	14	5	5	10	10	1	1	1	1	1	49	9.8	9.8	9.8	9.8	9.8	24.8	15.8	15.8	23.8	20.8	20.2								
10	15V15EC052	VISHWAS S P	12	8	7	0	10	5	12	13	1	1	1	1	1	60	12	12	12	12	12	13	23	18	26	26	21.6								
11	15V16EC402	ANUSHA T P	10	14	13	14	12	13	14	14	1	1	1	1	1	58	11.6	11.6	11.6	11.6	11.6	26.6	24.6	25.6	29.6	26.6	26.6								
																										24.018	18.564	7.1448	9.5931	8.3517					
																										70.06%	68.15%	34.58%	57.37%	36.80%					

  
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**2015 Scheme ACADEMIC YEAR- 2018-19**

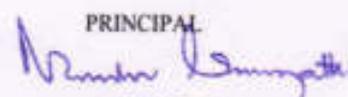
**Semester-VII**

<b>Subject: Computer Communication Networks (CCN)</b>		<b>Code: 15EC64</b>											
<b>Faculty Name : Prof.Pradeepkumar S S</b>													
<b>CO1</b>	Explain basic concepts, OSI reference model, services and role of each layer of OSI model and TCP/IP, networks devices and transmission media, Analog and digital data transmission												
<b>CO2</b>	Apply channel allocation, framing, error and flow control techniques												
<b>CO3</b>	Describe the functions of Network Layer i.e. Logical addressing, subnetting & Routing Mechanism												
<b>CO4</b>	Explain the different Transport Layer function i.e. Port addressing, Connection Management, Error control and Flow control mechanism												
<b>CO5</b>	Explain the functions offered by session and presentation layer and their Implementation												
<b>COs</b>	<b>Pos</b>												
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	
<b>CO1</b>	3	3	2		1					1			
<b>CO2</b>	3	2	2		1					1			
<b>CO3</b>	2	2			2					1			
<b>CO4</b>	3	2	1										
<b>CO5</b>	2		2										
<b>Average</b>	<b>2.6</b>	<b>1.8</b>	<b>1.4</b>		<b>1.25</b>					<b>1</b>			

ATTAINMENT TABLE													
COs	AVG	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	65.29 %	1.95	1.95	1.30		0.65					0.65		
CO2	68.03 %	2.04	1.36	1.36		0.68					0.68		
CO3	26.75 %	0.535	0.535			0.53					0.26		
CO4	24.14 %	0.72	0.48	0.24									
CO5	21.88 %	0.43		0.43									
<b>AVERAGE</b>		<b>1.134</b>	<b>1.08</b>	<b>0.83</b>		<b>0.62</b>					<b>0.53</b>		
<b>TOTAL ATTAINMENT</b>													<b>0.83</b>

  
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**Course Outcomes and CO-PO-PSO Articulation Matrix**

**2015 Scheme ACADEMIC YEAR- 2018-19**

**Semester-VI**

<b>Subject: Cellular Mobile network</b>												<b>Code: 15EC651</b>	
<b>Faculty Name : Prof.Prabitha D K</b>													
<b>CO1</b>	Demonstrate cellular mobile system design concepts in wireless mobile communication networks.												
<b>CO2</b>	Design of Antenna system, Antenna parameters and their effects, diversity receiver, non co-channel Interference different.												
<b>CO3</b>	Understand the concepts of Handoff, dropped calls and cell splitting, Intersystem handoff.												
<b>CO4</b>	Imbibe knowledge about Wireless Systems And Standards GSM channels, multiplex access scheme, TDMA CDMA.												
<b>CO5</b>	Intelligent Network For Wireless Communications SS7 network and ISDN for AIN, AIN for mobile communication												
	<b>Pos</b>												
<b>COs</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	
<b>CO1</b>	3	2	1			1							
<b>CO2</b>	3	2	2			2							
<b>CO3</b>	3	2	2			2							
<b>CO4</b>	3	2	2			2							
<b>CO5</b>	3	2	2			2							
<b>Average</b>	2	2	1.8			1.8							

ATTAINMENT TABLE													
COs	AVG	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	73.06%	2.19	1.46	0.73			0.73						
CO2	72.35%	2.16	1.44	1.44			1.44						
CO3	28.58%	0.84	0.56	0.56			0.56						
CO4	55.37%	1.65	1.1	1.1			1.1						
CO5	34.80%	1.02	0.68	0.68			0.68						
<b>AVERAGE</b>		<b>1.58</b>	<b>1.04</b>	<b>0.90</b>			<b>0.90</b>						
<b>TOTAL ATTAINMENT</b>													<b>1.11</b>

*Prof. P.D.K.*  
 COURSE INSTRUCTOR

*H.E.*  
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 Dept of E&C  
 SIET, Tumkur-6

*Principal*  
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roll No	USN	Name	1SEC651 DC 2018-2019 EVEN 25					SEM -VI SEM TSP:Prof.Prabitha D K					SUB: Cellular Mobile network										TOTAL AVER																									
			T1			T2		T3		ASSIGNMENT 5/5					SEE	SEE MARKS					Final																											
			T1	T2	T3	CO1- 15	CO2- 7	CO3- 8	CO4- 8	CO5- 7	CO1- 1	CO2- 1	CO3- 1	CO4- 1		CO5- 1	CO1- 16	CO2- 16	CO3- 16	CO4- 16	CO5- 16	CO1- 32		CO2- 24	CO3- 25	CO4- 25	CO5- 24																					
1	1SV14EC026	RAMYA K	10	9	12	25	10	10	15	15	1	1	1	1	1	55	11	4	4	4	4	37	15	15	23	30	22																					
2	1SV14EC029	RASHMIN BEGAM FE	12	10	14	24	5	5	12	8	1	1	1	1	1	48	5.6	9.6	9.6	9.6	9.6	34.6	15.6	15.6	25.6	18.6	22																					
3	1SV15EC005	ARUN C G	9	12	12	15	10	10	12	13	1	1	1	1	1	45	9	9	9	9	9	25	20	20	25	23	22.8																					
4	1SV15EC007	BHAVANA N	10	14	10	14	9	9	15	15	1	1	1	1	1	10.4	4.6	4.6	4.6	4.6	4.6	19.6	14.6	14.6	23.6	20.6	18.8																					
5	1SV15EC013	GAGANA S K	15	12	14	13	10	10	11	12	1	1	1	1	1	30	6	6	6	6	6	20	17	17	21	19	18.8																					
6	1SV15EC018	KAVYA S	10	15	12	10	11	12	10	8	1	1	1	1	1	45	9	9	9	9	9	20	21	22	23	18	20.8																					
7	1SV15EC027	NOOR AYESHA	9	10	11	8	7	8	14	14	1	1	1	1	1	48	9.6	9.6	9.6	9.6	9.6	15.6	17.6	18.6	27.6	24.6	21.5																					
8	1SV15EC035	RAGHURAJ G K	12	12	10	14	10	15	15	15	1	1	1	1	1	45	9	9	9	9	9	24	20	25	28	25	24.4																					
9	1SV15EC049	USHA Y M	10	10	8	14	5	5	10	10	1	1	1	1	1	49	9.8	9.8	9.8	9.8	9.8	24.8	15.8	15.8	23.8	20.8	20.2																					
10	1SV15EC052	VISHWAS S P	12	8	7	0	10	5	12	13	1	1	1	1	1	60	12	12	12	12	12	13	23	18	28	26	21.8																					
11	1SV16EC402	ANUSHA T P	10	14	13	14	12	13	14	14	1	1	1	1	1	58	11.6	11.6	11.6	11.6	11.6	26.6	24.6	25.6	29.6	26.6	26.8																					
																					24.018	78.564	7.1448	9.9932	8.3517																							
																					70.06%	68.35%	34.58%	57.37%	36.80%																							

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**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**

<b>SUBJECT</b>	WIRELESS CELLULAR & LTE 4G BORADBAND	<b>SUBJECT CODE</b>	15EC81
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**COURSE OUTCOME**

After studying this course, students will be able to:

CO1. Understand the Communication theory both Physical and network ing associated with GSM, CDMA& LTE 4G systems.

CO 2. Explain concepts of propagation mechanisms like Reflection, Dif fraction, Scattering in wireless channels.

CO 3. Develop a scheme for idle mode, call set up, call progress handling and call tear down in a GSM cellular network.

CO 4. Develop a scheme for idle mode, call set up, call progress handling and call tear down in a CDMA cellular network.

CO 5. Understand the Basic operations of Air interface in a LTE 4G system.

<b>COLLEGE</b>	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
<b>FACULTY NAME</b>	Mrs.Sandya R											
<b>BRANCH</b>	ECE			ACADEMIC YEAR						2018-19		
<b>COURSE</b>	B.E	<b>SEMESTER</b>	8 <sup>TH</sup>	<b>SECTION</b>			ECE					
<b>SUBJECT</b>	WIRELESS CELLULAR & LTE 4G BORADBAND						<b>SUBJECT CODE</b>			15EC81		
<b>CO &amp; PO MAPPING</b>												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	1	1	1	2						2		
CO2	2	2	2	1						1		
CO3	3	1	2	2						1		
CO4	2	3	2	2						2		
CO5	1	1	1	1						1		
AVERAGE	1.8	1.6	1.6	1.6						1.4		
<b>OVERALL MAPPING OF SUBJECT</b>												1.6

**CO AND PO ATTAINMENT**

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	53.56	0.53	0.53	0.53	1.07						1.07		
CO2	52.54	1.05	1.05	1.05	0.52						0.52		
CO3	53.70	1.61	0.53	1.07	1.07						0.53		
CO4	56.73	1.13	1.70	1.13	1.13						1.13		
CO5	55.46	0.55	0.55	0.55	0.55						0.55		
AVERAGE		0.97	0.97	0.86	0.86						0.76		
<b>FINAL ATTAINMENT LEVEL</b>													<b>0.88</b>

*S. Suresh*

**COURSE INSTRUCTOR**

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SIET, Tumkur-6**

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**SHRIDEVI INSTITUTE OF ENGINEERING  
AND TECHNOLOGY, TUMKUR**

**DEPARTMENT OF ECE**

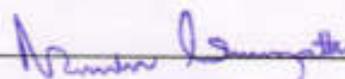
**CO-PO ATTAINMENT**

**ACADEMIC YEAR**

**2018-19**

**ODD SEM**

**FIRST YEAR**



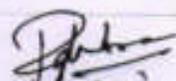
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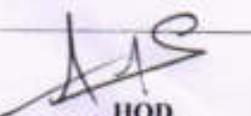
**Department of Electronics & Communication Engineering****Course Outcomes and CO-PO- Articulation Matrix****2017 Scheme****ACADEMIC YEAR 2018-19****Semester-I**

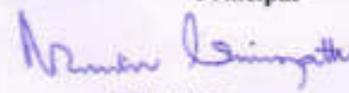
Subject: Basic Electronics Prof. Raghavendra D												Subject Code: 18ELN14	
<b>Course Outcomes</b>													
CO1	Operation of Semiconductor diode, Zener diode and Special purpose diodes and their applications.												
CO2	Biasing circuits for transistor (BJT) as an amplifier.												
CO3	Study of linear Op-amps and its applications.												
CO4	Logic circuits and their optimization.												
CO5	Principles of Transducers and Communication.												
<b>CO-PO Mapping</b>													
COs	Pos												
	1	2	3	4	5	6	7	8	9	10	11	12	
CO1	2		1										1
CO2	3	3	2		2								1
CO3	3	3	2		2								1
CO4	3	3	2		2								1
CO5	3												
Average	2.8	3	1.75		2								1

**ATTAINMENT TABLE**

COs	AVG	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	59%	1.18		0.59									0.59
CO2	57%	1.71	1.71	1.14			1.14						0.57
CO3	57%	1.71	1.71	1.14			1.14						0.57
CO4	59%	1.77	1.77	1.18			1.18						0.59
CO5	55%	1.65											
<b>AVERAGE</b>		<b>1.60</b>	<b>1.73</b>	<b>1.01</b>			<b>1.15</b>						<b>0.58</b>
<b>TOTAL ATTAINMENT</b>													<b>1.21</b>

  
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**Department of Electronics & Communication Engineering****Course Outcomes and CO-PO- Articulation Matrix****2018 Scheme**  
**ACADEMIC YEAR 2018-19****Semester-II**

Subject: Basic Electronics												Subject Code: 18ELN24	
Prof. RAGHAVENDRA D													
<b>Course Outcomes</b>													
CO1	Operation of Semiconductor diode, Zener diode and Special purpose diodes and their applications.												
CO2	Biasing circuits for transistor (BJT) as an amplifier.												
CO3	Study of linear Op-amps and its applications.												
CO4	Logic circuits and their optimization.												
CO5	Principles of Transducers and Communication.												
<b>CO-PO Mapping</b>													
COs	Pos												
	1	2	3	4	5	6	7	8	9	10	11	12	
CO1	2		1										1
CO2	3	3	2		2								1
CO3	3	3	2		2								1
CO4	3	3	2		2								1
CO5	3												
Average	2.8	3	1.75		2								1

ATTAINMENT TABLE													
COs	AVG	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	65%	1.3		0.65									0.65
CO2	63%	1.89	1.89	1.26			1.26						0.63
CO3	69%	2.07	2.07	1.38			1.38						0.69
CO4	67%	2.01	2.01	1.34			1.34						0.67
CO5	68%	2.04											
<b>AVERAGE</b>		<b>1.86</b>	<b>1.99</b>	<b>1.15</b>			<b>1.32</b>						<b>0.66</b>
<b>TOTAL ATTAINMENT</b>													<b>1.39</b>

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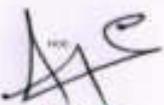
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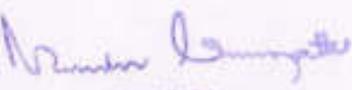


19V17CS031	22	8	18	9	20	19	9	20	19	2	2	2	2	2	2	6.4	6.4	6.4	6.4	6.4	18.4	17.4	26.4	17.4	18.4	69.448	60	60	10	69.448	32	20	6.4	
19V17CS036	5	4	9	5	5	20	8	2	10	2	2	2	2	2	2	3.6	3.6	3.6	3.6	3.6	12.6	10.6	14.6	13.6	7.6	36.332	36.332	33.162	46.897	26.227	18	20	3.6	
19V17CS037	7	6	15	8	8	14	10	8	18	2	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	14.2	16.2	20.2	17.2	13.2	48.966	52.414	52.727	39.31	43.517	26	26	5.2	
19V17CS038	13	0	13	1	13	14	15	1	16	2	2	2	2	2	2	6.4	6.4	6.4	6.4	6.4	19.4	8.4	19.4	15.4	8.4	61.89	32.414	57.282	40.89	52.414	22	26	6.4	
19V17CS039	5	4	9	5	5	10	5	5	10	2	2	2	2	2	2	6.4	6.4	6.4	6.4	6.4	19.4	13.2	17.2	13.2	13.2	45.517	45.517	39.261	45.517	45.517	21	20	6.2	
19V17CS040	8	15	9	14	5	19	13	4	19	2	2	2	2	2	2	3	3	3	3	3	1	16	21	27	22	11	59.172	72.434	61.364	71.862	37.931	23	29	3
19V17CS041	8	8	12	7	4	13	10	8	19	2	2	2	2	2	2	3	3	3	3	3	1	16	21	27	22	11	59.172	72.434	61.364	71.862	37.931	23	29	3
19V17CS042	10	3	13	10	4	14	10	4	14	2	2	2	2	2	2	3.4	3.4	3.4	3.4	3.4	13.4	14.4	17.4	17.4	12.4	46.227	49.655	33.341	60	35.862	27	23	3.4	
19V17CS070	18	13	26	13	14	27	13	14	27	2	2	2	2	2	2	7	7	7	7	7	7	19	19	14	19	13	65.517	65.517	36.364	65.517	44.826	35	24	7

60 60 64.543 60 63.448  
 32 20 6.4  
 18 20 3.6  
 26 26 5.2  
 22 26 6.4  
 21 20 6.2  
 23 29 3  
 22 23 3.4  
 41 37 8.2

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