

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

SUBJECT	DSDV	SUBJECT CODE	BEC 302
----------------	-------------	---------------------	----------------

COURSE OUTCOME

- 1 To impart the concepts of simplifying Boolean expression using K-map techniques and Quine-McCluskey minimization techniques.
- 2 To impart the concepts of designing and analyzing combinational logic circuits.
- 3 To impart design methods and analysis of sequential logic circuits.
- 4 To impart the concepts of Verilog HDL-data flow and behavioural models for the design of digital 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.

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME	Dr. UMESHA G B											
BRANCH	ECE			ACADEMIC YEAR				2023-24				
COURSE	B.E	SEMESTER			III	SECTION			ECE			
SUBJECT	DSDV					SUBJECT CODE			BEC 302			
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	-	-								
CO2	1	2										
CO3	1	1	1									
CO4	3	3	-	2								
AVERAGE	2	2.5	-	2								
OVERALL MAPPING OF SUBJECT												2.16

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	54.25%	1.08	1.08										
CO2	47.61%	0.47	0.95										
CO3	63.09%	0.63	0.63	0.63									
CO4	63.09%	1.89	1.89		1.26								
AVERAGE	57.01	1.01	1.13	0.63	1.26								
FINAL ATTAINMENT LEVEL													1.07

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

SUBJECT	ELECTRONIC PRINCIPLES AND CIRCUITS	SUBJECT CODE	BEC 303
----------------	---	---------------------	----------------

COURSE OUTCOME

- CO1 Design and analyse the BJT circuits as an amplifier and voltage regulation.
- CO2 Design of MOSFET Amplifiers and analyse the basic amplifier configurations using small signal equivalent circuit models
- CO3 Design of operational amplifiers circuits as Comparators, DAC and filters.
- CO4 Understand the concept of positive and negative feedback.
- CO5 Analyze Power amplifier circuits in different modes of operation.

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		PROF.ROOPA T C										
BRANCH		ECE			ACADEMIC YEAR				2023-24			
COURSE	B.E	SEMESTER			III	SECTION			ECE			
SUBJECT	EPC					SUBJECT CODE			BEC 303			
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	-	-								
CO2	1	2										
CO3	1	1	1									
CO4	2	3	-	2								
CO5	2	3		3								
AVERAGE	1.6	2.2	1	2.5								
OVERALL MAPPING OF SUBJECT												1.82

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	84.57	1.32	1.32	-	-								
CO2	61.18	0.61	1.22										
CO3	61.18	0.61	0.61	0.61									
CO4	75.23	1.50	2.25	-	1.22								
CO5	75.23	1.50	2.25		2.25								
AVERAGE	63.7	1.32	1.53	0.61	1.15								
FINAL ATTAINMENT LEVEL													1.15

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

SUBJECT	NETWORK ANALYSIS	SUBJECT CODE	BEC 304
----------------	-------------------------	---------------------	----------------

COURSE OUTCOME

1. Apply mesh and nodal techniques to solve an electrical network.
2. Solve different problems related to Electrical circuits using Network Theorems and Two port network.
3. Familiarize with the use of Laplace transforms to solve network problems.
4. Study two port network parameters and their applications.
5. Study of RLC Series and parallel tuned circuit.

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		PROF.MALLIKARJUN Y P										
BRANCH		ECE			ACADEMIC YEAR				2023-24			
COURSE	B.E	SEMESTER			III	SECTION			ECE			
SUBJECT	NT					SUBJECT CODE			BEC 304			
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	-	-								
CO2	2	2	2									
CO3	1	1	1									
CO4	2	3	-	2								
CO5	2		2									
AVERAGE	1.75	2	1.5	2								
OVERALL MAPPING OF SUBJECT											1.81	

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	61.43	1.22	1.22										
CO2	60.31	1.20	1.20	1.20									
CO3	60.29	0.60	0.60	0.60									
CO4	75.71	1.51	2.27	-	1.51								
CO5	75.71	1.51		1.50									
AVERAGE	63.7	1.20	1.32	1.1	1.51								
FINAL ATTAINMENT LEVEL												1.28	

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

SUBJECT	COA	SUBJECT CODE	BEC 306 C
---------	-----	--------------	-----------

COURSE OUTCOME

- 1 Explain the basic sub systems of a computer, their organization, structure and operation.
- 2 Illustrate the concept of programs as sequences of machine instructions.
- 3 Demonstrate different ways of communicating with I/O devices
- 4 Describe memory hierarchy and concept of virtual memory.
- 5 Illustrate organization of simple pipelined processor and other computing 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.

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME		PROF.ROOPA T C										
BRANCH		ECE		ACADEMIC YEAR				2023-24				
COURSE	B.E	SEMESTER		III	SECTION			ECE				
SUBJECT	COA				SUBJECT CODE			BEC 306C				
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	-								
CO2	3	3										
CO3	1	2	1									
CO4	2	3	-	-								
CO5	3	2		3								
AVERAGE	2.2	2.4	1.5	3								
OVERALL MAPPING OF SUBJECT												2.275

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	65.71	1.31	1.31	1.31									
CO2	55.26	1.65	1.65										
CO3	56.39	0.56	1.12	0.56									
CO4	71.69	1.43	2.15	-									
CO5	71.69	2.15	1.43		2.15								
AVERAGE	64.14	1.42	1.53	0.93	2.15								
FINAL ATTAINMENT LEVEL													1.50

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

SUBJECT	IOT INFRASTRUCTURE	SUBJECT CODE	BEC358 D
----------------	---------------------------	---------------------	-----------------

COURSE OUTCOME

CO1. To provide an understanding of the concepts, principles, and applications of IoT in the context of smart infrastructure.

CO2. To explore the role of IoT technologies in transforming infrastructure into smart, efficient, and sustainable systems and analyse the challenges, opportunities, and considerations in implementing IoT for smart infrastructure.

CO3. To examine real-world case studies and successful implementations of IoT in smart cities, buildings, transportation, and energy management and explore future trends and emerging technologies shaping the field of IoT for smart infrastructure.

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	PROF.PRADEEP KUMAR S S											
BRANCH	ECE			ACADEMIC YEAR				2023-24				
COURSE	B.E	SEMESTER		III	SECTION			ECE				
SUBJECT	IOT INFRASTRUCTURE					SUBJECT CODE		BEC358 D				
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	-	-								
CO2	2		2									
CO3	1	3	2									
AVERAGE	2	2.5	-	2								
OVERALL MAPPING OF SUBJECT											2.16	

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	77.24	1.54	1.54	-	-								
CO2	63.37	1.26		1.26									
CO3	63.37	0.63	2.02	1.26									
AVERAGE	67.23	1.14	1.78	1.26									
FINAL ATTAINMENT LEVEL												1.39	

**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**

SUBJECT	DIGITAL COMMUNICATION	SUBJECT CODE	21EC51
----------------	------------------------------	---------------------	---------------

COURSE OUTCOME

CO 1. Understand the concept of signal processing of digital data and signal conversion to symbols at the transmitter and receiver.

CO 2. Compute performance metrics and parameters for symbol processing and recovery in ideal and corrupted channel conditions.

CO3. Understand the principles of spread spectrum communications.

CO4. Understand the basic principles of information theory and various source coding techniques.

CO5. Build a comprehensive knowledge about various Source and Channel Coding techniques.

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	PROF. ALJAZ AHAMED SHARIEF											
BRANCH	ECE			ACADEMIC YEAR				2023-24				
COURSE	B.E	SEMESTER			V	SECTION			ECE			
SUBJECT	DIGITAL COMMUNICATION					SUBJECT CODE			21EC51			
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	-	-								
CO2	1	2	1									
CO3		2	2									
CO4	3		3									
CO5	2	1	-	2								
AVERAGE	2	2.25	2	2								
OVERALL MAPPING OF SUBJECT											2.06	

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	69.90%	1.39	1.39										
CO2	95.25%	0.95	1.90	0.95									
CO3	95.25%		1.90	1.90									
CO4	95.03%	2.85		2.86									
CO5	95.03%	1.90	0.95		1.90								
AVERAGE	90.09	1.77	1.53	1.90	1.90								
FINAL ATTAINMENT LEVEL												1.77	

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

SUBJECT	COA	SUBJECT CODE	21EC52
----------------	------------	---------------------	---------------

COURSE OUTCOME

1. Explain the basic organization of a computer system.
2. Demonstrate functioning of different sub systems, such as processor, Input/output, and memory.
3. Describe the architectural features and instructions of 32-bit microcontroller ARM Cortex M3.
4. Apply the knowledge gained for Programming ARM Cortex M3 for different applications.
5. Understand the basic hardware components and their selection method based on the characteristics and attributes of an embedded system.

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		PROF. MALLIKARJUN Y P										
BRANCH		ECE		ACADEMIC YEAR				2023-24				
COURSE	B.E	SEMESTER		V	SECTION			ECE				
SUBJECT	COA				SUBJECT CODE			21EC52				
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	-	-	-								
CO2	2	3	-	-								
CO3	3	-	-	2								
CO4	-	-	2	-								
CO5		2	2									
AVERAGE	2.3	2.5	2	2								
OVERALL MAPPING OF SUBJECT											2.325	

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	76.40%	1.52											
CO2	72.46%	1.09	1.64	-	-								
CO3	89.18%	1.64	-	-	1.09								
CO4	99.35%	-	-	1.06	-								
CO5	99.35%		1.06	1.06									
AVERAGE	87.34	1.25	1.64	1.06	1.09								
FINAL ATTAINMENT LEVEL												1.26	

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

SUBJECT	CCN	SUBJECT CODE	21EC53
----------------	------------	---------------------	---------------

COURSE OUTCOME

- CO1. Understand the layering architecture of OSI reference model and TCP/IP protocol suite.
- CO2. Understand the protocols associated with each layer.
- CO3. Learn the different networking architectures and their representations.
- CO4. Learn the functions and services associated with each layer.

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		PROF. PRADEEP KUMAR S S										
BRANCH		ECE		ACADEMIC YEAR				2023-24				
COURSE	B.E	SEMESTER		V	SECTION		ECE					
SUBJECT	CCN				SUBJECT CODE		21EC53					
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	-	-								
CO2	2	3	-	-								
CO3	2	-	-	2								
CO4	-	3		2								
AVERAGE	2	2.6		2								
OVERALL MAPPING OF SUBJECT												2.2

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	64.80%	1.29	1.29										
CO2	79.75%	1.59	2.39	-	-								
CO3	72.56%	1.45	-	-	1.45								
CO4	72.56%	-	2.17		1.45								
AVERAGE	72.41	1.44	1.95		1.45								
FINAL ATTAINMENT LEVEL													1.61



DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

SUBJECT	ELECTROMAGNETIC WAVES	SUBJECT CODE	21EC54
---------	-----------------------	--------------	--------

COURSE OUTCOME

- CO 1. Describe the microwave properties and its transmission media.
- CO 2 Describe the microwave devices for several applications.
- CO 3 Understand the basic concepts of antenna theory.
- CO4 Identify antenna types for specific applications.

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	DR.GIREESHA B											
BRANCH	ECE			ACADEMIC YEAR				2023-24				
COURSE	B.E	SEMESTER			V	SECTION			ECE			
SUBJECT	ELECTROMAGNETIC WAVES					SUBJECT CODE			21EC54			
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	-	-								
CO2	2	3	-	-								
CO3	3	-	-	2								
CO4	-	-	2	-								
AVERAGE	2.3	3	2	2								
OVERALL MAPPING OF SUBJECT												2.325

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	55.57%	1.2	1.2		-								
CO2	68.40%	1.4	2.1	-	-								
CO3	71.05%	1.9	-	-	1.2								
CO4	71.05%	-	-	1.2	-								
AVERAGE	66.51	1.25	1.64	1.06	1.09								
FINAL ATTAINMENT LEVEL													1.26



DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

SUBJECT	ENVIRONMENTAL STUDIES	SUBJECT CODE	21CIV57
----------------	------------------------------	---------------------	----------------

COURSE OUTCOME

- CO1: Understand the principles of ecology and environmental issues that apply to air, land, and water issues on a global scale.
- CO2: Develop critical thinking and/or observation skills, and apply them to the analysis of a problem or question related to the environment.
- CO3: Demonstrate ecology knowledge of a complex relationship between biotic and a biotic components.
- CO4: Apply their ecological knowledge to illustrate and graph a problem and describe the realities that managers face when dealing with complex issues.

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	Dr. UMESHA G B											
BRANCH	ECE			ACADEMIC YEAR				2023-24				
COURSE	B.E	SEMESTER			V	SECTION			ECE			
SUBJECT	ENVIRONMENTAL STUDIES					SUBJECT CODE			21CIV57			
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	-	-								
CO2	1	2										
CO3	1	1	1									
CO4	3	3	-	2								
AVERAGE	2	2.5	-	2								
OVERALL MAPPING OF SUBJECT												2.16

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	51.59%	1.08	1.08										
CO2	51.59%	0.47	0.95										
CO3	79.57%	0.63	0.63	0.63									
CO4	79.57%	1.89	1.89		1.26								
AVERAGE	65.58	1.01	1.13	0.63	1.26								
FINAL ATTAINMENT LEVEL													1.007



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

SUBJECT	COMPUTER NETWORKS	SUBJECT CODE	18EC71
----------------	--------------------------	---------------------	---------------

COURSE OUTCOME

- CO 1.** Associate and apply the concepts of Band pass sampling to well specified signals and channels.
- CO 2.** Analyze and compute performance parameters and transfer rates for low pass and band pass symbol under ideal and corrupted non band limited channels.
- CO 3.** Test and validate symbol processing and performance parameters at the receiver under ideal and corrupted band limited channels.
- CO 4.** Demonstrate that band pass signals subjected to corruption and distortion in a band limited channel can be processed at the receiver to meet specified performance criteria.
- CO 5.** Understand the principles of spread spectrum communications.

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.PRADEEP KUMAR S S										
BRANCH		ECE			ACADEMIC YEAR				2023-24			
COURSE	B.E	SEMESTER			VII	SECTION			ECE			
SUBJECT	COMPUTEER NETWORKS					SUBJECT CODE			18EC71			
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	-	-	2								
CO2	2	2	-	-								
CO3	2	-	-	-								
CO4	-	-	3	-								
CO5		2										
AVERAGE	2	2	3	2								
OVERALL MAPPING OF SUBJECT												2.325

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	76.13%	1.49			1.49								
CO2	73.96%	1.48	1.48	-	-								
CO3	73.96%	1.48	-	-	-								
CO4	80.63%	-	-	2.42	-								
CO5	80.63%		1.49										
AVERAGE	75.78	1.48	1.48	2.42	1.49								
FINAL ATTAINMENT LEVEL													1.71

Roll No	USN	Name	2023-2024 ODD				SEM -VII SEM				COMPUTER NETWORKS										TOTAL AVERAGE						
			T1		T2		T3		ASSESSMENT DAYS					SEE MARKS					Final								
			T1(40)	T2(40)	T3(40)	CO1-20	CO2-20	CO3-20	CO4-20	CO5-20	CO1-2	CO2-2	CO3-2	CO4-2	CO5-2	60	CO1-15	CO2-15	CO3-15	CO4-15		CO5-15	CO1-17	CO2-17	CO3-17	CO4-17	CO5-17
1	19V21EC001	ABHISHEK B	36	37	36	34	18.5	18.5	18	18	2	2	2	2	2	43	8.8	8.8	8.8	8.6	8.8	44.6	20.1	20.1	20.8	20.8	22
2	19V21EC002	ANJANA A	0	8	19	C	4	4	8	8	2	2	2	2	2	12	2.4	2.4	2.4	2.4	2.4	4.4	8.6	8.4	13.4	12.4	20.6
3	19V21EC003	ANURAG S	36	34	32	33	17	17	17	17	2	2	2	2	2	31	8.2	8.2	8.1	8.2	8.2	41.3	20.2	20.2	20.2	20.2	18.8
4	19V21EC004	CHITRAMBEE H K	38	35	36	28	17.5	17.5	18	18	2	2	2	2	2	26	5.2	5.2	5.2	5.2	5.2	33.2	14.7	14.7	15.2	15.2	27.5
5	19V21EC005	DAKSHAN M R	20	24	31	20	17	17	15.5	15.5	2	2	2	2	2	28	5.6	5.6	5.6	5.6	5.6	27.6	14.6	14.6	13.1	13.1	25.8
6	19V21EC006	K.	24	32	35	36	16	16	17.5	17.5	2	2	2	2	2	29	5.8	5.8	5.8	5.8	5.8	43.8	23.8	23.8	25.3	25.3	26.5
7	19V21EC007	HARSHITH M J	33	33	33	32	16.5	16.5	16.5	16.5	2	2	2	2	2	37	7.4	7.4	7.4	7.4	7.4	41.4	20.9	20.9	20.9	20.9	28.7
8	19V21EC008	HARSHITHA S	40	39	39	40	19.5	19.5	19.5	19.5	2	2	2	2	2	38	7.6	7.6	7.6	7.6	7.6	48.6	20.1	20.1	20.1	20.1	31.1
9	19V21EC009	IMTIYAZ FASHA	24	28	34	28	19	19	17	17	2	2	2	2	2	21	4.3	4.3	4.2	4.2	4.2	32.2	15.2	15.2	13.2	13.2	28.9
10	19V21EC010	MEGHANA N C	36	30	34	27	15	15	17	17	2	2	2	2	2	26	5.6	5.6	5.8	5.8	5.8	34.6	12.6	12.6	14.6	14.6	25.8
11	19V21EC011	MUNTHA H K	40	40	39	40	20	20	19.5	19.5	2	2	2	2	2	52	10.4	10.4	10.4	10.4	10.4	52.4	32.4	32.4	31.5	31.5	31
12	19V21EC012	PRATHIKSHA	32		33	33	0	0	18.5	18.5	2	2	2	2	2	32	6.4	6.4	6.4	6.4	6.4	41.4	6.4	6.4	14.9	14.9	21.6
13	19V21EC013	B M SUCHITRA	38	34	37	40	19.5	19.5	15.5	15.5	2	2	2	2	2	36	7.6	7.8	7.8	7.8	7.8	48.8	28.3	28.3	28.3	28.3	27.3
14	19V21EC014	RACHANA N	40	40	39	40	20	20	19.5	19.5	2	2	2	2	2	30	6.4	6.4	6.4	6.4	6.4	48.4	28.4	28.4	27.8	27.8	32.8
15	19V21EC015	S PAVITHRA	40	39	38	40	19.5	19.5	19	19	2	2	2	2	2	42	8.4	8.4	8.4	8.4	8.4	50.4	29.5	29.5	29.4	29.4	33
16	19V21EC016	SHOBHA HUGAR	40	38	38	38	18	18	19	19	2	2	2	2	2	40	8	8	8	8	8	40	28	28	29	29	31.2
17	19V21EC017	YASHAS K R	18	30	37	31	15	15	18.5	18.5	2	2	2	2	2	42	8.4	8.4	8.4	8.4	8.4	41.4	25.4	25.4	28.8	28.8	31.3
18	19V21EC018	HARSHITHA U	38	0	36	20	0	0	16	16	2	2	2	2	2	28	5.6	5.6	5.6	5.6	5.6	27.6	7.6	7.6	15.6	15.6	24.4
19	19V21EC019	ANAND	20	29	29	32	14.5	14.5	14.5	14.5	2	2	2	2	2	28	5.2	5.2	5.2	5.2	5.2	39.2	21.7	21.7	21.7	21.7	23
																						39.58947	21.68842	21.68842	25.8	25.8	
																						76.12%	75.96%	73.96%	80.63%	80.63%	

[Signature]
 COURSE INSTRUCTOR

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

PRINCIPAL
[Signature]
 PRINCIPAL
 SIET, TUMKUR.



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

SUBJECT	VLSI DESIGN	SUBJECT CODE	18EC72
---------	-------------	--------------	--------

COURSE OUTCOME

- CO 1. Understand the mathematical representation of signal, symbol, noise and channels.
- CO 2. Apply the concept of signal conversion to symbols and signal processing to symbols in transmitter and receiver functional blocks.
- CO 3. Identify Compute performance issues and parameters for symbol processing and recovery in ideal and corrupted channel conditions.
- CO 4. Write Compute performance parameters and mitigate for these parameters in corrupted and distorted channel conditions.
- CO 5. Explain the need of real time operating system for embedded system applications.

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.

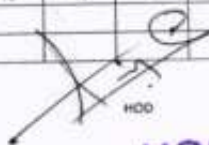
COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY												
FACULTY NAME	PROF.MALLIKARJUN Y P												
BRANCH	ECE			ACADEMIC YEAR				2023-24					
COURSE	B.E	SEMESTER			VI	SECTION			ECE				
SUBJECT	VLSI DESIGN					SUBJECT CODE			18EC72				
CO & PO MAPPING													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	
CO1	2	-	-	-									
CO2	2	3	-	-									
CO3	3	-	-	-									
CO4	-	-	2	-									
CO5	-	-	-	2									
AVERAGE	2.3	3	2	2									
OVERALL MAPPING OF SUBJECT												2.325	

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	74.37%	1.48	-	-	-								
CO2	80.15%	1.52	1.24	-	-								
CO3	80.15%	2.28	-	-	-								
CO4	83.85%	-	-	1.57	-								
CO5	83.85%	-	-	-	1.57								
AVERAGE	79.77	1.76	1.24	1.57	1.57								
FINAL ATTAINMENT LEVEL													1.53

Roll No.	USN	Name	2023-2024 OOD				SEM -VII SEM				PROF.MALLIKARJUN Y P				VLSI		SEE MARKS					Final					TOTAL AVERAGE	
			18EC72		2023-2024 OOD		T1		T2		T3		ASSIGNMENT 10/5				SEE	SEE MARKS					Final					
			T1(40)	T2(40)	T3(40)	CO1-40	CO2-20	CO3-20	CO4-20	CO5-20	CO1-2	CO2-2	CO3-2	CO4-2	CO5-2	60	CO1-15	CO2-15	CO3-15	CO4-15	CO5-15	CO1-37	CO2-37	CO3-37	CO4-37	CO5-37		
1	15V21EC001	ABHINAV B	36	36	37	34	18	18	18.5	18.5	2	2	2	2	2	29	5.8	5.8	5.8	5.8	5.8	41.8	25.8	25.8	26.3	26.3	29.2	
2	15V21EC002	ANJANA A	0	36	36	0	18	18	18	18	2	2	2	2	2	21	4.2	4.2	4.2	4.2	4.2	6.2	24.2	24.2	24.2	24.2	24.4	
3	15V21EC003	BHUMIKA S	36	38	39	33	18	18	18.5	18.5	2	2	2	2	2	21	4.2	4.2	4.2	4.2	4.2	32.6	26.6	26.6	26.6	26.6	28	
4	15V21EC004	K	40	40	40	26	20	20	20	20	2	2	2	2	2	23	4.6	4.6	4.6	4.6	4.6	32.6	26.6	26.6	26.6	26.6	28	
5	15V21EC005	DARSHAN M.R	37	38	39	20	18	18	18.5	18.5	2	2	2	2	2	21	4.2	4.2	4.2	4.2	4.2	42.2	24.2	24.2	24.7	24.7	26.8	
6	15V21EC006	K	38	38	37	38	18	18	18.5	18.5	2	2	2	2	2	21	4.2	4.2	4.2	4.2	4.2	42.2	24.2	24.2	24.7	24.7	26.8	
7	15V21EC007	HARSHITH M J	35	36	35	32	18	18	17.5	17.5	2	2	2	2	2	24	4.8	4.8	4.8	4.8	4.8	38.8	24.8	24.8	24.3	24.3	27.7	
8	15V21EC008	HARSHITH S	39	40	39	40	20	20	19.5	19.5	2	2	2	2	2	32	6.4	6.4	6.4	6.4	6.4	48.4	28.4	28.4	27.9	27.9	29.8	
9	15V21EC009	IMTIYAZ PASHA	35	36	38	26	18	18	18	18	2	2	2	2	2	28	5.6	5.6	5.6	5.6	5.6	35.2	28.2	28.2	26.7	26.7	28.3	
10	15V21EC010	MEGHANA N G	39	40	37	27	20	20	18.5	18.5	2	2	2	2	2	31	6.2	6.2	6.2	6.2	6.2	43.8	27.8	27.8	27.8	27.8	30.4	
11	15V21EC011	MURTHA H K	40	40	40	40	20	20	20	20	2	2	2	2	2	29	5.8	5.8	5.8	5.8	5.8	40.8	25.1	25.1	26.1	26.1	28.6	
12	15V21EC012	PRATHIKSHA	35	35	37	33	17.5	17.5	18.5	18.5	2	2	2	2	2	28	5.6	5.6	5.6	5.6	5.6	50	30	30	30	30	31.3	
13	15V21EC013	R M SUECHITHA	39	40	40	40	20	20	20	20	2	2	2	2	2	29	5.8	5.8	5.8	5.8	5.8	47.8	27.8	27.8	27.8	27.8	32.9	
14	15V21EC014	RACHANA K	40	40	40	40	20	20	20	20	2	2	2	2	2	42	8.4	8.4	8.4	8.4	8.4	50.4	30.4	30.4	30.4	30.4	33.1	
15	15V21EC015	S PAVITHRA	40	40	40	40	20	20	20	20	2	2	2	2	2	42	8.4	8.4	8.4	8.4	8.4	50.4	30.4	30.4	30.4	30.4	33.1	
16	15V21EC016	SHOBHA HULAB	39	40	39	39	20	20	19.5	19.5	2	2	2	2	2	28	5.6	5.6	5.6	5.6	5.6	35.2	28.2	28.2	26.7	26.7	28.3	
17	15V21EC017	YASHAS K R	30	36	38	31	18	18	18	19	2	2	2	2	2	24	4.8	4.8	4.8	4.8	4.8	37.8	24.8	24.8	25.8	25.8	28.3	
18	15V21EC018	HARSHITHA U	40	0	30	20	0	0	18.5	18.5	2	2	2	2	2	40	8	8	8	8	8	30	10	10	29.5	29.5	24.8	
19	15V21EC019	MANOJ	20	30	38	32	18	18	18	19	2	2	2	2	2	30	6	6	6	6	6	40	26	26	27	27	25.5	
																						38.87368	25.64737	25.64737	26.83158	26.83158		
																						74.37%	80.15%	80.15%	81.85%	81.85%		


CO-ORDINATOR


HOD
Dept of E&C
SIET, Tumkur-6


PRINCIPAL
SIET, TUMKUR.

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

SUBJECT	SATELLITE COMMUNICATION	SUBJECT CODE	18EC732
----------------	--------------------------------	---------------------	----------------

COURSE OUTCOME

- CO1. Describe the satellite orbits and its trajectories with the definitions of parameters associated with it.
- CO2. Describe the electronic hardware systems associated with the satellite subsystem and earth station.
- CO3. Describe the communication satellites with the focus on national satellite system.
- CO4. Compute the satellite link parameters under various propagation conditions with the illustration of multiple access techniques.
- CO5. Describe the satellites used for applications in remote sensing, weather forecasting and navigation.

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	PROF.AIJAZ AHAMED SHAEIF											
BRANCH	ECE			ACADEMIC YEAR				2023-24				
COURSE	B.E	SEMESTER		VII	SECTION			ECE				
SUBJECT	SATELLITE COMMUNICATION				SUBJECT CODE			18EC732				
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	-	-	2								
CO2	2	3	-	-								
CO3	3	-	-	-								
CO4	-	-	2	-								
CO5	2			2								
AVERAGE	2.3	3	2	2								
OVERALL MAPPING OF SUBJECT												2.325

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	78.02%	1.56			1.56								
CO2	85.99%	1.71	2.57	-	-								
CO3	85.99%	2.57	-	-	-								
CO4	87.22%	-	-	1.74	-								
CO5	87.22%	1.74			1.74								
AVERAGE	85.80	1.89	2.57	1.74	1.65								
FINAL ATTAINMENT LEVEL													1.96

Roll No.	UBV	Name	18EC732			2023-2024 OOD					SEM. V/ISEM			PROF. AJAZ AHMED SHARIF					SATELLITE COMMUNICATION					TOTAL AVERAGE				
			T1(40)	T2(40)	T3(40)	T1		T2		T3		ASSIGNMENT 10/5					SEE MARKS											
			CO1-40	CO2-20	CO3-20	CO4-20	CO5-20	CO1-2	CO2-2	CO3-2	CO4-2	CO5-2	60	CO1-15	CO2-15	CO3-15	CO4-15	CO5-15	CO1-57	CO2-37	CO3-37	CO4-37	CO5-37					
1	19V20EC001	ADITHYAN R	29	37	35	34	18.5	18.5	17	17	2	2	2	2	2	42	8.4	8.4	8.4	8.4	8.4	44.4	28.9	28.9	27.9	27.9	51.6	
2	19V20EC002	ANJANA A	0	31	34	0	15.5	15.5	17	17	2	2	2	2	2	21	4.2	4.2	4.2	4.2	4.2	6.2	21.7	21.7	23.2	23.2	25.4	
3	19V20EC003	BRUNIKA S	40	40	40	35	20	20	20	20	2	2	2	2	2	37	7.4	7.4	7.4	7.4	7.4	42.4	25.4	25.4	25.4	25.4	25.6	
4	19V20EC004	K	40	40	40	20	20	20	20	20	2	2	2	2	2	35	7	7	7	7	7	35	29	29	29	29	31.1	
5	19V20EC005	DARSHAN A R	23	39	28	20	19.5	19.5	14	14	2	2	2	2	2	35	7	7	7	7	7	29	28.5	28.5	23	23	28.3	
6	19V20EC006	H K	35	35	32	36	17.5	17.5	16	16	2	2	2	2	2	21	4.2	4.2	4.2	4.2	4.2	42.2	23.7	23.7	22.2	22.2	26.6	
7	19V20EC007	HARSHITHA J	36	35	35	32	17.5	17.5	17.5	17.5	2	2	2	2	2	38	7.6	7.6	7.6	7.6	7.6	41.6	27.1	27.1	27.1	27.1	28.4	
8	19V20EC008	HARSHITHA S	40	40	40	40	20	20	20	20	2	2	2	2	2	48	9.2	9.2	9.2	9.2	9.2	51.2	31.2	31.2	31.2	31.2	32.6	
9	19V20EC009	MITTVAZ PASHA	40	36	36	26	16	16	16	16	2	2	2	2	2	27	5.4	5.4	5.4	5.4	5.4	32.4	25.4	25.4	25.4	25.4	31.1	
10	19V20EC010	MEGHANA N G	38	40	40	37	20	20	20	20	2	2	2	2	2	44	8.8	8.8	8.8	8.8	8.8	37.8	30.8	30.8	30.8	30.8	29.6	
11	19V20EC011	ARUCHA H K	30	40	40	40	20	20	20	20	2	2	2	2	2	51	10.2	10.2	10.2	10.2	10.2	52.2	32.2	32.2	32.2	32.2	34.2	
12	19V20EC012	SRATHIKSHA	40	32	33	33	16	16	16.5	16.5	2	2	2	2	2	39	7.8	7.8	7.8	7.8	7.8	42.8	25.8	25.8	26.3	26.3	29.4	
13	19V20EC013	B M SUDHRA	25	40	40	40	20	20	20	20	2	2	2	2	2	42	8.4	8.4	8.4	8.4	8.4	50.4	30.4	30.4	30.4	30.4	31.9	
14	19V20EC014	RAJHANA N	40	40	40	40	20	20	20	20	2	2	2	2	2	47	9.4	9.4	9.4	9.4	9.4	51.4	31.4	31.4	31.4	31.4	34.9	
15	19V20EC015	S PAVITHRA	40	40	40	40	20	20	20	20	2	2	2	2	2	45	9	9	9	9	9	51	31	31	31	31	35.2	
16	19V20EC016	SHOBHA HUGAR	40	40	40	39	20	20	20	20	2	2	2	2	2	37	7.4	7.4	7.4	7.4	7.4	48.4	29.4	29.4	29.4	29.4	34.1	
17	19V20EC017	YASHTA K R	27	38	40	31	19	19	20	20	2	2	2	2	2	55	10	10	10	10	10	43	31	31	32	32	33.5	
18	19V20EC018	HARSHITHA U	39	0	20	20	0	0	13	13	2	2	2	2	2	38	7.6	7.6	7.6	7.6	7.6	29.6	9.6	9.6	22.6	22.6	26.3	
19	19V21EC402	MANGI	28	39	38	32	18.5	18.5	19	19	2	2	2	2	2	24	4.8	4.8	4.8	4.8	4.8	38.8	26.3	26.3	25.8	25.8	27.7	
																						40.56842	27.51579	27.51579	27.91053	27.91053		
																							78.02%	85.99%	85.99%	87.12%	87.22%	

[Signature]
COURSE INSTRUCTOR

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

[Signature]
PRINCIPAL
PRINCIPAL
SIET, TUMKUR.

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

SUBJECT	IoT& WIRELESS SENSOR NETWORKS	SUBJECT CODE	18EC741
----------------	--	---------------------	----------------

COURSE OUTCOME

CO 1. Describe the OSI Model for IoT/M2M Systems.

CO 2 Understand the architecture and design principles for device supporting IoT.

CO 3 Develop competence in programming for IoT Applications.

CO 4 Identify the uplink and downlink communication protocols which best suits the specific application of IOT / WSNs. **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	DR LOKESH B S											
BRANCH	ECE			ACADEMIC YEAR				2023-24				
COURSE	B.E	SEMESTER			VII	SECTION			ECE			
SUBJECT	IoT & WIRELESS SENSOR NETWORKS					SUBJECT CODE			18EC741			
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	-	-	-								
CO2	2	3	-	-								
CO3	3	-	-	-								
CO4	-	-	2	-								
AVERAGE	2.3	3	2	2								
OVERALL MAPPING OF SUBJECT												2.325

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	77.77%	1.53	-	-	-								
CO2	74.49%	1.57	2.36	-	-								
CO3	74.49%	2.36	-	-	-								
CO4	78.85%	-	-	1.68	-								
AVERAGE	76.4	1.82	2.02	1.68	1.68								
FINAL ATTAINMENT LEVEL													1.8

Roll No	USN	Name	18EC741		2023-2024 ODD		SEM /VI SEM		Dr LOKESH B S		NOT		SET	SET MARKS						Final				TOTAL AVERAGE																							
			T1(40)	T2(40)	T3(40)	T3	CO1-20	CO3-20	CO4-20	CO6-20	CO1-2	CO3-2		CO3-2	CO4-2	CO5-2	CO1-18	CO3-18	CO3-18	CO4-18	CO6-18	CO1-27	CO3-27		CO3-27	CO4-27	CO6-27																				
			T1	T2	T3	T3	T3	T3	T3	T3	T3	T3		T3	T3	T3	T3	T3	T3	T3	T3	T3	T3		T3	T3	T3																				
1	18V20EC141	ABHIRAM B	29	34	35	34	17	17	17.5	17.5	2	2	2	2	2	48	9.8	9.8	9.8	9.8	9.8	45.6	26.6	26.6	29.1	29.1	32.2																				
2	18V20EC142	ANJANA A	0	21	0	0	10.5	10.5	0	0	2	2	2	2	2	8	1.2	1.2	1.2	1.2	1.2	3.2	13.7	13.7	3.2	3.2	16.8																				
3	18V20EC143	BEHNIKA S	37	36	38	33	18	18	18	18	2	2	2	2	2	23	4.6	4.6	4.6	4.6	4.6	39.8	24.8	24.8	25.6	25.6	17.7																				
4	18V20EC144	CHITRAKSHREE H K	30	36	38	26	18	18	18	18	2	2	2	2	2	36	7.2	7.2	7.2	7.2	7.2	35.2	27.2	27.2	28.2	28.2	28.6																				
5	18V20EC145	DARSHAN M B	17	26	30	20	13	13	13	13	2	2	2	2	2	37	7.4	7.4	7.4	7.4	7.4	29.4	22.4	22.4	24.4	24.4	26.9																				
6	18V20EC146	GAGANASHREE H K	22	30	31	36	18	18	18.5	18.5	2	2	2	2	2	45	9	9	9	9	9	47	26	26	26.5	26.5	27.5																				
7	18V20EC147	HARSHITH M J	21	25	29	32	12.5	12.5	14.5	14.5	2	2	2	2	2	43	8	8	8	8	8	43	23.5	23.5	25.5	25.5	29.3																				
8	18V20EC148	HARSHITHA S	34	40	38	40	20	20	18	18	2	2	2	2	2	38	7.6	7.6	7.6	7.6	7.6	45.6	25.6	25.6	28.6	28.6	30.7																				
9	18V20EC149	JAYAZ PASHA	19	18	28	26	8	8	14	14	2	2	2	2	2	21	4.2	4.2	4.2	4.2	4.2	32.2	15.2	15.2	20.2	20.2	26.9																				
10	18V20EC150	MEGHANA N G	30	24	32	27	12	12	18	18	2	2	2	2	2	45	9	9	9	9	9	38	23	23	27	27	24.1																				
11	18V20EC151	MEKHA H K	38	39	34	40	18.5	18.5	17	17	2	2	2	2	2	38	7.6	7.6	7.6	7.6	7.6	45.8	29.3	29.3	26.8	26.8	30																				
12	18V20EC152	PHATHIKSHA	22	29	26	33	14.5	14.5	13	13	2	2	2	2	2	40	8	8	8	8	8	43	24.5	24.5	23	23	27.6																				
13	18V20EC153	B M SUCHITRA	37	38	38	40	18	18	18	18	2	2	2	2	2	46	9.2	9.2	9.2	9.2	9.2	51.8	30.8	30.8	30.8	30.8	31.3																				
14	18V20EC154	RACHANA N	34	39	39	40	18.5	18.5	18.5	18.5	2	2	2	2	2	47	9.4	9.4	9.4	9.4	9.4	51.4	30.9	30.9	30.9	30.9	35																				
15	18V20EC155	S PAVITHRA	37	38	36	40	18	18	18	18	2	2	2	2	2	50	10	10	10	10	10	52	31	31	30	30	34.9																				
16	18V20EC156	NEETHA HUGAR	35	30	32	38	18	15	16	16	2	2	2	2	2	36	7	7	7	7	7	48	24	24	25	25	32																				
17	18V20EC157	YASHAS K R	26	22	35	31	11	11	17.5	17.5	2	2	2	2	2	41	8.2	8.2	8.2	8.2	8.2	41.2	21.2	21.2	27.7	27.7	28.5																				
18	18V20EC158	HARSHITHA U	34	0	33	20	0	0	16.5	16.5	2	2	2	2	2	33	6.6	6.6	6.6	6.6	6.6	26.6	8.6	8.6	25.1	25.1	23.5																				
19	18V20EC159	MANDI	20	22	28	32	11	11	14	14	2	2	2	2	2	29	5.8	5.8	5.8	5.8	5.8	39.8	18.8	18.8	21.8	21.8	21.7																				
																					40.44211	28.83684	23.83684	25.29158	25.29158																						
																					77.77%	74.49%	74.49%	78.85%	78.85%																						

COURSE INSTRUCTOR


HOD
 Dept of E&C
 SIET, Tumkur-6

PRINCIPAL

 PRINCIPAL
 SIET, TUMKUR.



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

SUBJECT	E P M	SUBJECT CODE	18CV753
---------	-------	--------------	---------

COURSE OUTCOME

1. Appreciate the elements of Corporate Environmental Management systems complying to international environmental management system standards.
2. Lead pollution prevention assessment team and implement waste minimization options.
3. Develop, implement, maintain and Audit Environmental Management systems for Organizations.

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	PROF.SREE LAKSHMI											
BRANCH	ECE			ACADEMIC YEAR						2023-24		
COURSE	B.E	SEMESTER			VII	SECTION			ECE			
SUBJECT	E P M						SUBJECT CODE			18CV753		
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	-	-	-								
CO2	2	3	-	-								
CO3	3	-	-	-								
AVERAGE	2.3	3										
OVERALL MAPPING OF SUBJECT												2.325

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	80.08%	1.50	-	-									
CO2	80.87%	1.49	2.24	-									
CO3	80.87%	2.24	-	-									
AVERAGE	74.86	1.74	2.24										
FINAL ATTAINMENT LEVEL													1.99

Roll No.	USN	Name	18CV753			2023-2024 ODD					SEM -VII SEM		PROF. SRI LAKSHMI				EPM	SEE	SEE MARKS						TOTAL AVERAGE		
			T1			T2		T3		ASSIGNMENT 10/5				Final													
			T1(40)	T2(40)	T3(40)	CO1-20	CO2-20	CO3-20	CO4-20	CO5-20	CO1-2	CO2-2	CO3-2	CO4-2	CO5-2	CO1-15			CO2-15	CO3-15	CO4-15	CO5-15	CO1-17	CO2-17		CO3-17	CO4-17
1	1SV20EC001	AIBHISEK B	30	34	36	34	17	17	16	18	2	2	2	2	2	48	8	8	8	8	8	45	28	28	29	29	31.8
2	1SV20EC002	ANJANA A	0	0	20	0	0	0	10	10	2	2	2	2	2	11	2.2	2.2	2.2	2.2	2.2	4.2	4.2	4.2	14.2	14.2	20
3	1SV20EC003	BHILMIKA S	33	37	36	33	18.5	18.5	18.5	18.5	2	2	2	2	2	47	8.4	8.4	8.4	8.4	8.4	44.4	29.5	29.5	30.9	30.9	20.7
4	1SV20EC004	K	28	34	32	26	17	17	11	11	2	2	2	2	2	32	6.4	6.4	6.4	6.4	6.4	34.4	25.4	25.4	19.4	19.4	29
5	1SV20EC005	DARSHAN M B	22	28	36	20	14	14	18	18	2	2	2	2	2	48	9.6	9.6	9.6	9.6	9.6	31.6	25.6	25.6	29.6	29.6	26.6
6	1SV20EC006	K	0	31	37	36	15.5	15.5	18.5	18.5	2	2	2	2	2	47	8.4	8.4	8.4	8.4	8.4	47.4	26.9	26.9	29.9	29.9	30.3
7	1SV20EC007	HARSHITHA M J	28	29	36	32	14.5	14.5	18	18	2	2	2	2	2	47	8.4	8.4	8.4	8.4	8.4	43.4	25.9	25.9	29.4	29.4	31.5
8	1SV20EC008	HARSHITHA S	38	39	40	40	19.5	19.5	20	20	2	2	2	2	2	59	11.8	11.8	11.8	11.8	11.8	58.8	33.3	33.3	33.8	33.8	34.2
9	1SV20EC009	BMTIYAZ PASHA	36	33	38	28	16.5	16.5	19	19	2	2	2	2	2	45	8	8	8	8	8	37	27.5	27.5	30	30	34
10	1SV20EC010	MEGHANA N G	33	35	36	27	17.5	17.5	18	18	2	2	2	2	2	40	8	8	8	8	8	37	27.5	27.5	28	28	30
11	1SV20EC011	MUKTHA H K	34	36	38	40	18	18	19	19	2	2	2	2	2	55	11	11	11	11	11	53	31	31	32	32	32.7
12	1SV20EC012	PRATHIKSHA	32	35	34	33	17.5	17.5	17	17	2	2	2	2	2	38	7.2	7.2	7.2	7.2	7.2	42.2	26.7	26.7	26.2	26.2	29.6
13	1SV20EC013	R M S/CHITRA	38	36	40	40	19.5	19.5	20	20	2	2	2	2	2	42	8.4	8.4	8.4	8.4	8.4	50.4	29.9	29.9	30.4	30.4	31.9
14	1SV20EC014	RACHANA N	33	36	38	40	18	18	19	19	2	2	2	2	2	44	8.8	8.8	8.8	8.8	8.8	50.8	28.8	28.8	29.8	29.8	33.9
15	1SV20EC015	S PAVITHRA	38	38	40	40	19	19	20	20	2	2	2	2	2	50	10	10	10	10	10	52	31	31	32	32	34.6
16	1SV20EC016	SHOBHA HUGAR	30	35	38	39	17.5	17.5	19	19	2	2	2	2	2	41	8.2	8.2	8.2	8.2	8.2	49.2	27.7	27.7	29.2	29.2	34.1
17	1SV20EC017	YASHAS K R	30	33	37	31	16.5	16.5	18.5	18.5	2	2	2	2	2	55	11	11	11	11	11	44	29.5	29.5	31.5	31.5	32.9
18	1SV20EC018	HARSHITHA U	34	0	36	20	0	0	18	18	2	2	2	2	2	41	8.2	8.2	8.2	8.2	8.2	30.2	10.2	10.2	28.2	28.2	27.3
19	1SV21EC400	MANOJ	19	27	29	32	13.5	13.5	14.5	14.5	2	2	2	2	2	36	7.2	7.2	7.2	7.2	7.2	41.2	22.7	22.7	23.7	23.7	24.1
																						41.8421	25.879	25.8789	28.2737	28.2737	
																						80.08%	80.87%	80.87%	88.56%	88.56%	

COURSE INSTRUCTOR

Selva

HOD

HOD
Dept of E&C
SIET, Tumkur-6

PRINCIPAL

PRINCIPAL
SIET, TUMKUR.

N. Chandrashekhara

**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

SUBJECT	WIRELESS AND CELLULAR COMMUNICATION	SUBJECT CODE	18EC81
----------------	--	---------------------	---------------

COURSE OUTCOME

- CO 1.** Understand the concepts of propagation over wireless channels from a physics standpoint.
- CO 2.** Application of Communication theory both Physical and networking to understand GSM systems that handle mobile telephony
- CO 3.** Application of Communication theory both Physical and networking to understand CDMA systems that handle mobile telephony.
- CO 4.** Application of Communication theory both Physical and networking to understand LTE-4G systems

PROGRAM OUTCOMES

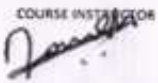
- PO1** Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.
- PO2** Problem analysis: Identify, formulate, research literature, and analyze complex engineering 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.

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY											
FACULTY NAME	Dr.GIREESHA B											
BRANCH	ECE			ACADEMIC YEAR				2023-24				
COURSE	B.E	SEMESTER		VIII	SECTION			ECE				
SUBJECT	WIRELESS AND CELLULAR COMMUNICATION					SUBJECT CODE		18EC81				
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	-	-	-								
CO2	2	3	-	-								
CO3	3	-	-	-								
CO4	-	-	2	2								
AVERAGE	2.3	3	2	2								
OVERALL MAPPING OF SUBJECT											2.325	

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	76.84%	1.43	-	-	-								
CO2	58.01%	1.36	2.04	-	-								
CO3	58.01%	2.04	-	-	-								
CO4	58.01%	-	-	1.36	1.36								
AVERAGE	62.71	1.61	2.04	1.36	1.36								
FINAL ATTAINMENT LEVEL												1.02	

Roll No.	USN	Name	2023-2024 EVEN			SEM -VIII SEM					Dr.GIREESHA B										WIRELESS COMMUNICATION					TOTAL AVERAGE	
			T1			T2		T3			ASSIGNMENT 10/E					SEE					SEE MARKS						
			T1(40)	T2(40)	T3(40)	CO1-20	CO2-20	CO3-20	CO4-20	CO5-20	CO1-2	CO2-2	CO3-2	CO4-2	CO5-2	CO6-2	SEE	CO1-15	CO2-15	CO3-15	CO4-15	CO5-15	CO1-17	CO2-17	CO3-17		CO4-17
1	15V20EC001	ABHISHEK S	20	20	20	34	10	10	10	10	2	2	2	2	2	60	6.0	6.0	6.0	6.0	6.0	42.6	18.6	18.6	18.6	18.6	23.4
2	15V20EC002	ANJANA A	18	18	18	10	8	8	8	8	2	2	2	2	2	30	6.6	6.6	6.6	6.6	6.6	3.8	12.8	12.8	12.8	12.8	17.2
3	15V20EC003	BHUMIKA S	19	19	19	23	8.5	8.5	8.5	8.5	2	2	2	2	2	6	7.8	7.8	7.8	7.8	7.8	42.6	18.1	18.1	18.1	18.1	17.4
4	15V20EC004	CHITRAKSHEE J.K	18	18	18	26	8	8	8	8	2	2	2	2	2	38	7.6	7.6	7.6	7.6	7.6	42.6	18.1	18.1	18.1	18.1	17.4
5	15V20EC005	DARSHAN M B	18	18	18	20	8	8	8	8	2	2	2	2	2	30	6	6	6	6	6	34	17	17	17	17	22.1
6	15V20EC006	K.	18	18	18	28	8	8	8	8	2	2	2	2	2	45	8	8	8	8	8	31	20	20	20	20	21.1
7	15V20EC007	HARSHITH M.J	18	18	18	32	8	8	8	8	2	2	2	2	2	13	3	3	3	3	3	41	14	14	14	14	20.8
8	15V20EC008	HARSHITHA S	20	20	20	40	10	10	10	10	2	2	2	2	2	42	8.4	8.4	8.4	8.4	8.4	42.4	18.4	18.4	18.4	18.4	21.9
9	15V20EC009	IMTIYAZ PANDYA	18	19	19	26	8.5	8.5	8.5	8.5	2	2	2	2	2	51	10.2	10.2	10.2	10.2	10.2	32.2	22.2	22.2	22.2	22.2	26.1
10	15V20EC010	MEGHANA N G	20	20	20	27	10	10	10	10	2	2	2	2	2	35	7	7	7	7	7	35	18.5	18.5	18.5	18.5	25
11	15V20EC011	MULTHA H.K	20	20	20	40	10	10	10	10	2	2	2	2	2	31	6.2	6.2	6.2	6.2	6.2	35.2	18.2	18.2	18.2	18.2	21.7
12	15V20EC012	PRADEENHA	20	20	20	33	10	10	10	10	2	2	2	2	2	53	10.6	10.6	10.6	10.6	10.6	52.6	22.6	22.6	22.6	22.6	25.1
13	15V20EC013	B.M.SUCHITRA	20	20	20	40	10	10	10	10	2	2	2	2	2	29	5.8	5.8	5.8	5.8	5.8	40.8	17.8	17.8	17.8	17.8	22.4
14	15V20EC014	BACHANA N	20	20	20	40	10	10	10	10	2	2	2	2	2	34	6.8	6.8	6.8	6.8	6.8	48.8	18.8	18.8	18.8	18.8	23.8
15	15V20EC015	S.PAVITHRA	20	20	20	40	10	10	10	10	2	2	2	2	2	47	9.4	9.4	9.4	9.4	9.4	51.4	21.4	21.4	21.4	21.4	26.1
16	15V20EC016	SHOBHA HEGAR	20	20	20	38	10	10	10	10	2	2	2	2	2	48	9.6	9.6	9.6	9.6	9.6	51.6	21.6	21.6	21.6	21.6	27.5
17	15V20EC017	YASHAS K B	20	20	20	31	10	10	10	10	2	2	2	2	2	40	8	8	8	8	8	48	20	20	20	20	26.7
18	15V20EC018	HARSHITHA U	19	19	19	20	8.5	8.5	8.5	8.5	2	2	2	2	2	34	6.8	6.8	6.8	6.8	6.8	39.8	18.8	18.8	18.8	18.8	24.4
19	15V21EC481	MANOJ	18	18	18	32	8	8	8	8	2	2	2	2	2	35	6	6	6	6	6	28	17.5	17.5	17.5	17.5	21.3
																17	3.4	3.4	3.4	3.4	3.4	37.4	14.4	14.4	14.4	14.4	18.3
																						38.95788	18.36316	18.36316	18.36316	18.36316	
																						76.84%	58.01%	58.01%	58.01%	58.01%	

COURSE INSTRUCTOR


HOD
 Dept of E&C
 SIET, Tumkur-6

PRINCIPAL

 PRINCIPAL
 SIET, TUMKUR.



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

SUBJECT	OPTICAL COMMUNICATION NETWORK	SUBJECT CODE	18EC824
----------------	--------------------------------------	---------------------	----------------

COURSE OUTCOME

- CO 1.** Learn the basic principle of optical fiber communication with different modes of light Propagation
- CO 2.** Understand the transmission characteristics and losses in optical fiber.
- CO 3.** Study of optical components and its applications in optical communication networks.
- CO 4.** Learn the network standards in optical fiber and understand the network architectures along with its functionalities.

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	PROF.LOKESH.B S											
BRANCH	ECE			ACADEMIC YEAR				2023-24				
COURSE	B.E	SEMESTER		VIII	SECTION			ECE				
SUBJECT	OPTICAL COMMUNICATION NETWORK					SUBJECT CODE		18EC824				
CO & PO MAPPING												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	-	-	-								
CO2	2	3	-	-								
CO3	3	-	-	-								
CO4	-	-	2	2								
AVERAGE	2.3	3	2	2								
OVERALL MAPPING OF SUBJECT												2.325

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	72.75%	1.43	-	-	-								
CO2	76.78%	1.36	2.04	-	-								
CO3	76.78%	2.04	-	-	-								
CO4	71.92%	-	-	1.36	1.36								
AVERAGE	74.13	1.61	2.04	1.36	1.36								
FINAL ATTAINMENT LEVEL													1.29

Roll No	USN	Name	2023-2024 EVEN					SEM (VII) SEM					Dr. LOKESH B S					OCN					TOTAL AVERAGE							
			T1			T2		T3		ASSIGNMENT 10/5					SEE					SEE MARKS					Final					
			T1(40)	T2(40)	T3(40)	CO1-40	CO2-20	CO3-20	CO4-20	CO5-20	CO1-2	CO2-2	CO3-2	CO4-2	CO5-2	60	CO1-15	CO2-15	CO3-15	CO4-15	CO5-15	CO1-57		CO2-37	CO3-37	CO4-37	CO5-37			
1	ISV208C001	ABHISHEK B	38	37	32	34	16.5	18.5	16	16	2	2	2	2	2	28	5.6	5.6	5.6	5.6	5.6	41.6	26.1	26.1	23.6	23.6	26.2			
2	ISV208C002	ANJANA A	22	34	25	0	17	17	12.5	12.5	2	2	2	2	2	5	1	1	1	1	1	3	20	20	15.5	15.5	21.8			
3	ISV208C003	IBRUNDKA S	33	34	38	33	17	17	18	18	2	2	2	2	2	25	5	5	5	5	5	40	24	24	26	26	21.4			
4	ISV208C004	K	26	35	36	28	17.5	17.5	18	18	2	2	2	2	2	14	2.8	2.8	2.8	2.8	2.8	30.8	22.3	22.3	22.8	22.8	21.6			
5	ISV208C005	DARSHAN M B	37	39	3	20	18.5	18.5	2.5	2.5	2	2	2	2	2	21	4.2	4.2	4.2	4.2	4.2	26.2	25.7	25.7	8.7	8.7	21.6			
6	ISV208C006	K	27	28	31	30	14	14	15.5	15.5	2	2	2	2	2	14	2.8	2.8	2.8	2.8	2.8	40.8	18.8	18.8	20.3	20.3	21.4			
7	ISV208C007	HARSHITH M J	30	35	20	32	17.5	17.5	10	10	2	2	2	2	2	23	4.6	4.6	4.6	4.6	4.6	38.8	24.1	24.1	16.8	16.8	23.9			
8	ISV208C008	HARSHITHA S	40	38	40	40	18	18	20	20	2	2	2	2	2	20	5.2	5.2	5.2	5.2	5.2	47.2	26.2	26.2	27.2	27.2	27.4			
9	ISV208C009	IMTIAZ PASHA	31	32	37	28	16	16	18.5	16.5	2	2	2	2	2	21	4.2	4.2	4.2	4.2	4.2	32.2	22.2	22.2	24.7	24.7	28			
10	ISV208C010	MEGHANA N G	40	38	38	27	19	19	19	19	2	2	2	2	2	25	5	5	5	5	5	34	25	26	26	26	26.4			
11	ISV208C011	MUKTHA H K	40	39	36	40	18.5	18.5	18	18	2	2	2	2	2	38	7.2	7.2	7.2	7.2	7.2	49.2	28.7	28.7	27.2	27.2	29.9			
12	ISV208C013	PRATHIKSHA	9	19	30	33	9.5	9.5	15	15	2	2	2	2	2	25	4.8	4.8	4.8	4.8	4.8	39.8	16.1	16.1	21.8	21.8	23			
13	ISV208C014	R M SUCHITRA	40	39	40	40	19.5	19.5	20	20	2	2	2	2	2	28	5.6	5.6	5.6	5.6	5.6	47.6	27.1	27.1	27.6	27.6	27.3			
14	ISV208C015	BACHANA N	39	38	39	40	18	18	19.5	19.5	2	2	2	2	2	36	7.2	7.2	7.2	7.2	7.2	49.2	28.2	28.2	28.7	28.7	32			
15	ISV208C016	S PAVITHRA	39	40	40	40	20	20	20	20	2	2	2	2	2	36	7.2	7.2	7.2	7.2	7.2	48.2	29.2	29.2	29.2	29.2	32.9			
16	ISV208C017	SHODHA HUGAR	35	39	34	38	19.5	19.5	17	17	2	2	2	2	2	32	6.4	6.4	6.4	6.4	6.4	47.4	27.5	27.5	25.4	25.4	32			
17	ISV208C018	YASHAS K R	32	39	35	31	16.5	16.5	17.5	17.5	2	2	2	2	2	29	5.8	5.8	5.8	5.8	5.8	38.8	27.3	27.3	25.3	25.3	29.8			
18	ISV208C019	HARSHITHA U	34	35	33	20	17.5	17.5	16.5	16.5	2	2	2	2	2	21	4.2	4.2	4.2	4.2	4.2	26.2	25.7	25.7	22.7	22.7	26.3			
19	ISV218C400	MANGI	32	30	26	32	16	16	13	13	2	2	2	2	2	16	3.2	3.2	3.2	3.2	3.2	37.2	23.2	23.2	18.2	18.2	23.9			
																						37.83158	24.56842	24.56842	23.01579	23.01579				
																							72.75%	76.78%	76.78%	71.92%	71.92%			

(Signature)

(Signature)

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

(Signature)
 PRINCIPAL
 SIET, TUMKUR.