RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(MA-T31 MATHEMATICS-III) [Total no. of. Students: 30] [2nd Year, 3rd Semester]

Course Prerequisite: Basic knowledge for formulas differential and integration

Course Objective:

1. To provide the concepts of functions of a complex variable, conformal mapping, complex integration, series expansion of complex functions, Harmonic analysis and Fourier series.
2. To make the students understand and work out problems of constructing analytic functions, conformal mapping, bilinear transformation, contour integration and expanding functions into Fourier series including Harmonic analysis.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	To understand the concepts of function of a complex variable and complex integration.	L2
CO2	To apply these ideas to solve problems occurring in the area of Engineering and Technology.	L2
CO3	Expand functions into Fourier series which are very much essential for in Engineering and Technology.	L2
CO4	To apply these ideas to solve problems occurring in the area of Engineering and Technology.	L6
CO5	Obtain Fourier transform for the functions which are needed for solving application problems.	L2

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	3	-	-	2	-	3	-	-	2	2	3	2	1	-
CO2	3	3	2	3	-	-	2	-	2	-	-	2	3	3	2	1	-
CO3	3	3	3	3	1	-	2	3	3	-	-	3	3	3	2	-	2
CO4	3	3	3	1	-	-	2	-	2	-	-	1	3	2	1	2	-
C05	3	3	3	3	1	1	2	3	3	-	-	3	3	3	1	1	2
AVG	**3**	**3**	**2.6**	**2.6**	**1**	**0.2**	**2**	**1.2**	**2.6**	**0**	**0**	**2.2**	**2.8**	**2.8**	**1.6**	**1**	**0.8**

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T32 ELECTRONIC DEVICES AND CIRCUITS) [Total no. of. Students: 30] [2nd Year, 3rd Semester]

Course Prerequisite: Basic Electrical Engineering and physics.

Course Objective:

1. To introduce the basic principle, operation and applications of electronic devices
2. To understand the concept of biasing and different types of biasing circuits used for BJT, JFET and MOSFET
3. To study the basic models of BJT, JFET and MOSFET
4. To understand the basic concept of feedback and operation of different types of amplifiers and oscillators
5. To understand the characteristics and applications of operational amplifiers

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Understand the principles and applications of diodes, including their use in logic gates, voltage regulation, clippers, clampers, and voltage multipliers.	L2
CO2	Comprehend the biasing techniques and small signal models for BJTs and FETs, and analyze their operating points and parameters.	L5
CO3	Analyze the operation and frequency response of RC coupled and power amplifiers, and understand the concepts of feedback and oscillator circuits.	L3
CO4	Understand the characteristics and applications of operational amplifiers, including configurations such as inverting, non inverting, integrator, differentiator, and active filters.	L2
CO5	Understand the characteristics, operation, and applications of special electronic devices such as varactor diodes, tunnel diodes, LEDs, LCDs, UJTs, SCRs, DIACs, and TRIACs.	L2

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	2	2	2	2	-	-	-	1	2	1	1	3	3	2	-	-
CO2	3	3	3	2	2	-	-	-	1	2	1	1	3	3	2	-	1
CO3	3	3	3	3	2	-	-	-	1	2	1	1	3	3	2	-	-
CO4	3	3	3	3	3	-	-	-	1	2	1	1	3	3	3	2	-
C05	3	2	2	2	2	-	-	-	1	2	1	1	3	3	2	1	-
AVG	3	2.6	2.6	2.6	2.2	0	0	0	1	2	1	1	3	3	2.2	0.6	0.2

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T33 DATA STRUCTURES) [Total no. of. Students: 30] [2nd Year, 3rd Semester]

Course Prerequisite: Problem Solving Skills and Basic Programming Language.

Course Objective:

1. To introduce the primary data structures and the associated operations
2. To understand the applications of data structures with case studies
3. To learn the implementation issues of the data structures introduced.
4. To Understand and apply fundamental algorithmic problems including Tree traversals, Graph traversals, and shortest paths.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Able to use data structures in programming and learn various ways of implementing the data structures	L3
CO2	Able to understand and implement various queue based data structures.	L2
CO3	Able to gain in depth knowledge of specialized tress.	L4
CO4	Able to learn and apply various sorting techniques.	L3
CO5	Able to understand and implement hashing technique and grasp fundamental graph concept.	L2

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	-	-	-	-	-	-	-	-	2	-	-	3	-	3
CO2	3	3	3	-	-	-	-	-	-	-	-	2	-	-	3	-	3
CO3	3	3	3	-	-	-	-	-	-	-	-	2	-	-	3	3	-
CO4	3	3	3	-	-	-	-	-	-	-	-	2	-	-	3	-	3
C05	3	3	3	-	-	-	-	-	-	-	-	2	-	-	3	3	3
AVG	3	3	3	0	0	0	0	0	0	0	0	2	0	0	3	1.2	2.4

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T34 OBJECT ORIENTED PROGRAMMING) [Total no. of. Students: 30] [2nd Year, 3rd Semester]

Course Prerequisite: Structured Programming Language C

Course Objective:

1. To understand the concepts of object-oriented programming and master OOP using C++.
2. To make students understand Exception handling and File Handling.
3. To understand the principles of Virtual function and polymorphism.
4. To understand the concept of Formatted I/O and Unformatted I/O.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Analyze and design a problem using an object-oriented approach.	L2 & L4
CO2	Implement the problem using C++ programming Language.	L3
CO3	Efficiently implement Exception handling Techniques	L3
CO4	Understand the features of I/O streams, Templates and Operator Overloading	L2

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	-	3	3	-	-	-	-	-	2	-	-	-	3	3	2	-	1
CO2	3	-	-	-	3	-	-	-	2	2	-	-	3	2	2	-	-
CO3	-	3	3	2	-	-	-	-	-	-	-	-	3	-	2	-	2
CO4	3	-	-	-	3	2	-	2	-	-	-	1	3	2	-	-	3
AVG	1.5	1.5	1.5	0.5	1.5	0.5	0	0.5	1	0.5	0	0.25	3	1.75	1.5	0	1.5

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T35 DIGITAL SYSTEM DESIGN) [Total no. of. Students: 30] [2nd Year, 3rd Semester]

Course Prerequisite: Basic Electronics

Course Objective:

1. To apply knowledge of number systems, codes and Boolean algebra to the analysis and design of digital logic circuits.
2. To identify, formulate, and solve engineering problems in the area of digital logic circuit design.
3. To use the techniques, skills, and modern engineering tools such as logic works and VHDL, necessary for engineering practice.
4. To design a digital system, components or process to meet desired needs within realistic constraints.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Upon successful completion of this course, students should be able to:	L2
CO2	Understand various types of number systems and their conversion.	L3
CO3	Simplify the boolean expression and apply the boolean theorems through logical gates.	L6
CO4	Design and implement variety of logical devices using combinational circuits concepts.	L4
CO5	Demonstrate and compare the construction of logic devices and different types of ROM.	L4

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	-	3	-	-	-	-	-	-	-	3	3	-	-	-
CO2	3	3	3	-	-	-	-	-	-	-	-	-	3	-	3	-	-
CO3	3	-	3	-	3	-	-	-	-	-	-	-	3	3	-	-	-
CO4	3	-	-	3	-	-	-	2	-	-	-	-	3	-	-	3	-
CO5	3	3	-	3	-	-	-	-	-	-	-	2	3	-	-	-	3
AVG	**3**	**1.2**	**1.2**	**1.2**	**1.2**	**0**	**0**	**1.2**	**0**	**0**	**0**	**0.4**	**3**	**1.2**	**0.6**	**0.6**	**0.6**

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T36 COMPUTER ORGANIZATION) [Total no. of. Students: 30] [2nd Year, 3rd Semester]

Course Prerequisite: Fundamentals of Boolean logic, combinational and sequential circuits

Course Objective:

1. To understand the basic operation of a computer
2. To understand the design and organization of a Von-Neumann computer system.
3. To comprehend the importance of the hardware-software interface.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Understand the basics of instructions sets and their impact on processor design	L1&L2
CO2	Demonstrate an understanding of the design of the functional units of a digital computer system	L2&L3
CO3	Evaluate cost performance and design trade-offs in designing and constructing a computer processor including memory	L4&L5
CO4	Design a pipeline for consistent execution of instructions with minimum hazards	L3&L6
CO5	Manipulate representations of numbers stored in digital computer	L3&L4

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	-	3	-	-	-	-	-	-	-	3	3	-	-	3
CO2	-	3	3	-	-	-	-	-	-	-	-	-	3	3	3	-	3
CO3	-	-	-	3	-	-	3	-	-	-	-	-	3	3	-	-	-
CO4	-	-	3	-	-	-	-	-	-	-	3	-	3	3	-	-	3
CO5	-	-	-	-	3	-	-	-	-	3	-	-	3	3	3	3	3
AVG	0.6	0.6	1.2	0.6	1.2	0	0.6	0	0	0.6	0.6	0	3	3	1.2	0.6	2.4

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P31 DATA STRUCTURES LAB) [Total no. of. Students: 30] [2nd Year, 3rd Semester]

Course Prerequisite: Problem Solving Skills and Basic Programming Language.

Course Objective:

1. To introduce the basics of C++ programming language.
2. To introduce the concepts of ADTs.
3. To introduce the concepts of Hashing and Sorting.
4. Solving various problems using techniques introduced in this course
5. Analyze the algorithm"s / program"s efficiency in terms of time and space complexity.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Solve any given problem by identifying appropriate data structures.	L4,L5&L6
CO2	Evaluate programs efficiency in terms of time and space complexity.	L4,L5&L6
CO3	Analyze the concepts of ADTs and Hashing and Sorting.	L4,L5&L6
CO4	Solving various problems using techniques introduced in this course.	L4,L5&L6

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
CO2	-	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
CO3	-	-	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-
CO4	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	3	-
AVG	0.75	0.75	0.75	0.75	0	0	0	0	0	0	0	0	0.75	0.75	0.75	0.75	0

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P32 ELECTRONIC DEVICES AND CIRCUITS LAB) [Total no. of. Students: 30] [2nd Year, 3rd Semester]

Course Prerequisite:

1. **Basic Electrical Engineering:** Knowledge of fundamental electrical concepts, including Ohm's Law, Kirchhoff's laws, and basic circuit analysis techniques.
2. **Basic Electronics:** Understanding of elementary semiconductor devices such as diodes and transistors, and their basic operating principles.
3. **Mathematics:** Proficiency in calculus, differential equations, and basic algebra to understand and analyze electronic circuits and systems.

Course Objective:

1. To introduce the basic principle, operation and applications of electronic devices
2. To understand the concept of biasing and different types of biasing circuits used for BJT, JFET and MOSFET
3. To study the basic models of BJT, JFET and MOSFET
4. To understand the basic concept of feedback and operation of different types of amplifiers and oscillators
5. To understand the characteristics and applications of operational amplifiers

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Understanding the principles and applications of diodes, including their use in logic gates, voltage regulation, clippers, clampers, and voltage multipliers, LED.	L2
CO2	Understanding and Analysis of Transistors and Amplifiers small-signal models for BJTs and JFET,SCR,UJT, RC-Coupled Amplifier, Class B push-pull power amplifiers and analyze their operating points and parameters.	L3,L5
CO3	Understanding the characteristics and applications of operational amplifiers, including configurations such as inverting, non-inverting, integrator, differentiator, and active filters.	L2

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	-	-	-	-	-	-	1	1	3	3	-	-	-
CO2	3	3	3	3	-	-	-	-	-	-	1	1	3	3	-	-	-
CO3	3	3	3	3	-	-	-	-	-	-	1	1	3	3	-	-	-
AVG	3	3	3	3	0	0	0	0	0	0	1	1	3	3	0	0	0

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P33 DIGITAL LAB) [Total no. of. Students: 30] [2nd Year, 3rd Semester]

Course Prerequisite: Basic Electronics

Course Objective:

1. To perform fundamental operations on digital circuits.
2. To apply the concepts of basic combinational logic circuits, sequential circuit elements, and programmable logic in the laboratory setting.
3. To design the combinational and sequential circuits using Verilog Hardware Description Language (VHDL)

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	To apply knowledge of number systems, codes and Boolean algebra to the analysis and design of digital logic circuits.	L2
CO2	To identify, formulate, and solve engineering problems in the area of digital logic circuit design.	L3
CO3	To use the techniques, skills, and modern engineering tools such as logic works and VHDL, necessary for engineering practice.	L2 & L4
CO4	To design a digital system, components or process to meet desired needs within realistic constraint	L2 & L5

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	-	3	-	-	-	3	-	-	-	3	3	-	-	3
CO2	-	3	3	-	-	-	-	-	-	-	3	-	-	-	3	3	-
CO3	-	3	3	-	-	-	-	-	3	-	-	-	-	-	3	-	3
CO4	3	3	-	-	-	-	-	-	-	-	-	3	3	3	-	3	-
AVG	1.5	2.25	1.5	0	0.75	0	0	0	1.5	0	0.75	0.75	1.5	1.5	1.5	1.5	1.5

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T51 COMMUNICATION ENGINEERING-II) [Total no. of. Students: 31] [3rd Year, 5th Semester]

Course Prerequisite: Basic Electrical and Electronics Engineering and Signal Systems

Course Objective:

1. To learn the various orbits used for satellite communication systems.
2. To understand the working principle of various satellite systems and their applications.
3. To understand the concept of spread spectrum technologies, Rake receivers and CDMA
4. To introduce the concept and operation of cellular mobile communication and to introduce various cellular standards
5. To learn the need for fiber optics communication and the operation of fiber optic communication system.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Explain the satellite orbits, antenna look angles, different parameters influencing the satellite system and to analysis satellite link budget.	L1 &L3
CO2	Describe the different types of Spread spectrum techniques and CDMA principle of operation and application.	L1
CO3	Analyzing the cell concept, frequency reuse techniques, handoff mechanism, effect of cell splitting and cell sectoring on system capacity.	L1&L3
CO4	Understanding the evolution of mobile communication, architecture of 2G, B2G and 3G systems.	L1,L2&L3
CO5	Describe the advantages of fiber optics, types of optical fibers and modes, losses affecting the fiber link and to analysis fiber link budget calculation.	L2

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	3	3	3	2	-	3	3	3	1	3	3	3	-	-
CO2	3	3	3	3	-	-	-	-	-	-	-	3	3	3	3	-	-
CO3	3	3	3	3	-	-	-	-	-	-	1	2	3	3	3	-	-
CO4	3	3	3	3	-	-	-	-	-	-	-	-	3	3	3	-	-
CO5	3	1	3	2	-	-	1	-	-	-	1	3	-	3	3	-	-
AVG	3	2.6	3	2.8	0.6	0.6	0.6	0	0.6	0.6	1	1.8	2.4	3	3	0	0

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T52 SOFTWARE ENGINEERING) [Total no. of. Students:31] [3rd Year, 5th Semester]

Course Prerequisite: Basic Knowledge in Computer.

Course Objective:

1. To learn, practice and apply the software engineering industry practices.
2. To acquire knowledge on the various techniques, tools and models for each of the phases of software development.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Ability to apply basic knowledge and understanding of the analysis,synthesis and design of complex system.	L3
CO2	Develop,maintin and evaluate large-scale software systems.	L5
CO3	Produce efficient,reliable,robust and cost-effective software solutions.	L6
CO4	Acquire knowledge and skills related to coding and testing,including software documentation,unit testing,white box testing,black box testing,debugging,program analysis tools,integration testing,testing object oriented programs and system testing.	L2
CO5	Gain an understanding of omputer-aided software engineering(CASE) tools and their role in software development life cycle,as well as characterstics of software maintanence,software reverse engineering and software maintenance process models.	L2

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-
CO2	-	-	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-
CO3	-	-	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-
CO4	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
CO5	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	3
AVG	1.2	0	1.2	0	0.6	0	0	0	0	0	0	0	0.6	0	1.8	0	0.6

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T53 OPERATING SYSTEMS) [Total no. of. Students:31] [3rd Year, 5th Semester]

Course Prerequisite: Fundamentals of Computer Architecture , Data Structures and Algorithms.

Course Objective:

1. To grasp a fundamental understanding of operating systems
2. To learn the concepts and creation computer processes and threads
3. To understand memory management and virtual memory concepts in modern OS
4. To understand process concurrency and synchronization
5. Understand the concepts of data input/output, storage and file management
6. To learn the scheduling policies, memory management and file management of some commercial operating systems

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Understand fundmental operating system concepts such process,threads,files,threads,semaphores,IPC,shared memory etc.,	L2
CO2	Understand the process synchronization and concurrency and also analyse various scheduling algorithm.	L4
CO3	Understand the concepts memory management and virtual memory conepts in modern operating system.These also include issues of performance and fairness objectives, avoiding deadlocks, as well as security and protection.	L4 & L5
CO4	Understand basic resource management techniques (disk scheduling or time management, space management,file management) and principles and how they can be implemented.	L2 & L3
CO5	Understand the scheduling policies, memory management and file management of some commercial operating systems	L5

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	-	2	-	-	-	-	-	-	-	3	-	-	-	-
CO2	3	3	3	3	-	-	-	-	-	-	-	-	-	-	3	-	-
CO3	3	3	3	3	-	-	2	2	-	-	-	2	-	-	-	3	-
CO4	3	3	3	3	-	-	-	-	-	-	-	-	-	3	-	-	-
CO5	3	3	3	3	3	-	-	-	-	2	2	-	-	-	-	-	3
AVG	3	3	3	2.4	1	0	0.4	0.4	0	0.4	0.4	0.4	0.6	0.6	0.6	0.6	0.6

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T54 DATA BASE MANAGEMENT SYSTEMS) [Total no. of. Students:31] [3rd Year, 5th Semester]

Course Prerequisite:

1. Knowledge about Memory Management
2. Programming Skills

Course Objective:

1. To introduce the fundamental concepts of Database Management System to the students .
2. To make them understand the usage of Database Management System in the current industry scenario.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Able to undertand the basic concepts of DBMS and fundamentals of datamodels and depict a database system using ER diagram	L2&L3
CO2	Able to understand relational algebra operations and DDL,DML commands and techniques	L2&L3
CO3	Able to develop and understand the concepts such as database security,integrity and concurrency	L4&L5
CO4	Able to learn about internal structure using different file and indexing techniques which help in physical database design	L1
CO5	Able to gain knowledge of transaction processing and concurrency control techniques	L1

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	3	-	3	-	-	-	-	-	-	-	3	3	3	-	-
CO2	3	-	3	-	3	-	-	-	-	-	-	-	3	3	3	-	-
CO3	3	-	-	3	3	-	-	-	-	-	-	-	3	3	-	3	-
CO4	3	-	3	3	-	-	-	-	-	-	-	-	3	3	-	-	3
CO5	3	3	-	3	-	-	-	-	-	-	-	-	3	3	3	-	-
AVG	3	0.6	1.8	1.8	1.8	0	0	0	0	0	0	0	3	3	1.8	0.6	0.6

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T55 THEORY OF COMPUTATION) [Total no. of. Students:31] [3rd Year, 5th Semester]

Course Prerequisite: Knowledge in mathematics, including a course in Discrete mathematics, and in programming.

Course Objective:

1. Learning about automata, grammar, language, and their relationships.
2. Understanding of the power of Turing machine, and the decidable nature of a problem.
3. Gives the idea on some new trends and applications.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Able to understand basic concepts of deterministic and non-deterministic finite automata.	L2
CO2	Learned the concept of Regular Expression, Context Free Grammar roles in compiler design and applications.	L2&L3
CO3	Gained knowledge on Turing machines, computability and complexity.	L2&L4
CO4	Able to solve problems using formal language and basic concepts of PDA.	L3&L4
CO5	Gained the knowledge on importance Parsing techniques in Automata language and Computation	L2&L5

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	-	-	-	-	-	-	-	-	-	3	3	-	-	3
CO2	3	3	3	-	3	-	-	2	2	2	-	-	3	3	3	-	3
CO3	3	3	3	3	3	-	-	2	-	-	-	2	3	3	-	3	3
CO4	3	3	3	3	-	-	-	-	2	-	-	-	3	3	3	-	-
CO5	3	3	3	-	3	-	-	2	-	2	2	-	3	3	3	-	3
AVG	**3**	**3**	**3**	**1.2**	**1.8**	**0**	**0**	**1.2**	**0.8**	**0.8**	**0.4**	**0.4**	**3**	**3**	**1.2**	**0.6**	**2.4**

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-E51 COMPUTER HARDWARE AND TROUBLESHOOTING) [Total no. of. Students:31] [3rd Year, 5th Semester]

Course Prerequisite: Knowledge in mathematics, including a course in Discrete mathematics, and in programming.

Course Objective:

1. Provides insight to the various parts and types of computer.
2. Familiarizes the hardware types and the evolution in each of them.
3. Gives the basics of troubleshooting.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Understanding of Computer Components: Students should be able to identify and describe the functions of various hardware components such as the CPU, RAM, motherboard, hard drive, graphics card, power supply, and peripherals.	L2
CO2	Students should be proficient in assembling and disassembling computer hardware components, including installing and configuring peripherals such as printers, scanners, and external drives.	L3
CO3	Students should learn various troubleshooting techniques to diagnose and resolve hardware and software problems effectively. This includes techniques such as hardware diagnostics, software troubleshooting, and troubleshooting common issues like startup problems, blue screens, and hardware failures.	L3 & L4
CO4	Students should understand the importance of regular hardware maintenance and be able to perform tasks such as cleaning, cooling system maintenance, and hardware upgrades such as RAM or storage upgrades.	L2 & L3

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	-	2	-	-	-	-	-	-	2	2	3	-	-	-
CO2	3	3	3	3	3	-	-	-	-	-	-	2	2	3	-	-	-
CO3	3	3	3	3	3	-	-	-	-	-	-	2	2	3	-	-	-
CO4	3	3	3	3	-	-	-	-	-	-	-	2	2	3	-	-	-
AVG	3	3	2.75	3	2.67	0	0	0	0	0	0	2	2	3	0	0	0

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P51 COMMUNICATION ENGINEERING LAB) [Total no. of. Students: 31] [3rd Year, 5th Semester]

Course Prerequisite: Basic Electrical and Electronics Engineering and Signal Systems.
Course Objective:

1. **Understanding Modulation Techniques:** To provide practical knowledge of AM and FM modulation and demodulation techniques.
2. **Hands-on Circuit Design:** To enable students to design and construct various communication circuits such as sample and hold, PAM, and amplifiers.
3. **Frequency Response Analysis:** To familiarize students with the concepts of pre-emphasis, de-emphasis, tuned amplifiers, and wideband amplifiers.
4. **Digital Communication Techniques:** To introduce students to TDM, PWM, PPM, and their simulation using modern tools.
5. **Simulation Skills:** To develop proficiency in using simulation tools like PSPICE/EWB and MATLAB for analysing communication systems.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Analyze AM and FM modulation and demodulation circuits, including determining the modulation index using classical and trapezoidal methods.	L3,L5
CO2	Evaluate various signal processing circuits such as sample and hold, PAM, pre-emphasis, de-emphasis, tuned and wideband amplifiers, frequency mixers, and ring modulators, analyzing their frequency responses and output waveforms.	L5,L6
CO3	Simulation tools like PSPICE/EWB and MATLAB to simulate AM, FM, PAM, PWM, PPM, pre-emphasis, de-emphasis, TDM, and FDM circuits, analyzing both time domain and frequency domain signals.	L3,L5

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	-	3	-	-	-	-	-	1	1	3	3	-	-	-
CO2	3	3	3	-	3	-	-	-	-	-	1	1	3	3	-	-	-
CO3	3	3	3	-	3	-	-	-	-	-	1	1	3	3	-	-	-
AVG	3	3	3	0	3	0	0	0	0	0	1	1	3	3	0	0	0

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P52 OPERATING SYSTEMS LAB) [Total no. of. Students: 31] [3rd Year, 5th Semester]

Course Prerequisite: Fundamentals of Computer Architecture , Data Structures and Algorithms.

Course Objective:

1. To simulate the scheduling algorithms
2. To implement dining philophers, reader-writer"s using synchronization mechanisms.
3. To learn the concept of memory management and file systems.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Study the basic Linux/Unix commands	L2
CO2	Learn the concepts of Job scheduling systems.	L2
CO3	Learn event synchronization mechanisms	L2 & L4
CO4	Study the concept of memory management	L2 & L5

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	-	3	-	-	-	3	-	-	-	3	3	-	-	3
CO2	-	3	3	-	-	-	-	-	-	-	3	-	-	-	3	3	-
CO3	-	3	3	-	-	-	-	-	3	-	-	-	-	-	3	-	3
CO4	3	3	-	-	-	-	-	-	-	-	-	3	3	3	-	3	-
AVG	1.5	2.25	1.5	0	0.75	0	0	0	1.5	0	0.75	0.75	1.5	1.5	1.5	1.5	1.5

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P53 DATA BASE MANAGEMENT SYSTEMS LAB) [Total no. of. Students:31] [3rd Year, 5th Semester]

Course Prerequisite:

1. Knowledge about Memory Management
2. Programming Skills

Course Objective:

1. To understand the basic concepts of database management system and fundamentals of data models and to conceptualize and depict a database system using ER diagram.
2. To study SQL data types, DDL, DML, DCL, TCL commands and query optimization techniques.
3. To develop an understanding of essential DBMS concepts such as: database security, integrity, and concurrency knowledge about the fundamental concepts of transaction processing and concurrency control techniques
4. To learn about internal storage structures using different file and indexing techniques which will help in physical DB design and advanced databases.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	An ability to analyze database needs and functions	L3
CO2	An ability to create data models	L6
CO3	An ability to create Entity Relationaship diagram	L6
CO4	An ability to design and implement database using database Technology	L6
CO5	An ability to use subquerie,nested subqueries,correlated queries and create any application	L3

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
CO2	3	3	3	-	-	-	-	-	-	-	-	-	-	3	-	-	-
CO3	3	3	3	-	-	-	-	-	-	-	-	-	-	3	-	-	-
CO4	3	3	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-
CO5	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	3	-
AVG	3	3	2.4	0	0	0	0	0	0	0	0	0	0.6	1.2	0.6	0.6	0

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(HS-P54 GENERAL PROFICIENCY-I) [Total no. of. Students: 31] [3rd Year, 5th Semester]

Course Objective:

1. To enhance the employability prospects of students
2. To hone the communication and language skills and make the students industry-ready
3. To groom the students holistically
4. To ensure a hassle-free transition for students from college set-up to corporate set-up

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Become good communicators	L3
CO2	Imbibe the requisite soft skills	L3
CO3	Sharpen their writing skills	L6
CO4	Analyse contemporary issues from various perspectives	L4

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
CO2	-	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-	3
CO3	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
CO4	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	3	-
AVG	1.5	0.75	0.75	0.75	0	0	0	0	0	0	0	0	0.75	0	0	0.75	1.5

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T71 MOBILE COMPUTING) [Total no. of. Students: 31] [4th Year, 7th Semester]

Course Prerequisite: Operating Systems, Web Service, UI Design.
Course Objective:

1. To teach the basics of mobile computing ideas and best practices.
2. To teach the emerging wireless network standards.
3. To introduce the various models and data management concepts of mobile computing.
4. To learn the routing and secure protocols of mobile networking.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Gain basic knowledge in mobile computing.	L1
CO2	Should have broader knowledge on 3G.	L2
CO3	Gain the knowledge on emerging wireless network standards.	L2
CO4	Understand the various models and data management concepts of mobile computing	L2
CO5	Learn the routing and secure protocols of mobile networking.	L3
CO6	Analyze security and authentication mechanism in mobile networks	L4

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
CO2	-	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
CO3	-	-	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-
CO4	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	3	-
CO5	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	3
CO6	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-
AVG	0.5	0.5	0.5	0.5	0.5	0.5	0	0	0	0	0	0	0.5	0.5	0.5	0.5	0.5

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T72 WEB SERVICES AND XML) [Total no. of. Students: 31] [4th Year, 7th Semester]

Course Prerequisite: HTML, Component Technology and Databases

Course Objective:

1. To understand the advantages of using XML technology family.
2. To analyze the problems associated with tightly coupled distributed software architecture.
3. To learn the Web services building block.
4. To implement e-business solutions using XML based web services

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Students will understand the benefits of XML, web services and SOA.	L2
CO2	They will learn how to develop e-business applications using these technologies.	L3
CO3	Learn how to develop web services using java and .net.	L3
CO4	Analyze the problems associated with tightly coupled distributed Software Architecture.	L4

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	-	2	-	-	-	-	-	-	-	3	-	-	-	-
CO2	3	3	3	3	-	-	-	-	-	-	-	-	-	-	3	-	-
CO3	3	3	3	3	-	-	2	2	-	-	-	2	-	-	-	3	-
CO4	3	3	3	3	-	-	-	-	-	-	-	-	-	2	-	-	-
AVG	**3**	**3**	**2.75**	**2.4**	**1**	**0**	**0.4**	**0.4**	**0**	**0**	**0**	**0.4**	**0.75**	**0.4**	**0.75**	**0.75**	**0**

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T73 CRYPTOGRAPHY AND NETWORK SECURITY)[Total no. of. Students: 31][4th Year, 7th Semester]

Course Prerequisite: Operating Systems and Discrete Mathematics

Course Objective:

1. To learn about wired and wireless network security with various cryptographic techniques, which include private and public keys algorithms along with attacks types.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Use appropriate methods in security	L3
CO2	Learn various methods of implementing security	L2 & L3
CO3	Understand and analyze public-key cryptography, Hash Function and other public-key cryptosystem.	L2
CO4	Understand key management and distribution schemes and design User Authentication Protocols.	L2
CO5	Learn about wired and wireless network security with various cryptographic techniques, which include private and public keys algorithms along with attacks types.	L2 & L3

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	-	-	-	-	2	2	1	-	-	3	2	2	-	-
CO2	3	3	3	-	2	-	-	-	2	2	-	-	3	3	-	-	2
CO3	-	-	3	3	-	-	-	-	2	1	-	-	3	-	3	-	-
CO4	-	-	-	3	-	-	-	3	1	-	-	-	-	3	-	3	-
CO5	3	3	-	-	3	2	-	-	2	1	-	-	3	-	-	-	2
AVG	1.8	1.8	1.8	1.2	1	0.4	0	1	1.8	1	0	0	2.4	1.6	1	0.6	0.8

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-E72 SOFTWARE TESTING) [Total no. of. Students: 31] [4th Year, 7th Semester]

Course Prerequisite: Understanding of Software development Process.
Course Objective:

1. To learn, practice and apply the software testing industry practices
2. To acquire knowledge on the various test design strategies, levels of testing and test management

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Ability to apply appropriate testing methods for varying requirements of the software industry.	L3
CO2	Understanding and executing the responsibility of the software testing personal and producing error free software.	L2 & L3
CO3	Understand the basic application of techniques used to identify useful ideas for tests.	L2 & L3
CO4	Help determine the mission and communicate the status of your testing with the rest of your project team.	L3 & L4
CO5	Characterize a good bug report, peer-review the reports of your colleagues, and improve your own report writing.	L4 & L5

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	3	2	-	-	-	-	-	-	-	-	-	3	-	-
CO2	3	-	3	-	-	-	-	-	-	-	-	-	3	-	3	-	-
CO3	3	3	2	2	-	-	-	3	-	-	-	-	-	-	3	-	3
CO4	-	3	-	-	-	3	-	-	-	2	-	-	-	-	3	-	3
CO5	-	3	-	-	-	-	-	-	3	3	-	-	-	-	3	-	-
AVG	1.8	2.4	1.4	1	0.4	0.6	0	0.6	0.6	1	0	0	0.6	0	3	0	1.2

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-E78 CLOUD COMPUTING) [Total no. of. Students: 31] [4th Year, 7th Semester]

Course Prerequisite: Computer Architecture, Operating systems, Computer Networks, Client-Server Architecture.

Course Objective:

1. To impart the principles and paradigm of Cloud Computing
2. To understand the Service Model with reference to Cloud Computing
3. To comprehend the Cloud Computing architecture and implementation
4. To realize the role of Virtualization Technologies
5. To have knowledge on Cloud Computing management and security

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Describe the concept,evaluation,architecture,pros and cons of cloud computing.	L2
CO2	Have knowledge of how supervisors are used in virtual matching.	L1
CO3	To secure and perform identity management in the cloud.	L3
CO4	To access and use the services in the cloud.	L6

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	-	3	-	-	-	-	-	-	-	3	-	-	-	2
CO2	3	3	-	-	-	-	-	-	-	-	-	-	-	3	2	-	-
CO3	-	-	3	-	-	-	-	2	-	-	-	-	-	-	-	3	2
CO4	-	-	3	-	-	-	-	-	3	2	-	-	-	3	2	-	-
AVG	1.5	0.75	1.5	0	0.75	0	0	0.5	0.75	0.5	0	0	0.75	1.5	1	0.75	1

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P71 MOBILE COMPUTING LAB) [Total no. of. Students: 31] [4th Year, 7th Semester]

Course Prerequisite: Operating Systems, Web Service, UI Design.

Course Objective:

1. To introduce the basics of Mobile computing.
2. To introduce the WML and J2ME Technologies.
3. To learn Bluetooth and distributed mobile computing.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Use appropriate mobile communication tools for various mobile application.	L3
CO2	Learn various issues of Mobile Computing	L2 & L5

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	-	-	-	3	-	-	-	-	-	-	-	-	3	-	2	-	-
CO2	-	3	-	-	-	3	-	-	-	-	-	-	-	3	-	-	2
AVG	0	1.5	0	1.5	0	1.5	0	0	0	0	0	0	1.5	1.5	1	0	1

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P72 WEB SERVICES AND XML LAB) [Total no. of. Students: 31] [4th Year, 7th Semester]

Course Prerequisite: HTML, Component Technology and Databases

Course Objective:

1. The students learn how to design and develop business applications using the popular middleware technologies practiced in the industry.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Develop distributed applications in popular platform independent technologies for any business domain.	L3 & L5

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	-	3	3	2	-	-	-	-	-	-	-	-	3	-	3	-	2
AVG	0	3	3	2	0	0	0	0	0	0	0	0	3	0	3	0	2

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P73 PROJECT WORK PHASE-I) [Total no. of. Students: 31] [4th Year, 7th Semester]

Course Prerequisite: Fundamentals of Software Engineering, Problem-solving skills and Application Development Knowledge.

Course Objective:

1. The objective of the project is to enable the students to work in convenient groups of three to four members in a group on a project of latest topic / research area / industrial applications.
2. Each project group shall have a guide who is a faculty member.
3. This first phase of project work focuses on the following activities:
4. Literature Survey on project topic
5. Problem Definition
6. Project Design

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	State problem Definition Clearly	L4
CO2	Prepare SRS for Projects	L6
CO3	Prepare SDS for Projects	L6
CO4	Develop the presentation skills	L3&L2
CO5	Develop the ability to work in a Group	L3&L6

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	1	3	1	2	1	1	1	_	2	_	1	1	1	1	1	1	1
CO2	1	1	3	2	3	1	_	1	1	_	2	2	2	2	3	2	2
CO3	1	1	3	2	3	1	1	_	_	1	1	_	3	2	3	2	2
CO4	_	1	_	_	_	_	_	1	3	3	1	_	1	_	1	_	1
CO5	1	1	1	_	1	_	1	_	3	2	1	1	2	_	1	1	3
AVG	0.8	1.4	1.6	1.2	1.6	0.6	0.6	0.4	1.8	1.2	1.2	0.8	1.8	1	1.8	1.2	1.8

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P74 SEMINAR) [Total no. of. Students: 31] [4th Year, 7th Semester]

Course Objective:

1. The objective of the seminar is to encourage the students to work independently and to get exposure in latest technologies.
2. The topic shall be chosen in consultation with a faculty member who would be the guide.
3. Each student is expected to make a critical review of literature and prepare a report.
4. The student is expected to present a seminar.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Latest technologies emerged in the field of IT	L2
CO2	Current need of IT industries.	L4

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	3	-	2	-	-	-	-	-	-	3	-	-	-	-
CO2	-	3	3	-	-	2	-	-	-	-	-	-	-	3	3	-	-
AVG	1.5	1.5	1.5	1.5	0	2	0	0	0	0	0	0	1.5	1.5	1.5	0	0

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road Kirumampakkam, Puducherry-607 403

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(MA-T41 MATHEMATICS-IV) [Total no. of. Students: 29] [2nd Year, 4th Semester]

Course Prerequisite: Basic Knowledge for formulas partial differential equation and statistical methods.

Course Objective:

1. Importance of Partial differential equations
2. Problem solving techniques of PDE
3. To make the students knowledgeable in the areas of Boundary Value Problems like vibrating string (wave equation), Heat equation in one and two dimensions.
4. To acquaint the students with the concepts of Theory of sampling.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Understand the different types of PDE and will be able to solve problems occurring in the area of engineering and technology.	L2
CO2	Know sampling theory and apply to solve practical problems in engineering and technology.	L2
CO3	Gain the knowledgeable in the areas of boundary value problems like vibrating string (wave equation), heat equation in one and two dimensions.	L2
CO4	understand and implement the concepts of theory sampling.	L6
CO5	Use statistics for inferential decision making with confidence intervals and hypothesis tests under different statistical methods.	L2

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	2	1	1	-	2	-	3	-	-	2	2	3	1	-
CO2	3	3	3	2	3	-	-	2	-	2	-	-	3	3	3	1	-
CO3	2	3	2	3	3	1	-	1	3	3	-	-	3	3	3	-	2
CO4	3	3	3	3	1	-	-	2	-	2	-	-	1	3	1	2	-
C05	3	3	3	3	3	1	1	2	3	3	-	-	3	3	3	1	2
AVG	2.8	3	2.8	2.6	2.2	1	0	1.8	1.2	2.6	0	0	2.4	2.8	2.6	1	0.8

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T42 COMMUNICATION ENGINEERING -I) [Total no. of. Students: 29] [2nd Year, 4th Semester]

Course Prerequisite: Basic Electrical and Electronics Engineering and Signal Systems

Course Objective:

1. To introduce the basics of electronic communications
2. To introduce different analog modulation systems.
3. To introduce the operation of modulator and demodulator for different analog modulation systems.
4. To explore the use of pulse modulation system
5. To introduce the techniques of digital modulation .

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Will be clear with the concepts of different analog modulation systems	L2
CO2	Will understand the need for pulse modulation systems	L2
CO3	Will have a clear idea on concept and applications of digital modulation systems	L2 & L3

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	-	-	2	-	-	-	-	-	-	3	-	2	-	-
CO2	-	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
CO3	-	3	3	-	-	-	-	-	-	-	-	-	3	-	-	-	-
AVG	1	2	1	0	0	0.66	0	0	0	0	0	0	2	1	0.66	0	0

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T43 DESIGN AND ANALYSIS OF ALGORITHMS) [Total no. of. Students: 29] [2nd Year, 4th Semester]

Course Prerequisite: Data Structures and Programming language.

Course Objective:

1. Introduce the fundamental strategies of different algorithm design techniques.
2. Solving various problems using techniques introduced in this course.
3. Analyze the algorithm's / program's efficiency in terms of time and space complexity

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Compute the time complexity/space complexity of any recursive/non-recursive algorithms.	L2&L3
CO2	Understand the Greedy methodology and finding optimal solutions for various algorithms.	L2
CO3	Apply dynamic programming in real-time tasks to find the shortest paths.	L3
CO4	Describe backtracking methods to find solutions to problems in an efficient way.	L2
CO5	Apply branch and bound techniques for solving real-time puzzles like the knapsack problem and the traveling salesman problem.	L3

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	-	-	-	-	-	-	-	-	-	3	-	3	-	-
CO2	3	3	2	-	-	-	-	-	-	-	-	-	3	-	3	-	-
CO3	3	3	3	-	-	-	-	-	-	-	-	-	3	-	3	-	-
CO4	3	3	2	-	-	-	-	-	-	-	-	-	3	-	3	-	-
C05	3	2	3	-	-	-	-	-	-	-	-	-	3	-	3	-	-
AVG	3	2.8	2.6	0	0	0	0	0	0	0	0	0	3	0	3	0	0

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T44 MICROPROCESSORS AND MICROCONTROLLERS) [Total no. of. Students: 29] [2nd Year, 4th Semester]

Course Prerequisite: Computer Organization and System Software.

Course Objective:

1. To understand the architectures and the instruction set of 8085 microprocessor
2. To understand the architectures and the instruction set of 8086 microprocessor
3. To understand the architectures and the instruction set of 8051 microcontroller
4. To learn the assembly language program using 8085, 8086 and 8051 instruction set
5. To learn interfacing of microprocessors and microcontrollers with various peripheral

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Understand the inner working components of the microprocessor and microcontrollers	L2
CO2	Developing assembl language program using 8085 instruction set	L3
CO3	Developing assembly language program using 8086 instruction set	L3
CO4	Developing assembly language program using 8051 instruction set	L3
CO5	Developing various I/O programs for 8085, 8086 and 8051	L3

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	-	-	-	-	-	-	-	-	-	_	3	-	-	-	-
CO2	-	-	3	-	3	-	-	-	-	-	-	-	3	3	-	-	-
CO3	-	-	3	-	3	-	-	-	-	-	-	-	3	3	-	-	-
CO4	-	-	3	-	3	-	-	-	-	-	-	-	3	3	-	-	-
CO5	-	-	3	-	3	-	-	-	3	-	-	-	-	-	3	3	3
AVG	2.4	0.6	2.4	0	2.4	0	0	0	0.6	0	0	0	2.4	1.8	0.6	0.6	0.6

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T45 JAVA PROGRAMMING) [Total no. of. Students: 29] [2nd Year, 4th Semester]

Course Prerequisite: OOP concept and Problem Solving Methodologies.

Course Objective:

1. To understand the basics of Java
2. To learn the features of Java
3. To learn the advanced concepts in Java.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Explain the basic concepts of the Java language, along with syntax and semantics, necessary for writing basic Java programs.	L1
CO2	Describe the various features of Java programming, including classes, objects, and object-oriented programming (OOP) concepts.	L2
CO3	Explain various methods to handle exceptions and implement game design using multithreading concepts.	L3
CO4	Discuss events, applets, and graphics to implement programming concepts effectively.	L4
CO5	Demonstrate how to develop Java programs for Remote Method Invocation (RMI) and Java Database Connectivity (JDBC).	L6

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
CO2	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
CO3	-	3	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-
CO4	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	3
C05	-	-	3	-	-	-	-	-	-	-	-	-	3	-	-	3	-
AVG	1.2	0.6	0.6	0	0	0.6	0	0	0	0	0	0	1.8	0	0.6	0.6	0.6

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T46 SYSTEM SOFTWARE) [Total no. of. Students: 29] [2nd Year, 4th Semester]

Course Prerequisite: Microprocessors and Microcontrollers.

Course Objective:

1. Understand the design and implementation of Assemblers, loaders, linkers and compilers.
2. Understand how source language programs are implemented at the machine level.
3. Understand compilation as an instance of language translation.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	To understand the relationship between system software and machine architecture.	L2
CO2	To know the design and implementation of assemblers, macro processor, linker and compiler.	L2
CO3	To have an understanding of loader, system software tools.	L2
CO4	Have in depth Working knowledge of the major phases of Loading linking and compiling.	L3
CO5	To design and implement a significant portion of a compiler for a language chosen by the instructor.	L6

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	3	-	-	-	-	-	-	-	2	2	3	3	-	2
CO2	3	3	3	3	-	-	-	-	-	-	-	2	2	3	3	-	2
CO3	3	3	3	3	-	-	-	-	-	-	-	2	2	3	3	-	2
CO4	3	3	3	3	-	-	-	-	-	-	-	2	2	3	3	-	2
C05	3	3	3	3	-	-	-	-	-	-	-	2	2	3	3	-	2
AVG	3	3	2.8	3	0	0	0	0	0	0	0	2	2	3	3	0	2

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P41 ALGORITHMS LAB) [Total no. of. Students: 29] [2nd Year, 4th Semester]

Course Prerequisite: Data Structures.

Course Objective:

1. To introduce the implementation of various design techniques using C and C++.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Learn to implement the complex tasks using various design techniques.	L2
CO2	Understand the Divide and Conquer strategy for designing algorithm various sorting techniques.	L2
CO3	Finding optimal solutions in many problems using backtracking methodology.	L3
CO4	Implement various searching techniques like binary and linear search to find the necessary outcomes.	L3
CO5	Explain the various data structure concepts in differentlanguage platforms.	L2

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	1	-	-	-	-	-	-	-	-	3	-	2	-	-
CO2	3	-	3	2	1	-	-	-	-	-	-	-	3	-	-	2	-
CO3	3	-	3	2	-	1	-	-	-	-	-	-	3	-	2	-	-
CO4	3	-	3	2	1	-	-	-	-	-	-	-	-	3	-	2	-
CO5	3	3	-	2	-	-	-	1	-	-	-	-	3	-	-	2	-
AVG	3	1.2	2.2	1.8	0.4	0.2	0	0.2	0	0	0	0	2.4	0.6	0.8	1.2	0

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P42 MICROPROCESSORS AND MICOCONTROLLERS LAB)[Total no. of. Students: 29] [2nd Year, 4th Semester]

Course Prerequisite: Computer Organization

Course Objective:

1. To understand the architectures and the instruction set of 8085 microprocessor
2. To understand the architectures and the instruction set of 8086 microprocessor
3. To understand the architectures and the instruction set of 8051 microcontroller
4. To learn the assembly language program using 8085, 8086 and 8051 instruction set
5. To learn interfacing of microprocessors and microcontrollers with various peripheral

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Understanding the inner working components of the microprocessor and microcontrollers.	L6
CO2	Developing assembly language program using 8085 instruction set.	L2
CO3	Developing assembly language program using 8086 instruction set.	L3
CO4	Developing assembly language program using 8051 instruction set.	L4
CO5	Developing various I/O programs for 8085, 8086 and 8051.	L6

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
CO2	-	3	3	-	3	-	-	-	-	-	-	-	3	-	3	-	3
CO3	-	3	3	-	3	-	-	-	-	-	-	-	3	-	3	-	3
CO4	-	3	3	-	3	-	-	-	-	-	-	-	3	-	3	-	3
CO5	-	3	3	-	3	-	-	-	-	-	-	-	3	-	3	-	3
AVG	0.6	2.4	2.4	0	2.4	0	0	0	0	0	0	0	2.4	0.6	2.4	0	2.4

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P43 JAVA LAB) [Total no. of. Students: 29] [2nd Year, 4th Semester]

Course Prerequisite: OOP concept and Problem Solving Methodologies.

Course Objective:

1. To understand the basics of java
2. To write programs in Java covering the object-oriented concepts.
3. To write programs covering advanced concepts in java like thread handling, applets, RMI and JDBC.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Understand the basics of java	L2
CO2	Solving advanced concepts in java like thread handling, applets, RMI and JDBC	L3
CO3	Students will learn how to write programs and develop projects in Java.	L1,L2,L3&L6
CO4	Analyze the java programs in object oriented concepts	L4

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
CO2	-	3	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
CO3	-	-	3	-	-	-	-	-	-	-	-	-	-	3	3	-	-
CO4	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	3	-
AVG	0.75	0.75	0.75	0.75	0	0	0	0	0	0	0	0	1.5	0.75	0.75	0.75	0

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T61 COMPUTER NETWORKS) [Total no. of. Students: 30] [3rd Year, 6th Semester]

Course Prerequisite: Digital System and Computer Architecture

Course Objective:

- Understand the functionality of each layer for a given application and trace the flow of information from one node to another node in the network.
- Understanding of division of network functionalities into layers, the component required to build different types of networks and identifying the solution for the functionalities in each layer.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Understand the Layered Architecture of Computer Networks.	L2
CO2	Understand the operation of the main components of computer networks.	L2
CO3	Learn various network protocols and algorithms.	L2 &L3
CO4	Acquire the required skill to design simple computer networks.	L6
CO5	Understand the component required to build different types of networks.	L2 & L6

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	-	3	3	-	-	-	-	-	-	-	2	2	-	3	-	3	2
CO2	3	3	2	-	-	-	-	-	-	-	2	-	-	3	3	2	-
CO3	3	-	3	3	-	-	-	-	2	-	-	-	3	-	3	-	2
CO4	3	-	-	3	-	-	-	-	2	-	-	-	3	-	3	2	-
CO5	-	3	3	-	-	-	-	-	2	-	-	-	-	3	-	3	2
AVG	1.8	1.8	2.2	1.2	0	0	0	0	1.2	0	0.8	0.4	1.2	1.8	1.8	2	1.2

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T62 WEB TECHNOLOGY) [Total no. of. Students: 30] [3rd Year, 6th Semester]

Course Prerequisite: Basic Programming Skills

Course Objective:

1. To introduce the basics of Network Model.
2. To introduce the Web Development Process and Various Web Technologies.
3. To learn Networking and Security issues of Internet.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Understand best technologies for solving web client/server problem , website type and architecture.	L3
CO2	To introduce the Web Development Process and Various Web Technologies and to learn about how to write html, scripting languages.	L1
CO3	They will have clear understanding of hierarchy of objects in ActiveX and XML.	L2
CO4	They will have clear understanding of Sockets and protocol handlers	L2
CO5	To learn Networking and Security issues of Internet. And . Finally they can create good, effective and customized websites	L6

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	3	3	-	-	-	-	-	-	-	3	-	-	3	-
CO2	3	3	-	-	3	-	-	-	-	-	-	-	3	3	-	-	3
CO3	3	3	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
CO4	3	3	-	-	-	-	-	-	-	-	-	-	3	-	-	-	3
CO5	3	-	3	-	-	3	3	3	3	3	3	3	3	-	3	3	3
AVG	3	1.8	0.6	0.6	1.2	0.6	0.6	0.6	0.6	0.6	0.6	0.6	3	0.6	0.6	1.2	1.8

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T63 ARTIFICIAL INTELLIGENCE) [Total no. of. Students: 30] [3rd Year, 6th Semester]

Course Prerequisite: Knowledge in Programming, Discrete Mathematics in Probability.

Course Objective:

1. To search and discover intelligent characteristics of existing AI projects, Intelligent agents map a new problem – as search.
2. To understand different search strategies for a problem.
3. To understand different Knowledge Representation schemes for typical AI problems.
4. To design and implement a typical AI problem to be solved Using Machine Learning Techniques.
5. Implement a futuristic AI application.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Describes the different strategies and intelligent concepts of various AI projects and maps a new problem with an intelligent agent.	L2&L3
CO2	Demonstrates the basic principles of AI in solutions which require inference, knowledge representation, and perception for typical AI problems.	L3
CO3	Creates awareness of facing challenges in solving AI problems and complexity within the field.	L5
CO4	Describes the various state space algorithms' pros and cons and chooses the best learning method.	L5
CO5	Explains various applications of AI techniques in expert systems, expert system shells, and the ability to know the current merits and demerits of AI applications.	L2&L5

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	-	2	-	-	-	-	-	-	-	1	3	-	3	-	-
CO2	3	-	3	-	-	-	-	-	-	-	1	1	3	-	3	-	-
CO3	3	2	2	1	-	3	-	-	-	-	-	-	3	-	-	-	3
CO4	3	3	3	-	-	-	-	-	-	-	-	-	3	-	-	3	-
CO5	3	-	-	-	-	3	-	3	-	-	-	1	3	-	3	-	3
AVG	3	1.6	1.6	0.6	0	1.2	0	0.6	0	0	0.2	0.6	3	0	1.8	0.6	1.2

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T64 INFORMATION CODING TECHNIQUES) [Total no. of. Students: 30] [3rd Year, 6th Semester]

Course Prerequisite: Mathematics

Course Objective:

1. To understand the coding principles and different security algorithms.
2. To analyze the compression techniques.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Learn the knowledge on basics of information and entropy with its properties, and various coding techniques	L1
CO2	Apply logical thinking to know about the various coding for data and voice.	L3
CO3	Understand about the different types image and video compression techniques like JPEG & MPEG.	L3
CO4	Study the code generation process.	L2
CO5	Learn the cryptographic algorithms.	L2

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	-	3	-	-	-	-	-	-	-	3	-	-	-	3
CO2	3	-	-	-	3	-	-	-	-	-	-	-	3	3	-	-	-
CO3	3	-	3	-	3	-	-	-	-	-	-	-	3	-	3	-	-
CO4	-	3	-	-	3	-	-	-	-	-	-	-	-	3	3	-	-
CO5	3	-	-	-	-	-	-	-	-	-	3	-	3	-	3	-	3
AVG	2.4	0.6	0.6	0	2.4	0	0	0	0	0	0.6	0	2.4	1.2	1.8	0	0.6

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-E62 SOFTWARE PROJECT MANAGEMENT) [Total no. of. Students: 30] [3rd Year, 6th Semester]

Course Prerequisite: Software Development Knowledge.

Course Objective:

1. To understand the roles of the project manager
2. To understand the threats and opportunities in project management
3. To gain Expertise in size, effort and cost estimation techniques
4. To understand the techniques available with which a project's aims and objectives, timetable, activities, resources and risks can be kept under control
5. To understand the social and political problems a project will encounter against which the technical problems pale into insignificance--and to begin to understand how to approach non-technical problems

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Apply project management concepts and techniques to an IT project.	L3
CO2	Identify issues that could lead to IT project success or failure.	L4
CO3	Explain project management in terms of the software development process.	L2
CO4	Describe the responsibilities of IT project managers.	L2
CO5	Apply project management concepts through working in a group as team leader	L3

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	-	-	-	3	-	3	-	3	-	3	3	3	3	-
CO2	3	3	3	3	-	-	3	-	3	-	3	-	-	3	3	3	-
CO3	3	3	3	3	-	-	3	2	3	-	3	2	-	3	3	3	-
CO4	3	3	3	3	-	-	3	-	3	-	3	-	-	3	3	3	-
CO5	3	3	3	3	-	-	3	-	3	2	3	-	-	3	3	3	3
AVG	3	3	2.8	2.4	0	0	3	0.33	3	0.33	3	0.33	0.5	3	3	3	0.5

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-E66 OBJECT ORIENTED ANALYSIS AND DESIGN) [Total no. of. Students: 30] [3rd Year, 6th Semester]

Course Prerequisite: Software Engineering Principles.

Course Objective:

1. To familiarize the students to carry out object-oriented analysis and design for developing object-oriented software projects.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Understand the basic concepts of object oriented software development process.	L2
CO2	Evaluate the different object oriented Methodologies.	L4
CO3	Design the UML Diagrams and it's types	L3&L6
CO4	Understand the Functions of ATM Banking System.	L2
CO5	Manipulate the Basics of Patterns.	L2,L3&L4

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	-	-	-	-	-	-	-	-	-	3	3	3	-	-
CO2	3	3	3	-	-	-	-	-	-	-	-	-	3	-	-	-	3
CO3	3	-	3	-	3	-	-	-	-	-	-	-	3	-	3	-	3
CO4	3	3	3	3	-	-	-	-	-	-	-	-	3	-	3	-	-
CO5	3	3	3	-	3	-	-	-	-	-	-	-	3	-	3	-	3
AVG	3	2.4	3	0.6	1.2	0	0	0	0	0	0	0	3	0.6	2.4	0	1.8

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P61 COMPUTER NETWORKS LAB) [Total no. of. Students: 30] [3rd Year, 6th Semester]

Course Prerequisite: Digital System and Computer Architecture

Course Objective:

1. To learn socket programming
2. To use simulation tools.
3. To analyze the performance of protocols in different layers in computer networks using simulation tools.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Able to design and implement various network Applications like Data transmission between client and server and File Transfer .	L3
CO2	Understanding of the Transport Layer connection-oriented and connection-less service concepts and protocol design to provide the reliable data delivery .	L2
CO3	Demonstrate the performance comparison of various routing protocols using ns2 simulator tools.	L3
CO4	Able to implement the MAC concepts using ns2 simulator tools.	L3
CO5	Able to design and implement various network Applications like Data transmission between client and server and File Transfer .	L3

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	3	-	-	-	-	-	-	-	-	-	3	3	3	-	-
CO2	3	3	3	-	-	-	-	-	-	-	-	-	3	-	-	-	3
CO3	3	-	3	-	3	-	-	-	-	-	-	-	3	-	3	-	3
CO4	3	3	3	3	-	-	-	-	-	-	-	-	3	-	3	-	-
CO5	3	3	3	-	3	-	-	-	-	-	-	-	3	-	3	-	3
AVG	3	2.4	3	0.6	1.2	0	0	0	0	0	0	0	3	0.6	2.4	0	1.8

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road, Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P62 WEB TECHNOLOGY LAB) [Total no. of. Students: 30] [3rd Year, 6th Semester]

Course Prerequisite: HTML

Course Objective:

1. To introduce the basics of Network Model.
2. To introduce the Web Development Process and Various Web Technologies.
3. To learn Networking and Security issues of Internet.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Design the web page using HTML technology that makes the webpages and publishing them.	L6
CO2	Understand the client side scripting programs.	L2
CO3	Install Tomcat server and execution of programs on server side	L3
CO4	Identify the problems in server side scripting and overcome those using active server pages and java servlets.	L4
CO5	Design web application development in the open source environment	L6

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	-	3	-	-	-	-	-	-	-	3	3	-	-	-
CO2	3	3	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
CO3	3	-	-	3	3	-	-	-	-	-	-	-	3	-	-	3	-
CO4	3	3	3	-	-	-	-	-	-	-	-	-	3	-	-	-	-
CO5	3	-	3	-	3	-	-	-	-	-	-	-	3	-	-	-	3
AVG	3	1.2	1.2	0.6	1.8	0	0	0	0	0	0	0	3	0.6	0	0.6	0.6

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P63 MINI PROJECT) [Total no. of. Students: 31] [3rd Year, 6th Semester]

Course Prerequisite: Software Engineering and Programming Knowledge.

Course Objective:
Scope of this lab is to understand the application of case tools, which focuses on the following software engineering activities:

1. Software requirements analysis and specification
2. Software design
3. Software implementation
4. Software testing and maintenance
5. Communication skills and teamwork

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Solve any given problem which acquired in previous semester by identifying appropriate domain/area.	L3&L4
CO2	Prepare SRS for projects.	L6
CO3	Prepare SDS for projects.	L6
CO4	Develop the presentation skills	L2&L3
CO4	Document for projects.	L6

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	-	2	-	-	-	-	-	-	-	1	3	-	3	-	-
CO2	3	-	3	-	-	-	-	-	-	-	1	1	3	-	3	-	-
CO3	3	2	2	1	-	-	-	-	_	-	-	-	3	-	3	3	3
CO4	3	3	3	-	-	3	-	-	-	-	-	-	3	-	3	-	-
CO5	3	-	-	-	-	-	-	3	-	-	-	1	3	-	3	-	3
AVG	3	1.6	1.6	0.6	0	1.2	0	0.6	0	0	0.2	0.6	3	0	1.8	1.6	1.2

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(HS-P64 GENERAL PROFICIENCY-II) [Total no. of. Students: 30] [3rd Year, 6th Semester]

Course Objective:

1. To enhance the employability prospects of students
2. To hone the communication and language skills and make the students industry-ready
3. To groom the students holistically
4. To ensure a hassle-free transition for students from college set-up to corporate set-up

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Become good communicators	L3
CO2	Imbibe the requisite soft skills	L3
CO3	Sharpen their writing skills	L6
CO4	Analyse contemporary issues from various perspectives	L4

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
CO2	-	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-	3
CO3	3	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-
CO4	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	3	-
AVG	1.5	0.75	0.75	0.75	0	0	0	0	0	0	0	0	0.75	0	0	0.75	1.5

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T82 DISTRIBUTED COMPUTING) [Total no. of. Students: 31] [4th Year, 8th Semester]

Course Prerequisite: Computer Networks, Operating Systems

Course Objective:

1. To understand the importance of communication in distributed environment.
2. To study the actual implementation of various communication mechanisms.
3. To learn the distributed resource management mechanisms.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Understand the characteristics, examples and the architectures for distributed systems	L2
CO2	Demonstrate knowledge of details the main underlying components of distributed system such as OS layer, process and threads	L3
CO3	Apply various distributed algorithms related to clock synchronization and analyze file service architecture	L3
CO4	Understand the concepts of transaction and concurrency control	L2
CO5	Implement different distributed multimedia system, xml security, CORBA and web services	L3

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	3	-	3	-	3	-	2	2	-	1	3	-	3	2	-
CO2	-	3	-	3	-	-	3	-	2	2	-	1	3	-	3	-	-
CO3	3	-	3	-	3	-	2	-	-	2	1	-	-	3	-	2	-
CO4	-	3	-	3	-	2	-	-	1	-	-	-	3	-	-	-	3
CO5	3	-	3	-	2	2	-	-	-	2	-	-	3	-	3	2	-
AVG	1.8	1.2	1.8	1.2	1.6	0.8	1.6	0	1	1.6	0.2	0.4	2.4	0.6	1.8	1.2	0.6

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road, Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-E83 DATA MINING) [Total no. of. Students: 31] [4th Year, 8th Semester]

Course Prerequisite: Artificial Intelligence

Course Objective:

1. To introduce the concept of data mining with in detail coverage of basic tasks, metrics, issues, and implication.
2. Core topics like classification, clustering and association rules are exhaustively dealt with.
3. To introduce the concept of data warehousing with special emphasis on architecture and design.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Understand data mining, differentiate it from query tools, and explore its connection with machine learning.	L2
CO2	Learn principles of data warehousing, including multidimensional modeling, OLAP operations, architecture, and metadata management.	L3
CO3	Master techniques for data cleaning, integration, transformation, reduction, and concept hierarchy generation to prepare data for mining.	L3
CO4	Gain skills in classification methods (e.g., decision trees, Bayesian, backpropagation) and clustering techniques (e.g., hierarchical, density-based, grid-based).	L6
CO5	Explore advanced topics like web mining, spatial mining, time series and sequence mining, and graph mining through case studies and real-world applications.	L2

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	-	3	-	3	-	3	-	2	2	-	1	3	-	3	2	-
CO2	-	3	-	3	-	-	3	-	2	2	-	1	3	-	3	-	-
CO3	3	-	3	-	3	-	2	-	-	2	1	-	-	3	-	2	-
CO4	-	3	-	3	-	2	-	-	1	-	-	-	3	-	-	-	3
CO5	3	-	3	-	2	2	-	-	-	2	-	-	3	=	3	2	-
AVG	1.8	1.2	1.8	1.2	1.6	0.8	1.6	0	1	1.6	0.2	0.4	2.4	0.6	1.8	1.2	0.6

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P81 PROJECT WORK PHASE-II) [Total no. of. Students: 31] [4th Year, 8th Semester]

Course Prerequisite: Fundamentals of Software Engineering, Problem-solving skills and Application Developmer Knowledge.

Course Objective:

1. The objective of the project is to enable the students to work in convenient groups of three to four membe in a group on a project of latest topic / research area / industrial applications.
2. Each project group shall have a guide who is a faculty member.
3. This first phase of project work focuses on the following activities:
4. Literature Survey on project topic
5. Problem Definition
6. Project Design

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Master a programming language or software tool used for implementation.	L3
CO2	Test the project and compare it with benchmark standards	L5
CO3	Prepare the Project Report	L6
CO4	Develop the Presentation skills	L3
CO5	Develop the ability to work in a Group	L4

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	-	2	-	-	-	-	-	-	-	-	3	-	3	-	-
CO2	3	-	3	-	-	-	-	-	-	-	1	1	3	-	3	-	-
CO3	3	2	2	1	-	3	-	-	-	-	-	-	3	-	-	-	3
CO4	3	3	3	-	-	-	-	-	-	-	-	-	3	-	-	3	-
CO5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AVG	3	1.6	1.6	0	0	3	0	3	0	0	0	1	3	0	3	0	3

HEAD OF THE DEPARTMEN

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road,Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-P82 COMPREHENSIVE VIVA VOCE) [Total no. of. Students: 31] [4th Year, 8th Semester]

Course Prerequisite: Computer Science Core Subjects
Course Objective:

1. The students will be tested for their understanding of subjects of study in the curriculum from 3rd semester to 8th semester.
2. A comprehensive examination, preferably with objective type questions, will be conducted and evaluated the performance of the students for 50 marks.

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Grasp all the subjects they have learned IT so far.	L2
CO2	Face the placement test conducted for the campus recruitment	L3

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	3	–	–	3	–	–	–	–	3	3	2	2	–	–
CO2	3	3	3	3	-	–	3	–	–	–	–	3	3	2	2	–	–
AVG	3	3	3	3	0	0	3	0	0	0	0	3	3	2	2	0	0

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy-Cuddalore Main Road Kirumampakkam, Puducherry-607 403.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC YEAR 2019-20

COURSE OBJECTIVES

(IT-T83 Professional Ethics) [Total no. of. Students: 31] [4th Year, 8th Semester]

Course Prerequisite: Nil
Course Objective:

- To introduce the basics of Moral Ethics, Engineering Ethics.
- To introduce the professional Ethics and Case Studies

COS	Upon successful completion of this course, students should be able to:	LEVEL
CO1	Understand the Values of Moral, Engineering and Professional Ethics	L2
CO2	Identify and analyze an ethical issue in the subject matter under investigation or in a relevant field	L4
CO3	Assess their own ethical values and the social context of problems	L4
CO4	Identify ethical concerns in research and intellectual contexts, including academic integrity, use and citation of sources, the objective presentation of data, and the treatment of human	L2

PO AND PSO OVERVIEW

PROGRAM OUTCOMES	
PO1	Engineering Knowledge
PO2	Problem Analysis
PO3	Design/ Development of Solutions
PO4	Conduct investigation of Complex Problem
PO5	Modern Tool Usage
PO6	Engineer and Society
PO7	Environment and Sustainability
PO8	Ethics
PO9	Individual and team work
PO10	Communication
PO11	Project Management and Finance
PO12	Life-long Learning

PROGRAM SPECIFIC OUTCOMES
PSO 1: Ability to acquire practical competency with emerging technologies, programming languages and open-source platforms.
PSO 2: Able to access hardware and software aspects necessary to develop IT based solutions.
PSO 3: Able to design and develop test software systems to provide solutions to real world problems.
PSO 4: Analyse IT infrastructure required for the implementation of a project.
PSO 5: Practice the technologies of human computer interaction, information management, programming and networking.

RAJIV GANDHI COLLEGE OF ENGINEERING AND TECHNOLOGY
Pondy Cuddalore Main Road, Kirumampakkam, Puducherry – 607 403.
Affiliated to Pondicherry University and Approved by AICTE, New Delhi

DEPARTMENT OF INFORMATION TECHNOLOGY

CO Mapping with PO and PSO

	Engineering knowledge	Problem analysis	Design/development of solutions	Conduct investigations of complex problems	Modern tool usage	The engineer and society	Environment and sustainability	Ethics	Individual and team work	Communication	Project management and finance	Life-long learning	Ability to acquire practical competency with emerging technologies ,programming languages and open source platforms.	Able to access hardware and software aspects necessary to develop IT based solutions.	Able to design and develop test software systems to provide solutions to real world problems.	Analyse IT infrastructure required for the implementation of a project.	Practice the technologies of human computer interaction, information management, programming and networking.
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	3	3	2	–	–	–	–	–	–	–	–	–	3	2	–	–	–
CO2	–	3	3	3	-	–	–	–	–	–	–	3	–	3	–	–	–
CO3	3	–	–	3	–	–	3	–	–	–	–	–	3	–	2	2	2
CO4	–	–	–	3	3	2	2	3	-	-	-	-	3	2	–	2	–
AVG	1.5	1.5	1.25	2.25	0.75	0.5	1.25	0.75	0	0	0	0.75	2.25	1.75	0.5	1	0.5

HEAD OF THE DEPARTMENT

Head of the Department
Department of Information Technology
Rajiv Gandhi College of Engineering and Technology
Pondy Cuddalore Main Road Kirumampakkam, Puducherry-607 403.