SRM TRP ENGINEERING COLLEGE

Approved by AICTE, Affiliated to Anna University

SRM Nagar, Irungalur, Tiruchirappalli – 621 105, Tamil Nadu, India

SRM TRP ENGINEERING COLLEGE
Affiliated to ANNA UNIVERSITY
TIRUCHIRAPPALLI

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

MAPPING OF COURSE OUTCOME WITH PROGRAM OUTCOME AND PROGRAM SPECIFIC OUTCOME

R-2017

SRM TRP ENGINEERING COLLEGE

Approved by AICTE, Affiliated to Anna University
SRM Nagar, Irungalur, Tiruchirappalli – 621 105, Tamil Nadu, India

Department of Computer Science and Engineering

Vision of the Institute

To carve the youth as dynamic, competent, valued and knowledgeable Technocrats through research, innovation and entrepreneurial development for accomplishing the global expectations.

Mission of the Institute

M1: To inculcate academic excellence in engineering education to create talented professionals

M2: To promote research in basic sciences and applied engineering among faculty and students to fulfill the societal expectations.

M3: To enhance the holistic development of students through meaningful interaction with industry and academia.

M4: To foster the students on par with sustainable development goals thereby contributing to the process of nation building

M5: To nurture and retain conducive lifelong learning environment towards professional excellence.

Vision of the Department

To be recognized as Centre of Excellence for innovation and research in computer science and engineering through the futuristic technologies by developing technocrats with ethical values to serve the society at global level.

Mission of the Department

M1: To develop quality and technically competent computer professionals through excellence in academics.

M2: To encourage the faculty and students towards research and development with advanced tools and technologies.

M3: To enhance industry institute interaction to build a strong technical expertise among the students.

M4: To empower and train the students to establish entrepreneurial endeavors with ethical behaviors and social consciousness.

M5: To nurture professional empowerment among students and take up higher studies through continuous Learning.

RAMASWAMY KRISHNAMOORTHY

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Program Educational Objectives (PEOs)

The graduate of Computer Science and Engineering will have

PEO1: Ability to analyze and get solutions in the field of Computer Science and Engineering through application of fundamental knowledge of Mathematics, Science and Electronics (Preparation).

PEO2: Innovative ideas, methods and techniques thereby rendering expertise to the industrial and societal needs in an effective manner and will be a competent computer/software engineer (Core Competency).

PEO3: Good and broad knowledge with interpersonal skills so as to comprehend, analyze, design and create novel products and solutions for real-time applications (Breadth).

PEO4: Professional with ethical values to develop leadership, effective communication skills and teamwork to excel in career. (Professionalism)

PEO5: Strive to learn continuously and update their knowledge in the specific fields of computer science & engineering for the societal growth. (Learning environment).

Program Specific Outcome (PSOs)

The graduates of Bachelor of Engineering in Computer Science and Engineering Programme will be able to:

PSO1: Use Data structures, Data management, Networking, System software, Data science with high end programming skills to design and implement automation in various domains of emerging technologies.

PSO2: Apply engineering knowledge in project development with the end products and services in the field of hardware and software platform to accomplish the industry expectations.

Program Outcomes (POs)

PO1: **Engineering Knowledge** - To apply the fundamental knowledge of mathematics, science and computer science theory and principles to identify, formulate and solve the problems in the field of computer science and engineering.

PO2: **Problem Analysis** - To understand, analyze and solve the engineering problems using the concepts of computer science, mathematics and engineering science.

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PO3: **Design/Development of solutions** - To design a solution for different computer engineering problems to meet public health and safety, societal and environmental issues.

PO4: **Investigation** - To analyze, interpret data and synthesis of information for complex problems related to computer science discipline using multidisciplinary knowledge.

PO5: **Modern Tool Usage** - To use and evaluate modern engineering tools, components and programs to meet industry needs.

PO6: **The Engineer and Society** - To use current tools, techniques and skills necessary with ethical responsibility to meet the industrial expectation.

PO7: **Environmental and Sustainability** - To demonstrate the various contemporary issues related to economical, health and safety, legal, environmental and sustainability measures.

PO8: **Ethics** – To apply professional ethics and responsibilities to meet quality engineering practice over the society.

PO9: **Individual and Team Work** – To function as an individual and as a member or leader on teams to accomplish a multidisciplinary task.

PO10: **Communications** – To communicate effectively with a range of audience and write technical documents.

PO11: **Project Management and Finance** - To enrich the quality of life by implementing recent technologies through innovative ideas and projects.

PO12: **Life – Long Learning** - To participate and succeed in their career by recognizing the need through lifelong learning approach.

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name :	C101 / HS 8151 / COMMUNICATIVE ENGLISH
Semester	I
Regulation	2017

Course outcome

Students will be able to	
HS 8151.1	Develop communication skills effectively in conversation by asking/sharing questions with the support of language development.
HS 8151.2	Infer the passages from the articles for improving parts of speech and language.
HS 8151.3	Write the jumbled sentences and the product description meaningfully.
HS 8151.4	Analyze different genres of texts for improving language skills such as email etiquette and personal letters
HS 8151.5	Produce well organized essays, and dialogue writing in English effectively.
HS 8151.6	Integrate their knowledge in language skills and grammar for the work place.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
HS 8151.1	-	-	-	1	2	-	-	-	3	3	-	2
HS 8151.2	-	-	-	1	2	-	-	-	3	3	-	2
HS 8151.3	-	-	-	1	2	-	-	-	3	3	-	2
HS 8151.4	-	-	-	1	2	-	-	-	3	3	-	2
HS 8151.5	-	-	-	1	2	-	-	-	3	3	-	2
HS 8151.6	-	-	-	1	2	-	-	-	3	3	-	2
HS 8151	0.0	0.0	0.0	1.0	2.0	0.0	0.0	0.0	3.0	3.0	0.0	2.0

CO-PSO matrices

Course code	PSO1	PSO2
HS 8151.1	-	-
HS 8151.2	-	-
HS 8151.3	-	-
HS 8151.4	-	-
HS 8151.5	-	-
HS 8151.6	-	-
HS 8151	0.0	0.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C102 / MA8151 / ENGINEERING MATHEMATICS – I
Semester	I
Regulation	2017

Course outcome

Students will be able to	
MA8151.1	Understand limit , continuity, derivatives, Maxima, Minima of functions of one variable
MA8151.2	Apply differentiation techniques to solve Maxima, Minima of functions of two variables.
MA8151.3	Evaluate integrals using techniques of integration for various functions.
MA8151.4	Evaluate multiple integrals in Cartesian and polar coordinates.
MA8151.5	Apply various techniques in solving differential equations.
MA8151.6	Possess knowledge in the concept of differentiation and techniques of integration in solving engineering problems.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
MA8151.1	3	3	3	3	3	-	-	-	3	-	1	1
MA8151.2	3	3	3	3	3	-	-	-	3	-	1	1
MA8151.3	3	3	3	3	3	-	-	-	3	-	1	1
MA8151.4	3	3	3	3	3	-	-	-	3	-	1	1
MA8151.5	3	3	3	3	3	-	-	-	3	-	1	1
MA8151.6	3	3	3	3	3	-	-	-	3	-	1	1
MA8151	3.0	3.0	3.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0	1.0	1.0

CO-PSO matrices

Course code	PSO1	PSO2
MA8151.1	1	1
MA8151.2	1	1
MA8151.3	1	1
MA8151.4	1	1
MA8151.5	1	1
MA8151.6	1	1
MA8151	1.0	1.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C103 / PH8151/ENGINEERING PHYSICS
Semester	I
Regulation	2017

Course outcome

Students will be able to	
PH8151.1	Apply the knowledge on the elastic properties of solids in the engineering field.
PH8151.2	Examine the characteristics of waves and optics
PH8151.3	Use the thermal physics principles in the field of engineering.
PH8151.4	Demonstrate the concepts of quantum physics and its applications in tunneling microscopes.
PH8151.5	Classify the various crystalline structures and use the various crystal growth techniques in engineering applications.
PH8151.6	Analyze the logical and mathematical concepts of physical theories and its applications which are utilized in the field of engineering.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
PH8151.1	3	2	2	1	-	-	-	-	-	-	-	1
PH8151.2	3	1	1	2	2	-	-	-	-	-	-	1
PH8151.3	3	2	2	1	-	-	-	-	-	-	-	1
PH8151.4	3	-	1	-	-	-	-	-	-	-	-	1
PH8151.5	3	1	-	2	-	-	-	-	-	-	-	1
PH8151.6	3	2	2	2	2	-	-	-	-	-	-	1
PH8151	3.0	1.6	1.6	1.6	2.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0

CO-PSO matrices

Course code	PSO1	PSO2
PH8151.1	1	-
PH8151.2	1	-
PH8151.3	1	-
PH8151.4	1	-
PH8151.5	1	-
PH8151.6	1	-
PH8151	1.0	0.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C104 / CY8151 / ENGINEERING CHEMISTRY
Semester	I
Regulation	2017

Course outcome

Students will be able to	
CY8151.1	Solve the problems of using hard water in boiler and methods of water treatment.
CY8151.2	Examine the knowledge about the surface chemistry and catalysis.
CY8151.3	Analyze the making of alloys with help of the basic concepts of phase rule.
CY8151.4	Differentiate the significance of solids, liquids and gaseous fuels and calculate the calorific values of fuels and the requirements of air for complete combustion in fuels.
CY8151.5	Express the components, functions of nuclear reactor and the constructions, applications of batteries and fuel cells.
CY8151.6	Compile the knowledge gained on engineering materials, fuels, energy sources and water treatment techniques will facilitate better understanding of engineering process and applications.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CY8151.1	3	3	2	-	-	1	1	-	-	-	-	1
CY8151.2	3	3	1	-	-	-	-	-	-	-	-	1
CY8151.3	3	2	2	-	-	-	-	-	-	-	-	1
CY8151.4	3	3	2	-	-	1	1	-	-	-	-	1
CY8151.5	3	2	2	-	-	1	1	-	-	-	-	1
CY8151.6	3	2	2	-	-	1	1	-	-	-	-	1
CY8151	3.0	2.5	1.8	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	1

CO-PSO matrices

Course code	PSO1	PSO2
CY8151.1	1	-
CY8151.2	1	-
CY8151.3	1	-
CY8151.4	1	-
CY8151.5	1	-
CY8151.6	1	-
CY8151	1	0.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C105 / GE 8151 - PROBLEM SOLVING AND PYTHON PROGRAMMING
Semester	I
Regulation	2017

Course outcome
Students should able to

GE8151.1	Develop algorithmic solutions to simple computational problems
GE8151.2	Implement simple Python programs for solving problems.
GE8151.3	Design Decomposing of Python program into functions..
GE8151.4	Construct compound data using Python lists, tuples, and dictionaries.
GE8151.5	Develop Python Programs using Read and write data from/to files
GE8151.6	Demonstrate simple Python programs for solving real world problems.

CO-PO – PSO – matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
GE8151.1	3	2	1	1	3	1	1	-	1	1	2	3
GE8151.2	3	2	2	2	3	1	1	-	1	1	2	3
GE8151.3	3	2	2	2	3	1	2	-	1	-	2	3
GE8151.4	3	2	2	2	3	1	1	1	2	-	3	3
GE8151.5	3	2	2	1	3	1	1	1	2	1	3	3
GE8151.6	3	2	3	2	3	1	2	-	2	2	3	3
GE8151	3.0	2.0	1.8	1.6	3.0	1.0	1.2	1.0	1.4	1.0	2.4	3.0

CO-PSO matrices

Course code	PSO1	PSO2
GE8151.1	1	0
GE8151.2	1	0
GE8151.3	1	0
GE8151.4	1	0
GE8151.5	1	0
GE8151.6	1	0
GE8151	1.0	0.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C106 / GE8152 / ENGINEERING GRAPHICS
Semester	I
Regulation	2017

Course outcome

Students will be able to	
GE8152.1	Understand the fundamentals of curves and free hand sketching of engineering graphics
GE8152.2	Project orthographic projections of lines and plane surfaces.
GE8152.3	Draw projections of solids in different planes
GE8152.4	Draw true shape of sectioned solids and development of surfaces
GE8152.5	Visualize and to project isometric and perspective sections of simple solids.
GE8152.6	To know the applications of scales used in engineering field.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
GE8152.1	2	2	1	-	-	-	-	1	-	1	-	1
GE8152.2	2	2	1	-	-	-	-	1	-	1	-	1
GE8152.3	2	2	1	-	-	-	-	1	-	1	-	1
GE8152.4	2	2	1	-	-	-	-	1	-	1	-	1
GE8152.5	2	2	1	-	-	-	-	1	-	1	-	1
GE8152.6	2	2	1	-	-	-	-	1	-	1	-	1
GE8152	2.0	2.0	1.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0	0.0	1.0

CO-PSO matrices

Course code	PSO1	PSO2
GE8152.1	1	-
GE8152.2	1	-
GE8152.3	1	-
GE8152.4	1	-
GE8152.5	1	-
GE8152.6	1	-
GE8152	1.0	0.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C107 / GE 8161 - PROBLEM SOLVING AND PYTHON PROGRAMMING LABORATORY
Semester	I
Regulation	2017

Course outcome

Students will be able to	
GE8161.1	Develop solutions to simple computational problems using Python programs
GE8161.2	Implement problems using conditionals and loops in Python.
GE8161.3	Design Python programs by defining functions and calling them.
GE8161.4	Create Python lists, tuples and dictionaries for representing compound data.
GE8161.5	Construct Python programs using files
GE8161.6	Solve Python real world applications

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
GE8161.1	3	3	1	2	2	1	1	-	2	3	2	3
GE8161.2	3	3	2	2	2	1	1	1	2	2	2	3
GE8161.3	3	3	2	2	2	1	2	1	2	2	2	3
GE8161.4	3	3	3	2	3	1	1	1	2	1	2	3
GE8161.5	3	3	3	2	3	1	1	-	2	1	2	3
GE8161.6	3	3	3	2	3	1	2	-	2	1	2	3
GE8161	3.0	3.0	2.3	2.0	2.5	1.0	1.3	1.0	2	1.7	2.0	3.0

CO-PSO matrices

Course code	PSO1	PSO2
GE8161.1	3	2
GE8161.2	2	3
GE8161.3	3	3
GE8161.4	3	3
GE8161.5	3	3
GE8161.6	3	3
GE8161	2.8	2.8

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C108 / BS8161 / PHYSICS AND CHEMISTRY LABORATORY
Semester	I
Regulation	2017

Course outcome

Students will be able to	
BS8161.1	Examine the characteristics of light in the visible region
BS8161.2	Calculate the elastic moduli of a solid
BS8161.3	Demonstrate the band of a semiconductor
BS8161.4	Estimate of ferrous ion and copper content of the given solution by potentiometer and iodometric.
BS8161.5	Determine of strength of given acids using various meter.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
BS8161.1	3	1	2	1	1	1	-	2	1	1	-	1
BS8161.2	3	2	2	1	1	1	1	2	1	1	-	1
BS8161.3	3	1	-	1	1	1	1	2	1	1	-	1
BS8161.4	3	2	1	-	1	1	1	2	1	1	-	1
BS8161.5	3	2	1	-	1	1	1	2	1	1	-	1
BS8161.6	3	2	2	1	1	1	1	2	1	1	-	1
BS8161	3.0	1.7	1.6	1.0	1.0	1.0	1.0	2.0	1.0	1.0	0.0	1.0

CO-PSO matrices

Course code	PSO1	PSO2
BS8161.1	1	-
BS8161.2	1	-
BS8161.3	1	-
BS8161.4	1	-
BS8161.5	1	-
BS8161.6	1	-
BS8161	1.0	0.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C109 / HS 8251 / TECHNICAL ENGLISH
Semester	II
Regulation	2017

Course outcome

Students will be able to	
HS 8251.1	Develop the lexical terms through grammar and vocabulary for improving technical writing skill
HS 8251.2	Analyze and Interpret visual images into descriptive passage with grammar and vocabulary.
HS 8251.3	Infer the speed reading task to develop vocabulary and language .
HS 8251.4	Write emails, job application letter and issue based essays with the support of language skills.
HS 8251.5	Compile the wide range of points for preparing minutes and reports effectively.
HS 8251.6	Combine the knowledge along with the language skills and grammar for the work place.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
HS 8251.1	-	-	-	1	2	-	-	-	3	3	-	2
HS 8251.2	-	-	-	1	2	-	-	-	3	3	-	2
HS 8251.3	-	-	-	1	2	-	-	-	3	3	-	2
HS 8251.4	-	-	-	1	2	-	-	-	3	3	-	2
HS 8251.5	-	-	-	1	2	-	-	-	3	3	-	2
HS 8251.6	-	-	-	1	2	-	-	-	3	3	-	2
HS 8251	0.0	0.0	0.0	1.0	2.0	0.0	0.0	0.0	3.0	3.0	0.0	2

CO-PSO matrices

Course code	PSO1	PSO2
HS 8251.1	-	-
HS 8251.2	-	-
HS 8251.3	-	-
HS 8251.4	-	-
HS 8251.5	-	-
HS 8251.6	-	-
HS 8251	0.0	0.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C110 / MA8251 / ENGINEERING MATHEMATICS – II
Semester	II
Regulation	2017

Course outcome

Students will be able to	
MA8251.1	Apply Eigen values and Eigen vectors concept to diagonalize a matrix.
MA8251.2	Evaluate the line, surface and volume integrals using Gauss, Green's and Stoke's theorems.
MA8251.3	Acquire knowledge in Analytic functions and conformal mapping.
MA8251.4	Develop the knowledge in concept of standard techniques of complex variable theory.
MA8251.5	Evaluation of contour integrals.
MA8251.6	Gain knowledge in Laplace transform techniques and its applications to solve linear differential equations

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
MA8251.1	3	3	3	-	2	-	-	-	1	1	1	1
MA8251.2	3	3	3	-	2	-	-	-	1	1	1	1
MA8251.3	3	3	3	-	2	-	-	-	1	1	1	1
MA8251.4	3	3	3	-	2	-	-	-	1	1	1	1
MA8251.5	3	3	3	-	2	-	-	-	1	1	1	1
MA8251.6	3	3	3	-	2	-	-	-	1	1	1	1
MA8251	3.0	3.0	3.0	0.0	2.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0

CO-PSO matrices

Course code	PSO1	PSO2
MA8251.1	1	1
MA8251.2	1	1
MA8251.3	1	1
MA8251.4	1	1
MA8251.5	1	1
MA8251.6	1	1
MA8251	1.0	1.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C111 / PH8252/ PHYSICS FOR INFORMATION SCIENCE
Semester	II
Regulation	2017

Course outcome

Students will be able to	
PH8252.1	Illustrate the classical, quantum and band theory involved in the conduction process of materials
PH8252.2	Calculate the carrier concentration and hall coefficients of a semiconductor.
PH8252.3	Classify the different behaviors of magnetic materials with their applications in data storage.
PH8252.4	Utilization of optical materials in the field of optoelectronics
PH8252.5	Demonstrate the fabrication of nano devices
PH8252.6	Apply the knowledge of various types of materials in the field of engineering and technology.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
PH8252.1	3	1	-	-	-	-	-	-	-	-	-	1
PH8252.2	3	2	2	2	2	-	-	-	-	-	-	1
PH8252.3	3	-	1	-	1	-	-	-	-	-	-	1
PH8252.4	3	-	-	2	-	-	-	-	-	-	-	1
PH8252.5	3	-	-	1	2	-	-	-	-	-	-	1
PH8252.6	3	2	2	2	2	-	-	-	-	-	-	1
PH8252	3.0	1.7	1.7	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	1

CO-PSO matrices

Course code	PSO1	PSO2
PH8252.1	1	-
PH8252.2	1	-
PH8252.3	1	-
PH8252.4	1	-
PH8252.5	1	-
PH8252.6	1	-
PH8252	1.0	0.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C112 / BE8255/BASIC ELECTRICAL, ELECTRONICS AND MEASUREMENT ENGINEERING
Semester	II
Regulation	2017

Course outcome

Students will be able to	
BE8255.1	Analyze electrical network using network theorems
BE8255.2	Evaluate transformers and other rotating electrical machines
BE8255.3	Analyze different types of renewable energy sources and protective devices
BE8255.4	Evaluate the operation of basic electronic devices
BE8255.5	Analyze different types of instruments and calibrate them
BE8255.6	Develop electrical circuits and able to choose a particular machine according to their application

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
BE8255.1	3	3	3	3	-	1	-	-	-	1	1	2
BE8255.2	3	3	3	2	-	1	2	-	-	1	1	2
BE8255.3	3	2	2	1	-	1	2	-	-	1	1	2
BE8255.4	3	2	2	1	-	1	2	-	-	1	1	2
BE8255.5	3	2	1	1	-	1	1	-	-	1	1	2
BE8255.6	3	3	3	3	-	1	2	-	-	1	1	2
BE 8255	3.0	2.5	2.3	1.8	0.0	1.0	1.8	0.0	0.0	1.0	1.0	2.0

CO-PSO matrices

Course code	PSO1	PSO2
BE8255.1	2	1
BE8255.2	2	1
BE8255.3	2	1
BE8255.4	2	1
BE8255.5	2	1
BE8255.6	2	1
BE 8255	2.0	1.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C113 / GE8291/ ENVIRONMENTAL SCIENCE AND ENGINEERING
Semester	II
Regulation	2017

Course outcome

Students will be able to	
GE8291.1	Enumerate the importance of public awareness on environment and nature of biodiversity.
GE8291.2	Explain the causes, effect and control measures of different pollution and disasters.
GE8291.3	Point out the human development that leads to environmental disasters, the values of natural resources and their conservation.
GE8291.4	Examine the knowledge about the social issues related to environmental problems.
GE8291.5	Evaluate the environmental effects due to population explosion.
GE8291.6	Find and implement the scientific, technological, economical and political solutions to environmental problems.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
GE8291.1	-	-	-	-	-	3	3	3	-	1	-	1
GE8291.2	-	-	-	-	-	3	3	3	-	1	-	1
GE8291.3	-	-	-	-	-	3	3	3	-	1	-	1
GE8291.4	-	-	-	-	-	3	3	2	-	1	-	1
GE8291.5	-	-	-	-	-	3	3	2	-	1	-	1
GE8291.6	-	-	-	-	-	3	3	2	-	1	-	1
GE8291	0.0	0.0	0.0	0.0	0.0	3.0	3.0	2.5	0.0	1.0	0.0	1.0

CO-PSO matrices

Course code	PSO1	PSO2
GE8291.1	1	-
GE8291.2	1	-
GE8291.3	1	-
GE8291.4	1	-
GE8291.5	1	-
GE8291.6	1	-
GE8291	1.0	0.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C114 / CS8251 / PROGRAMMING IN C
Semester	II
Regulation	2017

Course outcome

Students will be able to	
CS8251.1	Develop simple applications in C using basic constructs
CS8251.2	Construct applications using arrays and strings
CS8251.3	Implement applications in C using functions and pointers.
CS8251.4	Design applications in C using structures.
CS8251.5	Demonstrate applications using sequential and random access file processing
CS8251.6	Solve and implement small applications

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8251.1	3	3	2	2	2	2	-	-	1	1	1	3
CS8251.2	3	3	2	2	2	2	-	-	1	1	1	3
CS8251.3	3	3	2	2	2	2	-	-	1	1	1	3
CS8251.4	3	3	2	2	2	2	-	-	1	1	2	3
CS8251.5	3	3	2	2	2	2	-	-	1	1	1	3
CS8251.6	3	3	3	2	2	2	-	-	2	1	1	3
CS8251	3.0	3.0	2.2	2.0	2.0	2.0	0.0	0.0	1.2	1.0	1.2	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8251.1	3	2
CS8251.2	3	2
CS8251.3	3	3
CS8251.4	3	3
CS8251.5	3	3
CS8251.6	3	3
CS8251	3.0	2.7

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C115 / GE8261 / ENGINEERING PRACTICES LABORATORY
Semester	II
Regulation	2017

Course outcome

Students will be able to	
GE8261.1	Fabricate carpentry components and pipe connections for residential and industrial buildings
GE8261.2	Use welding equipments to join the structures and carryout the various basic machining operation in lathe and drilling machine
GE8261.3	Fabricate various models using sheet metal works and to demonstrate the assembly of centrifugal pump , air conditioner, operation of smithy, foundry and fittings
GE8261.4	Practice the various home electrical works and appliances
GE8261.5	Practice electronics equipments using various components , gates and soldering
GE8261.6	Gain hands-on experience on various basic engineering practices in civil, mechanical, electrical and electronics engineering.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
GE8261.1	3	3	2	-	2	2	-	2	2	1	-	2
GE8261.2	3	3	2	-	2	2	-	2	2	1	-	2
GE8261.3	3	3	2	-	2	2	-	2	2	1	-	2
GE8261.4	3	3	2	-	2	2	-	2	2	1	-	2
GE8261.5	3	3	2	-	2	2	-	2	2	1	-	2
GE8261.6	3	3	2	-	2	2	-	2	2	1	-	2
GE8261	3.0	3.0	2.0	0.0	2.0	2.0	-	2.0	2.0	1.0	0.0	2.0

CO-PSO matrices

Course code	PSO1	PSO2
GE8261.1	2	2
GE8261.2	2	2
GE8261.3	2	2
GE8261.4	2	2
GE8261.5	2	2
GE8261.6	2	2
GE8261	2.0	2.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C116 / CS8261 / C PROGRAMMING LABORATORY
Semester	II
Regulation	2017

Course outcome

Students will be able to	
CS8261.1	Implement simple applications in C using basic constructs
CS8261.2	Develop applications using arrays and strings
CS8261.3	Construct applications in C using functions and pointers.
CS8261.4	Create applications in C using structures.
CS8261.5	Build applications using sequential and random access file processing
CS8261.6	Demonstrate small applications

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8261.1	3	3	2	2	2	1	-	-	1	1	1	3
CS8261.2	3	3	2	2	2	2	-	-	1	1	1	3
CS8261.3	3	3	3	2	2	1	-	-	1	1	1	3
CS8261.4	3	3	3	2	2	2	-	-	1	1	2	3
CS8261.5	3	3	3	2	2	2	1	-	1	1	1	3
CS8261.6	3	3	3	3	2	2	1	-	2	1	1	3
CS8261	3.0	3.0	2.7	2.2	2	1.7	1.0	0.0	1.2	1.0	1.2	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8261.1	3	2
CS8261.2	3	2
CS8261.3	3	3
CS8261.4	3	3
CS8261.5	3	3
CS8261.6	3	3
CS8261	3.0	2.7

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C201 / MA8351 / DISCRETE MATHEMATICS
Semester	III
Regulation	2017

Course outcome

Students will be able to	
MA8351.1	Acquire knowledge of the concepts needed to test the logics of a program.
MA8351.2	Aware of the counting principles.
MA8351.3	Have an understanding in identifying structures on many levels.
MA8351.4	Expose the concepts and properties of algebraic structures such as groups, rings and fields.
MA8351.5	Aware of a class of functions which transform a finite set into another finite set which relates to input and output functions in computer science.
MA8351.6	Possess knowledge in logical and mathematical ability to deal with abstraction and recognize most of the basic terminologies used in computer science course to solve practical problems.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
MA8351.1	3	3	2	3	2	-	-	-	1	3	-	1
MA8351.2	3	3	2	3	2	-	-	-	1	3	-	1
MA8351.3	3	3	2	3	3	-	-	-	1	3	-	1
MA8351.4	3	3	2	3	1	-	-	-	1	1	-	1
MA8351.5	3	3	2	3	2	-	-	-	1	1	-	1
MA8351.6	3	3	2	3	3	-	-	-	1	1	-	1
MA8351	3.0	3.0	2.0	3.0	2.2	0.0	0.0	0.0	1.0	2.0	0.0	1.0

CO-PSO matrices

Course code	PSO1	PSO2
MA8351.1	2	1
MA8351.2	2	1
MA8351.3	3	2
MA8351.4	1	1
MA8351.5	1	1
MA8351.6	1	1
MA8351	1.7	1.2

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C202 / CS8351/DIGITAL PRINCIPLES AND SYSTEM DESIGN
Semester	III
Regulation	2017

Course outcome

Students will be able to	
CS8351.1	Solve different methods used for simplification of Boolean expression
CS8351.2	Implement different combinational circuits and able to write HDL code.
CS8351.3	Construct synchronous sequential digital circuits and able to write HDL code.
CS8351.4	Design asynchronous sequential digital circuits
CS8351.5	Analyze the nomenclature and technology in the area of memory devices and design and implement Programmable logic devices
CS8351.6	Develop knowledge for designing a digital systems using Hardware Description Language for real time applications.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8351.1	3	3	3	2	-	1	-	-	-	1	1	2
CS8351.2	3	3	3	2	2	2	1	-	-	1	1	3
CS8351.3	3	3	3	2	2	2	1	-	-	1	1	3
CS8351.4	3	2	2	3	1	2	1	-	-	1	1	2
CS8351.5	3	3	3	3	2	1	1	-	-	1	1	3
CS8351.6	3	3	3	3	2	3	2	-	-	3	1	3
CS8351	3.0	2.8	2.8	2.5	1.8	1.8	1.2	0.0	0.0	1.3	1.0	2.7

CO-PSO matrices

Course code	PSO1	PSO2
CS8351.1	3	2
CS8351.2	3	2
CS8351.3	3	2
CS8351.4	3	2
CS8351.5	3	2
CS8351.6	3	2
CS8351	3.0	2.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C203 / CS8391 / DATA STRUCTURES
Semester	III
Regulation	2017

Course outcome

Students will be able to	
CS8391.1	Implement abstract data types for linear data structures
CS8391.2	Construct applications of stack and queue of linear data structure
CS8391.3	Apply the tree structures of non-linear data structures
CS8391.4	Design the graph structures of non-linear data structures
CS8391.5	Analyze the various sorting and searching algorithms
CS8391.6	Demonstrate the different linear and non-linear data structures to problem solutions.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8391.1	3	2	3	2	2	1	1	-	1	2	2	3
CS8391.2	3	3	3	3	1	1	1	-	1	2	2	3
CS8391.3	3	3	3	2	2	2	1	-	2	1	1	3
CS8391.4	3	3	3	2	1	1	1	-	2	1	2	3
CS8391.5	3	2	3	2	1	2	1	-	1	1	1	3
CS8391.6	3	3	3	2	1	1	1	-	2	1	2	3
CS8391	3.0	2.6	3.0	2.2	1.4	1.4	1.0	0.0	1.4	1.4	1.6	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8391.1	3	2
CS8391.2	3	2
CS8391.3	3	2
CS8391.4	3	3
CS8391.5	3	3
CS8391.6	3	3
CS8391	3.0	2.4

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C204 / CS8392 /OBJECT ORIENTED PROGRAMMING
Semester	III
Regulation	2017

Course outcome

Students will be able to	
CS8392.1	Develop Java programs using OOP Principles
CS8392.2	Create Java programs with concepts inheritance and interfaces
CS8392.3	Build Java applications using exceptions and I/O streams
CS8392.4	Implement Java applications with threads and generic classes
CS8392.5	Design and build simple graphical user interfaces
CS8392.6	Demonstrate programs in Java to solve simple engineering problems

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8392.1	3	3	3	2	2	2	1	-	1	1	2	3
CS8392.2	3	3	3	2	2	3	1	-	2	1	2	3
CS8392.3	3	3	3	3	3	3	1	-	2	1	2	3
CS8392.4	3	3	3	3	3	3	1	-	1	1	2	3
CS8392.5	3	3	3	3	3	3	1	1	1	2	2	3
CS8392.6	3	3	3	3	3	3	1	1	2	2	3	3
CS8392	3.0	3.0	3.0	2.6	2.6	2.8	1.0	1.0	1.4	1.2	2.0	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8392.1	3	2
CS8392.2	3	3
CS8392.3	3	3
CS8392.4	3	3
CS8392.5	3	3
CS8392.6	3	3
CS8392	3.0	2.8

1	Slight	2	Moderate	3	Substantial

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Department of Computer Science and Engineering

Course Code / Name	C205 / EC8395 / COMMUNICATION ENGINEERING
Semester	III
Regulation	2017

Course outcome

Students will be able to	
EC8395.1	Evaluate the various analog modulation techniques and enumerate modulation and demodulation process present in a communication system
EC8395.2	Analyze the different pulse modulation techniques by using sampling and quantization process
EC8395.3	Evaluate and compare the performance of digital modulation techniques
EC8395.4	Apply the mathematical approach for coding of information to be transmitted and estimate the channel capacity through error control coding
EC8395.5	Design and compare the spread spectrum modulation techniques and multiple access techniques
EC8395.6	Apply different analog and digital modulation techniques for error free data transmission

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
EC8395.1	3	3	2	1	-	1	-	-	-	2	1	1
EC8395.2	3	3	2	1	-	1	-	-	-	2	1	1
EC8395.3	3	3	2	2	1	1	1	-	-	2	1	1
EC8395.4	3	3	3	2	1	2	1	-	-	1	1	1
EC8395.5	3	2	2	1	-	1	1	-	-	2	1	1
EC8395.6	2	2	3	1	-	1	1	-	-	1	1	1
EC8395	2.8	2.7	2.3	1.3	1.0	1.2	1.0	0.0	0	1.7	1.0	1.0

CO-PSO matrices

Course code	PSO1	PSO2
EC8395.1	2	3
EC8395.2	2	3
EC8395.3	2	3
EC8395.4	2	3
EC8395.5	2	3
EC8395.6	2	3
EC8395	2.0	3.0

1	Slight	2	Moderate	3	Substantial

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Department of Computer Science and Engineering

Course Code / Name	C206 / CS8381 / DATA STRUCTURES LAB
Semester	III
Regulation	2017

Course outcome

Students will be able to	
CS8381.1	Implement appropriate linear data structure for solving a real world problems using array
CS8381.2	Design appropriate linear data structure for solving a real world applications using Linked List.
CS8381.3	Construct appropriate Nonlinear Tree data structure for solving real world applications.
CS8381.4	Solve Nonlinear Graph traversal techniques for real world problems.
CS8381.5	Evaluate various sorting and searching algorithms.
CS8381.6	Apply appropriate hash functions and data structure techniques that result in a collision free scenario for data storage and retrieval.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8381.1	3	3	3	2	1	2	1	-	1	1	1	3
CS8381.2	3	3	3	2	2	2	1	-	1	1	2	3
CS8381.3	3	3	3	3	1	1	1	1	1	2	1	3
CS8381.4	3	3	3	3	1	1	1	1	1	2	2	3
CS8381.5	3	2	3	2	1	2	1	-	1	1	1	3
CS8381.6	3	3	3	2	1	2	1	-	1	1	1	3
CS8381	3.0	2.8	3.0	2.3	1.2	1.7	1.0	1.0	1.0	1.3	1.3	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8381.1	3	2
CS8381.2	3	3
CS8381.3	3	3
CS8381.4	3	3
CS8381.5	3	3
CS8381.6	3	3
CS8381	3.0	2.8

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C207 / CS8383 /OBJECT ORIENTED PROGRAMMING LAB
Semester	III
Regulation	2017

Course outcome

Students will be able to	
CS8383.1	Develop Java programs for simple applications that make use of classes, packages and interfaces
CS8383.2	Implement Java programs with array list
CS8383.3	Construct Java programs using exception handling technique and multithreading
CS8383.4	Design applications using file processing
CS8383.5	Build programs using the concept generic programming
CS8383.6	Demonstrate applications using event handling

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8383.1	3	3	3	2	1	1	1	-	1	-	1	3
CS8383.2	3	3	3	3	2	1	1	-	1	-	2	3
CS8383.3	3	3	3	3	2	2	1	1	2	-	2	3
CS8383.4	3	3	3	3	2	2	1	1	2	1	1	3
CS8383.5	3	3	3	3	2	2	1	1	1	1	2	3
CS8383.6	3	3	3	3	2	2	1	1	2	1	2	3
CS8383	3.0	3.0	3.0	2.8	1.8	1.7	1.0	1.0	1.5	1.0	1.7	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8383.1	3	3
CS8383.2	3	2
CS8383.3	3	3
CS8383.4	3	3
CS8383.5	3	3
CS8383.6	3	3
CS8383	3.0	2.8

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C208 / CS8382/DIGITAL SYSTEMS LABORATORY
Semester	III
Regulation	2017

Course outcome

Students will be able to	
CS8382.1	Apply Boolean theorems for basic gates , construct combinational circuits using arbitrary functions and evaluate the performance of code convertors
CS8382.2	Construct combinational and sequential circuits using MSI devices
CS8382.3	Implement combinational and sequential circuits using HDL
CS8382.4	Design of a simple digital system

CO-PO matrices

Course code	PO1	PO2	PO3	PO14	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8382.1	3	3	3	1	2	3	-	-	2	2	3	3
CS8382.2	3	3	3	1	2	2	-	-	2	2	3	3
CS8382.3	3	3	3	1	2	1	-	-	2	2	3	3
CS8382.4	3	3	3	1	2	3	-	-	3	2	3	3
CS8382	3.0	3.0	3.0	1.0	2.0	2.3	0.0	0.0	2.3	2.0	3.0	3.0

CO -PSO matrices

Course code	PSO1	PSO2
CS8382.1	3	2
CS8382.2	3	2
CS8382.3	3	2
CS8382.4	3	2
CS8382	3.0	2.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C209 / HS 8381/ INTERPERSONAL SKILL-LISTENING AND SPEAKING
Semester	III
Regulation	2017

Course outcome

Students will be able to	
HS8381.1	Listen and comprehend video lectures and talks for improving pronunciation by giving personal information.
HS8381.2	Listen and participate in conversation on a variety of topics to speak clearly in formal and informal scenario.
HS8381.3	Listen to a lecture and videos for delivering a five minute talk about familiar topics with simple lexical terms and routine tasks in both formal and informal situations.
HS8381.4	Listen and participate actively in GD by giving a non verbal feedback and summarize academic readings and lectures.
HS8381.5	Give presentations dynamically by following various strategies like (group / pair) in an academic and business context.
HS8381.6	Excel their Productive skills (listening and speaking) to develop communicative competency in their work place and daily routine

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
HS8381.1	-	-	-	-	2	-	-	2	3	3	-	2
HS8381.2	-	-	-	-	2	-	-	2	3	3	-	2
HS8381.3	-	-	-	-	2	-	-	2	3	3	-	2
HS8381.4	-	-	-	-	2	-	-	2	3	3	-	2
HS8381.5	-	-	-	-	2	-	-	2	3	3	-	2
HS8381.6	-	-	-	-	2	-	-	2	3	3	-	2
HS8381	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	3.0	3.0	0.0	2.0

CO-PSO matrices

Course code	PSO1	PSO2
HS8381.1	-	-
HS8381.2	-	-
HS8381.3	-	-
HS8381.4	-	-
HS8381.5	-	-
HS8381.6	-	-
HS8381	0.0	0.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C210 / MA8402 / PROBABILITY AND QUEUING THEORY
Semester	IV
Regulation	2017

Course outcome

Students will be able to	
MA8402.1	Perceive the concept of probability and solving problems in the areas of science and engineering.
MA8402.2	Identify the joint probability distributions with related problems, correlation and regression analysis.
MA8402.3	Gain the Knowledge in random process with related problems.
MA8402.4	Acquire skills in analyzing queueing models.
MA8402.5	Aware the concept of Non-Markovian Queues and Queueing networks.
MA8402.6	Develop probabilistic models which can be used in several areas of real life problems.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
MA8402.1	3	3	3	3	2	-	-	-	2	2	1	2
MA8402.2	3	3	3	2	1	-	-	-	2	2	1	2
MA8402.3	3	3	3	2	2	-	-	-	2	2	1	2
MA8402.4	3	3	3	2	2	-	-	-	2	2	2	2
MA8402.5	3	3	3	2	2	-	-	-	2	2	2	2
MA8402.6	3	3	3	3	2	-	-	-	2	2	1	2
MA8402	3.0	3.0	3.0	2.3	1.8	0.0	0.0	0.0	2.0	2.0	1.3	2.0

CO-PSO matrices

Course code	PSO1	PSO2
MA8402.1	1	1
MA8402.2	2	1
MA8402.3	1	1
MA8402.4	2	1
MA8402.5	2	1
MA8402.6	2	1
MA8402	1.7	1.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C211 / CS8491 / COMPUTER ARCHITECTURE
Semester	IV
Regulation	2017

Course outcome

Students will be able to	
CS8491.1	Discuss the basic structure of computers, operations and instructions.
CS8491.2	Design arithmetic and Logic unit
CS8491.3	Analyze the pipelined execution and design control unit.
CS8491.4	Elaborate parallel processing architectures.
CS8491.5	Compare the various memory system and I/O Communications.
CS8491.6	Inspect new hardware technologies in computers.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CS8491.1	2	2	-	-	1	2	-	-	1	-	-	-
CS8491.2	3	1	-	-	-	2	-	-	1	-	-	-
CS8491.3	2	2	-	-	-	1	-	-	1	-	-	-
CS8491.4	2	2	-	-	-	1	-	-	1	-	-	-
CS8491.5	3	3	-	1	-	2	-	-	1	-	-	-
CS8491.6	3	2	2	-	2	1	-	2	2	-	-	3
CS8491	2.4	2.0	0.0	1.0	1.0	1.6	0.0	0.0	1.0	0.0	0.0	0.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8491.1	1	0
CS8491.2	1	0
CS8491.3	1	0
CS8491.4	1	0
CS8491.5	1	0
CS8491.6	1	0
CS8491	1.1	0.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C212 / CS8492/ DATABASE MANAGEMENT SYSTEM
Semester	IV
Regulation	2017

Course outcome

Students will be able to	
CS8492.1	Classify the database applications
CS8492.2	Design data models and to represent a database system using ER diagrams.
CS8492.3	Discuss the fundamental concepts of transaction processing- concurrency control techniques and recovery procedures.
CS8492.4	Compose the Storage and Query processing Techniques
CS8492.5	Develop the concepts of distributed, Object based ,xml databases and information retrieval
CS8492.6	Apply the Relational Model for a given application

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8492.1	3	3	3	3	2	1	-	-	2	3	3	3
CS8492.2	3	3	3	3	2	2	2	-	2	3	3	3
CS8492.3	3	3	3	3	2	3	-	-	2	3	3	3
CS8492.4	3	3	3	3	3	3	-	-	2	3	3	3
CS8492.5	3	3	3	3	2	3	3	-	2	3	3	3
CS8492.6	3	3	3	3	3	3	3	-	2	3	3	3
CS8492	3.0	3.0	3.0	3.0	2.2	2.4	2.5	0.0	2.0	3.0	3.0	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8492.1	3	3
CS8492.2	3	3
CS8492.3	3	3
CS8492.4	3	3
CS8492.5	3	3
CS8492.6	3	3
CS8492	3.0	3.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C213 / CS8451/ DESIGN AND ANALYSIS OF ALGORITHM
Semester	IV
Regulation	2017

Course outcome

Students will be able to	
CS8451.1	Analyze the fundamentals of Algorithmic problem solving and analysis of algorithm efficiency
CS8451.2	Design algorithm for various computing problems using Brute force, Divide and conquer techniques.
CS8451.3	Evaluate the time and space complexity of algorithm using different techniques.
CS8451.4	Modify the existing algorithms to improve efficiency using iterative techniques.
CS8451.5	Examine the limitations of Algorithm power.
CS8451.6	Develop the different algorithm design techniques for a given problem.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8451.1	3	3	2	3	-	-	-	-	-	-	1	2
CS8451.2	3	3	3	3	-	-	1	-	-	-	-	2
CS8451.3	3	3	1	3	-	-	1	-	-	-	1	2
CS8451.4	3	3	1	3	-	-	-	-	-	-	1	2
CS8451.5	3	3	1	3	-	-	-	-	-	-	1	2
CS8451.6	3	3	1	3	-	1	1	-	-	-	1	2
CS8451	3.0	3.0	1.6	3.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	2.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8451.1	2	1
CS8451.2	2	1
CS8451.3	2	1
CS8451.4	2	2
CS8451.5	3	2
CS8451.6	3	2
CS8451	2.2	1.4

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C214 / CS8493/ OPERATING SYSTEMS
Semester	IV
Regulation	2017

Course outcome

Students will be able to	
CS8493.1	Discuss the basic concepts and functions of computer.
CS8493.2	Design Scheduling algorithms, deadlock, prevention and avoidance algorithms
CS8493.3	Compare and contrast various memory management schemes.
CS8493.4	Discover knowledge of file system management.
CS8493.5	Influence with the basics of Linux system, Mobile OS, and Android.
CS8493.6	Develop a solution for solving various types of scheduling, Deadlock, synchronization and page replacement problems.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8493.1	3	3	1	1	1	1	-	-	1	2	1	2
CS8493.2	3	3	3	2	2	1	-	-	1	1	2	2
CS8493.3	3	3	3	2	2	1	-	-	1	2	2	2
CS8493.4	3	3	3	2	2	1	-	-	1	2	2	2
CS8493.5	3	3	3	3	3	1	1	-	1	2	2	3
CS8493.6	3	3	3	3	3	2	2	-	1	1	2	2
CS8493	3.0	3.0	2.7	2.2	2.2	1.2	1.5	0.0	1.0	1.7	1.8	2.2

CO-PSO matrices

Course code	PSO1	PSO2
CS8493.1	3	1
CS8493.2	3	2
CS8493.3	3	2
CS8493.4	3	2
CS8493.5	2	2
CS8493.6	3	3
CS8493	2.8	2.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C215 / CS8494/ SOFTWARE ENGINEERING
Semester	IV
Regulation	2017

Course outcome

Students will be able to	
CS8494.1	Examine the key activities in managing software process and agile development
CS8494.2	Analyze the software requirements and specification
CS8494.3	Design the architecture types and interfaces related to software projects
CS8494.4	Compare and contrast the various testing and implementation
CS8494.5	Determine the project management and its process
CS8494.6	Create software design and its deployment

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8494.1	3	3	1	1	1	2	1	2	1	2	3	3
CS8494.2	3	2	3	2	1	1	-	1	-	1	1	3
CS8494.3	3	1	3	1	-	1	1	-	1	1	1	3
CS8494.4	3	1	1	1	-	1	1	1	1	2	1	3
CS8494.5	3	2	3	2	3	2	1	1	1	1	2	3
CS8494.6	3	2	3	2	1	1	1	1	1	1	1	3
CS8494	3.0	1.8	2.3	1.5	1.5	1.3	1.0	1.2	1.0	1.3	1.5	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8494.1	3	2
CS8494.2	3	3
CS8494.3	3	3
CS8494.4	3	3
CS8494.5	3	3
CS8494.6	3	3
CS8494	3.0	2.8

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C216 / CS 8481/ DATABASE MANAGEMENT SYSTEMS LAB
Semester	IV
Regulation	2017

Course outcome

Students will be able to	
CS8481.1	Analyze data definitions and data manipulation commands
CS8481.2	Implement the use of nested and join queries
CS8481.3	Illustrate functions, procedures and procedural extensions of data bases
CS8481.4	Construct the use of a front end tool
CS8481.5	Evaluate the exception handling
CS8481.6	Create typical database applications

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8481.1	3	2	3	1	3	3	-	-	1	1	2	3
CS8481.2	3	3	3	1	3	3	-	-	1	1	3	3
CS8481.3	3	3	3	3	3	3	-	-	-	-	3	3
CS8481.4	3	3	3	3	3	3	-	-	-	-	2	3
CS8481.5	3	3	3	3	3	3	-	-	-	-	3	3
CS8481.6	3	3	3	3	3	-	-	-	1	1	3	3
CS8481	3.0	2.8	3.0	2.3	3.0	3.0	0.0	0.0	1.0	1.0	2.7	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8481.1	2	2
CS8481.2	3	3
CS8481.3	3	3
CS8481.4	3	3
CS8481.5	3	2
CS8481.6	3	2
CS8481	2.8	2.5

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C217 / CS8461/ OPERATING SYSTEMS LABORATORY
Semester	IV
Regulation	2017

Course outcome

Students will be able to	
CS8461.1	Discuss the use of filters in the UNIX environments.
CS8461.2	Implement the different types of CPU scheduling algorithms and file allocation strategies
CS8461.3	Formulate semaphores and file organization techniques.
CS8461.4	Solve deadlock avoidance and deadlock detection algorithms.
CS8461.5	Evaluate page replacement algorithms, shared memory and inter process communication(IPC)
CS8461.6	Design paging techniques for memory management, threading and synchronization application

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8461.1	3	2	-	2	1	-	-	-	-	3	-	3
CS8461.2	3	2	1	1	-	1	-	-	-	2	-	2
CS8461.3	3	2	1	-	-	-	-	-	-	2	-	2
CS8461.4	3	3	1	-	-	-	-	-	-	2	-	2
CS8461.5	3	2	2	1	1	1	1	-	-	2	-	2
CS8461.6	3	2	2	1	-	-	1	-	-	2	-	2
CS8461	3.0	2.2	1.4	1.3	1.0	1.0	1.0	0.0	0.0	2.2	0.0	2.2

CO-PSO matrices

Course code	PSO1	PSO2
CS8461.1	1	1
CS8461.2	2	1
CS8461.3	2	1
CS8461.4	2	2
CS8461.5	2	1
CS8461.6	3	3
CS8461	2.0	1.5

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C218 / HS8461 / ADVANCED READING & WRITING
Semester	IV
Regulation	2017

Course outcome

Students will be able to	
HS 8461.1	Read and write the different genre of texts by adopting various strategies for delivering a descriptive paragraph.
HS 8461.2	Review tables, charts, graphs and other images comprehensively to write a paragraph.
HS 8461.3	Write well organized essays with adequate details by reading different genres of text .
HS 8461.4	Prepare convincing proposals, email writing, resumes and job application by reading different genres.
HS 8461.5	Develop critical reading and thinking in order to prepare letter of recommendation and vision statement in writing excellently.
HS 8461.6	Excel their receptive skills (reading and writing) to develop communicative competency in their work place and daily routine

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
HS 8461.1	-	-	-	2	2	-	-	2	3	3	-	2
HS 8461.2	-	-	-	2	2	-	-	2	3	3	-	2
HS 8461.3	-	-	-	2	2	-	-	2	3	3	-	2
HS 8461.4	-	-	-	2	2	-	-	2	3	3	-	2
HS 8461.5	-	-	-	2	2	-	-	2	3	3	-	2
HS 8461.6	-	-	-	2	2	-	-	2	3	3	-	2
HS 8461	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	3.0	3.0	0.0	2.0

CO-PSO matrices

Course code	PSO1	PSO2
HS 8461.1	-	-
HS 8461.2	-	-
HS 8461.3	-	-
HS 8461.4	-	-
HS 8461.5	-	-
HS 8461.6	-	-
HS 8461	0.0	0.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C301 / MA8551 / ALGEBRA AND NUMBER THEORY
Semester	V
Regulation	2017

Course outcome

Students will be able to	
MA8551.1	Apply the basic notions of groups, rings, fields which will then be used to solve related problems.
MA8551.2	Explain the fundamental concepts of advanced algebra and their role in modern mathematics and applied contexts
MA8551.3	Demonstrate accurate and efficient use of advanced algebraic techniques.
MA8551.4	Prove their mastery by solving non - trivial problems related to the concepts.
MA8551.5	Demonstrate the skillfulness and knowledge by proving theorems.
MA8551.6	Apply integrated approach to number theory and abstract algebra, and provide a firm basis for further reading and study in the subject.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
MA8551.1	3	3	3	2	1	-	-	-	3	1	1	1
MA8551.2	3	3	3	2	1	-	-	-	3	1	1	1
MA8551.3	3	3	3	3	2	-	-	-	3	2	1	1
MA8551.4	3	3	3	3	2	-	-	-	3	1	1	1
MA8551.5	3	3	3	3	3	-	-	-	3	1	1	1
MA8551.6	3	3	3	3	3	-	-	-	3	2	1	1
MA8551	3.0	3.0	3.0	2.7	2.0	0.0	0.0	0.0	3.0	1.3	1.0	1.0

CO-PSO matrices

Course code	PSO1	PSO2
MA8551.1	1	1
MA8551.2	1	1
MA8551.3	2	1
MA8551.4	1	1
MA8551.5	2	1
MA8551.6	2	1
MA8551	1.5	1.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C302 / CS8591 / COMPUTER NETWORKS
Semester	V
Regulation	2017

Course outcome

Students will be able to	
CS8591.1	Classify the basic layers in computer networks
CS8591.2	Evaluate the Performance of the network and the basics of data flow
CS8591.3	Categorize routing Algorithms
CS8591.4	Design various protocols in the network
CS8591.5	Discuss working of Application layer protocols.
CS8591.6	Analyze the networking protocols and its characteristics.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8591.1	3	3	3	3	3	2	-	1	-	1	1	3
CS8591.2	3	3	3	3	3	1	-	-	1	1	1	3
CS8591.3	3	3	3	3	3	2	-	-	-	2	-	3
CS8591.4	3	3	2	3	1	1	-	-	-	-	-	3
CS8591.5	3	3	3	2	2	2	-	-	1	-	1	3
CS8591.6	3	3	3	3	2	1	-	-	1	-	1	3
CS8591	3.0	3.0	2.8	2.8	2.3	1.5	0.0	1.0	1.0	1.3	1.0	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8591.1	3	3
CS8591.2	3	2
CS8591.3	3	2
CS8591.4	3	2
CS8591.5	3	2
CS8591.6	3	3
CS8591	3.0	2.3

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C303 / EC8691/ MICROPROCESSORS & MICROCONTROLLERS
Semester	V
Regulation	2017

Course outcome

Students will be able to	
EC8691.1	Acquire knowledge about the fundamentals of 8-86 Microprocessor architecture and its addressing modes.
EC8691.2	Design a Multiprocessor and Co-processor system using 8-86 Microprocessor.
EC8691.3	Develop different I/O interfacing system with 8-86 Microprocessor.
EC8691.4	Demonstrate the hardware architecture of 8-51 microcontroller and its I/O ports.
EC8691.5	Construct any system operation based on the knowledge and system design using microcontroller.
EC8691.6	Design and develop different applications based on Microprocessor and Microcontroller.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
EC8691.1	3	3	2	1	3	1	-	-	1	1	1	2
EC8691.2	3	3	2	1	3	1	-	-	1	1	1	2
EC8691.3	3	3	2	1	3	1	-	-	1	1	1	2
EC8691.4	3	3	2	1	3	1	-	-	1	1	1	2
EC8691.5	3	3	2	1	3	1	-	-	1	1	1	2
EC8691.6	3	3	2	1	3	1	-	-	1	1	1	2
EC8691	3.0	3.0	2.0	1.0	3.0	1.0	-	-	1.0	1.0	1.0	2.0

CO-PSO matrices

Course code	PSO1	PSO2
EC8691.1	1	2
EC8691.2	1	2
EC8691.3	1	2
EC8691.4	1	2
EC8691.5	1	2
EC8691.6	1	2
EC8691	1.0	2.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C304 / CS8501 / THEORY OF COMPUTATION
Semester	V
Regulation	2017

Course outcome

Students will be able to	
CS8501.1	Construct automata and regular expression
CS8501.2	Formulate Context free grammar for any given language
CS8501.3	Design a turning machine for any given language
CS8501.4	Propose Computation Solutions for Turing machines Problems
CS8501.5	Determine the problem is undecidable problems or not
CS8501.6	Develop computing models for various problems.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8501.1	3	3	3	3	2	2	-	-	-	2	-	3
CS8501.2	3	3	3	3	2	1	-	-	-	-	-	3
CS8501.3	3	3	3	2	2	2	-	-	-	1	-	3
CS8501.4	3	3	3	3	3	3	-	-	-	1	-	3
CS8501.5	3	3	3	3	3	3	-	-	-	1	-	3
CS8501.6	3	3	3	3	3	3	-	-	2	2	1	3
CS8501	3.0	3.0	3.0	2.8	2.5	2.3	0.0	0.0	2.0	1.4	1.0	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8501.1	3	3
CS8501.2	3	2
CS8501.3	3	3
CS8501.4	3	3
CS8501.5	3	3
CS8501.6	3	3
CS8501	3.0	2.8

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C305 / CS8592 / OBJECT ORIENTED ANALYSIS AND DESIGN
Semester	V
Regulation	2017

Course outcome

Students will be able to	
CS8592.1	Analyze software design with UML diagrams
CS8592.2	Design software applications using OO concepts
CS8592.3	Distinguish various scenarios based on software requirements
CS8592.4	Transform UML based software design into pattern based design using design patterns
CS8592.5	Categorize the various testing methodologies for OO software
CS8592.6	Create various scenario based on design UML diagrams

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8592.1	3	2	3	2	3	1	1	3	2	3	1	2
CS8592.2	3	2	3	2	3	-	-	3	2	3	2	1
CS8592.3	2	3	2	3	2	1	1	2	1	2	2	3
CS8592.4	2	3	3	2	3	-	-	2	2	1	1	2
CS8592.5	3	2	2	3	2	-	1	2	2	1	2	2
CS8592.6	2	3	2	2	2	1	-	2	2	1	2	3
CS8592	2.5	2.5	2.5	2.3	2.5	1.0	1.0	2.3	1.8	1.8	1.7	2.2

CO-PSO matrices

Course code	PSO1	PSO2
CS8592.1	2	2
CS8592.2	3	2
CS8592.3	1	1
CS8592.4	2	2
CS8592.5	2	3
CS8592.6	1	3
CS8592	1.8	2.2

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C306 / OMD551 / BASICS OF BIO_MEDICAL INSTRUMENTATION
Semester	V
Regulation	2017

Course outcome

Students will be able to	
OMD551.1	Analyze the different bio potentials and its propagation
OMD551.2	Determine the different electrode placement for various physiological recording
OMD551.3	Design bio amplifiers for various physiological recording
OMD551.4	Apply the different non- electrical parameter measurement techniques and explain the working of those measurement devices.
OMD551.5	Compare and classify the Bio- chemical measurement techniques
OMD551.6	Apply the knowledge in the design and modification of measurement methods and devices.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
OMD551.1	3	3	3	1	-	3	1	1	-	1	-	1
OMD551.2	3	2	3	2	-	3	1	1	-	1	-	1
OMD551.3	3	2	2	2	-	3	2	1	-	1	-	1
OMD551.4	3	3	2	2	2	2	2	1	-	1	-	-
OMD551.5	3	2	3	2	-	3	2	1	-	1	-	1
OMD551.6	3	3	3	3	2	3	2	1	-	1	-	1
OMD551	3.0	2.5	2.7	2.0	2.0	2.8	1.7	1.0	0.0	1.0	0.0	1.0

CO-PSO matrices

Course code	PSO1	PSO2
OMD551.1	1	1
OMD551.2	1	-
OMD551.3	3	-
OMD551.4	1	2
OMD551.5	1	2
OMD551.6	3	2
OMD551	1.7	1.8

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C307 / EC8681 / MICROPROCESSOR AND MICROCONTROLLER LABORATORY
Semester	V
Regulation	2017

Course outcome

Students will be able to	
EC8681.1	Develop ALP Programs for fixed , Floating Point and Arithmetic using 8-86 Microprocessors
EC8681.2	Discuss interfacing different I/O's with processor and generate waveforms using Microprocessors.
EC8681.3	Justify programs in 8-51 Microcontroller based system with interfacing
EC8681.4	Compare difference between simulator and emulator

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
EC8681.1	2	2	2	2	-	3	2	-	2	2	1	2
EC8681.2	2	2	2	2	-	3	1	-	2	2	1	2
EC8681.3	2	2	2	2	-	3	2	-	2	2	1	3
EC8681.4	2	2	2	2	3	3	2	-	2	2	1	3
EC8681	2.0	2.0	2.0	2.0	3.0	3.0	1.8	0.0	2.0	2.0	1.0	2.5

CO-PSO matrices

Course code	PSO1	PSO2
EC8681.1	2	2
EC8681.2	2	2
EC8681.3	3	3
EC8681.4	3	3
EC8681	2.5	2.5

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C308 / CS8582 / OBJECT ORIENTED ANALYSIS AND DESIGN LABORATORY
Semester	V
Regulation	2017

Course outcome

Students will be able to	
CS8582.1	Choose OO analysis and design for a given problem specification.
CS8582.2	Justify and map basic software requirements in UML mapping.
CS8582.3	Utilize the software quality using design patterns and to explain the rationale behind applying specific design patterns
CS8582.4	Construct projects using UML diagrams
CS8582.5	Implement test plan for various application
CS8582.6	Test the compliance of the software with the SRS

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8582.1	3	3	3	3	2	-	-	1	1	2	3	3
CS8582.2	3	3	2	2	2	-	1	-	1	1	3	2
CS8582.3	3	2	1	1	1	-	-	1	2	1	3	2
CS8582.4	2	2	1	1	1	1	1	-	1	2	3	2
CS8582.5	3	2	2	1	2	-	-	2	2	2	3	2
CS8582.6	3	3	1	2	1	1	1	2	1	1	3	2
CS8582	2.8	2.5	1.7	1.7	1.5	1.0	1.0	1.5	1.3	1.5	3.0	2.2

CO-PSO matrices

Course code	PSO1	PSO2
CS8582.1	3	3
CS8582.2	2	2
CS8582.3	2	2
CS8582.4	3	3
CS8582.5	2	2
CS8582.6	3	3
CS8582	2.5	2.5

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C309 / CS8581 / NETWORKS LABORATORY
Semester	V
Regulation	2017

Course outcome

Students will be able to	
CS8581.1	Implement the networks commands and identifying its characteristics
CS8581.2	Develop the concepts of client server implementation techniques.
CS8581.3	Compile environment for sockets , ARP ,RARP protocols
CS8581.4	Analyze the concepts of network simulator working principles.
CS8581.5	Elaborate simulator techniques and know the performance.
CS8581.6	Demonstrate working nature of networks protocol and simulator techniques.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8581.1	3	1	1	1	-	1	1	-	1	-	1	3
CS8581.2	3	3	3	2	2	1	-	-	1	-	1	3
CS8581.3	3	3	3	2	-	1	1	-	1	-	2	3
CS8581.4	3	3	3	3	2	1	1	-	1	-	2	3
CS8581.5	3	3	3	3	3	1	-	-	2	2	2	3
CS8581.6	3	3	3	2	1	1	1	-	1	1	1	3
CS8581	3.0	2.7	2.7	2.2	2.0	1.0	1.0	0.0	1.2	1.5	1.5	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8581.1	3	2
CS8581.2	3	3
CS8581.3	3	3
CS8581.4	3	3
CS8581.5	3	3
CS8581.6	3	3
CS8581	3.0	2.8

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C310 / HS 8581/ PROFESSIONAL COMMUNICATION
Semester	VI
Regulation	2017

Course outcome

Students will be able to	
HS 8581.1	Hone up soft skills, hard skills and current affairs for professional development in employability skills.
HS 8581.2	Deliver an individual presentation either by oral or visual by introducing oneself effectively.
HS 8581.3	Use different GD strategies to participate and interact effectively in GD.
HS 8581.4	Orient interview etiquettes make them to attend various mock interviews by asking FAQs.
HS 8581.5	Recognize the different between teams and groups for developing time, stress and career management towards the lifelong learning
HS 8581.6	Develop career planning and creative skills to work towards lifelong learning

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
HS 8581.1	-	-	-	-	2	-	-	2	3	3	-	2
HS 8581.2	-	-	-	-	2	-	-	2	3	3	-	2
HS 8581.3	-	-	-	-	2	-	-	2	3	3	-	2
HS 8581.4	-	-	-	-	2	-	-	2	3	3	-	2
HS 8581.5	-	-	-	-	2	-	-	2	3	3	-	2
HS 8581.6	-	-	-	-	2	-	-	2	3	3	-	2
HS 8581	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	3.0	3.0	0.0	2.0

CO-PSO matrices

Course code	PSO1	PSO2
HS 8581.1	-	-
HS 8581.2	-	-
HS 8581.3	-	-
HS 8581.4	-	-
HS 8581.5	-	-
HS 8581.6	-	-
HS 8581	0.0	0.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C311 / CS8651 / INTERNET PROGRAMMING
Semester	VI
Regulation	2017

Course outcome

Students will be able to	
CS8651.1	Construct a basic website using HTML and CSS
CS8651.2	Implement dynamic web page with validation using JavaScript objects, by applying different event handling mechanisms.
CS8651.3	Develop server side programs using Servlets and JSP
CS8651.4	Design dynamic web pages in PHP with XMLdata.
CS8651.5	Create interactive web applications using AJAX and Webserives
CS8651.6	Demonstrate a web applications using client side and server side scripts

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8651.1	3	3	2	1	3	2	-	-	3	3	3	3
CS8651.2	3	2	1	1	1	3	-	-	3	3	3	3
CS8651.3	3	3	3	2	3	3	-	-	3	3	3	3
CS8651.4	3	3	3	3	3	3	-	-	3	3	3	3
CS8651.5	3	3	3	3	3	3	-	-	3	3	3	3
CS8651.6	3	3	3	3	3	3	-	-	3	3	3	3
CS8651	3.0	2.8	2.5	2.2	2.7	2.8	0.0	0.0	3.0	3.0	3.0	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8651.1	3	3
CS8651.2	3	3
CS8651.3	2	3
CS8651.4	3	3
CS8651.5	3	3
CS8651.6	3	3
CS8651	2.8	3.0

1	Slight	2	Moderate	3	Substantial

SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C312 / CS8691 / ARTIFICIAL INTELLIGENCE
Semester	VI
Regulation	2017

Course outcome

Students will be able to	
CS8691.1	Choose appropriate search algorithms for any AI problem
CS8691.2	Examine problem using first order and predicate logic
CS8691.3	Build agent strategy to solve a given problem
CS8691.4	Design software agents to solve a problem
CS8691.5	Develop rational agents to solve a complex problem
CS8691.6	Create automated application using Artificial Intelligence

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8691.1	3	3	3	3	3	2	-	-	1	-	1	3
CS8691.2	3	3	3	3	3	3	-	-	1	-	1	3
CS8691.3	3	3	3	3	3	3	-	-	1	-	2	3
CS8691.4	3	3	3	3	3	3	-	-	1	-	1	3
CS8691.5	3	3	3	3	3	3	-	-	1	-	2	3
CS8691.6	3	3	3	3	3	3	-	-	1	-	3	3
CS8691	3.0	3.0	3.0	3.0	3.0	2.8	0.0	0.0	1.0	0.0	1.7	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8691.1	2	2
CS8691.2	3	2
CS8691.3	3	2
CS8691.4	3	2
CS8691.5	3	2
CS8691.6	3	3
CS8691	2.8	2.2

1	Slight	2	Moderate	3	Substantial

SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C313 / CS8601 / MOBILE COMPUTING
Semester	VI
Regulation	2017

Course outcome

Students will be able to	
CS8601.1	Analyze the basics of Mobile Communications systems
CS8601.2	Appraise the telecommunications system in wireless networks
CS8601.3	Elaborate the functions of network layer protocols
CS8601.4	Determine the functionality of transport layer and application layer
CS8601.5	Develop the mobile application using android/ios/blackberry
CS8601.6	Demonstrate mobile computing methodology

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8601.1	3	2	1	2	1	2	2	-	-	1	1	3
CS8601.2	3	3	3	2	3	3	3	3	2	3	3	3
CS8601.3	3	3	3	3	2	2	1	2	2	3	3	3
CS8601.4	3	3	3	3	2	2	1	2	2	3	3	3
CS8601.5	3	2	2	2	3	2	2	2	2	2	3	3
CS8601.6	3	2	2	2	2	2	2	1	1	2	2	3
CS8601	3.0	2.5	2.3	2.3	2.2	2.2	1.8	2.0	1.8	2.3	2.5	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8601.1	2	2
CS8601.2	2	2
CS8601.3	3	3
CS8601.4	2	2
CS8601.5	2	2
CS8601.6	2	2
CS8601	2.2	2.2

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C314 / CS8602 /COMPILER DESIGN
Semester	VI
Regulation	2017

Course outcome

Students will be able to	
CS8602.1	Classify the different phases of compiler
CS8602.2	|Design lexical analyzer for a language
CS8602.3	Apply parsing algorithms for the given grammar
CS8602.4	Analyze the syntax directed translation and runtime environment
CS8602.5	Formulate code optimization techniques and a simple code generator
CS8602.6	Implement a scanner and a parser using LEX and YACC tools.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8602.1	3	2	2	2	1	1	1	-	1	1	2	3
CS8602.2	3	2	2	2	1	1	1	-	1	1	2	3
CS8602.3	3	3	1	2	1	1	1	-	1	1	1	2
CS8602.4	3	2	2	2	1	1	1	-	1	1	1	2
CS8602.5	3	3	2	3	2	1	1	-	1	1	1	2
CS8602.6	1	3	3	2	3	2	1	1	2	1	2	3
CS8602	2.7	2.5	2	2.2	1.5	1.2	1.0	1.0	1.2	1.0	1.5	2.5

CO-PSO matrices

Course code	PSO1	PSO2
CS8602.1	3	1
CS8602.2	3	2
CS8602.3	3	2
CS8602.4	3	2
CS8602.5	3	2
CS8602.6	3	2
CS8602	3.0	1.8

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C315 / CS8603 /DISTRIBUTED SYSTEMS
Semester	VI
Regulation	2017

Course outcome

Students will be able to	
CS8603.1	Elucidate the foundations and issues of distributed systems.
CS8603.2	Compare the various synchronization issues and global state for distributed systems.
CS8603.3	Discuss the Mutual Exclusion and Deadlock detection algorithms in distributed systems
CS8603.4	Assess the agreement protocols and fault tolerance mechanisms in distributed systems.
CS8603.5	Illustrate the features of peer to peer and distributed shared memory systems
CS8603.6	Apply network virtualization, remote method invocation and objects and to design process and resource management systems

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8603.1	3	3	1	1	1	2	1	1	-	1	-	2
CS8603.2	3	3	3	2	2	1	1	1	1	-	1	3
CS8603.3	3	3	3	2	2	1	1	1	1	-	1	3
CS8603.4	3	3	3	3	2	1	-	-	1	-	2	2
CS8603.5	3	3	3	3	2	2	2	1	2	2	2	3
CS8603.6	3	3	3	3	2	1	1	-	1	-	2	2
CS8603	3.0	3.0	2.7	2.3	1.8	1.3	1.2	1.0	1.2	1.5	1.6	2.5

CO-PSO matrices

Course code	PSO1	PSO2
CS8603.1	1	1
CS8603.2	2	2
CS8603.3	3	1
CS8603.4	2	1
CS8603.5	3	2
CS8603.6	3	2
CS8603	2.3	1.5

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C316 / CS8075 / DATAWAREHOUSING AND DATA MINING
Semester	VI
Regulation	2017

Course outcome

Students will be able to	
CS8075.1	Design a Data Warehouse system and perform business analysis with OLAP tools.
CS8075.2	Identify the suitable preprocessing and visualization techniques for data analysis.
CS8075.3	Choose frequent pattern and association rule mining techniques for data analysis.
CS8075.4	Apply appropriate classification and clustering techniques for data analysis.
CS8075.5	Adopt various algorithms in different datasets with the help of specialized tool.
CS8075.6	Build a data server and maintain the storage using the mining techniques.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8075.1	3	3	3	3	2	1	-	-	-	-	1	3
CS8075.2	3	3	1	3	1	1	-	-	-	-	2	3
CS8075.3	3	3	1	3	1	1	-	-	-	-	2	3
CS8075.4	3	3	1	3	1	1	-	-	-	-	1	3
CS8075.5	3	2	3	3	3	1	-	-	2	-	3	3
CS8075.6	3	2	3	3	2	1	-	-	2	-	3	3
CS8075	3.0	2.7	2.0	3.0	1.7	1.0	0.0	0.0	2.0	0.0	2.0	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8075.1	3	2
CS8075.2	2	1
CS8075.3	2	1
CS8075.4	2	1
CS8075.5	3	3
CS8075.6	3	3
CS8075	2.5	1.8

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C317 / CS8661 / INTERNET PROGRAMMING LAB
Semester	VI
Regulation	2017

Course outcome

Students will be able to	
CS8661.1	Design a website using HTML and CSS
CS8661.2	Construct dynamic web page with validation using JavaScript objects, by applying different event handling mechanisms.
CS8661.3	Build server side programs using Servlets and JSP
CS8661.4	Create the simple web pages in PHP and to present data in XML format.
CS8661.5	Implement AJAX and web service to develop interactive web applications
CS8661.6	Develop a web applications using client side and server side scripts

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8661.1	3	3	2	1	3	2	1	-	3	3	3	3
CS8661.2	3	2	1	1	1	3	-	-	3	3	2	3
CS8661.3	3	3	3	2	3	3	-	-	3	3	3	3
CS8661.4	3	3	3	3	3	3	-	-	3	3	3	3
CS8661.5	3	3	3	3	3	3	-	-	3	3	3	3
CS8661.6	3	3	3	3	3	3	1	2	3	3	3	3
CS8661	3.0	2.8	2.5	2.2	2.7	2.8	1.0	2.0	3.0	3.0	2.8	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8661.1	3	2
CS8661.2	3	1
CS8661.3	3	2
CS8661.4	3	1
CS8661.5	3	2
CS8661.6	3	1
CS8661	3.0	1.5

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C318 / CS8662/ MOBILE APPLICATION DEVELOPMENT LABORATORY
Semester	VI
Regulation	2017

Course outcome

Students will be able to	
CS8662.1	Build various Mobile Applications using GUI and Layouts.
CS8662.2	Construct Mobile Applications using Event Listener.
CS8662.3	Compose Mobile Applications using Databases.
CS8662.4	Create Mobile Applications using RSS Feed
CS8662.5	Design Mobile Applications for simple need
CS8662.6	Develop Mobile Applications with user interaction

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8662.1	3	3	3	3	3	3	2	2	3	3	3	3
CS8662.2	3	3	3	3	3	3	2	2	3	3	3	3
CS8662.3	3	3	3	3	3	3	1	1	3	3	3	3
CS8662.4	3	3	3	3	3	3	1	2	3	3	3	3
CS8662.5	3	3	3	3	3	3	1	1	3	3	3	3
CS8662.6	3	3	3	3	3	3	2	2	3	3	3	3
CS8662	3.0	3.0	3.0	3.0	3.0	3.0	1.5	1.7	3.0	3.0	3.0	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8662.1	3	3
CS8662.2	3	3
CS8662.3	3	3
CS8662.4	3	3
CS8662.5	3	3
CS8662.6	3	3
CS8662	3.0	3.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C319 / CS8611 – MINI PROJECT
Semester	VI
Regulation	2017

Course outcome

Students will be able to	
CS8611.1	Design project work, to take up any challenging practical problems and analyze the feasible solution by formulating proper methodology and technology in various

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8611.1	3	3	3	3	3	3	2	2	3	3	2	3
CS8611	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	3.0	3.0	2.0	3.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8611.1	3	3
CS8611	3.0	3.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C401 / MG8591/PRINCIPLES OF MANAGEMENT
Semester	VII
Regulation	2017

Course outcome

Students will be able to	
MG8591.1	Discuss the management and organizations
MG8591.2	Determine the managerial function planning
MG8591.3	Explain managerial function organizing
MG8591.4	Classify managerial function directing
MG8591.5	Estimate managerial function controlling
MG8591.6	Apply the functions of management in real world

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
MG8591.1	3	3	3	-	-	-	-	2	1	1	3	1
MG8591.2	3	3	3	-	-	-	-	3	2	1	2	2
MG8591.3	3	3	3	-	-	-	-	2	2	1	3	1
MG8591.4	3	3	3	-	-	-	-	3	1	1	3	1
MG8591.5	3	3	3	-	-	-	-	2	2	1	2	2
MG8591.6	3	3	3	-	-	-	-	3	1	1	1	1
MG8591	3.0	3.0	3.0	0.0	0.0	0.0	0.0	2.5	1.5	1.0	2.3	1.3

CO-PSO matrices

Course code	PSO1	PSO2
MG8591.1	-	-
MG8591.2	-	1
MG8591.3	-	1
MG8591.4	-	1
MG8591.5	-	1
MG8591.6	-	1
MG8591	0.0	1.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C402 / CS8792/CRYPTOGRPAHY AND NETWORK SECURITY
Semester	VII
Regulation	2017

Course outcome

Students will be able to	
CS8792.1	Analyze the fundamentals of networks security, security architecture, threats and vulnerabilities.
CS8792.2	Apply the different cryptographic operations of symmetric cryptographic algorithms.
CS8792.3	Construct the different cryptographic operations of public key cryptography.
CS8792.4	Examine the various Authentication schemes to simulate different applications.
CS8792.5	Justify various Security practices and System security standards.
CS8792.6	Develop security policy to protect data from untrusted party

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8792.1	3	3	-	1	-	2	2	1	-	-	-	2
CS8792.2	3	3	-	2	2	2	2	2	-	-	-	2
CS8792.3	3	3	2	2	2	2	2	2	-	-	-	3
CS8792.4	3	3	1	1	1	1	1	1	-	-	-	1
CS8792.5	3	3	2	2	1	2	1	1	-	-	-	1
CS8792.6	3	3	3	2	2	1	2	1	1	-	-	2
CS8792	3.0	3.0	2.0	1.7	1.6	1.7	1.7	1.3	1.0	0.0	0.0	1.8

CO-PSO matrices

Course code	PSO1	PSO2
CS8792.1	2	2
CS8792.2	2	2
CS8792.3	3	3
CS8792.4	1	1
CS8792.5	3	2
CS8792.6	3	2
CS8792	2.3	2.0

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1	Slight	2	Moderate	3	Substantial

SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C403 / CS8791/CLOUD COMPUTING
Semester	VII
Regulation	2017

Course outcome

Students will be able to	
CS8791.1	Articulate the main concepts , key technologies, strengths and limitations of cloud computing
CS8791.2	Assess the key and enabling technologies that help in the development of cloud.
CS8791.3	Develop the ability to understand and use the architecture of compute and storage cloud, service and delivery models.
CS8791.4	Explain the core issues of cloud computing such as resource management and security.
CS8791.5	Demonstrate and use current cloud technologies.
CS8791.6	Evaluate and choose the appropriate technologies, algorithms and approaches for implementation and use of cloud.

COPO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8791.1	3	1	1	-	-	-	-	-	-	-	-	1
CS8791.2	3	2	3	1	1	1	-	-	-	-	2	1
CS8791.3	3	3	3	2	-	-	-	-	-	-	-	1
CS8791.4	3	3	-	2	1	1	-	1	-	-	-	-
CS8791.5	3	3	3	3	3	3	-	-	-	-	-	-
CS8791.6	3	3	3	2	2	2	-	-	-	-	2	1
CS8791	3.0	2.5	2.6	2.0	1.8	1.8	0.0	1.0	0.0	0.0	2.0	1.0

COPSO matrices

Course code	PSO1	PSO2
CS8791.1	3	1
CS8791.2	3	2
CS8791.3	3	3
CS8791.4	1	1
CS8791.5	3	3
CS8791.6	3	3
CS8791	2.7	2.2

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1	Slight	2	Moderate	3	Substantial

SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C404 / OEC751 / ELECTRONIC DEVICES
Semester	VII
Regulation	2017

Course outcome

Students will be able to	
OEC751.1	Acquire basic knowledge on the working of various semi-conductor devices
OEC751.2	Develop analysis capability in BJT Circuits
OEC751.3	Understand the concept of FET devices and able to develop design competence in signal and power amplifiers using FET devices
OEC751.4	Illustrate the working of various special semiconductor devices
OEC751.5	Analyze different kinds of power electronic and display devices.
OEC751.6	Summarize the concepts studied and able to implement mini projects based on electronic concepts

CO PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
OEC751.1	2	1	1	-	-	1	-	-	-	1	1	1
OEC751.2	2	2	2	-	-	-	-	-	-	1	1	1
OEC751.3	2	1	1	-	-	-	-	-	-	1	1	1
OEC751.4	2	-	-	-	-	-	-	-	-	1	1	1
OEC751.5	2	-	-	-	-	-	-	-	-	1	1	1
OEC751.6	2	2	2	-	-	-	-	-	-	1	1	1
OEC751	2.0	1.5	1.5	0.0	0.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0

CO PSO matrices

Course code	PSO1	PSO2
OEC751.1	1	1
OEC751.2	1	1
OEC751.3	1	1
OEC751.4	1	1
OEC751.5	1	1
OEC751.6	1	1
OEC751	1.0	1.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C405 / IT8075 / SOFTWARE PROJECT MANAGEMENT
Semester	VII
Regulation	2017

Course outcome

Students will be able to	
IT8075.1	Discuss the Project Management principles while developing software.
IT8075.2	Analyze the basic project management concepts, framework and the process models.
IT8075.3	Experiment the Risk management and activity planning
IT8075.4	Inspect the project management and its characteristics
IT8075.5	Assess staff selection process and the issues related to people management
IT8075.6	Compare different technique for project management, Estimation and staffing

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
IT8075.1	3	3	2	1	2	3	-	2	3	2	3	3
IT8075.2	3	3	2	1	2	3	1	2	2	2	3	3
IT8075.3	3	3	2	1	2	2	1	2	3	2	3	3
IT8075.4	3	3	1	1	3	3	1	2	2	2	3	3
IT8075.5	2	3	2	2	-	2	1	2	2	-	3	3
IT8075.6	3	3	3	1	3	3	1	2	2	2	3	3
IT8075	2.8	3.0	2.0	1.2	2.4	2.7	1.0	2.0	2.3	2.0	3.0	3.0

CO-PSO matrices

Course code	PSO1	PSO2
IT8075.1	-	-
IT8075.2	-	-
IT8075.3	2	2
IT8075.4	2	2
IT8075.5	1	1
IT8075.6	2	2
IT8075	1.8	1.8

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C406 / CS8079/HUMAN COMPUTER INTERACTION
Semester	VII
Regulation	2017

Course outcome

Students will be able to	
CS8079.1	Identify the Concept effective foundations for HCI
CS8079.2	Design effective HCI for individuals and persons with disabilities.
CS8079.3	Assess the importance of user feedback and models and theory.
CS8079.4	Examine the HCI implications for designing Mobile HCI, multimedia/ ecommerce/ e-learning Web sites.
CS8079.5	Develop meaningful user interface and web interface
CS8079.6	Apply the HCI Tools and interface Models

COPO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8079.1	3	2	1	1	1	1	-	-	-	-	1	3
CS8079.2	3	3	3	2	1	2	3	3	2	3	3	3
CS8079.3	3	3	3	2	-	1	2	2	1	2	2	3
CS8079.4	3	3	3	2	2	2	2	3	1	3	3	3
CS8079.5	3	3	3	3	2	1	2	2	2	3	3	3
CS8079.6	3	3	3	2	2	2	3	2	2	2	3	3
CS8079	3.0	2.8	2.7	2.0	1.6	1.5	2.4	2.4	1.6	2.6	2.5	3.0

COPSO matrices

Course code	PSO1	PSO2
CS8079.1	2	2
CS8079.2	3	2
CS8079.3	3	2
CS8079.4	3	3
CS8079.5	3	3
CS8079.6	3	3
CS8079.6	2.8	2.5

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C407 / CS8711/CLOUD COMPUTING LABORATORY
Semester	VII
Regulation	2017

Course outcome

Students will be able to	
CS8711.1	Configure various virtualization tools such as Virtual Box, VMware workstation.
CS8711.2	Design and deploy a web application in a PaaS environment.
CS8711.3	Implement how to simulate a cloud environment for new schedulers.
CS8711.4	Install and use a generic cloud environment that can be used as a private cloud.
CS8711.5	Test the large data sets in a parallel environment
CS8711.6	Demonstrate Map Reduce Algorithm using Hadoop

COPO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8711.1	3	1	-	-	3	3	-	-	-	2	3	2
CS8711.2	3	1	3	2	-	-	-	-	-	2	2	3
CS8711.3	3	-	-	2	-	-	-	-	-	3	3	3
CS8711.4	3	-	3	1	-	-	1	-	-	2	3	3
CS8711.5	3	3	1	3	3	3	2	-	-	2	2	3
CS8711.6	3	3	3	3	3	3	-	-	-	3	3	3
CS8711	3.0	2.0	2.5	2.2	3.0	3.0	1.5	0.0	0.0	2.3	2.7	2.8

COPSO matrices

Course code	PSO1	PSO2
CS8711.1	3	2
CS8711.2	2	2
CS8711.3	2	2
CS8711.4	3	2
CS8711.5	3	2
CS8711.6	3	2
CS8711	2.7	2.0

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C408 / IT8761/SECURITY LABORATORY
Semester	VII
Regulation	2017

Course outcome

Students will be able to	
IT8761.1	Develop code for classical Encryption Techniques to solve the problems.
IT8761.2	Build cryptosystems by applying symmetric and public key encryption algorithms.
IT8761.3	Construct code for authentication algorithms.
IT8761.4	Create signature scheme using Digital signature standard .
IT8761.5	Demonstrate the network security system using open source tools
IT8761.6	Design Intrusion detection system using Snort tool.

COPO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
IT8761.1	3	3	2	2	2	2	2	2	-	-	-	2
IT8761.2	3	3	2	2	2	2	3	3	1	-	-	3
IT8761.3	3	3	2	2	3	2	2	2	1	-	-	3
IT8761.4	3	3	2	2	3	2	3	3	1	-	-	3
IT8761.5	3	2	2	2	2	1	2	2	1	-	-	3
IT8761.6	3	3	3	2	2	2	3	3	1	-	-	3
IT8761	3.0	2.8	2.2	2.0	2.3	1.8	2.5	2.5	1.0	0.0	0.0	2.8

COPSO matrices

Course code	PSO1	PSO2
IT8761.1	2	2
IT8761.2	3	2
IT8761.3	3	3
IT8761.4	3	3
IT8761.5	3	3
IT8761.6	3	3
IT8761	2.8	2.7

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C409 / GE8076 / PROFESSIONAL ETHICS IN ENGINEERING
Semester	VIII
Regulation	2017

Course outcome

Students will be able to	
GE8076.1	Classify the Morals, Values and Ethics.
GE8076.2	Categorize the models of professional roles.
GE8076.3	Apply ethics in society.
GE8076.4	Examine safety, responsibility and rights.
GE8076.5	Evaluate the environmental ethics, code of conduct.
GE8076.6	Create polices and ethical issues related to engineering.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
GE8076.1	3	3	3	2	2	-	-	-	1	-	-	2
GE8076.2	3	2	3	2	-	-	-	3	1	-	-	2
GE8076.3	2	1	2	2	-	-	-	-	-	2	2	1
GE8076.4	2	3	3	2	-	-	-	-	-	2	2	2
GE8076.5	3	2	2	2	1	-	-	-	2	1	2	3
GE8076.6	2	3	2	2	-	-	-	-	2	1	1	3
GE8076	2.5	2.3	2.5	2	1.5	0.0	0.0	3.0	1.5	1.5	1.8	2.2

CO-PSO matrices

Course code	PSO1	PSO2
GE8076.1	-	2
GE8076.2	2	1
GE8076.3	-	1
GE8076.4	-	1
GE8076.5	-	1
GE8076.6	-	3
GE8076	2.0	1.5

1	Slight	2	Moderate	3	Substantial

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SRM TRP Engineering College

Department of Computer Science and Engineering

Course Code / Name	C410 / CS8080/INFORMATION RETRIVAL TECHNIQUES
Semester	VIII
Regulation	2017

Course outcome

Students will be able to	
CS8080.1	Analyze issues and impact of information retrieval.
CS8080.2	Discuss the open source search engine framework and explore its capabilities
CS8080.3	Apply appropriate method of classification or clustering.
CS8080.4	Implement innovative features in a search engine.
CS8080.5	Design a recommender system.
CS8080.6	Solve retrieval oriented problems in web.

COPO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8080.1	3	3	3	3	3	2	-	-	-	-	1	3
CS8080.2	3	3	3	3	2	1	-	-	-	-	1	3
CS8080.3	3	3	3	3	-	1	-	1	1	2	2	3
CS8080.4	3	3	3	2	2	1	-	-	-	2	2	3
CS8080.5	3	3	3	2	3	1	1	1	1	2	2	3
CS8080.6	3	3	3	2	3	1	1	1	1	2	2	3
CS8080	3.0	3.0	3.0	2.5	2.6	1.2	1.0	1.0	1.0	2.0	1.7	3.0

COPSO matrices

Course code	PSO1	PSO2
CS8080.1	2	2
CS8080.2	3	3
CS8080.3	3	2
CS8080.4	2	2
CS8080.5	3	2
CS8080.6	3	3
CS8080	2.7	2.3

1	Slight	2	Moderate	3	Substantial

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Department of Computer Science and Engineering

Course Code / Name	C411 / CS8811/PROJECT WORK
Semeste	VIII
Regulation	2017

Course outcome

Students will be able to	
CS8811.1	To understand project work completion to take up any challenging practical problems and find suitable solutions by formulating proper methodology and technology in various areas of computer science.

CO-PO matrices

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1-	PO11	PO12
CS8811.1	3	3	3	2	2	2	2	2	3	3	2	2
CS8811	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	2.0	2.0

CO-PSO matrices

Course code	PSO1	PSO2
CS8811.1	3	3
CS8811	3.0	3.0

1	Slight	2	Moderate	3	Substantial

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B.E. Computer Science and Engineering
CO Mapping with POs - I to VIII SEMESTER

S. No.	SEM	COURSE NAME	COURSE TITLE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1	I	C101/ HS8151	Communicative English	0.0	0.0	0.0	1.0	2.0	0.0	0.0	0.0	3.0	3.0	0.0	2.0
2	I	C102/ MA8151	Engineering Mathematics – I	3.0	3.0	3.0	3.0	3.0	0.0	0.0	0.0	3.0	0.0	1.0	1.0
3	I	C103/ PH8151	Engineering Physics	3.0	1.6	1.6	1.6	2.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
4	I	C104/ CY8151	Engineering Chemistry	3.0	2.5	1.8	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	1.0
5	I	C105/ GE 8151	Problem Solving And Python Programming	3.0	2.0	2.0	1.7	3.0	1.0	1.3	1.0	1.5	1.3	2.5	3.0
6	I	C106/ GE8152	Engineering Graphics	2.0	2.0	1.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0	0.0	1.0
7	I	C107/ GE 8161	Problem Solving And Python Programming Laboratory	3.0	3.0	2.3	2.0	2.5	1.0	1.3	1.0	2.0	1.7	2.0	3.0
8	I	C108/ BS8161	Physics And Chemistry Laboratory	3.0	1.7	1.6	1.0	1.0	1.0	1.0	2.0	1.0	1.0	0.0	1.0
9	II	C109/ HS 8251	Technical English	0.0	0.0	0.0	1.0	2.0	0.0	0.0	0.0	3.0	3.0	0.0	2.0
10	II	C110/ MA8251	Engineering Mathematics – II	3.0	3.0	3.0	0.0	2.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0
11	II	C111/ PH8252	Physics For Information Science	3.0	1.7	1.7	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	1.0
12	II	C112/ BE8255	Basic Electrical, Electronics And Measurement Engineering	3.0	2.5	2.3	1.8	0.0	1.0	1.8	0.0	0.0	1.0	1.0	2.0
13	II	C113/ GE8291	Environmental Science And Engineering	0.0	0.0	0.0	0.0	0.0	3.0	3.0	2.5	0.0	1.0	0.0	1.0
14	II	C114/ CS8251	Programming In C	3.0	3.0	2.2	2.0	2.0	2.0	0.0	0.0	1.2	1.0	1.2	3.0

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15	II	C115/ GE8261	Engineering Practices Laboratory	3.0	3.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	1.0	0.0	2.0
16	II	C116/ CS8261	C Programming Laboratory	3.0	3.0	2.7	2.2	2	1.7	1.0	0.0	1.2	1.0	1.2	3.0
17	III	C201/ MA8351	Discrete Mathematics	3.0	3.0	2.0	3.0	2.2	0.0	0.0	0.0	1	2	0.0	1.0
18	III	C202/ CS8351	Digital Principles And System Design	3.0	2.8	2.8	2.5	1.8	1.8	1.2	0.0	0.0	1.3	1.0	2.7
19	III	C203/ CS8391	Data Structures	3.0	2.7	3.0	2.2	1.3	1.3	1.0	0.0	1.5	1.3	1.7	3.0
20	III	C204/ CS8392	Object Oriented Programming	3.0	3.0	3.0	2.7	2.7	2.8	1.0	1.0	1.5	1.3	2.2	3.0
21	III	C205/ EC8395	Communication Engineering	2.8	2.7	2.3	1.3	1.0	1.2	1.0	0.0	0.0	1.7	1.0	1.0
22	III	C206/ CS8381	Data Structures Lab	3.0	2.8	3.0	2.3	1.2	1.7	1.0	1.0	1.0	1.3	1.3	3.0
23	III	C207/ CS8383	Object Oriented Programming Lab	3.0	3.0	3.0	2.8	1.8	1.7	1.0	1.0	1.5	1.0	1.7	3.0
24	III	C208/ CS8382	Digital Systems Laboratory	3.0	3.0	3.0	1.0	2.0	2.3	0.0	0.0	2.3	2.0	3.0	3.0
25	III	C209/ HS 8381	Interpersonal Skill-Listening And Speaking	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	3.0	3.0	0.0	2.0
26	IV	C210/ MA8402	Probability And Queuing Theory	3.0	3.0	3.0	2.3	1.8	0.0	0.0	0.0	2.0	2.0	1.3	2.0
27	IV	C211/ CS8491	Computer Architecture	2.5	2.0	2.0	1.0	1.5	1.5	0.0	2.0	1.2	0.0	0.0	3.0
28	IV	C212/ CS8492	Database Management System	3.0	3.0	3.0	3.0	2.3	2.5	2.7	0.0	2.0	3.0	3.0	3.0
29	IV	C213/ CS8451	Design And Analysis Of Algorithm	3.0	3.0	1.5	3.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	2.0
30	IV	C214/ CS8493	Operating Systems	3.0	3.0	2.7	2.2	2.2	1.2	1.5	0.0	1.0	1.7	1.8	2.2
31	IV	C215/ CS8494	Software Engineering	3.0	1.8	2.3	1.5	1.5	1.3	1.0	1.2	1.0	1.3	1.5	3.0

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32	IV	C216/ CS 8481	Database Management Systems Lab	3.0	2.8	3.0	2.3	3.0	3.0	0.0	0.0	1.0	1.0	2.7	3.0
33	IV	C217/ CS8461	Operating Systems Laboratory	3.0	2.2	1.4	1.3	1.0	1.0	1.0	0.0	0.0	2.2	0.0	2.2
34	IV	C218/ HS8461	Advanced Reading & Writing	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	3.0	3.0	0.0	2.0
35	V	C301/ MA8551	Algebra And Number Theory	3.0	3.0	3.0	2.7	2.0	0.0	0.0	0.0	3.0	1.3	1.0	1.0
36	V	C302/ CS8591	Computer Networks	3.0	3.0	2.8	2.8	2.3	1.5	0.0	1.0	1.0	1.3	1.0	3.0
37	V	C303/ EC8691	Microprocessors & Microcontrollers	3.0	3.0	2.0	1.0	3.0	1.0	0.0	0.0	1.0	1.0	1.0	2.0
38	V	C304/ CS8501	Theory Of Computation	3.0	3.0	3.0	2.8	2.5	2.3	0.0	0.0	2.0	1.4	1.0	3.0
39	V	C305/ CS8592	Object Oriented Analysis And Design	2.5	2.5	2.5	2.3	2.5	1.0	1.0	2.3	1.8	1.8	1.7	2.2
40	V	C306/ OMD551	Basics Of Biomedical Instrumentation	3.0	2.5	2.7	2.0	2.0	2.8	1.7	1.0	0.0	1.0	0.0	1.0
41	V	C307/ EC8681	Microprocessor And Microcontroller Laboratory	2.0	2.0	2.0	2.0	3.0	3.0	1.8	0.0	2.0	2.0	1.0	2.5
42	V	C308/ CS8582	Object Oriented Analysis And Design Laboratory	2.8	2.5	1.7	1.7	1.5	1.0	1.0	1.5	1.3	1.5	3.0	2.2
43	V	C309/ CS8581	Networks Laboratory	3.0	2.7	2.7	2.2	2.0	1.0	1.0	0.0	1.2	1.5	1.5	3.0
44	V	C310/ HS 8581	Professional Communication	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	3.0	3.0	0.0	2.0
45	VI	C311/ CS8651	Internet Programming	3.0	2.8	2.5	2.2	2.7	2.8	0.0	0.0	3.0	3.0	3.0	3.0
46	VI	C312/ CS8691	Artificial Intelligence	3.0	3.0	3.0	3.0	3.0	2.8	0.0	0.0	1.0	0.0	1.7	3.0
47	VI	C313/ CS8601	Mobile Computing	3.0	2.5	2.3	2.3	2.2	2.2	1.8	2.0	1.8	2.3	2.5	3.0
48	VI	C314/ CS8602	Compiler Design	2.7	2.5	2.0	2.2	1.5	1.2	1.0	1.0	1.2	1.0	1.5	2.5

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49	VI	C315/ CS8603	Distributed Systems	3.0	3.0	2.7	2.3	1.8	1.3	1.2	1.0	1.2	1.5	1.6	2.5
50	VI	C316/ CS8075	Datawarehousing And Data Mining	3.0	2.7	2.0	3.0	1.7	1.0	0.0	0.0	2.0	0.0	2.0	3.0
51	VI	C317/ CS8661	Internet Programming Lab	3.0	2.8	2.5	2.2	2.7	2.8	1.0	2.0	3.0	3.0	2.8	3.0
52	VI	C318/ CS8662	Mobile Application Development Laboratory	3.0	3.0	3.0	3.0	3.0	3.0	1.5	1.7	3.0	3.0	3.0	3.0
53	VI	C319/ CS8611	Mini Project	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	3.0	3.0	2.0	3.0
54	VII	C401/ MG8591	Principles Of Management	3.0	3.0	3.0	0.0	0.0	0.0	0.0	2.5	1.5	1.0	2.3	1.3
55	VII	C402/ CS8792	Cryptography And Network Security	3.0	3.0	2.0	1.7	1.6	1.7	1.7	1.3	1.0	0.0	0.0	1.8
56	VII	C403/ CS8791	Cloud Computing	3.0	2.5	2.6	2.0	1.8	1.8	0.0	1.0	0.0	0.0	2.0	1.0
57	VII	C404/ OEC751	Electronic Devices	2.0	1.5	1.5	0.0	0.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0
58	VII	C405/ IT8075	Software Project Management	2.8	3.0	2.0	1.2	2.4	2.7	1.0	2.0	2.3	2.0	3.0	3.0
59	VII	C406/ CS8079	Human Computer Interaction	3.0	2.8	2.7	2.0	1.6	1.5	2.4	2.4	1.6	2.6	2.5	3.0
60	VII	C407/ CS8711	Cloud Computing Laboratory	3.0	2.0	2.5	2.2	3.0	3.0	1.5	0.0	0.0	2.3	2.7	2.8
61	VII	C408/ IT8761	Security Laboratory	3.0	2.8	2.2	2.0	2.3	1.8	2.5	2.5	1.0	0.0	0.0	2.8
62	VIII	C409/ IT8073	Information Security	2.5	2.3	2.5	2.0	1.5	0.0	0.0	3.0	1.5	1.5	1.8	2.2
63	VIII	C410/ CS8080	Information Retrieval Techniques	3.0	3.0	3.0	2.5	2.6	1.2	1.0	1.0	1.0	2.0	1.7	3.0
64	VIII	C411/ CS8811	Project Work	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	2.0	2.0

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Regulation 2017

B.E. Computer Science and Engineering

CO Mapping with PSOs - I to VIII SEMESTER

S.NO.	SEM	COURSE NAME	COURSE TITLE	PSO1	PSO2
1	I	C101/ HS8151	Communicative English	0.0	0.0
2	I	C102/ MA8151	Engineering Mathematics – I	1.0	1.0
3	I	C103/ PH8151	Engineering Physics	1.0	0.0
4	I	C104/ CY8151	Engineering Chemistry	1.0	0.0
5	I	C105/ GE 8151	Problem Solving And Python Programming	2.7	2.5
6	I	C106/ GE8152	Engineering Graphics	1.	0.0
7	I	C107/ GE 8161	Problem Solving And Python Programming Laboratory	2.8	2.8
8	I	C108/ BS8161	Physics And Chemistry Laboratory	1.0	0.0
9	II	C109/ HS 8251	Technical English	0.0	0.0
10	II	C110/ MA8251	Engineering Mathematics – II	1.0	1.0
11	II	C111/ PH8252	Physics For Information Science	1.0	0.0
12	II	C112/ BE8255	Basic Electrical, Electronics And Measurement Engineering	2.0	1.0
13	II	C113/ GE8291	Environmental Science And Engineering	1.0	0.0
14	II	C114/ CS8251	Programming In C	3.0	2.7
15	II	C115/ GE8261	Engineering Practices Laboratory	2.0	2.0
16	II	C116/ CS8261	C Programming Laboratory	3.0	2.7
17	III	C201/ MA8351	Discrete Mathematics	1.7	1.2
18	III	C202/ CS8351	Digital Principles And System Design	3.0	2.0
19	III	C203/ CS8391	Data Structures	3.0	2.5
20	III	C204/ CS8392	Object Oriented Programming	3.0	2.8
21	III	C205/ EC8395	Communication Engineering	2.0	3.0
22	III	C206/ CS8381	Data Structures Lab	3.0	2.8
23	III	C207/ CS8383	Object Oriented Programming Lab	3.0	2.8

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SRM TRP Engineering College
Trichy – 621105
Regulation 2017

24	III	C208/ CS8382	Digital Systems Laboratory	3.0	2.0
25	III	C209/ HS 8381	Interpersonal Skill-Listening And Speaking	0.0	0.0
26	IV	C210/ MA8402	Probability And Queuing Theory	1.7	1.0
27	IV	C211/ CS8491	Computer Architecture	2.2	2.0
28	IV	C212/ CS8492	Database Management System	3.0	3.0
29	IV	C213/ CS8451	Design And Analysis Of Algorithm	2.3	1.5
30	IV	C214/ CS8493	Operating Systems	2.8	2.0
31	IV	C215/ CS8494	Software Engineering	3.0	2.8
32	IV	C216/ CS 8481	Database Management Systems Lab	2.8	2.5
33	IV	C217/ CS8461	Operating Systems Laboratory	2.0	1.5
34	IV	C218/ HS8461	Advanced Reading & Writing	0.0	0.0
35	V	C301/ MA8551	Algebra And Number Theory	1.5	1.0
36	V	C302/ CS8591	Computer Networks	3.0	2.3
37	V	C303/ EC8691	Microprocessors & Microcontrollers	1.0	2.0
38	V	C304/ CS8501	Theory Of Computation	3.0	2.8
39	V	C305/ CS8592	Object Oriented Analysis And Design	1.8	2.2
40	V	C306/ OMD551	Basics Of Biomedical Instrumentation	1.7	1.8
41	V	C307/ EC8681	Microprocessor And Microcontroller Laboratory	2.5	2.5
42	V	C308/ CS8582	Object Oriented Analysis And Design Laboratory	2.5	2.5
43	V	C309/ CS8581	Networks Laboratory	3.0	2.8
44	V	C310/ HS 8581	Professional Communication	0.0	0.0
45	VI	C311/ CS8651	Internet Programming	2.8	3.0
46	VI	C312/ CS8691	Artificial Intelligence	2.8	2.2
47	VI	C313/ CS8601	Mobile Computing	2.2	2.2
48	VI	C314/ CS8602	Compiler Design	3.0	1.8
49	VI	C315/ CS8603	Distributed Systems	2.3	1.5

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50	VI	C316/ CS8075	Data warehousing And Data Mining	2.5	1.8
51	VI	C317/ CS8661	Internet Programming Lab	3.0	1.5
52	VI	C318/ CS8662	Mobile Application Development Laboratory	3.0	3.0
53	VI	C319/ CS8611	Mini Project	3.0	3.0
54	VII	C401/ MG8591	Principles Of Management	0.0	1.0
55	VII	C402/ CS8792	Cryptography And Network Security	2.3	2.0
56	VII	C403/ CS8791	Cloud Computing	2.7	2.2
57	VII	C404/ OEC751	Electronic Devices	1.0	1.0
58	VII	C405/ IT8075	Software Project Management	1.8	1.8
59	VII	C406/ CS8079	Human Computer Interaction	2.8	2.5
60	VII	C407/ CS8711	Cloud Computing Laboratory	2.7	2.0
61	VII	C408/ IT8761	Security Laboratory	2.8	2.7
62	VIII	C409/ IT8073	Information Security	2.5	2.5
63	VIII	C410/ CS8080	Information Retrieval Techniques	2.7	2.3
64	VIII	C411/ CS8811	Project Work	3.0	3.0

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