SRM TRP Engineering College,

Trichy – 621 105

Department of Computer Science and Engineering

Course Outcome and its mapping with

POs and PSOs

Regulations 2021

SRM TRP Engineering College
Trichy – 621 105

B.E. COMPUTER SCIENCE AND ENGINEERING

CO Mapping with POs I to VIII SEMESTER

Sl.No.	SEM	COURSE CODE	COURSE TITLE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1	I	HS3151	Professional English - I	1.60	2.20	1.80	2.20	1.50	3.00	3.00	3.00	1.60	3.00	3.00	3.00
2	I	MA3151	Matrices and Calculus	3.00	3.00	1.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00	3.00
3	I	PH3151	Engineering Physics	3.00	3.00	1.60	1.20	1.80	1.00	0.00	0.00	0.00	0.00	0.00	1.00
4	I	CY3151	Engineering Chemistry	2.80	1.30	1.60	1.00	0.00	1.50	1.80	0.00	0.00	0.00	0.00	1.50
5	I	GE3151	Problem Solving and Python Programming	2.00	3.00	3.00	3.00	2.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
6	I	GE3152	Heritage of Tamils	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
7	I	GE3171	Problem Solving and Python Programming Laboratory	2.00	3.00	3.00	3.00	2.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
8	I	BS3171	Physics Laboratory	3.00	2.40	2.60	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	I	BS3171	Chemistry Laboratory	2.60	1.30	1.60	1.00	1.00	1.40	1.80	0.00	0.00	0.00	0.00	1.30
10	I	GE3172	English Laboratory	3.00	3.00	3.00	3.00	1.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
11	II	HS3252	Professional English 0 II	3.00	3.00	3.00	3.00	2.75	3.00	3.00	3.00	2.20	3.00	3.00	3.00
12	II	MA3251	Statistics and Numerical Methods	3.00	3.00	1.00	1.00	1.00	0.00	0.00	0.00	2.00	0.00	2.00	3.00
13	II	PH3256	Physics for Information Science	3.00	1.30	2.00	1.30	2.30	1.00	1.30	0.00	0.00	0.00	0.00	2.00
14	II	BE3251	Basic Electrical, Electronics and Instrumentation Engineering	2.00	1.80	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	2.00
15	II	GE3251	Engineering Graphics	3.00	1.00	2.00	0.00	2.00	0.00	0.00	0.00	0.00	3.00	0.00	2.00
16	II	CS3251	Programming in C	2.00	2.00	2.00	1.00	2.00	1.00	1.00	1.00	2.00	0.00	3.00	2.00
17	II	GE3252	Tamil and Technology	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
18	II	GE3271	Engineering Practices Laboratory	3.00	2.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	2.00
19	II	CS3271	Programming in C Laboratory	2.00	2.00	3.00	2.00	1.00	2.00	0.00	0.00	2.00	1.00	2.00	2.00
20	II	GE3272	Communication Laboratory/Foreign Language	2.40	2.80	3.00	3.00	1.80	3.00	3.00	3.00	3.00	3.00	3.00	3.00
21	III	MA3354	Discrete Mathematics	1.00	3.00	2.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
22	III	CS3351	Digital Principles and Computer Organization	3.00	3.00	3.00	3.00	1.80	1.60	1.00	1.00	1.00	1.00	1.60	2.60
23	III	CCS352	Foundations of Data Science	2.00	2.00	1.00	2.00	2.00	1.00	1.00	0.00	1.00	1.00	1.00	2.00
24	III	CS3301	Data Structures	2.00	2.00	1.00	2.00	2.00	1.00	1.00	0.00	1.00	1.00	1.00	2.00

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Sl.No.	SEM	COURSE CODE	COURSE TITLE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
25	III	CS3391	Object Oriented Programming	2.00	1.00	2.00	2.00	2.00	0.00	0.00	0.00	2.00	2.00	1.00	2.00
26	III	CS3311	Data Structures Laboratory	2.00	2.00	2.00	1.00	2.00	0.00	0.00	0.00	2.00	2.00	2.00	2.00
27	III	CS3381	Object Oriented Programming Laboratory	2.00	2.00	2.00	2.00	2.00	0.00	0.00	0.00	2.00	2.00	2.00	2.00
28	III	CS3361	Data Science Laboratory	2.00	2.00	2.00	2.00	1.00	0.00	0.00	0.00	2.00	2.00	2.00	2.00
29	III	GE3361	Professional Development	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
30	IV	CS3452	Theory of Computation	2.00	2.00	2.00	2.00	1.00	0.00	0.00	0.00	1.00	2.00	2.00	2.00
31	IV	CS3491	Artificial Intelligence and Machine Learning	2.00	1.00	2.00	2.00	1.00	0.00	0.00	0.00	2.00	2.00	2.00	3.00
32	IV	CS3492	Database Management Systems	2.00	2.00	3.00	2.00	1.00	0.00	0.00	0.00	2.00	2.00	2.00	2.00
33	IV	CS3401	Algorithms	2.67	1.80	3.00	1.00	0.00	0.00	1.33	0.00	0.00	0.00	0.00	1.00
34	IV	CS3451	Introduction to Operating Systems	2.00	2.00	2.00	2.00	1.00	0.00	0.00	0.00	2.00	2.00	2.00	2.00
35	IV	GE3451	Environmental Science and Sustainability	2.80	1.80	1.00	1.00	0.00	2.20	2.40	0.00	0.00	0.00	0.00	1.80
36	IV	CS3461	Operating Systems Laboratory	2.00	2.00	2.00	2.00	2.00	0.00	0.00	0.00	2.00	2.00	2.00	2.00
37	IV	CS3481	Database Management Systems Laboratory	2.00	3.00	2.00	2.00	1.00	0.00	0.00	0.00	2.00	1.00	3.00	2.00
38	V	CS3591	Computer Networks	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
39	V	CS3501	Compiler Design	3.00	2.80	2.60	2.20	2.00	0.00	0.00	0.00	2.60	2.00	1.60	2.40
40	V	CB3491	Cryptography and Cyber Security	3.00	2.60	2.60	2.60	2.80	0.00	0.00	0.00	2.00	0.00	0.00	1.20
41	V	CS3551	Distributed Computing	1.80	2.40	1.80	2.40	2.00	0.00	0.00	0.00	2.60	2.20	2.20	1.60
42	V	CCS336	Cloud Services Management	1.80	1.80	2.00	1.80	2.20	0.00	0.00	0.00	1.80	2.40	2.20	1.40
43	V	CCS334	Big Data Analytics	2.80	3.00	2.80	2.80	2.80	0.00	0.00	0.00	2.20	1.80	2.60	2.00
44	V	MX3084	Disaster Risk Reduction and Management	3.00	3.00	3.00	3.00	0.00	0.00	2.00	2.00	0.00	0.00	2.00	0.00
45	VI	CCS356	Object Oriented Software Engineering	2.00	2.00	1.00	2.00	2.00	0.00	0.00	0.00	0.00	1.00	1.00	2.00
46	VI	CS3691	Embedded Systems and IoT	2.60	2.00	3.00	2.40	1.50	0.00	0.00	0.00	1.00	2.20	2.20	2.40
47	VI	OIE351	Introduction to Industrial Engineering	2.20	2.00	2.50	1.30	1.00	0.00	0.00	2.00	0.00	0.00	1.00	1.00
48	VI	CCS341	Data Warehousing	3.00	2.60	2.60	1.20	2.50	1.00	0.00	0.00	2.50	0.00	2.00	2.60

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Sl.No.	SEM	COURSE CODE	COURSE TITLE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
49	VI	CCS354	Network Security	1.80	1.80	2.40	1.80	2.20	0.00	0.00	0.00	2.40	2.00	1.40	1.80
50	VI	CCS375	Web Technologies	1.80	2.00	2.80	1.80	2.40	0.00	0.00	0.00	1.80	1.80	2.00	1.60
51	VI	CCS352	Multimedia and Animation	3.00	2.80	3.00	2.80	3.00	2.00	0.00	0.00	3.00	2.80	2.20	2.60
52	VI	MX3089	Industrial Safety	3.00	3.00	3.00	2.00	1.00	3.00	2.00	2.00	3.00	2.00	1.00	3.00
53	VII	GE3791	Human Values and Ethics	1.00	1.00	1.00	1.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00
54	VII	AI3021	IT in Agricultural System	2.00	3.00	3.00	2.00	3.00	2.00	3.00	3.00	1.00	3.00	3.00	3.00
55	VII	AU3791	Electric Vehicle Technology	1.00	1.00	2.00	1.00	0.00	3.00	2.00	0.00	0.00	0.00	0.00	2.00
56	VII	CBM370	Wearable Devices	3.00	2.00	1.00	1.00	20..	0.00	0.00	1.00	0.00	0.00	0.00	0.00
57	VII	CS3711	Summer Internship	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
58	VIII	CS3811	Project Work / Internship	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00

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B.E. COMPUTER SCIENCE AND ENGINEERING
CO Mapping with PSOs I to VIII SEMESTER

S. No.	SEM	COURSE CODE	COURSE TITLE	PSO1	PSO2
1	I	HS3151	Professional English I	0.0	0.0
2	I	MA3151	Matrices and Calculus	0.0	0.0
3	I	PH3151	Engineering Physics	0.0	0.0
4	I	CY3151	Engineering Chemistry	0.0	0.0
5	I	GE3151	Problem Solving and Python Programming	3.0	3.0
6	I	GE3152	Heritage of Tamils	0.0	0.0
7	I	GE3171	Problem Solving and Python Programming Laboratory	3.0	3.0
8	I	BS3171	Physics and Laboratory	0.0	0.0
9	I	BS3171	Chemistry Laboratory	0.0	0.0
10	I	GE3172	English Laboratory	0.0	0.0
11	II	HS3252	Professional English II	0.0	0.0
12	II	MA3251	Statistics and Numerical Methods	0.0	0.0
13	II	PH3256	Physics for Information Science	0.0	0.0
14	II	BE3251	Basic Electrical and Electronics Engineering	0.0	0.0
15	II	GE3251	Engineering Graphics	2.0	2.0
16	II	CS3251	Programming in C	2.0	2.0
17	II	GE3252	Tamils and Technology	0.0	0.0
18	II	GE3271	Engineering Practices Laboratory	2.0	1.0
19	II	CS3271	Programming in C Laboratory	2.0	2.0
20	II	GE3272	Communication Laboratory / Foreign Language	0.0	0.0
21	III	MA3354	Discrete Mathematics	0.0	0.0
22	III	CS3351	Digital Principles and Computer Organization	1.4	2.6
23	III	CCS352	Foundations of Data Science	2.0	2.0

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S. No.	SEM	COURSE CODE	COURSE TITLE	PSO1	PSO2
24	III	CS3301	Data Structures	2.0	2.0
25	III	CS3391	Object Oriented Programming	3.0	2.0
26	III	CS3311	Data Structures Laboratory	2.0	2.0
27	III	CS3381	Object Oriented Programming Laboratory	2.0	2.0
28	III	CS3361	Data Science Laboratory	2.0	3.0
29	III	GE3361	Professional Development$	1.0	1.0
30	IV	CS3452	Theory of Computation	2.0	2.0
31	IV	CS3491	Artificial Intelligence and Machine Language	2.0	2.0
32	IV	CS3492	Database Management Systems	2.0	2.0
33	IV	CS3401	Algorithms	0.0	1.0
34	IV	CS3451	Introduction to Operating Systems	1.0	2.0
35	IV	GE3451	Environmental Sciences and Sustainability	0.0	0.0
36	IV	CS3461	Operating SystemsLaboratory	2.0	2.0
37	IV	CS3481	Database Management Systems Laboratory	2.0	2.0
38	V	CS3591	Computer Networks	0.0	1.0
39	V	CS3501	Compiler Design	1.8	1.8
40	V	CB3491	Cryptography and Cyber Security	2.8	2.8
41	V	CS3551	Distributed Computing	2.0	1.8
42	V	CCS336	Cloud Services Management	1.8	1.8
43	V	CCS334	Big Data Analytics	2.2	2.8
44	V	MX3084	Disaster Risk Reduction and Management	2.0	0.0
45	VI	CCS356	Object Oriented Software Engineering	2.0	2.0
46	VI	CS3691	Embedded Systems and IoT	2.2	1.6
47	VI	OIE351	Introduction to Industrial Engineering	2.0	1.0

S. No.	SEM	COURSE CODE	COURSE TITLE	PSO1	PSO2
48	VI	CCS341	Data Warehousing	0.0	0.0
49	VI	CCS354	Network Security	2.2	1.4
50	VI	CCS375	Web Technologies	1.8	1.8
51	VI	CCS352	Multimedia and Animation	3.0	2.4
52	VI	MX3089	Industrial Safety	3.0	3.0
53	VII	GE3791	Human Values and Ethics	0.0	0.0
54	VII	AI3021	IT in Agricultural System	2.0	2.0
55	VII	AU3791	Electric Vehicle Technology	0.0	1.0
56	VII	CBM370	Wearable Devices	1.0	0.0
57	VII	CS3711	Summer Internship	2.0	2.0
58	VII	CS3811	Project Work / Internship	2.0	2.0

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Course Code / Course Name	HS3151/ Professional English I
Semester	I
Regulation	R2021

Course code	Course Outcome	
Students will be able to		BTL'S
CO1	Use appropriate words in a professional context	K1
CO2	Gain understanding of basic grammatical structures and use them in right context	K3
CO3	Read and infer the denotative and connotative meanings of technical texts	K2
CO4	Read and Interpret information presented in tables, charts, and other graphic forms	K4
CO5	Write definitions, descriptions, narrations and essays on various topics.	K6

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	1	1	1	1	1	3	3	3	1	3	0	3
CO2	1	1	1	1	1	3	3	3	1	3	0	3
CO3	2	3	2	3	2	3	3	3	2	3	3	3
CO4	2	3	2	3	2	3	3	3	2	3	3	3
CO5	2	3	3	3	0	3	3	3	2	3	0	3
CO PO Mapping	**1.60**	**2.20**	**1.80**	**2.20**	**1.50**	**3.00**	**3.00**	**3.00**	**1.60**	**3.00**	**3.00**	**3.00**

Course Code	PSO1	PSO2
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.0**	**0.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
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Course Code / Course Name	**MA3151/Matrices and Calculus**
Semester	I
Regulation	R2021

Course code	**Course Outcome**	
Students will be able to		**BTL'S**
CO1	Use the matrix algebra methods for solving practical problems.	K4
CO2	Apply differential calculus tools in solving various application problems.	K3
CO3	Able to use differential calculus ideas on several variable functions.	K3
CO4	Apply different methods of integration in solving practical problems.	K3
CO5	Apply multiple integral ideas in solving areas, volumes and other practical problems.	K3

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	1	1	0	0	0	0	2	0	2	3
CO2	3	3	1	1	0	0	0	0	2	0	2	3
CO3	3	3	1	1	0	0	0	0	2	0	2	3
CO4	3	3	1	1	0	0	0	0	2	0	2	3
CO5	3	3	1	1	0	0	0	0	2	0	2	3
CO PO Mapping	**3.00**	**3.00**	**1.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.00**	**0.00**	**2.00**	**3.00**

Course Code	PSO1	PSO2
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.0**	**0.0**

1	Slight	**2**	Moderate	**3**	Substantial

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Course Code / Course Name	**PH3151/Engineering Physics**
Semester	I
Regulation	R2021

Course code	**Course Outcome**	
Students will be able to		**BTL'S**
CO1	Understand the importance of mechanics.	K2
CO2	Express their knowledge in electromagnetic waves.	K3
CO3	Demonstrate a strong foundational knowledge in oscillations, optics and lasers	K1
CO4	Understand the importance of quantum physics.	K2
CO5	Comprehend and apply quantum mechanical principles towards the formation of energy bands.	K3

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	1	1	1	0	0	0	0	0	0
CO2	3	3	2	1	2	1	0	0	0	0	0	0
CO3	3	3	2	2	2	1	0	0	0	0	0	1
CO4	3	3	1	1	2	1	0	0	0	0	0	0
CO5	3	3	1	1	2	1	0	0	0	0	0	0
CO PO Mapping	**3.00**	**3.00**	**1.60**	**1.20**	**1.80**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.00**

Course Code	PSO1	PSO2
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.00**	**0.00**

1	Slight	**2**	Moderate	**3**	Substantial

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Course Code / Course Name	**CY3151/Engineering Chemistry**
Semester	I
Regulation	R2021

Course code	**Course Outcome**	
Students will be able to		**BTL'S**
CO1	To infer the quality of water from quality parameter data and propose suitable treatment methodologies to treat water.	K2
CO2	To identify and apply basic concepts of nanoscience and nanotechnology in designing the synthesis of nano materials for engineering and technology applications.	K3
CO3	To apply the knowledge of phase rule and composites for material selection requirements.	K3
CO4	To recommend suitable fuels for engineering processes and applications.	K4
CO5	To recognize different forms of energy resources and apply them for suitable applications in energy sectors.	K1

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	1	0	1	1	0	0	0	0	1
CO2	2	0	0	1	0	2	2	0	0	0	0	0
CO3	3	1	0	0	0	0	0	0	0	0	0	0
CO4	3	1	1	0	0	1	2	0	0	0	0	0
CO5	3	1	2	1	0	2	2	0	0	0	0	2
CO PO Mapping	**2.80**	**1.30**	**1.60**	**1.00**	**0.00**	**1.50**	**1.80**	**0.00**	**0.00**	**0.00**	**0.00**	**1.50**

Course Code	PSO1	PSO2
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.0**	**0.0**

1	Slight	**2**	Moderate	**3**	Substantial

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Course Code / Course Name	GE3151/Problem Solving and Python Programming
Semester	I
Regulation	R2021

Course code	Course Outcome	BTL'S
Students will be able to		
CO1	Develop algorithmic solutions to simple computational problems.	K6
CO2	Develop and execute simple Python programs.	K6
CO3	Write simple Python programs using conditionals and looping for solving problems	K1
CO4	Decompose a Python program into functions.	K2
CO5	Represent compound data using Python lists, tuples, dictionaries etc.	K1
CO1	Read and write data from/to files in Python programs.	K1

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	2	0	0	0	0	0	2	2
CO2	3	3	3	3	2	0	0	0	0	0	2	2
CO3	3	3	3	3	2	0	0	0	0	0	2	0
CO4	2	2	0	2	2	0	0	0	0	0	1	0
CO5	1	2	0	0	1	0	0	0	0	0	1	0
CO6	2	2	0	0	2	0	0	0	0	0	1	0
CO PO Mapping	**2.00**	**3.00**	**3.00**	**3.00**	**2.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.00**	**2.00**

Course Code	PSO1	PSO2
CO1	3	3
CO2	3	0
CO3	3	0
CO4	3	0
CO5	2	0
CO6	2	0
CO PSO Mapping	**3.0**	**3.0**

1	Slight	**2**	Moderate	**3**	Substantial

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Course Code / Course Name	GE3152/தமிழர் மரபு/Heritage of Tamils
Semester	I
Regulation	R2021

Course code	Course Outcome	BTL'S
Students will be able to		
CO1	Discuss the Tamil language and literature.	K2
CO2	Explain about the modern art sculpture.	K2
CO3	Illustrate the folk and martial arts.	K3
CO4	Describe the Thinai concepts of Tamil	K1
CO5	Summarize the contribution of Tamil in Indian culture.	K5
CO6	Define the role of siddha medicine.	K1

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	0	0	0	0	0	3	3	2	0	2	0	2
CO2	0	0	0	0	0	3	3	2	0	2	0	2
CO3	0	0	0	0	0	3	3	2	0	2	0	2
CO4	0	0	0	0	0	3	3	2	0	2	0	2
CO5	0	0	0	0	0	3	3	2	0	2	0	2
CO6	0	0	0	0	0	3	3	2	0	2	0	2
CO PO Mapping	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.00**	**3.00**	**2.00**	**0.00**	**2.00**	**0.00**	**2.00**

Course Code	PSO1	PSO2
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO6	0	0
CO PSO Mapping	**0.00**	**0.00**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**GE3171/Problem Solving and Python Programming Laboratory**
Semester	I
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Develop algorithmic solutions to simple computational problems	K6
CO2	Develop and execute simple Python programs.	K6
CO3	Implement programs in Python using conditionals and loops for solving problems.	K3
CO4	Deploy functions to decompose a Python program.	K3
CO5	Process compound data using Python data structures.	K5
CO6	Utilize Python packages in developing software applications.	K3

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	2	0	0	0	0	0	2	2
CO2	3	3	3	3	2	0	0	0	0	0	2	2
CO3	3	3	3	3	2	0	0	0	0	0	2	0
CO4	2	2	0	2	2	0	0	0	0	0	1	0
CO5	1	2	0	0	1	0	0	0	0	0	1	0
CO6	2	2	0	0	2	0	0	0	0	0	1	0
CO PO Mapping	**2.00**	**3.00**	**3.00**	**3.00**	**2.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.00**	**2.00**

Course Code	PSO1	PSO2
CO1	3	3
CO2	3	-
CO3	3	-
CO4	3	-
CO5	2	-
CO6	2	-
CO PSO Mapping	**3.0**	**3.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**BS3171/Physics Laboratory**
Semester	I
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Understand the functioning of various physics laboratory equipment.	K2
CO2	Use graphical models to analyze laboratory data.	K3
CO3	Use Mathematical models as a medium for quantitative reasoning and describing physical reality.	K3
CO4	Access, process and analyze scientific information.	K4
CO5	Solve problems individually and collaboratively.	K3

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	3	2	3	1	1	0	0	0	0	0	0	0
CO2	3	3	2	1	1	0	0	0	0	0	0	0
CO3	3	2	3	1	1	0	0	0	0	0	0	0
CO4	3	3	2	1	1	0	0	0	0	0	0	0
CO5	3	2	3	1	1	0	0	0	0	0	0	0
CO PO Mapping	**3.00**	**2.40**	**2.60**	**1.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Course Code	**PSO1**	**PSO2**
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.0**	**0.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	BS3171/ Chemistry Laboratory
Semester	I
Regulation	R2021

Course code	Course Outcome	BTL'S
Students will be able to		
CO1	To analyse the quality of water samples with respect to their acidity, alkalinity, hardness andDO.	K4
CO2	To determine the amount of metal ions through volumetric and spectroscopic techniques	K3
CO3	To analyse and determine the composition of alloys.	K4
CO4	To learn simple method of synthesis of nanoparticles.	K1
CO5	To quantitatively analyse the impurities in solution by electroanalytical techniques.	K4

Course Code	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	0	1	0	0	2	2	0	0	0	0	2
CO2	3	1	2	0	0	1	2	0	0	0	0	1
CO3	3	2	1	1	0	0	1	0	0	0	0	0
CO4	2	1	2	0	0	2	2	0	0	0	0	0
CO5	2	1	2	0	1	2	2	0	0	0	0	1
CO PO Mapping	**2.6**	**1.30**	**1.60**	**1.00**	**1.00**	**1.40**	**1.80**	**0.00**	**0.00**	**0.00**	**0.00**	**1.30**

Course Code	PSO1	PSO2
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.0**	**0.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**GE3172/English Laboratory**
Semester	I
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Speak effectively in group discussion held in a formal /semi-formal context	K2
CO2	Discuss, analysis and present concepts and problems from various perspectives to arrive at suitable solutions	K4
CO3	Write emails, letters and effective job applications	K6
CO4	Write critical reports to convey data & information with clarity and precision	K6
CO5	Give appropriate instructions and recommendations for safe execution of talks	K2

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	3	3	3	3	1	3	3	3	3	3	3	3
CO2	3	3	3	3	1	3	3	3	3	3	3	3
CO3	3	3	3	3	1	3	3	3	3	3	3	3
CO4	3	3	3	3	1	3	3	3	3	3	3	3
CO5	3	3	3	3	1	3	3	3	3	3	3	3
CO PO Mapping	**3.00**	**3.0**	**3.00**	**3.00**	**1.00**	**3.00**	**3.00**	**3.00**	**3.00**	**3.00**	**3.00**	**3.00**

Course Code	**PSO1**	**PSO2**
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.0**	**0.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**HS3252/Professional English - II**
Semester	II
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Compare and contrast products and ideas in technical texts	K5
CO2	Identify and report cause and effects in events, industrial processes through technical texts	K3
CO3	Analyse problems in order to arrive at feasible solutions and communicate them in the written format	K4
CO4	Present their ideas and opinions in a planned and logical manner	K2
CO5	Draft effective resumes in the context of job search	K6

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	3	3	3	2	3	3	3
CO2	3	3	3	3	3	3	3	3	2	3	3	3
CO3	3	3	3	3	3	3	3	3	2	3	3	3
CO4	3	3	3	3	2	3	3	3	2	3	3	3
CO5	0	0	0	0	0	0	0	0	3	3	3	3
CO PO Mapping	**3.00**	**3.00**	**3.00**	**3.00**	**2.75**	**3.00**	**3.00**	**3.00**	**2.20**	**3.00**	**3.00**	**3.00**

Course Code	PSO1	PSO2
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.0**	**0.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	MA3251/Statistics and Numerical Methods
Semester	II
Regulation	R2021

Course code	Course Outcome	BTL'S
Students will be able to		
CO1	Apply the concept of testing of hypothesis for small and large samples in real life problems	K3
CO2	Apply the basic concepts of classifications of design of experiments in the field of agriculture.	K5
CO3	Appreciate the numerical techniques of interpolation in various intervals and apply the numerical techniques of differentiation and integration for engineering problems.	K3
CO4	Understand the knowledge of various techniques and methods for solving first and second order ordinary differential equations.	K2
CO5	Solve the partial and ordinary differential equations with initial and boundary conditions by using certain techniques with engineering applications.	K5

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	1	1	1	0	0	0	2	0	2	3
CO2	3	3	1	1	1	0	0	0	2	0	2	3
CO3	3	3	1	1	1	0	0	0	2	0	2	3
CO4	3	3	1	1	1	0	0	0	2	0	2	3
CO5	3	3	1	1	1	0	0	0	2	0	2	3
CO PO Mapping	**3.00**	**3.00**	**1.00**	**1.00**	**1.00**	**0.00**	**0.00**	**0.00**	**2.00**	**0.00**	**2.00**	**3.00**

Course Code	PSO1	PSO2
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.0**	**0.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	PH3256 / PHYSICS FOR INFORMATION SCIENCE
Semester	II
Regulation	R2021

Course code	Course Outcome	BTL'S
Students will be able to		
CO1	Gain knowledge on classical and quantum electron theories, and energy band structures.	K1
CO2	Acquire knowledge on basics of semiconductor physics and its applications in various devices.	K3
CO3	Get knowledge on magnetic properties of materials and their applications in data storage.	K1
CO4	Have the necessary understanding on the functioning of optical materials for opto electronics.	K2
CO5	Understand the basics of quantum structures and their applications and basics of quantumcomputing.	K2

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	1	0	0	0	0	0	0	0	0	0	0
CO2	3	1	2	0	0	0	0	0	0	0	0	0
CO3	3	0	0	1	2	1	1	0	0	0	0	0
CO4	3	0	2	1	3	0	1	0	0	0	0	0
CO5	3	2	2	2	2	1	2	0	0	0	0	2
CO PO Mapping	**3.00**	**1.30**	**2.00**	**1.30**	**2.30**	**1.00**	**1.30**	**0.00**	**0.00**	**0.00**	**0.00**	**2.00**

Course Code	PSO1	PSO2
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.0**	**0.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	BE3251/Basic Electrical and Electronics Engineering
Semester	II
Regulation	R2021

Course code	Course Outcome	BTL'S
Students will be able to		
CO1	Compute the electric circuit parameters for simple problems.	K2
CO2	Explain the working principle and applications of electrical machines.	K5
CO3	Analyze the characteristics of analog electronic devices.	K4
CO4	Explain the basic concepts of digital electronics.	K5
CO5	Explain the operating principles of measuring instruments.	K5

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	1	0	0	0	0	1	0	0	0	2
CO2	2	2	1	0	0	0	0	1	0	0	0	2
CO3	2	1	1	0	0	0	0	1	0	0	0	2
CO4	2	2	1	0	0	0	0	1	0	0	0	2
CO5	2	2	1	0	0	0	0	1	0	0	0	2
CO PO Mapping	**2.00**	**1.80**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	**2.00**

Course Code	PSO1	PSO2
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.0**	**0.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**GE3251/Engineering Graphics**
Semester	II
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Use BIS conventions and specifications for engineering drawing.	K3
CO2	Construct the conic curves, involutes and cycloid.	K3
CO3	Solve practical problems involving projection of lines.	K3
CO4	Draw the orthographic, isometric and perspective projections of simple solids.	K1
CO5	Draw the development of simple solids.	K1

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	1	2	0	2	0	0	0	0	3	0	2
CO2	3	1	2	0	2	0	0	0	0	3	0	2
CO3	3	1	2	0	2	0	0	0	0	3	0	2
CO4	3	1	2	0	2	0	0	0	0	3	0	2
CO5	3	1	2	0	2	0	0	0	0	3	0	2
CO PO Mapping	**3.00**	**1.00**	**2.00**	**0.00**	**2.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.00**	**0.00**	**2.00**

Course Code	PSO1	PSO2
CO1	2	2
CO2	2	2
CO3	2	2
CO4	2	2
CO5	2	2
CO PSO Mapping	**2.0**	**2.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**GE3252/தமிழரும் ததொழில் நுட்பமும் / Tamils and Technology**
Semester	II
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Explain about the weaving and pottery technology in Tamil Nadu	K5
CO2	Describe about the design and construction technology in Tamil Nadu	K2
CO3	Discuss about the manufacturing technology in Tamil Nadu.	K2
CO4	Illustrate the agriculture and irrigation technology in Tamil Nadu	K4
CO5	Define the growth of science in Tamil.	K1
CO6	Learn the contribution of the Tamils to Indian culture.	K1

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	0	0	0	0	0	3	3	2	0	2	0	2
CO2	0	0	0	0	0	3	3	2	0	2	0	2
CO3	0	0	0	0	0	3	3	2	0	2	0	2
CO4	0	0	0	0	0	3	3	2	0	2	0	2
CO5	0	0	0	0	0	3	3	2	0	2	0	2
CO6	0	0	0	0	0	3	3	2	0	2	0	2
CO PO Mapping	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.00**	**3.00**	**2.00**	**0.00**	**2.00**	**0.00**	**2.00**

Course Code	PSO1	PSO2
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO6	0	0
CO PSO Mapping	**0.0**	**0.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CS3251 / Programming in C**
Semester	II
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Demonstrate knowledge on C Programming constructs.	K3
CO2	Develop simple applications in C using basic constructs.	K6
CO3	Design and implement applications using arrays and strings.	K6
CO4	Develop and implement modular applications in C using functions.	K6
CO5	Develop applications in C using structures and pointers.	K6
CO6	Design applications using sequential and random access file processing.	K6

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	1	2	2	1	2	1	1	1	2	0	3	2
CO2	2	2	2	1	2	1	1	1	2	0	3	3
CO3	2	3	2	1	2	1	1	1	2	0	3	2
CO4	3	2	2	1	3	1	1	1	2	0	3	3
CO5	2	3	3	1	2	1	2	1	2	0	3	2
CO6	2	2	3	2	1	2	0	0	2	1	2	2
CO PO Mapping	**2.00**	**2.00**	**2.00**	**1.00**	**2.00**	**1.00**	**1.00**	**1.00**	**2.00**	**0.00**	**3.00**	**2.00**

Course Code	**PSO1**	**PSO2**
CO1	1	2
CO2	2	2
CO3	2	2
CO4	2	2
CO5	2	3
CO6	2	2
CO PSO Mapping	**2.0**	**2.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	GE3271/Engineering Practices Laboratory
Semester	II
Regulation	R2021

Course code	Course Outcome	BTL'S
Students will be able to		
CO1	Draw pipe line plan; lay and connect various pipe fittings used in common household plumbing work; Saw; plan; make joints in wood materials used in commonK1 household wood work.	K1
CO2	Wire various electrical joints in common household electrical wire work.	K5
CO3	Weld various joints in steel plates using arc welding work; Machine various simple processes like turning, drilling, tapping in parts; Assemble simple mechanical assembly of common household equipment's; Make a tray out of metal sheet using sheet metal work.	K2
CO4	Solder and test simple electronic circuits; Assemble and test simple electronic components on PCB.	K3

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	0	0	1	1	1	0	0	0	0	2
CO2	3	2	0	0	1	1	1	0	0	0	0	2
CO3	3	2	0	0	1	1	1	0	0	0	0	2
CO PO Mapping	**3.00**	**2.00**	**0.00**	**0.00**	**1.00**	**1.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.00**

Course Code	PSO1	PSO2
CO1	2	1
CO2	2	1
CO3	2	1
CO PSO Mapping	**2.0**	**1.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CS3271 / PROGRAMMING IN C LABORATORY**
Semester	II
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Demonstrate knowledge on C programming constructs.	K3
CO2	Develop programs in C using basic constructs.	K6
CO3	Develop Programs in C using arrays.	K6
CO4	Develop applications in C using Strings , Pointers , functions.	K6
CO5	Develop applications in C using Strings	K6
CO6	Develop applications in C using file processing	K6

Course Code	**PO 1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	1	3	3	1	1	1	0	0	2	1	2	2
CO2	2	3	3	2	1	1	0	0	2	1	2	2
CO3	2	2	2	1	1	2	0	0	2	0	2	2
CO4	2	2	2	2	1	2	0	0	3	0	3	3
CO5	2	2	3	2	3	2	0	0	3	0	3	3
CO6	2	2	3	2	1	2	0	0	2	1	2	2
CO PO Mapping	**2**	**2**	**3**	**2**	**1**	**2**	**0**	**0**	**2**	**1**	**2**	**2**

Course Code	**PSO1**	**PSO2**
CO1	2	2
CO2	2	3
CO3	2	2
CO4	3	2
CO5	3	3
CO6	2	2
CO PSO Mapping	**2**	**2**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**GE3272/ COMMUNICATION LABORATORY**
Semester	II
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Speak effectively in group discussions held in a formal/semi-formal contexts.	K2
CO2	Discuss, analyse and present concepts and problems from various perspectives to arrive at suitable solutions	K4
CO3	Write emails, letters and effective job applications.	K6
CO4	Write critical reports to convey data and information with clarity and precision	K6
CO5	Give appropriate instructions and recommendations for safe execution of tasks	K2

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	3	3	1	3	3	3	3	3	3	3
CO2	2	3	3	3	1	3	3	3	3	3	3	3
CO3	2	2	3	3	1	3	3	3	3	3	3	3
CO4	3	3	3	3	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3	3	3	3
CO PO Mapping	**2.40**	**2.80**	**3.00**	**3.00**	**1.80**	**3.00**	**3.00**	**3.00**	**3.00**	**3.00**	**3.00**	**3.00**

Course Code	PSO1	PSO2
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.0**	**0.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**MA3354/Discrete Mathematics**
Semester	III
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Have knowledge of the concepts needed to test the logic of a program.	K1
CO2	Have an understanding in identifying structures on many levels.	K2
CO3	Be 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.	K4
CO4	Be aware of the counting principles.	K2
CO5	Be exposed to concepts and properties of algebraic structures such as groups, rings and fields.	K2

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	0	0	0	0	0	0	0	0	2
CO2	3	3	0	0	0	0	0	0	0	0	0	0
CO3	0	3	2	0	0	2	0	0	0	3	0	0
CO4	0	2	2	2	0	0	0	0	0	0	0	0
CO5	0	2	2	2	0	0	0	0	0	2	0	0
CO PO Mapping	**1.0**	**3.00**	**2.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.00**	**0.00**	**0.00**

Course Code	PSO1	PSO2
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.0**	**0.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	CS3351/ Digital Principles and Computer Organization
Semester	III
Regulation	R2021

Course code	Course Outcome	BTL'S
Students will be able to		
CO1	Design various combinational digital circuits using logic gates	K6
CO2	Design sequential circuits and analyze the design procedures	K6
CO3	State the fundamentals of computer systems and analyze the execution of an instruction	K4
CO4	Analyze different types of control design and identify hazards	K4
CO5	Identify the characteristics of various memory systems and I/O communication.	K4

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	2	1	1	1	1	2	3
CO2	3	3	3	3	2	1	1	1	1	1	2	3
CO3	3	3	3	3	2	2	1	1	1	1	2	3
CO4	3	3	3	3	1	1	1	1	1	1	1	2
CO5	3	3	3	3	1	2	1	1	1	1	1	2
CO PO Mapping	**3.0**	**3.00**	**3.00**	**3.00**	**1.80**	**1.60**	**1.00**	**1.00**	**1.00**	**1.00**	**1.60**	**2.60**

Course Code	PSO1	PSO2
CO1	2	3
CO2	1	2
CO3	2	3
CO4	1	3
CO5	1	2
CO PSO Mapping	**1.4**	**2.6**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CCS352 / Foundations of Data Science**
Semester	III
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Define the data science process.	K1
CO2	Understand different types of data description for data science process	K2
CO3	Gain Knowledge on relationships between data.	K2
CO4	Use the python Libraries for Data Warehousing	K3
CO5	Apply visualization Libraries in Python to interpret and explore data.	K3

Course Code	**PO 1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	2	2	1	2	2	0	0	0	1	1	1	2
CO2	2	1	0	1	1	0	0	0	2	1	1	2
CO3	2	2	1	2	2	1	1	0	1	2	1	3
CO4	3	2	2	1	2	0	0	0	1	1	2	2
CO5	2	2	1	2	2	0	0	0	1	1	1	2
CO PO Mapping	**2.0**	**2.00**	**1.00**	**2.00**	**2.00**	**1.00**	**1.00**	**0.00**	**1.00**	**1.00**	**1.00**	**2.00**

Course Code	**PSO1**	**PSO2**
CO1	2	2
CO2	2	3
CO3	2	2
CO4	3	3
CO5	2	2
CO PSO Mapping	**2.0**	**2.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course	**CS3301 / Data Structures**
Semester	III
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Define linear and non0linear data structures.	K1
CO2	Implement linear and non–linear data structure operations.	K3
CO3	Use appropriate linear/non–linear data structure operations for solving a given problem.	K3
CO4	Apply appropriate graph algorithms for graph applications.	K3
CO5	Analyze the various searching and sorting algorithms.	K4

Course Code	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	1	2	2	1	1	0	1	2	1	3
CO2	1	2	1	2	2	0	0	0	1	1	1	2
CO3	2	3	1	2	3	0	0	0	1	1	1	2
CO4	2	1	0	1	1	0	0	0	2	1	1	2
CO5	1	2	1	2	2	1	1	0	1	2	1	3
CO PO Mapping	**2.0**	**2.00**	**1.00**	**2.00**	**2.00**	**1.00**	**1.00**	**0.00**	**1.00**	**1.00**	**1.00**	**2.00**

Course Code	PSO1	PSO2
CO1	2	1
CO2	2	2
CO3	2	1
CO4	2	3
CO5	2	2
CO PSO Mapping	**2.0**	**2.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course	**CS3391 / Object Oriented Programming**
Semester	III
Regulation	R2021

Course code	**Course Outcome**	
Students will be able to		**BTL'S**
CO1	Apply the concepts of classes and objects to solve simple problems	K3
CO2	Develop programs using inheritance, packages and interfaces	K6
CO3	Make use of exception handling mechanisms and multithreaded model to solve real world problems	K3
CO4	Build Java applications with I/O packages, string classes, Collections and generics concepts	K6
CO5	Integrate the concepts of event handling and JavaFX components and controls for developing	K5

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	1	1	3	1	3	0	0	0	3	2	2	2
CO2	2	1	3	2	1	0	0	0	2	1	1	3
CO3	3	3	1	2	2	0	0	0	3	2	1	2
CO4	3	1	2	2	2	0	0	0	1	2	1	3
CO5	1	1	2	3	2	0	0	0	3	2	1	2
CO PO Mapping	**2.00**	**1.00**	**2.00**	**2.00**	**2.00**	**0.00**	**0.00**	**0.00**	**2.00**	**2.00**	**1.00**	**2.00**

Course Code	**PSO1**	**PSO2**
CO1	3	1
CO2	3	3
CO3	3	1
CO4	3	1
CO5	3	3
CO PSO Mapping	**3.0**	**2.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CS3311 / Data Structures Laboratory**
Semester	III
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Make use of the python libraries for data science	K3
CO2	Make use of the basic Statistical and Probability measures for data science.	K3
CO3	Perform descriptive analytics on the benchmark data sets.	K4
CO4	Perform correlation and regression analytics on standard data sets	K4
CO5	Present and interpret data using visualization packages in Python	K2

Course Code	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	1	1	0	0	0	0	1	3	3	3
CO2	3	2	2	3	1	0	0	0	3	1	3	2
CO3	3	2	1	3	1	0	0	0	2	1	1	1
CO4	2	3	1	3	0	0	0	0	2	3	2	3
CO5	1	2	3	1	1	0	0	0	2	1	3	1
CO PO Mapping	**2.0**	**2.00**	**2.00**	**2.00**	**1.00**	**0.00**	**0.00**	**0.00**	**2.00**	**2.00**	**2.00**	**2.00**

Course Code	PSO1	PSO2
CO1	1	3
CO2	1	3
CO3	3	2
CO4	3	3
CO5	1	3
CO PSO Mapping	**2.0**	**3.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	CS3381 / Object Oriented Programming Laboratory
Semester	III
Regulation	R2021

Course code	Course Outcome	BTL'S
Students will be able to		
CO1	Design and develop java programs using object oriented programming concepts	K6
CO2	Develop simple applications using object oriented concepts such as package, exceptions	K6
CO3	Implement multithreading, and generics concepts	L4AP
CO4	Create GUIs and event driven programming applications for real world problems	K6
CO5	Implement and deploy web applications using Java	L4AP

Course Code	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	1	2	1	0	0	0	0	1	2	2	2
CO2	2	1	3	1	0	0	0	0	2	3	3	2
CO3	2	2	1	2	1	0	0	0	1	2	1	3
CO4	2	2	1	3	0	0	0	0	3	1	1	1
CO5	1	3	3	1	3	0	0	0	1	1	1	1
CO PO Mapping	**2.0**	**2.00**	**2.00**	**2.00**	**2.00**	**0.00**	**0.00**	**0.00**	**2.00**	**2.00**	**2.00**	**2.00**

Course Code	PSO1	PSO2
CO1	1	2
CO2	1	3
CO3	2	3
CO4	2	1
CO5	2	1
CO PSO Mapping	**2.0**	**2.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CS3361 / Data Science Laboratory**
Semester	III
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Make use of the python libraries for data science	K3
CO2	Make use of the basic Statistical and Probability measures for data science.	K3
CO3	Perform descriptive analytics on the benchmark data sets.	K4
CO4	Perform correlation and regression analytics on standard data sets	K4
CO5	Present and interpret data using visualization packages in Python	K4

Course Code	**PO 1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	3	2	1	1	0	0	0	0	1	3	3	3
CO2	3	2	2	3	1	0	0	0	3	1	3	2
CO3	3	2	1	3	1	0	0	0	2	1	1	1
CO4	2	3	1	3	0	0	0	0	2	3	2	3
CO5	1	2	3	1	1	0	0	0	2	1	3	1
CO PO Mapping	**2.0**	**2.00**	**2.00**	**2.00**	**1.00**	**0.00**	**0.00**	**0.00**	**2.00**	**2.00**	**2.00**	**2.00**

Course Code	**PSO1**	**PSO2**
CO1	1	3
CO2	1	3
CO3	3	2
CO4	3	3
CO5	1	3
CO PSO Mapping	**2.0**	**3.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**GE3361/Professional Development**
Semester	III
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Use MS Word to create quality documents, by structuring and organizing content for their day to day technical and academic requirements	K6
CO2	Use MS EXCEL to perform data operations and analytics, record, retrieve data as per requirements and visualize data for ease of understanding	K6
CO3	Use MS PowerPoint to create high quality academic presentations by including common tables, charts, graphs, interlinking other elements, and using media objects	K6

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	0	0	0	0	3	0	0	0	0	2	0	2
CO2	0	0	0	0	3	0	0	0	0	2	0	2
CO3	0	0	0	0	3	0	0	0	0	2	0	2
CO PO Mapping	**0.00**	**0.00**	**0.00**	**0.00**	**3.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.00**	**0.00**	**2.00**

Course Code	PSO1	PSO2
CO1	0	3
CO2	0	3
CO3	0	3
CO PSO Mapping	**0.00**	**3.00**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course	**CS3452 / THEORY OF COMPUTATION**
Semester	IV
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Construct automata theory using Finite Automata	K3
CO2	Write regular expressions for any pattern	K6
CO3	Design context free grammar and Pushdown Automata	K6
CO4	Design Turing machine for computational functions	K6
CO5	Differentiate between decidable and undecidable problems	K4

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	1	3	2	3	0	0	0	0	1	1	2	3
CO2	2	2	3	2	1	0	0	0	3	3	2	3
CO3	2	2	3	2	1	0	0	0	1	3	1	2
CO4	2	2	2	1	0	0	0	0	1	3	3	2
CO5	2	2	2	1	1	0	0	0	1	1	3	2
CO PO Mapping	**2.00**	**2.00**	**2.00**	**2.00**	**1.00**	**0.00**	**0.00**	**0.00**	**1.00**	**2.00**	**2.00**	**2.00**

Course Code	**PSO1**	**PSO2**
CO1	1	3
CO2	3	1
CO3	1	2
CO4	1	3
CO5	3	1
CO PSO Mapping	**2.0**	**2.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	CS3491/ ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
Semester	IV
Regulation	R2021

Course code	Course Outcome	BTL'S
Students will be able to		
CO1	Use appropriate search algorithms for problem solving	K3
CO2	Apply reasoning under uncertainty	K3
CO3	Build supervised learning models	K5
CO4	Build ensembling and unsupervised models	K5
CO5	Build deep learning neural network models	K5

Course Code	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	3	0	0	0	0	1	3	3	3
CO2	1	1	1	3	1	0	0	0	1	2	1	3
CO3	2	1	2	1	1	0	0	0	2	1	1	3
CO4	3	1	3	1	0	0	0	0	2	1	2	1
CO5	3	1	1	2	2	0	0	0	3	1	2	3
CO PO Mapping	**2.0**	**1.00**	**2.00**	**2.00**	**1.00**	**0.00**	**0.00**	**0.00**	**2.00**	**2.00**	**2.00**	**3.00**

Course Code	PSO1	PSO2
CO1	1	2
CO2	2	3
CO3	1	1
CO4	2	2
CO5	2	1
CO PSO Mapping	**2.0**	**2.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	CS3492 / DATABASE MANAGEMENT SYSTEMS
Semester	IV
Regulation	R2021

Course code	Course Outcome	BTL'S
Students will be able to		
CO1	Construct SQL Queries using relational algebra	K3
CO2	Design database using ER model and normalize the database	K6
CO3	Construct queries to handle transaction processing and maintain consistency of the Database	K3
CO4	Compare and contrast various indexing strategies and apply the knowledge to tune the performance of the database	K2
CO5	Appraise how advanced databases differ from Relational Databases and find a suitable database for the given requirement.	K5

Course Code	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	3	2	1	0	0	0	2	1	1	1
CO2	3	1	1	1	1	0	0	0	2	3	3	3
CO3	3	2	3	2	1	0	0	0	2	1	1	2
CO4	1	2	3	2	0	0	0	0	3	2	3	3
CO5	1	1	3	3	2	0	0	0	1	3	3	1
CO PO Mapping	**2.0**	**2.00**	**3.00**	**2.00**	**1.00**	**0.00**	**0.00**	**0.00**	**2.00**	**2.00**	**2.00**	**2.00**

Course Code	PSO1	PSO2
CO1	2	1
CO2	3	1
CO3	2	3
CO4	1	2
CO5	2	2
CO PSO Mapping	**2.0**	**2.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CS3401/ ALGORITHMS**
Semester	IV
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Analyze the efficiency of algorithms using various frameworks	K4
CO2	Apply graph algorithms to solve problems and analyze their efficiency.	K3
CO3	Make use of algorithm design techniques like divide and conquer, dynamic programming and greedy techniques to solve problems	K6
CO4	Use the state space tree method for solving problems.	K3
CO5	Solve problems using approximation algorithms and randomized algorithms	K3

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	3	2	0	0	0		1	0	0	0	0	1
CO2	2	3	0	0	0	0	1	0	0	0	0	1
CO3	1	2	3	1	0	0	2	0	0	0	0	0
CO4	1	1	0	0	0	0	0	0	0	0	0	0
CO5	1	1	0	0	0	0	0	0	0	0	0	0
CO PO Mapping	**2.67**	**1.80**	**3.00**	**1.00**	**0.00**	**0.00**	**1.33**	**0.00**	**0.00**	**0.00**	**0.00**	**1.00**

Course Code	**PSO1**	**PSO2**
CO1	0	1
CO2	0	1
CO3	0	1
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.00**	**1.00**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CS3451 / INTRODUCTION TO OPERATING SYSTEMS**
Semester	IV
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Analyze various scheduling algorithms and process synchronization.	K4
CO2	Explain deadlock prevention and avoidance algorithms.	K2
CO3	Compare and contrast various memory management schemes.	K2
CO4	Explain the functionality of file systems, I/O systems, and Virtualization	K2
CO5	Compare iOS and Android Operating Systems.	K2

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	3	1	2	2	0	0	0	0	3	2	3	1
CO2	2	2	3	1	1	0	0	0	2	1	1	2
CO3	1	3	2	2	1	0	0	0	2	2	1	1
CO4	1	3	3	3	0	0	0	0	1	2	1	2
CO5	3	1	2	1	1	0	0	0	3	2	3	2
CO PO Mapping	**2.00**	**2.00**	**2.00**	**2.00**	**1.00**	**0.00**	**0.00**	**0.00**	**2.00**	**2.00**	**2.00**	**2.00**

Course Code	**PSO1**	**PSO2**
CO1	1	2
CO2	2	1
CO3	1	2
CO4	1	3
CO5	2	2
CO PSO Mapping	**1.0**	**2.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	GE3451/Environmental Sciences and Sustainability
Semester	IV
Regulation	R2021

Course code	Course Outcome	BTL'S
Students will be able to		
CO1	To recognize and understand the functions of environment, ecosystems and biodiversity and their conservation	K2
CO2	To identify the causes, effects of environmental pollution and natural disasters and contribute to the preventive measures in the society	K4
CO3	To identify and apply the understanding of renewable and non-renewable resources and contribute to the sustainable measures to preserve them for future generations	K3
CO4	To recognize the different goals of sustainable development and apply them for suitable technological advancement and societal development.	K3
CO5	To demonstrate the knowledge of sustainability practices and identify green materials, energy cycles and the role of sustainable urbanization	K3

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	1	0	0	0	2	3	0	0	0	0	2
CO2	3	2	0	0	0	3	3	0	0	0	0	2
CO3	3	0	1	0	0	2	2	0	0	0	0	2
CO4	3	2	1	1	0	2	2	0	0	0	0	2
CO5	3	2	1	0	0	2	2	0	0	0	0	1
CO PO Mapping	**2.80**	**1.80**	**1.00**	**1.00**	**0.00**	**2.20**	**2.40**	**0.00**	**0.00**	**0.00**	**0.00**	**1.80**

Course Code	PSO1	PSO2
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.0**	**0.0**

1	Slight	2	Moderate	3	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CS3461 / OPERATING SYSTEMS LABORATORY**
Semester	IV
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Define and implement UNIX Commands.	K1
CO2	Compare the performance of various CPU Scheduling Algorithms.	K2
CO3	Compare and contrast various Memory Allocation Methods.	K2
CO4	Define File Organization and File Allocation Strategies.	K1
CO5	Implement various Disk Scheduling Algorithms	K3

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	3	1	3	1	1	0	0	0	1	3	3	3
CO2	3	1	1	2	2	0	0	0	3	2	1	1
CO3	3	3	2	1	2	0	0	0	3	3	1	2
CO4	1	2	2	3	2	0	0	0	3	1	3	1
CO5	2	2	1	1	3	0	0	0	1	2	2	3
CO PO Mapping	**2.00**	**2.00**	**2.00**	**2.00**	**2.00**	**0.00**	**0.00**	**0.00**	**2.00**	**2.00**	**2.00**	**2.00**

Course Code	**PSO1**	**PSO2**
CO1	2	1
CO2	3	1
CO3	2	2
CO4	1	2
CO5	1	3
CO PSO Mapping	**2.0**	**2.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	CS3481/ DATABASE MANAGEMENT SYSTEMS LABORATORY
Semester	IV
Regulation	R2021

Course code	Course Outcome Students will be able to	BTL'S
CO1	Create databases with different types of key constraints.	K6
CO2	Construct simple and complex SQL queries using DML and DCL commands.	K3
CO3	Use advanced features such as stored procedures and triggers and incorporate in GUI based application development.	K3
CO4	Create an XML database and validate with meta0data (XML schema).	K6
CO5	Create and manipulate data using NOSQL database.	K6

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	0	0	0	0	3	1	3	2
CO2	2	2	3	2	2	0	0	0	1	2	3	3
CO3	3	3	2	1	1	0	0	0	1	1	1	3
CO4	1	3	3	3	1	0	0	0	1	1	3	2
CO5	3	2	1	1	1	0	0	0	2	2	3	1
CO PO Mapping	**2.00**	**3.00**	**2.00**	**2.00**	**1.00**	**0.00**	**0.00**	**0.00**	**2.00**	**1.00**	**3.00**	**2.00**

Course Code	PSO1	PSO2
CO1	2	3
CO2	2	1
CO3	2	3
CO4	3	1
CO5	3	1
CO PSO Mapping	**2.0**	**2.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CS3591/ COMPUTER NETWORKS**
Semester	V
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Explain the basic layers and its functions in computer networks.	K4
CO2	Understand the basics of how data flows from one node to another.	K2
CO3	Analyze routing algorithms.	K4
CO4	Describe protocols for various functions in the network.	K2
CO5	Analyze the working of various application layer protocols.	K4

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	0	2	0	0	0	0	0	0	0	0	0	0
CO2	0	1	0	0	2	0	0	0	0	0	0	2
CO3	0	2	0	0	3	0	0	0	0	0	0	0
CO4	0	0	0	1	2	0	0	0	0	3	0	0
CO5	0	3	2	0	0	0	0	0	0	0	0	0
CO PO Mapping	**0.00**	**1.00**	**0.00**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.00**	**0.00**	**0.00**

Course Code	**PSO1**	**PSO2**
CO1	3	0
CO2	0	2
CO3	0	3
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.0**	**1.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CS3501/ COMPILER DESIGN**
Semester	V
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Understand the techniques in different phases of a compiler.	K2
CO2	Design a lexical analyser for a sample language and learn to use the LEX tool.	K6
CO3	Apply different parsing algorithms to develop a parser and learn to use YACC tool	K3
CO4	Understand semantics rules (SDT), intermediate code generation and run time environment.	K2
CO5	Implement code generation and apply code optimization techniques.	K3

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	0	0	0	0	3	3	1	3
CO2	3	3	3	3	3	0	0	0	3	2	3	2
CO3	3	3	2	2	3	0	0	0	3	1	1	1
CO4	3	2	2	1	1	0	0	0	2	3	2	3
CO5	3	3	3	2	1	0	0	0	2	1	1	3
CO PO Mapping	**3.00**	**2.80**	**2.60**	**2.20**	**2.00**	**0.00**	**0.00**	**0.00**	**2.60**	**2.00**	**1.60**	**2.40**

Course Code	PSO1	PSO2
CO1	2	3
CO2	2	1
CO3	2	2
CO4	1	2
CO5	2	1
CO PSO Mapping	**1.8**	**1.8**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	CB3491 / CRYPTOGRAPHY AND CYBER SECURITY
Semester	V
Regulation	R2021

Course code	Course Outcome	BTL'S
Students will be able to		
CO1	Understand the fundamentals of networks security, security architecture, threats and vulnerabilities	K2
CO2	Apply the different cryptographic operations of symmetric cryptographic algorithms	K3
CO3	Apply the different cryptographic operations of public key cryptography	K3
CO4	Apply the various Authentication schemes to simulate different applications.	K3

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	1	2	2	0	0	0	1	0	0	1
CO2	3	3	3	3	3	0	0	0	2	0	0	1
CO3	3	3	3	3	3	0	0	0	2	0	0	1
CO4	3	3	3	3	3	0	0	0	2	0	0	1
CO5	3	2	3	2	3	0	0	0	3	0	0	2
CO PO Mapping	**3.00**	**2.60**	**2.60**	**2.60**	**2.80**	**0.00**	**0.00**	**0.00**	**2.00**	**0.00**	**0.00**	**1.20**

Course Code	PSO1	PSO2
CO1	2	3
CO2	3	3
CO3	3	3
CO4	3	3
CO5	3	2
CO PSO Mapping	**2.8**	**2.8**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CS3551/ DISTRIBUTED COMPUTING**
Semester	V
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Explain the foundations of distributed systems (K2)	K5
CO2	Solve synchronization and state consistency problems (K3)	K3
CO3	Use resource sharing techniques in distributed systems (K3)	K3
CO4	Apply working model of consensus and reliability of distributed systems (K3)	K3
CO5	Explain the fundamentals of cloud computing (K2)	K5

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	2	2	3	3	1	0	0	0	2	1	3	3
CO2	1	3	2	1	2	0	0	0	2	2	2	2
CO3	2	2	1	3	3	0	0	0	3	2	1	1
CO4	1	2	2	3	1	0	0	0	3	3	2	1
CO5	3	3	1	2	3	0	0	0	3	3	3	1
CO PO Mapping	**1.80**	**2.40**	**1.80**	**2.40**	**2.00**	**0.00**	**0.00**	**0.00**	**2.60**	**2.20**	**2.20**	**1.60**

Course Code	**PSO1**	**PSO2**
CO1	2	1
CO2	1	3
CO3	1	2
CO4	3	1
CO5	3	2
CO PSO Mapping	**2.0**	**1.8**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CCS334/ BIG DATA ANALYTICS**
Semester	V
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Describe big data and use cases from selected business domains..	K2
CO2	Explain NoSQL big data management	K5
CO3	Install, configure, and run Hadoop and HDFS.	K2
CO4	Perform map0reduce analytics using Hadoop.	K3
CO5	Use Hadoop related tools such as HBase, Cassandra, Pig, and Hive for big data analytics.	K3

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	0	0	0	2	2	3	1
CO2	3	3	2	3	2	0	0	0	2	2	3	3
CO3	3	3	3	2	3	0	0	0	2	2	1	2
CO4	2	3	3	3	3	0	0	0	2	2	3	2
CO5	3	3	3	3	3	0	0	0	3	1	3	2
CO PO Mapping	**2.80**	**3.00**	**2.80**	**2.80**	**2.80**	**0.00**	**0.00**	**0.00**	**2.20**	**1.80**	**2.60**	**2.00**

Course Code	PSO1	PSO2
CO1	1	3
CO2	2	3
CO3	2	3
CO4	3	3
CO5	3	2
CO PSO Mapping	**2.2**	**2.8**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	CCS336/ CLOUD SERVICES MANAGEMENT
Semester	VI
Regulation	R2021

Course code	Course Outcome	BTL'S
Students will be able to		
CO1	Exhibit cloud0design skills to build and automate business solutions using cloud technologies.	K4
CO2	Possess Strong theoretical foundation leading to excellence and excitement towards adoption of cloud based services	K5
CO3	Solve the real0world problems using Cloud services and technologies	K3

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	1	1	1	0	0	0	2	1	3	2
CO2	3	1	2	3	2	0	0	0	1	2	3	1
CO3	1	1	3	1	3	0	0	0	3	3	1	1
CO4	1	1	1	2	3	0	0	0	2	3	3	1
CO5	1	3	3	2	2	0	0	0	1	3	1	2
CO PO Mapping	**1.80**	**1.80**	**2.00**	**1.80**	**2.20**	**0.00**	**0.00**	**0.00**	**1.80**	**2.40**	**2.20**	**1.40**

Course Code	PSO1	PSO2
CO1	2	1
CO2	2	2
CO3	3	2
CO4	1	1
CO5	1	3
CO PSO Mapping	**2.0**	**1.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	MX3084 / DISASTER RISK REDUCTION AND MANAGEMENT
Semester	V
Regulation	R2021

Course code	Course Outcome	BTL'S
Students will be able to		
CO1	To impart knowledge on the concepts of Disaster, Vulnerability and Disaster Risk reduction(DRR)	K1
CO2	To enhance understanding on Hazards, Vulnerability and Disaster Risk Assessment prevention and risk reduction	K6
CO3	To develop disaster response skills by adopting relevant tools and technology	K6
CO4	Enhance awareness of institutional processes for Disaster response in the country	K6
CO5	Develop rudimentary ability to respond to their surroundings with potential Disaster response in areas where they live, with due sensitivity	K6

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	3	0	0	2	2	0	0	2	0
CO2	3	3	3	3	0	0	2	1	0	0	2	0
CO3	3	3	3	3	0	0	2	2	0	0	0	0
CO4	3	3	2	3	0	0	2	1	0	0	2	0
CO5	3	3	2	3	0	0	2	2	0	0	2	0
CO PO Mapping	**3.00**	**3.00**	**2.00**	**3.00**	**0.00**	**0.00**	**2.00**	**2.00**	**0.00**	**0.00**	**2.00**	**0.00**

Course Code	PSO1	PSO2
CO1	2	0
CO2	2	0
CO3	2	0
CO4	2	0
CO5	3	0
CO PSO Mapping	**2.0**	**0.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	CCS356 / OBJECT ORIENTED SOFTWARE ENGINEERING
Semester	VI
Regulation	R2021

Course code	Course Outcome	
Students will be able to		BTL'S
CO1	Compare various Software Development Lifecycle Models	K2
CO2	Evaluate project management approaches as well as cost and schedule estimation	K5
CO3	Perform formal analysis on specifications.	K4
CO4	Use UML diagrams for analysis and design.	K3
CO5	Architect and design using architectural styles and design patterns, and test the system	K6

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	1	2	2	0	0	0	0	1	1	2
CO2	2	3	2	3	2	0	0	0	2	2	3	2
CO3	2	3	2	1	1	0	0	0	2	2	3	2
CO4	2	3	2	2	3	0	0	0	2	2	3	2
CO5	2	3	1	2	2	0	0	0	0	0	0	1
CO PO Mapping	**2.00**	**2.00**	**1.00**	**2.00**	**2.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.00**	**1.00**	**2.00**

Course Code	PSO1	PSO2
CO1	2	2
CO2	3	2
CO3	2	3
CO4	2	3
CO5	3	2
CO PSO Mapping	**2.0**	**2.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CS3691 / EMBEDDED SYSTEMS AND IOT**
Semester	VI
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Explain the architecture of embedded processors.	K2
CO2	Write embedded C programs.	K6
CO3	Design simple embedded applications.	K6
CO4	Compare the communication models in IOT	K4
CO5	Design IoT applications using Arduino/Raspberry Pi /open platform	K6

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	3	3	3	3	0	0	0	0	1	2	3	3
CO2	2	1	3	2	2	0	0	0	1	2	2	3
CO3	3	1	3	3	1	0	0	0	1	2	1	1
CO4	3	2	3	2	1	0	0	0	1	2	2	3
CO5	2	3	3	2	2	0	0	0	1	3	3	2
CO PO Mapping	**2.60**	**2.00**	**3.00**	**2.40**	**1.50**	**0.00**	**0.00**	**0.00**	**1.00**	**2.20**	**2.20**	**2.40**

Course Code	**PSO1**	**PSO2**
CO1	2	1
CO2	3	1
CO3	1	3
CO4	2	2
CO5	3	1
CO PSO Mapping	**2.2**	**1.6**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	OIE351/INTRODUCTION TO INDUSTRIAL ENGINEERING
Semester	VI
Regulation	R2021

Course code	Course Outcome	BTL'S
Students will be able to		
CO1	Ability To define the concepts of productivity and productivity measurement approaches.	K1
CO2	Ability to evaluate appropriate location models for various facility types and design various facility layouts	K5
CO3	Ability To conduct a method study and time study to improve the efficiency of the system.	K6
CO4	Ability to Control the quality of processes using control charts in manufacturing/service industries.	K5
CO5	Ability to define the Planning strategies and Material Requirement Plan.	K1

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	0	0	0	0	0	0	0	0	0	0	1
CO2	2	2	3	2	0	0	0	0	0	0	0	0
CO3	2	2	2	1	1	0	0	2	0	0	1	0
CO4	2	2	3	1	1	0	0	0	0	0	0	0
CO5	1	2	2	0	0	0	0	0	0	0	0	1
CO PO Mapping	**2.20**	**2.00**	**2.50**	**1.30**	**1.00**	**0.00**	**0.00**	**2.00**	**0.00**	**0.00**	**1.00**	**1.00**

Course Code	PSO1	PSO2
CO1	0	1
CO2	0	0
CO3	2	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**2.0**	**1.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CCS341 / DATA WAREHOUSING**
Semester	VI
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Design data warehouse architecture for various Problems	K6
CO2	Apply the OLAP Technology	K3
CO3	Analyse the partitioning strategy	K4
CO4	Critically analyze the differentiation of various schema for given problem	K4
CO5	Frame roles of process manager & system manager	K2

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	3	3	3	2	2	0	0	0	3	0	0	3
CO2	3	2	2	2	3	0	0	0	2	0	2	2
CO3	3	3	3	3	0	0	0	0	0	0	0	3
CO4	3	3	3	3	0	0	0	0	0	0	0	3
CO5	3	2	2	2	0	2	0	0	0	0	2	2
CO PO Mapping	**3.00**	**2.60**	**2.60**	**1.20**	**2.50**	**1.00**	**0.00**	**0.00**	**2.50**	**0.00**	**2.00**	**2.60**

Course Code	**PSO1**	**PSO2**
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.0**	**0.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CCS354/ NETWORK SECURITY**
Semester	VI
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Classify the encryption techniques	K2
CO2	Illustrate the key management technique and authentication.	K3
CO3	Evaluate the security techniques applied to network and transport layer	K5
CO4	Discuss the application layer security standards.	K2
CO5	Apply security practices for real time applications.	K3

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	3	3	2	2	2	0	0	0	2	1	2	1
CO2	1	1	3	2	2	0	0	0	2	2	1	1
CO3	1	2	1	1	2	0	0	0	3	3	1	3
CO4	2	2	3	2	3	0	0	0	3	3	2	1
CO5	2	1	3	2	2	0	0	0	2	1	1	3
CO PO Mapping	**1.80**	**1.80**	**2.40**	**1.80**	**2.20**	**0.00**	**0.00**	**0.00**	**2.40**	**2.00**	**1.40**	**1.80**

Course Code	**PSO1**	**PSO2**
CO1	2	3
CO2	3	1
CO3	2	1
CO4	2	1
CO5	2	1
CO PSO Mapping	**2.2**	**1.4**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CCS375 / WEB TECHNOLOGIES**
Semester	VI
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Construct a basic website using HTML and Cascading Style Sheets	K3
CO2	Build dynamic web page with validation using Java Script objects and by applying different event handling mechanisms.	K3
CO3	Develop server side programs using Servlets and JSP.	K6
CO4	Construct simple web pages in PHP and to represent data in XML format.	K3
CO5	Develop interactive web applications.	K6

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	3	2	3	3	3	0	0	0	1	3	3	1
CO2	2	2	2	1	2	0	0	0	2	2	1	3
CO3	1	1	3	2	3	0	0	0	1	2	1	1
CO4	2	3	3	1	2	0	0	0	3	1	2	2
CO5	1	2	3	2	2	0	0	0	2	1	3	1
CO PO Mapping	**1.80**	**2.00**	**2.80**	**1.80**	**2.40**	**0.00**	**0.00**	**0.00**	**1.80**	**1.80**	**2.00**	**1.60**

Course Code	**PSO1**	**PSO2**
CO1	3	2
CO2	2	2
CO3	1	2
CO4	2	2
CO5	1	1
CO PSO Mapping	**1.8**	**1.8**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CCS352/ MULTIMEDIA AND ANIMATION**
Semester	VI
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Get the bigger picture of the context of Multimedia and its applications	K2
CO2	Use the different types of media elements of different formats on content pages	K3
CO3	Author 2D and 3D creative and interactive presentations for different target multimedia applications.	K6
CO4	Use different standard animation techniques for 2D, 21/2 D, 3D applications	K3
CO5	Understand the complexity of multimedia applications in the context of cloud, security, big data streaming, social networking, CBIR etc.,	K2
CO6	Get the bigger picture of the context of Multimedia and its applications	K2

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	3	2	3	2	3	0	0	0	3	2	1	2
CO2	3	3	3	3	3	0	0	0	3	3	2	2
CO3	3	3	3	3	3	0	0	0	3	3	2	3
CO4	3	3	3	3	3	2	0	0	3	3	3	3
CO5	3	3	3	3	3	2	0	0	3	3	3	3
CO PO Mapping	**3.00**	**2.80**	**3.00**	**2.80**	**3.00**	**2.00**	**0.00**	**0.00**	**3.00**	**2.80**	**2.20**	**2.60**

Course Code	**PSO1**	**PSO2**
CO1	3	2
CO2	3	2
CO3	3	2
CO4	3	3
CO5	3	3
CO PSO Mapping	**3.0**	**2.4**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**MX3089/Industrial Safety**
Semester	VI
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Understand the basic concept of safety.	K2
CO2	Obtain knowledge of Statutory Regulations and standards.	K1
CO3	Know about the safety Activities of the Working Place.	K1
CO4	Analyze on the impact of Occupational Exposures and their Remedies	K4
CO5	Obtain knowledge of Risk Assessment Techniques.	K1

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	3	3	3	1	1	3	2	2	3	3	1	3
CO2	2	3	2	2	1	3	2	3	3	2	1	3
CO3	2	2	2	2	1	2	2	2	3	2	1	2
CO4	3	3	3	2	2	3	2	2	3	3	1	3
CO5	3	2	3	2	2	3	2	2	3	2	2	3
CO PO Mapping	**3.00**	**3.0**	**3.00**	**2.00**	**1.00**	**3.00**	**2.00**	**2.00**	**3.00**	**2.00**	**1.00**	**3.00**

Course Code	**PSO1**	**PSO2**
CO1	3	3
CO2	3	3
CO3	3	3
CO4	3	3
CO5	3	3
CO PSO Mapping	**3.0**	**3.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**GE3791 / HUMAN VALUES AND ETHICS**
Semester	VII
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Identify the importance of democratic, secular and scientific values in harmonious functioning of social life	K4
CO2	Practice democratic and scientific values in both their personal and professional life.	K3
CO3	Find rational solutions to social problems.	K5
CO4	Behave in an ethical manner in society	K2
CO5	Practice critical thinking and the pursuit of truth.	K3

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	0	1	0	0	0	0	0	3	0	0	0	0
CO2	0	0	0	0	0	0	0	3	0	0	0	0
CO3	1	0	0	0	0	0	0	3	0	0	0	0
CO4	0	0	0	1	0	0	0	3	0	0	0	0
CO5	0	0	1	0	0	0	0	3	0	0	0	0
CO PO Mapping	**1.00**	**1.00**	**1.00**	**1.00**	**0.00**	**0.00**	**0.00**	**3.00**	**0.00**	**0.00**	**0.00**	**0.00**

Course Code	PSO1	PSO2
CO1	0	0
CO2	0	0
CO3	0	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**0.0**	**0.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**AI3021 / IT IN AGRICULTURAL SYSTEM**
Semester	VII
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	The students shall be able to understand the applications of IT in remote sensing applications such as Drones etc.	K2
CO2	The students will be able to get a clear understanding of how a greenhouse can be automated and its advantages.	K2
CO3	The students will be able to apply IT principles and concepts for management of field operations.	K3
CO4	The students will get an understanding about weather models, their inputs and applications.	K2
CO5	The students will get an understanding of how IT can be used for e-governance in agriculture.	K2

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	1	3	3	0	3	0	3	3	0	3	3	3
CO2	0	3	3	2	3	0	3	3	0	3	3	3
CO3	0	3	3	0	3	2	3	3	0	3	3	3
CO4	1	3	3	0	3	0	3	3	0	3	3	3
CO5	0	3	3	0	3	0	3	3	1	3	3	3
CO PO Mapping	**2.00**	**3.00**	**3.00**	**2.00**	**3.00**	**2.00**	**3.00**	**3.00**	**1.00**	**3.00**	**3.00**	**3.00**

Course Code	**PSO1**	**PSO2**
CO1	0	2
CO2	1	0
CO3	1	0
CO4	0	0
CO5	0	0
CO PSO Mapping	**2.0**	**2.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
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Course Code / Course Name	**AU3791 / ELECTRIC AND HYBRID VEHICLES**
Semester	VII
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Understand the operation and architecture of electric and hybrid vehicles	K2
CO2	Identify various energy source options like battery and fuel cell	K1
CO3	Select suitable electric motor for applications in hybrid and electric vehicles.	K1
CO4	Explain the role of power electronics in hybrid and electric vehicles	K2
CO5	Analyze the energy and design requirement for hybrid and electric vehicles	K4

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	1	1	2	1	0	3	2	0	0	0	0	2
CO2	1	1	2	1	0	3	2	0	0	0	0	2
CO3	1	1	2	1	0	3	2	0	0	0	0	2
CO4	1	1	2	1	0	3	2	0	0	0	0	2
CO5	1	1	2	1	0	3	2	0	0	0	0	2
CO PO Mapping	**1.00**	**1.00**	**2.00**	**1.00**	**0.00**	**3.00**	**2.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.00**

Course Code	**PSO1**	**PSO2**
CO1	0	1
CO2	0	1
CO3	0	1
CO4	0	1
CO5	0	1
CO PSO Mapping	**0.0**	**1.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
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Course Code / Course Name	**CBM370 / WEARABLE DEVICES**
Semester	VII
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Describe the concepts of wearable system.	K1
CO2	Explain the energy harvestings in wearable device.	K2
CO3	Use the concepts of BAN in health care.	K3
CO4	Illustrate the concept of smart textile	K3
CO5	Compare the various wearable devices in healthcare system	K2

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	1	1	2	0	0	1	0	0	0	0
CO2	3	2	1	1	2	0	0	1	0	0	0	0
CO3	3	2	1	1	2	0	0	1	0	0	0	0
CO4	3	2	1	1	2	0	0	1	0	0	0	0
CO5	3	2	1	1	2	0	0	1	0	0	0	0
CO PO Mapping	**3.00**	**2.00**	**1.00**	**1.00**	**2.00**	**0.00**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**

Course Code	PSO1	PSO2
CO1	1	0
CO2	1	0
CO3	1	0
CO4	1	0
CO5	1	0
CO PSO Mapping	**1.0**	**0.0**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
Trichy– 621 105

Course Code / Course Name	**CS3711 / Summer internship**
Semester	VII
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Understand the organogram of the industry and appreciate the skill enhancement	K2
CO2	Write an effective mini-project or internship report	K1
CO3	Deliver an effective presentation	K4
CO4	Inculcate non-plagiarism and teamwork ethics	K5
CO5	Understand the organogram of the industry and appreciate the skill enhancement	K2

Course Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
CO1	3	3	3	3	3	0	0	3	3	3	0	3
CO2	1	3	3	3	3	0	0	3	3	3	0	3
CO3	1	3	3	3	3	0	0	3	3	3	0	3
CO4	1	3	3	3	3	0	0	3	3	3	0	3
CO5	1	3	3	3	3	0	0	3	3	3	0	3
CO PO Mapping	**1.50**	**3.00**	**3.00**	**3.00**	**3.00**	**0.00**	**0.00**	**3.00**	**3.00**	**3.00**	**0.00**	**3.00**

Course Code	**PSO1**	**PSO2**
CO1	3	3
CO2	1	3
CO3	1	3
CO4	1	3
CO5	1	3
CO PSO Mapping	**1.50**	**3.00**

1	Slight	**2**	Moderate	**3**	Substantial

SRM TRP Engineering College
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Course Code / Course Name	CS3811 / Project Work/Internship
Semester	VIII
Regulation	R2021

Course code	**Course Outcome**	**BTL'S**
Students will be able to		
CO1	Take up any challenging practical problems and find solution by formulating proper methodology.	K5

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	1	3	1	1	2	2	3	0	2
CO PO Mapping	**3.00**	**3.00**	**2.00**	**1.00**	**3.00**	**1.00**	**1.00**	**2.00**	**2.00**	**3.00**	**0.00**	**2.00**

Course Code	PSO1	PSO2
CO1	3	3
CO PSO Mapping	**3.00**	**3.00**

1	Slight	**2**	Moderate	**3**	Substantial