

Criterion 1 - Curricular Aspects

1.1 Curricular Planning and Implementation

Support File for Cri-1.1.1: The institution adheres to the academic calendar including for the conduct of CIE

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Curriculum Planning and Implementation Process

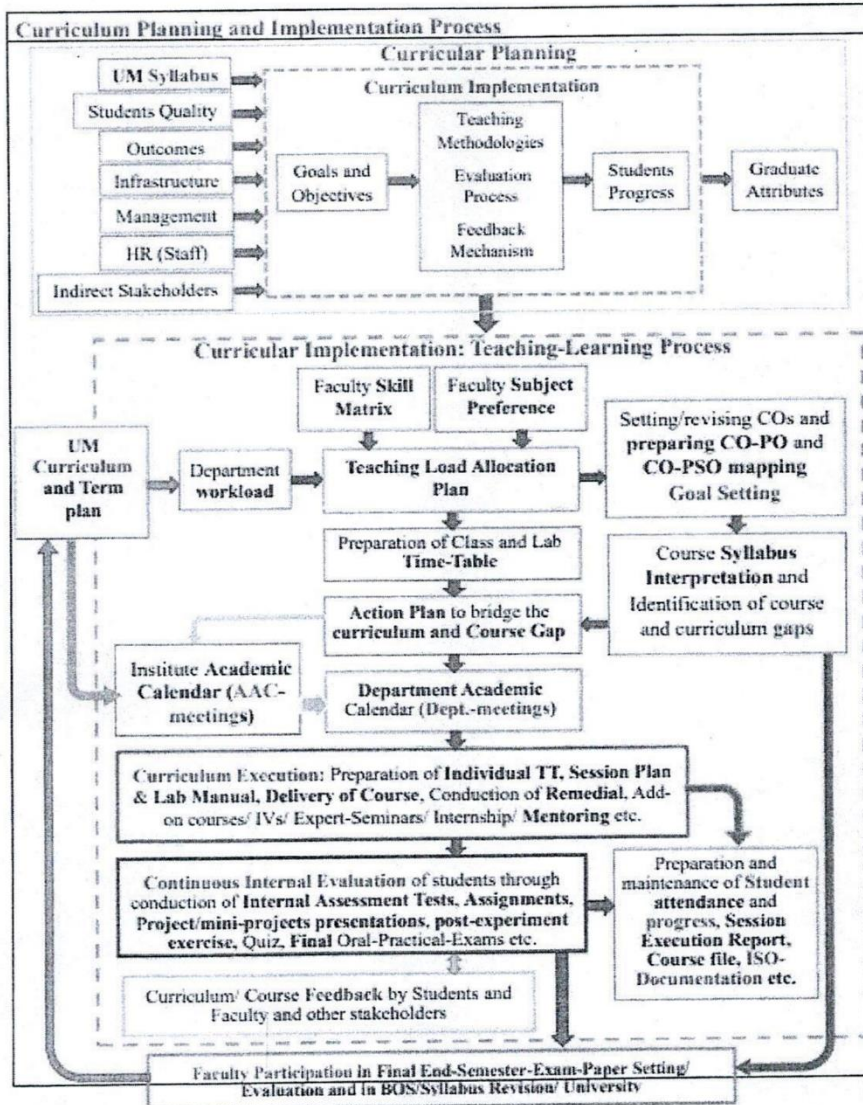


Fig. Curriculum Planning and Implementation Process

(Signature)
 (Dr. Kevin Noronha)
 Professor & IQAC Coordinator

(Signature)
 (Dr. Sincy George)
 Principal-SFIT & Chairman IQAC

(Signature)
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Skill-Matrix of faculty-ISO Template-1

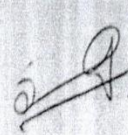
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Information Technology Department
Skill Matrix

SFTIR/IT/400REV10

1	2	3	4			6	7	8			9	10				11			12					
			Name of the teachers	College Abi.	Contact No.			Res Address	Email	name of the branch in which approval is Granted by University		Full Time/Part Time/Visiting			Name of the Paper taught in previous year	Exp in Years		Status of Approval			Other Relevant Information			
					College							Res	Mobile	F.T.		P.T.	V.	Total Exp		Sub Exp (paper-wise)		ad-hoc	App.	Un-App.

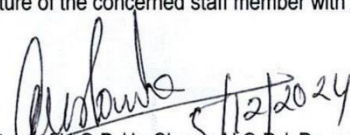

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Principal
 St. Francis Institute of Technology

Subject-Preference Form of faculty-ISO Template

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SFIT/EXTC/F-01/REV0			
Electronics & Telecommunication Department			
Subject Preference Form (SPF)			
Name of Teacher:			
Qualification/s with Specialization:			
Main Group:			
Allied Groups:			
Academic Year: 2023-24		Term: II (Jan to June 2024)	Semester: Even
Related subjects taught in the previous academic years			
Sr. No.	Class / Semester	Subjects / Group	No. of times taught previously
1			
2			
3			
4			
Subjects you would like to teach in current semester in your department (in order of preference)			
Sr. No.	Class / Semester	Subjects / Group	No. of times taught previously
1			
2			
3			
4			
Subjects you would like to teach in current semester in other departments (in order of preference)			
Sr. No.	Class / Semester	Subjects / Group	No. of times taught previously
1			
2			
3			
4			
Signature of the concerned staff member with date:			
			
Signature of H.O.D / In Charge H.O.D / Department Coordinator with date:			
			

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Subject-Preference Form of Faculty- Sample

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Mount Poincur, SVP Road, Borivali (W), MUMBAI - 400103.			
SFIT/EXTC/F-01/REV0			
Electronics & Telecommunication Department			
Subject Preference Form (SPF)			
Name of Teacher: Dr Jayasudha Koti			
Qualification/s with Specialization: PhD			
Main Group: Communication			
Allied Groups: Circuit Analysis			
Academic Year: 2023-24		Term: II (Jan to June 2024)	Semester: Even
Related subjects taught in the previous academic years			
Sr. No.	Class / Semester	Subjects / Group	No. of times taught previously
1	BE/VIII	Wireless Networks	3
2	TE/VI	IoT and Industry 4	1
3	SE/IV	Miniproject	1
4	ME/II	Wireless Adhoc and Sensor Networks	2
Subjects you would like to teach in current semester in your department (in order of preference)			
Sr. No.	Class / Semester	Subjects / Group	No. of times taught previously
1	ME/II	Wireless Adhoc and Sensor Networks	1
2	BE/VIII	Wireless Networks	3
3	TE/VI	IoT and Industry 4	1
4	SE/IV	Miniproject	1
Subjects you would like to teach in current semester in other departments (in order of preference)			
Sr. No.	Class / Semester	Subjects / Group	No. of times taught previously
1			
2			
3			
4			
Signature of the concerned staff member with date: Dr Jayasudha Koti			
Signature of H.O.D / In Charge H.O.D / Department Coordinator with date:			
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Department Workload-Sample

St. Francis Institute of Technology
Department of Computer Engineering
Workload and Faculty Requirement : ODD SEM 2023-24

SEM		Lecture(hrs×div)	Practical(hr×batch)	Total
2 ND Year SEM III	DL&COA	3×2=6	2×2×3=12	18
	DIM	3×2=6	NA	06
	DAS	3×2=6	2×2×3=12	18
	CG	3×2=6	2×2×3=12	18
	OOPM	2×2=4	2×2×3=12	16
	Mini Project 1A	1/4grps	40/4=10	10
TOTAL				86
3 RD Year SEM V	SE	3×2=6	2×2×4=16	22
	DWM	3×2=6	2×2×4=16	22
	TCS	3×2=6	2×2×4=16	22
	CN	3×2=6	2×2×4=16	22
	DLOC-I	3×3=9	NA	09
	Mini Project 2A	1/4grps	40/4=10	10
TOTAL				107
4 TH Year SEM VII	ML	3×2=6	2×2×4=16	22
	BDA	3×2=6	2×2×4=16	22
	DLOC-III	3×3=9	2×2×4=16	25
	DLOC-IV	3×3=9	2×2×4=16	25
	ILOC-I	3×2=6	NA	06
	Major Project 1	1/2grps	40/2	20



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St. Francis Institute of Technology
Department of Computer Engineering
Workload and Faculty Requirement : ODD SEM 2023-24

			TOTAL	122
	AAC	4×1		4
MEM	AOS	4×1		4
SEM I	ACND	4×1		4
	Department Level Optional	4×1		4
	Institute Level Optional	3×1		3
	Course-II			
	Computational Laboratory-I	2×1		2
	DEC Laboratory-I	2×1		2
Total				23 + 04 Hrs 11nd yr load

Load in the CMPN Dept = SE (86) + TE (107) + BE (122) = 315

PG+ UG Load in the CMPN Dept = 27+ 315=342

1. Available as on 01/07/2022 (UG + PG): Total Regular Faculties=15

- No of Professors (P)= (02)
- No of Associate Professors (AsP)= (02)
- No. of Assistant Professor (AP)= 11+ 06 adhoc

Load of 2 Professor and 2 Associate Professors (20+28) = 48


Load of Assistant Professors: 342-48= 294/18= 17

** Note: Varsha Shrivastav may go on ML in next semester

So available Assistant Professor: 10

Required No. of Assistant Professor (AP) = 07 Adhoc

Requirement of new Faculty: 07 Adhoc for next Semester (without Honors and FE Load)


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St. Francis Institute of Technology
Department of Computer Engineering
Workload and Faculty Requirement : ODD SEM 2023-24

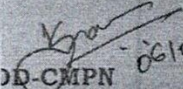
te: 6 existing Adhocs can be continued and 01 new appointment has to be done

marks based on new intake approval, Active PG Program and NBA Reports:

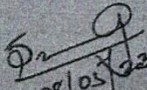
Special Request Note:

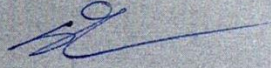
1. Keeping in mind- NBA Perspective- Separate requirement of PG (03) faculty in order to maintain the SFR within desired limits
2. As we are planning to increase the Intake from July 2023 and also honors Load can be managed till we start with the intake for next year.

er and above (02) extra Adhoc appointments can be secured in view of above two important considerations. This will help in continuing their appointments for 24-25 ensuring the faculty availability as per need of increase intake and NBA SFR to maintained for next three years as per the remarks.


DD-CMPN 06/04/23
Kavita Sonawane

(This can be considered if
No. of faculties can be counted
based on UG & appointments
after interview.)


08/05/23


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Department of Computer Engineering

WORK LOAD: EVEN SEM 2023-2024 8th Nov. 2023

SEM	SUB	Lecture	Practical	Total
2nd Year IV	AOA	3×2=6	2×3×2=12	18
	DBMS	3×2=6	2×3×2=12	18
	OS	3×2=6	2×3×2=12	18
	MP	3×2=6	2×3×2=12	18
	Skill Based LAB(Python)	2×2=4	2×3×2=12	16
	Mini Project	1hr/ 4 groups	40+ groups	10
TOTAL				98
3 RD Year VI	SPCC	3×2=6	2×4×2=16	22
	CSS	3×2=6	2×4×2=16	22
	Mobile Computing	3×2=6	2×4×2=16	22
	AI	3×2=6	2×4×2=16	22
	DLOC-II (with Electives)	3×2=6	NA	9
	<ul style="list-style-type: none"> • Internet of Things • Digital Signal & Image Processing • Quantitative Analysis 	3 × 1=3		
	MINI PROJECT	1hr/ 4groups	45 Groups	12
	Skill based Cloud Computing Lab		4×4×2=32	32
TOTAL				141
4 TH Year VIII	Distributed Computing	3×2=6	2×4×2=16	22
	Department Level Optional Course -V			
	Deep Learning	3×1=3	2×2=4	25
	Applied Data Science	3×2=6	2×6=12	
	Department Level Optional Course -VI	3×2=6	2×4×2=16	22
	Social Media Analytics			
	Insti. Level Optional Course-II	3×3=9	ISNT/level	09
	Project			72
TOTAL				150

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with CamScanner

ME-CS201	Cloud Computing and Services	3×1	3
ME-CS202	Exploratory Data Analytics and Visualization	3×1	3
ME-CSDLO21	Department Level Optional Course –III-- EHDF	3×1	3
ME-CSDLO22	Department Level Optional Course –IV-- BTA	3×1	3
ILO-II	Institute Level Optional Course-II	3×1	3
ME-CSL201	Computational Laboratory-II	2×1	2
ME-CSL202	Skill Based Lab-II	4×1	4
	Total		21

Total Load CMPN = SE + TE + BE + ME
= (98 + 141 + 150) = 389 + 21 = 410

According to Faculty Cadre:

- Load of 2 Professor and 2 Associate Professors = 10+12+14+14= 50
- Load for Assistant Professors= 410-50= 360
- Required Tot Asst Prof= 360/18 = 20
- Maternity Leave (ML) Case: One faculty ML next semester- 01
- Honors load to be given by Dept= 01 faculty
- Study Leave-One Faculty Next Semester

Available Faculties = 04 (Higher cadre) + 16 (Available Assistant Prof) = 20

- Required Assistant Prof (UG + PG + Honors) = 05+01 (SL.)

Total new requirement for assistant Prof = 06

HOD CMPN

Dr. Kavita Sonawane

10/11/23

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Teaching-Load-Allocation-Plan-ISO Template

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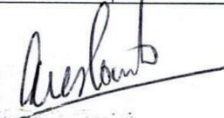
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Electronics & Telecommunication Department


Teaching Load Allocation Plan for classroom teaching (TLAP)

Academic Year: 2023-2024 Semester: Odd (July to Dec 2023)

Sr. No.	Name of the Teacher	Post	Name of the Subject	Class	No of Hours Allocated								Total								
					UG				PG												
					Th.	Pr.	Tut.	Proj.	Th.	Pr.	Sem.	Proj.									

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Dr. Kevin Noronha - HOD EXTC

Approved By
Dr. Sincy George - Principal


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Teaching-Load-Allocation-Plan-Sample

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SFTT/EXTC/F-03/REV1

Electronics & Telecommunication Department

Teaching Load Allocation Plan for classroom teaching (TLAP)

Academic Year: 2023-2024 Semester: ODD (July to Dec 2023)

Sr. No.	Name of the Teacher	Post	Name of the Subject	Class	No of Hours Allocated								Total	
					UG				PG					
					Th.	Pr.	Tut.	Proj.	Th.	Pr.	Sem.	Proj.		
1	Dr. Deepak Jayaswal	Professor-Dean Academics	DTSP	TE-A	4	6								12
			ADSP	ME	1									
2	Dr. Uday Pandit Khot	Professor- R & D Coordinator	Project	BE				1						12
			MWE	BE-A	3	8								
3	Dr. Gautam Shah	Professor-Vice Principal	Project	BE				1						10
			DSD	SE-B		4								
			BEE	FE	3		2							
4	Dr. Kevin Noronha	Professor-HOD	Project	BE				1						11
			ICE	BE-A	3									
			ICE	BE-B	3									
			NGN	ME	3									
			CSL	ME	1									
5	Dr. Ravindra Chaudhari	Associate Professor-ME Coordinator	Project	BE				1						14
			DVLSI	TE-B	3	8								
			DVLSI	TE A		2								
			Project	BE				1						
6	Dr. Jayasudha Koti	Associate Professor	MCS	BE-A	3	8							15	
			MCS	BE-B	3									
			Project	BE				1						
7	Dr. Vaqar Ansari	Assistant Professor	Robotics	BE-A	3								17	
			Mini-Pro.	SE-B		4								
			EIC	SE-A	3	6								
			Project	BE				1						
8	Dr. Anjali Chaudhari	Associate Professor	RSA	TE-A	3		2						15	
			MWE	BE-B	3	6								
			Project	BE				1						
9	Ms. Monika Cheema	Assistant Professor	DCOM	TE-B		4							18	
			DCOM	TE-A	3	8								
			OCN	ME	2									
			Project	BE				1						
10	Ms. Savita Kulkarni	Assistant Professor	NT	SE-B	4		2						16	
			Mini-pro.	TE-A		8								
			Project	BE				2						
11	Ms. Pallavi Patil	Assistant Professor	BEE	FE	3	10	2						16	
			Project	BE				1						
12	Ms. Qunatih Shaikh	Assistant Professor	DTSP	TE-B	4	8							17	
			DTSP	TE-A		2								
			Mini-Pro.	SE-B		2								
			Project	BE				1						
13	Ms. Snehal Lopes	Assistant Professor	Mini-Pro.	SE-A		6							17	
			DVLSI	TE-A	3	6								
			OCN	ME	1									
			Project	BE				1						


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7 odd

Sr. No.	Name of the Teacher	Post	Name of the Subject	Class	No of Hours Allocated								Total	
					UG				PG					
					Th.	Pr.	Tut.	Proj.	Th.	Pr.	Sem.	Proj.		
14	Ms. Jovita Sermo	Assistant Professor	MWE	BE B		2								16
			EDC	SE-B	3	4	1							
			RSA	TE B	3		2							
			Project	BE				1						
15	Ms. Shilpa Chaman	Assistant Professor	Mini-Pro.	TE-B		8							18	
			DL	BE-B	3									
			DSD	SE-B	3									
			IAML	ME	3									
			Project	BE				1						
16	Mr. Ramjee Yadav	Assistant Professor	CC	BE- A	3								18	
			CC	BE- B	3									
			Ethical Hackin	TE Honors	2									
			Sk. Lab	SE-A		4								
			DSA	TE B	3									
			Skil Lab-I	ME		2								
17	Ms.Valentina Rani	Assistant Professor	Project	BE				1					18	
			Data Science	BE Honors	4									
			DCOM	TE-B	3	4								
			ADSP	ME	2	2								
			CSL	ME	2									
18	Ms. Aisha Jangid	Assistant Professor	Project	BE					1				17	
			BEE	FE	3	2	2							
19	Ms. Renia Dias	Assistant Professor	EDC	SE-A	3	6	1						17	
			MCS	BE B		8								
20	Ms.Lathika Agarwal	Assistant Professor	EIC	SE-B	3	6							16	
			BEE	FE	3	6	2							
			NT	SE A	3		2							
21	Ms. Prema Kushe	Assistant Professor	DSA	TE A	3								17	
			Skil Lab-I	ME		2								
			Sk. Lab	SE-B		12								
22	Ms.Sunita Yadav	Assistant Professor	DSD	SE A	3	6							17	
			Sk. Lab	SE-A		8								
23	Ms.Poonam Badadhe	Assistant Professor	CSL	BE ILE	3								17	
			Data Science	BE Honors		10								
			DLD	SE B		2								
			EDC	SE B		2								
24	Ms Haleema Ansari	Assistant Professor	EM-III	SE A	3								3	
			EM-III	SE B	3		3							
25	Ms Grishalda Dsouza	Assistant Professor	EM-III	SE A			3						3	
			PCE	TE A	2	8								
26	Mr. Praveen Kurien	Assistant Professor	PCE	TE A	2	2							6	
			PCE	TE A	2	2								
27	Ms. Sowmya S	Assistant Professor	PCE	TE A		6							6	
28	Ms Vincy Joseph	Visiting Faculty	Data Science	TE Honors	4	4							16	
			Data Science	BE Honors		4								
			CSL	BE Honors		4								
					137	367	24	18	0	0	0	0	393	

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Approved By
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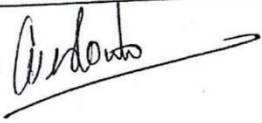
Electronics & Telecommunication Department
Teaching Load Allocation Plan for classroom teaching (TLAP)
Academic Year: 2023-2024 Semester: EVEN (Jan to June 2024)

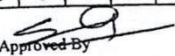
Sr. No.	Name of the Teacher	Post	Name of the Subject	Class	No of Hours Allocated								Total			
					UG				PG							
					Th.	Pr.	Tut.	Proj.	Th.	Pr.	Sem.	Proj.				
1	Dr. Deepak Jayswal	Professor-Denn Academics	LIC	SEA	3	6			2						11	
			BE Project													
2	Dr. Uday Pandit Khot	Professor- R & D Coordinator	PCOM	SEA		4									13	
			PCOM	SEB		2				3	2					
			RF	ME					2							
			BE Project													
3	Dr. Gautam Shah	Professor-Vice Principal	LIC	SEB	3	6			2						11	
			BE Project													
4	Dr. Kevin Noronha	Professor-HOD	CCN	TEA	3	2				3					10	
			NCS	ME					2							
			BE Project													
5	Dr. Ravindra Chaudhari	Associate Professor-ME Coordinator	IPMV	TEB	3										15	
			MP2B	TEB		8										
			BE Project						2							
			ME										2			
			WN	BE	3						3					
6	Dr. Jaysudha Koti	Associate Professor	WSN	ME										14		
			MP1B	SEB		6										
			BE Project						2							
			IPMV	TEA	3	8										
7	Dr. Vaqar Ansari	Assistant Professor	PCOM	SEA	3	2								18		
			BE Project						2							
			EAA	TEA	3	6										
8	Dr. Anjali Chaudhari	Associate Professor	MA	BE	3								2	14		
			BE Project													
			OCN	BEA	3	4										
9	Ms. Monika Cheema	Assistant Professor	OCN	BEB	3							2		18		
			MDCOM	ME												
			BE Project						2							
			PYTHON	SEA		4										
			BE Project												3	
10	Ms. Savita Kulkarni	Assistant Professor	MC	SEB	3	6								18		
			MP1B	SEA		6										
			BE Project													
11	Ms. Pallavi Patil	Assistant Professor	IPMV	TEB		8								18		
			SL Python	SEA		8			2							
			BE Project							2						
12	Ms. Qunatih Shaikh	Assistant Professor	SAS	SEA	3		3							18		
			SAS	SEB	3			3								
			Python	SEB		4										
			BE Project													
13	Ms. Snehal Lopes	Assistant Professor	PCOM	SEB	3	4								17		
			MP2B	TEA		8			2							
			BE Project													
14	Ms. Jovita Serrao	Assistant Professor	EAA	TEB	3	8								18		
			EAA	TEA		2										
			WEB Design	BE	3				2							
15	Ms. Shilpa Chaman	Assistant Professor	BE Project											16		
			ANNFL	TEA	3											
			ANNFL	TEB	3											
			PYTHON	SEB		8										
16	Mr. Ramjee Yadav	Assistant Professor	BE Project											18		
			CCN	TEB	3	8										
			LINUX	TEA		4										
			Skill Lab	ME						2						
17	Ms. Valentina Rani	Assistant Professor	BE Project											18		
			NLP	BE	3											
			Honors/Minors	TE	4											
			LINUX	TEB		8										
			MDCOM	ME							1					

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Even

18	Ms. Aisha Jangid	Assistant Professor	BE Project																					
			EM ILOC	BE	3								3											
			EM ILOC	ME																			18	
19	Ms. Renia Dias	Assistant Professor	OCN	BEB						12														
			SPA	FE-A	2	4	2																16	
			SPA	FE-C	2	4	2																	16
20	Ms. Lathika Agarwal	Assistant Professor	SPA	FE-B	2	6	2																	
			SPA	FE-D				6																
			DBMS	TEA	3																			18
21	Ms. Prema Kushe	Assistant Professor	DBMS	TEB	3																			
			LINUX	TEA				12																
			MC	SEA	3	6																		18
22	Ms. Sunita Yadav	Assistant Professor	NMT	BE	3																			
			CCN	TEA				6																
			LINUX	TEB				8																
23	Ms. Poonam Badadhe	Assistant Professor	NMT	BE	3																			
			ME										3											
			Honors/Minors	TE	4																			
24	Ms. Nancy Sinollin	Assistant Professor	EM IV	SE A	3	3																		
			EM IV	SE B	3	3																		
						101	210	12	35	15	6	0	2						381					

Issued By
Dr. Kevin Noronha - HOD-EXTC 


Approved By
Dr. Sincy George - Principal

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Syllabus Interpretation by Faculty-Sample



1.1.1_8
Electrical

ST. FRANCIS INSTITUTE OF TECHNOLOGY

Department of Electrical Engineering

Renewable Energy Sources

AY:2023-24, Term I, Sem V

ELECTRICAL ENGINEERING SEM-V						
Course code	Course Name	Teaching scheme (Contact Hours)		Credits Assigned		
EEDO5011	Renewable Energy Sources	Theor y	Pract./Tut	Theor y	Pract./Tut.	Tota l
		3	--	3		3

Course Code	Course Name	Examination Scheme							
		Theory					Term Work	Pract/ Oral	Total
		Internal Assessment			Ehd Sem. Exam	Exam Duration (in Hrs)			
		Test 1	Test 2	Asses					
EEC602	Microcontroller Application	20	20	20	80	3	-	-	100

Course Outcome:

EEC603	Microcontroller Application
EEC605.1	To Apply, identify and describe different types of conventional energy sources and interpretation of current generation status of different energy alternatives.
EEC603.2	To Identify, describe and analyze the process of power generation through solar thermal energy and develop the solution for utilization of renewable energy sources for both domestic and industrial applications.
EEC603.3	To Identify and analyze the emerging solar cell technologies and design standalone PV system for different household application
EEC603.4	To Identify and describe the various components and types of Wind Energy system and performance analysis
EEC603.5	To Identify and describe performance of different fuel cells and their applications. to understand fuel cell based power generation and its environmental impact.
EEC603.6	To Identify and review research literature to understand features and applications of different nonconventional energy sources like Geothermal, Tidal, Wave energy etc

Program Outcome Achieved

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PO1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

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

PO3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

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

Syllabus Interpretation

Chapter1	Introduction to Microcontroller
Topics	Introduction: World's and India's production and reserves of commercial energy sources, energy alternatives, review of conventional and non-conventional energy sources. Statistic of net potential and current generation status of different energy alternatives.
References	Ali Keyhani, Mohammad N. Marwali, Min Dai "Integration of Green and Renewable Energy in Electric Power Systems", Wiley Green M.A " Solar Cells": Operating Principles, Technology and System Applications. Prentice Hall Inc
Teaching Methodology	offline class using ppt/black board, uploading materials in google classroom
Assessment tools used	Internal assessment test , MCQ, Seminar
Course outcome	To Apply, identify and describe different types of conventional energy sources and interpretation of current generation status of different energy alternatives

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 Chapter 2: Solar Energy (Thermal Energy applications) :
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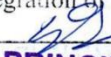
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Chapter4	Wind Energy:
Topics	Review of wind energy system and its components, types of wind turbines, characteristics; general concepts of aerofoils and aerodynamics, Wind data, Energy content of the wind, Power generation and control in wind energy systems, performance calculations of wind energy systems. Topologies of WES, WES with rectifier / inverter system, Power Converters for Doubly Fed Induction Generators (DFIG) in Wind Turbines.
References	J.F. Manwell and J.G. McGowan, Wind Energy Explained, Theory Design and Applications, Wiley publication
Teaching Methodology	offline class using ppt/black board, uploading materials in google classroom
Assessment tools used	Internal assessment test 2, MCO, module test, assignment
Course outcome	To identify and describe the various components and types of Wind Energy system and performance analysis.

Chapter5	Fuel Cell:
Topics	Review of fuel cells and their principle of operation, Review of types of fuel cell and their performance comparison. Topologies of fuel cell power systems, applications.
References	James Lammie, Andrew Dicles "Fuel Cell Systems Explained," Wiley publication.
Teaching Methodology	offline class using ppt/black board, uploading materials in google classroom
Assessment tools used	Assignment
Course outcome	To identify and describe performance of different fuel cells and their applications, to understand fuel cell based power generation and its environmental impact

Chapter6	Other Sources:
Topics	Review of other nonconventional sources, their features and applications: Biomass, Tidal, Ocean, Thermal Electric Conversion, geothermal, Micro-hydro, Wave energy
References	D. D. Hall and R. P. Grover, Biomass Regenerable Energy, John Wiley, New York, 1987. 9. Felix A. Farret and M. Godoy Simoes, Integration of Alternative Sources of Energy, 2006, John Wiley and


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Topics	Solar thermal energy storage, Liquid flat plate collector, Solar air heater, concentrating collectors, thermal energy storage, solar pond
References	Ali Keyhari, Mohammad N. Marwali, Min Dai "Integration of Green and Renewable Energy in Electric Power Systems", Wiley 2. Green M.A. "Solar Cells": Operating Principles, Technology and System Applications, Prentice Hall Inc
Teaching Methodology	offline class using ppt/black-board ,uploading materials in google classroom
Assessment tools used	Internal assessment test, MCQ, Assignment, Module Test
Course outcome	To identify, describe and analyze the process of power generation through solar thermal energy and develop the solution for utilization of renewable energy sources for both domestic and industrial applications.

Chapter3	Solar Energy (Energy, Electricity Applications):
Topics	Solar Photovoltaic solar cell: characteristics, losses, model of a solar cell, emerging solar cell technologies; Solar PV modules, mismatch in module, hot spots, bypass diode; PV module: I-V and power curve, effect of variation in temperature and solar radiations; MPPT, types, different algorithms for electrical MPPT. Distributed MPPT, MPPT converters. Types of PV systems: standalone, grid connected systems; BOS of PV system, Battery charge controllers, Power Conditioning Unit, Solar PV Micro-inverters Solar Plant design: mounting of PV panels supporting structures, Calculation and Design methodology of standalone PV system and grid connected system.
References	Chetan Singh Solanki , Solar Photo Voltaics , PHI Learning Pvt Ltd., New Delhi, 2009,
Teaching Methodology	offline class using ppt/black board, uploading materials in google classroom
Assessment tools used	Internal assessment test 2, MCQ, module test, Assignment
Course outcome	To identify and analyze the emerging solar cell technologies and design standalone PV system for different household application

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Department of Electrical Engineering

	Sons.
Teaching Methodology	offline class using ppt/black board, uploading materials in google classroom
Assessment tools used	Assignment, MCQ
Course outcome	To Identify and review research literature to understand features and applications of different nonconventional energy sources like Geothermal, Tidal, Wave energy etc

Text Books:-

1. Ali Keyhani, Mohammad N. Marwali, Min Dai "Integration of Green and Renewable Energy in Electric Power Systems", Wiley
2. Green M.A " Solar Cells": Operating Principles, Technology and System Applications, Prentice Hall Inc, Englewood Cliffs N.J, U.S.A, 1982
3. James Larminie, Andrew Dicles "Fuel Cell Systems Explained," Wiley publication
4. Chetan Singh Solanki , Solar Photovoltaics . PHI Learning Pvt Ltd., New Delhi,2009
- 5 Hashem Nehrir and Caisheng Wang Modeling and control of Fuel Cells: Distributed Generation Applications, IEEE Press, 2009
6. J.F. Manwell and J.G. McGowan, Wind Energy Explained, Theory Design and Applications, Wiley publication
7. Leo J.M.J. Blomen and Michael N. Mugerwa, "Fuel Cell System", New York, Plenum Press, 1993.
8. D. D. Hall and R. P. Grover, Biomass Regenerable Energy, John Wiley, New York, 1987.
9. Felix A. Farret and M. Godoy Simoes, Integration of Alternative Sources of Energy, 2006. John Wiley and Sons.
10. S. Chakraborty, M. G. Simões and W. E. Kramer, Power Electronics for Renewable and Distributed Energy System, Springer 2013
11. N. Hemia • G. Petrone, G. Spagnuolo and M. Vitelli, Power Electronics and Control Techniques for Maximum Energy Harvesting in Photovoltaic Systems, CRC Press, 2013.

Website Reference / Video Courses:

1. Website Reference/ Video Courses:
- 2.
3. 1. NPTEL Course: Energy Resources & Technology By Prof. S. Banerjee, IIT Kharagpur:- Web link-
4. <https://nptel.ac.in/courses/108/105/108105058/>
- 5.
6. 2. NPTEL Course: Non-Conventional Energy Systems By Prof. L. Umanand


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Department of Electrical Engineering

IISC Bangalore:- Web link-
7. <https://nptel.ac.in/courses/103/103/03103078/>

Gaps Identified

Syllabus should be included more design and implementation concept of solar and wind energy

Action taken:

Miniproject given to the students are based on solar energy design

Topic beyond syllabus:

Ms Shyma K V

Subject in Charge

MJ
Ms Megha Fernandes

HOD, Electrical

Mrs. MEGHA JAMES FERNANDES has checked
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Institute Academic Calendar- Sample



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(Roman Catholic Christian Minority Educational Institute)

(Approved by AICTE & Govt. of Maharashtra with permanent Affiliation to University of Mumbai)

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Tel. : 91673 70622 / 91673 70632 / 91673 70637 E-mail : sfeedu@sfit.ac.in Website : www.sfit.ac.in

Ref:

Date:

Detailed schedule of Term-II of Undergraduate (FE, SE, TE BE and ME) for Academic Year 23-24.
Academic Calendar for Term-II, AY 23-24

Sr. No	Month/Week	Day/Date	Academic Activity	Co-Curricular Activity	Extra-Curricular Activity	Institute Activity	
1.	January/0	Thursday/ 04-01-24				Staff Reporting Day	
2.		Friday/ 05-01-24	Upload (IT) on google classroom			Staff Orientation	
3.			Upload (SP) on google classroom				
4.			Upload approved (DAC) on website				
5.		Saturday/ 06-01-24	Christmas Celebration				
6.	January /1 st	Monday/ 08-01-24	Commencement of Even semester for F.E. S.E. T.E and B.E Term-II: 4 to 5 hours theory and introductory lab (two-week theory schedule)				
7.		Tuesday/ 09-01-24 to 13-01-24	Upload: Student Chapter Activity Calendar (SCAC), National Technical Activity (NTA)Calendar, Placement Calendar, IQAC calendar, ISO calendar, Administrative calendar				
8.	January /2 nd	Monday/ 15-01-24 to Friday/ 19-01-24	Theory Lecture of 45 minutes to be scheduled up to 3:15 pm		IGNITRA-Sports week		
9.		Saturday/ 20-01-24			Alumni meet		
10.	January/3 rd	Wednesday/ 24-01-24	Non-Instructional		IRIS-day One		
11.		Thursday/25-01-24			IRIS-day Two		
12.		Friday/26-01-24			Republic Day	Flag Hoisting and cultural event	
13.		Saturday/ 27-01-24			SFIT-Annual Day-24		
14.	February/4 th	Saturday/ 03-02-24					

ST. Francis Institute of Technology: ACADEMIC CALENDAR 2023-24 **PRINCIPAL**

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15.	February/5 th	Friday/ 09-02-24	Display of 1 st month Attendance Record			
16.	February/6 th	Saturday/ 10-02-24	1 st PMADS (parents or guardians meet of attendance defaulter students) Extra day + Practical session/s	IQAC meeting		
17.	February/6 th	Monday/ 12-02-24 to Friday/ 16-02-24	IAT-1 QP submission to Exam cell			
18.	February/7 th	Saturday/ 17-02-24	IAT-1 (One paper)	Planning and Execution of Academic Autonomy		
19.		Tuesday/ 20-02-24	One Paper			
20.		Wednesday/ 21-02-24	One Paper			
21.		Thursday/ 22-02-24	One paper			
22.		Friday/ 23-02-24	One paper + Practical session Lectures			
23.	February/8 th	Wednesday/ 28-02-24	Last date for showing evaluated IAT-1 answer script			
24.	March/8 th	Friday/ 01-03-24	Regular Lectures	Academic Audit beginning: ISO Internal Audits		
25.		Saturday/ 02-03-24	IAT-1 Honors & Minors			
26.		Saturday/ 02-03-24	Mid-Term Submission Practical Records	2 nd AAC meeting		
27.	March/10 th	Monday/ 11-03-24	Display of 2 nd month Attendance Record			
28.	March/10 th	Saturday/ 16-03-24	PTI (Afternoon Session)	CDC/GC meeting (morning Session)		
29.	March/12 th	Friday/ 22-03-24 to Saturday/ 30-03-24	Intra and Inter level Project Competition of Final Year Students	2 nd PMADS (parent or guardians meet of Attendance Defaulter Students) Extra day + Practical session/s		
30.	April/13 th	Monday/ 01-04-24 to Friday/ 05-04-24	IAT-2 QP submission to Exam cell			
31.		Saturday/				

ST. Francis Institute of Technology: ACADEMIC CALENDAR 2023-24
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		06-04-24			
32.	April/13 th	Tuesday/ 02-04-24	Display of 3 rd month Attendance Record		
33.	April/13 th	Saturday/ 06-04-24	Final PMADS		ISO Management Review Meeting (Morning session)
34.	April/14 th	Saturday/ 06-04-24	IAT-2 (One paper)	Approval of Internal and external practical/oral examiners by HOD's	4 th AAC meeting ISO-Academic Audit
35.		Monday/ 08-04-24	IAT-2 (One paper)		Autonomy-meeting ISO-Academic Audit
36.		Wednesday/ 10-04-24	IAT-2 (One paper)		ISO-Academic audit
37.		Friday/ 12-04-24	IAT-2 (One Paper)		2 nd IQAC - meeting
38.		Saturday/ 13-04-24	IAT-2(One Paper) + Honors & Minors IAT-2		
39.	April/15 th	Monday/ 15-04-24	Regular lectures, Remedial session, Revision lectures, Mock practical exam & Final submission. (Note: Avoid scheduling co-curricular and Extra curricular activity from 15-04-23 to 19-04-23)		End of Academic Audit: ISO Internal Audits
40.		Tuesday/ 16-04-24	Regular lectures, Remedial session, Revision lectures, Mock practical exam & Final submission. and last date for showing evaluated IAT-2 answer script		
41.		Thursday/ 18-04-24 To Friday/ 19-04-24	Regular lectures, Remedial session, Revision lectures, Mock practical exam & Final submission. Conduction of Course Survey. DLOC and ILOC orientation for odd semester-Term-1 24-25		
42.		Friday/ 19-04-24	Last Instructional day & Last day of auditing lectures of adhoc teachers		
43.		Monday/ 22-04-24	Beginning of Summer Vacation		
44.	April/16 th To May/18 th	Wednesday/ 24-04-24	Conduction of Orals/Practical Exams of University of Mumbai		ISO DNV External Audit
		Tuesday/ 07-05-24	Conduction of Orals/Practical Exams of University of Mumbai		
45.	May/18 th	Monday/ 08-05-24	Last date to upload Course file on ERP		
46.		Monday/ 08-05-24	Last date of Submission of TW, IAT, oral/practical marksheet		
47.		Wednesday/ 09-05-24	Last day to submit records pertaining to NBA and NAAC		
48.		Thursday / 10-05-24	Concluding review meeting at Departmental level		

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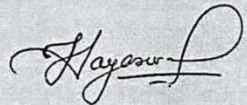
49.		Friday / 10-05-24	Subject allocation for Even Semester
50.	May/19 th and 20 th		Summer Vacation
51.		Monday/ 13-05-24 To Friday/ 24-05-24	Theory Exam of University of Mumbai
52.		Thursday/ 04-07-24	End of Summer vacation
53.		Monday/ 08-07-24	Commencement of new term 24-25 (July to December 2024)

List of Holidays

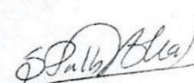
Sr. no.	Day	Date	Occasion	Activity
1.	Friday	26-01-24	Republic Day	Flag Hoisting
2.	Monday	19-02-24	Chhatrapati Shivaji Maharaj Jayanti	Holiday
3.	Friday	08-03-24	Mahashivratri	Holiday
4.	Monday	25-03-24	Holi (day two)	Holiday
5.	Friday	29-03-24	Good Friday	Holiday
6.	Tuesday	09-04-24	Gudipadwa	Holiday
7.	Thursday	11-04-24	Ramzan Eid	Holiday
8.	Sunday	14-04-24	Dr. Babasaheb Ambedkar Jayanti	Holiday
9.	Wednesday	17-04-24	Ram-Navami	State Holiday
10.	Sunday	21-04-24	Mahavir Jayanti	Holiday
11.	Wednesday	01-05-24	Maharashtra Day	State Holiday
12.	Thursday	23-05-24	Buddha Purnima	Holiday
13.	Monday	17-06-24	Bakri Eid	Holiday
14.	TERM END			

58 teaching days with the following distribution of weekdays:

Days	Instructional days	Public Holidays	Institutional activity
Mondays	12	2	1 (IAT-2)
Tuesdays	13	1	1(IAT-1)
Wednesdays	11	1	3(IRIS, IAT-1&2)
Thursdays	12	1	2(IRIS, IAT-1)
Fridays	10	3	2 (IAT-1 & 2)
Total	57	8	9



Dean Academics
Dr. Deepak J Jayaswal

Principal
Dr. Sincy George

ST. Francis Institute of Technology: ACADEMIC CALENDAR 2023-24
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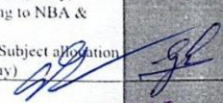
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Department Academic Calendar- Sample

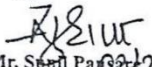
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1-1-2 (02) Mech

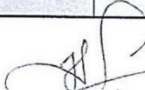
Academic Calendar of Second half 2023-2024 for Mechanical Engineering Department


Month	Su	Mo	Tu	We	Th	Fr	Sa	Curricular Activity	Co-Curricular Activity	Extra curricular Activity
January 2024		1	2	3	4	5	6	DTT: Display of Timetable	FRD: Faculty Reporting Day FM: Faculty Meeting	SO: Staff Orientation
	7	8	9	10	11	12	13	CNT: Commencement of New Term		
	14	15	16	17	18	19	20			IGNITRA sports week (15Jan-19Jan) Rekindle 24 - Alumni meet (20Jan) IRIS Days (24Jan-25Jan) Republic day (26Jan) Annual Day (27Jan)
	21	22	23	24	25	26	27			
	28	29	30	31					EL: Expert Lecture on Higher Education	
February 2024					1	2	3			
	4	5	6	7	8	9	10	DAR: Display of 1st attendance record PMADS: 1st Parents Meet ED: Extra Day PS: Practical Session	EL: United Motorsports Training (7 Feb) EL: Expert Lecture on Motivation (8 Feb)	
	11	12	13	14	15	16	17	IAT1: Internal Assessment Test 1	PAC meeting (tentative)	
	18	19	20	21	22	23	24	IAT1: Internal Assessment Test 1 PS: Practical Sessions (23Feb)	IV: HVAC&R (Tentative)	
	25	26	27	28	29				EL: Expert lecture by SIT MM: 1st Mentor-Mentee Session Week	
March 2024						1	2	IAT1: Internal Assessment Test 1 (Honors/Minors) MSE: Mid-term Submission	IV: Department IV (Tentative 1st to 3rd Mar) DAB meeting (tentative)	
	3	4	5	6	7	8	9		IV: Turbo Machinery (Tentative)	WD: Women's Day celebration
	10	11	12	13	14	15	16	DAR: Display of 2nd attendance record PTI: Parents Teachers Interaction	Yantriki	
	17	18	19	20	21	22	23	Intra & Inter level Project competition for final year students (22Mar-30Mar)		
	24	25	26	27	28	29	30	PMADS: 2nd Parents Meet ED: Extra Day PS: Practical Session		
	31									
April 2024		1	2	3	4	5	6	DAR: Display of 3rd attendance record PMADS: Final Parents Meet IAT2: Internal Assessment Test 2		
	7	8	9	10	11	12	13	IAT2: Internal Assessment Test 2		
	14	15	16	17	18	19	20	TW: Term work submission (18Apr) DLOC & ILOC orientation for Term 1 2024-25 (19Apr) Last instruction day (19Apr)	MM: 2nd Mentor-Mentee Session Week	SWD: Staff Welfare Day
	21	22	23	24	25	26	27			
	28	29	30							
May 2024				1	2	3	4	OR/PR: Conduction of Oral/Practical examination		
	5	6	7	8	9	10	11		Last date for: Submission of TW/IAT OR PR marksheet to exam cell (8May) Course file upload on ERP (8May) Submit records pertaining to NBA & NAAC (9May) Department meeting & Subject allocation for next semester (10May)	
	12	13	14	15	16	17	18	ESE: End Sem Theory Exam		
	19	20	21	22	23	24	25	ESE: End Sem Theory Exam		
	26	27	28	29	30	31		ESE: End Sem Theory Exam		


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Month	Su	Mo	Tu	We	Th	Fr	Sa	Curricular Activity	Co-Curricular Activity	Extra curricular Activity
June 2024							1			
	2	3	4	5	6	7	8			
	9	10	11	12	13	14	15			
	16	17	18	19	20	21	22		Proposed STTP	
	23	24	25	26	27	28	29			
	30									
July 2024		1	2	3	4	5	6	End of summer vacation		
	7	8	9	10	11	12	13	CNT: Commencement of New Term 2024-2025		
	14	15	16	17	18	19	20			
	21	22	23	24	25	26	27			
	28	29	30	31						



 Mr. Seem Pal
 Head of Department


 Dr. Deepak Jayaswal
 Dean Academics


 Dr. Sincy George
 Principal


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Class Time Table-ISO Template

	ST FRANCIS INSTITUTE OF TECHNOLOGY Mount Painsur, SVP Road, Borivali (W), MUMBAI - 400103. DEPARTMENT OF COMPUTER ENGINEERING	SFIT/CMPN/F-04/REV0 Date of Commencement of Term: 8 th Jan 2024
Academic Year 2023-2024 Term-II		

Timing: 9.00 am - 5.00 pm
Room no. :
Class:

Batches: SCB1 Roll No-
 SCB2 Roll No
 SCB3 Roll No

Regular Periods	Monday	Tuesday	Wednesday	Thursday	Friday
9.00 TO 10.00					
10.00 TO 11.00					
11-11:15	TEA BREAK				
11.15 TO 12.15					
12.15 TO 1.15					
1.15 TO 2.00	Lunch Break				
2:00 TO 3:00					
3:00 TO 4:00					
4:00 TO 5:00					

Abbreviation : L: LECTURE , P: PRACTICAL , T: TUTORIAL

Subjects :	Legend

Prepared by: S.S.KHAN

Mr Shamsuddin Khan
Convener

Dr. Kavita Sonawane
HOD

Dr Deepak Jayaswal
Dean Academics


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Lab Time Table-ISO Template

ST.FRANCIS INSTITUTE OF TECHNOLOGY(Engineering College)
Mount Poincur, S.V.P. Road, Borivli (West) Mumbai - 400 103

SFIT/CMPN/F-06/REV0

COMPUTER ENGINEERING DEPARTMENT
Laboratory Time Table

Academic Year ----> 2023- 2024 TERM I (JUN- DEC 2023) ODD SEM
College Timings ----> From 09.00 AM To 05.00 PM


Laboratory Name : _____

Lab Incharge Name: _____

Lab Assistant Name: _____

Practical load allotted :

Class & Branch	Subject	Number of Practicals		Total	
		Batches	Hours per batch		
SECMPN A					
SECMPN B					
TE CMPN A					
TE CMPN B					
BE CMPN A					
BE CMPN B					
		Total			
Periods	Monday	Tuesday	Wednesday	Thursday	Friday
9.00 To 10.00					
10.00 To 10.15	TEA BREAK				
10.15 To 11.15					
11.15 To 12.15					
12.15 To 01.00	LUNCH BREAK				
1.00 To 2.00					
2.00 To 3.00					
3.00 To 4.00					
4.00 To 5.00					


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Mr. Shamsuddin Khan
Convener

Dr. Kavita Sonawane
HOD CMPN

Dr. Deepak Jayaswal
Dean Academics

ST.FRANCIS INSTITUTE OF TECHNOLOGY(Engineering College)
Mount Painsur, S.V.P. Road, Borivli (West) Mumbai - 400 103

SFIT/CMPN/F-06/REV0

COMPUTER ENGINEERING DEPARTMENT
Laboratory Time Table

Academic Year ----> 2023- 2024 TERM II (JAN- APRIL 2024) EVEN SEM

College Timings ----> From 09.00 AM To 05.00 PM

Laboratory Name :

Room No. : 403

Lab Incharge Name:

Lab Assistant Name:

Department: CMPN

Practical load allotted :

Class & Branch	Subject	Number of Practicals		Total	
		Batches	Hours per batch		
SE CMPN A					
SE CMPN B					
TE CMPN A					
TE CMPN B					
BE CMPN A					
BE CMPN B					
		Total			0
Periods	Monday	Tuesday	Wednesday	Thursday	Friday
9.00 To 10.00					
10.00 To 11.00					
11.00 To 11.15	TEA BREAK				
11.15 To 12.15					
12.15 To 01.15					
1.15 To 02.00	LUNCH BREAK				
2:00 TO 3.00					
3:00 TO 4.00					
4:00 TO 5:00					


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Mr. Shamsuddin Khan
Convenor

Dr. Kavita Sonawane
HOD CMPN

Dr. Deepak Jayaswal
Dean Academics


Individual Time Table-ISO Template

ST. FRANCIS INSTITUTE OF TECHNOLOGY Mount Painsur, SVP Road, Borivali (W), MUMBAI - 400103.					
					SFIT/CM/NF-05/REV0
Department of Computer Engineering Individual Teacher's Time Table (ITTT)					
Academic Year :- July-Dec 2023- 24			Term: I (July-Dec)		
College Timings :- 9:00 AM - 5:00 PM			Sem: Odd		
Teacher's Name :		Designation :			
		Department :			
Class & Branch	Subject	Number of Periods		Total	
		Theory	Practicals/ Tutorials		
	Total				
Periods	Monday	Tuesday	Wednesday	Thursday	Friday
9.00 TO 10.00					
10.00 to 10.15	TEA BREAK				
10.15 TO 11.15					
11.15 TO 12.15					
12.15 TO 1.00	LUNCH BREAK				
1.00 TO 2.00					
2.00 TO 3.00					
3.00 TO 4.00					
4.00 TO 5.00					

Mr Shamsuddin Khan
Convener

Dr. Kavita Sonawane
HOD

Dr. Deepak Jayaswal
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ST. FRANCIS INSTITUTE OF TECHNOLOGY
Mount Painsur, SVP Road, Borivali (W), MUMBAI - 400103.



Department of Computer Engineering
Individual Teacher's Time Table (ITTT)

SFIT/CMPN/F-05/REV0
NBA Accredited Till June 2025

Academic Year :- 2023- 24
College Timings :- 9:00 AM - 5:00 PM

Term: II (Jan-May)
Sem: Even

Teacher's Name :

Designation :
Department :

Class & Branch	Subject	Number of Periods		Total
		Theory	Practicals/ Tutorials	
	Total			

Periods	Monday	Tuesday	Wednesday	Thursday	Friday
9.00 TO 10.00					
10.00 TO 11.00					
11:00-11:15	TEA BREAK				
11.15 TO 12.15					
12.15 TO 1.15					
1.15 to 2.00	LUNCH BREAK				
2.00 TO 3.00					
3.00 TO 4.00					
4.00 TO 5.00					

Mr. Shamsuddin Khan
Convenor

Dr. Kavita Sonawane
HOD

Dr. Deepak Jayaswal
Dean Academics


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Course Session Plan – ISO Template

ST. FRANCIS INSTITUTE OF TECHNOLOGY Mount Poincur, SVP Road, Borivali (W), MUMBAI - 400103.					
Electronics and Telecommunication Engineering Department				SFIT/EXTC/F-13/REV2	
SESSION PLAN (SP)					
Class / Branch :		Semester :			
Semester Starting Date :		Academic Year :		Semester Ending Date :	
Subject :		Name of Faculty :			
Lecture No.	Lecture Date	Topic Planned	Text Book	Reference Reading	Assignments

Signature of H.O.D.
Date: _____

Signature of Teacher
Date: _____

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Course Session Plan – Sample


ST. FRANCIS INSTITUTE OF TECHNOLOGY Mount Poincur, SVP Road, Borivali (W), MUMBAI - 400103.				
Electronics & Telecommunication Engineering Department SESSION PLAN (SP)				SFIT/EXTC/F-07/REV1
Class / Branch : TE/EXTC/B		Semester : V		
Semester Starting Date : 10/07/2023		Academic Year : 2023-24		
Subject : Random Signal Analysis		Semester Ending Date : 20/10/2023		
		Name of Faculty : Ms. Jovita Serrao		
Lecture No.	Topic Planned	Text Book	Reference Reading	Assignments
1	Definitions of probability and basic numericals	T. Veerarajan, "Probability, Statistics and Random Process", Tata McGraw Hill Education, Third Edition (2018).	P. Ramesh Babu, "Probability Theory and Random Process", Tata McGraw Hill Education	Black Board
2	Independence of events, Joint and conditional probability			
3	Total probability theorem, Bayes' theorem and numericals			
4	Binary symmetric communication channel analysis using Bayes' theorem.			
5	Continuous, discrete, and mixed random variables, probability density function	T. Veerarajan, "Probability, Statistics and Random Process", Tata McGraw Hill Education, Third Edition (2018).	i. Hwei Hsu, "Theory and Problems of Probability, Random Variables, and Random Processes", Schaum's Outline Series, McGraw Hill, 1997. ii. P. Ramesh Babu, "Probability Theory and Random Process", Tata McGraw Hill Education	Black Board
6	probability distribution function, and probability mass function.			
7	properties of PDF and CDF			
8	Binomial, Poisson and Uniform Distributions			
9	Gaussian and Rayleigh Distributions			
10	Mean, variance and moments of random variables			
11	Numericals on Module 2	T. Veerarajan, "Probability, Statistics and Random Process", Tata McGraw Hill Education, Third Edition (2018).	i. Hwei Hsu, "Theory and Problems of Probability, Random Variables, and Random Processes", Schaum's Outline Series, McGraw Hill, 1997. ii. P. Ramesh Babu, "Probability Theory and Random Process", Tata McGraw Hill Education	Black Board
12	Function of a random variable and their distribution and density functions.			
13	Expectation, variance, moments			
14	Numericals on random variable and their distribution and density functions.			
15	characteristic function of random variable			
16	Transformation of a random variable			
17	Markov and Chebyshev inequality			
18	characteristic functions, moment theorem			
19	Numericals on characteristic functions, moment theorem			


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20	Pairs of random variables	T. Veerarajan, "Probability, Statistics and Random Process", Tata McGraw Hill Education, Third Edition (2018).	i. Hwei Hsu, "Theory and Problems of Probability, Random Variables, and Random Processes". ii. P. Ramesh Babu, "Probability Theory and Random Process", Tata McGraw Hill Education	Black Board
21	joint CDF and joint PDF.			
22	One function of two random variables			
23	One function of two random variables			
24	joint moments, covariance and correlation independent			
25	uncorrelated and orthogonal random variables			
26	Central limit theorem and its significance			
27	Numericals on Module 3	T. Veerarajan, "Probability, Statistics and Random Process", Tata McGraw Hill Education, Third Edition (2018).	i. Hwei Hsu, "Theory and Problems of Probability, Random Variables, and Random Processes". ii. P. Ramesh Babu, "Probability Theory and Random Process", Education	Black Board
28	Definitions, statistics of stochastic processes, n th order distribution			
29	Second-order properties: mean and autocorrelation			
30	Poisson process, normal processes, SSS, WSS.			
31	Mean and correlation ergodic processes			
32	Transmission of WSS through LTI system			
33	Introduction to Markov process.			
37	residual calculations	Douglas C. Montgomery, Elizabeth A. Peck and G. Geoffrey Vining, "Introduction to linear regression Analysis"	Hwei Hsu, "Theory and Problems of Probability, Random Variables, and Random Processes". ii. P. Ramesh Babu, "Probability Theory and Random Process", Education	Black Board
38	Applications of simple linear regression in prediction of new observations.			

Signature of H.O.D.
Date:Signature of Teacher
Date:


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Course Session Execution Plan - ISO Template

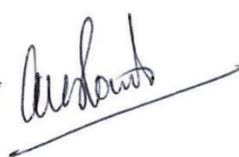
ST. FRANCIS INSTITUTE OF TECHNOLOGY Mount Painsur, SVP Road, Borivli (W), MUMBAI - 400103.								
							SFIT/EXTC/F-08/REV2	
Electronics & Telecommunication Engineering Department (EXTC)								
Session Plan Execution Report (SPER)								
Semester: Class / Branch : Subject :			Academic Year : Name of Faculty :					
Lecture No.	Planned Lecture Date & Time	Lecture Execution Date & Time	Topic Covered	Teaching Aid/ Tools	Pedagogy*	Percentage Attendance (Class RE A)	Percentage Attendance (Class RE B)	Remarks

* Lectures, Demonstrations, Discussion, Online Learning, Role Play, Small Group Teaching, Case Studies etc.

Review Report / Comments

Review/Feedback

Signature of H.O.D./ Coordinator



Faculty Signature

Signature of Principal



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Course Session Execution Plan - Sample

ST. FRANCIS INSTITUTE OF TECHNOLOGY Mount Poincur, SVP Road, Borivali (W), MUMBAI - 400103.							
Electronics & Telecommunication Engineering Department Session Plan Execution Report (SPER)				Semester : V Academic Year : 2023-2024 Semester Ending Date : 21/10/2023 Name of Faculty : Ms. Jovita Serrao			
Class / Branch : TE/EXTC		Semester Starting Date : 10/07/2023		Subject : RSA			
Lecture No.	Lecture Planned Date & Time	Lecture Execution Date & Time	Topic Covered	Teaching Aid/ Tools	Pedagogy*	Percentage Attendance	Remarks
1	11/07/2023 11.15 am to 12.15 pm	11/07/2023 11.15 am to 12.15 pm	Definitions of probability and basic numericals	Chalk board	Lectures/ Discussions/ Online Learning	98.55%	
2	12/07/2023 3.00 pm to 4.00 pm	12/07/2023 3.00 pm to 4.00 pm	Independence of events, Joint and conditional probability			98.55%	
3	14/07/2023 10.00 am to 11.00 am	14/07/2023 10.00 am to 11.00 am	Total probability theorem, Bayes' theorem and numericals			98.55%	
4	18/07/2023 11.15 am to 12.15 pm	18/07/2023 11.15 am to 12.15 pm	Binary symmetric communication channel analysis using Bayes' theorem.			94.20%	
5	19/07/2023 3.00 pm to 4.00 pm	24/07/2023 11.15 am to 12.15 pm	Continuous, discrete, and mixed random variables, probability density function			100.00%	19/07 half day due to rain
6	21/07/2023 10.00 am to 11.00 am	25/07/2023 11.15 am to 12.15 pm	probability distribution function, and probability mass function,			85.51%	
7	25/07/2023 11.15 am to 12.15 pm	26/07/2023 3.00 pm to 4.00 pm	properties of PDF and CDF			100.00%	
8	26/07/2023 3.00 pm to 4.00 pm	28/07/2023 10.00 am to 11.00 am	Binomial, Poisson and Uniform Distributions			100.00%	
9	28/07/2023 10.00 am to 11.00 am	01/08/2023 11.15 am to 12.15 pm	Gaussian and Rayleigh Distributions			89.86%	
10	01/08/2023 11.15 am to 12.15 pm	02/08/2023 3.00 pm to 4.00 pm	Mean, variance and moments of random variables			91.30%	
11	02/08/2023 3.00 pm to 4.00 pm	04/08/2023 10.00 am to 11.00 am	Numericals on Module 2			97.10%	
12	04/08/2023 10.00 am to 11.00 am	08/08/2023 11.15 am to 12.15 pm	Function of a random variable and their distribution and density functions.			98.55%	
13	08/08/2023 11.15 am to 12.15 pm	09/08/2023 3.00 pm to 4.00 pm	Expectation, variance, moments			98.55%	
14	09/08/2023 3.00 pm to 4.00 pm	11/08/2023 10.00 am to 11.00 am	Numericals on random variable and their distribution and density functions.			94.20%	
15	11/08/2023 10.00 am to 11.00 am	22/08/2023 11.15 am to 12.15 pm	characteristic function of random variable			94.20%	
16	22/08/2023 11.15 am to 12.15 pm	23/08/2023 3.00 pm to 4.00 pm	Transformation of a random variable			94.20%	
17	23/08/2023 3.00 pm to 4.00 pm	25/08/2023 10.00 am to 11.00 am	Markov and Chebyshev inequality			94.20%	
18	25/08/2023 10.00 am to 11.00 am	29/08/2023 11.15 am to 12.15 pm	characteristic functions, moment theorem			94.20%	
19	29/08/2023 11.15 am to 12.15 pm	30/08/2023 3.00 pm to 4.00 pm	Numericals on characteristic functions, moment theorem			95.65%	
20	30/08/2023 3.00 pm to 4.00 pm	01/09/2023 10.00 am to 11.00 am	Pairs of random variables			88.40%	
21	01/09/2023 10.00 am to 11.00 am	05/09/2023 11.15 am to 12.15 pm	joint CDF and joint PDF.			84.06%	
22	05/09/2023 11.15 am to 12.15 pm	06/09/2023 3.00 pm to 4.00 pm	One function of two random variables			98.55%	
23	06/09/2023 3.00 pm to 4.00 pm	08/09/2023 10.00 am to 11.00 am	One function of two random variables			98.55%	
24	08/09/2023 10.00 am to 11.00 am	12/09/2023 11.15 am to 12.15 pm	joint moments, covariance and correlation independent			98.55%	
25	12/09/2023 11.15 am to 12.15 pm	13/09/2023 3.00 pm to 4.00 pm	uncorrelated and orthogonal random variables			94.20%	
26	13/09/2023 3.00 pm to 4.00 pm	26/09/2023 11.15 am to 12.15 pm	Central limit theorem and its significance			100.00%	
27	26/09/2023 11.15 am to 12.15 pm	27/09/2023 3.00 pm to 4.00 pm	Definitions, statistics of stochastic processes, n th order distribution			85.51%	

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17

28	27/09/2023 3.00 pm to 4.00 pm	29/09/2023 10.00 am to 11.00 am	Second-order properties: mean and autocorrelation
29	29/09/2023 10.00 am to 11.00 am	03/10/2023 11.15 am to 12.15 pm	Poisson process, normal processes, SSS, WSS.
30	03/10/2023 11.15 am to 12.15 pm	06/10/2023 10.00 am to 11.00 am	Mean and correlation ergodic processes
31	06/10/2023 10.00 am to 11.00 am		Transmission of WSS through LTI system, Introduction to Markov process.
32	17/10/2023 11.15 am to 12.15 pm		Regression and model building, simple linear regression, multiple linear regression
33	19/10/2023 3.00 pm to 4.00 pm		least square estimation of the coefficients, residual calculations
34	20/10/2023 10.00 am to 11.00 am		Applications of simple linear regression in prediction of new observations.

100.00%	
100.00%	
89.86%	
91.30%	
97.10%	
98.55%	
98.55%	

* Lectures, Demonstrations, Discussion, Online Learning, Role Play, Small Group Teaching, Case Studies etc

Review Report / Comments

Review/Feedback

Signature of H.O.D.


Dr. DR. KEVIN PRATHAP NORONHA has checked
on
2024-8-30 12:42:28 PM

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Internal Assessment Test Question Paper-Sample

11.11.18

Electrical


		St. Francis Institute of Technology (Engg. College) Internal Assessment Test-I Academic Year: 2023-2024	
		Branch: Electrical	Division: A
Subject: EEC 701 : Electrical Drives & Control		Time: 10:00 A.M.- 11:00 A.M.	
Date: 14.08.2023		No. of Pages: 01	
Marks: 20 Marks			

Instructions: Candidates should read carefully the instructions printed on the question paper and on the cover of the Answer Book, which is provided for their use.

Note the following instructions.

1. All questions are compulsory.
2. Draw neat diagrams wherever necessary.
3. Write everything in ink (no pencil) only.
4. Assume data, if missing, with justification.

Q.1.	Attempt any five.	Marks	Course Outcome	BL	PI
a.	What are the main factors which decide the choice of electrical drive for a given application?	2M	CO 1	BL5	1.5.1
b.	List the advantages of Electrical Drives.	2M	CO 1	BL1	1.6.1
c.	What are the desired functions of a power modulator?	2M	CO 1		
d.	State and explain with neat sketches the three main classes of motor duty cycle.	2M	CO 2	BL4	4.4.1
e.	Derive an equation to determine motor rating for fluctuating and intermittent loads.	2M	CO 2	BL6	4.4.1
f.	A motor of smaller rating can be selected for a short time duty. Justify.	2M	CO 2	BL5	3.6.1
Q.2.	Answer any one question				
a.	Choose an application and explain with neat diagrams the multi quadrant operation of an electrical drive. Mention the speed torque conventions in all the four quadrants	5M	CO 1	BL5	5.6.1
b.	Problems on fluctuating loads are overcome by mounting a flywheel on the motor shaft of in non-reversible induction motor drive. Justify and explain how it is achieved.	5M			5.6.1
Q.3.	Answer any one question				
a.	Derive the thermal model of motor for heating and cooling and draw the heating and cooling curves.	5M	CO 2	BL3	1.3.1
b.	The motor operates on a periodic duty cycle in which it is clutched to its load for 10 minutes and declutched to run on no-load for 20 minutes. Minimum temperature rise is 40 °C. Heating and cooling time constant are equal and have a value of 60 minutes. When load is declutched continuously the temperature rise is 15 °C.	5M			1.3.1


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Mrs. MEGHA JAMES FERNANDES has checked
on
2024-2-28 2:53:52 PM

ST. FRANCIS INSTITUTE OF TECHNOLOGY
(Engineering College) Borivli West, Mumbai-103
2024-2-28 2:53:52 PM

Experiment List – Sample

St. Francis Institute of Technology
Department of Information Technology

Academic Year: 2023-24

Semester: IV

Class / Branch / Division: SE/IT/A&B

Subject: UNIX Lab

LIST OF EXPERIMENTS

Sr. No.	Title of Experiment	CO addressed	PO addressed	PSO addressed	Week number
1	A. To study UNIX Operating System. B. To install UNIX Operating System (Ubuntu OS)	L402.4	PO3	PSO2	W1
2	To study and implement UNIX general purpose utility commands.	L402.1	PO1	PSO2	W2
3	To study and implement UNIX Networking commands.	L402.2	PO2, PO4	PSO2	W3
4	To study UNIX file system and Implement File and Directory Permissions.	L402.3	PO3	PSO2	W4
5	Study and Implementation of Basic system administrative tasks.	L402.4	PO4	PSO2	W5
6	A. To study security tools and best practices in Linux (Ubuntu) operating system (Topic beyond syllabus)	L402.6	PO2, PO3	PSO2	W6
	B. Study of various Text Editors.	L402.4	PO3,PO4	PSO2	W6
7	Shell script programming-I	L402.5	PO2, PO3	PSO2	W7
8	Shell script and sed programming	L402.5	PO2, PO3	PSO2	W8
9	A. grep/egrep script programming.	L402.6	PO2, PO3	PSO2	W9
	B. Advanced filtering with awk scripts.	L402.6	PO2, PO3	PSO2	W9
10	Text processing using perl scripts.	L402.6	PO2, PO3	PSO2	W10
11	To implement Mini Project.	L402.1,L402.2 ,L402.3,L402.4,L402.5, L402.6	PO1, PO2, PO3, PO4, PO9, PO10	PSO2, PSO4	W11

Lab Outcomes

Students will be able to	
L402.1	Understand and apply UNIX general purpose commands. [PO1] [PSO2]
L402.2	Apply UNIX networking commands and analyze the network traffic. [PO2, PO4] [PSO2]
L402.3	Apply and change the ownership and file permissions using advance UNIX commands.[PO2] [PSO2]
L402.4	Understand UNIX OS and implement installation of UNIX OS and to evaluate system performance using various administrative commands. [PO3, PO4] [PSO2]
L402.5	Develop shell scripts and sed programming. [PO2, PO3] [PSO2]
L402.6	Apply simple filters and develop scripts using advanced filters. [PO2,PO3,PO9,PO10] [PSO2.PSO4]

Ms. Pratyoti Dsilva and Ms. Pratibha Rane
(Subject In-charges)

Dr. Prachi Raut
(HOD-INFT)

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St. Francis Institute of Technology
Department of Information Technology

Academic Year: 2023-24

Semester: VI

Class / Branch / Division: TE/IT/A&B

Subject: Data Mining and Business Intelligence/Business Intelligence Lab

List of Experiments

Sr. No	Title of Experiment	CO Addressed	PSOs Addressed	PO Addressed
1	Problem Definition for a Data Warehouse, and Construction of Star/ Snowflake Schema	C601.1	PSO1	PO1,PO2,
2	Data Exploration using Java / Python / R	C601.2	PSO1	PO1,PO2,PO3,PO4
3	Data preprocessing using WEKA	C601.3	PSO1	PO1,PO2,PO3,PO4
4	To implement a classifier- Decision tree using open source tool WEKA/ORANGE	C601.4 C601.5	PSO2, PSO3	PO2,PO3,PO4,PO6
5	a) To implement a classifier- Naïve Bayes using any one Language (JAVA/Python) b) To implement a classifier-Adaboost using any one Language (JAVA/Python) (TBS)	C601.4 C601.5	PSO2, PSO3	PO2,PO3,PO4,
6	To implement any one clustering algorithm (K-means, Agglomerative, Divisive) using any one Language (JAVA/Python) (Mini Project Mid Sem Evaluation)	C601.4	PSO2, PSO3	PO2,PO3,PO4,PO6
7	To implement any one of the clustering algorithm (K-means, Agglomerative, Divisive) using open source tool WEKA/ORANGE	C601.4	PSO2, PSO3	PO2,PO3,PO4,PO6
8	To implement any one Association mining (Apriori, FPM) using open source tool WEKA/ORANGE	C601.4 C601.5	PSO2, PSO3	PO2,PO3,PO4
9	To implement Association Mining (Apriori, FPM) in data mining using any one Language (JAVA/Python)	C601.4 C601.5	PSO2, PSO3	PO2,PO3,PO4
10	Case study on open source BI tool (Pentaho, Rapid Miner, Tableau, Qlikview)	C601.6	PSO2, PSO4	PO3, PO4, PO5,PO8,PO9,PO12
11	Implementation of Business Intelligence tool with Mini Project(Mini project End sem evaluation)	C601.1 C601.6	PSO2, PSO4	PO3, PO4, PO5,PO8,PO9,PO12

Course Outcomes

C601.1	Demonstrate an understanding of the importance of data warehousing and data mining and the principles of business intelligence. (PO1,PO2)
C601.2	Organize and prepare the data needed for data mining using preprocessing Techniques and perform exploratory analysis of the data to be used for mining (PO1, PO2,PO4)
C601.3	Design and Implement various classification data mining techniques and apply metrics to measure its performance (PO3,PO4)
C601.4	Design and Implement various clustering data mining techniques on large data sets (PO2,PO3,PO4,PO6)
C601.5	Design and Implement various frequent data mining techniques and formulate association rules on large data sets
C601.6	Apply BI to solve practical problems: Analyze the problem domain, use the data collected in enterprise apply the appropriate data mining technique, interpret and visualize the results and provide decision support.(PO3, PO4, PO5)

Ms Shree Jaswal
Ms.Prajyoti Dsilva
(Subject Incharge)

Dr. Prachi Raut
(HOD-INF)

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Computer Engineering (CMPN) Department

Course File

Class: TECMPN


Sem: V

Subject

Academic Year: 2023-24

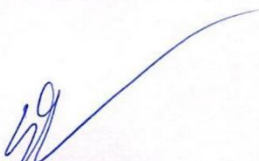
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Signature of HOD / Coordinator


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