

NATIONAL BOARD OF ACCREDITATION

Data Capturing Points of the Program Applied for NBA Accreditation– Tier I/II UG (Engineering) Institute Programs

Program Name : Electrical and Electronics Engineering	Discipline : Engineering & Technology
Level : Under Graduate	Tier : 1
Application No : 10758	Date of Submission : 09-06-2025

PART A- Profile of the Institute

A1.Name of the Institute : St Joseph Engineering College	
Year of Establishment : 2002	Location of the Institute: Mangalore
A2. Institute Address :St Joseph Engineering College,Vamanjoor Post,Mangalore 575028,Karnataka State,India.	
City:Dakshina Kannada	State:Karnataka
Pin Code:575028	Website:www.sjec.ac.in
Email:dean.qa@sjec.ac.in	Phone No(with STD Code):824-2263732
A3. Name and Address of the Affiliating University (if any):	
Name of the University : Visveswaraya Technological University	City: Belgaum
State : Karnataka	Pin Code: 590018
A4. Type of the Institution : Autonomous CAY(2021-22)	
A5. Ownership Status : Self financing	

A6. Details of all Programs being Offered by the Institution:

- No. of UG programs: **8**
- No. of PG programs: **2**

Table No. A6.1: List of all programs offered by the Institute.

Sr.No.	Discipline	Level of program	Name of the program	Year of Start	Year of Closed	Name of The Department
1	Computer Application	PG	Master of Computer Application	2008	--	Computer Application
2	Engineering & Technology	UG	Artificial Intelligence and Machine Learning	2020	--	Artificial Intelligence and Machine Learning
3	Engineering & Technology	UG	Civil Engineering	2012	--	Civil Engineering

4	Engineering & Technology	UG	Computer Science and Business System	2021	--	Computer Science and Business System
5	Engineering & Technology	UG	Computer Science and Engineering	2002	--	Computer Science and Engineering
6	Engineering & Technology	UG	Computer Science and Engineering (Data Science)	2022	--	Computer Science and Engineering (Data Science)
7	Engineering & Technology	UG	Electrical and Electronics Engineering	2002	--	Electrical and Electronics Engineering
8	Engineering & Technology	UG	Electronics & Communication Engineering	2002	--	Electronics and Communication Engineering
9	Engineering & Technology	UG	Mechanical Engineering	2002	--	Mechanical Engineering
10	Management	PG	Master of Business Administration	2007	--	Management

A7. Programs to be considered for Accreditation vide this Application:

Table No. A7.1: List of programs to be considered for accreditation.

Name of the Department	Having Allied Departments	Name of the Program	Program Level
Computer Science and Engineering	Yes	Computer Science and Engineering	UG
Mechanical Engineering	No	Mechanical Engineering	UG
Civil Engineering	No	Civil Engineering	UG
Electronics and Communication Engineering	No	Electronics & Communication Engineering	UG
Electrical and Electronics Engineering	No	Electrical and Electronics Engineering	UG

Table No. A7.2: Allied Department(s) to the Department of the program considered for accreditation as above. Cluster ID.

Name of the Department (in table no. A7.1) Name of allied Departments/Cluster (for table no. A7.1)

No Record

N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	52	46	52	42	45	41	43	44
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats		0	12	19	19	19	12	14
N3=Separate division if any	0	0	0	0	0	0	0	0
N4=Total no. of students admitted in the 1st year via all supernumerary quotas	3	3	3	3	3	3	4	5
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	55	49	67	64	67	63	59	63

CAY= Current Academic Year. CAYm1= Current Academic Year Minus 1 CAYm2= Current Academic Year Minus 2. LYG= Last Year Graduate. LYGm1= Last Year Graduate Minus 1. LYGm2= Last Year Graduate Minus 2.

B4. Enrolment Ratio in the First Year

Table No. B4.1: Student enrolment ratio in the 1st year.

Year of entry	N (From Table 4.1)	N1 (From Table 4.1)	N4 (From Table 4.1)	Enrollment Ratio [(N1+N4/N)*100]
2025-26 (CAY)	60	52	3	91.67
2024-25 (CAYm1)	60	46	3	81.67
2023-24 (CAYm2)	60	52	3	91.67

$$\text{Average } [(ER1 + ER2 + ER3) / 3] = 88.34 \approx 17.00$$

B5. Success Rate of the Students in the Stipulated Period of the Program

Table No.B5.1: The success rate in the stipulated period of a program.

Item	(2021-22) LYG	(2020-21) LYGm1	(2019-20) LYGm2
A*= (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any).	79	79.00	72.00
B=No. of students who graduated from the program in the stipulated course duration	51	58.00	59.00
Success Rate (SR)= (B/A) * 100	64.56	73.42	81.94

Average SR of three batches $((SR_1 + SR_2 + SR_3)/3)$: 73.30

B6. Academic Performance of the First-Year Students of the Program

Table No.B6.1: Academic Performance of the First-Year Students of the Program.

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 1st year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 1st year/10)	7.185	7.63	7.12
Y=Total no. of successful students	49	51.00	44.00
Z=Total no. of students appeared in the examination	49	56.00	46.00
API $[X*(Y/Z)]$	7.19	6.95	6.81

Average API $[(AP1+AP2+AP3)/3]$: 6.98

B7. Academic Performance of the Second-Year Students of the Program

Table No.B7.1: Academic Performance of the Second Year Students of the Program.

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 2nd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2rd year/10)	7.176	7.08	7.04
Y=Total no. of successful students	60	62.00	67.00
Z=Total no. of students appeared in the examination	61	64.00	67.00
API $[X * (Y/Z)]$	7.06	6.86	7.04

Average API $[(AP1+AP2+AP3)/3]$: 6.98

B8. Academic Performance of the Third-Year Students of the Program

Table No.B8.1: Academic Performance of the Third Year Students of the Program.

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10)	7.162	7.21	6.67
Y=Total no. of successful students	62	65.00	58.00
Z=Total no. of students appeared in the examination	62	67.00	62.00
API [$X*(Y/Z)$]:	7.16	6.99	6.24

Average API [$(AP1+AP2+AP3)/3$] : 6.79

B9. Placement, Higher Studies, and Entrepreneurship

Item	LYG 2021-22	LYG m1 2020-21	LYGm2 2019-20
FS*=Total no. of final year students	79	79.00	72.00
X=No. of students placed	17	35.00	30.00
Y=No. of students admitted to higher studies	1	3.00	2.00
Z= No. of students taking up entrepreneurship	0	0.00	0.00

Average Placement Index = $(P_1 + P_2 + P_3)/3$: 38.42

PART C: Faculty Details in Department and Allied Departments

(Data to be filled in for the Department and Allied Departments)

C1. Faculty details of Department and Allied Departments

Table No.C1: Faculty details in the Department for the past 3 years including CAY

S.N	Name of the Faculty	PAN No.	APAAR faculty	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in year in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor/ Lecturer	Nature of Association (Regular/ Contract/ Ad hoc)	If contractual mention Full time	Currently Associated (Y/N)	Date of Leaving if any (In case Currently Associated is "No")
1	Dr Sheryl G Colaco	AHKPC1009N		PhD	MAHE	Illumination System	16-09-2002	22 Years 9 Months	Lecturer	Professor	1-11-2014	Regular	-	Y	-
2	Dr Sanath Saralaya	CXPPS8524K		PhD	NITK	Power Systems	1-2-2019	6 Year 4 Months	Asst Professor	Associate Professor	1-04-2022	Regular	-	Y	-
3	Dr Suresh N S	GCBPS4528A		PhD	NITT	Power Systems and Smart Grid	30-12-2020	2 Years	Associate Professor	Associate Professor	-	Regular	-	N	29-12-2022
4	Dr Subramanya K	BRVVK0346N		PhD	IIT Roorkee	Electrical Machines	16-07-2012	12 Year 11 Months	Asst Professor	Asst Professor	-	Regular	-	Y	-
5	Dr Ajithanjaya Kumar M K	BBCPK1025M		PhD	VTU	Electric Drives	16-08-2005	19 Years 10 Months	Lecturer	Asst Professor	-	Regular	-	Y	-
6	Mr Sathisha K	AJAPK9659G		M Tech	VTU	Industrial Electronics	1-9-2004	20 Years 9 Months	Lecturer	Asst Professor	-	Regular	-	Y	-
7	Ms. Bharathi A Rao	AJFPR8772G		M Tech	NITK	Power and Energy Systems	16-08-2005	19 Years 10 Months	Lecturer	Asst Professor	-	Regular	-	Y	-
8	Mr. Deepesh Kanchan	ATFPK7834E		M Tech	NITK	Power & Energy System	01-07-2005	19 Year 11 Months	Lecturer	Asst Professor	-	Regular	-	Y	-

9	Ms Divya K Pai	AQIPP0028M		M Tech	MAHE	Control systems	06-09-2004	20 Years 09 Months	Lecturer	Asst Professor	-	Regular	-	Y	-
10	Mr. Franco Aldrin J Menezes	AUSPM8356 M		M Tech	VTU	Power Electronics	15-07-2009	15 Year 11 Months	Lecturer	Asst Professor	-	Regular	-	Y	-
11	Mr. Rolan Lionel Rodrigues	APWPR6658A		M Tech	VTU	Power Electronics	15-07-2009	5 Year 11 Months	Lecturer	Asst Professor	-	Reported back to duty on 13.10.2025	-	Y	-
12	Ms Chaithra Shetty	CBZPS7794F		M Tech	VTU	Microelectronics & Control System	14-07-2015	09 Year 11 Months	Asst Professor	Asst Professor	-	Regular	-	Y	-
13	Ms Himani Kishan Raj	BUAPP1932K		M Tech	VTU	Energy Systems Engineering	27-12-2021	03 Year 06 Months	Asst Professor	Asst Professor	-	Regular	-	Y	-
14	Ms Madhavi Gatty	BVPPM8180G		M Tech	VTU	Power Electronics	30-5-2022	03 Year 01 Month	Asst Professor	Asst Professor	-	Regular	-	Y	Transferred to ECE Department on - 01/08/2025
15	Mr Joseph Godfrey A	AOGPJ2244D		M Tech	VIT	Power Electronics & Drives	06-04-2022	10 Months	Asst Professor	Asst Professor	-	Regular	-	N	28-02-2023
16	Mr Joysun Dsouza	BDGPD4265C		M Tech	Manipal University	Instrumentation control systems	07-03-2023	2 Year 3 Months	Asst Professor	Asst Professor	-	Contract	Full Time	Y	-

C2. Student-Faculty Ratio (SFR)

No. of UG(Engineering) programs in Department including allied

departments/ clusters (UGn): UG1=1st UG program

UGn=nth UG program

B= No. of Students in UG 2nd year (ST)

C= No. of Students in UG 3rd year (ST)

D= No. of Students in UG 4th year (ST)

No. of PG (Engineering) programs in Department including allied departments/ clusters (PGm):

PG1=1st PG program.

PGm=mth PG program

A= No. of Students in PG 1st

year **B**= No. of Students in PG
 2nd year Student Faculty Ratio
(SFR) = S/F

S= No. of students of all programs in the Department including all students of allied departments/clusters.

No. of students (ST)=Sanctioned Intake (SA)+ Actual admitted students via lateral entry including leftover seats (L) if any (limited to 10 % of SA) Students who admitted under supernumerary quotas (SNQ, EWS, etc) will not be considered in calculating SFR value. Those students are exempted.

F=Total no. of regular or contractual faculty members (Full Time) in the Department, including allied departments/clusters (excluding first year faculty (The faculty members who have a 100% teaching load in the first-year courses)).

No. of UG Programs in the Department1 No. of PG Programs in the Department0

Table No.C2.1: Student-faculty ratio.

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
UG1.B	66	66	66
UG1.C	66	66	66
UG1.D	66	66	66
UG1: Electrical and Electronics Engineering	198	198	198
DS=Total no. of students in all UG and PG programs in the Department	198	198	198
AS=Total no. of students of all UG and PG programs in allied departments	0	0	0
S=Total no. of students in the Department (DS) and allied departments (AS)	S1= 198	S2= 198	S3= 198
DF=Total no. of faculty members in the Department	12	13	12
AF= Total no. of faculty members in the allied Departments	0	0	0
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	F1= 12	F2= 13	F3= 12
FF=The faculty members in F who have a 100% teaching load in the first-year courses	3	3	3
Student Faculty Ratio (SFR)=S/(F-FF)	SFR1= 22.00	SFR2= 19.80	SFR3= 22.00
Average SFR for 3 years	SFR= 21.26		

C3. Faculty Qualification

- Faculty qualification index (FQI) = $2.5 * [(10X + 4Y)/RF]$ where
- X=No. of faculty members with Ph.D. degree or equivalent as per AICTE/UGC norms.
- Y=No. of faculty members with M. Tech. or ME degree or equivalent as per AICTE/ UGC norms.
- RF=No. of required faculty in the Department including allied Departments to adhere to the 20:1 Student-Faculty ratio, with calculations based on both student numbers and faculty requirements as per section C2 of this documents: $(RF=S/20)$.

Table No.C3.1: Faculty qualification.

Year	X	Y	RF	FQ = 2.5 x [(10X + 4Y) / RF]
2025-26(CAY)	4	9	9.9	19.19
2024-25(CAYm1)	3	11	9.9	18.68
2023-24(CAYm2)	2	12	9.9	17.17

C4. Faculty Cadre Proportion

- Faculty Cadre Proportion is 1(RF1): 2(RF2): 6(RF3)
- RF1= No. of Professors required = $1/9 \times$ No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per C2 of this documents
- RF2= No. of Associate Professors required = $2/9 \times$ No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section C2 of this documents
- RF3= No. of Assistant Professors required = $6/9 \times$ No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section C2 of this documents
- Faculty cadre and qualification and experience should be as per AICTE/UGC norms.

Table No.C4.1: Faculty cadre proportion details

Year	Professors		Associate Professors		Assistant Professors	
	Required Faculty(RF1)	Available Faculty(AF1)	Required Faculty(RF2)	Available Faculty(AF2)	Required Faculty(RF3)	Available Faculty(AF3)
2025-26	1.1	1	2.2	1	6.6	11
2024-25	1.1	1	2.2	1	6.6	12
2023-24	1.1	1	2.2	1	6.6	12
Average Numbers	RF1=1.1	AF1=1	RF2=2.2	AF2=1	RF3=6.6	AF3=11.66

C5. Visiting/Adjunct Faculty/Professor of Practice

Table No. C5.1: List of visiting/adjunct faculty/professor of practice and their teaching and practical loads.

(CAYm1)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	NIL				

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Dr Narasimha Pandit	Adjunct Professor	KPTCL	Power System Operation and Control	17.00
2	Dr Narasimha Pandit	Adjunct Professor	KPTCL	Research Methodology	2.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
------	--------------------	-------------	--------------	--------------------	----------------------

1	Dr Narasimha Pandit	Adjunct Professor	KPTCL	Power System Operation and Control	23.00
---	---------------------	-------------------	-------	------------------------------------	-------

C6. Academic Research

Table No. C6.1: Faculty publication details.

S.No.	Item	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)	2021-22 (CAYm4)
1	No. of peer reviewed journal papers published	1	3	6	1
2	No. of peer reviewed conference papers published	1	3	2	3
3	No. of books/book chapters published	0	0	0	1

C7. Sponsored Research Project

Table No. C7.1: List of sponsored research projects received from external agencies.

(CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
-	-	-	-	-	-	0.00
						Amount received (Rs.):0.00

(CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr Sheryl Grace Colaco	-	SPIE, USA	International Education Outreach Grant	SPIE, USA	1	3.75
						Amount received (Rs.):3.75

(CAYm3)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
-	-	-	-	-	-	0.00

						Amount received (Rs.):0.00
--	--	--	--	--	--	----------------------------

Total Amount (Lacs) Received for the Past 3 Years: 3.75

Note*:

Only sponsored research projects will be considered. Infrastructure-based projects will not be considered here

C8. Consultancy Work

Table No. C8.1: List of consultancy projects received from external agencies

(CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
-	-	-	-	-	-	0.00
						Amount received (Rs.):0.00

(CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
-	-	-	-	-	-	0.00
						Amount received (Rs.):0.00

(CAYm3)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
-	-	-	-	-	-	0.00
						Amount received (Rs.):0.00

Total amount (Lacs) received for the past 3 years: 0.00

Note*:

Only sponsored research projects will be considered. Infrastructure-based projects will not be considered here

C9. Institution Seed Money or Internal Research Grant to its Faculty for Research Work

Table No. C9.1: List of faculty members received seed money or internal research grant from the Institution.

(CAYm1)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
-	-	-	0.00	0.00	-
			Amount received (Rs.): 0.00		

(CAYm2)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
-	-	-	0.00	0.00	-
			Amount received (Rs.): 0.00		

(CAYm3)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Dr Suresh N S	Smart Grid and Micro Grid Lab	1 year	2.09	1.00	Research paper
Dr Sheryl Grace	Artificial light Impact on Fodder production	1 year	0.40	0.07	Research paper
			Amount received (Rs.): 2.49		

Total amount (Lacs) received for the past 3 years : 2.49

PART D: Laboratory Infrastructure in the Department

(Data to be filled in for the Department)

D1. Adequate and Well-Equipped Laboratories, and Technical Manpower

Table No.D1.1: List of laboratories and technical manpower.

SI. N.	Name of the Laboratory	No. of students per setup (Batch Size)	Name of the major equipment	Weekly utilization status (all the courses for which the lab is utilized)	Technical Manpower support		
					Name of the technical staff	Designation	Qualification
1	Computing Techniques in Power System Laboratory	25	Pcs-70, B/W printer -1, Matlab R2024a, ETAP 24.0.0	6 Hrs	Ms Shailaja B	Lab Instructor	Diploma in Computer Science and Engineering
2	Power System Protection Laboratory	25	HVAC/HVDC kit -1, Electrolytic tank kit-1, Transformer oil testing kit-1, Small Size High Voltage Lab-1, Over Current relay-1, Over voltage & under voltage relay-1, Negative sequence relay-1, Differential relay-1, Microprocessor based relays-3, Industrial Standard Relays-5 Dimmerstat-7, Voltmeters-10, Ammeter-5 ,Stop watch - 2	6 Hrs	Mr Maxim D'Souza	Foreman	B.E. in Electrical
3	Control System Laboratory	25	PC- 27, Matlab R2024a (Campus wide licence),Function Generator-5, PID Controller-2, DC Servomotor-2, 2 phase AC Servomotor-2, Digital storage Oscilloscope -4, Power Supply-2,	6 Hrs	Mr Raghu R	Lab Instructor	Diploma in Electronics and Communication

			Decade Resistance Box – 6, Decade Inductance Box – 5, Decade Capacitance Box – 5, B/W printer-1				
4	Digital Signal Processing Laboratory	25	Pcs-70, B/W printer -1, Matlab R2024a	6 Hrs	Ms Shailaja B	Lab Instructor	Diploma in Computer Science and Engineering
5	Power Electronics Laboratory	25	Power Scope-5, RPS-10, Voltage controller module-04, Speed Control of motors-04, DC Motors and kits-04, TRIAC, SCR, IGBT, MOSFET, UJT, Modules-12, SCR DC Chopper Power Circuit-4, 1Ph fully controlled converter-2, Series & Parallel Inverter-2, Stepper motor controller-2, Tachometers-03, DC, AC & ammeters-15, Rheostats-10, Single phase converter firing circuit kit-3, DC chopper power & firing circuit kit-4, Isolation transformers-8	6Hrs	Mr Melwin Miranda	Lab Technician	ITI in Electrical
6	Computer Aided Electrical Drawing Laboratory	60	Pcs-70, B/W printer -1, Autocad 2022	4 Hrs	Ms Shailaja B	Lab Instructor	Diploma in Computer Science and Engineering
7	Analog Electronic circuits Laboratory	25	Digital Storage Oscilloscope-5, 30MHz Dual trace Oscilloscope-10, Function Generator 3MHz-2, Function Generator 2MHz-5, Function Generator 1MHz-7, Power Supply0-30V/2A- 6, Fixed power supply $\pm 15V/2A$ - 13, Dual DC Power Supply- 2, Decade Resistance box-10, Decade Inductance box-8, Decade	6 Hrs	Ms PriyaA	Lab Instructor	Diploma in Electronics and Communication

			Capacitance box-8, Auto Compute LCR-Q Meter-1,				
8	Hardware Description Language (HDL) Laboratory	25	PCs- 29, Software xilinx_14.7 (open source), FPGA Trainer Kit with cable and Power supply -25, Stepper motor-25, DC motor-25, B/W printer-1	6 Hrs	Ms.Priya A	Lab Instructor	Diploma in Electronics and Communication
9	Microcontroller Laboratory	25	PC-27, MSP 430 Teaching kit-12, Micro controller kit with LCD display & keyboard-15, Power Supply-24, 89C61X2 Flash Programmable board with Cables-12, SPJ Compiler SC5-Licences-10, Elevator Interface card-2, LCD & Keyboard Interface card-2, Temperature Controller i/f card-2, DC Motor i/f card-2, Dual DAC i/f card-2, Stepper Motor i/f card-4, Multiplexed display keypad i/f card-2 B/W printer-1	6 Hrs	Mr Raghu R	Lab Instructor	Diploma in Electronics and Communication
10	Transformers and Generators Laboratory	25	Transformers 2KVA-3, Transformers 1KVA-7, Dimmerstat 3ø-4, Dimmerstat 1ø-8, Voltmeter - 12 Ammeter-10, Watt meter-8, DC Motor 3.5 KW coupled with AC 5KVA alternator-2, DC Motor 3.5 KW coupled with 3.5 KW DC Generator-2, Lamp Loads-4, Rheostat-10	6 Hrs	Mr Maxim D'Souza	Foreman	B.E in Electrical
11	Electric Motors Laboratory	25	Synchronous motor with mechanical load-1, DC compound motor coupled with DC compound generator-4, DC Compound motor-2, Single Phase induction motor-01, 3 Phase A.C. Slipping induction motor with Rotary	6 Hrs	Mr Maxim D'Souza	Foreman	B.E in Electrical

			Resistance starter & friction load-1, 5 H.P A.C. Induction Motor coupled with 3.7KW DC Compound generator-2, 3ø 5 H.P. A.C. Induction Motor-1, 1.5 H.P single phase Induction Motor with D.O.L Starter & Friction Load-1, DC Series Motor coupled with DC generator-1, Voltmeter - 16 Ammeter-20, Watt meter-4, Lamp Loads-4, Rheostat-15				
12	Digital Electronics Laboratory		Digital IC Trainer Kit-12, Digital IC Tester-1, Analog IC Tester-1, Digital multimeter-1, Digital and Analog IC tester-1	6 Hrs	Ms.Priya A	Lab Instructor	Diploma in Electronics and Communication
13	Electric Circuit Analysis (ECA) Lab		DC Power supply -10, Digital Ammeter (0-100ma) -12	6 Hrs	Mr Melwin Miranda	Lab Technician	ITI in Electrical
14	Elements of Electrical and Electronics laboratory		Cathode Ray Oscilloscope, Three Phase Dimmer stat, Single Phase Dimmer stat, Regulated Power Supply, Digital IC Trainer Kit, Measuring Instruments, Rheostat	4 Hrs	Mr Melwin Miranda	Lab Technician	ITI in Electrical

D2. Safety Measures in Laboratories

Table No. D2.1: List of various safety measures in laboratories.

Sr.No.	Name of the Laboratory	Safety Measures
1.	Machines Lab	<ul style="list-style-type: none"> Wearing of Rubber soled shoes at all times. Availability of carbon dioxide type fire extinguisher class BC, sand buckets and first aid box, CC TV camera.

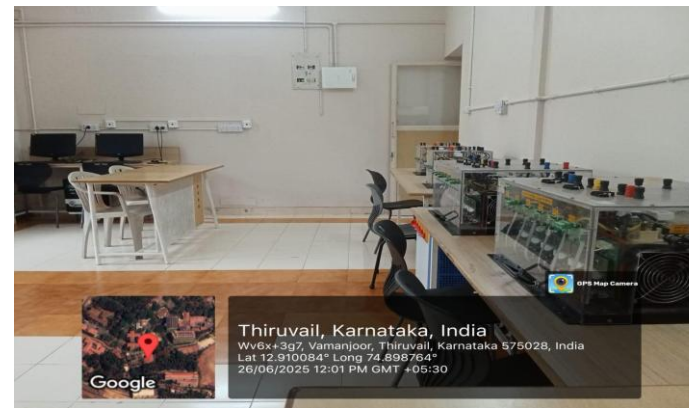
		<ul style="list-style-type: none"> • All machines are earthed properly. Electrical panels are displayed with the sign board. • Rubber mat is provided below the electrical panel board. • MCBs are provided in case of emergency.
2	CTPS lab/ DSP Lab/ Computer Aided Electrical Drawing Lab/Control system lab	<ul style="list-style-type: none"> • Availability of dry powder fire extinguisher class ABC and first aid box, CC TV camera. • MCBs are provided in case of emergency.
3	Microcontroller Lab/HDL lab	<ul style="list-style-type: none"> • Availability of carbon dioxide type fire extinguisher class ABC and first aid box, CC TV camera. • MCBs are provided in case of emergency.
4	Electronics Lab/AEC Lab/ECA lab	<ul style="list-style-type: none"> • Wearing of Rubber soled shoes at all times. • Availability of carbon dioxide type fire extinguisher class BC and first aid box, CC TV camera. • MCBs are provided in case of emergency.
5	Power Electronics Lab	<ul style="list-style-type: none"> • Wearing of Rubber soled shoes at all times. • Use of dry powder fire extinguisher class BC and first aid box, CC TV camera. • MCBs are provided in case of emergency.
6	Power System Protection Laboratory	<ul style="list-style-type: none"> • Wearing Rubber soled shoes at all times. • Availability of carbon dioxide type fire extinguisher class BC, sand buckets and first aid box, CC TV camera. • MCBs are provided in case of emergency.
7.	Elements of Electrical and Electronics laboratory	<ul style="list-style-type: none"> • Wearing of Rubber soled shoes at all, Use of carbon dioxide type fire extinguisher

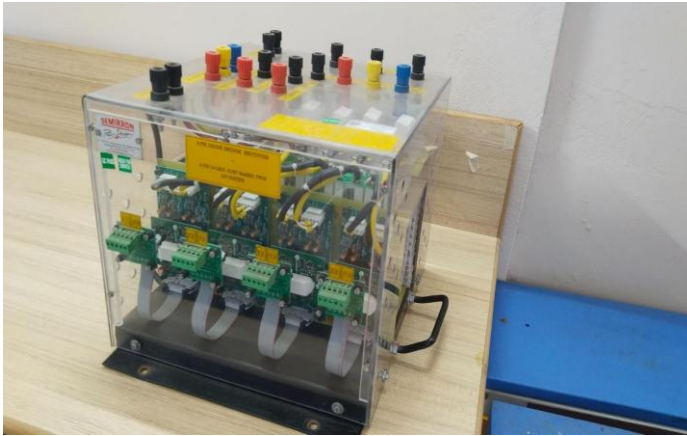
D3. Project Laboratory/Research Laboratory

Research Laboratory/Project Laboratory

Research Laboratory/Project Laboratory was started in the academic year 2024-25. The objective of the lab is to facilitate students' projects and research work of the faculties. This lab will be utilized by the students to do their project and mini project work during the allotted project hours. Faculty utilize these facilities for their professional growth. Log books are maintained by the lab staff. The details of the lab are provided in the Table below.

Sl. No.	Name of the lab	Area	Main equipment
1.	Project Laboratory/Research Laboratory	35.2 sq m	Power scope, DSO, Signal generator, single phase fully and semi controlled bridge converter power circuit Load, three phase fully and semi controlled bridge converter power circuit Load, single phase bridge inverter, 3 level neutral Clamp inverter

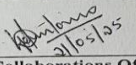
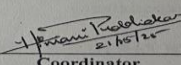
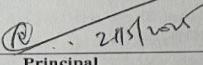
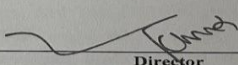




Support for Power System Protection lab

The Department of Electrical and Electronics Engineering has an MoU with Power Flow Control Private Limited. The support given to St Joseph Engineering College (SJEC) through this MoU includes:

1. Facilitating faculty and student visits for teaching and research programs.
2. Promoting the exchange of academic materials and information (non-confidential).
3. Supporting the sharing of scientific publications.
4. Providing technical assistance through
 - a. Workshops
 - b. Lectures
 - c. Development of industry-oriented laboratory experiments.

St Joseph Engineering College Mangaluru-575028		
MOU Metadata Sheet		MOU No: SJEC/CO/MoU/2025/08
1. Collaborator:	Power Flow Controls, Bengaluru	
2. Prime Purpose:	The purpose of this MoU is to facilitate visits and participation in teaching and research programs, promote the exchange of non-confidential academic materials and information, support the sharing of scientific publications, and provide technical assistance through workshops, lectures, and the development of industry-oriented laboratory experiments.	
3. MOU Type:	Academic, Research Collaboration, Training and Internship	
4. Date of Signing:	19-05-2025	
5. Signitaries:	Director of SJEC and Mr Manjunath G R, Technical Head and Managing Partner, Power Flow Controls, Bengaluru	
6. Date of Expiry:	18-02-2027	
7. Notice Period:	Three months	
8. Anchoring Department:	Electrical and Electronics Engineering	
9. Contact Person:	Ms Himani Kishan Raj, Assistant Professor, EEE	
10. Departments for Collaboration:		
	Name of the Department	Role/Scope
	EEE	To facilitate communication between both parties, coordinate internship, training, faculty visits and research activities, ensure timely exchange of information and materials, and oversee the implementation of agreed initiatives such as workshops, lectures, and technical support.
		Coordinators
		Ms Himani Kishan Raj
11. Reporting Requirements:	Six months	
12. Special Terms & Conditions:	NA	
	 21/05/25	 21/05/25
	Collaborations Officer	Coordinator
	 21/5/2025	
	Principal	Director

AICTE Idea Lab - Design and Fabrication Facilities

The lab covers an area of 5000 plus sq. ft equipped with advanced machinery, tools, and consumables to support the translation of an idea into prototype development or the solution of a problem. Recognizing the significance of skill development in an individual's academic and professional journey, the SJEC AICTE IDEA Lab offers several hands-on courses for undergraduate students, starting from the first semester through the sixth semester.

The IDEA lab conducts workshops, training, ideation sessions, boot camps, competitions, etc., to nurture ideas, imagination, and creativity among stakeholders. The facility is open to SJEC students, faculty, and staff, as well as students from other schools or colleges, industries, entrepreneurs, startups, and alumni. With available industrial-grade advanced machinery, electronic tools, and testing equipment, wrapped in open-source software and staffed by trained personnel, the IDEA Lab is a platform for learning, innovation, and technical prototyping, and provides a stimulus for on-campus and local entrepreneurship.



PART E: First Year faculty and financial Resources

(Data to be filled in for the first year course faculty and budget allocation and utilization)

E1. First Year Student-Faculty Ratio (FYSFR)

Table No. E1.1: FYSFR details.

Year	Sanctioned intake of all UG programs (S4)	No. of required faculty (RF4= S4/20)	No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1)	No. of faculty members in Engineering Science Courses (NS2)	Percentage= No. of faculty members ((NS1*0.8) + (NS2*0.2))/(No. of required faculty (RF4)); Percentage=((NS1*0.8) + (NS2*0.2))/RF
2023-24(CAYm2)	780	39	32.69	10.64	72.51
2024-25(CAYm1)	780	39	35.95	11.27	79.52
2025-26(CAY)	840	42	24.61	15.08	54.05

E2. Budget Allocation, Utilization, and Public Accounting at Institute Level

Table No. E2.1: Budget and actual expenditure incurred at Institute level.

Items	Budgeted	Actuals	Budgeted	Actuals	Budgeted	Actuals	Budgeted	Actuals
	2025-26	2025-26	2024-25	2024-25	2023-24	2023-24	2022-23	2022-23
Infrastructure Build-Up	9,82,50,000	2,21,74,435	4,02,00,000	4,02,02,708	4,77,50,000	25,87,465	11,05,00,000	0
Library - Books and Journals	60,90,000	52,09,620	51,80,000	51,30,342	57,20,000	44,91,845	40,05,000	36,56,963
Laboratory equipment	2,75,00,000	1,91,04,274	3,68,25,000	2,42,54,802	2,80,00,000	2,82,77,859	2,60,84,000	1,82,72,736
Teaching-Non-Teaching Staff Salary	26,94,02,000	25,92,99,278	21,46,94,000	21,69,32,815	19,30,18,000	18,84,87,743	15,56,00,000	16,94,16,458
Outreach Programs	4,00,000	22,191	133000	25479	500000	75089	500000	10634
R & D	1,04,86,000	49,47,109	1,07,91,000	59,13,387	98,16,000	26,86,421	62,78,500	35,02,518
Training, Placement and Industry linkage	27,00,000	13,14,737	1881000	2517801	1848000	1790301	1100000	2689745

SDGs	15,00,000	1,62,687	1200000	456070	5200000	1732223	0	0
Skill training expenses	1,54,63,000	93,32,378	1,88,95,000	1,66,57,044	1,37,50,000	1,26,64,348	1,30,00,000	1,17,38,042
Others, specify (Laboratory Consumables, Maintenance and Spares, Staff Benefits, Internet Charges, Extracurricular Expenses, University Payments, Miscellaneous Assets)	21,67,49,000	19,60,93,503	19,89,95,000	19,44,60,681	136811000	163930327	122866000	139503057
Total	64,85,40,000	51,76,60,212	528794000	506551129	442413000	406723621	439933500	348790153

E3. Budget Allocation, Utilization, and Public Accounting at Program Specific Level

Table No. E3.1: Budget and actual expenditure incurred at program level.

Items	Budgeted	Actual	Budgeted	Actual	Budgeted	Actual	Budgeted	Actual
	2024-25	2024-25	2023-2024	2023-24	2022-23	2022-23	2021-22	2021-22
Laboratory equipment	1085000.00	1046781.00	2111460.00	1834965.00	1463548.00	532127.00	1893200.00	2475174.00
Software	550000.00	684400.00	425000.00	0.00	0.00	0.00	0	0
SDGs	0.00	0.00	0.00	0.00	0.00	0.00	0	0
Support for faculty development	200000.00	61905.00	200000.00	4218.00	100000.00	16652.00	150000	12000
R&D	175000.00	82207.00	165000.00	58230.00	265000.00	85388.00	305000	10000
Industrial Training, Industry expert, Internship	0.00	13064.00	0.00	0.00	0.00	0.00	0	0

Miscellaneous expenses (Lab consumables, maintenance, furniture, Books)	552000.00	330872.00	502000.00	365316.00	402000.00	700874.00	430500	280882
Total amount	25,62,000.00	22,19,229.00	34,03,460.00	22,62,729.00	22,30,548.00	13,35,041.00	27,78,700.00	27,78,056.00