

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 : 11807	Date of Submission : 22-04-2026

PART A- Profile of the Institute

A1.Name of the Institute: PSN COLLEGE OF ENGINEERING AND TECHNOLOGY	
Year of Establishment : 2001/2001	Location of the Institute:
A2. Institute Address: MELATHEDIYOOR,PALAYAMKOTTAI TALUK,TIRUNELVELI DISTRICT.	
City:TIRUNELVELI	State:Tamil Nadu
Pin Code:627152	Website:www.psnct.ac.in
Email:DRPSUYAMBU@GMAIL.COM	Phone No(with STD Code):04634-279680
A3. Name and Address of the Affiliating University (if any):	
Name of the University : NIL	City:
State :	Pin Code:
A4. Type of the Institution: Self-Supported Institute	
A5. Ownership Status:	

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

- No. of UG programs: **11**
- No. of PG programs: **8**

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	Engineering & Technology	UG	Aeronautical Engineering	2005	--	Aeronautical Engineering
2	Engineering & Technology	PG	Applied Electronics	2007	--	Electronics and Communication Engineering
3	Engineering & Technology	UG	Artificial Intelligence and Data Science	2024	--	Artificial Intelligence and Data Science
4	Engineering & Technology	PG	Avionics Engineering	2009	--	Electronics and Communication Engineering
5	Engineering & Technology	UG	Biomedical Engineering	2024	--	Biomedical Engineering
6	Engineering & Technology	UG	Civil Engineering	2009	--	Civil Engineering
7	Engineering & Technology	PG	Communication Systems	2009	--	Electronics and Communication Engineering
8	Engineering & Technology	PG	Computer Science and Engineering	2008	--	Computer Science and Engineering

9	Engineering & Technology	UG	Computer Science and Engineering	2001	--	Computer Science and Engineering
10	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence & Machine Learning)	2024	--	Computer Science and Engineering (Artificial Intelligence and Machine Learning)
11	Engineering & Technology	PG	Cryogenic Engineering	2011	--	Mechanical Engineering
12	Engineering & Technology	UG	Electrical and Electronics Engineering	2004	--	Electrical and Electronics Engineering
13	Engineering & Technology	UG	Electronics & Communication Engineering	2001	--	Electronics and Communication Engineering
14	Engineering & Technology	PG	Embedded Systems Technologies	2009	--	Electrical and Electronics Engineering
15	Engineering & Technology	PG	Information Technology	2007	--	Computer Science and Engineering
16	Engineering & Technology	UG	Marine Engineering	2002	--	Marine Engineering
17	Engineering & Technology	UG	Mechanical & Automation Engineering	2011	--	Mechanical and Automation Engineering
18	Engineering & Technology	UG	Mechanical Engineering	2009	--	Mechanical Engineering
19	Management	PG	Master of Business Administration	2006	--	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
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

PART-B: Program information

B1. Provide the Required Information for the Program Applied For:

Table No. B1: Program details.

A. List of the Programs Offered by the Department:

SR.NO.	PROGRAM NAME	PROGRAM APPLIED LEVEL	YEAR OF START / YEAR OF CLOSED	SANCTIONED INTAKE	INCREASE/DECREASE INTAKE (if any)	YEAR OF INCREASE/DECREASE	CURRENT INTAKE	YEAR OF AICTE APPROVAL	AICTE/COMPETENT AUTHORITY APPROVAL DETAILS	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED	PROGRAM DURATION
1	Electrical and Electronics Engineering	UG	2004 / --	60	No	NA	60	2004	F.No.732-52-396(E)/ET/2001 Dt. 30.09.2004	Granted accreditation for 3 years for the period (specify period)	2023	2026	1	4

List of the Allied Departments/Cluster and Programs:

B2. Detail of Head of the Department for the program under consideration:

A. Name of the HoD :	Dr. A. Shiny Pradeepa
B. Nature of appointment:	Regular
C. Qualification:	Ph.D

B3. Program Details

Table No.B3.1: Admission details for the program excluding those admitted through multiple entry and exit points.

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)	2021-22 (CAYm4)	2020-21 (CAYm5)	2019-20 (CAYm6)
N=Sanctioned intake of the program (as per AICTE /Competent authority)	60	60	60	60	60	60	60
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	50	15	46	45	40	25	46
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	4	6	7	8	20	5
N3=Separate division if any	0	0	0	0	0	0	0
N4=Total no. of students admitted in the 1st year via all supernumerary quotas	0	0	0	0	0	0	0
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	50	19	52	52	48	45	51

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/N)*100]
2025-26 (CAY)	60	50	0	83.33

2024-25 (CAYm1)	60	15	0	25.00
2023-24 (CAYm2)	60	46	0	76.67

$$\text{Average } [(ER1 + ER2 + ER3) / 3] = 61.67 \approx 11.00$$

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).	68.00	80.00	65.00
B=No. of students who graduated from the program in the stipulated course duration	23.00	30.00	29.00
Success Rate (SR)= (B/A) * 100	33.82	37.50	44.62

$$\text{Average SR of three batches } ((SR_1 + SR_2 + SR_3)/3): 38.65$$

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)	7.34	7.32	7.32
Y=Total no. of successful students	15.00	32.00	20.00
Z=Total no. of students appeared in the examination	15.00	46.00	45.00
API [X*(Y/Z)]	7.34	5.09	3.25

$$\text{Average API} [(AP1 + AP2 + AP3)/3] : 5.23$$

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 2nd year/10)	7.70	7.84	7.74
Y=Total no. of successful students	4.00	24.00	25.00
Z=Total no. of students appeared in the examination	38.00	27.00	29.00
API [X * (Y/Z)]	0.81	6.97	6.67

$$\text{Average API } [(AP1 + AP2 + AP3)/3] : 4.82$$

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)	7.77	7.68	7.23
Y=Total no. of successful students	24.00	25.00	35.00
Z=Total no. of students appeared in the examination	24.00	25.00	35.00

API [X*(Y/Z)]:	7.77	7.68	7.23
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Average API [(AP1 + AP2 + AP3)/3] : 7.56

B9. Placement, Higher Studies, and Entrepreneurship

Table No.B9.1: Placement, higher studies, and entrepreneurship details.

Item	LYG (2021-22)	LYGm1(2020-21)	LYGm2(2019-20)
FS*=Total no. of final year students	68.00	80.00	65.00
X=No. of students placed	27.00	27.00	23.00
Y=No. of students admitted to higher studies	4.00	7.00	1.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = ((X + Y + Z)/FS) * 100):	39.71	48.75	55.38

Average Placement Index = (P_1 + P_2 + P_3)/3: 47.95 Placement Index Points:

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

Sr.No	Name of the Faculty	PAN No.	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor if any	Nature of Association (Regular/ Contract/ Ad hoc)	Currently Associated (Y/N)	In case of NO, Date of Leaving	IS HOD?
1	Dr.S.P. Umayal	XXXXXXXX72C	Ph.D	Anna University	PowerSystem Engineering	03/06/2019	6.7	Professor	Professor		Regular	No	31/12/2025	No
2	Dr. R. Rajasekaran	XXXXXXXX19F	Ph.D	Anna University	Power System Engineering	29/05/2017	8.10	Associate Professor	Professor	12/08/2024	Regular	Yes		No
3	Dr. J. LeemaRose	XXXXXXXX10J	Ph.D	Anna University	Power Electronics	21/05/2019	6.11	Assistant Professor	Associate Professor	01/08/2022	Regular	Yes		No
4	Dr. A. Bhuvanesh	XXXXXXXX04B	Ph.D	Anna University	Power System Engineering	01/02/2018	8.2	Assistant Professor	Associate Professor	01/06/2022	Regular	Yes		No
5	Dr. S. J..Ben Christopher	XXXXXXXX88D	Ph.D	Anna University	Energy Engineering	22/08/2023	2.8	Assistant Professor	Associate Professor	18/08/2025	Regular	Yes		No
6	Dr. A. Shiny Pradeepa	XXXXXXXX85A	Ph.D	VIT, CHENNAI	Power System Engineering	20/06/2022	3.10	Assistant Professor	Assistant Professor		Regular	Yes		Yes
7	Mrs. S. Indumathi	XXXXXXXX73Q	M.E.	Anna University	Power Electronics and Drives	19/08/2020	5.8	Assistant Professor	Assistant Professor		Regular	Yes		No

8	Mrs. V. Jenitha	XXXXXXX00R	M.E.	Anna University	Power Electronics and Drives	16/06/2016	9.10	Assistant Professor	Assistant Professor		Regular	Yes		No
9	Mr. M. Murugan	XXXXXXX13P	M.E.	Anna University	Power Electronics and Drives	21/05/2019	6.11	Assistant Professor	Assistant Professor		Regular	Yes		No
10	Mrs. N. Sivasankari	XXXXXXX93L	M.E.	Anna University	Embedded system technologies	03/06/2016	9.10	Assistant Professor	Assistant Professor		Regular	Yes		No
11	Mrs. M. Anjali	XXXXXXX04G	M.E.	Anna University	Embedded system technologies	26/04/2024	1.11	Assistant Professor	Assistant Professor		Regular	Yes		No
12	Mrs. M. Deepa	XXXXXXX77F	M.E.	Anna University	Power System Engineering	08/05/2024	1.11	Assistant Professor	Assistant Professor		Regular	Yes		No
13	Dr. A. Jasmine Gnana Malar	XXXXXXX84M	Ph.D	Anna University	Control and Instrumentation	03/01/2022	4.3	Assistant Professor	Associate Professor	03/04/2023	Regular	Yes		No
14	Mrs. P. Muthulakshmi	XXXXXXX70P	M.E.	Anna University	Embedded system technologies	02/12/2019	6.4	Assistant Professor	Assistant Professor		Regular	Yes		No
15	Mrs. J. Sindhu	XXXXXXX21A	M.E.	Anna University	Power System Engineering	04/07/2016	9.9	Assistant Professor	Assistant Professor		Regular	Yes		No
16	Mrs. M. Merlin Prabha	XXXXXXX70R	M.E.	Anna University	Embedded system technologies	02/12/2019	5.7	Assistant Professor	Assistant Professor		Regular	No	03/07/2025	No
17	Mr. S. Manoraja	XXXXXXX55N	M.E.	Anna University	Power Electronics and Drives	01/02/2023	1.3	Assistant Professor	Assistant Professor		Regular	No	22/05/2024	No
18	Mr. S. Ramraj	XXXXXXX38B	M.Tech	IISC, Bangalore	Instrument Technology	29/05/2017	8.10	Assistant Professor	Assistant Professor		Regular	Yes		No
19	Dr. A. Somasundaram	XXXXXXX55E	Ph.D	Anna University	Power Electronics and Drives	23/08/2025	0.7	Assistant Professor	Assistant Professor		Regular	Yes		No
20	Mrs. V. Manju	XXXXXXX23H	M.E.	Anna University	Embedded system technologies	06/06/2025	0.10	Assistant Professor	Assistant Professor		Regular	Yes		No

Table No.C2: Faculty details of Allied Departments for the past 3 years including CAY.

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 Department1

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

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
UG1.B	60	64	66
UG1.C	64	66	66
UG1.D	66	66	66
UG1: Electrical and Electronics Engineering	190	196	198
PG1.A	18	18	18
PG1.B	18	18	18
PG1: Embedded Systems Technologies	36	36	36
DS=Total no. of students in all UG and PG programs in the Department	226	232	234
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= 226	S2= 232	S3= 234
DF=Total no. of faculty members in the Department	17	17	16
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= 17	F2= 17	F3= 16
FF=The faculty members in F who have a 100% teaching load in the first-year courses	0	0	0
Student Faculty Ratio (SFR)=S/(F-FF)	SFR1= 13.29	SFR2= 13.65	SFR3= 14.63
Average SFR for 3 years	SFR= 13.86		

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 = $2.5 \times [(10X + 4Y) / RF]$
2025-26(CAY)	7	10	11.00	25.00
2024-25(CAYm1)	6	11	11.00	23.64

2023-24(CAYm2)	6	10	11.00	22.73
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C4. Faculty Cadre Proportion

- Faculty Cadre Proportion is 1(RF1): 2(RF2): 6(RF3)
- RF1= No. of Professors required = $1/9 * \text{No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per C2 of this documents.}$
- RF2= No. of Associate Professors required = $2/9 * \text{No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section C2 of this documents.}$
- RF3= No. of Assistant Professors required = $6/9 * \text{No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section C2 of this documents.}$
- 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 RF1	Available AF1	Required RF2	Available AF1	Required RF3	Available AF3
2025-26	1.00	1.00	2.00	4.00	7.00	12.00
2024-25	1.00	2.00	2.00	3.00	7.00	12.00
2023-24	1.00	1.00	2.00	4.00	7.00	11.00
Average	RF1=1.00	AF1=1.33	RF2=2.00	AF2=3.67	RF2=7.00	AF2=11.67

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	Mr.S.Velmurugam	Managing Director	Vel Electronics, Tenkasi	EE650209- Induction and Synchronous Machines	30.00
2	Mr.S.Velmurugam	Managing Director	Vel Electronics, Tenkasi	EE640211- Solid State Drives	27.00
3	M. Sankara Narayanan	Managing Director	SANNIC SYSTEMS, Tirunelveli	EE670213-Electric Vehicle	30.00
4	M. Sankara Narayanan	Managing Director	ANNIC SYSTEMS, Tirunelveli	EE640205- DC Machines and Transformers	26.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	M. Sankara Narayanan	Managing Director	SANNIC SYSTEMS, Tirunelveli	504008- Transmission and Distribution	30.00
2	M. Sankara Narayanan	Managing Director	SANNIC SYSTEMS, Tirunelveli	504016- Power system operation and control	28.00
3	Mr.S.Velmurugam	Managing Director	Vel Electronics, Tenkasi	504011-power system analysis	30.00
4	Mr.S.Velmurugam	Managing Director	Vel Electronics, Tenkasi	504021-special electrical machines	27.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr.S.Velmurugam	Managing Director	Vel Electronics, Tenkasi	504023-Electric Vehicle	30.00
2	Mr.S.Velmurugam	Managing Director	Vel Electronics, Tenkasi	504012-Power Eelctronics	28.00
3	M. Sankara Narayanan	Managing Director	SANNIC SYSTEMS, Tirunelveli	504008- Transmission and Distribution	28.00
4	M. Sankara Narayanan	Managing Director	SANNIC SYSTEMS, Tirunelveli	504018-Solid State Drives	30.00

C6. Academic Research

Table No. C6.1: Faculty publication details.

S.No.	Item	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)
1	No. of peer reviewed journal papers published	45	27	6
2	No. of peer reviewed conference papers published	21	28	4
3	No. of books/book chapters published	0	3	4

C7. Sponsored Research Project

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

(CAYm1)

(CAYm2)

(CAYm3)

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

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)

(CAYm2)

(CAYm3)

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

Note*:

- Only consultancy 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
Dr. J. Leema Rose	Closed Loop Controller for AC to DC Converters	2	1.00	1.00	Publication
			Amount received (Rs.): 1.00		

(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
Dr. A. Bhuvanesh	Generation Expansion Planning Incorporating Recuperation of Old Power Plants for Economic Advantage	2	1.05	1.05	Publication
			Amount received (Rs.): 1.05		

(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. A. Jasmine Gnana Malar	EV On-Board Charging System	2	0.96	0.96	Publication
			Amount received (Rs.): 0.96		

Total amount (Lacs) received for the past 3 years : 3.01

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.

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical staff	Designation	Qualification
1	Electrical Machines Laboratory	30	DC Rectifier Unit DC Series Motor DC Motor Coupled With Alternator Set DC Shunt Motor Coupled with Shunt	18Hrs/ Week	J Rathina Ganesh	Lab Instructor	DEEE
2	Power electronics lab	30	Step up Step down MOSFET based Chopper IGBT based PWM Inverter 1phase (Power & Firing) IGBT based	06 Hrs/ Week	Jeyabalaji	Lab Instructor	B.E.
3	Control and Instrumentation Laboratory	30	Measurement of Iron Loss Temperature Measurement using Thermocouple Measurement of 3phase Power	18 Hrs / Week	Jeyabalaji	Lab Instructor	B.E.
4	Nicola Tesla Laboratory	30	System with good configuration. Printer. Server. Power system simulation software MATLAB, PSCAD ECAD	15 Hrs /Week	Madhava Kumar	Lab Instructor	B.E.
5	Renewable energy laboratory	30	Solar Panel 320Watts 2 No.s 150Ah, 12 V Batteries 2 No.s Solar UPS DC Fan Digital Clamp Meter Digital	06 Hrs/ Week	Madhava Kumar	Lab Instructor	B.E.

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Electrical Machines Laboratory	Fire extinguisher, First aid box, Proper earthing, safety gloves and sand buckets are placed in all laboratories There must be at least two people in the laboratory while working on live electric circuits. Wearing shoes is made mandatory for all. Students entering the laboratory are advised to take away all loose conductive jewellery and trinkets, including rings, which may contact with exposed electric circuits. (Do not wear long loose ties, scarves, or other loose clothing around machines.) While making measurements, the habit of using only one hand at a time. No part of a live circuit should be touched by the bare hand. Keep the body, or any part of it, out of the circuit. Where interconnecting wires and cables are involved, they should be arranged so people will not trip over them. Keep the work area and workbench clear of items, not used in the experiment. Always check see that the power switch is OFF before plugging into the outlet. Also, turn instrument or equipment OFF before unplugging from the outlet. While unplugging a power cord, pull on the plug, not on the cable. While disassembling a circuit, first remove the source of power. No ungrounded electrical or electronic apparatus is to be used in the laboratory unless it is double insulated or battery operated. Report any damages to equipment, hazards, and potential hazards to the laboratory instructor.
2	Power Electronics Laboratory	Fire extinguisher, First aid box, Proper earthing, safety gloves and sand buckets are placed in all laboratories Don't enter the lab without shoes and court Never experiment on your own. Never work in the lab alone. Never use electrical equipment around water. Absolutely no horseplay is allowed in the lab area. Don't work with electricity if you are hands, feet or other body parts are wet or when standing on a wet floor. Never attempt to repair electrical equipment yourself; it must be done by qualified staff. Don't touch the victim until the power has been shut off.
3	Control and Instrumentation Laboratory	Fire extinguisher, First aid box, Proper earthing, safety gloves and sand buckets are placed in all laboratories There must be at least two people in the laboratory while working on live electric circuits. Wearing shoes is made mandatory for all. Students entering the laboratory are advised to take away all loose conductive jewellery and trinkets, including rings, which may contact with exposed electric circuits. (Do not wear long loose ties, scarves, or other loose clothing around machines.) While making measurements, the habit of using only one hand at a time. No part of a live circuit should be touched by the bare hand. Keep the body, or any part of it, out of the circuit. Where interconnecting wires and cables are involved, they should be arranged so people will not trip over them. Keep the work area and workbench clear of items, not used in the experiment. Always check see that the power switch is OFF before plugging into the outlet. Also, turn instrument or equipment OFF before unplugging from the outlet. While unplugging a power cord, pull on the plug, not on the cable. While disassembling a circuit, first remove the source of power. No ungrounded electrical or electronic apparatus is to be used in the laboratory unless it is double insulated or battery operated. Report any damages to equipment, hazards, and potential hazards to the laboratory instructor.
4	Nicola Tesla Laboratory	First aid kits are available in the laboratory Specific Safety Rules are displayed and instructed for all students. Individual User id is given to secure data access Active Antivirus is installed in all PC's. Laboratories are provided with Uninterruptible Power Supply. All the laboratories are displayed with Do's and Don'ts. Intercom facilities are available in laboratories
5	Renewable Energy Laboratory	Fire Extinguisher, first aid box, proper earthing, safety gloves and sand buckets. There must be at least two people in the laboratory while working on live circuits. Shoes must be worn at all times. Remove all loose conductive jewelry and trinkets, including rings, which may come in contact with exposed circuits. (Do not wear long loose ties, scarves, or other loose clothing around machines.) Consider all circuits to be "hot" unless proven otherwise. When making measurements, form the habit of using only one hand at a time. No part of a live circuit should be touched by the bare hand. Keep the body, or any part of it, out of the circuit. Where interconnecting wires and cables are involved, they should be arranged so people will not trip over them. Be as neat a possible. Keep the work area and workbench clear of items not used in the experiment. Always check to see that the power switch is OFF before plugging into the outlet. Also, turn instrument or equipment OFF before unplugging from the outlet. When unplugging a power cord, pull on the plug, not on the cable. When disassembling a circuit, first remove the source of power. No ungrounded electrical or electronic apparatus is to be used in the laboratory unless it is double insulated or battery operated. Report any damages to equipment, hazards, and potential hazards to the laboratory instructor.
6	Project Laboratory	First aid kits are available in the laboratory Specific Safety Rules are displayed and instructed for all students. Individual User id is given to secure data access Active Antivirus is installed in all PC's. Laboratories are provided with Uninterruptible Power Supply. All the laboratories are displayed with Do's and Don'ts. Intercom facilities are available in laboratories

D3. Project Laboratory/Research Laboratory

Project Laboratory

A vital component of encouraging practical learning is done through Project Laboratory, where students generate innovative ideas and complete their final year projects. In this respect project laboratory was being setup and actively in practice. Certain description about this laboratory is numbered below:

1. The project lab is utilized by U.G, P.G students and research scholars
2. Required facilities like system provision with Internet, software (MATLAB, Simulink, PSCAD, Labview, ECAD and Power System Simulation) reputed journals are available.
3. List of previous year projects are displayed at notice board which ensures no repetition and also encourages students to enhance the previous works.
4. In-house and Industrial projects are encouraged.
5. Students are motivated to present their work in project exhibitions. Intention is to provide common platform to exhibit their innovations and their work towards excellence in latest technology.
6. Students are encouraged students to publish their work in reputed journals/conferences.
7. Encouragement is also given to the students to avail external funding schemes for their project work.

Facilities available in project laboratory

S.No.	Name of the Equipment's	Quantity
1.	Work Table	5
2.	CRO, DSO	5
3.	Function Generator	3
4.	RPS	3
5.	Soldering Iron Kit	5
6.	Bread Boards	10
7.	Connecting Wires	As Required
8.	PCB's	As Required
9.	Power Electronics Components	As Required
10.	Computer with high configuration with Net facility	5
11.	Simulation Software	Keil μ Vision 4.3 software tool and Microcontroller 8051. Xilinx free version software for designing and verifying codes of digital logic. MATLAB, PSCAD, Aurdino IDE, ECAD.

Utilization of Project Laboratory:

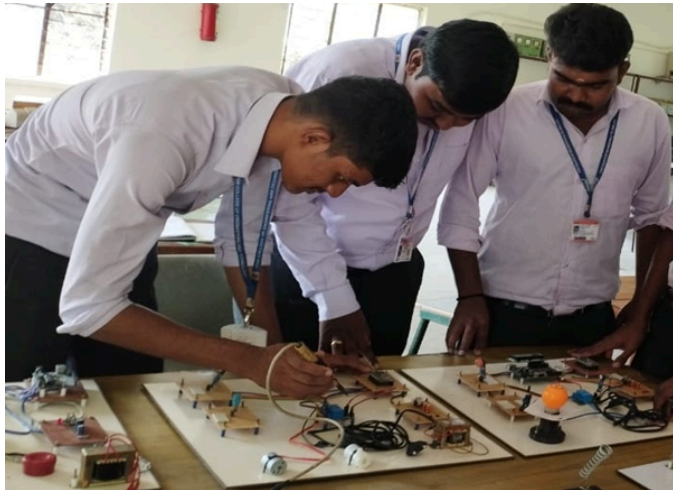
Students are utilizing the laboratory for developing projects /models / products and research activities. A few of projects done by the students are given in the below table.

List of project works done in the project laboratory

S.No	Name of the students	Title of the project	Academic Year
1	Ashok Kumar I	IOT Flood Monitoring and alerting system	2022 - 23
2	Dinesh G	Double frequency buck Converter	2022 - 23
3	Dineshkumar M	Induction timer using auto delta star starter	2023 -24
4	Kalaiselvan P	Solar based charging station for electric vehicle	2023 -24
5	Karan Raj.A	IOT-Based Stand-alone Solar - Powered Smart Home Automation System with Voice Control	2024 -25
6	K.Krishna Prasanth	Design and Optimization of a Hybrid Solar -wind Power Generation System for Rural Electrification	2024 -25

Photo of students working in Project laboratory:

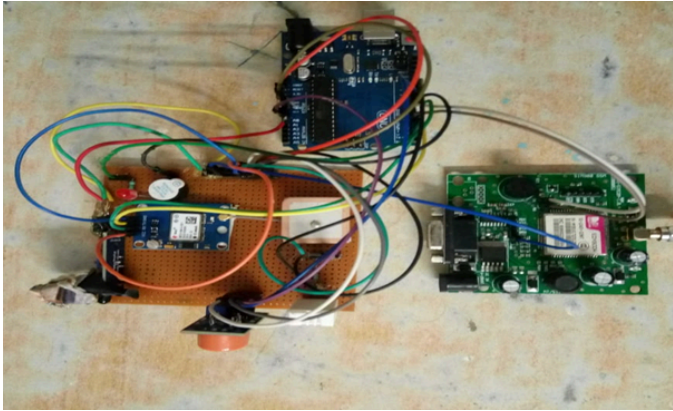
This is a laboratory with a focus on various advancements in electrical engineering era. Certain projects carried out here are displayed for proof.



Sample photographs of Project kits:

(a) Wildfire Detecting System using Wireless Sensor Network:

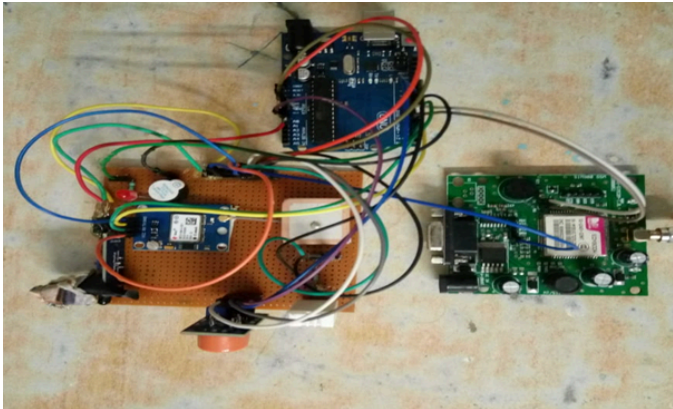
This set up displays the Wildfire Detecting System using Wireless Sensor Network setup operated through Arduino.



Sample photographs of Project kits:

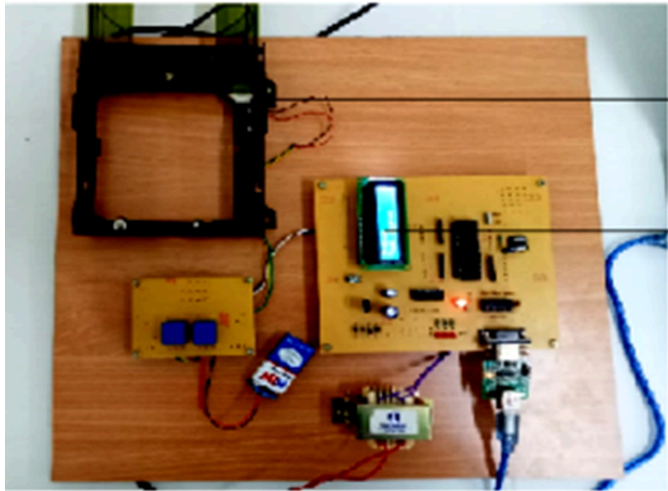
(a) Wildfire Detecting System using Wireless Sensor Network:

This set up displays the Wildfire Detecting System using Wireless Sensor Network setup operated through Arduino.



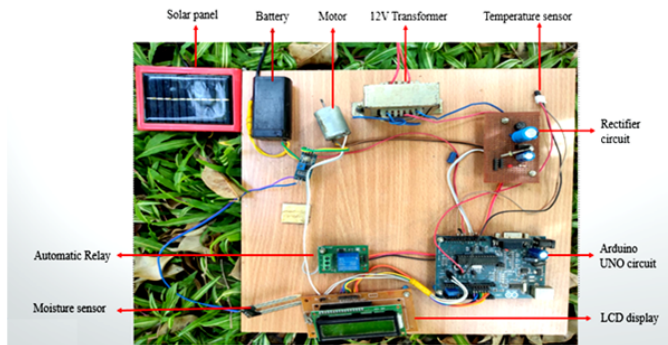
(b) Real Time Face Mask Detection using Python

This set up displays the real time face mask detection operated through python.

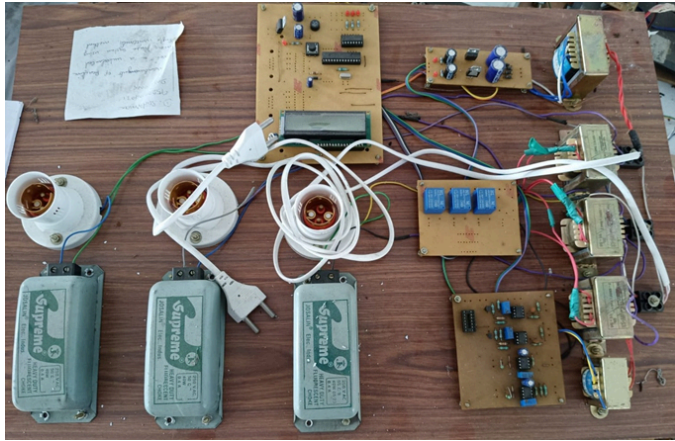


(c) Smart Agriculture System using Arduino

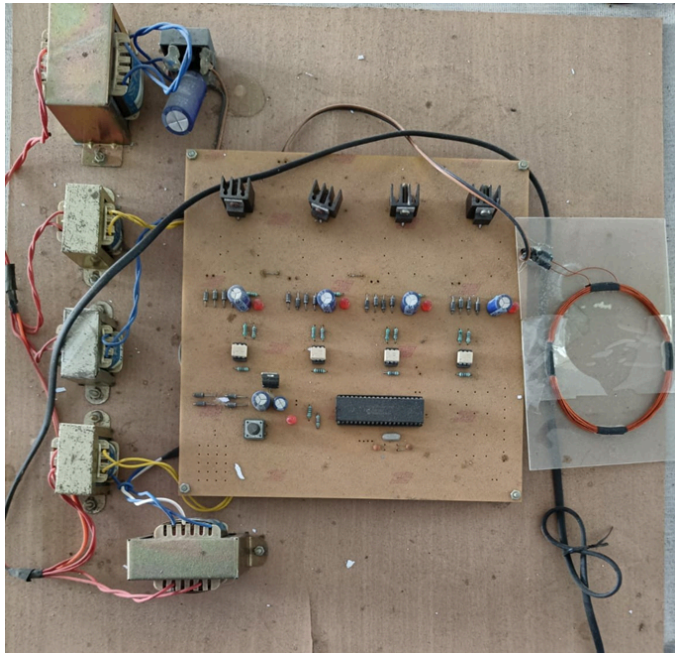
This set up displays the smart agriculture system setup operated through Arduino.



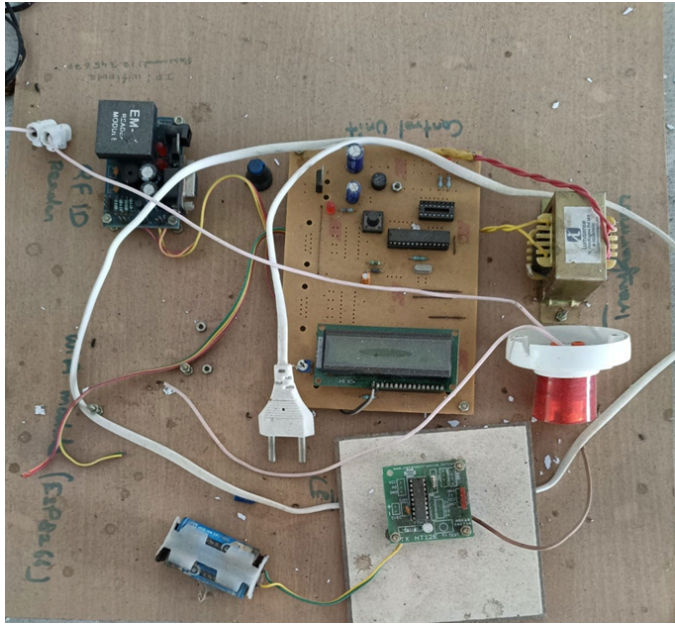
Battery operation to minimize the electricity cost and charging station and electric vehicle



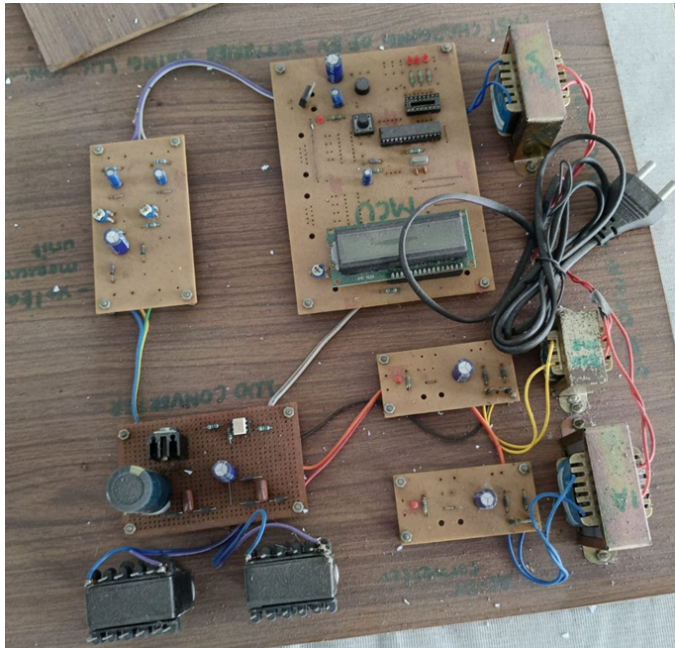
Measurement of power in a unbalanced three phase system using single wattmeter method



Wireless Power Transfer (WPT) system



RFID Based EV Charging Station with IoT Monitoring.



Fast charging of EV batteries using LJO converter

National Instruments Centre of Excellence

PSN College of Engineering and Technology, in collaboration with National Instruments (India), established the **PSNCET–NI LabVIEW Academy** in 2016 for the PSN Educational Institutions.

This Academy is an initiative under NI's **Planet NI (Nurturing Innovation)** framework, which aims to enhance the employability of Indian engineering graduates by creating **Centres of Excellence** in engineering institutions. It provides cost-effective access to world-class technology through innovative teaching and learning practices.

The **LabVIEW Academy**, a certified training centre, offers hands-on training in LabVIEW for engineering students, faculty, and industry professionals across South India. It also provides facilities for undergraduate and postgraduate project work and conducts short-term training programs for faculty and students from various engineering colleges.

The centre is supported by highly skilled faculty and engineers trained through professional development programmes conducted by NITTTR and other premier institutions, ensuring high-quality instruction and technical excellence.

Facilities at National Instruments Center of Excellence (NICE)

- NI LabVIEW Academy Software: 50 Licenses.
- NI Academy Hardware:

Data Acquisition, my DAQ Integrated Electronic circuits my RIO FPGA based Embedded System Design, CO2 Analyzer, O2 Analyzer, Heart Beat monitoring, ARM Microcontroller

Vision

- To establish the NI LabVIEW Centre as a hub for innovation, education, and research in graphical system design, enabling the development of impactful, industry-ready solutions.

Mission

- Equip students and faculty with industry-relevant skills and certifications.
- Leverage NI's software-centric platforms and modular hardware for rapid prototyping, testing, and deployment.
- Promote LabVIEW best practices for scalable, efficient, and maintainable system design.

Objective:

- Explore the LabVIEW environment through hands-on learning in dataflow programming, interactive analysis, and core development techniques.
- Implement LabVIEW code for user interface design, data types, looping structures, documentation, and data visualization.
- Develop data acquisition, instrument control, data logging, and measurement analysis applications using NI ELVIS II.
- Gain proficiency in developing modular and scalable LabVIEW applications.
- Prepare students for the international CLAD (Certified LabVIEW Associate Developer) certification.

List of Events Organized

VAC

1.	2025-26	Visuval Based Control System using LabVIEW
2.	2024-25	Visuval Based Control System using LabVIEW
3.	2024-25	Graphical System Design using LabVIEW
4.	2023-24	Virtual Instrumentation using LabVIEW

5.	2023-24	Virtual Instrumentation using LabVIEW
6.	2021-22	VAC on PC Based Real time Data Acquisition using LabVIEW

FDP

1.	2022-23	FDP on LabVIEW Basics
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Projects

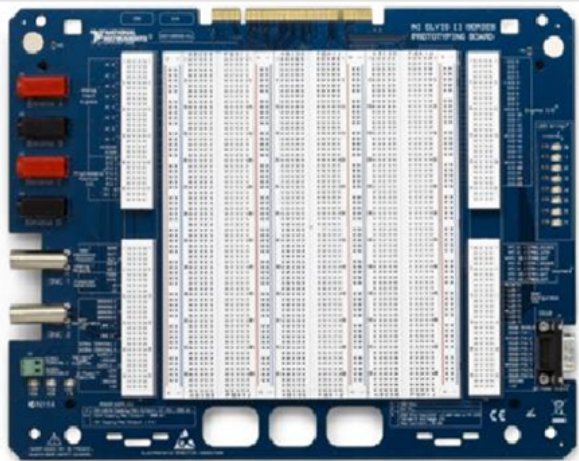
1.	2022-23	Project on Real time Temperature Monitoring and Control using LabVIEW
2.	2028-19	Hazardous Gas Monitoring System using LabVIEW
3.	2015-16	Agriculture Field Monitoring System using LabVIEW
4.	2014-15	Fire Monitoring and Alerting System in Railways using LabVIEW

Mini Project

1.	2023-24	Design of Liquid level Monitoring using LabVIEW
2.	2023-24	Soil Humidity Analysis in Agricultural Sector using LabVIEW
3.	2023-24	Temperature Sensing using LabVIEW
4.	2023-24	TCP Protocol client and server VI using LabVIEW
5.	2023-24	Numbered Door Lock System using LabVIEW

National Instruments – LabVIEW hardware facilities:

NI ELVIS II PROTOTYPING BOARD



The NI ELVIS II prototyping board is an incredibly useful tool to test your circuits before you go through all the work of soldering. The board contains a breadboard and channels where you can use a multitude of tools on a computer to test your circuit.

Related Recent Placement of LabVIEW

Sl. No.	Student	Company	Designation	D.O.J
1.	Mr. Munish Bharath B	TEK KNOW TECHNOLOGIES INDIA PVT.LTD, Chennai	Instrumentation Engineer	10.03.2025
2.	Mr. Ariramar C	TEK KNOW TECHNOLOGIES INDIA PVT.LTD, Chennai	Instrumentation Engineer	10.07.2023



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)	570	28	18	24	69
2024-25(CAYm1)	690	34	17	27	56
2025-26(CAY)	690	34	22	29	69

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

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

Items	Budgeted in 2025-26	Actual Expenses in 2025-26 till	Budgeted in 2024-25	Actual Expenses in 2024-25 till	Budgeted in 2023-24	Actual Expenses in 2023-24 till	Budgeted in 2022-23	Actual Expenses in 2022-23 till
Infrastructure Built-Up	100.00	98.83	45.00	40.37	120.00	117.41	140.00	136.32

Library //	15.00	13.34	17.00	15.64	16.00	15.66	15.00	12.87
Laboratory equipment //	60.00	54.15	60.00	55.69	40.00	39.12	57.00	54.09
Teaching and non-teaching staff salary //	800.00	794.52	775.00	756.42	700.00	677.16	700.00	680.80
Outreach Programs //	0.25	0.15	0.10	0.04	1.00	0.92	0.25	0.21
R&D //	14.00	11.80	14.00	11.89	10.00	7.35	15.00	13.23
Training, Placement and Industry linkage //	62.00	59.78	60.00	56.26	40.00	31.99	35.00	28.60
SDGs //	110.00	101.21	110.00	114.13	110.00	113.40	260.00	258.35
Entrepreneurship //	8.00	6.83	6.00	3.55	4.00	3.24	10.00	8.66
Others, specify //	600.00	580.00	510.00	500.38	600.00	578.58	400.00	393.05
Total	1769.25	1720.61	1597.10	1554.37	1641.00	1584.83	1632.25	1586.18

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 in 2025-26	Actual Expenses in 2025-26 till	Budgeted in 2024-25	Actual Expenses in 2024-25 till	Budgeted in 2023-24	Actual Expenses in 2023-24 till	Budgeted in 2022-23	Actual Expenses in 2022-23 till
Laboratory equipment //	143000	130000	132000	120000	140000	125000	109000	98500
Software //	648000	588420	72000	65000	40000	35795	85000	75000
SDGs //	580000	526000	648000	588762	550000	498987	1500000	1341405
Support for faculty development //	36000	33450	31000	27975	43000	38249	33000	29356
R & D //	165000	150000	143000	130000	132000	120000	200000	135000
Industrial Training, Industry expert, Internship //	41000	36800	54000	48450	59000	53200	64000	57300
Miscellaneous Expenses* //	6500000	5914780	552000	501100	5730000	5201750	6800000	6197800
Total	8113000	7379450	1632000	1481287	6694000	6072981	8791000	7934361