

**NATIONAL BOARD OF ACCREDITATION**

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

<b>Program Name</b> : Electrical and Electronics Engineering	<b>Discipline</b> : Engineering & Technology
<b>Level</b> : Under Graduate	<b>Tier</b> : 1
<b>Application No</b> : 10582	<b>Date of Submission</b> : 09-05-2025

**PART A- Profile of the Institute**

<b>A1.Name of the Institute</b> : SRI ESHWAR COLLEGE OF ENGINEERING	
Year of Establishment : 2008	Location of the Institute: Coimbatore
<b>A2. Institute Address</b> :KONDAMPATTI (PO) VADASITHUR (VIA) KINATHUKADAVU COIMBATORE - 641 202	
City:Coimbatore	State:Tamil Nadu
Pin Code:641202	Website:www.sece.ac.in
Email:sece@sece.ac.in	Phone No(with STD Code):04259-200300
<b>A3. Name and Address of the Affiliating University (if any)</b> :	
Name of the University : ANNA UNIVERSITY CHENNAI	City: Chennai
State : Tamil Nadu	Pin Code: 60025
<b>A4. Type of the Institution</b> : Self-Supported Institute	
<b>A5. Ownership Status</b> : Self financing	

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

- No. of UG programs: **10**
- No. of PG programs: **3**

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	Artificial Intelligence and Data Science	2020	--	Artificial Intelligence and Data Science
2	Engineering & Technology	UG	Computer & Communication Engineering	2019	--	Computer and Communication Engineering
3	Engineering & Technology	UG	Computer Science and Business System	2020	--	Computer Science and Business System
4	Engineering & Technology	UG	Computer Science and Engineering	2008	--	Computer Science and Engineering

5	Engineering & Technology	PG	Computer Science and Engineering	2012	--	Computer Science and Engineering
6	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence & Machine Learning)	2022	--	Computer Science and Engineering (Artificial Intelligence and Machine Learning)
7	Engineering & Technology	UG	Computer Science and Engineering (Cyber Security)	2024	--	Computer Science and Engineering (Cyber Security)
8	Engineering & Technology	UG	Electrical & Electronics Engineering	2008	--	Electrical and Electronics Engineering
9	Engineering & Technology	UG	Electronics & Communication Engineering	2008	--	Electronics and Communication Engineering
10	Engineering & Technology	PG	Engineering Design	2013	--	Mechanical Engineering
11	Engineering & Technology	UG	Information Technology	2019	--	Information Technology
12	Engineering & Technology	UG	Mechanical Engineering	2009	--	Mechanical Engineering
13	Engineering & Technology	PG	VLSI Design	2011	--	Electronics and Communication Engineering

**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
Electronics and Communication Engineering	No	Electronics & Communication Engineering	UG
Computer Science and Engineering	Yes	Computer Science and Engineering	UG
Mechanical Engineering	No	Mechanical 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
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## 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:  
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 :	Rajan Babu W
B. Nature of appointment:	Regular
C. Qualification:	ME/M. Tech and PhD

**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)	2024-25 (CAY)	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)	2020-21 (CAYm4)	2019-20 (CAYm5)	2018-19 (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	60	60	60	60	36	20	39
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	4	5	5	9	2	3
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	5	2	2	2	0	0	0
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	65	66	67	67	45	22	42

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]
2024-25 (CAY)	60	60	5	108.33
2023-24 (CAYm1)	60	60	2	103.33
2022-23 (CAYm2)	60	60	2	103.33

Average [ (ER1 + ER2 + ER3) / 3 ] = 105.00≅ 100

**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	(2020-21) LYG	(2019-20) LYGm1	(2018-19) 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).	69.00	62.00	63.00
B=No. of students who graduated from the program in the stipulated course duration	43.00	22.00	42.00
Success Rate (SR)= (B/A) * 100	62.32	35.48	66.67

Average SR of three batches ((SR\_1+ SR\_2+ SR\_3)/3): 54.82

**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( 2023-24 )	CAYm2( 2022-23 )	CAYm3 ( 2021-22 )
Mean of CGPA or mean percentage of all successful students(X)	7.52	7.86	8.05
Y=Total no. of successful students	58.00	62.00	62.00
Z=Total no. of students appeared in the examination	62.00	62.00	62.00
API [X*(Y/Z)]	7.03	7.86	8.05

Average API [ (AP1+AP2+AP3)/3 ] : 7.65

**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 ( 2023-24 )	CAYm2 ( 2022-23 )	CAYm3 ( 2021-22 )
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)	7.38	7.58	7.88
Y=Total no. of successful students	67.00	67.00	43.00
Z=Total no. of students appeared in the examination	67.00	67.00	43.00
API [ X * (Y/Z) ]	7.38	7.58	7.88

Average API [ (AP1 + AP2 + AP3)/3 ] : 7.61

**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 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-22)
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)	7.41	7.13	7.56
Y=Total no. of successful students	67.00	43.00	22.00

Z=Total no. of students appeared in the examination	67.00	43.00	22.00
API [ $X*(Y/Z)$ ]:	7.41	7.13	7.56

Average API [ (AP1 + AP2 + AP3)/3 ] : 7.37

### B9. Placement, Higher Studies, and Entrepreneurship

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

Item	LYG (2020-21)	LYGm1(2019-20)	LYGm2(2018-19)
FS*=Total no. of final year students	69.00	62.00	63.00
X=No. of students placed	33.00	14.00	38.00
Y=No. of students admitted to higher studies	2.00	3.00	2.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = $((X + Y + Z)/FS) * 100$ :	50.72	27.42	63.49

Average Placement Index =  $(P_1 + P_2 + P_3)/3$ : 47.21 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	Rajan Babu W	XXXXXXXX96H	ME/M. Tech and PhD	ANNA UNIVERSITY	ELECTRICAL MACHINES	02/06/2010	14.11	Assistant Professor	Professor	08/01/2019	Regular	Yes		Yes
2	Chandrasekaran V	XXXXXXXX19D	ME/M. Tech and PhD	ANNA UNIVERSITY	ELECTRICAL MACHINES	20/04/2016	9	Professor	Professor		Regular	Yes		No

3	Sivarasu S R	XXXXXXXX13H	ME/M. Tech and PhD	ANNA UNIVERSITY	Power Electronics and Renewable Energy Systems	01/07/2016	7.3	Professor	Professor		Regular	No	30/09/2023	No
4	Gunapriya D	XXXXXXXX27M	ME/M. Tech and PhD	ANNA UNIVERSITY	Electrical Machines and Drives	15/06/2022	2.10	Assistant Professor	Associate Professor	12/04/2024	Regular	Yes		No
5	Geetha M	XXXXXXXX59J	ME/M. Tech and PhD	ANNA UNIVERSITY	Power Electronics and Drives	19/07/2023	1.9	Assistant Professor	Assistant Professor		Regular	Yes		No
6	Anbarasu P	XXXXXXXX64C	ME/M. Tech and PhD	ANNA UNIVERSITY	Power Electronics and Drives	19/06/2013	11.10	Assistant Professor	Assistant Professor		Regular	Yes		No
7	Pushpalatha N	XXXXXXXX95K	ME/M. Tech and PhD	ANNA UNIVERSITY	Power Electronics and Drives	06/01/2010	15.3	Assistant Professor	Assistant Professor		Regular	Yes		No
8	Hemananth B	XXXXXXXX55R	M.E/M.Tech	ANNA UNIVERSITY	Power Electronics and Drives	21/01/2009	16.3	Assistant Professor	Assistant Professor		Regular	Yes		No
9	Premkumar R	XXXXXXXX28G	M.E/M.Tech	ANNA UNIVERSITY	Control Systems	01/06/2011	13.10	Assistant Professor	Assistant Professor		Regular	Yes		No
10	Sheikameer Batcha S	XXXXXXXX72M	ME/M. Tech and PhD	ANNA UNIVERSITY	Power Electronics and Drives	23/11/2011	13.5	Assistant Professor	Assistant Professor		Regular	Yes		No
11	Haraiharan R	XXXXXXXX48G	M.E/M.Tech	ANNA UNIVERSITY	Embedded System Technologies	04/06/2012	12.10	Assistant Professor	Assistant Professor		Regular	Yes		No
12	Raj Thilak K	XXXXXXXX00N	M.E/M.Tech	ANNA UNIVERSITY	Energy Engineering	19/06/2013	11.10	Assistant Professor	Assistant Professor		Regular	Yes		No
13	Mohan Raj C	XXXXXXXX53J	M.E/M.Tech	ANNA UNIVERSITY	Power Electronics and Drives	23/12/2013	11.4	Assistant Professor	Assistant Professor		Regular	Yes		No
14	Sri Sangeetha R	XXXXXXXX01D	M.E/M.Tech	ANNA UNIVERSITY	Power Systems	19/06/2017	5.11	Assistant Professor	Assistant Professor		Regular	No	31/05/2023	No

15	Kathiravan R	XXXXXXXX75B	M.E/M.Tech	ANNA UNIVERSITY	Power Electronics and Drives	20/01/2021	4.3	Assistant Professor	Assistant Professor		Regular	Yes		No
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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 Department0

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

Description	CAY(2024-25)	CAYm1 (2023-24)	CAYm2 (2022-23)
UG1.B	64	65	65
UG1.C	65	65	66
UG1.D	65	66	62
<b>UG1: Electrical &amp; Electronics Engineering</b>	<b>194</b>	<b>196</b>	<b>193</b>
DS=Total no. of students in all UG and PG programs in the Department	194	196	193
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)	<b>S1= 194</b>	<b>S2= 196</b>	<b>S3= 193</b>
DF=Total no. of faculty members in the Department	13	13	14
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)	<b>F1= 13</b>	<b>F2= 13</b>	<b>F3= 14</b>

Description	CAY(2024-25)	CAYm1 (2023-24)	CAYm2 (2022-23)
FF=The faculty members in F who have a 100% teaching load in the first-year courses	1	1	1
Student Faculty Ratio (SFR)=S/(F-FF)	<b>SFR1= 16.17</b>	<b>SFR2= 16.33</b>	<b>SFR3= 14.85</b>
Average SFR for 3 years	<b>SFR= 15.78</b>		

### 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 = $2.5 \times [(10X + 4Y) / RF]$
2024-25(CAY)	6	7	9.00	24.44
2023-24(CAYm1)	4	9	9.00	21.11
2022-23(CAYm2)	4	10	9.00	22.22

### 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
2024-25	1.00	2.00	2.00	1.00	6.00	10.00
2023-24	1.00	2.00	2.00	0.00	6.00	11.00
2022-23	1.00	3.00	2.00	0.00	6.00	11.00
Average	RF1=1.00	AF1=2.33	RF2=2.00	AF2=0.33	RF2=6.00	AF2=10.67

**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. Kumaravel Pandurangan G	Founder & Managing Director	VACT Technologies Pvt Ltd	U19EE303-MPMC(V sem) U19EE401-Embedded systems(VII sem)	60.00

**(CAYm2)**

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. MAHESH PRASATH.J.R	Founder	Imbrute & Fernhill Technologies	U19IC504-Electronics Design & Automation U19EE401-Embedded systems	60.00

**(CAYm3)**

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. KARTHIK DEVARAJ	Firmware Engineer	Parviom Technologies Pvt Ltd	U19IC503-SOLAR PV SYSEM DESIGN AND SIMULATION U19EE303-MPMC	60.00

**C6. Academic Research**

Table No. C6.1: Faculty publication details.

S.No.	Item	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)
1	No. of peer reviewed journal papers published	14	12	1
2	No. of peer reviewed conference papers published	6	22	12
3	No. of books/book chapters published	0	4	0

**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
Dr.G.Karuppusami	Dr. P.Anbarasu	Unnat Bharat Abhiyan	Solar Powered Nano Milk making machine for small scale farmers in adopted village	Unnat Bharat Abhiyan	6 months	1.00
						Amount received (Rs.):1.00

**(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
Dr. P.Anbarasu	Dr.G.Karuppusami	Unnat Bharat Abhiyan	Design Of Low-Cost Chaff Cutter For Rural Farmers	Unnat Bharat Abhiyan	6 months	0.50
Dr. P.Anbarasu	Mr.C.Mohanraj	Tamilnadu State Council for Science and Technology (TNSCST)	Tech Trend – 2021 (Technology Dissemination and Awareness) for Government School Students	Tamilnadu State Council for Science and Technology (TNSCST)	1 month	0.20
Dr.W.Rajanbabu	Mr.C.Mohanraj	ATAL – AICTE	ATAL Sponsored one week FDP On " Robotics- The Machine Power for Industrial Automation"	ATAL – AICTE	6 days	0.93
						Amount received (Rs.):1.63

**Total Amount (Lacs) Received for the Past 3 Years: 2.63**

**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
Dr.W.Rajan Babu	Mr.B.Hemananth Mr.B.Hemananth Mr.R.Prem Kumar Mr.K.Raj Thilak	EEE	Power Quality Auditk,	Best Forgings India (P) Ltd. 15-A, Private Industrial Estate, Kuruchi Sidco, Coimbatore-641021	2 days	1.36
Dr.W.Rajan Babu	Mr.S.Sheikameer Batcha Mr.R.Hariharan Mr.P.Anbarasu Mr.C.Mohanraj	EEE	Smart Pneumo: Integrating Intelligent Timer Control into Pneumatic Cylinder Design	SN ENGINEERING WORKS 134/171-A, Indira Nagar, Sowripalayam, Coimbatore-641028	15 days	1.15
						Amount received (Rs.):2.51

**(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.W.Rajan Babu	Mr.C.Mohanraj Mr.R.Prem Kumar	EEE	Design and Development of Automatic Cookies Making Machine	M/s. Focus Automation, 3/127, Pudhuvadavalli, Rajan Nagar Panchayat, Erode, Tamil Nadu, 638401.	1 day	1.59
Dr.W.Rajan Babu	Mr.S.Sheikameer Batcha Mr.K.Raj Thilak	EEE	Power Quality & Audit Design of Solar Submersible Pump	Goldwin Industries, No. 23-2, Siddha Thottam, Ganapathy, Coimbatore-641 006.	29 days	1.12
Dr.W.Rajan Babu	Mr.B.Hemanath Mr.S.Sheikameer Batcha Mr.R.Hariharan Mr.C.Mohanraj Mr.P.Anbarasu	EEE	Solar Installation and Wiring	Sri Eshwar College of Engineering, Kondampatti Post, Vadasithur via, Coimbatore-641202.	28 days	1.75
						Amount received (Rs.):4.46

**(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: 6.97**

**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
Mr.Sheikameer Batcha Mr.B.Hemananth	Circuit Fabricator	365 days	0.90	0.78	Enable rapid prototyping of custom electronic circuits within the institution, significantly reducing dependency on external fabrication services.
Mr.R.Premkumar Mr.C. Mohanraj	Optimizing Energy Consumption with AI-Driven Energy Management Systems	365 days	1.00	0.97	Contribution to institutional goals of environmental responsibility and innovation by reducing carbon footprint and promoting green technologies
			Amount received (Rs.): 1.90		

**(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.W.Rajan Babu Mr.K.Raj Thilak	Design and Development of Decussate Slot Induction Motor	365 days	0.63	0.63	Strengthening and promoting innovation in sustainable and efficient motor technology
Mr.R.Premkumar Mr.C.Mohan Raj	AI Based Demand Side Power Management(DSPM)	365 days	1.25	1.25	Strengthening institutional research in AI applications for energy management, opening avenues for interdisciplinary
			Amount received (Rs.): 1.88		

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

**Total amount (Lacs) received for the past 3 years : 3.78**

## 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 Lab I (171 Sq.m)	3	DC Generators <input type="checkbox"/> DC Motors <input type="checkbox"/> Alternators <input type="checkbox"/> DC Rectifier <input type="checkbox"/> Auto Transformers <input type="checkbox"/> Motor loads <input type="checkbox"/>	Even Semeste	S.Mohanraj	Lab Technician	B.E – EEE
2	Electrical Machines Lab II (134 Sq.m)	3	<input type="checkbox"/> Wiring Setup <input type="checkbox"/> CRO <input type="checkbox"/> Transformers <input type="checkbox"/> AC Motors <input type="checkbox"/> Regulated power supply <input type="checkbox"/> Function generator <input type="checkbox"/> DSB, DLP and DSP	Odd Semester:	S.Mohanraj	Lab Technician	B.E – EEE
3	Power Electronics Lab and Electric Circuits Lab (102 Sq.m)	3	<input type="checkbox"/> VI Characteristics kits <input type="checkbox"/> 1 phase & 3 phase Half/Fully controlled Converter kit <input type="checkbox"/> Step up & step down choppers <input type="checkbox"/> 4	Odd Semester:	R.Sathish Kumar	Lab Technician	B.E – EEE
4	Control & Instrumentation lab (103 Sq.m)	3	<input type="checkbox"/> AC and DC Bridges <input type="checkbox"/> ADC & DAC <input type="checkbox"/> 3 phase loads <input type="checkbox"/> LVDT <input type="checkbox"/> Pressure transducer <input type="checkbox"/> DC & AC power supplies <input type="checkbox"/>	Odd Semester:	B.Sathish	Lab Technician	B.E – EEE
5	Power System Simulation Lab I & II (140 Sq.m)	1	<input type="checkbox"/> Intel i5 Processors, <input type="checkbox"/> 16 GB RAM, <input type="checkbox"/> SSD 500 GB HD	Odd Semester:	Mathankumar	Lab Technician	B.E – EEE

#### 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 Lab I	<input type="checkbox"/> Wear shoes while performing experiments. <input type="checkbox"/> Avoid loose clothing, jewelry or accessories during lab work. <input type="checkbox"/> Keep hands dry before touching any electrical equipment <input type="checkbox"/> Check all connections with faculty/instructor before powering ON. <input type="checkbox"/> Use components and instruments with correct ratings. <input type="checkbox"/> Do not touch live circuits – switch OFF before making changes. <input type="checkbox"/> In case of electric shock, turn off power and seek help immediately. <input type="checkbox"/> All laboratories have been checked to ensure there is no open-ended wiring. <input type="checkbox"/> Know the location of miniature circuit breaker/ power switches. <input type="checkbox"/> First Aid kits and fire extinguishers are available in all laboratories and periodic checks are conducted to ensure they are within their expiry dates.

2	Electrical Machines Lab II	<input type="checkbox"/> Wear shoes while performing experiments. <input type="checkbox"/> Avoid loose clothing, jewelry or accessories during lab work. <input type="checkbox"/> Keep hands dry before touching any electrical equipment <input type="checkbox"/> Check all connections with faculty/instructor before powering ON. <input type="checkbox"/> Use components and instruments with correct ratings. <input type="checkbox"/> Do not touch live circuits – switch OFF before making changes. <input type="checkbox"/> In case of electric shock, turn off power and seek help immediately. <input type="checkbox"/> All laboratories have been checked to ensure there is no open-ended wiring. <input type="checkbox"/> Know the location of miniature circuit breaker/ power switches. <input type="checkbox"/> First Aid kits and fire extinguishers are available in all laboratories and periodic checks are conducted to ensure they are within their expiry dates.
3	Power Electronics Lab & Electric Circuits Lab	<input type="checkbox"/> Wear shoes while performing experiments. <input type="checkbox"/> Avoid loose clothing, jewelry or accessories during lab work. <input type="checkbox"/> Keep hands dry before touching any electrical equipment <input type="checkbox"/> Check all connections with faculty/instructor before powering ON. <input type="checkbox"/> Use components and instruments with correct ratings. <input type="checkbox"/> Do not touch live circuits – switch OFF before making changes. <input type="checkbox"/> In case of electric shock, turn off power and seek help immediately. <input type="checkbox"/> All laboratories have been checked to ensure there is no open-ended wiring. <input type="checkbox"/> Know the location of miniature circuit breaker/ power switches. <input type="checkbox"/> First Aid kits and fire extinguishers are available in all laboratories and periodic checks are conducted to ensure they are within their expiry dates.
4	Control and Instrumentation Laboratory	<input type="checkbox"/> Wear shoes while performing experiments. <input type="checkbox"/> Avoid loose clothing, jewelry or accessories during lab work. <input type="checkbox"/> Keep hands dry before touching any electrical equipment <input type="checkbox"/> Check all connections with faculty/instructor before powering ON. <input type="checkbox"/> Use components and instruments with correct ratings. <input type="checkbox"/> Do not touch live circuits – switch OFF before making changes. <input type="checkbox"/> In case of electric shock, turn off power and seek help immediately. <input type="checkbox"/> All laboratories have been checked to ensure there is no open-ended wiring. <input type="checkbox"/> Know the location of miniature circuit breaker/ power switches. <input type="checkbox"/> First Aid kits and fire extinguishers are available in all laboratories and periodic checks are conducted to ensure they are within their expiry dates.
5	Power System Simulation Laboratory I&II	<input type="checkbox"/> Wear shoes while performing experiments. <input type="checkbox"/> Avoid loose clothing, jewelry or accessories during lab work. <input type="checkbox"/> Keep your hands dry while switching on the computer systems. <input type="checkbox"/> Surveillance Camera is installed in laboratories to ensure security. <input type="checkbox"/> All the computers are protected with licensed anti-virus software. <input type="checkbox"/> First Aid kits and fire extinguishers are available in all laboratories and periodic checks are conducted to ensure they are within their expiry dates <input type="checkbox"/> Do not insert unauthorized USB's or install unknown software. <input type="checkbox"/> Do not access or modify restricted system or network files. <input type="checkbox"/> Avoid unauthorized downloads and installations. <input type="checkbox"/> Shut down systems properly; avoid force shutdowns.

### D3. Project Laboratory/Research Laboratory

**Table No. 7.5.1:** List of project laboratory/research laboratory /Centre of Excellence.

S. No.	Name of the Laboratory
1.	<p><b>Centre of Excellence (CoE) in Electronics Design and Automation:</b></p> <p>The Centre of Excellence (CoE) in Electronics Design and Automation, located in a dedicated space, is established to provide a focused platform for advanced learning, research, and innovation in embedded systems, PCB design, IoT, industrial automation, and electronic product development. It is equipped with tools such as EDA software (like OrCAD, KiCad, Proteus, Multisim), development boards (Arduino, Raspberry Pi, STM32), PCB fabrication kits, signal generators, logic analyzers, and automation training kits. This CoE supports skill development, hands-on training, project prototyping, and industry-aligned learning, enabling students and faculty to explore and create solutions in smart electronics and automation systems. Students, through the CoE, have actively participated in various hackathons, project contests, and technical competitions. Notably, for example, they won the ACDC Hackathon organized by PALS, and a batch of students reached the finals of the Smart India Hackathon (SIH) 2024, organized by AICTE, showcasing the center's role in nurturing innovation and practical excellence. A sample of the related proofs and achievements is shown in figure 7.5.1.1.</p>
2	<p><b>Centre of Excellence (CoE) in Robotics and Industrial Automation:</b></p> <p>The Centre of Excellence in Robotics and Industrial Automation, located in the Engineering Practices Lab, is established to promote hands-on learning, innovation, and research in the areas of robotics, automation, control systems, and intelligent manufacturing. It is equipped with advanced training kits and tools such as programmable logic controllers (PLCs), robotic arms, industrial sensors, actuators, SCADA systems, and simulation software. This CoE enables students and faculty to develop, simulate, and implement automation systems, supporting academic projects, industry-linked training, and skill development in smart factories, automated processes, and Industry 4.0 applications. Through this CoE, students have developed many innovative and application-oriented projects, enhancing their technical competence and problem-solving skills. These projects reflect the practical outcomes of the training and exposure provided, some of which are shown in figure 7.5.1.2</p>
3	<p><b>Project Lab</b></p> <p>The Project Laboratory of the EEE Department, located within the Control &amp; Instrumentation Lab and Power System Lab, serves as a key innovation space for students. It is well-equipped with essential facilities including high-speed Wi-Fi, soldering stations, PCB drilling machines, power-backed workbenches, and component storage units. The lab houses various microcontroller development boards such as Arduino, ESP32, and Raspberry Pi, along with test and measurement instruments like DSOs, function generators, and multimeters. The Project Lab provides a practical and resource-rich environment that enables students to develop and implement real-time solutions, engage in interdisciplinary projects, and participate in innovation-driven activities.</p>

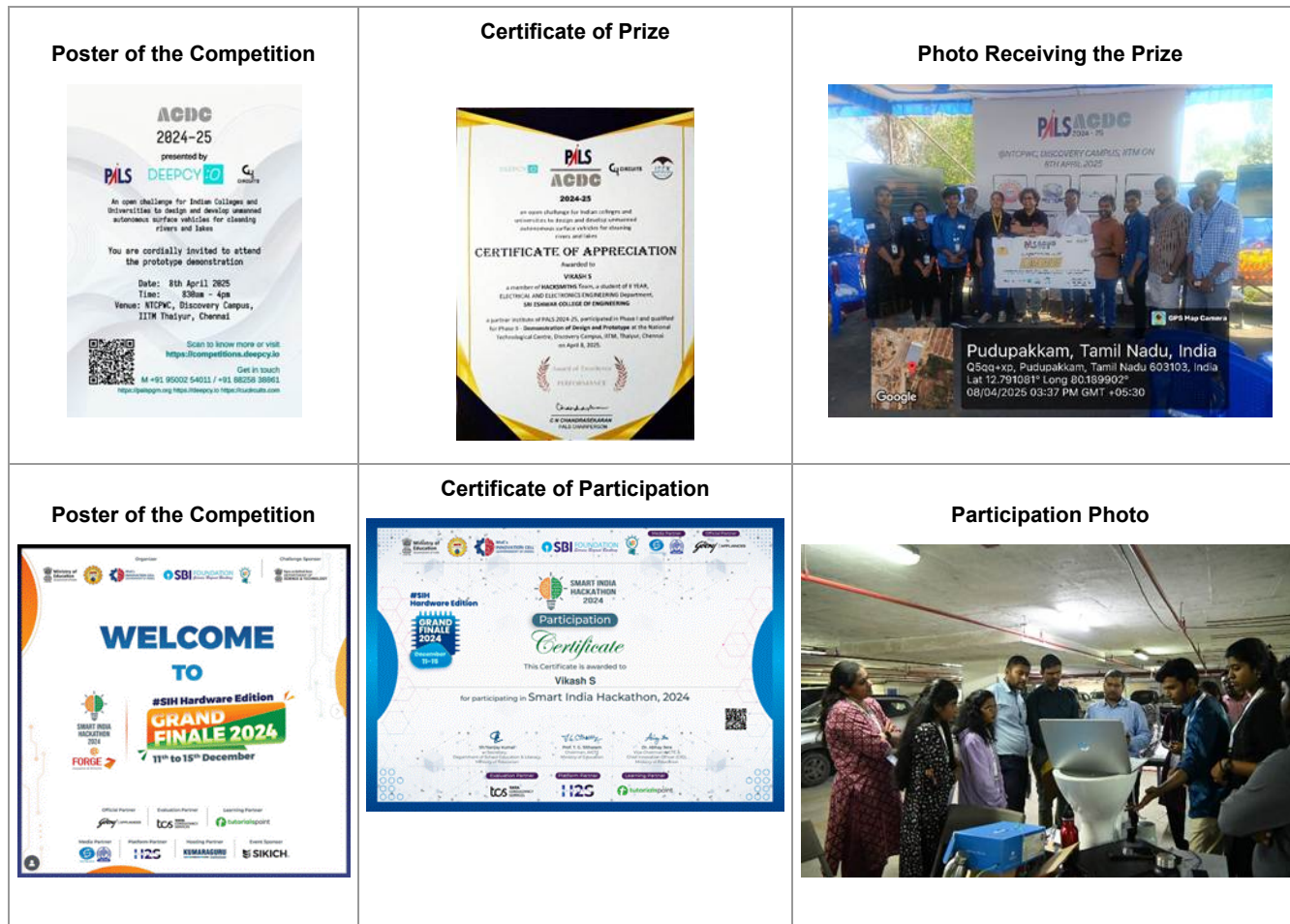


Fig 7.5.1.1 Sample proof for Hackathon Participation Through Centre of Excellence

Name of the project	Photo of the Project
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<p>Automatic Car Washing System using PLC</p>	 A photograph of an automatic car washing system. A red car is positioned on a platform, surrounded by large rotating brushes in blue, yellow, and red. The system is supported by a black metal frame.
<p>PLC based automatic juice dispenser</p>	 A photograph of a PLC-based automatic juice dispenser. It features three large, clear plastic reservoirs for different types of juice, mounted on a black metal frame. A control panel with a screen is visible on the right side.
<p>Design and Implementation Of Automatic Waste Segregator</p>	 A photograph of an automatic waste segregator. It consists of a black metal frame with a green conveyor belt. A control panel with a screen and various electronic components is mounted on the front.

Fig 7.5.1.2 Sample Details of Project developed through Centre of Excellence

## 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= $((NS1*0.8) + (NS2*0.2))/RF$
2022-23(CAYm2)	840	42	34	26	77
2023-24(CAYm1)	840	42	37	29	84
2024-25(CAY)	1110	56	34	25	58

### 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 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
Infrastructure Built-Up	100000000	83102793	95000000	102020803	30000000	33159474	7000000	7064235
Library	3000000	5493426	3000000	1894187	3000000	2458121	1000000	698123
Laboratory equipment	30000000	34388736	10000000	9680155	10000000	7160400	5000000	3253763
Teaching and non-teaching staff salary	250000000	253844583	200000000	195090318	150000000	132070064	100000000	90303889
Outreach Programs	500000	494935	500000	710678	200000	77034	200000	205263
R&D	15000000	18664716	15000000	13295630	15000000	18087273	15000000	1946268

Training, Placement and Industry linkage	30000000	26263876	15000000	14918107	10000000	8916304	200000	130194
SDGs	20000000	18889448	10000000	10494730	5000000	4792192	3000000	2255018
Entrepreneurship	500000	335197	500000	12900	500000	613600	100000	0
Others, specify	180500000	170823505	140200000	137093539	99500000	89083242	73200000	61547481
<b>Total</b>	<b>629500000</b>	<b>612301215</b>	<b>489200000</b>	<b>485211047</b>	<b>323200000</b>	<b>296417704</b>	<b>204700000</b>	<b>167404234</b>

### 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 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
Laboratory equipment	400000	330400	1400000	1380600	400000	391930	100000	66771
Software	0	0	0	0	0	0	0	0
SDGs	100000	105802	100000	46864	100000	57688	100000	159600
Support for faculty development	500000	599196	300000	378257	300000	234817	50000	50378
R & D	500000	561958	300000	238586	300000	320500	25000	5000
Industrial Training, Industry expert,	2000000	1804025	1200000	1106916	700000	627954	50000	9584
Miscellaneous Expenses*	810000	780407	710000	708894	710000	761060	750000	716281
<b>Total</b>	<b>4310000</b>	<b>4181788</b>	<b>4010000</b>	<b>3860117</b>	<b>2510000</b>	<b>2393949</b>	<b>1075000</b>	<b>1007614</b>