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: 11133	**Date of Submission**: 24-10-2025

PART A- Profile of the Institute

A1.Name of the Institute: Jerusalem College of Engineering	
Year of Establishment : 1995	Location of the Institute: Pallikkaranai Chennai
A2. Institute Address:Velachery-Tambaram Main Road Narayanapuram, Pallikkaranai, Chennai	
City:Chennai	State:Tamil Nadu
Pin Code:600100	Website:www.jerusalemengg.ac.in
Email:JERUSALEMENGG@GMAIL.COM	Phone No(with STD Code):044-66199500
A3. Name and Address of the Affiliating University (if any):	
Name of the University :	City: Chennai
State : Tamil Nadu	Pin Code: 600025
A4. Type of the Institution: Autonomous CAY(2019-20)	
A5. Ownership Status: Self financing	

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

- No. of UG programs: **10**
- No. of PG programs: **6**

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	PG	Applied Electronics	2004	--	Applied Electronics
2	Engineering & Technology	UG	Artificial Intelligence and Data Science	2021	--	Artificial Intelligence and Data Science
3	Engineering & Technology	UG	Biomedical Engineering	2004	--	Biomedical Engineering
4	Engineering & Technology	UG	Civil Engineering	2001	2022	Civil Engineering
5	Engineering & Technology	UG	Computer Science and Business System	2021	--	Computer Science and Business System

6	Engineering & Technology	UG	Computer Science and Engineering	1995	--	Computer Science and Engineering
7	Engineering & Technology	PG	Computer Science and Engineering	2003	--	Computer Science and Engineering
8	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence & Machine Learning)	2022	--	Computer Science and Engineering (Artificial Intelligence and Machine Learning)
9	Engineering & Technology	UG	Computer Science and Engineering (Cyber Security)	2022	--	Computer Science and Engineering (Cyber Security)
10	Engineering & Technology	PG	Construction Engineering & Management	2011	--	Construction Engineering and Management
11	Engineering & Technology	UG	Electrical & Electronics Engineering	1995	--	Electrical and Electronics Engineering
12	Engineering & Technology	UG	Electronics & Communication Engineering	1995	--	Electronics and Communication Engineering
13	Engineering & Technology	UG	Information Technology	1999	--	Information Technology
14	Engineering & Technology	PG	Power Electronics & Drives	2003	--	Power Electronics and Drives
15	Engineering & Technology	PG	Software Engineering	2012	2023	Software Engineering
16	Management	PG	Master of Business Administration	2009	--	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
Biomedical Engineering	Yes	Biomedical Engineering	UG
Computer Science and Engineering	Yes	Computer Science and 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:
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.S.Vinod
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)	30	30	30	30	30	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	30	23	29	25	30	0	13
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	5	2	5	2	8	0
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.	30	28	31	30	32	8	13

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)	30	30	0	100.00
2024-25 (CAYm1)	30	23	0	76.67
2023-24 (CAYm2)	30	29	0	96.67

Average [(ER1 + ER2 + ER3) / 3] = 91.11≡ 20.00

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).	32.00	68.00	60.00
B=No. of students who graduated from the program in the stipulated course duration	18.00	6.00	13.00
Success Rate (SR)= (B/A) * 100	56.25	8.82	21.67

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 28.91

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)
Mean of CGPA or mean percentage of all successful students(X)	7.54	7.79	7.50
Y=Total no. of successful students	9.00	17.00	16.00
Z=Total no. of students appeared in the examination	23.00	29.00	25.00
API [X*(Y/Z)]	2.95	4.57	4.80

Average API[(AP1+AP2+AP3)/3] : 4.11

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)	7.92	8.70	8.14
Y=Total no. of successful students	15.00	19.00	18.00
Z=Total no. of students appeared in the examination	19.00	21.00	22.00
API [X * (Y/Z)]	6.25	7.87	6.66

Average API [(AP1 + AP2 + AP3)/3] : 6.93

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)	8.00	8.25	8.02
Y=Total no. of successful students	16.00	18.00	6.00
Z=Total no. of students appeared in the examination	19.00	18.00	6.00

API [X*(Y/Z)]:	6.74	8.25	8.02

Average API [(AP1 + AP2 + AP3)/3] : 7.67

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	32.00	68.00	60.00
X=No. of students placed	28.00	6.00	13.00
Y=No. of students admitted to higher studies	1.00	0.00	0.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	90.62	8.82	21.67

Average Placement Index = (P_1 + P_2 + P_3)/3: 40.37 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.Ramakrishnan	XXXXXXX96P	Ph.D	Anna University	Electrical and Electronics Engineering	13/06/2019	6.4	Professor	Professor	13/06/2019	Regular	Yes		No
2	Dr.V.Jamuna	XXXXXXX78E	Ph.D	Anna University	Power Electronics and Drives	06/11/2000	24.11	Lecturer	Professor	01/06/2011	Regular	Yes		No
3	Dr.N.Booma	XXXXXXX33L	Ph.D	Anna University	Power Systems / Power Electronics	01/09/2004	21.1	Lecturer	Professor	01/07/2015	Regular	Yes		No
4	Dr.S.Vinod	XXXXXXX80B	Ph.D	Anna University	Electrical Drives,Power Electronics,Renewable Energy,Power Systems,Instrumentation Engg	19/07/2006	19.3	Lecturer	Associate Professor	01/12/2021	Regular	Yes		Yes

5	S.Rudhra	XXXXXXX49D	M.E.	Annamalai University	Power System	01/07/2013	12.3	Assistant Professor	Assistant Professor		Regular	Yes		No
6	S.Sivajothi Kavitha	XXXXXXX93N	M.E.	Anna University	Embedded System Technologies	25/06/2014	11.4	Assistant Professor	Assistant Professor		Regular	Yes		No
7	P.LRevathy	XXXXXXX21N	M.E.	Anna University	Power Electronics and Drives	01/07/2013	11	Assistant Professor	Assistant Professor		Regular	No	29/06/2024	No
8	J.Arul Prakash	XXXXXXX83L	M.E.	Anna University	Solar Energy	01/07/2013	12.3	Assistant Professor	Assistant Professor		Regular	Yes		No
9	D.Usha	XXXXXXX24D	M.Tech	B.S.Abdur Rahman University	Electronics and Instrumentation Engineering	15/06/2015	10.4	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	33	32	33
UG1.C	32	33	32
UG1.D	33	32	66
UG1: Electrical & Electronics Engineering	**98**	**97**	**131**

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
PG1.A	6	6	6
PG1.B	6	6	6
PG1: Power Electronics & Drives	**12**	**12**	**12**
DS=Total no. of students in all UG and PG programs in the Department	110	109	143
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=** 110	**S2=** 109	**S3=** 143
DF=Total no. of faculty members in the Department	8	8	9
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=** 8	**F2=** 8	**F3=** 9
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= 13.75**	**SFR2= 13.63**	**SFR3= 15.89**
Average SFR for 3 years	**SFR= 14.42**		

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	4	5.00	28.00
2024-25(CAYm1)	4	4	5.00	28.00
2023-24(CAYm2)	4	5	7.00	21.43

C4. Faculty Cadre Proportion

- Faculty Cadre Proportion is 1(RF1): 2(RF2): 6(RF3)
- RF1= No. of Professors required = 1/9 * 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 * 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 * 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	3.00	1.00	1.00	3.00	4.00
2024-25	1.00	3.00	1.00	1.00	3.00	4.00
2023-24	1.00	3.00	1.00	1.00	4.00	5.00
Average	RF1=1.00	AF1=3.00	RF2=1.00	AF2=1.00	RF2=3.33	AF2=4.33

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	Dr.Karthic Narayanan .R	Chief Technology Officer	Madeit innovation foundation	e-Protoshop	60.00
2	Mr.R. Anbukumar	Trainee	Tamilnadu Electrician Welfare Association	Solar Training	40.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Ms. Ramya R	Lead VR Experience Developer	IVW Technology services	Gaming and Crafts Studio	60.00
2	Mr. S.Ananthan	Business Development Manager	CADD INFOTECH	REVIT CADD	40.00
3	Mr.R. Anbukumar	Trainee	Tamilnadu Electrician Welfare Association	Solar Training	40.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. S. Bala Subramanian	Proprietor	ARP Innovations	MATLAB for Electrical and Electronics Engineering Applications	30.00
2	Mr. S. Bala Subramanian	Proprietor	ARP Innovations	MATLAB Environment and Basics	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	11	8	2

2	No. of peer reviewed conference papers published	22	18	12
3	No. of books/book chapters published	0	3	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.V.Jamuna,Ms.S.Sivajothi Kavitha		ELECTRICAL & ELECTRONICS ENGINEERING	AI based Solid Waste Management using SORTBOT fpr turning Trash in treasure	IEI-Kolkata	ONE YEAR	0.32
Dr.V.Jamuna and Ms.S.Bhavanisankari		ELECTRICAL & ELECTRONICS ENGINEERING	Women Enterpreneurship Development Programme(WEDP)	DST-NIMAT-2024	ONE YEAR	2.00
						Amount received (Rs.):2.32

(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
S.RUDHRA		ELECTRICAL & ELECTRONICS ENGINEERING	PORTABLE SMART SOLAR PANEL TELESCOPIC LIFTING AND FOLDING SYSTEM FOR RENTAL RESIDENTIAL	MSME	ONE YEAR	10.20
VINOD SRINIVASAN		ELECTRICAL & ELECTRONICS ENGINEERING	PROACTIVE TRAFFIC SIGNAL CLEARANCE FOR AMBULANCE SERVICE	MSME	ONE YEAR	12.75
						Amount received (Rs.):22.95

(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
Santhanakrishnan Ramakrishnan		ELECTRICAL & ELECTRONICS ENGINEERING	Design and Implementation of ECO friendly GPS based fully automatic seed sowing machine	MSME	ONE YEAR	12.75
Dr.Ramesh.S	Dr.V.Jamuna	ELECTRICAL & ELECTRONICS ENGINEERING	Scheme for promotion of interest , creativity and Ethics among Students	AICTE	ONE YEAR	1.00
Mr.J.Arul Prakash		ELECTRICAL & ELECTRONICS ENGINEERING	Design of Smart Residential Drainage Block Remover in Sewage Pipes	EDI	14 Months	2.40
						Amount received (Rs.):16.15

Total Amount (Lacs) Received for the Past 3 Years: 41.42

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.S.Vinod		EEE	Solar cum Induction Heating Systems	Techsil Laboratory Products	8 Months	1.75
						Amount received (Rs.):1.75

(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
Ms.Rudhra		EEE	sea water cleaning system	ARP Innovations	1 year	2.77
Mr.J.Arul Prakash		EEE	Smart Solar Lifting System	Scientific Systems	6 Months	1.10
						Amount received (Rs.):3.87

(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.V.Jamuna	Ms.Sivajothi Kavitha	EEE	Portable Solar Water Purification System	Precisionpiel Pvt Ltd	1 year	2.80
						Amount received (Rs.):2.80

Total amount (Lacs) received for the past 3 years: 8.42

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.S.Vinod, Ms.S.Rudhra	Enhancing demand response and energy management multi-microgrid	1	0.03	0.03	Renewable Energy Journal
Ms.S.Rudhra	Solar Telescopic Lifting System	1 Year	1.80	1.80	Product Developed for Solar Lifting System
Dr.S.Vinod, Ms.S.Rudhra	Green Evaluation of Lithium Ion Phosphate Battery	1	0.01	0.01	Published Paper in International Journal of Environmental Sciences
Dr.S.Vinod, Ms.S.Rudhra	Characterization of the Li- NCM cell for EV applications	1	0.01	0.01	Published Paper in International Journal of Environmental Sciences
Dr.S.Vinod, Ms.S.Rudhra	Model Based Evaluation of Li-NCM battery performance for Environmentally Resilient Energy Systems	1	0.01	0.01	Published Paper in International Journal of Environmental Sciences
			Amount received (Rs.): 1.86		

(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.V.Jamuna	Cascaded Innerloop Fuzzy SMC for DC to DC Boost Converter	1	0.03	0.03	Published paper in Journal of Circuit Systems
Dr.S.Vinod	Traffic Light Controller	1 Years	2.25	2.25	Product Developed for Traffic Light Controller
Dr.V.Jamuna	Performance Comparision of DC - Dc boost converter with conventional and liner SMC	1	0.03	0.03	Published paper in Electrical power components and systems
Dr.S.Vinod Ms. S. Rudhra	An initiative towards efficient Sustainable V2G technology	1	0.01	0.01	Published paper in Journal of Electrical systems
Dr.S.Vinod	Improving Performance of solar arrray fed BLDC drive using firefly algorithm	1	0.01	0.01	Published paper in Journal of Electrical systems
			Amount received (Rs.): 2.33		

(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
Ms. D. Usha, Ms. S. Sivajothi Kavitha, Dr. V. Jamuna	Smart Medicine Reminder System for Senior Citizen	1	0.01	0.01	Journal Writing Experience
V. Jamuna, S. Sivajothi Kavitha, D. Usha Asha M., Priyanka K	The ZAPPY Disinfection Bot for Modern Healthcare System	1	0.01	0.01	Journal Writing Experience
Dr.V.Jamuna	AICTE under SPICES	1 Year	0.50	0.50	Organised various events under IIL Club of JCE
Ms.D.Usha	Smart Poultry System - TNSCST	1 Year	0.08	0.08	Completed Smart Poultry System Project
			Amount received (Rs.): 0.60		

Total amount (Lacs) received for the past 3 years : 4.79

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	ML 002 Electrical Machines Laboratory	30	DC Shunt motor, DC Series Motor, DC Compound Motor, Single Phase and three	60%	R.Venkatesh	Lab Instructor	ITI
2	ML306 Power System Simulation laboratory	30	Computer, UPS, Server, Matlab, ETAP	40%	V.Kaaviya	Lab Instructor	B.E
3	ML 307 Microprocessor and and Microcontroller Laboratory	30	8085, 8086, 8051, DAC, ADC, Stepper Motor, Traffic Light Control Timer	60%	V.Kaaviya	Lab Instructor	B.E
4	ML 309 Power Electronics Laboratory	30	CRO, Function Generator, Bread Board, Single phase AC voltage Converter	40%	P.Vinotha	Lab Instructor	B.E
5	ML 311 Control & Instrumentation Laboratory	30	PID Kit, Position Control Kit, AC Synchro transmitter & Receiver, Bridges Kits LVDT,	40%	R.Venkatesh	Lab Instructor	ITI
6	NL401 Electronic Devices and Circuits Laboratory	30	DSO,RPS,Function Generator	40%	P.Vinotha	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	•For laboratory classes all the students are instructed to wear lab coat or uniform and shoes. • The first aid boxes and fire extinguishers are provided in the laboratories. • All the lab technicians are trained to use the fire extinguishers in case of fire hazard. • All the laboratories are provided with Do's and Don'ts boards with exclusive points based on their usage. • Insulation mat is available in machines laboratory • Proper earthing is provided for all the labs
2	Power System Simulation Laboratory	• Specific Safety Rules in the form of Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. • First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. • Proper earthing has been done for all Electrical Equipment. • Maintain a clean and organized laboratory. • Avoiding the use of cell phones. • Sign the log-in register before leaving the lab. • Computers should be turned off properly before leaving the lab. • Students must remove their footwear before entering to the lab. • The student must check the computer unit and its Peripherals attached before using it. The student must immediately inform the instructor if there's any defect, error, or damage observed at the computer (Hardware/software).

3	Microprocessor and Microcontroller Laboratory	• Specific Safety Rules in the form of Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. • First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. • For laboratory classes all the students are instructed to wear lab coat or uniform and shoes. • Proper earthing has been done for all Electrical Equipment. • Maintain a clean and organized laboratory. • Avoiding the use of cell phones. • Students are allowed to operate all equipment or apparatus under proper supervision and guidance
4	Power Electronics Laboratory	• Specific Safety Rules in the form of Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. • First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. • For laboratory classes all the students are instructed to wear lab coat or uniform and shoes. • Proper earthing has been done for all Electrical Equipment. • Maintain a clean and organized laboratory. • Avoiding the use of cell phones. • Sign the log-in register before leaving the lab.
5	Control & Instrumentation Lab	• Specific Safety Rules in the form of Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. • First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. • For laboratory classes all the students are instructed to wear lab coat or uniform and shoes. • Proper earthing has been done for all Electrical Equipment. • Maintain a clean and organized laboratory. • Avoiding the use of cell phones. • Computers should be turned off properly before leaving the lab. • The student must check the computer unit and its Peripherals attached before using it.
6	Electronic Devices and Circuits Laboratory	• Specific Safety Rules in the form of Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. • First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. • For laboratory classes all the students are instructed to wear lab coat or uniform and shoes. • Proper earthing has been done for all Electrical Equipment. • Maintain a clean and organized laboratory. • Avoiding the use of cell phones. • Sign the log-in register before leaving the lab.
7	Basic Electrical and Electronics Laboratory	• Specific Safety Rules in the form of Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. • First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. • For laboratory classes all the students are instructed to wear lab coat or uniform and shoes. • Proper earthing has been done for all Electrical Equipment. • Maintain a clean and organized laboratory. • Avoiding the use of cell phones. • Sign the log-in register before leaving the lab.
8	Research Laboratory	Specific Safety Rules in the form of Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. • First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. • Maintain a clean and organized laboratory. • Avoiding the use of cell phones. • Sign the log-in register before leaving the lab. • Computers should be turned off properly before leaving the lab. • Students must remove their footwear before entering to the lab. • The student must check the computer unit and its Peripherals attached before using it. The student must immediately inform the instructor if there’s any defect, error, or damage observed at the computer (Hardware/software).
9	Industry Sponsored Laboratory	Well-trained technical supporting staff is available to monitor the labs at all times. • First aid box, Fire extinguishers are kept in the laboratory. • For laboratory classes all the students are instructed to wear lab coat or uniform and shoes. • Maintain a clean and organized laboratory. • Avoiding the use of cell phones.

D3. Project Laboratory/Research Laboratory

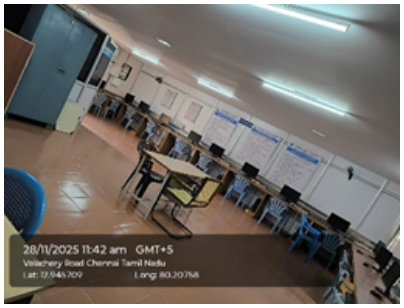
The Project Laboratory serves as a dynamic and creative workspace for both faculty and students, equipped with a variety of advanced facilities. It provides a state-of-the-art environment that enables hands-on learning, innovation, and research in the field of Electrical Engineering. This laboratory bridges theoretical knowledge with practical application, helping users develop both technical proficiency and creative problem-solving skills.

Key Features and Utilization

The laboratory encourages faculty members and students to make full use of the available facilities for academic and research purposes.

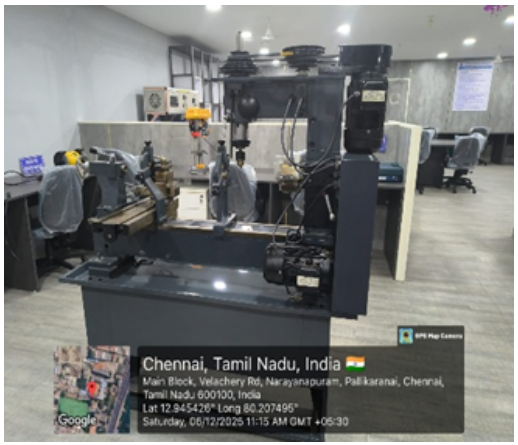
- Students are motivated to undertake mini-projects and exploratory assignments utilizing the laboratory's infrastructure.
- A well-equipped department library supports project, technical magazines ,and research work with resources such as reference books, NPTEL video lectures, IEEE digital access and previous project reports.
- The Project Laboratory remains accessible beyond regular working hours for the benefit of students, faculty members, and research scholars.
- The laboratory focuses on developing transferable and practical skills, enabling students to redesign and improve experimental setups.
- Students are also encouraged to perform experiments using the Virtual Labs platform developed by the Indian Institutes of Technology (IITs), promoting digital learning and experimentation.

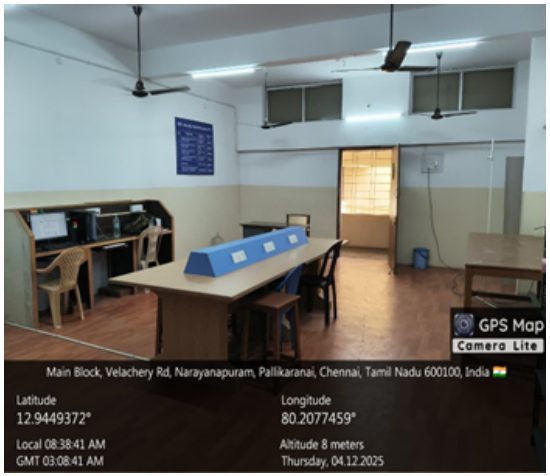
The project laboratory provides a dedicated space for students to carry out their final-year projects and mini projects in a focused and supportive environment. It encourages creativity, design thinking, experimentation, and innovation by allowing students to explore ideas beyond the classroom.



The research laboratory aims to facilitate faculty and student research aligned with emerging technologies, promoting a culture of innovation and continuous learning. It also encourages consultancy activities, funded research projects, startups and the publication of technical papers, while providing strong support for students , research scholars and faculty. The laboratory is equipped with advanced facilities such as solar panel, programmable Logic Controllers , machine drives , control panels and industry-standard software tools including MATLAB/Simulink, PSCAD and ETAP. The laboratory is equipped to support extensive simulation-based research, enabling researchers to carry out complex analyses and effective experimental validations. This infrastructure empowers students and faculty to work on cutting-edge technologies across diverse specialized domains, including power systems, renewable energy, electric drives, IoT and smart grids. It provides facilities for the experimental validation of mathematical and simulation models, ensuring that theoretical studies are supported by practical investigation. The laboratory also encourages the publication of research findings in reputed journals and conferences, while promoting industry consultancy and collaborative research projects. The institution experiences an enhanced research culture and a stronger innovation ecosystem.A dedicated Innovation and Start-up is established within the department to mentor students with innovative ideas, guide them in project formulation and support the creation of prototype models. Students are also encouraged to participate in hackathons, ideation camps, technical contests and innovation challenges at state and national levels. These laboratories are extensively utilized for converting student ideas into working prototypes.

The Fabrication Lab is designed to strengthen industry-institute collaboration and provide students with hands-on training in manufacturing and fabrication processes. The lab houses advanced fabrication tools and machinery, including welding equipment, cutting and bending machines, milling and drilling machines, PCB fabrication units. These facilities enable students and faculty to work on industrial consultancy projects, develop prototypes and undertake fabrication for research and start-ups. This lab helps bridge the gap between academic learning and industrial requirements, thereby improving employability and fostering a strong innovation and entrepreneurship ecosystem. IDEA Lab also supports early-stage student start-ups by providing mentoring, technical assistance, and incubation support. These facilities empower students to design, develop, fabricate, and test innovative solutions, leading to increased patents, projects, and industry collaborations.

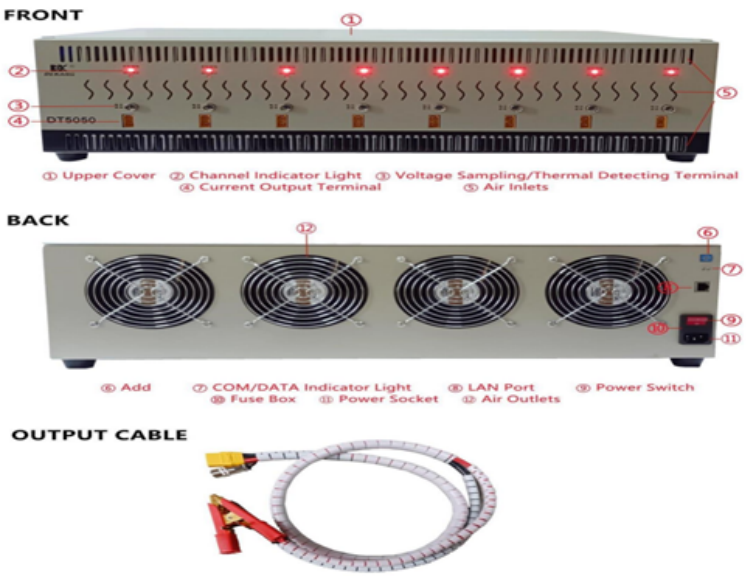




INDUSTRY SPONSORED LABORATORIES

1.TAFE

The industry-sponsored battery testing lab provides hands-on exposure using advanced systems like the DT5050 and DK software. It allows students to perform real-time testing of Lithium-Ion batteries under practical operating modes. Learners can analyze key performance parameters such as voltage, current, capacity, and efficiency. The facility helps bridge classroom concepts with real industrial practices. It enhances skills in data analysis, troubleshooting, and technical reporting. The lab strengthens understanding of battery behavior under different load conditions. Overall, it builds industry-ready competence for careers in power electronics and electric mobility.



2. IVW Pvt.Ltd

IVW offers lithium-ion battery systems, inverter battery chargers, and various power-electronics equipment that support renewable-energy storage and electric-vehicle charging needs. Their Energy Storage Systems (ESS) are designed to improve power efficiency and reduce reliance on the traditional utility grid.

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)	516	26	19	33	84
2024-25(CAYm1)	516	26	19	42	91
2025-26(CAY)	570	28	23	51	102

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	12500000	11200435	9500000	9342666	8000000	5049651	8000000	8435604
Library	1000000	802278	1450000	1479742	1100000	1138697	1000000	1035869
Laboratory equipment	4000000	3530418	13500000	13438508	12500000	14947458	3500000	3420591
Teaching and non-teaching staff salary	112000000	81517735	101000000	101466726	80000000	85751043	77500000	78583048
Outreach Programs	5000000	1625747	4750000	4812392	3000000	3069990	0	0
R&D	4000000	3203053	2200000	2107382	2500000	2284972	2500000	2336021
Training, Placement and Industry linkage	3500000	2843722	2500000	2428479	2450000	2323891	1300000	1321531
SDGs	5000000	3044930	4800000	4886035	4500000	4272587	0	0

Entrepreneurship	250000	100000	500000	570000	200000	225000	0	0
Others, specify	101500000	56960623	95500000	96168882	91500000	93235094	72050000	71636110
Total	**248750000**	**164828941**	**235700000**	**236700812**	**205750000**	**212298383**	**165850000**	**166768774**

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	750000	802400	950000	965712	1000000	964892	175000	165752
Software	100000	103001	80000	85043	75000	78913	750000	767000
SDGs	750000	359691	500000	490886	450000	445679	475000	471909
Support for faculty development	50000	17000	25000	18620	150000	148194	20000	15500
R & D	250000	37057	250000	184850	250000	231750	75000	59150
Industrial Training, Industry expert, Internship	200000	144000	100000	106900	50000	46200	100000	72592
Miscellaneous Expenses*	4500000	2646516	3500000	3434586	750000	789496	750000	752790
Total	**6600000**	**4109665**	**5405000**	**5286597**	**2725000**	**2705124**	**2345000**	**2304693**