

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: 12011	Date of Submission: 01-08-2026

PART A- Profile of the Institute

A1.Name of the Institute: NARAYANA ENGINEERING COLLEGE	
Year of Establishment : 2001	Location of the Institute: Gudur
A2. Institute Address: DHURJATI NAGARGUDUR, NELLORE DT. ANDHRA PRADESH 524101	
City: Nellore	State: Andhra Pradesh
Pin Code: 524101	Website: www.necg.ac.in
Email: necgudur@necg.ac.in	Phone No (with STD Code): 08624-295641
A3. Name and Address of the Affiliating University (if any):	
Name of the University : JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTH	City: Anantpur
State : Andhra Pradesh	Pin Code: 515002
A4. Type of the Institution: Autonomous CAY (2020-21)	
A5. Ownership Status: Self financing	

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

- No. of UG programs: 9
- No. of PG programs: 5

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

Sr.No.	Discipline	Level of program	Name of the program	Year of Start	Year of Closed	Name of The Department
1	Computer Application	PG	Master in Computer Applications	2008	--	Computer Application
2	Engineering & Technology	UG	Civil Engineering	2011	--	Civil Engineering
3	Engineering & Technology	PG	Computer Science	2012	--	Computer Science and Engineering
4	Engineering & Technology	UG	Computer Science and Engineering	2001	--	Computer Science and Engineering
5	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence and Machine Learning)	2023	--	Computer Science and Engineering (Artificial Intelligence and Machine Learning)
6	Engineering & Technology	PG	Digital Electronics & Communication Systems	2009	2025	Electronics and Communication Engineering
7	Engineering & Technology	UG	Electrical and Electronics Engineering	2002	--	Electrical and Electronics Engineering
8	Engineering & Technology	UG	Electronics and Communication (Advanced Communication Technology)	2023	2025	Electronics and Communication (Advanced Communication Technology)
9	Engineering & Technology	UG	Electronics and Communications Engineering	2001	--	Electronics and Communication Engineering
10	Engineering & Technology	UG	Electronics Engineering (VLSI Design and Technology)	2023	2025	Electronics Engineering (VLSI Design and Technology)
11	Engineering & Technology	UG	Information Technology	2001	2013	Information Technology

12	Engineering & Technology	UG	Mechanical Engineering	2012	--	Mechanical Engineering
13	Engineering & Technology	PG	Power Electronics	2012	2025	Electrical and Electronics Engineering
14	Management	PG	Masters in Business Administration	2008	--	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 ARROVAL DETAILS	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED	PROGRAM DURATION
1	Electrical and Electronics Engineering	UG	2002 / --	60	Yes	2020	30	2020	F.No. South-Central/1-7008525313/2020/EOA	Applying first time	--	--	0	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.KONDENTI P PRASAD RAO
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	30	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	26	30	13	22	28	21	4
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	3	16	4	3	6	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	1	1	0	3	2	2	0

Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	27	34	29	29	33	29	9
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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	26	1	90.00
2024-25 (CAYm1)	30	30	1	103.33
2023-24 (CAYm2)	30	13	0	43.33

Average [(ER1 + ER2 + ER3) / 3] = 78.89≡ 14.00

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).	33.00	33.00	65.00
B=No. of students who graduated from the program in the stipulated course duration	22.00	19.00	6.00
Success Rate (SR)= (B/A) * 100	66.67	57.58	9.23

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 44.49

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)	7.41	7.21	7.10
Y=Total no. of successful students	30.00	13.00	25.00
Z=Total no. of students appeared in the examination	31.00	13.00	25.00
API [X*(Y/Z)]	7.17	7.21	7.10

Average API[(AP1+AP2+AP3)/3] : 7.16

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)	7.41	7.30	7.11
Y=Total no. of successful students	29.00	29.00	31.00
Z=Total no. of students appeared in the examination	29.00	29.00	31.00
API [X * (Y/Z)]	7.41	7.30	7.11

Average API [(AP1 + AP2 + AP3)/3] : 7.27

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)	7.81	7.27	6.90
Y=Total no. of successful students	29.00	30.00	27.00

Z=Total no. of students appeared in the examination	29.00	31.00	28.00
API [$X*(Y/Z)$]:	7.81	7.04	6.65

Average API [(AP1 + AP2 + AP3)/3] : 7.17

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	33.00	33.00	65.00
X=No. of students placed	19.00	18.00	6.00
Y=No. of students admitted to higher studies	2.00	1.00	0.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	63.64	57.58	9.23

Average Placement Index = (P_1 + P_2 + P_3)/3: 43.48 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.KONDENTI P PRASAD RAO	XXXXXXXX55F	Ph.D	K L E F Deemed to be university	Power Systems	24/01/2022	4.6	Associate Professor	Associate Professor		Regular	Yes		Yes
2	Dr V RAMESH M	XXXXXXXX03L	Ph.D	JNTU Hyderabad	Power Systems	16/07/2024	1.10	Professor	Professor		Regular	No	27/05/2026	No
3	Dr RAJESH REDDY DUVVURU	XXXXXXXX59Q	Ph.D	Dr. A. P. J. Abdulkalam university, Indore	Power Systems	08/12/2011	14.7	Assistant Professor	Associate Professor	03/07/2024	Regular	Yes		No
4	Dr INGILALA JAGADEESH	XXXXXXXX73L	Ph.D	VIT, Vellore	Power Electronics	12/07/2024	2	Assistant Professor	Associate Professor	04/11/2024	Regular	Yes		No
5	VASA SWARNA	XXXXXXXX21C	M.Tech	JNTU, Anantapur	Electrical Power Engineering	23/06/2016	10.1	Assistant Professor	Assistant Professor		Regular	Yes		No
6	SARAVANAN T Y	XXXXXXXX27B	M.Tech	JNTUA, Anantapur	Electrical Power Engineering	06/06/2009	17.1	Assistant Professor	Assistant Professor		Regular	Yes		No
7	RATHIKRINDA YEDUKONDALU	XXXXXXXX72D	M.Tech	JNTU, Anantapur	Control Systems	19/10/2022	3.9	Assistant Professor	Assistant Professor		Regular	Yes		No
8	KOMMURU MONICA	XXXXXXXX02H	M.Tech	JNTU, Anantapur	Power Electronics	08/06/2020	6.1	Assistant Professor	Assistant Professor		Regular	Yes		No
9	Dr V RAVI PRASAD	XXXXXXXX06L	Ph.D	MNNIT, ALHABAD	PE & PS Optimization Techniques	11/06/2015	10.5	Assistant Professor	Professor	08/06/2021	Regular	No	15/11/2025	No

10	CHITTETI DAYAKAR	XXXXXXXX13K	M.Tech	JNTU, Anantapur	Power Electronics	26/07/2023	3	Assistant Professor	Assistant Professor		Regular	Yes		No
11	SHAIK AMEENA	XXXXXXXX26C	M.Tech	JNTU, Anantapur	Power Electronics	07/03/2023	3.4	Assistant Professor	Assistant Professor		Regular	Yes		No
12	IRUTHAYARAJ R	XXXXXXXX23C	M.E.	Anna University, Chennai	Power Electronics and Drives	09/06/2022	2	Assistant Professor	Assistant Professor		Regular	No	27/06/2024	No
13	Mallu Guru Prasad	XXXXXXXX40G	M.Tech	JNTUA, Anantapur	Power Systems	24/01/2023	3.6	Assistant Professor	Assistant Professor		Regular	Yes		No
14	Pathapati Omkar Reddy	XXXXXXXX28F	M.Tech	JNTUK KAKINADA	Power Systems	28/01/2022	4.6	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	33	33
UG1.C	33	33	33
UG1.D	33	33	33
UG1: Electrical and Electronics Engineering	99	99	99
PG1.A	0	9	9
PG1.B	9	9	9
PG1: Power Electronics	9	18	18
DS=Total no. of students in all UG and PG programs in the Department	108	117	117
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= 108	S2= 117	S3= 117
DF=Total no. of faculty members in the Department	12	13	12
AF= Total no. of faculty members in the allied Departments	0	0	0
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	F1= 12	F2= 13	F3= 12

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
FF=The faculty members in F who have a 100% teaching load in the first-year courses	3	2	2
Student Faculty Ratio (SFR)=S/(F-FF)	SFR1= 12.00	SFR2= 10.64	SFR3= 11.70
Average SFR for 3 years	SFR= 11.45		

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	8	5.00	36.00
2024-25(CAYm1)	4	9	5.00	38.00
2023-24(CAYm2)	2	10	5.00	30.00

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	1.00	1.00	3.00	4.00	8.00
2024-25	1.00	2.00	1.00	2.00	4.00	9.00
2023-24	1.00	1.00	1.00	1.00	4.00	10.00
Average	RF1=1.00	AF1=1.33	RF2=1.00	AF2=2.00	RF2=4.00	AF2=9.00

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	CH KIRTHI BHARATH REDDY	ASSISTANT MANAGER	NELCAST LTD	POWER SYSTEM OPERATION AND CONTROL	25.00
2	CH KIRTHI BHARATH REDDY	ASSISTANT MANAGER	NELCAST LTD	PROJECT DEVELOPMENT	33.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	C MALLIKARJUNA	JUNIOR ENGINEER	MEGA POWER ENGINEERS & CONTRACTORS, NELLORE	LINEAR CONTROL SYSTEMS	25.00
2	C MALLIKARJUNA	JUNIOR ENGINEER	MEGA POWER ENGINEERS & CONTRACTORS, NELLORE	PROJECT DEVELOPMENT	31.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	A APPA RAO	EXECUTIVE DIRECTOR	SRIRAMACHANDRA POWER SERVICES PVT.LTD	RENEWABLE ENERGY CONVERSION SYSTEMS	29.00
2	A APPA RAO	EXECUTIVE DIRECTOR	SRIRAMACHANDRA POWER SERVICES PVT.LTD	PROJECT DEVELOPMENT	31.00

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	7	7	3
2	No. of peer reviewed conference papers published	2	1	0
3	No. of books/book chapters published	0	1	1

C7. Sponsored Research Project

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

(CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr.D.Rajesh Reddy	--	EEE	Power Quality Analysis and Harmonic Reduction in Industrial Electrical Systems	Nelcast Limited, Gudur	1 YEAR	472500.00
Dr.K.P.Prasad Rao		EEE	Industrial Drive Control and Performance Improvement of Motor Drives in Steel Processing Applications	Colorshine Coated Pvt. Ltd	1 YEAR	363630.00
						Amount received (Rs.):836130.00

(CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr.D.Rajesh Reddy		EEE	Power Quality Assessment and Voltage Fluctuation Mitigation in Hospitals	CR REDDY HOSPITAL ,GUDUR	1 YEAR	523400.00
						Amount received (Rs.):523400.00

(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
Mr.T.Y.Saravanan	--	EEE	Design and Implementation of a Solar PV Power System with MPPT Techniques for Improved Energy Efficiency Monitoring System	Websol energy systems	1 YEAR	380000.00
						Amount received (Rs.):380000.00

Total Amount (Lacs) Received for the Past 3 Years: 1739530.00**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.D.Rajesh Reddy		Department of EEE , Narayana Engineering College, Gudur	Testing of Lightning Arresters and Earthing Systems	Colorshine Coated Pvt. Ltd- Tungapalem	15.07.2024 To 17.09.2024	450430.00
Dr.K.P.Prasad Rao		Department of EEE , Narayana Engineering College, Gudur	Electrical Safety, Earthing and Protection Assessment for Transformers and Motors	Penver Products Limited- Chillakur- 524410	02.01.2025 To 19.03.2025	308560.00
						Amount received (Rs.):758990.00

(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
Mr.D.Rajesh Reddy		Depat of EEE , Narayana Engineering College, Gudur	Testing and Performance Evaluation of Distribution Transformers	Nelcast Pvt .Ltd, Gudur-524101	02.12.2023 To 11.03.2023	402000.00
Dr.K.P.Prasad Rao		Depat of EEE , Narayana Engineering College, Gudur	Electrical Safety, Earthing and Protection Assessment for Transformers and Motors	Premier Energies Limited, Nayudupeta	16.08.2023 To 26.12.2023	350000.00
						Amount received (Rs.):752000.00

(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
Mr.R.Yedukondalu		Department of EEE , Narayana Engineering College, Gudur	Lightning Arresters and Earthing	Nelcast Pvt .Ltd, Gudur-524101	15.01.2023 To 12.04.2023	286000.00
Mr.D.Rajesh Reddy		Department of EEE , Narayana Engineering College, Gudur.	Insulation Resistance Testing of Electrical Installations	Meenakshi Energy Limited – Tammipatnam	16.08.2022 To 26.12.2022	325000.00
						Amount received (Rs.):611000.00

Total amount (Lacs) received for the past 3 years: 2121990.00

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.I.Jagadeesh	Development of Bidirectional DC-DC Converter for Electric Vehicle Charging and Regenerative Braking	1 year	0.86	0.86	efficient EV charging and regenerative braking with improved voltage stability.
Dr.K.P.Prasad Rao	Optimizing single-phase AC-DC multilevel LLC converter with Integrated Power Factor Correction	1 year	0.84	0.84	converter with improved efficiency, power factor, and reduced harmonic distortion.
Dr.D. Rajesh Reddy	AI-Based Fault Diagnosis System for Industrial Automation	1 year	0.90	0.90	Developed an AI-based fault diagnosis system for predictive maintenance, reduced downtime, and potential patent filing.
			Amount received (Rs.): 2.60		

(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.K.P.Prasad Rao	Integrated PV and grid controlled bidirectional EV charging For Lithium-Ion Battery Applications	1 year	0.87	0.87	Developed a bidirectional EV charger integrating PV and grid power for distortion-free charging, improved power quality, and optimized energy flow.
Mrs.V.Swarna	Artificial Intelligence-Enhanced Energy distribution for Hybrid PV-Wind-Fuel Cell Systems	1 year	0.65	0.65	Developed an AI-enhanced energy management system for hybrid PV-wind-fuel cell systems to optimize power distribution and improve efficiency.
Dr.D. Rajesh Reddy	Development of a Single-Phase AC-DC Converter with Power Factor Correction.	1 year	0.75	0.75	Developed a single-phase AC-DC converter with power factor correction for improved power quality and efficient energy conversion.
			Amount received (Rs.): 2.27		

(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
Mr.R.Iruthayaraj	Development of a Solar PV-Based DC-DC Boost Converter	1 year	0.75	0.75	Developed a solar PV-based boost converter for efficient power conversion.
Mr. Saravanan T Y	High-Efficiency PFC Converter for Industrial Applications	1 year	0.49	0.49	Improved power factor and reduced harmonics using a high-efficiency PFC converter.
Mr.D. Rajesh Reddy	Power Quality Improvement Using FACTS Devices	1 year	0.43	0.43	Improved voltage stability and power quality using FACTS devices.
			Amount received (Rs.): 1.67		

Total amount (Lacs) received for the past 3 years : 6.54

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	3	DC Shunt Motor & 3 Point starter(220V, 5Hp ,19A), DC Compound Motor & 3 Point starter(220V, 16A ,3.5KW), DC Shunt Motor, Shunt Generator & 3 Point starter(220V, 10A)	Odd Sem(9/12)	P.Gopi	Lab Technician	Diploma
2	Electrical Machines Lab-II	3	Squirrel Cage Induction motor & star & delta Starter(415V7.5A,5HP), 3-Φ Induction motor & (220V,4.4A,1.5A,0.5HP), 4-Φ Induction motor	Odd Sem:(1/12)	P.Gopi	Lab Technician	Diploma
3	Electrical Measurements & Control systems Lab	3	Single phase loading inductor(230V,5A),Commercial Current Transformer(CT)(0-0/5A,230V),Energy Meter(220V/400V) Wattmeter, bridge, Autotrans, bridge	Even Sem:(2/1)	G.Chenchu Kumar	Lab Technician	B.Tech
4	Power Electronics Lab	3	Study of characteristics of SCR, IGBT, DIAC & TRIAC Kit,Gate firing circuits for SCR's using R & RC firing circuit Kit,Gate drive circuit for GCR,IGBT, IGBT, MOSFET, IGBT, MOSFET	Odd Sem:(1/12)	G.Chenchu Kumar	Lab Technician	B.Tech
5	Electrical Circuits Lab	3	Regulated Power Supply dual channel (0-30V, 2AMPS),Cathode Ray oscilloscope(30 MHz),Signal generator, 2M-Resistor, Potentiometer, Power/Power/400, 0-10V	Odd Sem:(6/12)	B.Kiran Kumar	Lab Technician	B.Tech
6	Electrical Simulation Lab	1	Computers(30),Windows7 Ultimate, RAM 4GB,Operating System 64Bit, Processor Intel 3.4GHz,PSPICE VERSION 9.2,LTSpice, MATLAB, Simulink, Proteus, AutoCAD	Odd Sem:(2/12)	SK.Shalima	Lab Technician	B.Tech

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	1. Do's & Don'ts are displayed and instructed for all Students. 2. Fire extinguishers are also placed along with sand buckets at appropriate places in the labs. 3. First aid kits are made available in all the labs. 4. The students are also instructed to wear shoes and apron in the lab. 5. Suitable Miniature Circuit Breakers (MCBs) are provided at appropriate locations. 6. Earthing of equipment's is provided. 7. Floor mats are provided. 8. All the power cables in the labs are concealed. 9. Electrical wires are properly connected with good installation. 10. Periodical servicing of the lab equipment. 11. Every experiment connection is verified by the faculty before the student starts performing the experiment. 12. Lab Technician takes care of the Tools and Kits every day in the Lab. 13. Maintain a clean and organized laboratory. 14. Sufficient width of Exit. 15. Appropriate storage areas are provided.
2	Electrical Machines Lab-II	1. Do's & Don'ts are displayed and instructed for all Students. 2. Fire extinguishers are also placed along with sand buckets at appropriate places in the labs. 3. First aid kits are made available in all the labs. 4. The students are also instructed to wear shoes and apron in the lab. 5. Suitable Miniature Circuit Breakers (MCBs) are provided at appropriate locations. 6. Earthing of equipment's is provided. 7. Floor mats are provided. 8. All the power cables in the labs are concealed. 9. Electrical wires are properly connected with good installation. 10. Periodical servicing of the lab equipment. 11. Every experiment connection is verified by the faculty before the student starts performing the experiment. 12. Lab Technician takes care of the Tools and Kits every day in the Lab. 13. Maintain a clean and organized laboratory. 14. Sufficient width of Exit. 15. Appropriate storage areas are provided.
3	Electrical Measurements & Control systems Lab	1. Do's & Don'ts are displayed and instructed for all Students. 2. Fire extinguishers are also placed along with sand buckets at appropriate places in the labs. 3. First aid kits are made available in all the labs. 4. The students are also instructed to wear shoes and apron in the lab. 5. Suitable Miniature Circuit Breakers (MCBs) are provided at appropriate locations. 6. Earthing of equipment's is provided. 7. Floor mats are provided. 8. All the power cables in the labs are concealed. 9. Electrical wires are properly connected with good installation. 10. Periodical servicing of the lab equipment. 11. Every experiment connection is verified by the faculty before the student starts performing the experiment. 12. Lab Technician takes care of the Tools and Kits every day in the Lab. 13. Maintain a clean and organized laboratory. 14. Sufficient width of Exit. 15. Appropriate storage areas are provided.
4	Power Electronics Lab	1. Do's & Don'ts are displayed and instructed for all Students. 2. Fire extinguishers are also placed along with sand buckets at appropriate places in the labs. 3. First aid kits are made available in all the labs. 4. The students are also instructed to wear shoes and apron in the lab. 5. Suitable Miniature Circuit Breakers (MCBs) are provided at appropriate locations. 6. Earthing of equipment's is provided. 7. Floor mats are provided. 8. All the power cables in the labs are concealed. 9. Electrical wires are properly connected with good installation. 10. Periodical servicing of the lab equipment. 11. Every experiment connection is verified by the faculty before the student starts performing the experiment. 12. Lab Technician takes care of the Tools and Kits every day in the Lab. 13. Maintain a clean and organized laboratory. 14. Sufficient width of Exit. 15. Appropriate storage areas are provided.
5	Electrical Circuits Lab	1. Do's & Don'ts are displayed and instructed for all Students. 2. Fire extinguishers are also placed along with sand buckets at appropriate places in the labs. 3. First aid kits are made available in all the labs. 4. The students are also instructed to wear shoes and apron in the lab. 5. Suitable Miniature Circuit Breakers (MCBs) are provided at appropriate locations. 6. Earthing of equipment's is provided. 7. Floor mats are provided. 8. All the power cables in the labs are concealed. 9. Electrical wires are properly connected with good installation. 10. Periodical servicing of the lab equipment. 11. Every experiment connection is verified by the faculty before the student starts performing the experiment. 12. Lab Technician takes care of the Tools and Kits every day in the Lab. 13. Maintain a clean and organized laboratory. 14. Sufficient width of Exit. 15. Appropriate storage areas are provided.
6	Electrical Simulation Lab	1. Do's & Don'ts are displayed and instructed for all Students. 2. Fire extinguishers are also placed along with sand buckets at appropriate places in the labs. 3. First aid kits are made available in all the labs. 4. The students are also instructed to wear shoes and apron in the lab. 5. Suitable Miniature Circuit Breakers (MCBs) are provided at appropriate locations. 6. Earthing of equipment's is provided. 7. All the power cables in the labs are concealed. 8. Electrical wires are properly connected with good installation. 9. Periodical servicing of the lab equipment. 10. Every experiment connection is verified by the faculty before the student starts performing the experiment. 11. Lab Technician takes care of the Tools and Kits every day in the Lab. 12. Maintain a clean and organized laboratory. 13. Sufficient width of Exit. 14. Appropriate storage areas are provided.

D3. Project Laboratory/Research Laboratory

A. Availability of Project Laboratory/Research Laboratory:

- The project laboratory has key role in promoting practical and hands on learning throughout the program. It is mainly utilized for the Project Work.
- The laboratory has provided a platform for students and research associates to implement research based projects under the guidance of faculty members.
- The facility has been utilized by B.Tech students extensively for their project and research work
- The laboratory is opened to the students from 9.00 AM to 5.00 PM. If the students are willing to work on their projects, even after the working hours they are allowed to work along with a faculty member/lab technician.
- Every lab integrates project making exercise.
- EEE Department has a separate project laboratory with the latest equipment and well configured computer systems.
- It also contains other facilities such as internet, software's (MIPOWER, MATLAB & PSPICE), scanning, printer, stationary etc.
- All the previous project reports are available for ready reference in the Department library.
- The outcome of the project has resulted in publications in various journals and conference proceedings (both at national and international level).

Table 7.5.1: Project / Research Laboratory and Centre of Excellence

S. No.	Name of the Facility	Major Equipment	Purpose	Faculty In-Charge	Qualification
1	Project Laboratory / Research Laboratory	Arduino UNO, IDE with ATmega328P, MATLAB, PSPICE/MI POWER, computers, CROs, RPS, measuring equipment, breadboards and soldering equipment	UG academic projects, miniprojects, major projects and research activities	Mrs. V. Swarna	M.Tech.

B. Availability of Center of Excellence:**Electric Vehicle Centre of Excellence**

- The **Electric Vehicle Centre of Excellence (EV-CoE)** in the Department of Electrical and Electronics Engineering is established to provide students, faculty, and researchers with a dedicated platform for **advanced learning, practical training, innovation, and research** in electric mobility and related technologies.
- The Centre focuses on emerging areas such as **electric vehicle architecture, battery technology, Battery Management Systems (BMS), EV charging systems, power electronics converters, electric drives and motor control**.
- The EV-CoE is equipped with suitable **training kits, EV components, battery and BMS systems, power electronic converters, electric motors and drives, measurement equipment, simulation tools, and prototype-development facilities**. These facilities enable students to bridge the gap between theoretical concepts and practical industrial applications.
- The Centre promotes **hands-on experiments, mini-projects, major projects, workshops, FDPs, internships, technical competitions, research activities, and prototype development**. It also encourages interdisciplinary collaboration involving electrical engineering, electronics, computer science, artificial intelligence, and renewable-energy technologies.
- Through the Electric Vehicle Centre of Excellence, the EEE Department aims to develop **industry-ready professionals, entrepreneurs, innovators, and researchers** capable of contributing to the rapidly developing electric mobility ecosystem and sustainable transportation sector.

Table 7.5.2: Facilities and Utilization of the Project Laboratory

Name of the Equipment	Utilization Status	Technical Manpower Support		
		Name of the Technical Staff	Designation	Qualification

Computers, Uninterrupted power supply, 24 x 7 Wi-Fi connections in the campus. Software Available: PSPICES, MATLAB & Work benches. Soldering Equipment, CROs with Probes, RPS (Regulated Power Supply), Measuring Equipment, Breadboards, Components like R,L,C of different ratings.	All the EEE Students do the projects, mini projects and faculty members do research.	Ms. Sk. Shalima	Lab Technician	B.Tech
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C. Utilization of Project Laboratories / Research Laboratories / Centre of Excellence:

The department strategically embeds these lab facilities into academic and co-curricular pipelines to build hands-on competency.

1. Projects Lab

- **Project Implementation:** Used by **IV B.Tech** students to design and deploy capstone graduation projects.
- **Core Course Integration:** Dedicated to **II and III B.Tech** student teams for building mini-projects.
- **Advanced Prototyping:** Students build and test **hardware models**.

2. Activity Lab for Skilling

2.1 Student-Centric Activities:

- Serves as an online hub for shortlisted students competing in external **Hackathons and Ideathons**.
- Functions as the formal evaluation venue for scheduled **Major and Mini Project Reviews**.
- Conducts mock interview practice loops (in both online and offline formats) to maximize placement clearance.

2.2 Faculty-Centric Activities:

- Hosts scheduled Research & Development (**R&D**) group alignment meetings.
- Provides computational infrastructure for individual faculty research papers and project modeling.

3. EV Centre of Excellence

- **Experiential Learning:** Emphasizes experiential learning by integrating hands-on exercises with core theoretical Real- Time Operating System (RTOS) concepts taught in the classroom.
- **National Competitions:** Used to write and submit design proposals for **Hackathons and Ideathons**.

D. Relevance to POs/PSOs:

LAB	Name of the Facilities	Utilization	Relevance to POs and PSOs
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Project Laboratory / Research Laboratory	Arduino UNO, IDE with ATmega328P, MATLAB, PSpice/MI POWER, computers, CROs, RPS, Measuring Equipment, Breadboards and Soldering equipment	UG academic projects, miniprojects, major projects and research activities	PO1, PO2, PO3, PO4, PO5, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2
Electric Vehicle Centre of Excellence	Computers, Uninterrupted power supply, 24 x 7 Wi-Fi connections in the campus. Software Available: MI POWER, MATLAB & Work benches Soldering Equipment, CROs with Probes, RPS (Regulated Power Supply), Measuring Equipment, Breadboards, Components like R,L,C of different ratings.	All the EEE Students do the projects, mini projects and faculty members do research	PO1, PO2, PO3, PO4, PO5, PO7, PO9, PO10, PO11, PO12, PSO1, PSO2

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)	660	33	36	10	93
2024-25(CAYm1)	660	33	38	9	98
2025-26(CAY)	990	50	47	13	80

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 //	20000000	20038567	13000000	11614824	22000000	20317879	12500000	12413976
Library //	1500000	1340251	1350000	1112836	1250000	1188185	1200000	1137650
Laboratory equipment //	16450000	15986929	8850000	8322781	7555000	7342872	8745000	8665341

Teaching and non-teaching staff salary	170000000	166348651	150000000	142712506	125000000	118853108	105000000	97999543
Outreach Programs	700000	656555	650000	625352	600000	605455	550000	595875
R&D	1540000	1462579	1430000	1429981	1310000	1302355	1120000	1136461
Training, Placement and Industry linkage	6000000	5572197	5500000	5429685	4000000	3888787	3500000	3017518
SDGs	2820000	2541522	2680000	2598470	2170000	2205058	1760000	1707343
Entrepreneurship	500000	489788	475000	457855	450000	455245	450000	504545
Others, specify	70000000	67403048	45000000	40674542	26000000	25767732	20000000	19795195
Total	289510000	281840087	228935000	214978832	190335000	181926676	154825000	146973447

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	2000000	1905455	1000000	965450	1000000	786350	700000	545450
Software	0	0	0	0	0	0	0	0
SDGs	550000	495550	500000	480900	450000	422500	400000	368750
Support for faculty development	250000	245878	200000	198758	200000	124650	100000	89750
R & D	400000	373985	350000	348245	300000	297852	270000	278954
Industrial Training, Industry expert, Internship	400000	390785	350000	348545	300000	312452	260000	266954
Miscellaneous Expenses*	3000000	2998953	3200000	2906158	2800000	2401523	2000000	1951245
Total	6600000	6410606	5600000	5248056	5050000	4345327	3730000	3501103