NATIONAL BOARD OF ACCREDITATION

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

Program Name : Electronics & Communication Engineering	**Discipline**: Engineering & Technology
Level : Under Graduate	**Tier**: 1
Application No: 10589	**Date of Submission**: 02-05-2025

PART A- Profile of the Institute

A1.Name of the Institute: G.PULLA REDDY ENGINEERING COLLEGE	
Year of Establishment : 1985	Location of the Institute: 15.78131,78.05578
A2. Institute Address:G. Pulla Reddy Engineering College, Pulla Reddy Nagar, Nandyal Road, Kurnool - 518007, Andhra Pradesh	
City:Kurnool	State:Andhra Pradesh
Pin Code:518007	Website:www.gprec.ac.in
Email:principal@gprec.ac.in	Phone No(with STD Code):08518-270957
A3. Name and Address of the Affiliating University (if any):	
Name of the University : Jawaharlal Nehru Technological University, Anantap	City: Anantpur
State : Andhra Pradesh	Pin Code: 515002
A4. Type of the Institution: Self-Supported Institute	
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	Engineering & Technology	PG	Advanced Manufacturing Technology	2022	--	Mechanical Engineering
2	Engineering & Technology	PG	Automation & Robotics	2022	--	Electrical and Electronics Engineering
3	Engineering & Technology	UG	Civil Engineering	1984	--	Civil Engineering
4	Engineering & Technology	UG	Computer Science & Technology	2020	2023	Computer Science and Technology
5	Engineering & Technology	UG	Computer Science and Business System	2020	2024	Computer Science and Business System
6	Engineering & Technology	PG	Computer Science and Engineering	2009	--	Computer Science and Engineering
7	Engineering & Technology	UG	Computer Science and Engineering	1991	--	Computer Science and Engineering

8	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence & Machine Learning)	2021	--	Computer Science and Engineering (Artificial Intelligence and Machine Learning)
9	Engineering & Technology	UG	Computer Science and Engineering (Data Science)	2021	--	Computer Science and Engineering (Data Science)
10	Engineering & Technology	UG	Electrical & Electronics Engineering	1994	--	Electrical and Electronics Engineering
11	Engineering & Technology	UG	Electronics & Communication Engineering	1984	--	Electronics and Communication Engineering
12	Engineering & Technology	UG	Mechanical Engineering	1984	--	Mechanical Engineering
13	Engineering & Technology	PG	Structural Engineering	2009	--	Civil Engineering
14	Engineering & Technology	PG	VLSI & Embedded Systems	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

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	PROGRAI DURATIO
1	Electronics & Communication Engineering	UG	1984 / --	60	Yes	2012	180	2012	F.No. South-Central/1-691732351/2012/EOA	Granted accreditation for 3 years for the period (specify period)	2022	2025	4	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 K Suresh Reddy
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)	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)	180	180	180	180	180	180	180
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	180	180	166	176	180	180	180
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	18	32	22	18	17	18
N3=Separate division if any	18	18	17	18	13	13	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.	198	216	215	216	211	210	198

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)	180	180	0	100.00
2023-24 (CAYm1)	180	180	0	100.00
2022-23 (CAYm2)	180	166	0	92.22

Average [(ER1 + ER2 + ER3) / 3] = 97.41≡ 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	(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).	211.00	210.00	198.00
B=No. of students who graduated from the program in the stipulated course duration	197.00	186.00	175.00
Success Rate (SR)= (B/A) * 100	93.36	88.57	88.38

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 90.10

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)	7.69	7.91	7.94
Y=Total no. of successful students	155.00	160.00	174.00
Z=Total no. of students appeared in the examination	198.00	183.00	191.00
API [X*(Y/Z)]	6.02	6.92	7.23

Average API[(AP1+AP2+AP3)/3] : 6.72

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)	7.59	7.60	7.30
Y=Total no. of successful students	174.00	183.00	198.00
Z=Total no. of students appeared in the examination	192.00	196.00	204.00
API [X * (Y/Z)]	6.88	7.10	7.09

Average API [(AP1 + AP2 + AP3)/3] : 7.02

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)	7.93	8.04	7.80
Y=Total no. of successful students	176.00	198.00	186.00
Z=Total no. of students appeared in the examination	183.00	198.00	187.00
API [X*(Y/Z)]:	7.63	8.04	7.76

Average API [(AP1 + AP2 + AP3)/3] : 7.81

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	198.00	197.00	198.00
X=No. of students placed	110.00	117.00	168.00
Y=No. of students admitted to higher studies	9.00	13.00	10.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	60.10	65.99	89.90

Average Placement Index = (P_1 + P_2 + P_3)/3: 72.00 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 K Suresh Reddy	XXXXXXX16B	Ph.D	JNTUH,Hyderabad	Signal Processing	08/07/1999	25.9	Assistant Professor	Professor	01/07/2011	Regular	Yes		Yes
2	Dr Suryakari Nagaraja Rao	XXXXXXX61G	Ph.D	JNTUA, Anantapuramu	Signal and Image Processing	01/07/2015	9.10	Professor	Professor	01/07/2015	Regular	Yes		No
3	Dr Pinjari Abdul Khayum	XXXXXXX53E	Ph.D	JNTUA,Anantapuramu	Image Processing	22/06/2013	11.10	Professor	Professor	22/06/2013	Regular	Yes		No
4	Dr Shaik Sahib Basha	XXXXXXX20B	Ph.D	JNTUK,Kakinada	Biomedical Image Processing	10/07/2017	7.9	Professor	Professor	10/07/2017	Regular	Yes		No
5	M Devendra	XXXXXXX98Q	MS	BITS,Pilani	Electronics and Control	13/07/1995	29.9	Assistant Professor	Associate Professor	01/07/2003	Regular	Yes		No
6	Dr D R Srinivas	XXXXXXX85D	Ph.D	Rayalaseema University Kurnool	Wireless communications	01/10/1998	26.6	Assistant Professor	Associate Professor	01/07/2005	Regular	Yes		No
7	Dr S M Shamsheer Daula	XXXXXXX41B	Ph.D	Rayalaseema University,Kurnool	Embedded Systems	01/09/2006	18.7	Assistant Professor	Associate Professor	01/01/2018	Regular	Yes		No
8	Dr G Venkata Ramana Sagar	XXXXXXX76J	Ph.D	JNTUH,Hyderabad	Artificial Neural Networks and Design	01/12/2020	4.4	Associate Professor	Associate Professor	01/12/2020	Regular	Yes		No
9	Dr D Rajasekhar	XXXXXXX72B	Ph.D	JNTUA,Anantapur	Image Processing	01/12/2020	4.4	Associate Professor	Associate Professor	01/12/2020	Regular	Yes		No
10	Dr G Amjad Khan	XXXXXXX82M	Ph.D	Rayalaseema University,Kurnool	Speech Processing	02/08/2006	18.9	Assistant Professor	Associate Professor	01/12/2020	Regular	Yes		No
11	Dr D Lakshmi Chaitanya	XXXXXXX79K	Ph.D	GITAM University,Vizag	Wireless Communications	17/09/2021	3.6	Associate Professor	Associate Professor	17/09/2021	Regular	Yes		No
12	Dr J Salai Thillai Thilagam	XXXXXXX02E	Ph.D	B S Abdur Rahman University,Chennai	Wireless Communications	01/07/2017	7.9	Associate Professor	Associate Professor	01/07/2017	Regular	Yes		No
13	Dr M V R Vittal	XXXXXXX36H	Ph.D	JNTUA,Anantapuramu	Wireless Communications	05/06/2009	15.10	Assistant Professor	Associate Professor	01/02/2018	Regular	Yes		No

14	Dr S Vyshali	XXXXXXX26N	Ph.D	JNTUA,Anantapuramu	Digital Image Processing	25/06/2007	17.10	Assistant Professor	Associate Professor	01/07/2019	Regular	Yes		No
15	Dr R Sudheer Babu	XXXXXXX16C	Ph.D	Rayalaseema University , Kurnool	Communications and Signal Processing	08/06/2005	19.10	Assistant Professor	Associate Professor	01/10/2019	Regular	Yes		No
16	Dr G Ramesh	XXXXXXX15L	Ph.D	S K University,Anantapuramu	Embedded Systems	21/06/2010	14.9	Assistant Professor	Associate Professor	01/03/2022	Regular	Yes		No
17	Dr D Venkata Srihari Babu	XXXXXXX48G	Ph.D	JNTUH , Hyderabad	Wireless Communications	15/06/2017	7.10	Assistant Professor	Associate Professor	01/03/2022	Regular	Yes		No
18	Karanam Udaya Kiran	XXXXXXX30R	M.E/M.Tech	JNTUA,Anantapuramu	Digital Systems and Computer Electronics	03/07/2001	23.10	Assistant Professor	Assistant Professor		Regular	Yes		No
19	Burujukota Siva Reddy	XXXXXXX64D	M.E/M.Tech	S K University,Anantapuramu	Communications and Signal Processing	28/06/2007	17.9	Assistant Professor	Assistant Professor		Regular	Yes		No
20	Dr T Sarah Babu	XXXXXXX87M	Ph.D	K L University, Vijayawada	Communication Systems	01/06/2009	15.11	Assistant Professor	Assistant Professor		Regular	Yes		No
21	Dr M Madhusudana Reddy	XXXXXXX25Q	Ph.D	J S University, Shikohabad ,UP	VLSI System Design	10/11/2008	16.5	Assistant Professor	Assistant Professor		Regular	Yes		No
22	C Rajeshwari	XXXXXXX10M	M.E/M.Tech	S K University,Anantapuramu	Communications and Signal Processing	01/06/2012	12.10	Assistant Professor	Assistant Professor		Regular	Yes		No
23	Dr Lanke L Prasanna Kumar	XXXXXXX59F	Ph.D	JNTUA,Anantapuramu	Wireless Communications	11/06/2012	12.10	Assistant Professor	Assistant Professor		Regular	Yes		No
24	Kongala Raju	XXXXXXX47J	M.E/M.Tech	JNYUK,Kakinada	VLSI Systems Design	17/06/2013	11.10	Assistant Professor	Assistant Professor		Regular	Yes		No
25	Dr Thimmapuram Swati	XXXXXXX02H	Ph.D	S K University,Anantapuramu	Wireless Communications	17/06/2013	11.9	Assistant Professor	Assistant Professor		Regular	Yes		No
26	W Yasmeen	XXXXXXX57Q	M.E/M.Tech	JNTUA,Anantapuramu	VLSI system Design	13/07/2015	9.9	Assistant Professor	Assistant Professor		Regular	Yes		No
27	A Venkata Subba Reddy	XXXXXXX97Q	M.E/M.Tech	University of Pune,Pune	Electronics (Digital Systems)	01/07/2015	9.9	Assistant Professor	Assistant Professor		Regular	Yes		No
28	Kammari Rama Krishna	XXXXXXX69A	M.E/M.Tech	JNTUA,Anantapuramu	Embedded Systems	15/06/2017	7.10	Assistant Professor	Assistant Professor		Regular	Yes		No
29	Damireddy Rohini	XXXXXXX16P	M.E/M.Tech	JNTUA,Anantapuramu	VLSI and Embedded Systems	15/11/2021	3.4	Assistant Professor	Assistant Professor		Regular	Yes		No
30	Ganesha Divya Praneetha	XXXXXXX69M	M.E/M.Tech	JNTUA,Anantapuramu	VLSI and Embedded Systems	07/07/2015	9.9	Assistant Professor	Assistant Professor		Regular	Yes		No
31	Aketi Parvathi	XXXXXXX37P	M.E/M.Tech	JNTUA,Anantapuramu	VLSI System Design	16/09/2021	3.6	Assistant Professor	Assistant Professor		Regular	Yes		No

32	Dr P C Praveen Kumar	XXXXXXX41D	Ph.D	GITAM University,Vizag	RF and Microwave Communications	25/07/2022	2.9	Assistant Professor	Assistant Professor		Regular	Yes		No
33	I Venkatarameswar Reddy	XXXXXXX96J	M.E/M.Tech	JNTUA,Anantapuramu	VLSI system Design	29/07/2022	2.8	Assistant Professor	Assistant Professor		Regular	Yes		No
34	Kotla Lakshmi Devi	XXXXXXX77N	M.E/M.Tech	JNTUA,Anantapuramu	Digital Electronics and Communication Systems	25/07/2022	2.8	Assistant Professor	Assistant Professor		Regular	Yes		No
35	Dr. Ampavathina Sowjanya	XXXXXXX19C	Ph.D	NIT Warangal	RF and Microwave Engineering	25/04/2023	1.3	Assistant Professor	Assistant Professor		Regular	No	13/08/2024	No
36	Lalitha Meghana M	XXXXXXX30C	M.E/M.Tech	JNTUA,Anantapuramu	VLSI and Embedded Systems	01/09/2023	1.7	Assistant Professor	Assistant Professor		Regular	No	30/04/2025	No
37	Ramesh Babu S	XXXXXXX16C	M.E/M.Tech	JNTUH , Hyderabad	VLSI system Design	05/08/2024	0.8	Assistant Professor	Assistant Professor		Regular	Yes		No
38	Polukallu Surya Prakash Reddy	XXXXXXX30Q	M.E/M.Tech	JNTUK,Kakinada	VLSI and Embedded Systems	07/08/2024	0.8	Assistant Professor	Assistant Professor		Regular	Yes		No
39	Dr. Pagidirayi Anil Kumar	XXXXXXX08B	Ph.D	S V University,Tirupathi	Signal Processing	14/08/2024	0.8	Assistant Professor	Assistant Professor		Regular	Yes		No
40	Dr Siva Reddy Sonti	XXXXXXX54P	Ph.D	K L University, Vijayawada	Communications and Signal Processing	01/09/2012	11.9	Assistant Professor	Associate Professor	01/10/2022	Regular	No	31/05/2024	No
41	Kanike Vijaya Kumar	XXXXXXX20G	M.E/M.Tech	JNTUA,Anantapuramu	Communications and Signal Processing	01/09/2023	0.6	Assistant Professor	Assistant Professor		Regular	No	13/03/2024	No
42	Pasuluri Bindu Swetha	XXXXXXX66Q	M.E/M.Tech	Sathyabama University,Chennai	VLSI Design	03/12/2020	2.6	Assistant Professor	Assistant Professor		Regular	No	28/06/2023	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(2024-25)**	**CAYm1 (2023-24)**	**CAYm2 (2022-23)**
UG1.B	198	198	198
UG1.C	198	198	197
UG1.D	198	197	198
UG1: Electronics & Communication Engineering	**594**	**593**	**593**
PG1.A	12	12	12
PG1.B	12	12	18
PG1: VLSI & Embedded Systems	**24**	**24**	**30**
DS=Total no. of students in all UG and PG programs in the Department	618	617	623
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=** 618	**S2=** 617	**S3=** 623
DF=Total no. of faculty members in the Department	38	36	36
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=** 38	**F2=** 36	**F3=** 36
FF=The faculty members in F who have a 100% teaching load in the first-year courses	4	4	4
Student Faculty Ratio (SFR)=S/(F-FF)	**SFR1= 18.18**	**SFR2= 19.28**	**SFR3= 19.47**
Average SFR for 3 years	**SFR= 18.98**		

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)]**
2024-25(CAY)	20	18	30.00	22.67
2023-24(CAYm1)	19	17	30.00	21.50
2022-23(CAYm2)	17	19	31.00	19.84

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
2024-25	3.00	4.00	6.00	12.00	20.00	22.00
2023-24	3.00	4.00	6.00	13.00	20.00	19.00
2022-23	3.00	4.00	6.00	12.00	20.00	20.00
Average	RF1=3.00	AF1=4.00	RF2=6.00	AF2=12.33	RF2=20.00	AF2=20.33

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	Sri Gundluru Venugopal Reddy	Sr.Staff Engineer/Manager,S/W Architecture	ualcom India, Design centre,Bangalore	Introduction to VLSI Design	50.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Sri P Nagabhushan Reddy	Principle Engineer	Power Management Technologist,SIV WSS CPE CCG,Intel,Bangalore	IoT Architecture	17.00
2	Sri N Jaya Prakash	Software Architect	Intel,Bangalore	Python Programming	11.00
3	Sri Gundluru Venugopal Reddy	Sr.Staff Engineer/Manager,S/W Architecture	ualcom India, Design centre,Bangalore	Introduction to VLSI Design	22.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Sri P nagabhushan Reddy	Principle Engineer	Power Management Technologist,SIV WSS CPE CCG,Intel,Bangalore	IoT Architecture	23.00
2	Sri N Jaya Prakash	Software Architect	Intel,Bangalore	Python Programming	21.00

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	22	24	12

2	No. of peer reviewed conference papers published	12	25	10
3	No. of books/book chapters published	5	3	1

C7. Sponsored Research Project

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

(CAYm1)

(CAYm2)

(CAYm3)

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

Note*:

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

C8. Consultancy Work

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

(CAYm1)

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
						Amount received (Rs.):0

(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
						Amount received (Rs.):0

(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
						Amount received (Rs.):0

Total amount (Lacs) received for the past 3 years: 0

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 D R Srininvas	VR Based Drone Simulator	2 Years	3.54	3.54	Utilized to train the students on Drone Technology
Dr S Nagaraja Rao	Autonomous Humanoid Robot	2 years	2.18	2.00	Utilized as interactive machine that provides college information
Dr.J.Salai Thillai Thilagam	Vector Network Analyzer Design for Microwave Networks	2 years	1.98	1.03	Research Work: Utilized in Microwave lab to perform experiments
Dr S M Shamsheer Daula	AI Based Security System	2 years	0.61	0.60	Utilized a counter device on college organized events or technical fests
			Amount received (Rs.): 8.31		

(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
			Amount received (Rs.): 0		

(CAYm3)

Total amount (Lacs) received for the past 3 years : 8.31

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	Microprocessors and Microcontrollers Lab	3	1.8086 ESA Model Microprocessor Kits 2.Embedded Systems Design Lab Trainer Kits, Connectors and	6 slots per wee	Sri M.V. Krishna	Sr. Technician	D.E.C.E
2	Digital System Design Lab	3	1.Universal Digital IC Trainer 2. Component Development System(CDS) 3.Digital IC Testers 4.	6slots perweek	Sri M.V. Krishna	Sr. Technician	D.E.C.E
3	MicrowaveLab	3	1.Reflex Klystron Power Supply 2. Gunn Power Supply 3. Gunn Oscillator 4. VSWR Meter 5. Slotted Section	6 slots per wee	Sri. P.Padmanabha Reddy	Sr. Technician	D.E.C.E
4	Communications Lab	3	1.AnalogCathode Ray Oscilloscopes (CRO) 2. Digital Cathode Ray Oscilloscopes(CRO) 3. Spectrum	6 slots per wee	Sri. P.Padmanabha Reddy	Sr. Technician	D.E.C.E
5	IC Applications Lab	3	1. Cathode Ray Oscilloscopes (CRO) 2.Function Generator 3. IC Testers 4.Component Development	6 slots per wee	Sri.M.Surendra	Lab Technician	I.T. I

6	Basic Electronics – I	3	1. Cathode Ray Oscilloscopes (CRO) 2.Function Generator 3. Digital Multimeters 4. Ammeters 5.	18 slots per we	Sri. M.Surendra	Lab Technician	I.T. I
7	Basic Electronics – II	3	1. Cathode Ray Oscilloscopes (CRO) 2. Function Generators 3. Digital Multimeters 4. Ammeters 5.	16 slots per we	Sri.B.V.Ramana Reddy	Lab Technician	D.E.C.E
8	Analog Circuits Lab	3	1. Component Development System(CDS) 2. Cathode Ray Oscilloscopes (CRO 3. Function Generator 4.	12 slots per we	Sri.B.V.Ramana Reddy	Lab Technician	D.E.C.E
9	Basic Simulation Lab	1	1.Lenovo Think Centre Core i5, 2.50 GHz Processor, 16 GB RAM, 512 GB SSD, LED Monitor 2. HP G8 Intel	12 slots per we	Sri.G.Charan Kumar	Lab Engineer	M.C.A
10	DSP Lab	1	1. DELL 380 INTEL CORE 2 DUO 2.93 GHZ Processor,2GB RAM, 320GB HD, Keyboard, Optical	12 slots per we	Smt. M. Sujatha	Lab Technician	D.E.C.E
11	Advanced VLSI & Embedded Systems Lab	1	VLSI 1.Cadence Design Suite 2. Zed Board 3. NEXYS DDR4 ARTIX 7 4. FIXED - PC Altera	12 slots per we	Smt. M. Sujatha	Lab Technician	D.E.C.E

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Microprocessors and Microcontrollers Lab	Fire Extinguisher, FIRST AID Box Specific Safety rules in the form of Do's and don'ts are displayed in the laboratory
2	Digital System Design Lab	Fire Extinguisher, FIRST AID Box Specific Safety rules in the form of Do's and don'ts are displayed in the laboratory
3	Microwave Lab	Fire Extinguisher, FIRST AID Box, Specific Safety rules in the form of Do's and don'ts are displayed in the laboratory
4	Communications Lab	Fire Extinguisher, FIRST AID Box, Specific Safety rules in the form of Do's and don'ts are displayed in the laboratory
5	IC applications Lab	Fire Extinguisher, FIRST AID Box, Specific Safety rules in the form of Do's and don'ts are displayed in the laboratory
6	Basic Electronics-I Lab	Fire Extinguisher, FIRST AID Box, Specific Safety rules in the form of Do's and don'ts are displayed in the laboratory

7	Basic Electronics-II Lab	Fire Extinguisher, FIRST AID Box, Specific Safety rules in the form of Do's and don'ts are displayed in the laboratory
8	Analog Circuits Lab	Fire Extinguisher, FIRST AID Box, Specific Safety rules in the form of Do's and don'ts are displayed in the laboratory
9	Basic Simulation Lab	Fire Extinguisher, FIRST AID Box, Specific Safety rules in the form of Do's and don'ts are displayed in the laboratory
10	DSP Lab	Fire Extinguisher, FIRST AID Box, Specific Safety rules in the form of Do's and don'ts are displayed in the laboratory
11	Advanced VLSI & Embedded Systems Lab	Fire Extinguisher, FIRST AID Box, Specific Safety rules in the form of Do's and don'ts are displayed in the laboratory
12	IoT Lab	Fire Extinguisher, FIRST AID Box, Specific Safety rules in the form of Do's and don'ts are displayed in the laboratory

D3. Project Laboratory/Research Laboratory

TableNo.7.5.1:List of project laboratory/research laboratory/Centre of Excellence.

S.N.	Name of the Laboratory
1.	Research Laboratories 1. R&D Lab 2. UAV Research Lab 3. Tinkering Lab
2.	Project laboratories 1. IoT Lab 2. NI LabView Lab
3.	Centre of Excellence 1. Entuple Technologies, Bengaluru 2. Techsys IoT Labs, Hyderabad 3. Apply Volt, Vijayawada
4.	Innovation and startups 1. Design Thinking Innovation Lab 2. Innovation and Incubation Center

Research Laboratories:

1. **R&D Lab**: The R&D Lab in ECE Department facilitates faculty and students to undertake innovative research projects in emerging areas of engineering and technology. It serves as a dedicated space for developing prototypes, publishing research papers, and filing patents, thus fostering a culture of research and innovation within the institution.

   R&D Lab is equipped with

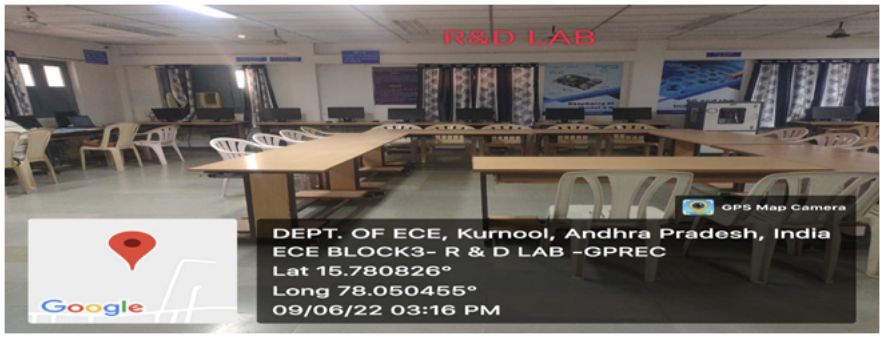
- High performance computers which provide access to the IEEE Xplore Digital Library or IEEE Access journal through the institution's subscription
- Electronic Prototyping Kits
- LCD Projector with Audio-Visual Setup
- Open-Source software's such as

  https://www.scilab.org/download/scilab-6.1.1 (https://www.scilab.org/download/scilab-6.1.1)

  https://www.autodesk.com/products/eaglefree-download (https://www.autodesk.com/products/eaglefree-download)

  https://www.ti.com/tool/CCSTUDIO (https://www.ti.com/tool/CCSTUDIO)

  https://www.keil.com (https://www.keil.com/)



2. UAV Research Lab: With the growing demand for unmanned aerial vehicles (UAVs) in surveillance, agriculture, logistics, and defense, this lab provides students and researchers a platform to design, simulate, and develop drone-based applications, contributing to industry-relevant projects and interdisciplinary learning.

UAV Research Lab is equipped with

- Whitehawk drone with a 20MP payload
- Fixed quadcopter drone
- Videography Drone
- Delivery Drone
- PiXhawk Training Drone
- Drone Simulation System
- Agisoft Software

3. Tinkering Lab: This facility encourages students to brainstorm, experiment, and prototype innovative ideas using basic electronic kits, sensors, microcontrollers, and 3D printing tools, enhancing their problem-solving and entrepreneurial skills

Project Laboratories:

1. **IoT Lab**: The IoT Lab supports projects and research in smart systems and connected devices, offering hands-on experience with microcontrollers, wireless modules, and IoT platforms. It aligns with modern trends in smart cities, healthcare, and industrial automation, equipping students with essential skills for the digital age.

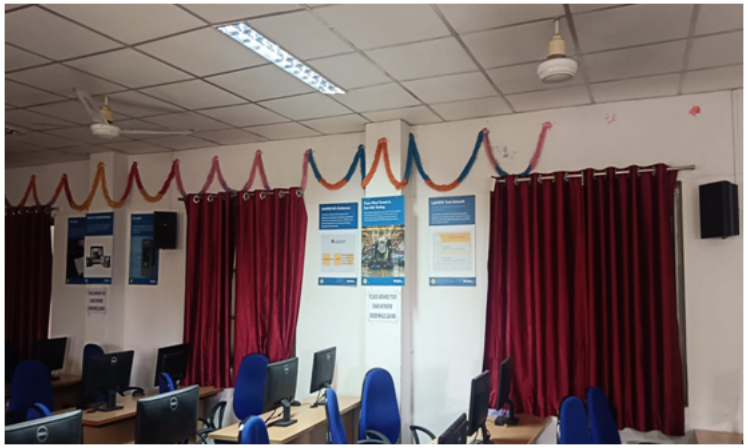
   IoT projectlab is equipped with

- IoT Components & Accessories
- Basic Controllers & Development Boards
- Advanced Controllers & Network Modules
- Specialized IoT Kits
- Arduino IDE

2. NI LabVIEW Lab: The NI LabVIEW Lab introduces students to graphical programming for data acquisition, instrumentation control, and industrial automation. It supports projects in robotics, control systems, and real-time monitoring applications, enhancing students practical engineering skills.

NI LabVIEW Lab is equipped with

- Systems installed with NI LabVIEW software
- NI Data Acquisition (DAQ) Module
- NI myRIO Embedded Device



Centre of Excellence: The Center of Excellence at GPREC aims to bridge the gap between academic learning and industry demands by providing a platform for skill development, research, and innovation. It prepares students for careers in high-demand sectors while contributing to the advancement of technology through collaborative efforts.

The department has signed several MoUs with industry and academic institutions to provide specialized training for students in areas like VLSI, IoT, MATLAB, Embedded Systems, and Innovation. These collaborations offered workshops, hands-on sessions, and certification programs, enabling students to gain practical exposure, industry-relevant skills, and global certifications.

S.No.	MoU with Organization name	Academic Year	Area	Faculty Incharge
1.	Entuple Technologies, Bengaluru	**2020-21**	**VLSI**	**Dr.M.Madhusudhan Reddy**
2.	Techsys IoT Labs, Hyderabad	**2019-20**	**IoT**	**Dr.D.R.Srinivas**
3.	APPLY VOLT, Vijayawada	**2019-20**	**PCB**	**Dr. G.Amjad Khan**

Outcomes:

The outcomes of these initiatives include the successful completion of academic and real-time industry projects, active participation and accolades in national-level hackathons and innovation challenges, and contributions to joint research papers and international conference presentations. Many students secured internships in reputed companies and start-ups, while others earned globally recognized certifications that boosted their profiles for higher education and international academic collaborations. Additionally, these programs significantly improved student placement opportunities in core engineering, product development, and emerging technology sectors like IoT, and VLSI design.

Entuple Technologies: As part of the MoU between Entuple Technologies, Bengaluru and the Department of Electronics and Communication Engineering (ECE), GPREC, multiple workshops and training programs were organized focusing on VLSI domain. These initiatives have significantly enhanced students technical skills, leading to successful placements for several students in the VLSI domain.

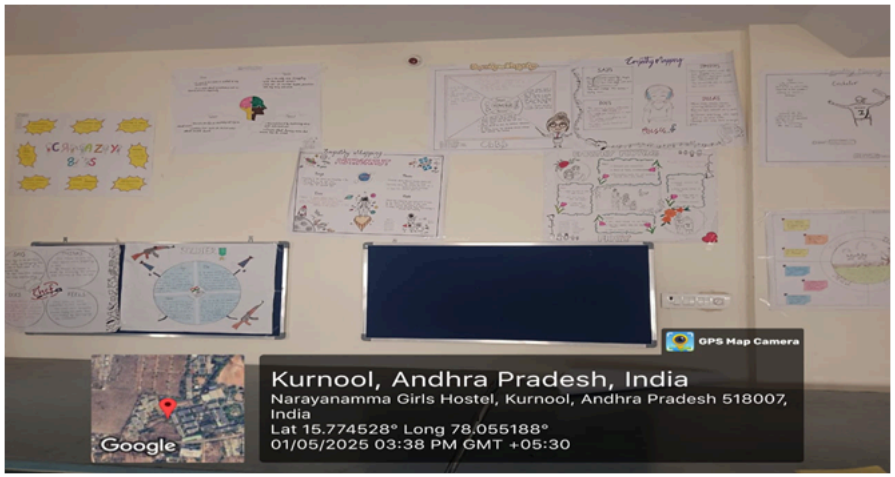
Techsys IoT: An MoU with Techsys IoT Labs helps students in gaining knowledge on various Microcontroller boards like Arduino, Raspberry Pi and NodeMcu to build various real time IoT applications.

APPLY VOLT: An MoU with APPLY VOLT has conducted webinars on PCB Design and prototype development process andconducted training programs on PCB design to have practical understanding of hardware design, manufacturing processes, and the integration of electronic components.

Innovation and startups:

1. **Innovation and Incubation Center**: This center nurtures student startups, entrepreneurial ventures, and faculty-led innovations. It provides mentoring, infrastructure, and seed funding support to convert innovative ideas into commercially viable products and solutions, promoting a startup culture at GPREC.

2. Design Thinking Innovation Lab: The Design Thinking Innovation Lab promotes creative problem-solving methodologies among students. It provides a collaborative environment for ideation, prototyping, and testing innovative solutions to real-world problems, thereby enhancing critical thinking and teamwork abilities.



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)	1080	54	32	91	81
2023-24(CAYm1)	1080	54	35	96	87
2024-25(CAY)	1140	57	41	110	96

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	450.00	758.18	91.00	825.47	508.18	1336.14	692.47	417.13
Library	38.16	24.72	38.16	16.78	41.77	32.02	22.40	23.50
Laboratory equipment	337.01	221.50	333.60	172.08	223.36	179.79	123.18	152.38
Teaching and non-teaching staff salary	3028.00	3181.05	2600.00	2556.36	2360.00	2225.79	2245.95	2031.73
Outreach Programs	1.4	1.25	1.4	1.2	1.4	1.1	1.4	0.4
R&D	118.80	47.37	92.53	38.73	27.35	28.18	26.55	21.98
Training, Placement and Industry linkage	29.87	48.88	4.20	49.75	72.05	51.19	48.57	43.84
SDGs	2.0	1.8	2.0	1.7	2.0	1.4	2.0	0.6
Entrepreneurship	2.28	1.11	3.50	1.07	3.50	1.64	3.50	0.069
Department labs, Seminars, Administrative and Affiliation	654.48	435.23	436.61	376.08	344.56	352.32	249.99	196.69
Total	**4662.00**	**4721.09**	**3603.00**	**4039.22**	**3584.17**	**4209.57**	**3416.01**	**2888.319**

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	4019860	3724912	528105	219599	2214000	1730154	1577100	1529196
Software	0	0	1000000	1062000	0	0	0	0
SDGs	0	0	0	0	0	0	0	0
Support for faculty development	0	0	0	0	0	0	0	0
R & D	0	0	0	0	0	0	0	0
Industrial Training, Industry expert, Internship	0	0	0	0	0	0	0	0
Miscellaneous Expenses*	0	0	0	0	0	0	0	0
Total	**4019860**	**3724912**	**1528105**	**1281599**	**2214000**	**1730154**	**1577100**	**1529196**