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: 10572	**Date of Submission**: 23-04-2025

PART A- Profile of the Institute

A1.Name of the Institute: PRASAD V. POTLURI SIDDHARTHA INSTITUTE OF TECHNOLOGY	
Year of Establishment : 1998	Location of the Institute: Lat 16.4877°, Long 80.6941°
A2. Institute Address:VASANTHA NAGAR -POST KANURU	
City:VIJAYAWADA	State:Andhra Pradesh
Pin Code:520007	Website:www.pvpsiddhartha.ac.in
Email:PRINCIPAL@PVPSIDDHARTHA.AC.IN	Phone No(with STD Code):0866-2581699
A3. Name and Address of the Affiliating University (if any):	
Name of the University : JNTU KAKINADA	City: east Godavari
State : Andhra Pradesh	Pin Code: 533003
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: **8**
- No. of PG programs: **3**

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

Sr.No.	Discipline	Level of program	Name of the program	Year of Start	Year of Closed	Name of The Department
1	Engineering & Technology	UG	Civil Engineering	2008	--	Civil Engineering
2	Engineering & Technology	UG	Computer Science and Engineering	1999	--	Computer Science and Engineering
3	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence & Machine Learning)	2022	--	Computer Science and Engineering (Artificial Intelligence and Machine Learning)
4	Engineering & Technology	UG	Computer Science and Engineering (Data Science)	2022	--	Computer Science and Engineering (Artificial Intelligence and Machine Learning)
5	Engineering & Technology	UG	Electrical and Electronics Engineering	2001	--	Electrical and Electronics Engineering
6	Engineering & Technology	UG	Electronics & Communication Engineering	2000	--	Electronics and Communication Engineering
7	Engineering & Technology	UG	Information Technology	1998	--	Information Technology

8	Engineering & Technology	PG	Machine Design	2008	--	Mechanical Engineering
9	Engineering & Technology	UG	Mechanical Engineering	1998	--	Mechanical Engineering
10	Engineering & Technology	PG	Microwave & Communication Engineering	2010	--	Electronics and Communication Engineering
11	Management	PG	Master of 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
Computer Science and Engineering	Yes	Computer Science and Engineering	UG
Information Technology	Yes	Information Technology	UG
Electronics and Communication Engineering	No	Electronics & Communication Engineering	UG
Electrical and Electronics Engineering	No	Electrical and Electronics Engineering	UG
Mechanical Engineering	No	Mechanical Engineering	UG

Table No. A7.2: Allied Department(s) to the Department of the program considered for accreditation as above.
Cluster ID. Name of the Department (in table no. A7.1) Name of allied Departments/Cluster (for table no. A7.1)

No Record

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 ACCREDITE
1	Electronics & Communication Engineering	UG	2000 / --	40	Yes	2004	120	2004	F.No.:730-50-240 (E)/ET/97 Dt: 26.06.2004	Granted accreditation for 3 years for the period (specify period)	2022	2025	5

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. C. Subba 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)	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)	120	120	120	120	120	120	120
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	118	120	119	119	119	120	120
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	12	13	13	13	12	12
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	12	12	12	12	8	8	0
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	130	144	144	144	140	140	132

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)	120	118	0	196.67
2023-24 (CAYm1)	120	132	0	210.00
2022-23 (CAYm2)	120	132	0	209.17

Average [(ER1 + ER2 + ER3) / 3] = 205.28≡ 100

B5. Success Rate of the Students in the Stipulated Period of the Program

Table No.B5.1: The success rate in the stipulated period of a program.

Item	(2020-21) LYG	(2019-20) LYGm1	(2018-19) LYGm2
A*= (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any).	140.00	140.00	132.00
B=No. of students who graduated from the program in the stipulated course duration	126.00	132.00	121.00
Success Rate (SR)= (B/A) * 100	90.00	94.29	91.67

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 91.99

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)	7.23	8.16	8.14
Y=Total no. of successful students	129.00	130.00	128.00

Z=Total no. of students appeared in the examination	129.00	130.00	128.00
API [X*(Y/Z)]	7.23	8.16	8.14

Average API[(AP1+AP2+AP3)/3] : 7.84

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)	7.18	7.27	7.24
Y=Total no. of successful students	142.00	138.00	139.00
Z=Total no. of students appeared in the examination	143.00	141.00	140.00
API [X * (Y/Z)]	7.13	7.11	7.19

Average API [(AP1 + AP2 + AP3)/3] : 7.14

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)	7.60	8.20	7.79
Y=Total no. of successful students	138.00	139.00	137.00
Z=Total no. of students appeared in the examination	138.00	139.00	138.00
API [X*(Y/Z)]:	7.60	8.20	7.74

Average API [(AP1 + AP2 + AP3)/3] : 7.85

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	139.00	137.00	132.00
X=No. of students placed	103.00	113.00	90.00
Y=No. of students admitted to higher studies	2.00	12.00	13.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	75.54	91.24	78.03

Average Placement Index = (P_1 + P_2 + P_3)/3: 81.60 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. C. Subba Rao	XXXXXXX22K	Ph.D	JNTUH, Hyderabad	Antenna Beam Shaping	16/06/2003	21.10	Assistant Professor	Professor	01/04/2015	Regular	Yes		Yes
2	Dr. K. Ramanjaneyulu	XXXXXXX52G	Ph.D	Andhra University	Image Water marking	19/07/2013	11.6	Professor	Professor	19/07/2013	Regular	No	23/01/2025	No
3	Dr. J. Ravindra Babu	XXXXXXX93L	Ph.D	JNTUH, Hyderabad	Wireless Communication	04/08/2000	24.8	Assistant Professor	Associate Professor	30/08/2006	Regular	Yes		No
4	Dr. Ch. Gangadhar	XXXXXXX40K	Ph.D	Osmania University	VLSI Design	16/06/2003	21.10	Assistant Professor	Associate Professor	02/03/2009	Regular	Yes		No
5	Dr.T.Haritha	XXXXXXX55E	Ph.D	GITAM University	Wireless Communication	12/06/2004	20.10	Assistant Professor	Associate Professor	30/08/2006	Regular	Yes		No
6	Mr. M. Srinivasa Rao	XXXXXXX66A	M.E/M.Tech	Bharathiar University, Coimbatore	Communication Systems	01/05/2012	12.11	Associate Professor	Associate Professor	01/05/2012	Regular	Yes		No
7	Mrs. K. Anitha	XXXXXXX56G	M.E/M.Tech	Bharatiyar University	Communication Systems	01/05/2012	12.11	Associate Professor	Associate Professor	01/05/2012	Regular	Yes		No
8	Dr. B. Surya Prasada Rao	XXXXXXX98M	Ph.D	JNTUK, Kakinada	VLSI & Image Processing	14/06/2012	12.10	Associate Professor	Associate Professor	14/06/2012	Regular	Yes		No
9	Dr. A. Geetha Devi	XXXXXXX48C	Ph.D	JNTUH, Hyderabad	Image Processing	14/06/2017	7.10	Associate Professor	Associate Professor	14/06/2017	Regular	Yes		No
10	Dr. Haji Habibulla MD	XXXXXXX55D	Ph.D	KL Deemed to be University	Wireless Sensor Networks	20/06/2006	18.9	Assistant Professor	Associate Professor	01/06/2024	Regular	Yes		No
11	Dr. B. Samuyelu	XXXXXXX22D	Ph.D	Andhra University	Signal Processing	19/06/2006	18.10	Assistant Professor	Assistant Professor		Regular	Yes		No
12	Mrs. K. Aruna Kumari	XXXXXXX56Q	M.E/M.Tech	JNTU, Anantapur	Digital Systems & Computer Electronics	05/12/2000	24.4	Assistant Professor	Assistant Professor		Regular	Yes		No
13	Dr. T. Balaji	XXXXXXX45A	Ph.D	Annamalai University	Signal Processing	20/06/2011	13.9	Assistant Professor	Assistant Professor		Regular	Yes		No
14	Ms. T. Sushma	XXXXXXX99G	M.E/M.Tech	Nagarjuna University	Microwave Engineering	23/06/2005	19.9	Assistant Professor	Assistant Professor		Regular	Yes		No
15	Mrs. B.V. Subbayamma	XXXXXXX56J	M.E/M.Tech	Nagarjuna University	Communication and Radar Systems	06/12/2005	19.4	Assistant Professor	Assistant Professor		Regular	Yes		No
16	Mrs. B. Swati Lakshmi	XXXXXXX22H	M.E/M.Tech	JNTUK Kakinada	Microwave & Communication Engineering	19/06/2006	18.10	Assistant Professor	Assistant Professor		Regular	Yes		No

17	Mr. K. Phani Rama Krishna	XXXXXXX26B	M.E/M.Tech	Acharya Nagarjuna University	Microwave Engineering	11/07/2006	18.9	Assistant Professor	Assistant Professor		Regular	Yes		No
18	Mr. A. Ashok Babu	XXXXXXX40L	M.E/M.Tech	Kakatiya University	Digital Communications	30/09/2008	16.6	Assistant Professor	Assistant Professor		Regular	Yes		No
19	Dr. V. Sarvani Duti Rekha	XXXXXXX83Q	Ph.D	KL Deemed to be University	Communications	07/10/2009	15.6	Assistant Professor	Assistant Professor		Regular	Yes		No
20	Mrs. L. Madhavi Devi	XXXXXXX95N	M.E/M.Tech	Nagarjuna University	Communications and Signal Processing	07/10/2009	15.6	Assistant Professor	Assistant Professor		Regular	Yes		No
21	Dr. P. Venu Madhav	XXXXXXX35B	Ph.D	KL Deemed to be University	Communications	05/10/2009	15.6	Assistant Professor	Assistant Professor		Regular	Yes		No
22	Mrs. D. Praveena Bai	XXXXXXX02E	M.E/M.Tech	JNTUK Kakinada	VLSI System Design	08/06/2011	13.10	Assistant Professor	Assistant Professor		Regular	Yes		No
23	Mrs. D. Swathi	XXXXXXX15G	M.E/M.Tech	JNTUK Kakinada	Microwave and Communication Engineering	06/06/2013	11.10	Assistant Professor	Assistant Professor		Regular	Yes		No
24	Mrs. Ch. Sri Lakshmi	XXXXXXX16G	M.E/M.Tech	JNTUK Kakinada	Embedded systems	27/08/2014	10.7	Assistant Professor	Assistant Professor		Regular	Yes		No
25	Dr. T. Maha Lakshmi	XXXXXXX08R	Ph.D	GITAM Deemed to be University	Digital Image Processing	28/11/2011	13.4	Assistant Professor	Assistant Professor		Regular	Yes		No
26	Dr. V. Ratna Kumari	XXXXXXX57F	Ph.D	JNTUK Kakinada	Image Processing	23/06/2005	19.9	Assistant Professor	Assistant Professor		Regular	Yes		No
27	Mrs. D. Hareesha	XXXXXXX26E	M.E/M.Tech	Acharya Nagarjuna University	Communications and Signal Processing	24/06/2005	19.9	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(2024-25)**	**CAYm1 (2023-24)**	**CAYm2 (2022-23)**
UG1.B	132	132	132
UG1.C	132	132	132
UG1.D	132	132	132
UG1: Electronics & Communication Engineering	**396**	**396**	**396**
PG1.A	6	6	6
PG1.B	6	6	6
PG1: Microwave & Communication Engineering	**12**	**12**	**12**
DS=Total no. of students in all UG and PG programs in the Department	408	408	408
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=** 408	**S2=** 408	**S3=** 408
DF=Total no. of faculty members in the Department	26	27	27
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=** 26	**F2=** 27	**F3=** 27
FF=The faculty members in F who have a 100% teaching load in the first-year courses	2	2	1
Student Faculty Ratio (SFR)=S/(F-FF)	**SFR1= 17.00**	**SFR2= 16.32**	**SFR3= 15.69**
Average SFR for 3 years	**SFR= 16.34**		

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)	12	14	20.00	22.00
2023-24(CAYm1)	12	15	20.00	22.50
2022-23(CAYm2)	11	16	20.00	21.75

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	2.00	1.00	4.00	6.00	13.00	19.00
2023-24	2.00	2.00	4.00	5.00	13.00	20.00
2022-23	2.00	2.00	4.00	5.00	13.00	20.00
Average	RF1=2.00	AF1=1.67	RF2=4.00	AF2=5.33	RF2=13.00	AF2=19.67

C5. Visiting/Adjunct Faculty/Professor of Practice

Table No. C5.1: List of visiting/adjunct faculty/professor of practice and their teaching and practical loads.

(CAYm1)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	0	0	0	0	0.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	0	0	0	0	0.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	0	0	0	0	0.00

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	48	32	16
2	No. of peer reviewed conference papers published	11	16	15
3	No. of books/book chapters published	1	0	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 .C. Subba Rao		ECE	Research on measurement and analysis of atmospheric parameters	Efftronics Systems Pvt. Ltd.	3 Years	2.50
Dr .C. Subba Rao		ECE	Research and skill upgradation using ARM controllers	Efftronics Systems Pvt. Ltd.	3 Years	12.00
						Amount received (Rs.):14.50

(CAYm2)

(CAYm3)

Total Amount (Lacs) Received for the Past 3 Years: 14.50

Note*:

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

C8. Consultancy Work

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

(CAYm1)

(CAYm2)

(CAYm3)

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

Note*:

- Only consultancy projects will be considered. Infrastructure-based projects will not be considered here.

C9. Institution Seed Money or Internal Research Grant to its Faculty for Research Work

Table No. C9.1: List of faculty members received seed money or internal research grant from the Institution.

(CAYm1)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Dr. C. Subba Rao	Measurement of Cell Tower Radiation and RF Exposure Assessment	1 year	0.30	0.24	To measure radio frequency, radiation power density in and around the RF sources such as Laptops/mobile phones/cell towers etc
Dr. Ch. Gangadhar, Dr. P. Venu Madhav	Non Invasive Glucose Monitor system	1 year	0.30	0.30	Non-invasive glucose monitoring eliminates the need for finger pricking or invasive procedures
Dr. T.Harita	Secure Touch : IOT- Enabled Finger Touch Authentication for Seamless Mobile Security	1 year	0.25	0.20	Information are protected by cutting edge technology.
Dr. B. Surya Prasada Rao, Dr. A.Geetha Devi	Driver Fatigue Monitoring System	1 year	0.20	0.10	A driver fatigue monitoring system has been developed
L. Madhavi Devi ,B. Swathi Lakshmi	Solar Mirchi Drier	1 year	0.30	0.23	The Solar Mirchi Dryer is a type of solar-powered drying system specifically designed for drying chilli peppers (mirchi) efficiently
V. Ratna Kumari	Non Decimated Wavelet Based Multi Band Ear Recognition Using PCA	1 year	1.60	1.50	Implemented a multi-band ear recognition system using non-decimated wavelet transform and PCA for improved accuracy and robustness..
D. Praveena Bai, Dr T. Maha Lakshmi ,Dr. J. Ravindra Babu, D. Swathi, Dr. V S D Rekha	A Low-Power Processor for Heart Rate Estimation	1 year	0.95	0.95	ONGOING
			Amount received (Rs.): 3.90		

(CAYm2)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Dr. C.Subba Rao	Ultrasonic Glasses for Blind People	1 year	0.05	0.01	A prototype is developed using ultrasound sensors
Dr.K. Ramanjaneyulu	Designing FM Receiver Using GNU Radio and RTL-SDR Dongle	1 year	0.80	0.96	To demonstrate real-time signal processing and software-defined radio capabilities.
Dr T.Haritha	An IoT based Egg incubator monitoring and Controlling system	1 year	0.15	0.12	Egg incubator is a device to control temperature and humidity until the process of egg hatching.
Dr. B.Surya Prasad Rao	Automatic plant watering system with Arduino	1 year	0.15	0.06	Developed an automatic plant watering system using Arduino.
Dr.Ch. Gangadhar	Heart disease monitoring using biomedical signal processing	1 year	0.15	0.07	Monitoring heart disease through biomedical signal processing offers significant promise in improving early detection, diagnosis, and management.
Dr.Md. Habibulla	LED Matrix Display Clock with Temperature	1 year	0.05	0.02	Accurate real-time clock functionality showing hours and minutes along with Real-time temperature readings
Dr.V.S.D. Rekha	Solar based electrical vehicle wireless charging station using STM32	1 year	0.05	0.07	Prototype model was developed using STM32 and Arduino IDE Software.
Mrs. B.Swathi Lakshmi	RFID and Face Recognition Based Smart Attendance System	1 year	0.04	0.02	Created a smart attendance system integrating RFID and face recognition to ensure accurate, efficient, and secure student verification.
Mrs. L.Madhavi Devi	Smart Digital School Bell with Time Table	1 year	0.04	0.01	A smart digital school bell with a timetable display was developed providing utility for academic institutions.
Mrs. D. Hareesha	Theft Detection and Identification	1 year	0.04	0.01	The sensors detect unauthorized movements, and notification will be sent
Mrs. D. Swathi	Smart Water Quality Monitoring System Using IoT	1 year	0.06	0.05	Developed an IoT-based smart water quality monitoring system to provide real-time analysis and alerts for safe and efficient water management.
Mrs. B. V. Subbayamma	Automatic Window Blinds	1 year	0.04	0.02	An Automatic Window Blinds prototype was designed and developed
Ms T.Sushma	Remote Controlled Rolling Shutter	1 year	0.04	0.02	A prototype mechanism for the automatic opening and closing of a heavy rolling system was developed.
			Amount received (Rs.): 1.66		

(CAYm3)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Dr. Md. Habibulla	Implementation of deep belief neural network on energy efficient routing algorithm in WSN	1 year	0.70	0.70	Optimize energy consumption, extending the lifespan of sensor networks
			Amount received (Rs.): 0.70		

Total amount (Lacs) received for the past 3 years : 6.26

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	Analog & Digital Circuits Lab	2	Lab Station setup, 50 MHz Dual channel Digital storage, Oscilloscopes, 30 MHz Dual channel	I-Sem: 18 Hour	Mrs. M. Latha Hima Bin	Lab Technician	D.E.C.E
2	VLSI & Signal Processing Lab	1	Desktop Computers: 41, Nexys A7 FPGA boards, Spartan FPGA boards, Vertex5 FPGA board,	I-Sem : 18 Hou	Mr. P. Koteswara Rao	Lab Technician	B.Tech.
3	Digital Signal Processing Lab	1	Desktop Computers:41 TMS 320C6713 DSP Starter Kit, TMS320C5416 DSP Starter Kit, TMS	I-Sem : 21 Hou	Mr. V. Bharat kumar	Lab Technician	D.E.I.E
4	Communication Systems Lab	2	Dual Channel Digital Cathode Ray Oscilloscopes; Dual Channel Analog Cathode Ray Oscilloscopes;	I-sem : 12 Hou	Mrs. K. Vijaya Lakshmi	Lab Technician	D.E.I.E
5	Electronic Devices and Circuits Lab	2	Regulated Power Supplies; Dual Channel Power Supplies; 20 MHz Dual Trace Cathode Ray	I-Sem :18 Hour	Mrs. T. Krupa Lakshmi	Jr. Mechanic	D.E.C.E
6	Microwave Engineering Lab	3	X-Band (8-12 GHz) Reflex Klystron benches, Gunn Diode test Benches, S-band (2-4 GHz) test	II-Sem : 12 Hou	Mr. K. Mani Venkat Kum	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	Electronic Devices and Circuits Lab	• Laboratory precaution chart • Fire Extinguishers • Concealed Wiring • Safety mats • First Aid kit • CC camera • Wooden work benches to protect equipment from grounding and electronic shock • Electrical grounding is properly provided • MCB • Servo stabilizer
2	Analog & Digital Circuits Lab	• Laboratory precaution chart • Fire Extinguishers • Concealed Wiring • Safety mats • First Aid kit • CC camera • MCB • Servo stabilizer • Wooden work benches to protect equipment from grounding and electronic shock • Electrical grounding is properly provided
3	Communication Systems Lab	• Laboratory precaution chart • Fire Extinguishers • Concealed Wiring • Safety mats • First Aid kit • CC camera • MCB • Servo stabilizer • Wooden work benches to protect equipment from grounding and electronic shock • Electrical grounding is properly provided

4	Embedded Systems Lab	• laboratory precaution chart • Fire Extinguishers • Concealed Wiring • Safety Mats • First Aid kit • CC cameras • MCB • Computers are placed on wooden tables • UPS for power back up • Electrical grounded is properly made
5	VLSI& Signal Processing Lab	• laboratory precaution chart • Fire Extinguishers • Concealed Wiring • Safety Mats • First Aid kit • CC cameras • MCB • Computers are placed on wooden tables • UPS for power back up • Electrical grounded is properly made
6	Digital Signal Processing Lab	• laboratory precaution chart • Fire Extinguishers • Concealed Wiring • Safety Mats • First Aid kit • CC Cameras • MCB • Computers are placed on wooden tables • UPS for power back up • Electrical grounded is properly made
7	Microwave Engineering Lab	• Laboratory precaution chart • Fire Extinguishers • Concealed Wiring • Safety mats • First Aid kit • CC camera • MCB • Servo stabilizer • Wooden work benches to protect equipment grounding and electric shock • Electrical grounding is properly provided
8	Research & Development Center/ Incubation center	• laboratory precaution chart • Fire Extinguishers • Concealed Wiring • Safety Mats • First Aid kit • CC Cameras • MCB • Computers are placed on wooden tables • UPS for power back up • Electrical grounding is properly made

D3. Project Laboratory/Research Laboratory

(a) R&D Centre Facilities

Software Tools available

S. No.	Name of the Facility	Details	Utilization
1	NI LabView Software	NI LabView Software(50 users).	Faculty Research & students Projects purpose
2	MATLAB 2022a with Deep Learning Toolbox	MATLAB 2022a with Deep Learning Toolbox	Faculty Research & students Projects purpose
3	MATLAB 2024a	MATLAB 2024a: 50 users	Faculty Research & students Projects purpose
4	Matlab Toolboxes: 1 user	Matlab Toolboxes Signal processing toolbox Communications toolbox Computer vision toolbox DSP system toolbox Image acquisition toolbox Image processing toolbox Wavelet toolbox	Faculty Research & students Projects purpose
5	Ansys HFSS – Software (Research)-1	A 3D electromagnetic (EM) simulation software, is widely used in research to design/simulate high frequency antennas/components.	Faculty & students design, Model and simulate high frequency antennas / microstrip components and publish research papers in reputed indexed journals/conferences. Faculty are utilizing this tool for Ph.D work

R&D centre equipment

S. No.	Equipment Description	Quantity
1	Desktop Computers	43
2	Raspberry PI &Arduino Boards	12
3	Agilent 60 MHz,2 channels Digital Storage Oscilloscope	2
4	Power Supplies	3
5	Digital Multimeter (DM97)	1
6	Digital Multimeter	5
7	Soldron- Two in one SMD station Hot air digital soldering station Make: Soldron, Model no: 878D	1
8	HM 2007 Voice Recognition Unit	1
9	CC 2530 DK (Zigbee Development Board)	1

10	PCB Lab Setup	1
11	Lora IoT Kit	1
12	Hardware Kits for NI CDC	01set
13	NI my DAQ- student kit-with LABView& MULTISIM student edition	10
14	Evaluation unit of NI my RIO one per customer(Academic customers only)	10
15	NI my RIO Kits: Starter Kit	10
16	NI my RIO Kits: Mechatronics Kit common sensors and actuators for mechatronics projects	10
17	NI my RIO Kits: Embedded kit common sensors, Devices and Display for Embedded projects	10
18	PITSCO TETRIX (R) prime for NI my RIO Kit	01
19	PITSCO my VTOL kits	10
20	PITSCO my TEMP kits	10
21	NI Virtual Bench	01

(b) Centre of Excellence: Embedded Systems Lab

Supported by 1. M/s Efftronics Systems Pvt. Ltd., Mangalagiri &

2. M/s Texas Instruments, Bangalore

S.No.	Equipment Description	Quantity
1	Desktop Computers	75
2	8051 Microcontroller Kits	05
3	8086 Microprocessor Kits	5
4	8259 Interrupt Controller	5
5	8279 Keyboard Interface	5
6	Stepper Motor Interface	2
7	DAC Interface	3
8	Arduino Boards and Sensors	50
9	STM 32 Boards	17
10	MSP430 Lunch Box	110

11	Microprocessor based Data Acquisition & Control System for Weather Monitoring station (IoT System)	Energy Loggers – 2 No's Outdoor Environmental Sensors-1 Set Control unit for Sensors temperature & Humidity, Wind Speed & Direction, Air quality, Rain fall sensor and Soil Moisture sensor	1
12	16-Channel IOT Boards	16 channel IOT Kits and	2
		16 channel data logger Kit	1
13	ARM Controller boards	LPC 1769ARM kits-General purpose	20
14	ARM Controller boards	LPC 1769ARM kits- Controller card for single colour Displays	20
Software Available			
1	Cadence: Analog, Digital FE and BE Bundle: 30 Users	A suite of electronic design automation (EDA) tool, is widely used in research for developing and simulating complex electronic systems and integrated circuits, offering capabilities for analog, digital, and mixed-signal designs enable front-to-back design flow	Faculty Research & students Projects purpose

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)	720	36	28	11	68
2023-24(CAYm1)	720	36	27	14	68
2024-25(CAY)	780	39	25	14	58

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

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

Items	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
Infrastructure Built-Up	3700000	17455000	3200000	4376000	3150000	1653000	5450000	1019000
Library	3095000	2979000	2550000	3295000	2478000	2996000	2365000	2554000

Laboratory equipment	54656000	33844000	39012000	28548000	32204000	26598000	14464000	19884000
Teaching and non-teaching staff salary	241021000	245419000	230845000	242250000	219853000	227822000	213439000	219550000
Outreach Programs	2117000	2475000	1118000	2158000	1512000	856000	1109000	92000
R&D	2525000	973000	1817000	1183000	1725000	818000	1450000	488000
Training, Placement and Industry linkage	5055000	5013000	4770000	4216000	3038000	3395000	3980000	1024000
SDGs	165000	1970000	376000	1783000	195000	369000	1220000	344000
Entrepreneurship	485000	29000	392000	98000	301000	145000	194000	12000
Other Maintenance Expenses	20871000	31828000	21967000	20927000	20911000	25766000	19499000	21467000
Total	**333690000**	**341985000**	**306047000**	**308834000**	**285367000**	**290418000**	**263170000**	**266434000**

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	5551500	5084765	100000	0	1090000	1042892	248320	235307
Software	1100000	1357000	1700000	1430819	0	0	0	0
SDGs	0	0	0	0	0	0	0	0
Support for faculty development	18183	18183	17391	17391	21336	21336	22260	22260
R & D	600000	350000	390000	352485	250000	142984	240000	82286
Industrial Training, Industry expert, Internship	0	0	0	0	9000	9000	0	0
Miscellaneous Expenses*	35308	35308	62248	62248	99897	99897	72894	72894
Total	**7304991**	**6845256**	**2269639**	**1862943**	**1470233**	**1316109**	**583474**	**412747**