

**NATIONAL BOARD OF ACCREDITATION**

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

<b>Program Name</b> : ELECTRONICS AND COMMUNICATION ENGINEERING	<b>Discipline</b> : Engineering & Technology
<b>Level</b> : Under Graduate	<b>Tier</b> : 1
<b>Application No</b> : 11661	<b>Date of Submission</b> : 18-03-2026

**PART A- Profile of the Institute**

<b>A1.Name of the Institute</b> : KIT-KALAINAR KARUNANIDHI INSTITUTE OF TECHNOLOGY	
Year of Establishment : 2008	Location of the Institute: COIMBATORE
<b>A2. Institute Address</b> :KALAINAR KARUNANIDHI INSTITUTE OF TECHNOLOGY, KANNAMPALAYAM(POST), COIMBATORE – 641 402, TAMILNADU, INDIA.	
City:Coimbatore	State:Tamil Nadu
Pin Code:641402	Website:www.kitcbe.com
Email:kitcbe@gmail.com	Phone No(with STD Code):0422-2367890
<b>A3. Name and Address of the Affiliating University (if any)</b> :	
Name of the University : ANNA UNIVERSITY CHENNAI	City: Chennai
State : Tamil Nadu	Pin Code: 600025
<b>A4. Type of the Institution</b> : Self-Supported Institute	
<b>A5. Ownership Status</b> : Self financing	

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

- No. of UG programs: **14**
- No. of PG programs: **7**

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 of Computer Application	2011	--	Computer Application
2	Engineering & Technology	UG	Aeronautical Engineering	2009	--	Aeronautical Engineering
3	Engineering & Technology	UG	Agricultural Engineering	2017	2025	Agricultural Engineering
4	Engineering & Technology	PG	Applied Electronics	2013	--	Electronics and Communication Engineering
5	Engineering & Technology	UG	Artificial Intelligence and Data Science	2021	--	Artificial Intelligence and Data Science
6	Engineering & Technology	UG	Biomedical Engineering	2017	--	Biomedical Engineering
7	Engineering & Technology	UG	Biotechnology	2017	--	Biotechnology
8	Engineering & Technology	UG	Computer Science and Business System	2021	--	Computer Science and Business System
9	Engineering & Technology	UG	Computer Science and Engineering	2008	--	Computer Science and Engineering

10	Engineering & Technology	PG	Computer Science and Engineering	2012	--	Computer Science and Engineering
11	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence & Machine Learning)	2023	--	Computer Science and Engineering (Artificial Intelligence and Machine Learning)
12	Engineering & Technology	UG	Computer Science and Engineering (Cyber Security)	2025	--	Computer Science and Engineering
13	Engineering & Technology	UG	Electrical and Electronics Engineering	2008	--	Electrical and Electronics Engineering
14	Engineering & Technology	UG	ELECTRONICS AND COMMUNICATION ENGINEERING	2008	--	Electronics and Communication Engineering
15	Engineering & Technology	UG	Electronics Engineering (VLSI Design and Technology)	2024	--	Electronics and Communication Engineering
16	Engineering & Technology	PG	Engineering Design	2014	--	Mechanical Engineering
17	Engineering & Technology	UG	Information Technology	2008	2013	Information Technology
18	Engineering & Technology	UG	Mechanical Engineering	2009	--	Mechanical Engineering
19	Engineering & Technology	PG	Power Systems Engineering	2013	--	Electrical and Electronics Engineering
20	Engineering & Technology	PG	VLSI Design	2012	--	Electronics and Communication Engineering
21	Management	PG	Master of Business Administration	2009	--	Management

**A7. Programs to be considered for Accreditation vide this Application:**

Table No. A7.1: List of programs to be considered for accreditation.

Name of the Department	Having Allied Departments	Name of the Program	Program Level
Electrical and Electronics Engineering	No	Electrical and Electronics Engineering	UG
Electronics and Communication Engineering	Yes	ELECTRONICS AND 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)

Allied Department/Cluster Name	Program Name	Program Level
Biomedical Engineering	Biomedical Engineering	UG
Electronics and Communication Engineering	Electronics Engineering (VLSI Design and Technology)	UG

## 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	PRC DUF
1	ELECTRONICS AND COMMUNICATION ENGINEERING	UG	2008 / --	120	No	NA	120	2008	F.NO.Southern/1-44643254604/2025/EOA	Granted accreditation for 3 years for the period (specify period)	2023	2026	3	4

## List of the Allied Departments/Cluster and Programs:

SR.NO.	ALLIED DEPARTMENT NAME	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
1	Biomedical Engineering	Biomedical Engineering	UG	2017 / --	60	No	NA	60	2017	F.NO.Southern/1-44643254604/2025/EOA	Eligible but not applied	--	--	0
2	Electronics and Communication Engineering	Electronics Engineering (VLSI Design and Technology)	UG	2024 / --	60	No	NA	60	2024	F.NO.Southern/1-44643254604/2025/EOA	Not eligible for accreditation	--	--	0

**B2. Detail of Head of the Department for the program under consideration:**

A. Name of the HoD :	Dr.M.Jayasheela
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)	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	126	126	126	126	123	120	126
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	11	14	10	11	12	11
N3=Separate division if any	0	0	0	0	0	0	0
N4=Total no. of students admitted in the 1st year via all supernumerary quotas	0	0	0	0	0	0	0
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	126	137	140	136	134	132	137

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)	120	126	0	105.00
2024-25 (CAYm1)	120	126	0	105.00
2023-24 (CAYm2)	120	126	0	105.00

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

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

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

Item	(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).	134.00	132.00	137.00
B=No. of students who graduated from the program in the stipulated course duration	115.00	120.00	123.00
Success Rate (SR)= (B/A) * 100	85.82	90.91	89.78

Average SR of three batches ((SR\_1+ SR\_2+ SR\_3)/3): 88.84

#### B6. Academic Performance of the First-Year Students of the Program

Table No.B6.1: Academic Performance of the First-Year Students of the Program.

Academic Performance	CAYm1( 2024-25 )	CAYm2( 2023-24 )	CAYm3 ( 2022-23 )
Mean of CGPA or mean percentage of all successful students(X)	8.03	7.85	8.26
Y=Total no. of successful students	125.00	123.00	125.00
Z=Total no. of students appeared in the examination	125.00	123.00	125.00
API [X*(Y/Z)]	8.03	7.85	8.26

Average API[ (AP1+AP2+AP3)/3 ] : 8.05

#### 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)	7.93	8.20	8.08
Y=Total no. of successful students	136.00	135.00	132.00
Z=Total no. of students appeared in the examination	137.00	135.00	132.00
API [ X * (Y/Z) ]	7.87	8.20	8.08

Average API [ (AP1 + AP2 + AP3)/3 ] : 8.05

**B8. Academic Performance of the Third Year Students of the Program**

Table No.B8.1: Academic Performance of the Third Year Students of the Program

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10)	8.10	8.13	8.32
Y=Total no. of successful students	135.00	130.00	130.00
Z=Total no. of students appeared in the examination	135.00	132.00	130.00
API [ X*(Y/Z) ]:	8.10	8.01	8.32

Average API [ (AP1 + AP2 + AP3)/3 ] : 8.14

**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	131.00	132.00	131.00
X=No. of students placed	97.00	88.00	105.00
Y=No. of students admitted to higher studies	11.00	17.00	5.00
Z= No. of students taking up entrepreneurship	2.00	1.00	2.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	83.97	80.30	85.50

Average Placement Index = (P\_1 + P\_2 + P\_3)/3: 83.26 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?
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1	Dr.K.Ramasamy	XXXXXXXX88F	Ph.D	Multimedia University, Malaysia	Applied Electronics	23/12/2019	6.2	Professor	Professor		Regular	Yes		No
2	Dr.R.Gowrishankar	XXXXXXXX32M	Ph.D	Anna University	Advanced Communication Systems	02/06/2008	17.9	Assistant Professor	Associate Professor	10/01/2013	Regular	Yes		No
3	Dr.M.Jayasheela	XXXXXXXX52D	Ph.D	Anna University	Communication systems	06/06/2013	12.9	Associate Professor	Professor	01/07/2016	Regular	Yes		Yes
4	Dr.A.Vasantharaj	XXXXXXXX86K	Ph.D	Anna University	Power Electronics and Drives	01/02/2024	2.1	Associate Professor	Professor	18/06/2025	Regular	Yes		No
5	Dr.V.Govindaraj	XXXXXXXX32F	Ph.D	Anna University	VLSI Design	03/07/2024	1.8	Associate Professor	Associate Professor		Regular	Yes		No
6	Dr.N.Prakash	XXXXXXXX59D	Ph.D	Anna University	Embedded Systems	23/06/2014	11.8	Assistant Professor	Associate Professor	18/08/2025	Regular	Yes		No
7	Dr S.Chinnaparaj	XXXXXXXX67R	Ph.D	Anna University	VLSI Design	20/01/2025	1.1	Associate Professor	Associate Professor		Regular	Yes		No
8	Dr. C. Sivamani	XXXXXXXX17B	Ph.D	Anna University	Applied Electronics	04/02/2022	4.1	Associate Professor	Associate Professor		Regular	Yes		No
9	Dr P.Gowtham	XXXXXXXX16C	Ph.D	Anna University	Embedded System Technologies	28/06/2023	2.8	Associate Professor	Associate Professor		Regular	Yes		No
10	Dr.P.Gopinath	XXXXXXXX26L	Ph.D	Anna University	Applied Electronics	01/02/2024	2.1	Assistant Professor	Associate Professor	18/06/2025	Regular	Yes		No
11	Dr.B.A.Sapna	XXXXXXXX12A	Ph.D	Anna University	Communication systems	18/07/2022	3.8	Assistant Professor	Associate Professor	18/06/2025	Regular	Yes		No
12	Dr.K.Umapathi	XXXXXXXX81D	Ph.D	Anna University	Nanotechnology	19/06/2023	2.8	Associate Professor	Associate Professor	19/06/2023	Regular	Yes		No
13	Dr J Jeevitha	XXXXXXXX60H	Ph.D	Karunya University	VLSI DESIGN	24/06/2025	0.8	Assistant Professor	Associate Professor	15/12/2025	Regular	Yes		No
14	Mr.S.Maria antony	XXXXXXXX34L	M.E.	Anna University	VLSI Design	21/06/2013	12.8	Assistant Professor	Assistant Professor		Regular	Yes		No
15	Ms.R.Krishnaveni	XXXXXXXX56J	M.E.	Anna University	Applied Electronics	22/12/2010	15.2	Assistant Professor	Assistant Professor		Regular	Yes		No
16	Mr.C.Ramesh	XXXXXXXX83D	M.E.	Anna University	Embedded Systems	21/06/2013	12.8	Assistant Professor	Assistant Professor		Regular	Yes		No
17	Mr.P.Balasubramani	XXXXXXXX45D	M.E.	Anna University	Communication Systems	23/06/2014	11.8	Assistant Professor	Assistant Professor		Regular	Yes		No
18	Mrs.M.Vaishnavi	XXXXXXXX19A	M.E.	Anna University	VLSI Design	01/07/2016	9.8	Assistant Professor	Assistant Professor		Regular	Yes		No
19	Ms.V.Lalithamani	XXXXXXXX86K	M.E.	Anna University	VLSI Design	01/07/2016	9.8	Assistant Professor	Assistant Professor		Regular	Yes		No

20	Ms.S.Gokila	XXXXXXX77R	M.E.	Anna University	VLSI Design	01/07/2016	9.8	Assistant Professor	Assistant Professor		Regular	Yes		No
21	Mr.E.Udayakumar	XXXXXXX19Q	M.E.	Anna University	Communication Systems	01/07/2016	9.8	Assistant Professor	Assistant Professor		Regular	Yes		No
22	Ms.M.Dhivya	XXXXXXX52B	M.E.	Anna University	Applied Electronics	01/07/2016	9.8	Assistant Professor	Assistant Professor		Regular	Yes		No
23	Ms.S.Sheeba	XXXXXXX87D	M.E.	Anna University	VLSI Design	22/07/2022	3.7	Assistant Professor	Assistant Professor		Regular	Yes		No
24	Mrs.B.Anitha	XXXXXXX74K	M.E.	Anna University	VLSI Design	12/06/2023	2.8	Assistant Professor	Assistant Professor		Regular	Yes		No
25	Ms.Shahanaz Begam	XXXXXXX07A	M.E.	Anna University	VLSI Design	12/06/2023	2.8	Assistant Professor	Assistant Professor		Regular	Yes		No
26	Ms.P.Kalaivani	XXXXXXX98N	M.E.	Anna University	Wireless Communication	06/06/2025	0.9	Assistant Professor	Assistant Professor		Regular	Yes		No
27	Ms M.Gokila	XXXXXXX66N	M.E.	Anna University	Applied Electronics	05/06/2025	0.9	Assistant Professor	Assistant Professor		Regular	Yes		No
28	Mr.T.Sathishkumar	XXXXXXX38J	M.E.	Anna University	Applied Electronics	01/07/2025	0.8	Assistant Professor	Assistant Professor		Regular	Yes		No
29	Dr.K.Sumathi	XXXXXXX17C	Ph.D	Anna University	Communication systems	20/06/2024	0.11	Professor	Professor		Regular	No	13/06/2025	No
30	Dr. K. Jayaram	XXXXXXX35G	Ph.D	St.Peter's University	VLSI Design	15/03/2023	2.2	Assistant Professor	Assistant Professor		Regular	No	13/06/2025	No
31	Ms.C.Mythili	XXXXXXX86E	M.E.	Anna University	VLSI Design	14/02/2022	2.7	Assistant Professor	Assistant Professor		Regular	No	24/09/2024	No
32	Mr.S.Tamilselvan	XXXXXXX97C	M.E.	Karpagam University	Wireless Communication	23/06/2014	10	Assistant Professor	Assistant Professor		Regular	No	26/06/2024	No
33	Dr.A.Parimala Gandhi	XXXXXXX75N	Ph.D	Anna University	Communication systems	21/06/2013	11	Assistant Professor	Associate Professor	01/12/2021	Regular	No	26/06/2024	No
34	Ms.P.Monisha	XXXXXXX28H	M.E.	Anna University	Applied Electronics	21/03/2022	2.3	Assistant Professor	Assistant Professor		Regular	No	29/06/2024	No
35	Dr.K.R.Shankar Kumar	XXXXXXX10R	Ph.D	Anna University	Electronics Engineering	05/10/2016	7.11	Professor	Professor		Regular	No	12/09/2024	No
36	Dr.P.Poongodi	XXXXXXX36B	Ph.D	Anna University	Applied Electronics	01/11/2016	8	Professor	Professor		Regular	No	26/11/2024	No
37	Mr.G.Sathish Kumar	XXXXXXX13G	M.E.	B.S.AbdurRahman University	Communication Systems	06/06/2011	13	Assistant Professor	Assistant Professor		Regular	No	29/06/2024	No
38	Mr.J.Gowtham Prasath	XXXXXXX48K	M.E.	Anna University	VLSI Design	02/12/2019	4.6	Assistant Professor	Assistant Professor		Regular	No	29/06/2024	No
39	Mrs.S.Priyatharsini	XXXXXXX89L	M.E.	Anna University	VLSI Design	01/08/2022	1.10	Assistant Professor	Assistant Professor		Regular	No	29/06/2024	No
40	Ms.S.Sindhumathy	XXXXXXX42D	M.E.	Anna University	Communication Systems	06/03/2017	7.3	Assistant Professor	Assistant Professor		Regular	No	28/06/2024	No

41	Mr.M.Premanand	XXXXXXXX39M	M.Tech	Kalasalingam University	Digital Communication & Network Engineering	06/09/2012	11.9	Assistant Professor	Assistant Professor		Regular	No	29/06/2024	No
42	Ms.P.Ramya	XXXXXXXX93J	M.E.	Anna University	Applied Electronics	01/07/2022	3.3	Assistant Professor	Assistant Professor		Regular	No	30/09/2025	No
43	Ms.R.Arthi	XXXXXXXX21F	M.E.	Anna University	VLSI Design	29/06/2015	9	Assistant Professor	Assistant Professor		Regular	No	28/06/2024	No
44	Ms.S.Jananisri	XXXXXXXX59M	M.E.	Anna University	VLSI Design	01/07/2022	2	Assistant Professor	Assistant Professor		Regular	No	13/07/2024	No

Table No.C2: Faculty details of Allied Departments for the past 3 years including CAY.

Sr.No	Name of the Faculty	PAN No.	APAAR faculty ID*(if any)	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.B.Senthilkumar	XXXXXXXX10A	NA	Ph.D	Anna University	VLSI Design	09/11/2015	10.4	Professor	Professor		Regular	Yes		No
2	Dr SakthiMohan	XXXXXXXX00L	NA	Ph.D	Kalasalingam University	VLSI Design	10/07/2023	2.5	Assistant Professor	Associate Professor	01/08/2024	Regular	No	20/12/2025	No
3	Mr.K.Yogeshwaran	XXXXXXXX71E	NA	M.E.	Anna University	VLSI Design	21/06/2013	12.8	Assistant Professor	Assistant Professor		Regular	Yes		No
4	Mrs.R.Gowri	XXXXXXXX05D	NA	M.E.	Anna University	VLSI Design	01/07/2016	9.8	Assistant Professor	Assistant Professor		Regular	Yes		No
5	Ms C Vijayalakshmi	XXXXXXXX59J	NA	M.E.	Anna University	VLSI Design	27/01/2026	0.1	Assistant Professor	Assistant Professor		Regular	Yes		No
6	Dr. Jackson Daniel	XXXXXXXX55R	NA	Ph.D	Anna University	Biomedical Engineering	05/12/2025	0.3	Professor	Professor		Regular	Yes		Yes
7	Dr S.Ravindrakumar	XXXXXXXX73H	NA	Ph.D	Anna University	Electronics Engineering (Electronics Design and Technology)	18/07/2022	3.8	Associate Professor	Professor	12/02/2024	Regular	Yes		No
8	Dr S Saju	XXXXXXXX63H	NA	Ph.D	Annamalai University	Process Control Instrumentation	02/12/2024	1.3	Associate Professor	Associate Professor		Regular	Yes		No
9	Ms.Manoranjitham	XXXXXXXX24F	NA	M.Tech	Karunya University	Biomedical Instrumentation	25/06/2018	7.8	Assistant Professor	Assistant Professor		Regular	Yes		No
10	Ms V Sangeetha	XXXXXXXX38K	NA	M.E.	Avinashilingam University	Medical Electronics	25/06/2020	5.8	Assistant Professor	Assistant Professor		Regular	Yes		No
11	Ms. P. Gnanapriya	XXXXXXXX58L	NA	M.E.	Anna University	VLSI Design	02/03/2023	3	Assistant Professor	Assistant Professor		Regular	Yes		No

12	Ms Tryphena Prishiba	XXXXXXXX94M	NA	M.Tech	Karunya University	Biomedical Instrumentation	01/07/2024	1.8	Assistant Professor	Assistant Professor		Regular	Yes		No
13	Mr S Vinoth	XXXXXXXX02A	NA	M.Tech	B S Abdur Rahman Crescent institute	Optoelectronics and Laser Technology	05/06/2025	0.8	Assistant Professor	Assistant Professor		Regular	Yes		No
14	Ms Nivetha D R	XXXXXXXX75H	NA	M.Tech	Anna University	Nanoscience and Technology	02/06/2025	0.9	Assistant Professor	Assistant Professor		Regular	Yes		No
15	Ms Mahalakshmi	XXXXXXXX25A	NA	M.E.	Avinashilingam University	Medical Electronics	11/07/2025	0.7	Assistant Professor	Assistant Professor		Regular	Yes		No
16	Ms S.Shobana	XXXXXXXX10D	NA	M.E.	Avinashilingam University	Medical Electronics	18/07/2022	2.10	Assistant Professor	Assistant Professor		Regular	No	13/06/2025	No
17	Ms S.Harishma	XXXXXXXX85R	NA	M.Tech	Anna University	Nano Science and Technology	09/08/2021	3.10	Assistant Professor	Assistant Professor		Regular	No	28/06/2025	No
18	Dr K Jayakumar	XXXXXXXX14F	NA	Ph.D	Anna University	Biomedical Engineering	25/07/2022	1.11	Professor	Professor		Regular	No	29/06/2024	No
19	Mr Rajnivas	XXXXXXXX08F	NA	M.E.	Anna University	Communication System	02/11/2022	1.7	Assistant Professor	Assistant Professor		Regular	No	29/06/2024	No
20	Ms N Vigneswari	XXXXXXXX74K	NA	M.E.	Anna University	Applied Electronics	08/06/2020	4	Assistant Professor	Assistant Professor		Regular	No	29/06/2024	No

## 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 Department3 No. of PG Programs in the Department2

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

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
UG1.B	130	132	130
UG1.C	132	130	130
UG1.D	130	130	132

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
<b>UG1: ELECTRONICS AND COMMUNICATION ENGINEERING</b>	<b>392</b>	<b>392</b>	<b>392</b>
UG2.B	65	0	0
UG2.C	0	0	0
UG2.D	0	0	0
<b>UG2: Electronics Engineering (VLSI Design and Technology)</b>	<b>65</b>	<b>0</b>	<b>0</b>
UG3.B	63	62	60
UG3.C	62	60	64
UG3.D	60	64	63
<b>UG3: Biomedical Engineering</b>	<b>185</b>	<b>186</b>	<b>187</b>
PG1.A	18	18	18
PG1.B	18	18	18
<b>PG1: Applied Electronics</b>	<b>36</b>	<b>36</b>	<b>36</b>
PG2.A	18	18	18
PG2.B	18	18	18
<b>PG2: VLSI Design</b>	<b>36</b>	<b>36</b>	<b>36</b>
DS=Total no. of students in all UG and PG programs in the Department	464	464	464
AS=Total no. of students of all UG and PG programs in allied departments	250	186	187
S=Total no. of students in the Department (DS) and allied departments (AS)	<b>S1= 714</b>	<b>S2= 650</b>	<b>S3= 651</b>
DF=Total no. of faculty members in the Department	28	26	35
AF= Total no. of faculty members in the allied Departments	12	11	13
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	<b>F1= 40</b>	<b>F2= 37</b>	<b>F3= 48</b>
FF=The faculty members in F who have a 100% teaching load in the first-year courses	0	0	0
Student Faculty Ratio (SFR)=S/(F-FF)	<b>SFR1= 17.85</b>	<b>SFR2= 17.57</b>	<b>SFR3= 13.56</b>
Average SFR for 3 years	<b>SFR= 16.33</b>		

### C3. Faculty Qualification

- Faculty qualification index (FQI) =  $2.5 * [(10X + 4Y)/RF]$  where
- X=No. of faculty members with Ph.D. degree or equivalent as per AICTE/UGC norms.
- Y=No. of faculty members with M. Tech. or ME degree or equivalent as per AICTE/ UGC norms.
- RF=No. of required faculty in the Department including allied Departments to adhere to the 20:1 Student-Faculty ratio, with calculations based on both student numbers and faculty requirements as per section C2 of this documents: (RF=S/20).

Table No.C3.1: Faculty qualification.

Year	X	Y	RF	$FQ = 2.5 \times [(10X + 4Y) / RF]$
2025-26(CAY)	16	24	33.00	19.39
2024-25(CAYm1)	16	21	30.00	20.33

2023-24(CAYm2)	16	32	30.00	24.00
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**C4. Faculty Cadre Proportion**

- Faculty Cadre Proportion is 1(RF1): 2(RF2): 6(RF3)
- RF1= No. of Professors required =  $1/9 * \text{No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per C2 of this documents.}$
- RF2= No. of Associate Professors required =  $2/9 * \text{No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section C2 of this documents.}$
- RF3= No. of Assistant Professors required =  $6/9 * \text{No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section C2 of this documents.}$
- Faculty cadre and qualification and experience should be as per AICTE/UGC norms.

Table No.C4.1: Faculty cadre proportion details.

Year	Professors		Associate Professors		Assistant Professors	
	Required RF1	Available AF1	Required RF2	Available AF1	Required RF3	Available AF3
2025-26	3.00	5.00	7.00	10.00	22.00	25.00
2024-25	3.00	5.00	6.00	7.00	20.00	25.00
2023-24	3.00	6.00	6.00	6.00	20.00	36.00
Average	RF1=3.00	AF1=5.33	RF2=6.33	AF2=7.67	RF2=20.67	AF2=28.67

**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	Dr R Vimalathithan	Director	KrishTech	Fundamentals of IoT	12.00
2	Dr R Vimalathithan	Director	KrishTech	Circuit Analysis	13.00
3	Dr R Vimalathithan	Director	KrishTech	Embedded and Real time Systems	13.00
4	Dr R Vimalathithan	Director	KrishTech	IoT Protocols	14.00

**(CAYm2)**

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Dr R Vimalathithan	Director	KrishTech	Fundamentals of IoT	13.00
2	Dr R Vimalathithan	Director	KrishTech	Circuit Analysis	14.00
3	Dr R Vimalathithan	Director	KrishTech	Embedded and Real time Systems	14.00
4	Dr R Vimalathithan	Director	KrishTech	Microprocessor and Microcontroller	13.00

**(CAYm3)**

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Dr R Vimalathithan	Director	KrishTech	Fundamentals of IoT	13.00
2	Dr R Vimalathithan	Director	KrishTech	Circuit Analysis	14.00
3	Dr R Vimalathithan	Director	KrishTech	Embedded and Real time Systems	12.00
4	Dr R Vimalathithan	Director	KrishTech	Microprocessor and Microcontroller	13.00

**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	25	6	8
2	No. of peer reviewed conference papers published	47	14	14
3	No. of books/book chapters published	4	2	2

**C7. Sponsored Research Project**

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

(CAYm1)

(CAYm2)

(CAYm3)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr.K.Ramasamy	Dr.M.Jayasheela	ECE	Simulation, Fabrication and Testing of Wearable and Implantable Patch Antenna for Biomedical Applications	AICTE project under Research Promotion Schemes (RPS)	3 years	20.83
						Amount received (Rs.):20.83

**Total Amount (Lacs) Received for the Past 3 Years: 20.83****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.K.Ramasamy	Dr.A.Vasantharaj	ECE	Automated Sorting System	Promech Industries, Pattanam, Coimbatore	July 2024-Nov 2024	1.00
Dr.A.Vasantharaj	Mr.C.Ramesh	ECE	Speed Control for Rotor Body of Open-End Spinning Machine	Pavithra Textiles, Coimbatore	April 2024-Mar 2025	3.15
Dr.M.Jayasheela	Ms.Vaishnavi.M	ECE	Low-Force Pill Crusher for Neurological Patients	Prashan Medical Technologies,Coimbatore	June 2024-Feb 2025	2.00
Dr.V.Govindaraj	Mrs.V.Lalithamani	ECE	Automatic Phase Selector cum Indicator	Chip crafts,Coimbatore	Aug 2024 - Feb 2025	1.95
						Amount received (Rs.):8.10

## (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.M.Shakthimohan	Ms.S.Sheeba	ECE	Assistive Hip Rehabilitation Device	Prashan Medical Technologies,Coimbatore	Aug 2023-Mar 2024	2.07
Dr.N.Prakash	Mr.E.Udayakumar	ECE	Solar Powered Embedded Monitoring Unit	Saswhin Agro Services,Coimbatore	July 2023-Nov 2023	0.85
Dr.N.Prakash	Mr.E.Udayakumar	ECE	Smart Motor Control and Protection System	Saswhin Agro Services,Coimbatore	Dec 2023-March 2024	0.70
Mr.P.Balasubramani	Ms.B.Anitha	ECE	Smart RTS Platform Using IoT,Machine Learning and Edge Computing	Zeekers Technology Solution Pvt Limited,Coimbatore	June 2023-Feb 2024	2.50
						Amount received (Rs.):6.12

## (CAYm3)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr.P.Gowtham	Mr.P.Balasubramani	ECE	Signal Conditioning Module – To interface Gravity Control Load Cells Coal feeding Boilers	Miltronics Ematiks,Coimbatore	July 2022 –Feb 2023	3.51
Dr.A.Parimala Gandhi	Mr. S. Maria Antony	ECE	Automatic Transfer cum Changeover Switch	Chip crafts,Coimbatore	Sep 2022 - April 2023	2.00
						Amount received (Rs.):5.51

**Total amount (Lacs) received for the past 3 years: 19.73**

**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.P.Gowtham	NeuroVox Mobility Aid: Sustainable Assistive Technology for Inclusive Health Care	2024-2025	0.75	0.75	Published in IEEE Conference,Patent Filed and Product Developed
P.Balasubramani	MIMIX: An AI-Driven Real-Time System for Intelligent Monitoring and Adaptive Interaction	2024-2025	0.65	0.65	Product Developed
Mr.S.Maria Antony	Biomemetic Octopus Tentacle Surgical Robot	2024-2025	0.10	0.10	Product Developed
Dr.K.Ramasamy	Compact multiband cuff button antenna for WBAN application	2024-2025	0.33	0.33	Publication
Dr.M.Jayasheela	Biomedical potential of banana stem fiber for antimicrobial	2024-2025	0.20	0.20	Publication
Dr.B.Senthilkumar	Fast and ultra low energy subthreshold level shifter	2024-2025	0.38	0.38	Publication
Dr.R.Gowrishankar	Design and Optimization of a Biocompatible Polyethylene Composite	2024-2025	0.12	0.12	Publication
Dr.V.Govindaraj	Compact Dual Band Microstrip Patch Antenna Design	2024-2025	0.10	0.10	Publication
Dr.P.Gowtham	Interfacing the IoT in composite manufacturing	2024-2025	0.70	0.70	Publication
Dr A.Vasantharaj	Integrating neural network driven customization, scalability, and cloud computing	2024-2025	0.34	0.34	Publication
Dr K. Jayaram	Hybrid Plasmonic Biosensors with Deep Learning for Colorectal Cancer Detection	2024-2025	0.13	0.13	Publication
Dr.Sakthimohan	Quantitative Automated Detection of Voids, Pores, Cracks	2024-2025	0.39	0.39	Publication
Dr.B.A.Sapna	Dual band polygonal slot antenna for early detection of breast cancer	2024-2025	0.49	0.49	Publication
Dr.Gopinath	Enhancing Endurance Mileage in Electric Vehicles	2024-2025	0.06	0.06	Publication
Dr.N.Prakash	Bioinformatics analysis in gene expression profiling framework	2024-2025	0.39	0.39	Publication
Ms R Krishnaveni	Enhanced Dental Disease Detection with YOLOv8	2024-2025	0.06	0.06	Publication
Mr.Maria Antony.S	Adaptive prairie dog optimization	2024-2025	0.30	0.30	Publication
Mr.K.Yogeshwaran	Advanced ATM Shoulder-Peek Prevention	2024-2025	0.06	0.06	Publication
R.Gowri	Filter Performance on Dual Active Bridge DC-DC Converter	2024-2025	0.03	0.03	Publication
			Amount received (Rs.): 5.58		

(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.M.Jayasheela	Development of an Multimodal ACL Tear Analysis	2023-2024	0.45	0.45	Product Developed
Dr.M.Jayasheela	Hand motion enabled audio assistance for the vocally impaired	2023-2024	0.10	0.10	Product Developed
Dr A.Vasantharaj	Mist Eraser Cam	2023-2024	0.10	0.10	Product Developed
Ms.R.Krishnaveni	Dynamic Wireless Charging for E- Vehicle	2023-2024	0.10	0.10	Product Developed
Ms.V.Lalithamani	AI Smart Glasses Revolutionizing Lives for the Deaf, Dumb and Blind in healthcare	2023-2024	0.10	0.10	Product Developed
Dr. Ramasamy K	A novel wearable monopole antenna with controlled SAR using metamaterial	2023-2024	0.20	0.20	Publication
Dr.M.Jayasheela	Skin cancer detection using dual optimization based deep learning network	2023-2024	0.40	0.40	Publication
Dr. Senthilkumar B	Block chain enabled framework for industrial maintenance	2023-2024	0.30	0.30	Publication
Dr.Parimalagandhi	Calorie Estimation of Food and Beverages using Deep Learning	2023-2024	0.03	0.03	Publication
Dr. Gowrisankar R	PCM Integrated Fin Design	2023-2024	0.23	0.23	Publication
Dr.Sapna.B.A	Flexible wearable antenna with low SAR	2023-2024	0.20	0.20	Publication
Dr. Sakthi Mohan.M	Automated and Interactive Smart Bin Implementation	2023-2024	0.12	0.12	Publication
Dr.N.Prakash	Comparison of Speaker Independent Isolated Speech Recognition System	2023-2024	0.09	0.09	Publication
			Amount received (Rs.): 2.42		

(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.M.Jayasheela	Monitoring the Vital Parameter Using Oxymeter for Compact Pilot	2022-2023	0.10	0.10	Product Developed
Dr.Gomathi. E	Powering System Through Plant Microbial Fuel Cell For Small Electrical Applications	2022-2023	0.10	0.10	Product Developed
Mr.S.Maria Antony	Irrigation Monitoring And Protection	2022-2023	0.10	0.10	Product Developed
Ms. Lalitha Mani. V	Automatic Gas Releaser from Compression Motor.	2022-2023	0.10	0.10	Product Developed
Ms. Mythili. C	Alcohol Sensing And Motor Locking System	2022-2023	0.10	0.10	Product Developed
			Amount received (Rs.): 0.50		

Total amount (Lacs) received for the past 3 years : 8.50

## 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	Electronic Circuits and Devices Lab W316	30	CRO, Function generators, DCRPS, desktop PCs with SPICE & HDL software	18(Odd sem) +	Jamuna rani.R	Lab Technician	B.E [EEE]
2	Linear Integrated Circuits Lab W317	30	CRO, Function generators, DCRPS, desktop PCs with SPICE software	24 (odd sem) +	Sakthi priya/ Senkolraj.A	Lab Technician	AMIE, DECE
3	Signal Processing Lab W416	30	Desktop PCs with Matlab software, DSP processor kit	30(odd sem) +	Mithun.P.P	Lab Technician	B.Com with computer App
4	Microprocessor and Microcontroller Lab W417	30	8085, 8086 and 8051 Trainer kits with necessary interface cards, Desktop PCs with MASM software	21(odd sem) +	Malarmani. R/ Mithun.P.P	Lab Technician	B.E [EEE], B.Com with co
5	Communication Systems Lab W409	30	Klystron power supply, CRO, Gunn oscillator, fiber optic trainer Kit, PCs with Matlab software	24 (ODD SEM)	Aruchamy.V	Lab Technician	DECE

## D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Electronic Circuits and Devices Lab	Display and adherence to Code of Conduct inside Laboratory First aid kit nearby hospital contact numbers Fire extinguisher MCB (miniature circuit breaker)
2	Linear Integrated Circuits Lab	Display and adherence to Code of Conduct inside Laboratory First aid kit nearby hospital contact numbers Fire extinguisher MCB (miniature circuit breaker)
3	Signal Processing Lab	Display and adherence to Code of Conduct inside Laboratory First aid kit nearby hospital contact numbers Fire extinguisher MCB (miniature circuit breaker)
4	Communication Systems Lab	Display and adherence to Code of Conduct inside Laboratory First aid kit nearby hospital contact numbers Fire extinguisher MCB (miniature circuit breaker)
5	Microprocessor and Microcontroller Lab	Display and adherence to Code of Conduct inside Laboratory First aid kit nearby hospital contact numbers Fire extinguisher MCB (miniature circuit breaker)

**D3. Project Laboratory/Research Laboratory**

### 7.5. Project laboratory/ Research Laboratory/ Centre of Excellence (20)

#### 1. ECE Project laboratory

In order to enable the students to do their mandatory final year project and for students of II year and III year those who are willing to do their mini / course projects or work towards project proposals, hackathons, competitions have access to all the department Laboratories. Softwares like MatLab, Simulink, ModelSim, Xilinx are available in laboratories which will help to complete the project work undertaken by the students. W410 - ECE Project Laboratory is exclusively used by the students to aid their project work.

List of softwares available for Students's Project works

S.No	Hardwares	Softwares	Personal Computers
1	CRO (30MHz) – 10 Nos	MatLab ModelSim Xilinx Arduino IDE Simulink	10
2	Function Generators (3MHz) – 10 Nos		
3	Dual Regulated Power Supplies (0 – 30V) – 10 Nos		
4	Digital Trainer Kit – 10 Nos		
5	Multimeter – 10 Nos		
6	BC107, BC148, 2N2646, BFW10 – 25 nos		
7	IN4007, Zener diodes, Resistors, Capacitors, Inductors – 50 nos		
8	Bread Boards – 10 Nos		
9	Single strand wire – 3 coils		
10	Soldering iron, Solder and flux – 3 sets		

Faculty incharge : Mr. S. Maria Antony, Ms. M. Vaishnavi

#### Outcomes for Project Laboratory

S.No	Name of the student	Project guide	Paper title	Publication link
1	Aravinth G	Ms. V. Lalithamani	IoT-Driven Smart Library Solution for Automated Book Issue and Return with QR Codes	<a href="https://ieeexplore.ieee.org/document/11383503/">https://ieeexplore.ieee.org/document/11383503/</a>
	Karthikeyan S			
	Poomani M			
2	Pragatheswaran G	Dr A. Vasantharaj	Smart Product Expiry Tracking System Using QRmart	<a href="https://ieeexplore.ieee.org/document/11405057/">https://ieeexplore.ieee.org/document/11405057</a>
	Mohanasundari P			
	Manoj R			
3	Karthikeyan S	Dr V.Govindaraj	Machine Learning Framework for Analog Filter Fault Identification	<a href="https://ieeexplore.ieee.org/document/11377989/">https://ieeexplore.ieee.org/document/11377989</a>
	Rajkishore G			
	Sai Nithiesh V			

4	Aswath A B	Dr.Sakthimohan M	Smart Shopping Trolley with Automatic Billing and Voice Assistance System	<a href="https://ieeexplore.ieee.org/document/11410779">https://ieeexplore.ieee.org/document/11410779</a>
	Harise Pranesh S			
	Martin Babu T R			
5	Hariharaprabhu M	Ms.R.Krishnaveni	RF Energy Harvesting	<a href="https://ieeexplore.ieee.org/abstract/document/11390245">https://ieeexplore.ieee.org/abstract/document/11390245</a>
	Ruthran U			
	Palanisamy M			
6	Sowmyaa M	Dr N Prakash	AI-Powered Sensor Fusion and IoT Model for Mitigating Wildlife Threats in Agriculture	<a href="https://ieeexplore.ieee.org/document/11382861">https://ieeexplore.ieee.org/document/11382861</a>
	Praveen P			
	Sakthivinayakam J			

## **R RESEARCH LABORATORY**

### **2) a) 5G ANTENNA INNOVATION HUB**

The 5G Antenna innovation hub was established to support advanced research and practical learning in next generation wireless communication technologies. The lab is equipped with high end simulation tools such as ANSYS HFSS and Vector Network analyzer, procured for academic research and teaching purposes. It enables students and researchers to design, simulate and analyze antennas for high frequency 5G applications. The facility enhances knowledge in millimeter wave communication, antenna design and electromagnetic analysis, thereby promoting innovation, research capabilities and industry readiness in modern communication systems.

Resources Available:

- ANSYS Research HFSS software 5 Licenses
- Vector Network Analyser – 1
- Labview NI USRP

Faculty incharge : Dr. J. Jeevitha , Ms. P. Kalaivani

Outcomes:

- Received ₹20,83,333 for a research project under the AICTE RPS Scheme for a duration of three years (2022–2025).
- Received a fund of ₹ 3,50,000 for organizing FDP from AICTE ATAL FDP (2023 – 2024)
- Received a fund of ₹6,00,000 from the AICTE ATAL Advanced FDP for organizing a Faculty Development Program during 2024–2025.
- UG, PG Students and faculty members have published research papers in SCI/Scopus Journals and Book Chapters.

### **2) b) VLSI DESIGN & CADENCE TOOL LABORATORY**

The VLSI Design Laboratory is established to support advanced research and practical learning in analog, digital and mixed signal integrated circuit design. The lab is equipped with industry standard Electronic Design Automation (EDA) tools from Cadence to enable students to design, simulate and verify complex VLSI systems.

The laboratory provides a comprehensive environment for schematic design, circuit simulation, layout development and verification. Tools such as Cadence Virtuoso and Spectre simulation platform enable accurate transistor level analysis, while digital design tools support RTL to GDSII implementation flow. These tools are widely used in semiconductor industries for chip design and validation.

It enables students and researchers to design, simulate and analyze analog circuits (amplifiers, oscillators, filters), digital systems (logic circuits, processors) and mixed signal systems. The facility enhances knowledge in VLSI design, CMOS technology, layout techniques, timing analysis and verification methodologies, thereby promoting innovation, research capabilities and industry readiness in semiconductor and electronics domains.

List of software &amp; Hardware available for Student's &amp; Faculty's Research works

<b>Softwares</b> <ul style="list-style-type: none"> <li>• Cadence Virtuoso Schematic Editor</li> <li>• Cadence Virtuoso Layout Suite</li> <li>• Cadence Spectre Simulator</li> <li>• Cadence Virtuoso ADE (Explorer / Assembler)</li> <li>• Cadence Xcelium Logic Simulator</li> <li>• Cadence Genus Synthesis Tool</li> <li>• Cadence Innovus Implementation System</li> </ul>	<b>5 USERS</b>
<b>Hardwares</b> <ul style="list-style-type: none"> <li>• High Performance Workstations (Linux based)</li> <li>• VLSI Design Server with Cadence License Manager.</li> </ul>	

Faculty incharge : Dr. V. Govindaraj, Ms.V.Lalithamani

Outcomes:

- 3 Teams were shortlisted for the final round of the National Level Hackathon
- UG, PG Students and faculty members have published research papers in SCI/Scopus Journals and Book Chapters.

**OUTCOMES FOR RESEARCH LABORATORY****ACY 2025-26 - No. of peer reviewed journal papers published**

Journals								
S.No (http://s.no/)	Author	Title	Journal	Date/ Month of Publication	Indexing (SCI/Scopus)	Q Factor	Impact Factor	Link or DOI
1	Sapna B A & Ramasamy K	A compact flexible and biodegradable dual wideband implantable antenna for biotelemetry,	AEU - International Journal of Electronics and Communications	12 August 2025	SCI	Q2	3.2	<a href="https://doi.org/10.1016/j.aeue.2025.155999">https://doi.org/10.1016/j.aeue.2025.155999</a> ( <a href="https://doi.org/10.1016/j.aeue.2025.155999">https://doi.org/10.1016/j.aeue.2025.155999</a> )
2	Sapna B A	An efficient 5G patch antenna for small cell outdoor environment	Frequenz	17 November 2025	SCI	Q3	1	<a href="https://doi.org/10.1515/freq-2025-0090">https://doi.org/10.1515/freq-2025-0090</a> ( <a href="https://doi.org/10.1515/freq-2025-0090">https://doi.org/10.1515/freq-2025-0090</a> )
3	Dr.J.Jeevitha	A 4x 4 Open-Ended Connected Dual E-Shaped MIMO Antenna for 5G/6G Mobile Communication	National Academy Science Letters	30 March 2026	SCIE	Q3	1.3	<a href="https://doi.org/10.1007/s40009-026-02014-z">https://doi.org/10.1007/s40009-026-02014-z</a>

4	Dr.K.Ramasamy	A Low SAR ISM and 5G Dual-Band Implantable Antenna for Endoscopy	International Journal of Communication Systems	31 March 2026	SCIE	Q2	1.8	<a href="https://doi.org/10.1002/dac.70492">https://doi.org/10.1002/dac.70492</a> .
5	Dr V.Govindaraj	Design and test of analog-to-digital converters with enhanced test strategies using built in self test	Springer- Scientific Reports	29 August 2025	SCIE	Q1	3.9	<a href="https://doi.org/10.1038/s41598-025-17286-6">https://doi.org/10.1038/s41598-025-17286-6</a> ( <a href="https://doi.org/10.1038/s41598-025-17286-6">https://doi.org/10.1038/s41598-025-17286-6</a> )
6	Dr V.Govindaraj	An Area Efficient Approach to Realize Vedic Multiplier using 4–2 Compressor adder for Image processing Applications	International Journal of electronics	26 September 2025	SCI	Q3	1.1	<a href="https://doi.org/10.1080/00207217.2025.2565740">https://doi.org/10.1080/00207217.2025.2565740</a> ( <a href="https://doi.org/10.1080/00207217.2025.2565740">https://doi.org/10.1080/00207217.2025.2565740</a> )

**ACY 2025-26 - No. of peer reviewed conference papers published**

CONFERENCES						
S.No (http://s.no/)	Author	Title	Conference Title	Month /Date of Publication	Indexing (SCI/Scopus)	Link or DOI
1	Sapna B A Ramasamy K	An implantable Antenna ISM 5G Band Antenna for Hemodialysis Monitoring	International Conference on Research and Development in Information, Communication, and Computing Technologies (ICRDICCT 2025)	5/4/2025		<a href="https://doi.org/10.5220/0000208200004919">10.5220/0000208200004919</a> <a href="https://doi.org/10.5220/0000208200004919">ISBN:978-989-758-777-1</a>
2	Sapna B A Ramasamy K	The Wideband Implantable Antenna with Circular Polarization for Monitoring the Thyroid	International Conference on Research and Development in Information, Communication, and Computing Technologies (ICRDICCT 2025)	5/4/2025		<a href="https://doi.org/10.5220/0000208200004919">10.5220/0000208200004919</a> <a href="https://doi.org/10.5220/0000208200004919">ISBN:978-989-758-777-1</a>
5	Dr.K Ramasamy, P Kalaivani	Stable Passive FSS Based IRS at Sub-6 Band	2025 10th International Conference on Communication and Electronics Systems (ICCES)	21 January 2026	Scopus	<a href="https://doi.org/10.1109/ICCES67310.2025.11336298">10.1109/ICCES67310.2025.11336298</a>
6	P Kalaivani Dr. K Ramasamy	Design & Analysis of FSS Based IRS for 5G	2025 10th International Conference on Communication and Electronics Systems (ICCES)	21 January 2026	Scopus	<a href="https://doi.org/10.1109/ICCES67310.2025.11336943">10.1109/ICCES67310.2025.11336943</a>
7	Sapna B A; K Ramasamy; P Kalaivani	Exploring FSS Enabled IRS for 5G	2025 9th International Conference on Electronics, Communication and Aerospace Technology (ICECA)	13 February 2026	Scopus	<a href="https://doi.org/10.1109/ICECA66444.2025.11383131">10.1109/ICECA66444.2025.11383131</a>
8	P Kalaivani; Sapna B A; K. Ramasamy	Design and Analysis of Interconnected H-Slot FSS	2026 5th International Conference on Communication, Computing and Electronics Systems (ICCCES)	25 March 2026	Scopus	<a href="https://doi.org/10.1109/ICCCES62661.2026.11437308">10.1109/ICCCES62661.2026.11437308</a>
9	Sapna B A; K Ramasamy; P Kalaivani	Study of Metamaterial Unit Cell for 5G Applications	2026 5th International Conference on Communication, Computing and Electronics Systems (ICCCES)	25 March 2026	Scopus	<a href="https://doi.org/10.1109/ICCCES62661.2026.11436309">10.1109/ICCCES62661.2026.11436309</a>

10	Dr V.Govindaraj C Ramesh	Design of an Efficient Multiplier using Urdhava Tiryakbhayam Multiplier for Deep Learning Applications	2025 Third International Conference on Emerging Applications of Material Science and Technology (ICEAMST)	3 November 2025	Scopus	<a href="https://doi.org/10.1109/ICEAMST67459.2025.11335726">10.1109/ICEAMST67459.2025.11335726</a>
11	K Yogeshwaran	A Hybrid Logic-based 4-Bit Full Adder: Design and Simulation for Energy-Efficient Use	2025 4th International Conference on Automation, Computing and Renewable Systems (ICACRS)	14 January 2026	Scopus	<a href="https://doi.org/10.1109/ICACRS67045.2025.11324309">10.1109/ICACRS67045.2025.11324309</a>
12	V. Lalithamani	Robust Keeper-Assisted Domino Logic Approach for High Performance D-Flip Flop Circuit	2025 5th International Conference on Evolutionary Computing and Mobile Sustainable Networks (ICECMSN)	17 February 2026	Scopus	<a href="https://doi.org/10.1109/ICECMSN68058.2025.11382727">10.1109/ICECMSN68058.2025.11382727</a>

#### ACY 2024-25 - No. of peer reviewed journal papers published

Journals								
S.No ( <a href="http://s.no/">http://s.no/</a> )	Author	Title	Journal	Date/Month of Publication	Indexing (SCI/Scopus)	Q Factor	Impact Factor	Link or DOI
1	Dr. B. A. Sapna & Dr. K. Ramasamy	Dual band polygonal slot antenna for early detection of breast cancer	International Journal of Biomedical Engineering and Technology	30-08-2024	Scopus	Q4	0.6	<a href="https://doi.org/10.1504/IJBET.2024.140703">https://doi.org/10.1504/IJBET.2024.140703</a> ( <a href="https://doi.org/10.1504/IJBET.2024.140703">https://doi.org/10.1504/IJBET.2024.140703</a> )
2	Dr. B. A. Sapna & Dr. K. Ramasamy	A flexible wideband wearable CPW antenna for WBAN application	Frequenz	11-11-2024	SCI	Q3	0.8	<a href="https://doi.org/10.1515/freq-2024-0142">https://doi.org/10.1515/freq-2024-0142</a>
3	Dr. K. Ramasamy & Dr. B. A. Sapna	An ultraminiaturized implantable antenna with low SAR for biotelemetry	Frequenz	03-03-2025	SCI	Q3	0.8	<a href="https://doi.org/10.1515/freq-2024-0332">https://doi.org/10.1515/freq-2024-0332</a> ( <a href="https://doi.org/10.1515/freq-2024-0332">https://doi.org/10.1515/freq-2024-0332</a> )
4	Sapna B A & Ramasamy K	DGS enabled compact implantable antenna with minimal SAR for biomedical applications	Frequenz	12-06-2025	SCI	Q3	1	<a href="https://doi.org/10.1515/freq-2025-0009">https://doi.org/10.1515/freq-2025-0009</a> ( <a href="https://doi.org/10.1515/freq-2025-0009">https://doi.org/10.1515/freq-2025-0009</a> )
5	Govindaraj V	Compact Dual-Band Microstrip Patch Antenna Design for 5G Wireless Networks Using Grey Wolf Optimization	Tehnički vjesnik	20-06-2025	SCI	Q3	1.1	<a href="https://doi.org/10.17559/TV-20240611001766">https://doi.org/10.17559/TV-20240611001766</a> ( <a href="https://doi.org/10.17559/TV-20240611001766">https://doi.org/10.17559/TV-20240611001766</a> )

**ACY 2024-25 - No. of peer reviewed conference papers published**

CONFERENCES						
S.No ( <a href="http://s.no/">http://s.no/</a> )	Author	Title	Conference Title	Month / Date of Publication	Indexing (SCI/ Scopus)	Link or DOI
1	Dr. K. Ramasamy & Dr. B. A. Sapna	A Compact Conformal Antenna for Capsule Endoscopy	2024 Asia Pacific Conference on Innovation in Technology (APCIT)	18-09-2024	Scopus	<a href="https://doi.org/10.1109/APCIT62007.2024.10673623">10.1109/APCIT62007.2024.10673623</a> ( <a href="https://doi.org/10.1109/APCIT62007.2024.10673623">https://doi.org/10.1109/APCIT62007.2024.10673623</a> )
2	Dr. B. A. Sapna & Dr. K. Ramasamy	A Miniaturized Implantable Antenna for Health Care Monitoring	2024 Asia Pacific Conference on Innovation in Technology (APCIT)	18-09-2024	Scopus	<a href="https://doi.org/10.1109/APCIT62007.2024.10673717">10.1109/APCIT62007.2024.10673717</a> ( <a href="https://doi.org/10.1109/APCIT62007.2024.10673717">https://doi.org/10.1109/APCIT62007.2024.10673717</a> )
3	K Ramasamy & Sapna BA	A Compact Multiband Antenna for ICP Monitoring	2025 International Conference on Wireless Communications Signal Processing and Networking (WiSPNET)	09-05-2025	Scopus	10.1109/WiSPNET64060.2025.11005042
4	Bijimanzil A Sapna and Ramasamy .K	A Multiband Implantable Antenna for Pacemaker	First International Conference on Computer, Computation and Communication (IC3C-2025)	June 2025	Scopus	<a href="https://doi.org/10.13052/rp-9788743808268">https://doi.org/10.13052/rp-9788743808268</a> ( <a href="https://doi.org/10.13052/rp-9788743808268">https://doi.org/10.13052/rp-9788743808268</a> )
5	Sapna Bijimanzil A and Ramasamy K	An Implantable Wideband Antenna for Monitoring Bone Fracture Healing	First International Conference on Computer, Computation and Communication (IC3C-2025)	June 2025	Scopus	<a href="https://doi.org/10.13052/rp-9788743808268">https://doi.org/10.13052/rp-9788743808268</a> ( <a href="https://doi.org/10.13052/rp-9788743808268">https://doi.org/10.13052/rp-9788743808268</a> )
6	K Ramasamy & Sapna BA	An Implantable Endoscopic Antenna for Ulcer Monitoring in ISM and 5G	2025 International Conference on Recent Advances in Electrical, Electronics, Ubiquitous Communication, and Computational Intelligence (RAEEUCCI)	27-06-2025	Scopus	10.1109/RAEEUCCI63961.2025.11048245

7	Dr. M. Sakthimohan	Enhanced 16 × 16 Dadda Multiplier Using Kung-Brent Adder for Superior Parallel Processing Performance	2024 8th International Conference on Electronics, Communication and Aerospace Technology (ICECA)	24-12-2024	Scopus	<a href="https://doi.org/10.1109/ICECA63461.2024.10801100">10.1109/ICECA63461.2024.10801100</a> ( <a href="https://doi.org/10.1109/ICECA63461.2024.10801100">https://doi.org/10.1109/ICECA63461.2024.10801100</a> )
8	N Prakash, A Sathya, S Swathi Sree, C Pradeep, S Boopathy, R Krishnaveni	Design And Analysis Of High-Performance 16-Bit Hybrid Adder Using Ksa & Hca Adder With Domino Logic ( <a href="https://ieeexplore.ieee.org/abstract/document/11012362/">https://ieeexplore.ieee.org/abstract/document/11012362/</a> )	2025 3rd International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA)	04-04-2025	Scopus	DOI: <a href="https://doi.org/10.1109/ICAECA63854.2025.11012362">10.1109/ICAECA63854.2025.11012362</a> ( <a href="https://doi.org/10.1109/ICAECA63854.2025.11012362">https://doi.org/10.1109/ICAECA63854.2025.11012362</a> )

**CY 2024-25 - No. of books/book chapters published**

Book Chapter						
S No	Article Title	Authors	Book Title	DOP (DD-MM-YYYY)	ISBN	Link

1	Design and analysis of a UWB antenna with reduced SAR for early detection of brain tumour	Dr. B. A. Sapna & Dr. K. Ramasamy	Antennas for Industrial and Medical Applications with Optimization Techniques for Wireless Communication	30-12-2024	9781032774978	<a href="https://doi.org/10.1201/9781003560487-4">DOI: 10.1201/9781003560487-4</a>
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**CY 2023-24 - No. of peer reviewed journal papers published**

Journal								
S.No ( <a href="http://s.no/">http://s.no/</a> )	Author	Title	Journal	Date/Month of Publication	Indexing (SCI/Scopus)	Q Factor	Impact Factor	Link or DOI
1	K. Ramasamy, B. A. Sapna and M. Jayasheela	A novel wearable monopole antenna with controlled SAR using metamaterial	International Journal of Microwave and Wireless Technologies	21-04-2023	SCI	Q3	1.4	<a href="https://doi.org/10.1017/S1759078723000338">https://doi.org/10.1017/S1759078723000338</a> ( <a href="https://doi.org/10.1017/S1759078723000338">https://doi.org/10.1017/S1759078723000338</a> )
2	Ramasamy K. Sapna B. Abdulkareem	Performance analysis of a flexible wearable antenna with low SAR for biomedical application	Frequenz ( <a href="https://www.degruyter.com/journal/key/freq/html">https://www.degruyter.com/journal/key/freq/html</a> )	03-07-2023	SCI	Q3	1.1	<a href="https://doi.org/10.1515/freq-2023-0005">https://doi.org/10.1515/freq-2023-0005</a> ( <a href="https://doi.org/10.1515/freq-2023-0005">https://doi.org/10.1515/freq-2023-0005</a> )

**ACY 2023-24 - No. of peer reviewed conference papers published**

CONFERENCES						
S.No ( <a href="http://s.no/">http://s.no/</a> )	Author	Title	Conference Title	Month /Date of Publication	Indexing (SCI/ Scopus)	Link or DOI
1	Dr. R. Gowrishankar	Approximate Booth Multipliers using Compressors and Counter	Conference: 2023 International Conference on Inventive Computation Technologies (ICICT)	01.06.2023	Scopus	<a href="https://doi.org/10.1109/ICICT57646.2023.10134198">10.1109/ICICT57646.2023.10134198</a> ( <a href="https://doi.org/10.1109/ICICT57646.2023.10134198">https://doi.org/10.1109/ICICT57646.2023.10134198</a> )
2	Mr. K. Yogeshwaran	A Comparative Study of Vedic 4-Bit Multiplier Using CMOS and MGDI Technology	2024 International Conference on Science Technology Engineering and Management (ICSTEM)	25-06-2024	Scopus	<a href="https://doi.org/10.1109/ICSTEM61137.2024.10560819">10.1109/ICSTEM61137.2024.10560819</a> ( <a href="https://doi.org/10.1109/ICSTEM61137.2024.10560819">https://doi.org/10.1109/ICSTEM61137.2024.10560819</a> )

**3. CENTER OF EXCELLENCES IN ECE****3) a). EMBEDDED AND IOT****List of Hardwares available**

S.No	Details of Equipment	Quantity
1	IoT Kit - Arduino & ESP32 with sensors and accessories  Components: 1. Arduino Atmega 328 / STM32F103C8T6 2. ESP8266 3. Humidity Sensor DHT-11 4. Temperature Sensor 5. RGB Sensor 6. Infrared Sensor 7. DC Stepper Motor 8. Pulse Sensor 9. Buzzer 10. LED (Red) 11. Switch 12. Relay Module 13. Ultrasonic Sensor	3
2	IoT Kit - Raspberry Pi B+ & ESP32 with sensor and accessories  Components: 1. Arduino UNO R3 2. Relay Module 3. LM2596 DC-DC 4. ECG Sensor 5. EMG Sensor 6. Temperature Sensor 7. IR Sensor 8. Ultrasonic Distance Sensor 9. ESR Sensor 10. Accelerometer & Gyroscope Sensor 11. Gas Sensor 12. Touch Sensor 13. Heart Rate Sensor 14. Stepper Motor / Arm / Servo Motor 15. DC Relay 16. Buzzer 17. Display 18. LDR 19. Flex Sensor 20. Sound Sensor 21. Humidity Sensor	5
3	PIC16 & PIC 18 - Kits	4

**SOFTWARE RESOURCES:**

- Keil
- Arduino IDE
- Python
- Blynk
- ThingSpeak
- Tinkercad/ Wokwi simulators

## Companies Associated

- QNX and PiSquare Technologies, Hyderabad

Faculty incharge: Dr.N.Prakash, Dr.S.Gopinath

## Outcomes:

- 3 Teams have participated in National Level Hackathon and won the cash prize of Rs. 10,000
- 10 Student projects have been completed using the facility

**3) b). JUNIPER NETWORKS**

## Resources Available:

- Routing
- Switching
- Security Products
- AI-Driven Networking Tools

Faculty incharge: Ms.Dhivya

## Outcomes:

- 1 Team participated in National Level Hackathon and won the cash prize of Rs. 20,000
- JNCIA JunOS, JNCIA Mist AI - Certification Courses Completed by all the III Year ECE Students

**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)	720	36	34	43	99
2024-25(CAYm1)	990	50	34	44	72

2025-26(CAY)	1020	51	36	42	73
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**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	130000000	70441480	39000000	14983623	8500000	8115297	20400000	19523029
Library	7560000	7718820	6300000	5932410	4200000	4140690	2600000	2177360
Laboratory equipment	7500000	19603690	10000000	16509913	13000000	12337146	9000000	8284322
Teaching and non-teaching staff salary	220000000	233971388	175000000	189273417	160000000	154575446	140000000	130524000
Outreach Programs	3168000	2651556	2100000	2012136	2000000	1947650	2060000	1965000
R&D	11440000	10990099	6046000	6507012	5950000	5751115	5755000	5571156
Training, Placement and Industry linkage	10500000	20761060	10000000	17620995	6900000	6571674	1160000	1097699
SDGs	4000000	4078407	3400000	3262997	2700000	2634214	2800000	2687122
Entrepreneurship	300000	235450	510000	771500	220000	233778	740000	793000
Others, specify	299197000	263702496	292845000	239086624	276374000	268716952	143748400	137727414
<b>Total</b>	<b>693665000</b>	<b>634154446</b>	<b>545201000</b>	<b>495960627</b>	<b>479844000</b>	<b>465023962</b>	<b>328263400</b>	<b>310350102</b>

**E3. Budget Allocation, Utilization, and Public Accounting at Program Specific Level**

Table No. E3.1: Budget and actual expenditure incurred at program level.

Items	Budgeted in 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	1450000	1449190	600000	570937	2000000	2045652	4200000	4155783
Software	250000	251624	1900000	1872459	850000	806810	1500000	1479030
SDGs	100000	51036	50000	45153	75000	62565	150000	165000
Support for faculty development	150000	120494	100000	73332	75000	48499	150000	88500

R & D	1400000	1389761	700000	674204	1500000	1410560	100000	126677
Industrial Training, Industry expert, Internship	300000	312187	1000000	1038899	500000	459608	300000	294724
Miscellaneous Expenses	700000	705019	725000	708558	1025000	968241	550000	550349
<b>Total</b>	<b>4350000</b>	<b>4279311</b>	<b>5075000</b>	<b>4983542</b>	<b>6025000</b>	<b>5801935</b>	<b>6950000</b>	<b>6860063</b>