

NATIONAL BOARD OF ACCREDITATION

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

Program Name : Electronics and Communications Engineering	Discipline : Engineering & Technology
Level : Under Graduate	Tier : 2
Application No : 12048	Date of Submission : 17-07-2026

PART A- Profile of the Institute

A1.Name of the Institute : C.ABDUL HAKEEM COLLEGE OF ENGINEERING AND TECHNOLOGY	
Year of Establishment : NIL	Location of the Institute: Melvisharam Ranipet Tamil Nadu 632509
A2. Institute Address :HAKEEM NAGAR,MELVISHARAM	
City:VILLORE	State:Tamil Nadu
Pin Code:632509	Website:www.cahcet.in
Email:CAHCET@REDIFFMAIL.COM	Phone No(with STD Code):04172-267387
A3. Name and Address of the Affiliating University (if any):	
Name of the University : NIL	City: Chennai
State : Tamil Nadu	Pin Code: 600025
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: 4

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

Sr.No.	Discipline	Level of program	Name of the program	Year of Start	Year of Closed	Name of The Department
1	Computer Application	PG	Master in Computer Applications	2008	--	Computer Application
2	Engineering & Technology	PG	Applied Electronics	2006	2026	Electronics and Communication Engineering
3	Engineering & Technology	UG	Artificial Intelligence and Data Science	2022	--	Artificial Intelligence and Data Science
4	Engineering & Technology	UG	Civil Engineering	2008	--	Civil Engineering
5	Engineering & Technology	UG	Computer Science and Engineering	1998	--	Computer Science and Engineering
6	Engineering & Technology	PG	Computer Science and Engineering	2026	--	Computer Science and Engineering
7	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence and Machine Learning)	2025	--	Computer Science and Engineering (Artificial Intelligence and Machine Learning)

8	Engineering & Technology	UG	Electrical and Electronics Engineering	1998	--	Electrical and Electronics Engineering
9	Engineering & Technology	UG	Electronics and Communications Engineering	2001	--	Electronics and Communication Engineering
10	Engineering & Technology	UG	Information Technology	2001	--	Information Technology
11	Engineering & Technology	UG	Mechanical Engineering	1998	--	Mechanical Engineering
12	Management	PG	Master of Business Administration	2006	--	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
Mechanical Engineering	No	Mechanical Engineering	UG
Computer Science and Engineering	Yes	Computer Science and Engineering	UG
Information Technology	Yes	Information Technology	UG
Electronics and Communication Engineering	No	Electronics and Communications 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 APPROVAL DETAILS	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED	PROGR DURATI
1	Electronics and Communications Engineering	UG	2001 / --	60	Yes	2021	60	2021	F.No. Southern/1-9323182988/2021/EOA	Granted accreditation for 3 years for the period (specify period)	2020	2023	3	4

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	PROGR DURATI
Sanctioned Intake for Last Five Years for the Applied Electronics														
Academic Year			Sanctioned Intake											
2025-26			60											
2024-25			60											
2023-24			60											
2022-23			60											
2021-22			60											
2020-21			120											

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. MOHAMMED HASHIM B A
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)	60	60	60	60	60	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	60	54	60	55	35	14	26
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	4	1	2	1	3	0
N3=Separate division if any	0	0	0	0	0	0	0
N4=Total no. of students admitted in the 1st year via all supernumerary quotas	0	0	0	0	0	0	0
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	60	58	61	57	36	17	26

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]
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2025-26 (CAY)	60	60	0	100.00
2024-25 (CAYm1)	60	54	0	90.00
2023-24 (CAYm2)	60	60	0	100.00

Average [(ER1 + ER2 + ER3) / 3] = 96.67≐ 20.00

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

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

Item	(2021-22) LYG	(2020-21) LYGm1	(2019-20) LYGm2
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	61.00	123.00	120.00
Y Number of students who have graduated in the stipulated period	29.00	9.00	23.00
Success Rate (SR)= (B/A) * 100	47.54	7.32	19.17

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 24.68

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

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

Academic Performance	CAYm1(2024-25)	CAYm2(2023-24)	CAYm3 (2022-23)
X=(Mean of 1st year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 1st year/10)	7.13	6.92	6.76
Y=Total no. of successful students	54.00	60.00	56.00
Z=Total no. of students appeared in the examination	54.00	58.00	56.00
API [X*(Y/Z)]	7.13	7.16	6.76

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

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 2nd year/10)	6.86	8.31	5.73
Y=Total no. of successful students	61.00	57.00	35.00
Z=Total no. of students appeared in the examination	61.00	57.00	36.00
API [X * (Y/Z)]	6.86	8.31	5.57

Average API [(AP1 + AP2 + AP3)/3] : 6.91

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)	6.59	7.42	7.03
Y=Total no. of successful students	56.00	34.00	17.00

Z=Total no. of students appeared in the examination	57.00	35.00	17.00
API [$X \cdot (Y/Z)$]:	6.47	7.21	7.03

Average API [$(AP1 + AP2 + AP3)/3$] : 6.90

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	61.00	123.00	120.00
X=No. of students placed	29.00	14.00	17.00
Y=No. of students admitted to higher studies	3.00	1.00	1.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = $((X + Y + Z)/FS) \cdot 100$:	52.46	12.20	15.00

Average Placement Index = $(P_1 + P_2 + P_3)/3$: 26.55 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. MOHAMMED HASHIM B A	XXXXXXX50F	Ph.D	Anna University	INFORMATION AND COMMUNICATION ENGINEERING	25/06/2012	14	Assistant Professor	Associate Professor	18/07/2024	Regular	Yes		Yes
2	Dr. MOHAMED YOUSUFF C	XXXXXXX79F	Ph.D	Universiti Teknologi PETRONAS	Electrical and Electronics Engineering - Microfluidics	18/12/2017	8.7	Assistant Professor	Professor	22/06/2023	Regular	Yes		No
3	MR. MOHAMMED MIAN A	XXXXXXX23C	M.Tech	Shanmugha Arts, Science, Technology & Research Academy (SASTRA)	VLSI DESIGN	15/06/2006	20.1	Lecturer	Assistant Professor		Regular	Yes		No
4	MS. CHANDRIKA G	XXXXXXX52Q	M.E.	Anna University	APPLIED ELECTRONICS	04/01/2021	5.6	Assistant Professor	Assistant Professor		Regular	Yes		No

5	Dr. NAZEER AHMED Y J	XXXXXX46C	Ph.D	B.S Abdur Rahman Crescent Institute of Science & Technology	ELECTRICAL AND COMMUNICATION SCIENCES	23/06/2025	1	Associate Professor	Associate Professor	23/06/2025	Regular	Yes		No
6	MR. ABDUL RAHMAN C	XXXXXX14H	M.E.	Anna University	COMMUNICATION SYSTEMS	01/07/2010	16	Assistant Professor	Assistant Professor		Regular	Yes		No
7	MRS. SUMATHI R	XXXXXX25G	M.E.	Anna University	APPLIED ELECTRONICS	11/07/2012	14	Assistant Professor	Assistant Professor		Regular	Yes		No
8	MS. SANGEETHA K	XXXXXX07P	M.E.	Anna University	APPLIED ELECTRONICS	05/08/2020	5.11	Assistant Professor	Assistant Professor		Regular	Yes		No
9	MR . GANESHKUMAR S S	XXXXXX22G	M.E.	Anna University	APPLIED ELECTRONICS	12/08/2024	1.11	Assistant Professor	Assistant Professor		Regular	Yes		No
10	MS. DURGA P	XXXXXX69B	M.E.	Anna University	APPLIED ELECTRONICS	02/08/2023	2.11	Assistant Professor	Assistant Professor		Regular	Yes		No
11	MR. INAYATHULLAH A	XXXXXX62K	M.E.	Anna University	APPLIED ELECTRONICS	10/07/2025	1	Assistant Professor	Assistant Professor		Regular	Yes		No
12	MS. DIVYA G	XXXXXX74B	M.E.	Anna University	APPLIED ELECTRONICS	28/04/2022	3.1	Assistant Professor	Assistant Professor		Regular	No	31/05/2025	No
13	MRS. PAVITHRA S	XXXXXX92P	M.E.	Anna University	APPLIED ELECTRONICS	05/08/2020	3.9	Assistant Professor	Assistant Professor		Regular	No	31/05/2024	No
14	MR. DEVARAJ C	XXXXXX70Q	M.E.	Anna University	APPLIED ELECTRONICS	02/01/2019	5.4	Assistant Professor	Assistant Professor		Regular	No	31/05/2024	No
15	Dr. SINDHU T S	XXXXXX26M	Ph.D	Anna University	Electronics and Communication Engineering	03/07/2017	8.10	Assistant Professor	Assistant Professor		Regular	No	30/05/2026	No
16	MR KAMESH WARAN G	XXXXXX94K	M.E.	Dr. M.G.R Educational and Research Institute University	APPLIED ELECTRONICS	04/07/2022	1.10	Assistant Professor	Assistant Professor		Regular	No	31/05/2024	No
17	MR SIVAGURU J	XXXXXX05A	M.E.	Anna University	APPLIED ELECTRONICS	15/12/2021	2.5	Assistant Professor	Assistant Professor		Regular	No	31/05/2024	No
18	MRS. SUGANYA B	XXXXXX09F	M.E.	Anna University	VLSI DESIGN	20/06/2018	5.11	Assistant Professor	Assistant Professor		Regular	No	31/05/2024	No

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

C2. Student-Faculty Ratio (SFR)

No. of UG(Engineering) programs in Department including allied departments/ clusters (UGn):

UG1=1st UG program

UGn=nth UG program

B= No. of Students in UG 2nd year (ST)

C= No. of Students in UG 3rd year (ST)

D= No. of Students in UG 4th year (ST)

No. of PG (Engineering) programs in Department including allied departments/ clusters (PGm):

PG1=1st PG program.

PGm=mth PG program

A= No. of Students in PG 1st year

B= No. of Students in PG 2nd year

Student Faculty Ratio (**SFR**) = S/F

S= No. of students of all programs in the Department including all students of allied departments/clusters.

No. of students (ST)=Sanctioned Intake (SA)+ Actual admitted students via lateral entry including leftover seats (L) if any (limited to 10 % of SA)

Students who admitted under supernumerary quotas (SNQ, EWS, etc) will not be considered in calculating SFR value. Those students are exempted.

F=Total no. of regular or contractual faculty members (Full Time) in the Department, including allied departments/clusters (excluding first year faculty (The faculty members who have a 100% teaching load in the first-year courses)).

No. of UG Programs in the Department1 No. of PG Programs in the Department1
Table No.C2.1: Student-faculty ratio.

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
UG1.B	63	61	62
UG1.C	61	62	61
UG1.D	62	61	123
UG1: Electronics and Communications Engineering	186	184	246
PG1.A	9	9	9
PG1.B	9	9	18
PG1: Applied Electronics	18	18	27
DS=Total no. of students in all UG and PG programs in the Department	204	202	273
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= 204	S2= 202	S3= 273
DF=Total no. of faculty members in the Department	12	11	15
AF= Total no. of faculty members in the allied Departments	0	0	0
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	F1= 12	F2= 11	F3= 15
FF=The faculty members in F who have a 100% teaching load in the first-year courses	0	0	0
Student Faculty Ratio (SFR)=S/(F-FF)	SFR1= 17.00	SFR2= 18.36	SFR3= 18.20
Average SFR for 3 years	SFR= 17.85		

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)	3	9	10.00	16.50
2024-25(CAYm1)	2	9	10.00	14.00

2023-24(CAYm2)	2	13	13.00	13.85
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C4. Faculty Cadre Proportion

- Faculty Cadre Proportion is 1(RF1): 2(RF2): 6(RF3)
- RF1= No. of Professors required = $1/9 \times \text{No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per C2 of this documents.}$
- RF2= No. of Associate Professors required = $2/9 \times \text{No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section C2 of this documents.}$
- RF3= No. of Assistant Professors required = $6/9 \times \text{No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section C2 of this documents.}$
- 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	1.00	1.00	2.00	2.00	7.00	9.00
2024-25	1.00	1.00	2.00	1.00	7.00	9.00
2023-24	2.00	1.00	3.00	0.00	9.00	14.00
Average	RF1=1.33	AF1=1.00	RF2=2.33	AF2=1.00	RF2=7.67	AF2=10.67

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	Aravindh Sivakumar	System Engineer	Toshiba Software India private limited	Optical Communication Network	28.00
2	Aravindh Sivakumar	System Engineer	Toshiba Software India private limited	EMBEDDED SYSTEM AND IOT	26.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Murugan R	Senior Executive	TATA Advanced system limited	EMBEDDED REAL TIME SYSTEM	27.00
2	Murugan R	Senior Executive	TATA Advanced system limited	EMBEDDED SYSTEM AND IOT	28.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	P. M . Mujahidul Islam	Proprietor	Efficacy Electronics & Lightings	Embedded real time systems	27.00
2	P. M . Mujahidul Islam	Proprietor	Efficacy Electronics & Lightings	Microprocessor and Microcontroller	26.00

C6. Academic Research

Table No. C6.1: Faculty publication details.

S.No.	Item	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)
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1	No. of peer reviewed journal papers published	5	2	3
2	No. of peer reviewed conference papers published	0	3	0
3	No. of books/book chapters published	0	0	1

C7. Sponsored Research Project

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

(CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. B.A. Mohammed Hashim		Electronics and Communication Engineering	Zero-Water Contactless Cleaning for PV Panels	Nidhi Prayas	18 Months	5.00
Dr. B.A. Mohammed Hashim		Electronics and Communication Engineering	Optical Character Recognition for Tamil using Arduino	Tamil Nadu State Council for Science and Technology	4 Months	0.08
						Amount received (Rs.):5.08

(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. B.A. Mohammed Hashim		Electronics and Communication Engineering	Tamil Air Writing Recognition Application for Dyslexic People	Tamil Nadu State Council for Science and Technology	4 Months	0.08
						Amount received (Rs.):0.08

(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. B.A. Mohammed Hashim		Electronics and Communication Engineering	Recognition of Sign Language using Jetson for Speech and Hearing Impairment People	Tamil Nadu State Council for Science and Technology	4 Months	0.08
						Amount received (Rs.):0.08

Total Amount (Lacs) Received for the Past 3 Years: 5.24

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. B. A. Mohammed Hashim	Dr. C. Mohamed Yousuff	ECE	IoT-Enabled Smart Aeration and Water Quality Monitoring System for Shrimp Aquaculture	AAHL Laboratory Aquatic animal health lab	1 year	4.65
						Amount received (Rs.):4.65

(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.C. Mohamed yousuff	Mr. A. Mohammed Mian	ECE	Development of an IoT-Enabled Process Monitoring and Quality Improvement System for Leather Manufacturing	MS OVERSEAS	1 Year	5.14
						Amount received (Rs.):5.14

(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
Ms. T. S. Sindhu	Mr. C. Abdul Rahman	ECE	Design and Development of an IoT-Based Smart Condition Monitoring and Fault Detection System for Industrial Electric Motors and Machinery	Efficacy Electronics	1 Year	5.31
						Amount received (Rs.):5.31

Total amount (Lacs) received for the past 3 years: 15.10

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. Mohamed Yousuff	Microfluidic separation device for blood components	1 Year	1.50	1.50	Publication
			Amount received (Rs.): 1.50		

(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
Ms. T. S. Sindhu	Novel optimized segmentation and classification approach for Alzheimer's Disease Classification	2 Years	2.00	2.00	Publication
Dr. B. A. Mohammed Hashim	Elderly Hajj pilgrims activity recognition	1 Year	1.00	1.00	Publication
			Amount received (Rs.): 3.00		

(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.K.O. Mohammed Aarif	Smart bin: Waste segregation system using deep learning	6 months	1.50	1.50	Publication
Dr. B.A. Mohammed Hashim	Elderly People Monitoring System based on Ambient Assisted Living	1 Year	0.50	0.50	Publication
			Amount received (Rs.): 2.00		

Total amount (Lacs) received for the past 3 years : 6.50

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	Digital Signal Processing Laboratory //	30	PCs, DSP Trainer Kit and VLSI Trainer Kit //	6 Hrs/week – S	Mr. S. Abdul Rahim	Technician	B.E.
2	Digital Electronics Laboratory //	4	Digital Trainer Kit; Digital IC Tester //	6 Hrs/week – E	Mr. A. Inayathullah	Senior Technician	M.E.
3	Communication Systems Laboratory //	4	Sampling, PCM, TDM, AM, FM, line coding/decoding and pulse-modulation kits; CRO; Function Generator; Regulated Power Supplies //	6 Hrs/week – E	Mr. S. Abdul Rahim	Technician	B.E.
4	Microprocessor and Microcontroller Laboratory //	4	8085 Kit; 8086 Kit; 8051 Kit; Interface Boards //	6 Hrs/week – E	Mr. K. Mohammed Waseem	Technician	B.Sc. (Physics)
5	Circuits and Devices Laboratory //	3	CRO; Function Generator; Regulated Power Supplies //	6 Hrs/week – E	Mr. A. Inayathullah	Senior Technician	M.E.
6	Network Laboratory //	3	PCs; LAN Trainer Kit //	12 Hrs/week –	Mr. K. Mohammed Waseem	Technician	B.Sc. (Physics)
7	Optical and Microwave Laboratory //	4	Microwave Power Meter; VSWR Meter; Klystron Power Supply; Fiber-Optic Trainer Kit //	06 Hrs/week –	Mr. K. Mohammed Waseem	Technician	B.Sc. (Physics)
8	Embedded Systems Laboratory //	4	ARM Kit; Interface Boards //	6 Hrs/week – E	Mr. A. Inayathullah	Senior Technician	M.E.
9	Linear Integrated Circuits Laboratory //	4	CRO; Function Generator; Regulated Power Supplies //	6 Hrs/week – E	Mr. K. Mohammed Waseem	Technician	B.Sc. (Physics)

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Digital Signal Processing Lab	1. Do not touch any terminal or switch without ensuring that it is dead. 2. In case of emergency or fire, shut off the master switch on the main panel board. 3. Switch off the computer when system not used. 4. Do not remove anything from the kits/Experimental set up without permission. 5. Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students.
2	Digital Electronics lab	1. Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. 2. Periodical servicing of the lab equipment is maintained. 3. Use sufficient long connecting leads rather than joining two or three small ones because in case any point is open it could be dangerous. 4. Maintain a clean and organized laboratory. 5. Avoid the use of cell phones.
3	Communication Systems Lab	1. Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. 2. Do not touch any terminal or switch without ensuring that it is dead 3. Wear shoes. 4. Maintain a clean and organized laboratory. 5. Avoid the use of cell phones.
4	Microprocessor and Microcontroller Lab	1. Do not touch any terminal or switch without ensuring that it is dead 2. Do not remove anything from the kits/Experimental set up without permission. 3. Switch off the computer when system not used. 4. Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students.
5	Circuits and Devices Lab	1. Wear shoes 2. Don't touch any terminal or switch without ensuring that it is dead 3. Use sufficient long connecting leads rather than joining two or three small ones because in case any point is open it could be dangerous. 4. Do not touch the tip end of a soldering iron to check for heat 5. Specific safety rules for students displayed.
6	Network Lab	1. Do not touch any terminal or switch without ensuring that it is dead 2. Switch off the computer when system not used. 3. In case of emergency or fire, shut off the master switch on the main panel board. 4. Maintain a clean and organized laboratory. 5. Avoid the use of cell phones.
7	Optical & Microwave Lab	1. Don't touch any terminal or switch without ensuring that it is dead 2. Never work alone in the laboratory. 3. Don't use loose garment, while working in the laboratory 4. Use sufficient long connecting leads rather than joining two or three small ones because in case any point is open it could be dangerous. 5. In case of emergency or fire, shut off the master switch on the main panel board. 6. Always exercise care while in the lab, accidents can sometimes be fatal.
8	Embedded System Lab	1. Specific safety rules for students displayed. 2. Do not remove anything from the kits/Experimental set up without permission. 3. In case of emergency or fire, shut off the master switch on the main panel board. 4. Switch off the computer when system not used. 5. Periodical servicing of the lab equipment is maintained
9	Linear Integrated Circuits Lab	1. Wear shoes. 2. Use sufficient long connecting leads rather than joining two or three small ones because in case any point is open it could be dangerous. 3. Specific safety rules for students displayed. 4. Periodical servicing of the lab equipment is maintained.

D3. Project Laboratory/Research Laboratory

7.5 PROJECT LABORATORY / RESEARCH LABORATORY

The Department has a dedicated Project Laboratory and an R&D Laboratory to support final-year projects, mini-projects, innovation, prototype development and research-oriented activities.

Facility	Availability / Details	Dedicated Purpose
Project Laboratory –	Dedicated project space with electronic components, soldering/prototyping facilities, PCs/Internet/teaching aids and project-development resources such as Arduino, ARM, PIC and FPGA development boards.	Final-year projects, Mini-projects, embedded/IoT/electronic prototypes, hardware interfacing, testing and demonstrations.
R&D Laboratory	Dedicated research/project facility established for curriculum projects, innovative projects and research work in areas including embedded systems, signal processing, image/video processing and related ECE applications.	Faculty/student research, experimental validation, innovative project development and research-oriented prototype work.

Utilization

For the academic year 2025–26, the available project data show 16 EC3811 Project Work batches involving 55 students. The projects demonstrate utilization of project/research facilities for embedded systems, IoT, AI/ML, image processing, robotics, environmental monitoring, smart agriculture, health monitoring and ADAS-related applications.

Academic Year	Course / Activity	No. of Project Batches	No. of Students	Utilization Evidence
2025–26	EC3811 – Project Work	16	55	Project titles, student teams, prototype/project photographs and project records.

Table 7.5.1 – EC3811 Project Work Utilization, 2025–26

Batch No.	Register No. / Student Name	Project Title
1	510622106009 – DHANDAPANI P 510622106010 – DINESH S	Radar Based Obstacle Detection System using Arduino Uno
2	510622106006 – BHARGAVI D 510622106039 – NANDHINI J 510622106053 – SYEDA ISHRATH S	Virtual Early Flood Detection and Alert System using Machine Learning

Batch No.	Register No. / Student Name	Project Title
3	510622106037 – MRUTHEW RAJ S 510622106051 – SURIYA PRAKAASH G K 510622106056 – YUVARAJ P	Eye Disease Classification and Detection System Using Deep Learning
4	510622106002 – ABINAYA S 510622106043 – NIVETHA S 510622106047 – SARASWATHI K	Smart Helmet for Rider Safety using Arduino with Emergency Push Button
5	510622106005 – ATHIYA M 510622106023 – KSHITHIKA D 510622106049 – SHAHANA FARHEEN S 510622106050 – SUMAIYA SN	Smart Door Bell with Vibration and Camera Module
6	510622106015 – HARIHARAN B 510622106024 – KUMARESH J 510622106026 – LOKESH S 510622106028 – MANOJ KUMAR K	IoT-Based Smart Trolley System for Automated Supermarket Billing
7	510622106011 – DINESH KUMAR S 510622106012 – GANAPATHI S 510622106014 – HARI HARAN R 510622106025 – LOKESH S	AI-Driven Cognitive and Engagement System for Classroom
8	510622106007 – DEEPIKA K 510622106008 – DEESHIKA C 510622106021 – KAVIYA B 510622106044 – PRIYADHARSHINI P	IoT-Based Air Pollution Monitoring with Machine Learning using Low-Cost Sensor
9	510622106020 – JEEVANRAJ S 510622106042 – NAVEEN KUMAR P 510622106301 – GOWTHAM P	Image Processing Based Brain Tumor Detection
10	510622106038 – NANDA KUMAR V 510622106041 – NAVEEN K 510622106302 – HARISH KUMAR V	AI-Powered Selective Hearing Protective System
11	510622106017 – HARIHARAN S 510622106022 – KIRUBA N 510622106027 – MANOJ D 510622106046 – SANJAY D	Real-Time Tele-Operated Robotic Arm
12	510622106033 – MOHAMMED FAZEEL VM 510622106034 – MOHAMMED ISSAQ R 510622106035 – MOHAMMED SHASITH I 510622106036 – MOHAMMED SHUAIB S	AI-Based Smart Agriculture Decision Support System for Plant Detection and Yield Prediction

Batch No.	Register No. / Student Name	Project Title
13	510622106003 – ANASUL KAMILEEN F 510622106004 – ASHFAQUE AHMED T 510622106032 – MOHAMMED FARHAN K 510622106045 – SABEL AHMED C	Smart Aerator System for Efficient Water Quality Management
14	510622106029 – MOHAMED AJAZ M 510622106030 – MOHAMED KAFEEL AM 510622106031 – MOHAMMED AFFAN A 510622106019 – JAI SURYA S	Traffic Signal Detection and Accident Prevention System using ADAS
15	510622106001 – ABDULLAH N 510622106040 – NASAR HUSAIN M 510622106054 – TAHA YASEER E	Smart Temperature-Based Fan Control with Real-Time Energy Tracking
16	510622106013 – GOKUL T 510622106018 – ITHAYATHULLA S 510622106055 – VIGNESH K	IoT-Based Patient Health Monitoring System using Blynk Application

Photographic Evidence of Project-Laboratory Utilization



Figure 7.5.1 – Student project/prototype activity in the Project Laboratory.



Figure 7.5.2 – Student project/prototype activity in the Project Laboratory.

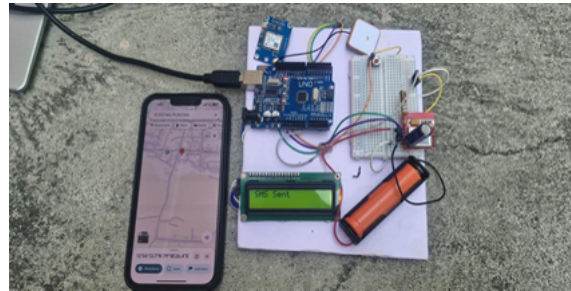


Figure 7.5.3 – Student project/prototype activity in the Project Laboratory.



Figure 7.5.3 – Student project.

Relevance to POs/PSOs

Facility	Relevant POs/PSOs	Justification
Project Laboratory	PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO12; PSO1, PSO2	Students analyse project problems, design solutions, conduct testing/validation, use modern tools, work in teams, document/present results, manage project resources and independently learn emerging technologies.
R&D Laboratory	PO2, PO3, PO4, PO5, PO10, PO11, PO12; PSO1, PSO2	Research-oriented work develops problem analysis, solution design, experimental investigation, modern tool usage, technical communication, research/project planning and independent learning in programme-specific ECE areas.

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)	480	24	20	13	78
2024-25(CAYm1)	480	24	20	19	82
2025-26(CAY)	540	27	20	21	75

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 //	40000000	39117864	25000000	24912355	15000000	14254000	15000000	13538000
Library //	550000	511486	450000	400586	450000	448849	400000	383682
Laboratory equipment //	40000000	39203013	20000000	19383406	14000000	13255705	10000000	8600500

Teaching and non-teaching staff salary //	65000000	63890802	60000000	58762939	60000000	57200000	60000000	57094328
Outreach Programs //	2500000	2435995	1800000	1675056	550000	534812	1000000	875000
R&D //	2500000	2609000	3000000	2885500	2500000	2294000	800000	1960000
Training, Placement and Industry linkage //	6000000	5500020	4500000	4250060	2500000	2400000	2800000	2654200
SDGs //	4000000	3850135	4000000	3868078	2000000	1864000	1500000	1250000
Entrepreneurship //	2500000	2488000	1500000	1250022	1000000	625000	800000	780580
Others, specify //	10000000	8666160	7000000	6463261	5000000	4214875	6000000	4521658
Total	173050000	168272475	127250000	123851263	103000000	97091241	98300000	91657948

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 //	5300000	5048138	2050000	2045141	1600000	1532613	500000	476314
Software //	600000	582162	280000	273173	150000	142892	100000	50672
SDGs //	500000	470183	350000	345577	250000	233955	100000	73646
Support for faculty development //	100000	94000	100000	92600	75000	72000	50000	49000
R & D //	450000	450000	500000	465000	520000	514000	550000	531000
Industrial Training, Industry expert, Internship //	1100000	1075505	600000	591381	550000	507389	250000	222255
Miscellaneous Expenses* //	1000000	991824	1100000	877852	325000	302899	550000	237363
Total	9050000	8711812	4980000	4690724	3470000	3305748	2100000	1640250