NATIONAL BOARD OF ACCREDITATION

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

Program Name : Robotics and Automation	**Discipline**: Engineering & Technology
Level : Under Graduate	**Tier**: 2
Application No: 11480	**Date of Submission**: 13-01-2026

PART A- Profile of the Institute

A1.Name of the Institute: Toc H Institute of Science and Technology	
Year of Establishment : 2002	Location of the Institute: Kerala
A2. Institute Address:Arakunnam, Ernakulam Pin-682 313 Kerala	
City:Ernakulam	State:Kerala
Pin Code:682313	Website:www.tistcochin.edu.in
Email:principal@tistcochin.edu.in	Phone No(with STD Code):0484-2748388
A3. Name and Address of the Affiliating University (if any):	
Name of the University : Dr APJ Abdul Kalam Technological University	City: Thiruvananthapuram
State : Kerala	Pin Code: 695016
A4. Type of the Institution: Self-Supported Institute	
A5. Ownership Status: Self financing	

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

- No. of UG programs: **9**
- No. of PG programs: **6**

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

Sr.No.	Discipline	Level of program	Name of the program	Year of Start	Year of Closed	Name of The Department
1	Engineering & Technology	UG	Civil Engineering	2006	--	Civil Engineering
2	Engineering & Technology	UG	Computer Science and Engineering	2002	--	Computer Science and Engineering
3	Engineering & Technology	PG	Construction Engineering & Management	2013	--	Civil Engineering
4	Engineering & Technology	PG	Data Science	2020	--	Computer Science and Engineering
5	Engineering & Technology	UG	Electrical and Computer Engineering	2020	--	Electrical and Computer Engineering
6	Engineering & Technology	UG	Electrical and Electronics Engineering	2004	--	Electrical and Electronics Engineering
7	Engineering & Technology	UG	Electronics & Communication Engineering	2002	--	Electronics and Communication Engineering
8	Engineering & Technology	UG	Information Technology	2002	--	Information Technology

9	Engineering & Technology	UG	Mechanical Engineering	2006	--	Mechanical Engineering
10	Engineering & Technology	PG	Power Electronics	2012	2024	Electrical and Electronics Engineering
11	Engineering & Technology	UG	Robotics and Automation	2019	--	Robotics and Automation
12	Engineering & Technology	UG	Safety & Fire Engineering	2011	--	Safety and Fire Engineering
13	Engineering & Technology	PG	Thermal Engineering	2013	2024	Mechanical Engineering
14	Engineering & Technology	PG	Wireless Technology	2011	2024	Electronics and Communication Engineering
15	Management	PG	Masters in Business Administration	2008	--	Management

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

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

Name of the Department	Having Allied Departments	Name of the Program	Program Level
Information Technology	Yes	Information Technology	UG
Robotics and Automation	Yes	Robotics and Automation	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
Electronics and Communication Engineering	Electronics & Communication Engineering	UG
Electronics and Communication Engineering	Wireless Technology	PG

PART-B: Program information

B1. Provide the Required Information for the Program Applied For:

Table No. B1: Program details.
A. List of the Programs Offered by the Department:

SR.NO.	PROGRAM NAME	PROGRAM APPLIED LEVEL	YEAR OF START / YEAR OF CLOSED	SANCTIONED INTAKE	INCREASE/DECREASE INTAKE (if any)	YEAR OF INCREASE/DECREASE	CURRENT INTAKE	YEAR OF AICTE APPROVAL	AICTE/COMPETENT AUTHORITY ARROVAL DETAILS	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED	PROGRAM DURATION
1	Robotics and Automation	UG	2019 / --	60	No	NA	60	2019	F.No. South-West/1-3514675170/2018/EOA Dated 10-Apr-2018	Applying first time	--	--	0	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 PROGI ACCRE
1	Electronics and Communication Engineering	Electronics & Communication Engineering	UG	2002 / --	60	Yes	2023	60	2023	F.No. South-West/1-40381577688/2023/EOA Date: 10-Jun-2023	Granted accreditation for 3 years for the period (specify period)	2023	2026	3

Sanctioned Intake for Last Five Years for the Electronics & Communication Engineering	
Academic Year	**Sanctioned Intake**
2025-26	60
2024-25	60
2023-24	60
2022-23	30
2021-22	30
2020-21	30

2	Electronics and Communication Engineering	Wireless Technology	PG	2011 / 2024	18	Yes	2021	0	2021	F.No. South-West/1-9321481732/2021/EOA Date: 30-Jun-2021	Not eligible for accreditation	--	--	0

Sanctioned Intake for Last Five Years for the Wireless Technology	
Academic Year	**Sanctioned Intake**
2025-26	0
2024-25	0
2023-24	12
2022-23	12
2021-22	12
2020-21	18

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

A. Name of the HoD :	Dr. Deepa Elizabeth George
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	60	60

N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	51	57	51	50	42	46	49
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	4	3	0	1	1	10
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.	51	61	54	50	43	47	59

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)	60	51	0	85.00
2024-25 (CAYm1)	60	57	0	95.00
2023-24 (CAYm2)	60	51	0	85.00

Average [(ER1 + ER2 + ER3) / 3] = 88.33≡ 17.00

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	61.00	70.00
Y Number of students who have graduated in the stipulated period	25.00	31.00	50.00

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 54.41

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)	5.43	4.59	5.98
Y=Total no. of successful students	57.00	51.00	49.00
Z=Total no. of students appeared in the examination	57.00	51.00	49.00
API [X*(Y/Z)]	5.43	4.59	5.98

Average API[(AP1+AP2+AP3)/3] : 5.33

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)	4.79	5.79	6.17
Y=Total no. of successful students	53.00	49.00	42.00
Z=Total no. of students appeared in the examination	54.00	50.00	43.00
API [X * (Y/Z)]	4.70	5.67	6.03

Average API [(AP1 + AP2 + AP3)/3] : 5.47

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)	6.07	6.13	6.52
Y=Total no. of successful students	48.00	42.00	46.00
Z=Total no. of students appeared in the examination	49.00	42.00	46.00
API [X*(Y/Z)]:	5.95	6.13	6.52

Average API [(AP1 + AP2 + AP3)/3] : 6.20

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	61.00	70.00
X=No. of students placed	22.00	19.00	31.00
Y=No. of students admitted to higher studies	0.00	4.00	10.00
Z= No. of students taking up entrepreneurship	2.00	6.00	1.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	39.34	47.54	60.00

Average Placement Index = (P_1 + P_2 + P_3)/3: 48.96 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. Deepa Elizabeth George	XXXXXXX23E	Ph.D	CUSAT	Signal Processing in Communication	23/09/2002	23.3	Lecturer	Professor	02/06/2025	Regular	Yes		Yes

2	Dr. Georgina Binoy Joseph	XXXXXXX92M	Ph.D	Hindustan Institute of Technology and Science	High Performance Computing and Computer Vision	20/06/2016	9.6	Associate Professor	Associate Professor	20/06/2016	Regular	Yes		No
3	Mr. Girish P	XXXXXXX65F	M.Tech	Visvesvaraya Technological University	Industrial Electronics	19/10/2009	16.2	Lecturer	Associate Professor	01/05/2025	Regular	Yes		No
4	Mr. Mahesh C	XXXXXXX63F	M.Tech	Anna University Chennai	CAD/CAM	11/05/2009	16.8	Lecturer	Assistant Professor		Regular	Yes		No
5	Ms. Anu Jose	XXXXXXX80A	M.Tech	Anna University	Applied Electronics	11/06/2012	13.7	Lecturer	Assistant Professor		Regular	Yes		No
6	Ms. Swathy Satheesh	XXXXXXX58H	M.Tech	CUSAT	Opto Electronics and Communication Systems	10/07/2017	8.6	Assistant Professor	Assistant Professor		Regular	Yes		No
7	Ms. Sheethal Ann Ajith	XXXXXXX83P	M.Tech	APJ Abdul Kalam Technological University	VLSI and Embedded Systems	23/08/2024	1.4	Assistant Professor	Assistant Professor		Regular	Yes		No
8	Mr. Edu Krishnan V	XXXXXXX76K	M.Tech	University of Calicut	Machine Design	01/01/2025	1	Assistant Professor	Assistant Professor		Contractual Fulltime	Yes		No
9	Ms. Lekshmylal P L	XXXXXXX95B	M.Tech	CUSAT	VLSI and Embedded Systems	01/01/2025	1	Assistant Professor	Assistant Professor		Contractual Fulltime	Yes		No
10	Ms. Sanjana M Prabhu	XXXXXXX26N	M.Tech	APJ Abdul Kalam Technological University	Robotics and Automation	01/07/2025	0.6	Assistant Professor	Assistant Professor		Contractual Fulltime	Yes		No
11	Ms. Smita Damodaran	XXXXXXX58N	M.Tech	CUSAT	VLSI and Embedded Systems	01/01/2025	0.11	Assistant Professor	Assistant Professor		Contractual Fulltime	No	11/12/2025	No
12	Mr.Akhil Krishnan M	XXXXXXX58M	M.Tech	APJ Abdul Kalam Technological University	Industrial Drives and Control	17/07/2024	1.3	Assistant Professor	Assistant Professor		Contractual Fulltime	No	03/11/2025	No
13	Ms. Dilsha T A	XXXXXXX90K	M.Tech	CUSAT	Electronics & Communication	17/07/2024	1	Assistant Professor	Assistant Professor		Contractual Fulltime	No	17/07/2025	No
14	Ms. Rekha George	XXXXXXX96C	M.Tech	Anna University Chennai	Information and Communication Engineering	11/06/2007	17.10	Lecturer	Assistant Professor		Regular	No	30/04/2025	No
15	Ms. Nezla N A	XXXXXXX75A	M.Tech	CUSAT	Electronics & Communication	29/08/2022	2.1	Assistant Professor	Assistant Professor		Regular	No	09/10/2024	No

16	Mr. Nandu Gopakumar G	XXXXXXX29C	M.Tech	APJ Abdul Kalam Technological University	Robotics and Automation	14/08/2023	0.11	Assistant Professor	Assistant Professor		Contractual Fulltime	No	31/07/2024	No
17	Ms. Nisha R	XXXXXXX60Q	M.Tech	M G University	Industrial Drives and Control	01/12/2010	13.7	Assistant Professor	Assistant Professor		Regular	No	12/07/2024	No
18	Mr. Naveen Prakash	XXXXXXX35G	M.Tech	APJ Abdul Kalam Technological University	Machine Design	03/11/2021	2.7	Assistant Professor	Assistant Professor		Regular	No	01/07/2024	No
19	Ms. Hashfi Kalariparambil Hareed	XXXXXXX81G	M.Tech	APJ Abdul Kalam Technological University	Wireless Technology	29/08/2022	1.8	Assistant Professor	Assistant Professor		Contractual Fulltime	No	30/04/2024	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.S.Perumal Sankar	XXXXXXX31Q	XXXXXXXXX145	Ph.D	Anna University	MEMS	27/10/2014	11.2	Professor	Professor		Regular	Yes		No
2	Dr. Sreelekshmi.S	XXXXXXX34G	XXXXXXXXX004	Ph.D	APJ Abdul Kalam Technological University	Antenna Design and Analysis	03/07/2012	13.6	Assistant Professor	Associate Professor	01/05/2025	Regular	Yes		No
3	Mr. Nisanth Krishnan	XXXXXXX74F	XXXXXXXXX078	M.E.	Anna University	Communication Systems	05/01/2009	17	Assistant Professor	Associate Professor		Regular	Yes		No
4	Ms. Deepamary Varghese	XXXXXXX16P	XXXXXXXXX487	M.Tech	Anna University	Applied Electronics	02/06/2008	17.7	Assistant Professor	Assistant Professor		Regular	Yes		No
5	Mr. Renjith P K	XXXXXXX51B	XXXXXXXXX852	M.Tech	Anna University	VLSI Design	07/03/2011	14.10	Assistant Professor	Assistant Professor		Regular	Yes		No
6	Ms.Sajitha K S	XXXXXXX43Q	XXXXXXXXX659	M.E.	Anna University	Embedded System Technology	02/06/2008	17.7	Assistant Professor	Assistant Professor		Regular	Yes		No
7	Ms. Annie Paul	XXXXXXX09N	XXXXXXXXX112	M.Tech	CUSAT	Wireless Technology	02/06/2008	17.7	Assistant Professor	Assistant Professor		Regular	Yes		
8	Ms. Dhanya R	XXXXXXX16P	NA	M.E.	Anna University	Communication Systems	10/07/2017	8.6	Assistant Professor	Assistant Professor		Regular	Yes		

9	Ms. Roshni Polly	XXXXXXX31E	NA	M.Tech	Anna University	Information & Communication Engineering	23/06/2008	17	Assistant Professor	Assistant Professor		Regular	No	28/06/2025	

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	64	63	60
UG1.C	62	60	61
UG1.D	60	61	61
UG1: Robotics and Automation	**186**	**184**	**182**
UG2.B	61	64	31
UG2.C	64	30	31
UG2.D	30	31	30
UG2: Electronics & Communication Engineering	**155**	**125**	**92**
PG1.A	0	0	12
PG1.B	0	12	12
PG1: Wireless Technology	**0**	**12**	**24**
DS=Total no. of students in all UG and PG programs in the Department	186	184	182
AS=Total no. of students of all UG and PG programs in allied departments	155	137	116
S=Total no. of students in the Department (DS) and allied departments (AS)	**S1=** 341	**S2=** 321	**S3=** 298
DF=Total no. of faculty members in the Department	10	10	12
AF= Total no. of faculty members in the allied Departments	8	9	9
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	**F1=** 18	**F2=** 19	**F3=** 21

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
FF=The faculty members in F who have a 100% teaching load in the first-year courses	0	0	0
Student Faculty Ratio (SFR)=S/(F-FF)	**SFR1= 18.94**	**SFR2= 16.89**	**SFR3= 14.19**
Average SFR for 3 years	**SFR= 16.67**		

C3. Faculty Qualification

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

Table No.C3.1: Faculty qualification.

Year	X	Y	RF	FQ = 2.5 x [(10X + 4Y) / RF)]
2025-26(CAY)	4	14	17.00	14.12
2024-25(CAYm1)	4	15	16.00	15.62
2023-24(CAYm2)	4	17	14.00	19.29

C4. Faculty Cadre Proportion

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

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

Year	Professors		Associate Professors		Assistant Professors	
	Required RF1	Available AF1	Required RF2	Available AF1	Required RF3	Available AF3
2025-26	1.00	2.00	3.00	2.00	11.00	11.00
2024-25	1.00	1.00	3.00	2.00	10.00	14.00
2023-24	1.00	1.00	3.00	2.00	9.00	16.00
Average	RF1=1.00	AF1=1.33	RF2=3.00	AF2=2.00	RF2=10.00	AF2=13.67

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	Mr.Sunil Paul	Chief Executive Officer	Srishti Robotics Technologies Pvt. Ltd	Embedded Systems and IoT	25.00
2	Mr.Anfil Shajo	Managing partner	DC Robotics	Drone Technology	25.00
3	Mr.Ramesh Babu	Manager	Fanuc India Pvt.Ltd	Robot training	30.00
4	Mr. Muraleedharan.M.T	Head Of the Department	GPTCK – BOSCH REXROTH AUTOMATION CENTRE	Automation Technologies	42.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. Muraleedharan.M.T	Head Of the Department	GPTCK – BOSCH REXROTH AUTOMATION CENTRE	Automation Technologies	42.00
2	Mr.Ramesh Babu	Manager	Fanuc India Pvt.Ltd	Robot Trianing	30.00
3	Mr.Sunil Paul	Chief Executive Officer	Srishti Robotics Technologies Pvt. Ltd	Embedded Systems and IoT	25.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr.Muraleedharan.M.T	Head of the Department	GPTCK – BOSCH REXROTH AUTOMATION CENTRE	Automation Technologies	42.00
2	Mr.Sunil Paul	Chief Executive Officer	Srishti Robotics Technologies Pvt. Ltd	Embedded Systems and IoT	25.00

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	3	2	0
2	No. of peer reviewed conference papers published	6	3	28
3	No. of books/book chapters published	0	0	0

C7. Sponsored Research Project

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

(CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. Georgina Binoy Joseph h	Dr. Deepa Elizabeth George, Ms. Dhanya R	Robotics and Automation	Integration of MEMS Accelerometer and GNSS for Landslide Prediction	ACARR, CUSAT Approved by NSIL, ISRO	1 year	1.16
Dr. Georgina Binoy Joseph		Robotics and Automation	ROS Enabled Agricultural Robot with Machine learning and Custom User Interface	APJAKTU - Financial Assistance to Student Projects	1 year	0.20
Dr. S.Perumal Sankar	Dr. Deepa Elizabeth George/ Asst.Prof Dhanya.R	Robotics and Automation	Real Time Soil Moisture monitoring System	ACARR ,CUSAT Approved by NSIL, ISRO	1 year	0.25
Ms. Anu Jose		Robotics and Automation	BOT ARM - Assisting Differently Abled Students	APJAKTU - Financial Assistance to Student Projects	1 year	0.24
						Amount received (Rs.):1.85

(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. Deepa Elizabeth George		Robotics and Automation	Neuro Nav Chair	APJ KTU – Centre for Engineering Research and Development (CERD)	1 year	0.26
Dr. Georgina Binoy Joseph		Robotics and Automation	Sparklink: The Universal Autonomous UAV Battery Swapping and Charging dock with Precision Robotic Arm	APJAKTU - Financial Assistance to Student Projects	1 year	0.30
						Amount received (Rs.):0.56

(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. Deepa Elizabeth George		Robotics and Automation	Offshore Communication and Tracking System (OCTS)	Seed Support -Jilla Panchayath Local Economic Development Scheme	6 months	0.29
						Amount received (Rs.):0.29

Total Amount (Lacs) Received for the Past 3 Years: 2.70

Note*:

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

C8. Consultancy Work

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

(CAYm1)

(CAYm2)

(CAYm3)

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

Note*:

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

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

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

(CAYm1)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
NIL			0.00	0.00	
			Amount received (Rs.): 0.00		

(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. Georgina Binoy Joseph	ISRO IRoC24Challenge	1 Year	1.00	1.00	Design and Development
			Amount received (Rs.): 1.00		

(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
NIL			0.00	0.00	
			Amount received (Rs.): 0.00		

Total amount (Lacs) received for the past 3 years : 1.00

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	ROBOTICS LAB	2	1. 4 DOF Articulated Robotic Manipulator -with various end-effector options, including a suction cup, pen holder for drawing/laser engraving, and a 3D printer head, as	6 hrs- RAL 332	Mr. Prakash Mohan	Lab Instructor Gr II	MSc Electronics
2	ROS / EMBEDDED SYSTEMS LAB	2	1.Core i7, i5, and i3 computers - high- performance workstations for running ROS nodes, simulations, and robotics development tools. 2. Robot Operating System	6hrs- RAL 333	Ms. Devika Krishnan	Lab Instructor	Diploma in Electronics En
3	AUTOMATION LAB	2	1.HYDAC Hydraulic Trainer -(Model: HQ12002)-Double-sided modulartraining frame enabling simultaneous experimental setups with industrial-grade	6hrs-RAL 331	Mr. Prakash Mohan	Lab Instructor Gr II	MSc Electronics

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	ROBOTICS LAB	Electrical Infrastructure & Safety Measures: ●Equipped with Uninterruptible Power Supply (UPS) systems to prevent data loss and ensure continuous operation of PCs, sensitive instruments and hardware. ●Standard earth and grounding mechanisms are installed in compliance with electrical safety norms ●Earth Leakage Circuit Breakers (ELCBs) are installed in all labs to prevent electric shock hazards and equipment damage ●The Electrical Maintenance Department conducts regular inspections and tests on the lab's electrical systems General Safety Measures ●Every lab is equipped with a functional fire extinguisher ●A fully stocked first aid box is available and maintained in every lab for handling minor injuries or accidents ●Posters and charts displaying laboratory safety rules and emergency procedures are prominently displayed ●Wearing of lab coats & Footwear(shoes) is mandatory for all students during lab hours
2	ROS/EMBEDDED SYSTEMS LAB	Electrical Infrastructure & Safety Measures: ●Equipped with Uninterruptible Power Supply (UPS) systems to prevent data loss and ensure continuous operation of PCs, sensitive instruments & hardware. ●Standard earth and grounding mechanisms are installed in compliance with electrical safety norms ●Earth Leakage Circuit Breakers (ELCBs) are installed in all labs to prevent electric shock hazards and equipment damage ●The Electrical Maintenance Department conducts regular inspections and tests on the lab's electrical systems General Safety Measures ●Every lab is equipped with a functional fire extinguisher ●A fully stocked first aid box is available and maintained in every lab for handling minor injuries or accidents ●Posters and charts displaying laboratory safety rules and emergency procedures are prominently displayed ●Wearing of lab coats is mandatory for all students during lab hours
3	AUTOMATION LAB	Electrical Infrastructure & Safety Measures: ●Equipped with Uninterruptible Power Supply (UPS) systems to prevent data loss and ensure continuous operation of PCs , sensitive instruments & hardware ●Standard earth and grounding mechanisms are installed in compliance with electrical safety norms ●Earth Leakage Circuit Breakers (ELCBs) are installed in all labs to prevent electric shock hazards and equipment damage ●The Electrical Maintenance Department conducts regular inspections and tests on the lab's electrical systems General Safety Measures ●Every lab is equipped with a functional fire extinguisher ●A fully stocked first aid box is available and maintained in every lab for handling minor injuries or accidents ●Posters and charts displaying laboratory safety rules and emergency procedures are prominently displayed ●Wearing of lab coats & footwear (shoes) are mandatory for all students during lab hours
4	PROJECTS LAB	Electrical Infrastructure & Safety Measures: ●Equipped with Uninterruptible Power Supply (UPS) systems to prevent data loss and ensure continuous operation of PCs sensitive instruments and hardware ●Standard earth and grounding mechanisms are installed in compliance with electrical safety norms ●Earth Leakage Circuit Breakers (ELCBs) are installed in all labs to prevent electric shock hazards and equipment damage ●The Electrical Maintenance Department conducts regular inspections and tests on the lab's electrical systems General Safety Measures ●Every lab is equipped with a functional fire extinguisher ●A fully stocked first aid box is available and maintained in every lab for handling minor injuries or accidents ●Posters and charts displaying laboratory safety rules and emergency procedures are prominently displayed ●Wearing of lab coats is mandatory for all students during lab hours

D3. Project Laboratory/Research Laboratory

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)	450	22	15	0	55
2024-25(CAYm1)	480	24	16	0	53
2025-26(CAY)	570	28	16	0	46

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 2025-2026	Actual Expenses in 2025-2026 till	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till
Infrastructure Built-Up	3800000	2884185	2600000	2375445	800000	625786	1250000	1107788
Library	3500000	2779682	3500000	3351460	3100000	2917670	2700000	2629599
Laboratory equipment	12761600	7964860	11035000	10374865	3362000	3273271	6900500	8364798
Teaching and non-teaching staff salary	122000000	91667044	114000000	113900726	110500000	110296330	110000000	108777371
Outreach Programs	42000	3105	50500	32664	33000	26250	39000	6605
R&D	1117000	797006	387000	345664	300000	248216	700000	638317
Training, Placement and Industry linkage	5725000	4205924	4368000	4004126	3628000	3245828	3445000	2957092
SDGs	143500	102900	182000	174698	334000	325105	278000	70000
Entrepreneurship	200000	0	150000	112000	0	0	0	0
Others, specify	63797000	49314181	59710500	57481134	61964300	60490540	59428500	56832291
Total	**213086100**	**159718887**	**195983000**	**192152782**	**184021300**	**181448996**	**184741000**	**181383861**

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 2025-2026	Actual Expenses in 2025-2026 till	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till
Laboratory equipment	313000	310194	306000	303621	280000	280000	1365000	1351003
Software	530000	528000	64000	63720	0	0	0	0
SDGs	60000	48300	54000	48698	77000	76250	30000	28000
Support for faculty development	25000	24679	10000	9912	5000	0	5000	0
R & D	30000	0	79000	78551	44000	42503	170000	167999
Industrial Training, Industry expert, Internship	417000	342365	383000	368912	253000	247893	384000	371793
Miscellaneous Expenses*	199000	121243	181000	176409	77000	73450	18000	11989
Total	**1574000**	**1374781**	**1077000**	**1049823**	**736000**	**720096**	**1972000**	**1930784**