

NATIONAL BOARD OF ACCREDITATION

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

Program Name : Electronics & Communication Engineering	Discipline: Engineering & Technology
Level : Under Graduate	Tier: 1
Application No: 10262	Date of Submission: 09-07-2025

**PART A- Profile of the Institute**

<b>A1. Name of the Institute:</b> Indraprastha Institute of Information Technology	
Year of Establishment : 2008	Location of the Institute: Indraprastha Institute of Information Technology Delhi Okhla Industrial Estate, Phase III (Near Govind Puri Metro Station) New Delhi, India - 110020
<b>A2. Institute Address:</b> Indraprastha Institute of Inf. Tech. (IIIT) Delhi Okhla Phase -III Near Govindpuri Metro Station. Delhi, 110020 011-26907419	
City:South West	State:Delhi
Pin Code:110020	Website:www.iiitd.ac.in
Email:registrar@iiitd.ac.in	Phone No(with STD Code):011-26907510
<b>A3. Name and Address of the Affiliating University (if any):</b>	
Name of the University :	City:
State : Delhi	Pin Code: 0
<b>A4. Type of the Institution:</b> University	
<b>A5. Ownership Status:</b> Self financing	

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

- No. of UG programs: 8
- No. of PG programs: 2

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	Computer Science and Applied Mathematics	2016	--	Computer Science and Applied Mathematics
2	Engineering & Technology	UG	Computer Science and Biosciences	2018	--	Computer Science
3	Engineering & Technology	UG	Computer Science and Design	2017	--	Computer Science and Design
4	Engineering & Technology	PG	Computer Science and Engineering	2008	--	Computer Science and Engineering
5	Engineering & Technology	UG	Computer Science and Engineering	2008	--	Computer Science and Engineering
6	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence)	2019	--	Computer Science and Engineering (Artificial Intelligence)
7	Engineering & Technology	UG	Computer Science and Social Sciences	2017	--	Computer Science
8	Engineering & Technology	PG	Electronics & Communication Engineering	2012	--	Electronics and Communication Engineering
9	Engineering & Technology	UG	Electronics & Communication Engineering	2012	--	Electronics and Communication Engineering
10	Engineering & Technology	UG	Electronics Engineering (VLSI Design and Technology)	2022	--	Electronics and Communication Engineering

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

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

Name of the Department	Having Allied Departments	Name of the Program	Program Level
Electronics and Communication Engineering	No	Electronics & Communication Engineering	UG

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/COM AUTHORIT DETAILS
1	Electronics & Communication Engineering	UG	2012 / --	40	Yes	2013	60	2013	F.No. North-436653732;
<b>Sanctioned Intake for Last Five Years for the Electronics &amp; Communication Engineering</b>									
<b>Academic Year</b>		<b>Sanctioned Intake</b>							
2024-25		60							
2023-24		60							
2022-23		60							
2021-22		100							
2020-21		100							
2019-20		88							

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 :	A V Subramanyam
B. Nature of appointment:	Regular
C. Qualification:	Ph.D

### B3. Program Details

Table No.B3.1: Admission details for the program excluding those admitted through multiple entry and exit points.

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2024-25 (CAY)	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)	2020-21 (CAYm4)	2019-20 (CAYm5)	2018-19 (CAYm6)
N=Sanctioned intake of the program (as per AICTE /Competent authority)	60	60	60	100	100	80	80
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	63	56	58	95	90	84	73
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	0	0	0	0	0	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	4	4	3	5	3	6
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	63	60	62	98	95	87	79

CAY= Current Academic Year. CAYm1= Current Academic Year Minus 1 CAYm2= Current Academic Year Minus 2. LYG= Last Year Graduate. LYGM1= Last Year Graduate Minus 1. LYGM2= Last Year Graduate Minus 2.

### B4. Enrolment Ratio in the First Year

Table No. B4.1: Student enrolment ratio in the 1st year.

Year of entry	N (From Table 4.1)	N1 (From Table 4.1)	N4 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2024-25 (CAY)	60	63	0	105.00
2023-24 (CAYm1)	60	56	4	100.00
2022-23 (CAYm2)	60	58	4	103.33

Average [ (ER1 + ER2 + ER3) / 3 ] = 102.78 ≈ 100

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

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

Item	(2020-21) LYG	(2019-20) LYGm1	(2018-19) LYGm2
A* = (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any).)	100.00	87.00	80.00
B=No. of students who graduated from the program in the stipulated course duration	78.00	74.00	62.00
Success Rate (SR)= (B/A) * 100	78.00	85.06	77.50

Average SR of three batches ((SR\_1+ SR\_2+ SR\_3)/3): 80.19

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

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

Academic Performance	CAYm1( 2023-24 )	CAYm2( 2022-23 )	CAYm3 ( 2021-22 )
Mean of CGPA or mean percentage of all successful students(X)	6.52	6.24	6.46
Y=Total no. of successful students	49.00	58.00	82.00
Z=Total no. of students appeared in the examination	60.00	62.00	98.00
API [ X*(Y/Z) ]	5.32	5.84	5.41

Average API[ (AP1+AP2+AP3)/3 ] : 5.52

**B7: Academic Performance of the Second Year Students of the Program**

Table No.B7.1: Academic Performance of the Second Year Students of the Program.

Academic Performance	CAYm1 ( 2023-24 )	CAYm2 ( 2022-23 )	CAYm3 ( 2021-22 )
X=(Mean of 2nd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2nd year/10)	5.99	6.55	6.55
Y=Total no. of successful students	58.00	82.00	89.00
Z=Total no. of students appeared in the examination	58.00	82.00	89.00
API [ X * (Y/Z) ]	5.99	6.55	6.55

Average API [ (AP1 + AP2 + AP3)/3 ] : 6.36

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

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

Academic Performance	CAYm1 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-22)
X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10)	7.16	7.01	7.54
Y=Total no. of successful students	82.00	89.00	79.00
Z=Total no. of students appeared in the examination	82.00	89.00	79.00
API [ X*(Y/Z) ]:	7.16	7.01	7.54

Average API [ (AP1 + AP2 + AP3)/3 ] : 7.24

**B9. Placement, Higher Studies, and Entrepreneurship**

Table No.B9.1: Placement, higher studies, and entrepreneurship details.

Item	LYG (2020-21)	LYGm1(2019-20)	LYGm2(2018-19)
FS*=Total no. of final year students	100.00	80.00	80.00
X=No. of students placed	51.00	66.00	62.00
Y=No. of students admitted to higher studies	2.00	5.00	1.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	53.00	88.75	78.75

Average Placement Index = (P\_1 + P\_2 + P\_3)/3: 73.50 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 Associate (Regular/ Contract/ Ad hoc)
1	Sanjit Krishnan Kaul	XXXXXXX66G	Ph.D	Rutgers University, USA	ECE	27/10/2011	13.8	Assistant Professor	Professor	02/01/2023	Regular
2	Sujay Deb	XXXXXXX10K	Ph.D	Washington State University	ECE	25/06/2012	13	Assistant Professor	Professor	01/07/2022	Regular
3	Angshul Majumdar	XXXXXXX11H	Ph.D	University of British Columbia	ECE	01/10/2012	12.9	Assistant Professor	Professor	01/07/2022	Regular
4	Shobha Sundar Ram	XXXXXXX16P	Ph.D	University of Texas at Austin	ECE	18/01/2013	12.5	Assistant Professor	Associate Professor	01/07/2019	Regular
5	A V Subramanyam	XXXXXXX87E	Ph.D	Nanyang Technological University, Singapore	ECE	10/06/2013	12.1	Assistant Professor	Professor	01/07/2024	Regular
6	Vivek A Bohara	XXXXXXX05R	Ph.D	Nanyang Technological University, Singapore	ECE	16/07/2013	11.11	Assistant Professor	Professor	01/07/2022	Regular
7	Saket Anand	XXXXXXX89L	Ph.D	Rutgers University, NJ, USA	ECE	02/09/2013	11.10	Assistant Professor	Associate Professor	01/07/2020	Regular
8	Anubha Gupta	XXXXXXX07G	Ph.D	Indian Institute of Technology-Delhi	ECE	11/12/2013	11.6	Associate Professor	Professor	01/01/2019	Regular
9	Pravesh Biyani	XXXXXXX30E	Ph.D	Indian Institute of Technology-Delhi	ECE	01/05/2014	11.2	Assistant Professor	Professor	01/01/2024	Regular
10	Anand Srivastava	XXXXXXX55D	Ph.D	Indian Institute of Technology-Delhi	ECE	24/11/2014	10.7	Professor	Professor		Regular
11	Sumit J. Darak	XXXXXXX84B	Ph.D	Nanyang Technological University, Singapore	ECE	05/01/2015	10.6	Assistant Professor	Associate Professor	01/01/2020	Regular
12	Sneh Saurabh	XXXXXXX92B	Ph.D	Indian Institute of Technology-Delhi	ECE	15/06/2016	9	Assistant Professor	Professor	01/07/2024	Regular
13	Sanat K Biswas	XXXXXXX29A	Ph.D	The University of New South Wales	ECE	30/08/2017	7.10	Assistant Professor	Assistant Professor		Regular
14	Ranjan Bose	XXXXXXX57R	Ph.D	University of Pennsylvania, Philadelphia, USA	ECE	29/08/2018	6.10	Professor	Professor		Regular
15	Anuj Grover	XXXXXXX18L	Ph.D	Indian Institute of Technology-Delhi	ECE	05/02/2019	6.5	Assistant Professor	Associate Professor	01/01/2020	Regular
16	Sayan Basu Roy	XXXXXXX28R	Ph.D	IIT Delhi	ECE	15/03/2019	6.3	Assistant Professor	Assistant Professor		Regular
17	Ranjitha Prasad	XXXXXXX19C	Ph.D	Indian Institute of Science, Bangalore	ECE	02/12/2019	5.7	Assistant Professor	Assistant Professor		Regular

18	Sayak Bhattacharya	XXXXXXX06B	Ph.D	IIT Delhi	ECE	02/12/2019	5.7	Assistant Professor	Assistant Professor		Regular
19	Arani Bhattacharya	XXXXXXX28D	Ph.D	Stony Brook University	ECE	10/08/2020	4.10	Assistant Professor	Assistant Professor		Regular
20	Ram Krishna Ghosh	XXXXXXX70K	Ph.D	Indian Institute of Science, Bangalore	ECE	15/07/2021	3.11	Assistant Professor	Assistant Professor		Regular
21	Chanekar Prasad Vilas	XXXXXXX93C	Ph.D	University of Maryland College Park, USA	ECE	02/03/2022	3.4	Assistant Professor	Assistant Professor		Regular
22	Manuj Mukherjee	XXXXXXX58L	Ph.D	Indian Institute of Science, Bengaluru, India	ECE	25/07/2022	2.11	Assistant Professor	Assistant Professor		Regular
23	Abhijit Mitra	XXXXXXX07A	Ph.D	Joint Indo-UK collaboration between IIT Delhi and British Telecom (BT), UK	ECE	30/09/2022	2.9	Assistant Professor	Assistant Professor		Regular
24	Debidas Kundu	XXXXXXX55K	Ph.D	Indian Institute of Technology Kharagpur	ECE	17/07/2023	1.11	Assistant Professor	Assistant Professor		Regular
25	Shamik Sarkar	XXXXXXX33C	Ph.D	University of Utah, USA	ECE	01/09/2023	1.10	Assistant Professor	Assistant Professor		Regular
26	Pragya Kosta	XXXXXXX31D	Ph.D	University of Utah, USA	ECE	15/12/2023	1.6	Assistant Professor	Assistant Professor		Regular
27	Mohammad S. Hashmi	XXXXXXX38M	Ph.D	Cardiff University, Wales, United Kingdom	ECE	21/02/2012	10.4	Assistant Professor	Professor	01/01/2021	Regular
28	G.S.Visweswaran	XXXXXXX88C	Ph.D	India Institute of Technology Kanpur, India, in Electrical Engineering (Semiconductor Devices)	ECE	23/07/2018	3.11	Professor	Professor		Contractual Fulltime
29	Sudhanshu Shekhar Jamuar	XXXXXXX88R	Ph.D	Indian Institute of Technology, Kanpur	ECE	01/01/2020	2.11	Professor	Professor		Contractual Fulltime
30	Prabhat Munshi	XXXXXXX02M	Ph.D	Indian Institute of Technology, Kanpur, India	ECE	01/07/2022	0.6	Professor	Professor		Contractual Fulltime
31	Amlan Chakrabarti	XXXXXXX11H	Ph.D	University of Calcutta and Indian Statistical Institute	ECE	28/07/2023	0.5	Professor	Professor		Contractual Fulltime
32	Tammam Tillo	XXXXXXX08D	Ph.D	Politecnico Di Torino	ECE	18/01/2021	3.11	Professor	Professor		Regular

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 Department2 No. of PG Programs in the Department1

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

Description	CAY(2024-25)	CAYm1 (2023-24)	CAYm2 (2022-23)
UG1.B	60	60	0
UG1.C	60	0	0
UG1.D	0	0	0
<b>UG1: Electronics Engineering (VLSI Design and Technology)</b>	<b>120</b>	<b>60</b>	<b>0</b>
UG2.B	60	60	100
UG2.C	60	100	100
UG2.D	100	100	88
<b>UG2: Electronics &amp; Communication Engineering</b>	<b>220</b>	<b>260</b>	<b>288</b>
PG1.A	74	74	74
PG1.B	74	74	74
<b>PG1: Electronics &amp; Communication Engineering</b>	<b>148</b>	<b>148</b>	<b>148</b>
DS=Total no. of students in all UG and PG programs in the Department	488	468	436
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)	<b>S1= 488</b>	<b>S2= 468</b>	<b>S3= 436</b>
DF=Total no. of faculty members in the Department	26	25	23
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)	<b>F1= 26</b>	<b>F2= 25</b>	<b>F3= 23</b>
FF=The faculty members in F who have a 100% teaching load in the first-year courses	1	1	1
Student Faculty Ratio (SFR)=S/(F-FF)	<b>SFR1= 19.52</b>	<b>SFR2= 19.50</b>	<b>SFR3= 19.82</b>
Average SFR for 3 years	<b>SFR= 19.61</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 = $2.5 * [(10X + 4Y) / RF]$
2024-25(CAY)	26	0	24.00	27.08
2023-24(CAYm1)	25	0	23.00	27.17
2022-23(CAYm2)	23	0	21.00	27.38

### 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
2024-25	2.00	10.00	5.00	4.00	16.00	12.00
2023-24	2.00	8.00	5.00	7.00	15.00	10.00
2022-23	2.00	7.00	4.00	8.00	14.00	8.00

Average	RF1=2.00	AF1=8.33	RF2=4.67	AF2=6.33	RF2=15.00	AF2=10.00
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**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)

(CAYm2)

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	G.S.Visweswaran	Visiting Faculty	IIIT Delhi	ECE	160.00
2	Sudhanshu Shekhar Jamuar	Visiting Faculty	IIIT Delhi	ECE	160.00
3	Abhijit Mitra	Visiting Faculty under DST-Inspire	IIIT Delhi	ECE	80.00

**C6. Academic Research**

Table No. C6.1: Faculty publication details.

S.No.	Item	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)
1	No. of peer reviewed journal papers published	54	61	72
2	No. of peer reviewed conference papers published	59	58	65
3	No. of books/book chapters published	2	3	2

**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
Sumit Darak	No Co-PI	ECE	NavISense: Design and Prototype of NavIC Signal Processing Accelerator on Heterogeneous System-on-Chip for Remote Sensing" under Chips to Startup Programme	MEITY	5 Years	86.00
Anand Srivastava	Dr. Abhijit Mitra	ECE	Quantum Key Distribution based Ultra- Secure and Reliable optical Networks using shared fiber topology	MEITY	30 Months	187.40
Sanat K Biswas	No Co-PI	ECE	AI for Space Situational Awareness	Infosys System	1 Years	8.00
Angshul Majumdar	No Co-PI	ECE	App for medical screening in general public	Infosys System	6 months	1.50
Sanjit Kaul	Manuj Mukherjee, Chanekar Prasad Vilas, etc	ECE	Purse 2023 Program	DST	4 Years	651.00
Anubha Gupta	No Co-PI	ECE	Community AI platform for cancer research	Infosys System	1 years	10.00
Shobha Sundar Ram	No Co-PI	ECE	Radar enhanced rapid beam alignment for millimeter wave vehicular communications	TiHan _IITH	18 Month	19.97
Pravesh Biyani	No Co-PI	ECE	Licencing of Spaces for digital Advertisement	DMRC	3 Months	3.27
Abhijit Mitra	No Co-PI	ECE	(AOC)Advanced Optical Communication (C-DOT)	DOT(Dept. of telecommunication)	2.5 years	86.56
Anubha Gupta	No Co-PI	ECE	Development of an innovative low-cost deployable AI-based diagnostic tool (BCanDL tool) for hematopoietic cancers and creation of blood cancer cell atlas (BCanCell Atlas	ICMR	1 Year	38.56
Manuj Mukherjee	No Co-PI	ECE	Coding for Multiparty Interactive Communication	SERB	2 years	14.32
Prasad Vilas Chanekar	No Co-PI	ECE	Control Co-Design of Distributed parameter System	SERB	2 Years	16.19
A V Subramanyam	No Co-PI	ECE	Efficient Deep Learning for Green and Sustainable AI	Infosys CAI-IIITD	6 months	3.00
Saket Anand	No Co-PI	ECE	Autonomous Urban Mobility	Infosys System	1 year	10.00
						Amount received (Rs.):1135.77

(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
Sayan Basu Roy	No Co-PI	ECE	Higher -order Adaptive Machine Learning for safety Critical System	SERB	3 Month	12.63
Arani Bhattacharya	No Co-PI	ECE/CSE	Video Streaming over Wireless Networks	Aedia media	6 Month	36.00
Arani Bhattacharya	No Co-PI	ECE/CSE	"Can Traffic Surveillance be Made More Sustainable	CISCO	1 Year	30.24
Ranjitha Prasad	No Co-PI	ECE	Bayesian approaches for federated incremental learning	DRDO	3 Years	39.01
Arani Bhattacharya	No Co-PI	ECE/CSE	""Latency Optimization for Reliable Edge Compute Service Delivery using Reinforcement Learning"""	SERB	3 Years+Extnsn	14.75
Sujay Deb	No Co-PI	ECE	Development of microprocessor based on RISC-V ISA	Thales	NA	31.00
Subramanyam Venkata	No Co-PI	ECE	Cross modal object recognition for visual surveillance	SERB	3 Years	41.28
Sanat K Biswas	No Co-PI	ECE	RES-ISTRAC 2022-002: Multisensor data fusion and orbit determination with nonlinear estimation for space debris RADAR	Department of Space	3 Years	27.17
Sneh Saurabh	No Co-PI	ECE	Developing a Robust Timing Verification and Signoff Framework Using Machine Learning	Semiconductor Research Corporation, United States	3 years	33.67
Saket Anand	No Co-PI	ECE/CSE	AI - based Methods for Driving and Traffic Analysis on Indian Highways using Dashcam Videos	IIT DELHI	6 MONTHS	9.00
						Amount received (Rs.):274.75

(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
Ranjitha Prasad	No Co-PI	ECE	On the personalized federated learning using Meta Learning and Bayesian Neural Network	SERB	3 years	26.71
Anand Srivastava	No Co-PI	ECE	Centre for Excellence on VLC/LiFi under India - EU ICT	TSDSI	NA	0.25
Saket Anand	No Co-PI	ECE/CSE	Artificial Intelligence for Monitoring of Wildlife for Conservation (AIM - Wildlife Conservation)	SERB	3 years	61.27
Arani Bhattacharya	No Co-PI	ECE/CSE	A Real time system for casual analysis of Bugs in Cellular Networks	LinkQuest	3 years	24.00
Arani Bhattacharya	No Co-PI	ECE/CSE	Path Planning Algorithms to Minimize Cost of Measuring Performance of Cell Towers	LinkQuest	3 years	24.00
Anubha Gupta	No Co-PI	ECE	A multi-omics study and development of a prognostic computational model for COVID-19 to correlate clinical outcomes and disease sequelae with the differential immunological response, mutational and vaccination status in India	ICMR	3 years	24.28
Sayak Bhattacharya	No Co-PI	ECE	Flexible Ultra high efficiency photonics crystal solar Cell	SERB	2 years	33.00
R. K. Ghosh	No Co-PI	ECE	“Two-terminal steep slope nanoscale devices for cross-point arrays: from theory to experiment”	IIT-D and IIIT-D	2 years	10.00
Sujay Deb	No Co-PI	ECE	NoC for Safety Critical multicore processing system	THALES Group	05 Years	27.95
Anubha Gupta	No Co-PI	ECE	Development of Semi - Supervised Instance Segmentation model for Multiple Myeloma Blood Cancer Images	SERB	3 years	38.10
Anubha Gupta	No Co-PI	ECE	Exploring the use of representation learning for the analysis of cytometry big data	CAI	6 months	1.80
						Amount received (Rs.):271.36

Total Amount (Lacs) Received for the Past 3 Years: 1681.88

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
Sumit Darak	No CO-PI	ECE	Winter School	MIT PUNE	14 Days	6.39
Vivek Ashok Bohara	No CO-PI	ECE	IEEE ComSoc Society Delhi Chapter	IEEE	Unrestricted	1.23
Sumit J Darak	No Co-PI	ECE	Hardware software co-design on SoC	Apexplus Technology	1 Year	9.44
Pravesh Biyani,Dr. Sanjit Kaul	No Co-PI	ECE	IP CCTV and AVTS	Government of National Capital Territory of Delhi Transport dept. CCTV Branch	3 MONTH	4.24
						Amount received (Rs.):21.30

(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
Anubha Gupta	No Co-PI	ECE	IEEE SPS Summer Season School AI in Health care	IEEE	5 Days	2.30
Anuj Grover	No Co-PI	ECE	ST Micro	ST. Micro	39 Days	2.15
Abhijit Mitra	No Co-PI	ECE	Next Generation Optical Networks	VArious Sponsors	1 Day	0.14
Sumit Darak	No Co-PI	ECE	Winter School	MIT PUNE	14 Days	9.56
Anubha Gupta	No Co-PI	ECE	MIT Pune World Peace	MIT World peace University	2 Days	12.02
Anuj Grover	No Co-PI	ECE	VLSI Revisited 2023	Various Sponsors, ST MICRO	1 Year	1.36
Sumit Darak	No Co-PI	ECE	Hardware Sofware Co-Design on Heterogeneous SoC	ApexPlus Technology	6 months	5.37
Pravesh Biyani	No Co-PI	ECE	OSRTC	osrtc	Ongoing	100.00
Sanat K Biswas	No Co-PI	ECE	Aadyah Aerospace Pvt. Ltd	Aadyah Aerospace Pvt. Ltd	2 Years	1.00
						Amount received (Rs.):133.90

(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
Anuj Grover	No Co-PI	ECE	IEEE summer school on VLSI	ST Micro	5 Weeks	10.88
Anuj Grover	No Co-PI	ECE	"Leading Self to Excellence"	AICTE Atal	5 Days	0.93
Shobha Sundar ram	No Co-PI	ECE	Aerospace and Electronics System and Signal Processing	AICTE Atal	5 Days	0.93
Sumit Darak	No Co-PI	ECE	Artificial Intelligence on system on Chip (Soc)	AICTE Atal	5 Days	0.93
Sujay Deb	No Co-PI	ECE	Workshop on Hardware Security	SPARC	2 Days	0.00
Angshul Majumdar	No Co-PI	ECE	Signal Processing for Machine Learning	TCS	8 Months	5.66
						Amount received (Rs.):19.33

**Total amount (Lacs) received for the past 3 years: 174.53****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
Abhijit Mitra	Soft-Failure Detection and Management in Multi-Band Optical network	13.09.2023	10.00	0.00	1 conference, 1 UG manpower trained
Dr Debidas Kandu	Design and Realization of a Broadband 1-Bit Coding Metasurface	18.07.2023	10.00	5.49	"1. No. of Journals: 01 2. No. of conferences: 02 3. No. of patents: 0 4. No. of demos: 01 5. Manpower trained: 02"
Chanekar Prasad Vilas	Co-design of autonomous robot and advanced control implementation testbed	02.03.2022	10.00	4.42	1 journal, 2 conferences
			Amount received (Rs.): 30.00		

(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
Manuj Mukherjee	Coding for interactive communication : Fundamental limits and achievable schemes	19.01.2023	2.20	1.75	1 journal
			Amount received (Rs.): 2.20		

(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
Ram krishna Ghosh	Quantum Material and Devices for Energy Efficient Neuromorphic Computing: An Atomic-Level	15-07-2021	10.00	10.00	"3 journals, 1 PhD trained"
Arani Bhattachrya	Edge Computing for Efficient Traffic Surveillance	12.11.2021	5.00	0.00	Quantum Material and Devices for Energy Efficient Neuromorphic Computing: An Atomic-Level Simulation Study
			Amount received (Rs.): 15.00		

Total amount (Lacs) received for the past 3 years : 47.20

## 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	RF and Applied Electromagnetics Lab	40	Vector Network Analyzer, Spectrum Analyzer, Signal Generator, Signal	Antenna Theor	Dr. Rahul Guj	Technical Offi	PhD (RF and
2	M. Tech. Lab	60	Desktops, Cadence, Synopsys, Siemens EDA Tools	Analog CMOS,	Dr. Rahul Guj	Technical Offi	PhD (RF and
3	Advanced ECE Lab	20	5G Radio, AI camera, Drone, CPE, Server with 5G core, MEC and NMS	IP, IS, BTP, Wo	Khagendra Jc	Deputy Techr	M.Tech(Elect)
4	Anechoic Chamber Lab	20	Anechoic Chamber, Vector Network Analyzer, Desktop	Antenna Theor	Dr. Rahul Guj	Technical Offi	PhD (RF and
5	Electronics Prototyping Lab	20	PCB Fabrication Machine, 3-D Printing Machine	Antenna Theor	Mr. Abhishek	Junior Techni	B. Tech. (EC)
6	Basic Electronics Lab	50	Digital Storage Oscilloscope, Power Supply, Function Generator, Digital Trainer Kit	CTD, IE, DC, E	Mr. Abhishek	Junior Techni	B. Tech. (EC)
7	Circuits and Innovation Lab	50	Digital Storage Oscilloscope, Power Supply, Function Generator, Digital Trainer Kit	CTD, IE, DC, E	Ms. Sana Ali	Deputy Techr	M. Tech. (EC)
8	Digital Circuits Lab	42	Digital Storage Oscilloscope, Power Supply, Digital Trainer Kit,	DC, BE	Ms. Sana Ali	Deputy Techr	M. Tech. (EC)
9	Shannon Lab	40	NI USRPs, Software defined radios, Laptops, Desktops, Power	WSI, ELD, AEL	Khagendra Jc	Deputy Techr	M.Tech(Elect)

### D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures

1	Circuits & Innovation Lab	<ul style="list-style-type: none"> <li>• ESD mats for protection from voltage shocks</li> <li>• Fire extinguishers and alert sirens/speakers</li> <li>• Fume extractor for soldering purpose</li> <li>• Safety goggles to protect the eyes while soldering, metal/wood cutting, sanding, etc</li> <li>• High end instruments are allowed to be used under the supervision of a Research Engineer</li> <li>• Keep pathways clear by placing extra items (food/drinks, bags, etc.) outside the lab</li> <li>• While working with high voltage/machines in labs, students are advised to wear sensible clothing including footwear</li> <li>• Students are advised to read the assigned experiment before starting the work &amp; pay close attention to any cautions described in the laboratory exercises</li> </ul>
2	Basic Electronics Lab	<ul style="list-style-type: none"> <li>• ESD mats for protection from voltage shocks</li> <li>• Fire extinguishers and alert sirens/speakers</li> <li>• Fume extractor for soldering purpose</li> <li>• Safety goggles to protect the eyes while soldering, metal/wood cutting, sanding, etc</li> <li>• High end instruments are allowed to be used under the supervision of a Research Engineer</li> <li>• Keep pathways clear by placing extra items (food/drinks, bags, etc.) outside the lab</li> <li>• While working with high voltage/machines in labs, students are advised to wear sensible clothing including footwear</li> <li>• Students are advised to read the assigned experiment before starting the work &amp; pay close attention to any cautions described in the laboratory exercises</li> </ul>
3	Shannon Lab	<ul style="list-style-type: none"> <li>• ESD mats for protection from voltage shocks</li> <li>• Fire extinguishers and alert sirens/speakers</li> <li>• Fume extractor for soldering purpose</li> <li>• Safety goggles to protect the eyes while soldering, metal/wood cutting, sanding, etc</li> <li>• High end instruments are allowed to be used under the supervision of a Research Engineer</li> <li>• Keep pathways clear by placing extra items (food/drinks, bags, etc.) outside the lab</li> <li>• While working with high voltage/machines in labs, students are advised to wear sensible clothing including footwear</li> <li>• Students are advised to read the assigned experiment before starting the work &amp; pay close attention to any cautions described in the laboratory exercises</li> </ul>
4	RF & Applied Electromagnetics Lab	<ul style="list-style-type: none"> <li>• ESD mats for protection from voltage shocks</li> <li>• Fire extinguishers and alert sirens/speakers</li> <li>• Fume extractor for soldering purpose</li> <li>• Safety goggles to protect the eyes while soldering, metal/wood cutting, sanding, etc</li> <li>• High end instruments are allowed to be used under the supervision of a Research Engineer</li> <li>• Keep pathways clear by placing extra items (food/drinks, bags, etc.) outside the lab</li> <li>• While working with high voltage/machines in labs, students are advised to wear sensible clothing including footwear</li> <li>• Students are advised to read the assigned experiment before starting the work &amp; pay close attention to any cautions described in the laboratory exercises.</li> </ul>
5	Workshop Lab	<ul style="list-style-type: none"> <li>• ESD mats for protection from voltage shocks</li> <li>• Fire extinguishers and alert sirens/speakers</li> <li>• Fume extractor for soldering purpose</li> <li>• Safety goggles to protect the eyes while soldering, metal/wood cutting, sanding, etc</li> <li>• High end instruments are allowed to be used under the supervision of a Research Engineer</li> <li>• Keep pathways clear by placing extra items (food/drinks, bags, etc.) outside the lab</li> <li>• While working with high voltage/machines in labs, students are advised to wear sensible clothing including footwear</li> <li>• Students are advised to read the assigned experiment before starting the work &amp; pay close attention to any cautions described in the laboratory exercises.</li> </ul>
6	Advanced ECE Lab	<ul style="list-style-type: none"> <li>• ESD mats for protection from voltage shocks</li> <li>• Fire extinguishers and alert sirens/speakers</li> <li>• Fume extractor for soldering purpose</li> <li>• Safety goggles to protect the eyes while soldering, metal/wood cutting, sanding, etc</li> <li>• High end instruments are allowed to be used under the supervision of a Research Engineer</li> <li>• Keep pathways clear by placing extra items (food/drinks, bags, etc.) outside the lab</li> <li>• While working with high voltage/machines in labs, students are advised to wear sensible clothing including footwear.</li> </ul>
7	M.Tech Lab	<ul style="list-style-type: none"> <li>• Fire extinguishers and alert sirens/speakers</li> <li>• Keep pathways clear by placing extra items (food/drinks, bags, etc.) outside the lab.</li> </ul>

### D3. Project Laboratory/Research Laboratory

Type of Laboratory	Name of Laboratory
Lab IP	Introduction to Programming CSE101
Research Laboratory	Advanced Multicore Systems Lab
	Algorithms to Architecture Lab
	Automatic Control Lab
	Circuit Design Research Lab
	Intellicom Lab
	Mobility and Optimization Lab
	Nanoscale Devices and Circuits Lab
	Photonics and Quantum Electronics Lab
	Signal Processing and Biomedical Imaging Lab (SBILab)
	Space Systems Lab
	Signals Analysis for Large Scale Applications (SALSA Lab)
	Visual Conception Group
	Wirocomm Lab
	Optical networks (BITS-ON) lab
	Metasurface lab
Centre of Excellence	Centre for Intelligent Product Development
	Center for Quantum Technologies
	DataKart Centre of Excellence
	Centre of Excellence in Healthcare
	Centre for Design and New Media
	Centre of Excellence on Sustainable Mobility
	Centre of Excellence on Light Fidelity
	Infosys Centre for Artificial Intelligence- HCD
	Centre of Excellence in Human Computing
	Center for Space Technology - IIIT Delhi

## PART E: First Year faculty and financial Resources

(Data to be filled in for the first year course faculty and budget allocation and utilization)

### E1. First Year Student-Faculty Ratio (FYSFR)

Table No. E1.1: FYSFR details.

Year	Sanctioned intake of all UG programs (S4)	No. of required faculty (RF4= S4/20)	No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1)	No. of faculty members in Engineering Science Courses (NS2)	Percentage= No. of faculty members ((NS1*0.8) + (NS2*0.2))/(No. of required faculty (RF4)); Percentage= ((NS1*0.8) + (NS2*0.2))/RF
2022-23(CAYm2)	420	21	18	8	76
2023-24(CAYm1)	420	21	18	8	76
2024-25(CAY)	540	27	18	8	59

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

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

Items	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
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Infrastructure Built-Up	0	0	0	0	0	0	0	0
Library	317.99	193.69	319.01	208.22	256.12	219.85	253.00	183.51
Laboratory equipment	608.15	216.16	624.00	34.50	287.74	32.66	255.01	87.20
Teaching and non-teaching staff	5690.29	4967.52	5205.45	4635.83	4105.69	4121.00	4231.00	3744.67
Outreach Programs	0	0	0	0	0	0	0	0
R&D	80.00	25.18	85.75	58.81	105.00	13.88	60.00	26.42
Training, Placement and	0	0	3.50	0	0	0	0	0
SDGs	0	0	0	0	0	0	0	0
Entrepreneurship	0	0	0	0	0	0	0	0
others	3528.29	3111.31	3059.50	2646.38	2345.51	2409.56	1881.94	1679.93
<b>Total</b>	<b>10224.72</b>	<b>8513.86</b>	<b>9297.21</b>	<b>7583.74</b>	<b>7100.06</b>	<b>6796.95</b>	<b>6680.95</b>	<b>5721.73</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 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
Laboratory equipment	127.678	86.286	121	99.17	66.05	43.4	53.5	16.9
Software	25	10	20	11	38	33	20	10.92
SDGs	0	0	0	0	0	0	0	0
Support for faculty development	97.5	74.06	101.25	76.9	72	62.33	72	55.58
R & D	91.09	91.09	87.95	87.95	67.64	67.64	35.26	35.26
Industrial Training, Industry expert,	1	0.63	0.6	0.47	0.6	0.55	0.3	0.16
Miscellaneous Expenses*	5.68	1.64	7.87	1.24	6.52	2.17	4.22	1.29
<b>Total</b>	<b>347.948</b>	<b>263.706</b>	<b>338.67</b>	<b>276.73</b>	<b>250.81</b>	<b>209.09</b>	<b>185.28</b>	<b>120.11</b>