

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 : 11730	Date of Submission : 16-04-2026

PART A- Profile of the Institute

A1.Name of the Institute: BIRLA INSTITUTE OF TECHNOLOGY	
Year of Establishment : 1955	Location of the Institute: RANCHI JHARKHAND
A2. Institute Address: BIRLA INSTITUTE OF TECHNOLOGY, MESRA	
City:Ranchi	State:Jharkhand
Pin Code:835215	Website:www.bitmesra.ac.in
Email:vc@bitmesra.ac.in	Phone No(with STD Code):0651-2276016
A3. Name and Address of the Affiliating University (if any):	
Name of the University : NIL	City: Ranchi
State : Jharkhand	Pin Code: 835215
A4. Type of the Institution: Deemed University	
A5. Ownership Status: Self financing	

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

- No. of UG programs: **14**
- No. of PG programs: **20**

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	Architecture	UG	Architecture	1993	--	Architecture
2	Computer Application	UG	Artificial Intelligence and Machine Learning	2022	--	Computer Science and Engineering
3	Computer Application	Diploma	Computer Engineering	2002	--	Computer Science and Engineering
4	Computer Application	UG	Computer Science and Engineering	1983	--	Computer Science and Engineering
5	Computer Application	PG	Computer Science and Engineering	1999	--	Computer Science and Engineering
6	Computer Application	PG	Computer Science and Engineering (Artificial Intelligence and Machine Learning)	2021	--	Computer Science and Engineering
7	Computer Application	PG	Master in Computer Applications	1984	--	Computer Science and Engineering

8	Engineering & Technology	PG	Aerospace Engineering	1968	--	Space Engineering
9	Engineering & Technology	Diploma	Automobile Engineering	2001	--	Automobile Engineering
10	Engineering & Technology	PG	Biotechnology	2010	--	Biotechnology
11	Engineering & Technology	UG	Biotechnology	2002	--	Biotechnology
12	Engineering & Technology	UG	Chemical Engineering	2011	--	Chemical Engineering
13	Engineering & Technology	UG	Civil Engineering	1957	--	Civil Engineering
14	Engineering & Technology	Diploma	Civil Engineering	2025	--	Civil and Environmental Engineering
15	Engineering & Technology	PG	Civil Engineering	2024	--	Civil Engineering
16	Engineering & Technology	PG	Electric Vehicle Technology	2022	--	Electrical and Electronics Engineering
17	Engineering & Technology	UG	Electrical & Electronics Engineering	1955	--	Electrical and Electronics Engineering
18	Engineering & Technology	Diploma	Electrical and Electronics Engineering	2010	--	Electrical and Electronics Engineering
19	Engineering & Technology	PG	Electrical Engineering	2022	--	Electrical and Electronics Engineering
20	Engineering & Technology	Diploma	Electronics & Communication Engineering	2001	--	Electronics and Communication Engineering
21	Engineering & Technology	UG	Electronics & Communication Engineering	1960	--	Electronics and Communication Engineering
22	Engineering & Technology	PG	Electronics & Communication Engineering	2022	--	Electronics and Communication Engineering
23	Engineering & Technology	UG	Food Engineering and Technology	2023	--	Chemical Engineering
24	Engineering & Technology	UG	Information Technology	1999	2022	Computer Science and Engineering
25	Engineering & Technology	UG	Mechanical Engineering	1955	--	Mechanical Engineering
26	Engineering & Technology	Diploma	Mechanical Engineering	2010	--	Mechanical Engineering
27	Engineering & Technology	PG	Mechanical Engineering	1964	--	Mechanical Engineering
28	Engineering & Technology	UG	Production & Industrial Engineering	1964	--	Production and Industrial Engineering
29	Engineering & Technology	PG	Production and Industrial Engineering	1992	--	Production and Industrial Engineering
30	Engineering & Technology	PG	Remote Sensing	1997	--	Remote Sensing
31	Engineering & Technology	PG	Urban Planning	2007	--	Urban Planning
32	Hotel Management	UG	Hotel Management & Catering Technology	2003	--	Hotel Management
33	Management	PG	Integrated BBA + MBA	2024	--	Management
34	Management	PG	Master of Business Administration	1980	--	Management

35	Pharmacy	PG	Pharmaceutical Chemistry	1983	--	Pharmacy
36	Pharmacy	PG	Pharmaceutical Quality Assurance	2011	--	Pharmacy
37	Pharmacy	PG	Pharmaceutics	1983	--	Pharmacy
38	Pharmacy	PG	Pharmacognosy	1998	--	Pharmacy
39	Pharmacy	PG	Pharmacology	1998	--	Pharmacy
40	Pharmacy	UG	Pharmacy	1972	--	Pharmacy

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
Mechanical Engineering	No	Mechanical Engineering	UG
Electrical and Electronics Engineering	No	Electrical & Electronics Engineering	UG
Electronics and Communication Engineering	No	Electronics & Communication Engineering	UG
Production and Industrial Engineering	No	Production & Industrial 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 DURAT
1	Electronics & Communication Engineering	UG	1960 / --	5	Yes	2023	180	2023	F.No. Eastern/1-36445322347/2023/EOA	Granted accreditation for 3 years for the period (specify period)	2023	2026	4	4

Sanctioned Intake for Last Five Years for the Electronics & Communication Engineering	
Academic Year	Sanctioned Intake
2025-26	180
2024-25	180
2023-24	180
2022-23	120
2021-22	120
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 :	Sanjay Kumar
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)	180	180	180	120	120	120	120
N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	217	226	223	143	130	127	124
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	5	0	3	3	3	1	5
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	222	226	226	146	133	128	129

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)	180	217	5	123.33
2024-25 (CAYm1)	180	226	0	125.56
2023-24 (CAYm2)	180	223	3	125.56

Average [(ER1 + ER2 + ER3) / 3] = 124.82≅ 100

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

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

Item	(2021-22) LYG	(2020-21) LYGm1	(2019-20) LYGm2
A*= (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any).	133.00	128.00	129.00
B=No. of students who graduated from the program in the stipulated course duration	124.00	121.00	129.00

Success Rate (SR)= (B/A) * 100	93.23	94.53	100.00
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Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 95.92

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)	7.70	7.70	7.00
Y=Total no. of successful students	226.00	226.00	146.00
Z=Total no. of students appeared in the examination	226.00	226.00	146.00
API [X*(Y/Z)]	7.70	7.70	7.00

Average API[(AP1+AP2+AP3)/3] : 7.47

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

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

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 2nd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2rd year/10)	7.60	7.20	7.50
Y=Total no. of successful students	225.00	133.00	132.00
Z=Total no. of students appeared in the examination	226.00	146.00	133.00
API [X * (Y/Z)]	7.57	6.56	7.44

Average API [(AP1 + AP2 + AP3)/3] : 7.19

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)	7.18	7.38	7.08
Y=Total no. of successful students	133.00	128.00	125.00
Z=Total no. of students appeared in the examination	133.00	132.00	127.00
API [X*(Y/Z)]:	7.18	7.16	6.97

Average API [(AP1 + AP2 + AP3)/3] : 7.10

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	128.00	125.00	129.00
X=No. of students placed	92.00	67.00	104.00
Y=No. of students admitted to higher studies	2.00	3.00	1.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	73.44	56.00	81.40

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	Aminul Islam	XXXXXXXX21Q	Ph.D	Aligarh Muslim University, Aligarh	Electronics Engineering (VLSI DESIGN)	01/11/2006	19.5	Assistant Professor	Professor	02/09/2024	Regular	Yes		No
2	Anjini Kumar Tiwary	XXXXXXXX86F	Ph.D	Birla Institute of Technology, Mesra	RF Circuit Design	03/01/2005	19.7	Lecturer	Assistant Professor		Regular	No	13/08/2024	No
3	Deepti Gola	XXXXXXXX32Q	Ph.D	Indian Institute of Technology, Patna	Electronics Engineering (VLSI DESIGN)	06/09/2021	4.7	Assistant Professor	Assistant Professor		Regular	Yes		No
4	Dileep Kumar Upadhyay	XXXXXXXX56P	Ph.D	Birla Institute of Technology, Mesra	Microwave Engineering	25/07/2007	18.8	Assistant Professor	Assistant Professor		Regular	Yes		No
5	Gajendra Kant Mishra	XXXXXXXX00N	Ph.D	Birla Institute of Technology, Mesra	Microwave Engineering	14/07/2006	19.9	Assistant Professor	Assistant Professor		Regular	Yes		No
6	Kalyan Koley	XXXXXXXX81A	Ph.D	Jadavpur University, Kolkata	VLSI Design and Microelectronics	31/08/2021	4.7	Assistant Professor	Assistant Professor		Regular	Yes		No
7	Kartik Mahto	XXXXXXXX06B	Ph.D	Birla Institute of Technology, Mesra	Speech and Music Signal processing	01/04/1997	29	Assistant Professor	Assistant Professor		Regular	Yes		
8	Manoj Kumar Mukul	XXXXXXXX88L	Ph.D	The University of Electro-Communications, Japan	Bio-Medical Signal Processing	26/02/2007	16.10	Assistant Professor	Assistant Professor		Regular	No	05/01/2024	
9	Megha Dadel	XXXXXXXX64H	Ph.D	Birla Institute of Technology, Mesra	Microwave Engineering	06/08/2009	16.8	Assistant Professor	Assistant Professor		Regular	Yes		
10	Neela Chatteraj	XXXXXXXX01E	Ph.D	Birla Institute of Technology, Mesra	Microwave Engineering, Antennas, MEMS	06/08/2001	24.8	Assistant Professor	Associate Professor	25/07/2012	Regular	Yes		
11	Nisha Gupta	XXXXXXXX77A	Ph.D	Indian Institute of Technology, Kharagpur	RF & Microwave Engineering	01/02/1999	26.10	Assistant Professor	Professor	27/05/2005	Regular	No	29/11/2025	

12	Prajna Parimita Dash	XXXXXXXX07C	Ph.D	National Institute of Technology, Rourkela	Signal, Image, Video Processing	29/06/2013	12.9	Assistant Professor	Assistant Professor		Regular	Yes		
13	Priyank Saxena	XXXXXXXX21F	Ph.D	Birla Institute of Technology, Mesra	Image Processing	09/08/2007	18.8	Assistant Professor	Assistant Professor		Regular	Yes		
14	Richa Mishra	XXXXXXXX93M	Ph.D	Indian Institute of Technology, Kharagpur	MEMS, Microfabrication	15/09/2021	4.6	Assistant Professor	Assistant Professor		Regular	Yes		
15	Rupesh Kumar Sinha	XXXXXXXX55D	Ph.D	Birla Institute of Technology, Mesra	Instrumentation	15/04/2008	18	Assistant Professor	Assistant Professor		Regular	Yes		
16	Sandeep Singh Solanki	XXXXXXXX42J	Ph.D	Birla Institute of Technology, Mesra	Instrumentation	21/08/2000	25.7	Assistant Professor	Professor	01/07/2016	Regular	Yes		
17	Sanjay Kumar	XXXXXXXX25Q	Ph.D	Aalborg University, Denmark	Wireless Communication	02/08/2003	22.8	Assistant Professor	Professor	02/09/2024	Regular	Yes		Yes
18	Sanjaya Shankar Tripathy	XXXXXXXX72E	Ph.D	Birla Institute of Technology, Mesra	Image Processing	14/07/2006	19.9	Assistant Professor	Assistant Professor		Regular	Yes		
19	Sanjeet Kumar	XXXXXXXX46Q	Ph.D	Indian Institute of Technology, Kharagpur	Wireless Communication	14/07/2003	22.9	Assistant Professor	Assistant Professor		Regular	Yes		
20	Sant Sharan Pathak	XXXXXXXX28A	Ph.D	Indian Institute of Technology, Kharagpur	Digital Communication and Signal Processing	02/08/2021	3.10	Professor	Professor	02/08/2021	Contractual Fulltime	No	30/06/2025	
21	Santashraya Prasad	XXXXXXXX17H	Ph.D	Birla Institute of Technology, Mesra	Microwave and VLSI	01/11/2008	17.5	Assistant Professor	Assistant Professor		Regular	Yes		
22	Sitanshu Sekhar Sahu	XXXXXXXX55G	Ph.D	National Institute of Technology, Rourkela	Signal Processing and AIML	28/09/2011	14.6	Assistant Professor	Associate Professor	02/08/2021	Regular	Yes		
23	Somnath Sengupta	XXXXXXXX78B	Ph.D	Birla Institute of Technology, Mesra	Fiber Optic Communication and Sensors	14/07/2006	19.9	Assistant Professor	Assistant Professor		Regular	Yes		
24	Soumya Sidhishwari	XXXXXXXX74P	Ph.D	Birla Institute of Technology, Mesra	Fiber Optic Communication and Sensors	01/04/2009	17	Assistant Professor	Assistant Professor		Regular	Yes		
25	Srikanta Pal	XXXXXXXX06J	Ph.D	University of Oxford, UK	Microwave Engineering	15/04/2008	18	Associate Professor	Professor	01/07/2011	Regular	Yes		
26	Sukanta Kumar Dash	XXXXXXXX95F	Ph.D	Birla Institute of Technology, Mesra	Signal Processing and AIML	16/08/2004	21.8	Assistant Professor	Assistant Professor		Regular	Yes		
27	Swapn Kumar Ghorai	XXXXXXXX50E	Ph.D	Calcutta University	Optoelectronics	26/11/1990	34	Assistant Professor	Professor	27/05/2005	Regular	No	30/11/2024	

28	Vibha Rani Gupta	XXXXXXXX21B	Ph.D	Birla Institute of Technology, Mesra	RF and Microwave Engineering	07/01/2000	26.3	Assistant Professor	Professor	01/10/2011	Regular	Yes		
29	Vijay Nath	XXXXXXXX84R	Ph.D	Dr. Ram Manohar Lohiya Avadh University Ayodhya, UP	VLSI & Embedded System Design	14/07/2006	19.9	Assistant Professor	Associate Professor	01/01/2020	Regular	Yes		
30	Vishal H. Shah	XXXXXXXX47E	Ph.D	Birla Institute of Technology, Mesra	Image Processing	30/10/2006	19.5	Assistant Professor	Assistant Professor		Regular	Yes		
31	Md Afaque Azam	XXXXXXXX35D	Ph.D	Indian Institute of Technology, Kharagpur	Wireless Communication	09/05/2024	1.11	Assistant Professor	Assistant Professor		Regular	Yes		
32	Sandeep Mukherjee	XXXXXXXX23F	Ph.D	Università di Roma Tor Vergata, Italy	Wireless Communication	18/03/2024	2	Assistant Professor	Assistant Professor		Regular	Yes		
33	Sourav Dutta	XXXXXXXX86H	Ph.D	Indian Institute of Technology, Kharagpur	Wireless Communication	01/06/2024	0.8	Assistant Professor	Assistant Professor		Regular	No	07/02/2025	
34	Anusha Vupputuri	XXXXXXXX94N	Ph.D	Indian Institute of Technology, Kharagpur	Signal Processing	07/06/2024	1.10	Assistant Professor	Assistant Professor		Regular	Yes		
35	Shubham Anand	XXXXXXXX37F	Ph.D	Indian Institute of Technology, Patna	Wireless Communication	14/08/2025	0.7	Assistant Professor	Assistant Professor		Regular	Yes		
36	Tarakeswar Shaw	XXXXXXXX21E	Ph.D	Indian Institute of Engineering Science and Technology, Shibpur	Microwave Engineering	15/12/2025	0.3	Assistant Professor	Assistant Professor		Regular	Yes		

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	180	180	120
UG1.C	180	120	120
UG1.D	120	120	120
UG1: Electronics & Communication Engineering	480	420	360
PG1.A	30	30	30
PG1.B	30	30	30
PG1: Electronics & Communication Engineering	60	60	60
DS=Total no. of students in all UG and PG programs in the Department	540	480	420
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= 540	S2= 480	S3= 420
DF=Total no. of faculty members in the Department	29	30	29
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= 29	F2= 30	F3= 29
FF=The faculty members in F who have a 100% teaching load in the first-year courses	4	3	4
Student Faculty Ratio (SFR)=S/(F-FF)	SFR1= 21.60	SFR2= 17.78	SFR3= 16.80
Average SFR for 3 years	SFR= 18.73		

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)	28	1	27.00	26.30
2024-25(CAYm1)	28	2	23.00	31.30
2023-24(CAYm2)	27	2	20.00	34.75

C4. Faculty Cadre Proportion

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

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

Year	Professors		Associate Professors		Assistant Professors	
	Required RF1	Available AF1	Required RF2	Available AF1	Required RF3	Available AF3
2025-26	3.00	5.00	6.00	3.00	18.00	21.00
2024-25	3.00	4.00	5.00	5.00	16.00	20.00
2023-24	2.00	5.00	5.00	5.00	14.00	18.00
Average	RF1=2.67	AF1=4.67	RF2=5.33	AF2=4.33	RF2=16.00	AF2=19.67

C5. Visiting/Adjunct Faculty/Professor of Practice

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

(CAYm1)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Sant Sharan Pathak	Visiting Professor	Retd. Professor, IIT Kharagpur	1. Probability and Random Process 2. Digital System Design Lab	6.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Sant Sharan Pathak	Visiting Professor	Retd. Professor, IIT Kharagpur	1.Probability and Random Process 2. Digital Communication System 3. Control System 4. Information Th	15.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Sant Sharan Pathak	Visiting Professor	Retd. Professor, IIT Kharagpur	1. Signals and Systems 2. Advanced DSP 3. Probability and Random Process	12.00

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	46	38	44
2	No. of peer reviewed conference papers published	30	20	9
3	No. of books/book chapters published	3	30	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
Vijay Nath	Prashant Kumar (CSE)	ECE	Combating the Cyber Mirage: Advanced Research in Misinformation, Deepfakes and AI- Generated Fakes,	CPF Ranchi and Google.Org	1.5 Years	35.40
						Amount received (Rs.):35.40

(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
Sanjay Kumar	Sanjeet Kumar and G.K. Mishra	Department of Telecommunications (DoT). Govt of India	Setting up 5G use case lab	Department of Telecommunications (DoT). Govt of India	4 Years	72.00
						Amount received (Rs.):72.00

(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
Richa Mishra		ECE	Scalable Assembly of Painless Hollow Microneedle Array	SERB POWER	4 Years, 2022-2025	29.10
S.K.Ghorai (PI), & Spoke-TIH Members		ECE	Data Science NMICPS	IDEAS, TIH_ISI Kolkata	3 Years	100.00
HoD ECE (Program Coordinator) Dr. V. Nath (Dept. Coordinator)		ECE	Modernization of CMOS and Compound Semiconductor Devices & Circuit Laboratory	AICTE New Delhi	2 years	6.80
Nisha Gupta		ECE	Mitigation of Electromagnetic Interference and Electromagnetic Compatibility issues in Wearable IoT devices	DST SERB under DST Power scheme New Delhi	4 Years	23.22
HoD ECE (Dr. S S Solanki)	Neela Chatteraj, Sitanshu S. Sahu, S.S.Tripathy, Kartik Mahto, Priyank Saxena, Richa Mishra	ECE	DST FIST	DST FIST	6 years	178.00
Vijay Nath		ECE	Design of Ultra Low Power CMOS Temperature Sensors for Aerospace Applications	RESPOND ISRO Bangalore	7 years	25.00
Aminul Islam		ECE	Study of HEMT and its performance in amplifier circuit	DRDO	4 years	23.74
						Amount received (Rs.):385.86

Total Amount (Lacs) Received for the Past 3 Years: 493.26

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
						Amount received (Rs.):0

(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
Kartik Mahto		ECE	Development of ASTC Card for two way communication for underground mining applications	MIMEC Electronics Pvt Ltd., Ranchi	1 Year	1.10
Priyank Saxena		ECE	Development of a fire announcement system for mining applications.	MIMEC Electronics Pvt Ltd., Ranchi	2 Year	2.00
						Amount received (Rs.):3.10

(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
G. K. Mishra		ECE	Development of Range Extender (Repeater) for Walkie-Talkie Communication System	MIMEC Electronics Pvt Ltd., Ranchi	1 Year	2.00
S. S. Tripathy		ECE	Radar based proximity sensing system	Rizitek India Pvt Ltd., Ranchi	1 Year	2.00
						Amount received (Rs.):4.00

Total amount (Lacs) received for the past 3 years: 7.10**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)

(CAYm2)

(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
Richa Mishra	High Speed Two Photon Polymerization based fabrication of hollow microneedles	2 Years	5.00	4.20	Journal Publication
			Amount received (Rs.): 5.00		

Total amount (Lacs) received for the past 3 years : 5.00

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	Basic Electronics Lab	3	1. CRO 2. Function Generator 3. Multimeter 4. Microlab-II Kits 5. Voltmeter 6. Ammeter 7. Digital DIT MCOFFET 8. Power Supply 9. ICs	16 Hrs.	1. Ms Veena Toppo 2. Mr.	1. Junior Technical Supe	1. Diploma in ECE 2. Matr
2	Digital Electronics Lab	3	1. Digital Storage Oscilloscope (10 Nos.) 2. Arbitrary Function Generator (10 Nos.) 3. DC Power Supply (40 Nos.) 4. Digital Storage	18 Hrs.	Mr. Birendra Karmali	Technician	Matric, ITI & TV Repairing
3	Circuit Simulation Lab	1	1. Desktop Computers (90 NOS.) 2. NI MULTISIM (v14.1) 3. NI MULTISIM 4. (V14.2) 5. NI MULTISIM (v14.2.1) 6. ALTAIR CLOUD THINKING	40 Hrs.	Mr. Dheeraj Kumar	Senior Technical Superint	B. Tech.
4	Microprocessor Lab	1	1. HP Desktop 2. 8085 Microprocessor Trainer Kit with 3. inbuilt power supply 4. 8086 Microprocessor Trainer Kit 5. 8084 Microprocessor	18 Hrs.	Ms Veena Toppo	Junior Technical Superinte	Diploma in ECE
5	Communication Lab	3	1. Digital storage oscilloscope 100 MHz, 2. Analog CRO (30 MHz), 3. GPS Technology Trainer Kit 4. AM Transmitter 5. Receiver Kit 6. FM	28 Hrs.	Mr. Kishun Mandal	Jr. Technician	Diploma in Electrical & Ele
6	Wireless Networking Lab	3	1. Qualnet 6.1 (Teaching License with 30 users) 2. Qualnet 6.1 (Research License with 01 user) 3. Wireless Communication Models 4. WAVEFOUR	11 Hrs.	Dr. Bibha Kumari	Scientific Officer	Ph.D., UGC-NET (Electro
7	Microwave Lab	3	1. Microwave Test Bench (KU band) 2. Digital VSWR Meter 3. Microwave Test Bench 4. Variable Attenuator 5. Detector Mount 6. Micro	15 Hrs.	Ms. Sangeeta Minz	Jr Superintendent	B.A., TV Training. One Ye
8	VLSI Design Lab	3	1. Cadence Software, 2. Visual TCAD, Synopsis, Xilinx, FPGA, and CPLD Kit	12 Hrs.	1. Mr. Hiranmoy Kar 2.	Senior Technical Superint	Graduation
9	Antenna Lab	1	1. HFSS Software (Version 2019-R3) 2. Handheld Spectrum Analyzer 3. Vector Network Analyzer 4. ANNA (40 MHz - 70 GHz) 4. Wide Band (800 MHz	8 Hrs.	Dr. Bibha Kumari	Scientific Officer	Ph.D., UGC-NET (Electro
10	Signal Processing Lab	1	1. Nano Edge AI Software & STM32 board 2. TMS320C6748 board 3. Tru-IoT Kit and Accessories 4. Desktop System 5. MATLAB SOFTWARE	12 Hrs.	Ms. Veena Toppo	Junior Technical Superinte	Diploma in ECE

11	Fiber Optic Communication Lab	3	1. Fiber Optic Trainer Kit for the study of optical sources and detectors 2. Fiber Attenuation Measurement Module 3. FO Life for NA measurement	18 Hrs.	Ms. Sangeeta Minz	Jr Superintendent	B.A., TV Training. One Ye
12	Instrumentation Lab	3	1. Displacement Apparatus 2. Torque Measurements Apparatus 3. Temperature sensors Apparatus 4. Resonance Capacitance Box 5. Resonance	24 Hrs.	Mr. David Runda	Superintendent	B. Com, TV Training. One
13	Embedded System Lab	1	1. Synopsys Quantum ATK 2. Synopsys EDA Tools (Sentaurus 2D & 3D, PrimeSim HSPICE) 3. Silicon TCAD Simulator 4. Xilinx Virtex-4 Processor	24 Hrs.	Mr. Dheeraj Kumar	Senior Technical Superint	B. Tech

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	All the following laboratories in the department have the common safety measures as listed in the 'Safety measures' field. 1. Basic Electronics Lab	1. Scheduled repairs or replacements of trainer kits are done as needed. 2. Networking is maintained by skilled service staff. 3. Install fire extinguishers kept in accessible locations and regularly inspect and maintain them. 4. Wooden stations (tables) are used for keeping all lab equipment. 5. Skilled lab staff address malfunctioning equipment promptly and schedule repairs or replacements as needed. 6. UPS for Desktop Computers and lab equipment provided. 7. The First Aid box is kept. 8. Proper ventilation and lighting facilities are maintained in the laboratory. 9. Regular cleaning and dust-free maintenance of the laboratory are ensured. 10. Adequate power supply and electrical safety measures are maintained in the laboratory. 11. Students receive necessary technical assistance during practical sessions.

D3. Project Laboratory/Research Laboratory

S.N.	Name of The Laboratory	Supporting Projects, Research, The Center of Excellence, Innovation, and Startups
1.	Fiber Optics Research Lab	- Conducted Research Works and Sponsored Projects in fiber optic sensors for ISRO and DST (NM-ICPS) for distributed and embedded sensing for structural Health Monitoring applications. - Ongoing Research Works in Microwave Photonic Systems.
2.	Advance Instrumentation Lab	Product development through 3D printing.
3.	Research Lab	Simulation-based design for RF and Microwave applications
4.	Signal Processing Lab	This Lab supports projects and research in signal processing, machine learning, and computer vision.
5.	Wireless Networking Lab	Conducted Research Works for wireless communication and sensor networks.
6.	VLSI Design Lab	This lab supports research, projects, and innovations in Analog and Digital VLSI design.
7.	Antenna Lab	Conducted Research Works and Sponsored Projects in antenna, RF devices, and EMI-EMC applications.
8.	5G Use cases Lab	Conducted Research Works and Sponsored Projects in 5G communication and network.
9.	Sensor Fabrication Lab	Equipment - Maskless Laser Writer, spin coater – positive photoresist, Spin coater – negative photoresist, Ovens, Hotplates, DI water plant The primary purpose of the laboratory is to provide hands-on training in semiconductor manufacturing and microfabrication techniques for students, researchers, and faculty members. The facility supports the development and fabrication of various sensors and MEMS-based devices using photolithography and thin-film processing methods. It provides practical exposure to cleanroom processes, including photoresist coating, baking, pattern transfer, and substrate preparation. The laboratory also promotes research and innovation in advanced sensing technologies for industrial, biomedical, and environmental applications. In addition, it serves as a platform for skill development in semiconductor process technology aligned with emerging VLSI and nanotechnology research areas.
10.	UAV Lab	Project and research work for UG, PG, and PhD students on customized drone and robot design for different applications, and Consultancy work for embedded system and drone applications.

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)	930	46	52	73	122
2024-25(CAYm1)	930	46	51	75	121
2025-26(CAY)	960	48	59	85	134

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	2011500000	370599000	1194079000	260663000	1119478000	339555000	636654000	278254000
Library	22959000	18534000	21276000	15687000	27967000	11832000	22582000	20444000
Laboratory equipment	245729000	95090000	265857000	80293000	250363000	114579000	211627000	57947000
Teaching and non-teaching staff salary	1521173000	1508170000	1483810000	1429231000	1314119000	1332191000	1175614000	1116461000
Outreach Programs	11000000	11596000	11350000	8496000	10500000	5323000	12000000	4620000
R&D	50480000	119734000	70910000	114951000	65500000	104092000	69542000	85378000
Training, Placement and Industry linkage	5100000	2798000	6600000	3230000	10025000	4907000	7500000	3576000
SDGs	39400000	25835000	40094000	35824000	30141000	18763000	28965000	20288000
Entrepreneurship	6200000	3616000	5000000	1986000	5150000	1718000	9630000	1152000
Others, specify	630202000	776873000	554288000	480066000	563743000	424019000	376877000	325526000
Total	4543743000	2932845000	3653264000	2430427000	3396986000	2356979000	2550991000	1913646000

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	1375000	5478000	7969000	7143000	13418000	20417000	16952000	2846000

Software 	9300000	3771000	5357000	3674000	2242000	2289000	4090000	7601000
SDGs 	2500000	2675000	2500000	3620000	2000000	1609000	2000000	2030000
Support for faculty development  	300000	13000	300000	0	300000	407000	300000	21000
R & D 	1950000	1762000	2650000	3024000	4400000	3829000	4550000	4535000
Industrial Training, Industry expert, Internship  	250000	78000	250000	124000	250000	226000	200000	56000
Miscellaneous Expenses* 	1275000	1234000	1560000	1373000	1030000	1475000	1030000	396000
Total	16950000	15011000	20586000	18958000	23640000	30252000	29122000	17485000