

NATIONAL BOARD OF ACCREDITATION

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

Program Name : ELECTRONICS AND COMMUNICATION ENGINEERING	Discipline: Engineering & Technology
Level : Under Graduate	Tier: 2
Application No: 11751	Date of Submission: 21-04-2026

PART A- Profile of the Institute

A1.Name of the Institute: DR. B.C. ROY ENGINEERING COLLEGE	
Year of Establishment : 2000	Location of the Institute: 235444 N 873417 E
A2. Institute Address: JEMUA ROAD, FUJTHORE, DURGAPUR-713206	
City:DURGAPUR	State:West Bengal
Pin Code:713206	Website:www.bcrec.ac.in
Email:PRINCIPAL@BCREC.ORG	Phone No(with STD Code):0343-2501353
A3. Name and Address of the Affiliating University (if any):	
Name of the University : NIL	City: Nadia
State : West Bengal	Pin Code: 741249
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: **10**
- 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	Computer Application	PG	Master of Computer Application	2005	--	Computer Application
2	Engineering & Technology	UG	Civil Engineering	2010	--	Civil Engineering
3	Engineering & Technology	UG	Computer Science and Design	2021	--	Computer Science and Design
4	Engineering & Technology	UG	Computer Science and Engineering	2000	--	Computer Science and Engineering
5	Engineering & Technology	PG	Computer Science and Engineering	2009	--	Computer Science and Engineering
6	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence & Machine Learning)	2022	--	Computer Science and Engineering (Artificial Intelligence and Machine Learning)
7	Engineering & Technology	UG	Computer Science and Engineering (Cyber Security)	2024	--	Computer Science and Engineering (Cyber Security)
8	Engineering & Technology	UG	Computer Science and Engineering (Data Science)	2022	--	Computer Science and Engineering (Data Science)
9	Engineering & Technology	UG	Electrical Engineering	2000	--	Electrical Engineering
10	Engineering & Technology	PG	Electronics & Communication Engineering	2009	--	Electronics and Communication Engineering
11	Engineering & Technology	UG	ELECTRONICS AND COMMUNICATION ENGINEERING	2000	--	Electronics and Communication Engineering
12	Engineering & Technology	UG	Information Technology	2000	--	Information Technology
13	Engineering & Technology	UG	Mechanical Engineering	2003	--	Mechanical Engineering
14	Engineering & Technology	PG	Mechanical Engineering	2012	--	Mechanical Engineering

15	Engineering & Technology	PG	Power Systems	2007	--	Electrical Engineering
16	Management	PG	Master of Business Administration	2004	--	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
Electronics and Communication Engineering	No	ELECTRONICS AND 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/ AUTHO DETAIL
1	ELECTRONICS AND COMMUNICATION ENGINEERING	UG	2000 / --	60	Yes	2009	120	2009	F.No. E&C/446427

Sanctioned Intake for Last Five Years for the Electronics & Communication Engineering

Academic Year	Sanctioned Intake
2025-26	120
2024-25	120
2023-24	120
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 :	Dr. Mrinmoy Chakraborty
B. Nature of appointment:	Regular
C. Qualification:	Ph.D

B3. Program Details

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

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)	2021-22 (CAYm4)	2020-21 (CAYm5)	2019-20 (CAYm6)
N=Sanctioned intake of the program (as per AICTE /Competent authority)	120	120	120	120	120	120	120
N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	106	90	125	124	124	86	125

N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	0	6	6	12	28	12
N3=Separate division if any	0	2	1	3	1	0	2
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.	106	92	132	133	137	114	139

CAY= Current Academic Year. CAYm1= Current Academic Year Minus 1 CAYm2= Current Academic Year Minus 2. LYG= Last Year Graduate. LYGm1= Last Year Graduate Minus 1. LYGm2= Last Year Graduate Minus 2.

B4. Enrolment Ratio in the First Year

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

Year of entry	N (From Table 4.1)	N1 (From Table 4.1)	N4 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2025-26 (CAY)	120	106	0	88.33
2024-25 (CAYm1)	120	90	0	75.00
2023-24 (CAYm2)	120	125	0	104.17

Average [(ER1 + ER2 + ER3) / 3] = 89.17≅ 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
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).	132.00	148.00	137.00
B=No. of students who graduated from the program in the stipulated course duration	103.00	96.00	137.00
Success Rate (SR)= (B/A) * 100	78.03	64.86	100.00

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 80.96

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)	6.63	6.97	6.93
Y=Total no. of successful students	90.00	125.00	124.00
Z=Total no. of students appeared in the examination	90.00	125.00	124.00
API [X*(Y/Z)]	6.63	6.97	6.93

Average API[(AP1+AP2+AP3)/3] : 6.84

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

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

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 2nd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2nd year/10)	6.86	6.62	7.04
Y=Total no. of successful students	126.00	129.00	131.00
Z=Total no. of students appeared in the examination	131.00	130.00	136.00
API [X * (Y/Z)]	6.60	6.57	6.78

Average API [(AP1 + AP2 + AP3)/3] : 6.65

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)	6.92	6.72	7.28
Y=Total no. of successful students	127.00	127.00	104.00

Z=Total no. of students appeared in the examination	129.00	131.00	106.00
API [$X*(Y/Z)$]:	6.81	6.51	7.14

Average API [(AP1 + AP2 + AP3)/3] : 6.82

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	132.00	148.00	137.00
X=No. of students placed	64.00	43.00	93.00
Y=No. of students admitted to higher studies	3.00	10.00	3.00
Z= No. of students taking up entrepreneurship	1.00	0.00	0.00
Placement Index(P) = $((X + Y + Z)/FS) * 100$:	51.52	35.81	70.07

Average Placement Index = (P_1 + P_2 + P_3)/3: 52.47 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 Associ (Regul; Contra; Ad hoc
1	Dr. Mrinmoy Chakraborty	XXXXXXXX05G	Ph.D	Birla Institute Of Technology, Mesra	Antenna Design	30/04/2009	16.11	Lecturer	Associate Professor	01/02/2024	Regular
2	Dr. Khondekar Mofazzal Hossain	XXXXXXXX37R	Ph.D	NIT, Durgapur	Signal Processing	11/01/2005	21.2	Lecturer	Professor	01/03/2018	Regular
3	Dr. Tapas Mondal	XXXXXXXX54H	Ph.D	IIST, Shibpur	EM Theory / Microwave	03/02/2003	23.2	Lecturer	Associate Professor	01/07/2010	Regular
4	Ms. Keka Hajra	XXXXXXXX03C	M.Tech	The University of Burdwan	Satellite Communication	12/07/2004	21.9	Lecturer	Assistant Professor		Regular
5	Dr. Alope Saha	XXXXXXXX72E	Ph.D	Birla Institute Of Technology, Mesra	Microelectronics and VLSI Design	26/02/2009	17.1	Lecturer	Professor	01/11/2025	Regular
6	Dr. Tribeni Prasad Banerjee	XXXXXXXX32K	Ph.D	Jadavpur University	Signal Processing, VLSI, AITML, CPS	02/07/2013	12.9	Lecturer	Associate Professor	01/07/2022	Regular
7	Mr. Tapas Roy	XXXXXXXX73D	M.Tech	Calcutta University, West Bengal	Instrumentation & Control Engineering	27/03/2006	20	Lecturer	Assistant Professor		Regular
8	Dr. Aritra Bhowmik	XXXXXXXX52F	Ph.D	NIT, Durgapur	RF & Microwaves Engineering	31/03/2007	19	Lecturer	Assistant Professor		Regular
9	Ms. Dipta Chaudhuri	XXXXXXXX17M	M.Tech	NIT, Durgapur	Communication Engineering, Signal Processing	09/01/2007	19.3	Lecturer	Assistant Professor		Regular
10	Dr. Anirban Chattopadhyay	XXXXXXXX39P	Ph.D	NIT, Durgapur	Signal Processing	01/08/2008	17.8	Lecturer	Assistant Professor		Regular
11	Dr. Abhijit Banerjee	XXXXXXXX43F	Ph.D	NIT, Durgapur	Machine Learning in Robotics, Deep Reinforcement Learning	16/04/2009	17	Lecturer	Associate Professor	05/09/2024	Regular
12	Dr. Sourav Moitra	XXXXXXXX34C	Ph.D	NIT, Durgapur	Microwave Engineering	30/01/2010	16.2	Lecturer	Associate Professor	05/09/2024	Regular

13	Dr. Debipriya Dutta	XXXXXXXX18B	Ph.D	The University of Burdwan	Satellite Communication	06/02/2010	16.2	Lecturer	Assistant Professor		Regular
14	Ms. Moutusi Mondal	XXXXXXXX55Q	MS	IIT, Kharagpur	Antenna Design, IMAGE-PROCESSING	17/02/2010	16.2	Lecturer	Assistant Professor		Regular
15	Mr. Nilkamal Bhunia	XXXXXXXX15B	M.Tech	Jadavpur University	Adaptive Filter Design	23/02/2010	16.2	Lecturer	Assistant Professor		Regular
16	Mr. Pradipta Sarkar	XXXXXXXX31H	M.Tech	NIT, Durgapur	Digital VLSI Design	12/01/2016	10.3	Lecturer	Assistant Professor		Regular
17	Ms.Subhadra Debroy	XXXXXXXX59N	M.Tech	WBUT	Antenna Array Design	01/08/2019	6.8	Lecturer	Assistant Professor		Regular
18	Mr. Surajit Batabyal	XXXXXXXX50H	M.Tech	WBUT	Antenna Array Design	01/08/2019	6.8	Lecturer	Assistant Professor		Regular
19	Dr. Anup Kumar Das	XXXXXXXX02Q	Ph.D	NIT, Durgapur	Non Linear Dynamics, Chaos Synchronization, Secure Transmission, Cryptography	01/08/2019	6.8	Lecturer	Assistant Professor		Regular
20	Mr. Moloy Mukherjee	XXXXXXXX52L	M.Tech	WBUT	Communication, Signal Processing	01/04/2022	4	Lecturer	Assistant Professor		Regular
21	Dr. RamKrishna Rakshit	XXXXXXXX57L	Ph.D	Brainware University, Barasat	OPTICAL FIBRE COMMUNICATION	16/12/2005	20.4	Lecturer	Assistant Professor		Regular
22	Mr. Soumenendra Pain	XXXXXXXX96A	M.Tech	West Bengal University of Technology	Electronics & Communication, Microwave and Antenna Design	02/05/2022	3.11	Assistant Professor	Assistant Professor		Regular
23	Mr. Samujwal Roy	XXXXXXXX68C	M.Tech	NIT, Durgapur	TELECOMMUNICATION ENGINEERING (ECE)	01/11/2022	3.5	Assistant Professor	Assistant Professor		Regular
24	Dr. Ardhendu Sekhar Chattopadhyay	XXXXXXXX76F	Ph.D	Pacific University, Udaipur	Wireless Communication	11/02/2016	10.2	Assistant Professor	Assistant Professor		Regular
25	Mr. Koustav Roy	XXXXXXXX06R	M.Tech	Jadavpur University	Control System Engineering	05/05/2008	17.11	Lecturer	Assistant Professor		Regular
26	Mr. Indranil Sengupta	XXXXXXXX74E	M.Tech	West Bengal University of Technol	Communication	01/08/2019	6.8	Lecturer	Assistant Professor		Regular
27	Mr. Kaushik Ghosh	XXXXXXXX56R	M.Tech	IIT ISM Dhanbad	VLSI integrated circuit & VLSI technology	02/07/2020	5.9	Lecturer	Assistant Professor		Regular
28	Dr. Narendra Nath Pathak	XXXXXXXX11E	Ph.D	NIT, Durgapur	Synthesis of Thinned Array Antenna using Soft Computing Techniques (ECE)	01/08/2012	12	Associate Professor	Professor	09/01/2016	Regular
29	Dr. Sarit Pal	XXXXXXXX75N	Ph.D	IIT (Benaras Hindu University)	Fiber Optic Sensor, Optical Communications, Computer Networks (Electronics)	03/08/2007	17.6	Associate Professor	Professor	10/02/2010	Regular
30	Dr. Rajdeep Ray	XXXXXXXX66N	Ph.D	NIT, Durgapur	Signal Processing	31/05/2005	19.3	Lecturer	Associate Professor		Regular
31	Dr. Rajib Banerjee	XXXXXXXX51E	Ph.D	IIST Shibpur	Wireless Sensor Network (Engineering)	04/09/2009	14.9	Lecturer	Associate Professor	01/02/2024	Regular
32	Dr. Ankita Mitra	XXXXXXXX44N	Ph.D	NIT, Durgapur	Image processing	27/07/2011	14.8	Assistant Professor	Assistant 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 yearStudent 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	120	126	126
UG1.C	126	126	132
UG1.D	126	132	132
UG1: ELECTRONICS AND COMMUNICATION ENGINEERING	372	384	390
PG1.A	18	18	18
PG1.B	18	18	18
PG1: Electronics & Communication Engineering	36	36	36
DS=Total no. of students in all UG and PG programs in the Department	408	420	426
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= 408	S2= 420	S3= 426
DF=Total no. of faculty members in the Department	28	28	32
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= 28	F2= 28	F3= 32
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= 14.57	SFR2= 15.00	SFR3= 13.31
Average SFR for 3 years	SFR= 14.29		

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)	14	14	20.00	24.50
2024-25(CAYm1)	14	14	20.00	24.50
2023-24(CAYm2)	17	15	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
2025-26	2.00	1.00	5.00	6.00	14.00	21.00
2024-25	2.00	1.00	5.00	4.00	14.00	23.00
2023-24	2.00	3.00	5.00	4.00	14.00	25.00

Average	RF1=2.00	AF1=1.67	RF2=5.00	AF2=4.67	RF2=14.00	AF2=23.00
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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)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Ms. Madhurima Ray Barman	Assistant Professor	Dr. B C Roy Engineering College, Durgapur	Biology for Engineers	6.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Ms. Madhurima Ray Barman	Assistant Professor	Dr. B C Roy Engineering College, Durgapur	Biology for Engineers	6.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Ms. Madhurima Ray Barman	Assistant Professor	Dr. B C Roy Engineering College, Durgapur	Biology for Engineers	6.00

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	21	11	3
2	No. of peer reviewed conference papers published	25	11	13
3	No. of books/book chapters published	2	1	1

C7. Sponsored Research Project

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

(CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. Sourav Moitra	Smt. Keka Hajra	Electronics and Communication Engineering	Development of Body-Wearable Bandpass Filters	DRDO	2024-11-05 to continuing	47.00
						Amount received (Rs.):47.00

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

(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
Dr. Tribeni Prasad Banerjee	Dr. Aloke Saha	Electronics and Communication Engineering	Upgradation and Modernization of VLSI Lab (Phase II) to enhance teaching, training and research capabilities in VLSI domain	AICTE	2022-01-12 to 2024-01-11	13.88
						Amount received (Rs.):13.88

Total Amount (Lacs) Received for the Past 3 Years: 60.88

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
Dr. Sanjay Saheb Rao Pawar	Sri S Aik at Dey; Dr. G Our Sun Dar Mitra Thakur; Dr. Arijit Banerjee; Dr. Abhijit Banerjee	Electronics and Communication Engineering	Digital Transformation System for Prefailure Alert Generation for Motors and Cobble Reduction based on IBA data in WRM, SAIL Bhilai	UNIVITT - BAJET	2024-05-01 to continuing	37.00
						Amount received (Rs.):37.00

(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. Abhijit Banerjee	Dr. Sanjay Sengupta and son	Institute-level / ERP Cell	Enterprise Resource Planning - Development of ERP system for five allied institutes	None	2023-01-12 continuing	1.30
						Amount received (Rs.):1.30

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

Total amount (Lacs) received for the past 3 years: 38.30

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

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

Total amount (Lacs) received for the past 3 years : 0.00

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	ANALOG ELECTRONICS LAB MB 1ST FLOOR	30	Universal Trainer Kit (23); Digital Multimeter (18); Cathode Ray Oscilloscope (40); Bread Board (40);	12 Hrs. (EC-49)	Dolan Das; S	Senior Techn	B.Tech in Ele
2	BASIC ELECTRONICS LAB MB 1ST FLOOR	30	Moving Coil Dc Mili Ammeter (24); Universal Trainer Kit (21); Moving Coil Dc Voltmeter (20); Digital	Basic Electroni	Smt Dolan Das	SENIOR TEC	B.Tech in Ele
3	DIGITAL ELECTRONICS LAB MB 2ND FLOOR	30	Digital Multimeter (10); Universal Trainer Kit (9); Universal Trainer Kit (30); Bread Board (40); Digital	12 Hrs. (EC-39)	Dolan Das; S	Senior Techn	B.Tech in Ele
4	ANALOG COMMUNICATION LAB	30	Cathode Ray Oscilloscope (9); Digital Multimeter- 3&1/2 Digit (3); Bread Board (40); Ask Med 8	12 Hrs. (EC-49)	Dolan Das; S	Senior Techn	B.Tech in Ele
5	DIGITAL COMMUNICATION LAB	30	Cathode Ray Oscilloscope (9); Digital Multimeter- 3&1/2 Digit (3); Bread Board (40); Ask Med 8	12 Hrs. (EC-59)	Dolan Das; S	Senior Techn	B.Tech in Ele
6	ANTENNA & WAVE PROPAGATION LAB MB	30	Personal Computer (3); Dot Matrix Printer (2); Antenna Trainer Kit With	12 Hrs. (EC-59)	Dolan Das; S	Senior Techn	B.Tech in Ele
7	SEMICONDUCTOR AND DEVICE LAB RABINDRA	30	Computer (1)	Semiconductor	SMT DOLAN	SR. TECHNIK	B.Tech in Ele
8	VLSI LAB MB 1ST FLOOR	30	Fpga Trainer Kit (3); Vlsi Design Software (3); Computers (2); Bread Board (40); Vlsi	12 Hrs. (EC-59)	Dolan Das; S	Senior Techn	B.Tech in Ele
9	DSP LAB RABINDRA BHAWAN	30	Educational Practice Board (2); Dsp Trainer Kit (2); Dsp Trainer Kit & Accessories (4); Math (60070)	12 Hrs. (EC-59)	Dolan Das; S	Senior Techn	B.Tech in Ele
10	NETWORKING LAB MB 2ND FLOOR	30	Computers (1); Camera (1); Kit (1); Solder Iron (1); Mini Plier Set (1), Computer with Glass Packet	12 Hrs. (EC-69)	Dolan Das; S	Senior Techn	B.Tech in Ele
11	MICROPROCESSOR & MICROCONTROLLER LAB	30	Microprocessor kits; microcontroller trainer kits; interfacing boards; regulated power supplies	12 Hrs. (EC-69)	Dolan Das; S	Senior Techn	B.Tech in Ele
12	CONTROL SYSTEM LAB RABINDRA BHAWAN	30	Control-system trainer kits; servo/motor-control modules; signal	12 Hrs. (EC-69)	SMT DOLAN	SR. TECHNIK	B.Tech in Ele
13	DIGITAL SYSTEM DESIGN LAB MB 2ND FLOOR	30	HDL/FPGA development boards; PCs with design software; digital	12 Hours (EC-7)	Dolan Das; S	Senior Techn	B.Tech in Ele
14	Project Stage I	30	Utilize all the lab facilities of the respective laboratories for required	14 Hrs. (EC-78)	Dolan Das; S	Senior Techn	B.Tech in Ele
15	Project Stage II	30	Utilize all the lab facilities of the respective laboratories for required	14 Hrs. (EC-88)	Dolan Das; S	Senior Techn	B.Tech in Ele

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	INNOVATION LAB RABINDRA BHAWAN	Fire extinguishers are installed at accessible locations and first-aid boxes are available. Regulated power supply, proper earthing, circuit switch-off protocol and supervised energization are followed for all experimental and prototype circuits. Safety goggles, gloves and other PPE are used where required. Work benches are kept clean and cable routing is maintained to avoid tripping and short-circuit hazards. Soldering, desoldering, hot tools and fabrication work are permitted only at designated benches after instruction. Chemicals, consumables and hazardous materials are labelled, stored and disposed of properly. Unauthorized shifting, repair or operation of equipment is prohibited. Two-door/emergency exit access is maintained wherever available.

2	ANALOG ELECTRONICS LAB MB 1ST FLOOR	Fire extinguishers are installed at accessible locations and first-aid boxes are available. Regulated DC supplies, function generators, oscilloscopes, meters and circuit trainer kits are operated only after checking polarity, voltage rating and load limits. All circuits and equipment are properly grounded, and electrical wiring is insulated and maintained. Students use appropriate PPE such as safety goggles and gloves where required. Work areas are kept clean and tidy. Components, chemicals and consumables are labelled and stored properly. Waste materials are disposed of through designated channels. Unauthorized repair work and equipment shifting are not permitted. Emergency exit access is maintained.
3	BASIC ELECTRONICS LAB MB 1ST FLOOR	Fire extinguishers and first-aid boxes are kept accessible. Bread-board circuits, meters, regulated supplies and oscilloscopes are used under faculty/technical staff supervision. Proper grounding, insulation of wiring, switch-off protocol and polarity checks are followed before energizing circuits. Safety goggles and gloves are used wherever required. Work areas are kept clean, dry and free from loose cables. Components and consumables are labelled and stored properly. Damaged leads, probes or plugs are removed from service. Unauthorized repair, equipment shifting or unsupervised circuit energization is prohibited.
4	DIGITAL ELECTRONICS LAB MB 2ND FLOOR	Fire extinguishers and first-aid boxes are available in accessible locations. Digital trainer kits, IC testers, CROs, function generators and multimeters are operated with proper grounding and insulated wiring. Students are instructed on safe handling and storage of ICs, electronic components, patch cords and probes. Work benches are maintained clean and free from loose wires. Power is switched off before inserting or removing ICs and before changing circuit connections. Wiring and cords are labelled and maintained. Unauthorized repair work, equipment shifting and unsupervised energization are prohibited. Emergency exit access is maintained.
5	ANALOG COMMUNICATION LAB MB 2ND FLOOR	Fire extinguishers and first-aid boxes are available. AM, FM, PAM, PWM transmitter/receiver kits, CROs and associated trainer kits are operated under supervision with proper insulation, grounding and regulated supply. PPE such as goggles and gloves is used where required. Work areas are kept clean and cables are dressed to prevent tripping and loose contact. Communication modules, antennas, connectors and transmission lines are handled carefully to avoid electrical hazards and equipment damage. EMI-aware operating practice is followed to avoid interference with nearby equipment. Wiring and cords are labelled and maintained. Unauthorized repair or shifting of equipment is prohibited. Emergency exit access is maintained.
6	DIGITAL COMMUNICATION LAB MB 2ND FLOOR	Fire extinguishers and first-aid boxes are accessible. ASK, PSK, FSK, BPSK, PCM trainer kits and digital storage oscilloscopes are used with regulated supply, proper earthing and insulated wiring. Circuits are energized only after connection checks by the concerned faculty/technical staff. Communication devices, patch cords and probes are handled and stored properly. Work areas are kept clean and dry. EMI-aware operation is followed where signal-generation and measurement activities are carried out. Wiring and cords are labelled and maintained. Unauthorized repair, shifting of instruments and unsupervised equipment operation are prohibited. Emergency exit access is maintained.
7	ANTENNA & WAVE PROPAGATION LAB MB 2ND FLOOR	Fire extinguishers and first-aid boxes are available. Antenna trainers, slotted transmission lines, microwave bench components, VSWR meters, Klystron power supplies and X-band power meters are operated only under supervision. Proper insulation, grounding and connector tightening are ensured before energization. Safe distance is maintained from radiating elements and microwave/RF sources. EMI shielding and controlled operating zones are used where required to avoid interference with other equipment. PPE is used as applicable. Cables, waveguides, antenna mounts and benches are kept properly arranged. Unauthorized repair, opening of RF equipment or shifting of microwave components is prohibited. Emergency exit access is maintained.
8	SEMICONDUCTOR AND DEVICE LAB RABINDRA BHAWAN	Fire extinguishers and first-aid boxes are available. Semiconductor device trainer kits, measurement instruments and low-voltage circuits are operated with proper grounding, polarity checking and switch-off protocol. Students use PPE where required and handle devices, probes and meters carefully to avoid electrical shock, short circuits and component damage. Work areas are maintained clean and tidy. Electronic components, chemicals and consumables are labelled and stored properly. Damaged cords, probes and leads are withdrawn from use. Waste materials are disposed of properly. Unauthorized repair or equipment shifting is prohibited. Emergency exit access is maintained.

9	VLSI LAB MB 1ST FLOOR	Fire extinguishers and first-aid boxes are accessible. Computer systems, FPGA/development boards, EDA tools and associated interfaces are operated using proper shutdown, login and access-control practices. Boards, microchips and electronic components are handled using safe electrostatic-discharge-aware practice where applicable. Electrical wiring, adapters and power strips are maintained in insulated and grounded condition. Work areas are kept clean and free from loose cables. Equipment is maintained regularly to prevent accidents. Unauthorized software installation, hardware opening, repair work or shifting of systems is prohibited. Emergency exit access is maintained.
10	DSP LAB RABINDRA BHAWAN	Fire extinguishers and first-aid boxes are available. MATLAB-based computer systems, DSP platforms and measurement instruments are operated under standard laboratory supervision. Proper shutdown, access-control practice, cable management and insulated wiring are maintained. Power strips and computer peripherals are checked to prevent loose connections and overheating. Work areas are kept clean and tidy. Students are instructed not to open systems, alter wiring or shift equipment without permission. Regular maintenance of systems and tools is carried out to prevent accidents. Emergency exit access is maintained.
11	NETWORKING LAB MB 2ND FLOOR	Fire extinguishers and first-aid boxes are accessible. Computers, network switches, routers, patch panels and simulator-based systems are operated with proper power supply, grounding and cable management. Network cables and cords are labelled, routed and maintained to avoid tripping and accidental disconnection. Students are instructed on safe handling of equipment, connectors and peripherals. Work areas are kept clean and dry. Unauthorized wiring changes, device opening, repair or equipment shifting are prohibited. Regular maintenance is carried out to prevent overheating, loose contacts and electrical hazards. Emergency exit access is maintained.
12	MICROPROCESSOR & MICROCONTROLLER LAB MB 2ND FLOOR	Fire extinguishers and first-aid boxes are available. 8085 trainer kits, 8051 kits, 8255 interface modules, stepper motor interfaces and associated power supplies are operated with proper voltage rating, polarity checks, grounding and switch-off protocol. Students are supervised while connecting interface circuits and motors. PPE is used where required. Patch cords, connectors and peripherals are stored and handled carefully. Wiring is insulated, labelled and maintained. Work benches are kept clean and free from loose wires. Unauthorized repair, equipment shifting and unsupervised energization are prohibited. Emergency exit access is maintained.
13	ADVANCED PROTOTYPE LAB MB 1ST FLOOR	Fire extinguishers and first-aid boxes are accessible. Prototype circuits, fabrication tools, soldering/desoldering stations, instruments and development boards are used only under supervision. Regulated power supply, proper earthing, switch-off protocol and pre-power checks are followed. Safety goggles, gloves and other PPE are used where required. Hot tools are used only at designated benches with proper handling and cooling time. Work areas are kept clean, dry and free from clutter. Chemicals, consumables and waste are labelled, stored and disposed of properly. Unauthorized repair, shifting or use of tools is prohibited. Emergency exit access is maintained.
14	CONTROL SYSTEM LAB RABINDRA BHAWAN	Fire extinguishers and first-aid boxes are available. Control-system trainers, instrumentation units, MATLAB-based systems and measurement instruments are operated with proper grounding, regulated supply and insulated wiring. Students are instructed to verify connections and load ratings before energization. Moving parts, motors and interface units are handled under supervision to prevent mechanical and electrical hazards. Work areas are kept clean and cables are routed safely. Instruments are maintained periodically to prevent accidents. Unauthorized repair, system opening or equipment shifting is prohibited. Emergency exit access is maintained.
15	PROJECT LAB (ECE) MB 2ND FLOOR	Fire extinguishers and first-aid boxes are accessible. Project circuits, development boards, instruments, soldering/desoldering tools and prototype assemblies are operated under faculty/technical staff supervision. Regulated supplies, proper earthing, polarity checks and switch-off protocol are followed before energizing circuits. PPE is used where required. Soldering, hot tools and fabrication work are restricted to designated benches. Chemicals, batteries, consumables and hazardous materials are labelled and stored properly. Waste materials are disposed of through designated channels. Unauthorized equipment shifting, repair or unsupervised testing is prohibited. Emergency exit access is maintained.

16	M.TECH RESEARCH LAB MB 2ND FLOOR	Fire extinguishers and first-aid boxes are available. Research systems, computers, development boards, instruments and software platforms are operated with proper shutdown, access-control practice, earthing and cable management. Experimental circuits are energized only after checking voltage/current ratings and connection integrity. PPE is used where required. Work areas are maintained clean and orderly. Components, modules and consumables are stored properly. Regular maintenance of equipment and tools is carried out to prevent accidents. Unauthorized repair, software alteration, equipment shifting or unsupervised testing is prohibited. Emergency exit access is maintained.
17	DIGITAL SYSTEM DESIGN LAB MB 2ND FLOOR	Fire extinguishers and first-aid boxes are accessible. Computers, FPGA boards, digital design trainers, EDA tools and associated interfaces are used with proper shutdown, login and access-control practices. Development boards, FPGA modules and electronic components are handled carefully, with ESD-aware practice where applicable. Electrical wiring, adapters and cords are insulated, labelled and maintained. Work benches are kept clean and free from loose cables. Equipment is maintained regularly to prevent accidents. Unauthorized hardware opening, repair, software changes or equipment shifting is prohibited. Emergency exit access is maintained.

D3. Project Laboratory/Research Laboratory

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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)	690	34	25	66	96
2024-25(CAYm1)	840	42	26	67	81
2025-26(CAY)	840	42	24	68	78

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	30000000	20384672	21736000	23194346	13000000	28189417	6500000	8764935
Library	2275500	1972526	3397000	2116995	2670000	2606893	3150000	2221767
Laboratory equipment	3255000	3408126	16610000	16782739	12325000	11945130	11000000	14600437
Teaching and non-teaching staff	244250000	244800755	232100000	243070793	223190000	222473566	208000000	211490803
Outreach Programs	200000	1615	50000	62458	20000	542	50000	10866
R&D	305000	143211	1770000	593088	1160000	723286	6150000	1881426
Training, Placement and	1777000	1600652	1970000	1151640	1520000	1049506	1250000	1082973
SDGs	110000	74134	75000	96170	0	0	0	0
Entrepreneurship	100000	0	25000	7448	20000	9455	0	0

Others, specify	108290000	108765877	111508000	109834684	88276000	99185926	84670500	87332551
Total	390562500	381151568	389241000	396910361	342181000	366183721	320770500	327385758

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	500000	485364	1418000	711999	1300000	1286237	650000	667609
Software	0	0	0	0	0	0	350000	348100
SDGs	15000	0	0	0	0	0	0	0
Support for faculty development	90000	68767	50000	23250	50000	30500	50000	56383
R & D	20000	0	400000	21002	100000	12168	500000	458430
Industrial Training, Industry expert,	120000	124400	30000	25500	15000	3200	15000	5100
Miscellaneous Expenses*	249000	220724	546500	355452	334000	302439	424000	388095
Total	994000	899255	2444500	1137203	1799000	1634544	1989000	1923717