NATIONAL BOARD OF ACCREDITATION

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

Program Name : Industrial Design	**Discipline**: Engineering & Technology
Level : Under Graduate	**Tier**: 1
Application No: 10645	**Date of Submission**: 02-06-2025

PART A- Profile of the Institute

A1.Name of the Institute: NATIONAL INSTITUTE OF TECHNOLOGY, ROURKELA	
Year of Establishment : .	Location of the Institute:
A2. Institute Address:NATIONAL INSTITUTE TECHNOLOGY	
City:ROURKELA	State:Odisha
Pin Code:769008	Website:www.nitrkl.ac.in
Email:REGISTRAR@NITRKL.AC.IN	Phone No(with STD Code):0661-2472050
A3. Name and Address of the Affiliating University (if any):	
Name of the University : NIL	City:
State :	Pin Code:
A4. Type of the Institution: NIT	
A5. Ownership Status:	

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

- No. of UG programs: **16**
- No. of PG programs: **35**

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	2013	--	Architecture
2	Engineering & Technology	UG	Artificial Intelligence and Data Science	2024	--	Computer Science and Engineering
3	Engineering & Technology	PG	Biomedical Engineering	2007	--	Biotechnology and Medical Engineering
4	Engineering & Technology	UG	Biomedical Engineering	2007	--	Biotechnology and Medical Engineering
5	Engineering & Technology	UG	Biotechnology	2007	--	Biotechnology and Medical Engineering
6	Engineering & Technology	PG	Biotechnology	2007	--	Biotechnology and Medical Engineering
7	Engineering & Technology	UG	Ceramic Engineering	1994	--	Ceramic Engineering
8	Engineering & Technology	PG	Ceramic Engineering (Integrated/Dual)	2010	--	Ceramic Engineering
9	Engineering & Technology	UG	Chemical Engineering	1963	--	Chemical Engineering

10	Engineering & Technology	PG	Chemical Engineering	1981	--	Chemical Engineering
11	Engineering & Technology	PG	Chemical Engineering (Integrated/Dual)	2010	--	Chemical Engineering
12	Engineering & Technology	UG	Civil Engineering	1961	--	Civil Engineering
13	Engineering & Technology	PG	Communication and Networks	2012	--	Electronics and Communication Engineering
14	Engineering & Technology	PG	Computer Science and Engineering	1995	--	Computer Science and Engineering
15	Engineering & Technology	UG	Computer Science and Engineering	1986	--	Computer Science and Engineering
16	Engineering & Technology	PG	Control and Automation	2010	--	Electrical Engineering
17	Engineering & Technology	PG	Cryogenic and Vaccum Technology	2013	--	Mechanical Engineering
18	Engineering & Technology	UG	Electrical Engineering	1961	--	Electrical Engineering
19	Engineering & Technology	UG	Electronics & Communication Engineering	2004	--	Electronics and Communication Engineering
20	Engineering & Technology	UG	Electronics & Instrumentation Engineering	1987	--	Electronics and Communication Engineering
21	Engineering & Technology	PG	Electronics & Instrumentation Engineering	2010	--	Electronics and Communication Engineering
22	Engineering & Technology	PG	Electronics Systems & Communication	2003	--	Electrical Engineering
23	Engineering & Technology	PG	Energy and Environmental Engineering	2018	--	Chemical Engineering
24	Engineering & Technology	PG	Environmental Engineering	2023	--	Civil Engineering
25	Engineering & Technology	UG	Food Processing and Engineering	2013	--	Food Processing and Engineering
26	Engineering & Technology	PG	Food Processing and Engineering	2018	--	Food Processing and Engineering
27	Engineering & Technology	PG	Geotechnical Engineering	1971	--	Civil Engineering
28	Engineering & Technology	PG	Industrial Ceramics	2012	--	Ceramic Engineering
29	Engineering & Technology	UG	Industrial Design	2010	--	Industrial Design
30	Engineering & Technology	PG	Industrial Design	2013	--	Industrial Design
31	Engineering & Technology	PG	Information Security	2007	--	Computer Science and Engineering
32	Engineering & Technology	PG	Machine Design & Analysis	1970	--	Mechanical Engineering
33	Engineering & Technology	PG	Manufacturing and Automation Engineering	1970	--	Mechanical Engineering
34	Engineering & Technology	UG	Mechanical Engineering	1961	--	Mechanical Engineering
35	Engineering & Technology	UG	Metallurgical & Materials Engineering	1963	--	Metallurgical and Materials Engineering

36	Engineering & Technology	PG	Metallurgical and Materials Engineering	1970	--	Metallurgical and Materials Engineering
37	Engineering & Technology	PG	Metallurgical and Materials Engineering (Integrated/Dual)	2010	--	Metallurgical and Materials Engineering
38	Engineering & Technology	PG	Microwave & Radar Engineering	2018	--	Electronics and Communication Engineering
39	Engineering & Technology	PG	Mining Engineering	2013	--	Mining Engineering
40	Engineering & Technology	UG	Mining Engineering	1979	--	Mining Engineering
41	Engineering & Technology	PG	Mining Engineering (Integrated/Dual)	2010	--	Mining Engineering
42	Engineering & Technology	PG	Power Electronics & Drives	2007	--	Electrical Engineering
43	Engineering & Technology	PG	Power Systems Engineering	2017	--	Electrical Engineering
44	Engineering & Technology	PG	Signal & Image Processing	2012	--	Electronics and Communication Engineering
45	Engineering & Technology	PG	Software Engineering	2010	--	Computer Science and Engineering
46	Engineering & Technology	PG	Structural Engineering	1971	--	Civil Engineering
47	Engineering & Technology	PG	Thermal Engineering	2005	--	Mechanical Engineering
48	Engineering & Technology	PG	Transportation Engineering	2010	--	Civil Engineering
49	Engineering & Technology	PG	VLSI Design & Embedded Systems	2005	--	Electronics and Communication Engineering
50	Engineering & Technology	PG	Water Resource Engineering	2010	--	Civil Engineering
51	Management	PG	Masters in Business Administration	2010	--	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
Industrial Design	No	Industrial Design	UG
Mechanical Engineering	No	Mechanical Engineering	UG
Mining Engineering	No	Mining Engineering	UG
Civil Engineering	No	Civil Engineering	UG
Ceramic Engineering	No	Ceramic 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 ARROVAL DETAILS	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED	F D
1	Industrial Design	UG	2010 / --	30	Yes	2019	28	2019	NA	Applying first time	--	--	0	4

Sanctioned Intake for Last Five Years for the Industrial Design	
Academic Year	**Sanctioned Intake**
2024-25	28
2023-24	38
2022-23	38
2021-22	38
2020-21	38
2019-20	34

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 :	Dibya Prakash Jena
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)	28	38	38	38	38	34	30
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	28	38	36	38	38	34	30
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	1	0	10	7	2	0
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	28	39	36	48	45	36	30

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)	28	28	0	100.00
2023-24 (CAYm1)	38	38	1	102.63
2022-23 (CAYm2)	38	36	0	94.74

Average [(ER1 + ER2 + ER3) / 3] = 99.12≡ 20.00

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

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

Item	(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).	44.00	36.00	30.00
B=No. of students who graduated from the program in the stipulated course duration	44.00	36.00	27.00
Success Rate (SR)= (B/A) * 100	100.00	100.00	90.00

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 96.67

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)	8.23	8.56	8.02
Y=Total no. of successful students	39.00	35.00	47.00
Z=Total no. of students appeared in the examination	38.00	36.00	38.00
API [X*(Y/Z)]	8.45	8.32	9.92

Average API[(AP1+AP2+AP3)/3] : 8.90

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 2rd year/10)	8.54	8.21	8.03
Y=Total no. of successful students	35.00	47.00	44.00
Z=Total no. of students appeared in the examination	35.00	47.00	44.00
API [X * (Y/Z)]	8.54	8.21	8.03

Average API [(AP1 + AP2 + AP3)/3] : 8.26

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)	8.27	8.46	8.24
Y=Total no. of successful students	47.00	44.00	36.00
Z=Total no. of students appeared in the examination	47.00	44.00	36.00
API [X*(Y/Z)]:	8.27	8.46	8.24

Average API [(AP1 + AP2 + AP3)/3] : 8.32

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	44.00	36.00	30.00
X=No. of students placed	41.00	33.00	28.00
Y=No. of students admitted to higher studies	2.00	3.00	2.00
Z= No. of students taking up entrepreneurship	1.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	100.00	100.00	100.00

Average Placement Index = (P_1 + P_2 + P_3)/3: 100.00 Placement Index Points:

PART C: Faculty Details in Department and Allied Departments

(Data to be filled in for the Department and Allied Departments)

C1. Faculty details of Department and Allied Departments

Table No.C1: Faculty details in the Department for the past 3 years including CAY

Sr.No	Name of the Faculty	PAN No.	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor if any	Nature of Association (Regular/ Contract/ Ad hoc)	Currently Associated (Y/N)	In case of NO, Date of Leaving	IS HOD?
1	Dibya Prakash Jena	XXXXXXX67Q	Ph.D	IIT Bhubaneswar	Product Design, Industrial Noise Control	15/07/2015	9.9	Assistant Professor	Associate Professor	01/07/2024	Regular	Yes		Yes
2	Mohammad Rajik Khan	XXXXXXX22B	Ph.D	IIITDM Jabalpur	Computer-Aided Design	01/07/2011	13.10	Assistant Professor	Professor	29/03/2023	Regular	Yes		No
3	B.B.V.L Deepak	XXXXXXX33G	Ph.D	NIT Rourkela	Robotics and Computer Integrated Manufacturing	26/12/2011	13.4	Lecturer	Associate Professor	01/07/2024	Regular	Yes		No
4	Mohit Lal	XXXXXXX63C	Ph.D	IIT Guwahati	Machine Design	01/07/2015	9.10	Assistant Professor	Assistant Professor		Regular	Yes		No
5	Souvik Das	XXXXXXX15K	Ph.D	IIT Kharagpur	Safety Engineering and Analytics	19/07/2024	0.9	Assistant Professor	Assistant Professor		Regular	Yes		No

6	Swapnil Dipak Shinde	XXXXXXX34J	Ph.D	IIT Roorkee	Mechanisms Design	22/07/2024	0.9	Assistant Professor	Assistant Professor		Regular	Yes		No
7	B B Biswal	XXXXXXX33C	Ph.D	Jadavpur University	Robotics and Computer Integrated Manufacturing	15/04/2004	21	Assistant Professor	Professor	15/07/2011	Regular	Yes		No
8	Rohit Kumar	XXXXXXX59L	Ph.D	IIT Kanpur	Visual Communication Design	29/07/2024	0.9	Assistant Professor	Assistant Professor		Contractual Fulltime	Yes		No
9	Abhishek Verma	XXXXXXX88Q	Ph.D	IIT Kanpur	Product Design	02/08/2024	0.9	Assistant Professor	Assistant Professor		Contractual Fulltime	Yes		No
10	Ajit Kumar Sahu	XXXXXXX91B	Ph.D	IIT Guwahati	Materials and Manufacturing Engineering	15/07/2022	1.11	Assistant Professor	Assistant Professor		Contractual Fulltime	No	28/06/2024	No
11	Kuppa Sampath Kumar	XXXXXXX76B	Ph.D	NIT Rourkela	Rotor Mechanics	11/07/2022	1.11	Assistant Professor	Assistant Professor		Contractual Fulltime	No	28/06/2024	No
12	Julliet Pradhan	XXXXXXX79E	MA	NA	Fine Arts and Design	11/07/2022	1.11	Assistant Professor	Assistant Professor		Contractual Fulltime	No	28/06/2024	No

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

C2. Student-Faculty Ratio (SFR)

No. of UG(Engineering) programs in Department including allied departments/ clusters (UGn):
UG1=1st UG program
UGn=nth UG program
B= No. of Students in UG 2nd year (ST)
C= No. of Students in UG 3rd year (ST)
D= No. of Students in UG 4th year (ST)
No. of PG (Engineering) programs in Department including allied departments/ clusters (PGm):
PG1=1st PG program.
PGm=mth PG program
A= No. of Students in PG 1st year
B= No. of Students in PG 2nd year
Student Faculty Ratio **(SFR)** = S/F
S= No. of students of all programs in the Department including all students of allied departments/clusters.
No. of students (ST)=Sanctioned Intake (SA)+ Actual admitted students via lateral entry including leftover seats (L) if any (limited to 10 % of SA)
Students who admitted under supernumerary quotas (SNQ, EWS, etc) will not be considered in calculating SFR value. Those students are exempted.
F=Total no. of regular or contractual faculty members (Full Time) in the Department, including allied departments/clusters (excluding first year faculty (The faculty members who have a 100% teaching load in the first-year courses)).

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

Description	**CAY(2024-25)**	**CAYm1 (2023-24)**	**CAYm2 (2022-23)**
UG1.B	38	38	38
UG1.C	38	38	38
UG1.D	38	38	34
UG1: Industrial Design	**114**	**114**	**110**

Description	CAY(2024-25)	CAYm1 (2023-24)	CAYm2 (2022-23)
PG1.A	15	15	25
PG1.B	15	25	25
PG1: Industrial Design	**30**	**40**	**50**
DS=Total no. of students in all UG and PG programs in the Department	144	154	160
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=** 144	**S2=** 154	**S3=** 160
DF=Total no. of faculty members in the Department	9	7	7
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=** 9	**F2=** 7	**F3=** 7
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= 16.00**	**SFR2= 22.00**	**SFR3= 22.86**
Average SFR for 3 years	**SFR= 20.29**		

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 x [(10X + 4Y) / RF)]
2024-25(CAY)	9	0	7.00	32.14
2023-24(CAYm1)	7	0	7.00	25.00
2022-23(CAYm2)	7	0	7.00	25.00

C4. Faculty Cadre Proportion

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

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

Year	Professors		Associate Professors		Assistant Professors	
	Required RF1	Available AF1	Required RF2	Available AF1	Required RF3	Available AF3
2024-25	1.00	2.00	1.00	2.00	4.00	3.00
2023-24	1.00	2.00	1.00	0.00	5.00	3.00
2022-23	1.00	1.00	1.00	1.00	5.00	3.00

Average	RF1=1.00	AF1=1.67	RF2=1.00	AF2=1.00	RF2=4.67	AF2=3.00

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)

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	2	6	8
2	No. of peer reviewed conference papers published	8	0	1
3	No. of books/book chapters published	2	1	4

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
D.P. Jena	D. Choudhri	Department of Industrial Design, NIT Rourkela	Underwater Acoustic Composite Metamaterial (RACCOM)	CEFIPRA a Indo-French Collaboration	Dec. 2022 June 2025	155.50
D.P. Jena	D. Choudhri	Department of Industrial Design, NIT Rourkela	Design and Development of an anechoic water-filled duct with active impedance termination	Naval Research Board	Jan. 2023–Jan. 2026	100.40
C.S. Tiwary (PI from IIT Kgp),	D.P. Jena (PI from NIT Rkl)	Department of Industrial Design, NIT Rourkela	Design and development of an active impedance surface for a water-filled duct: Application to underwater acoustics measurement	IITG, Underwater water exploration mission (DST Sponsored)	Oct. 2023–June. 2025	36.20
D.P. Jena	C.S. Tiwary (PI from IIT Kgp)	Department of Industrial Design, NIT Rourkela	Design, development, fabrication, and experimental characterization of 3D printed hydrophone array for underwater acoustic applications”	Naval Research Board	Jan. 2023–Jan. 2026	49.75
M. Lal	D.P. Jena	Department of Industrial Design, NIT Rourkela	Design and fabrication of acoustic vector sensor applied to underwater localization of healthy coral reefs based on bio-acoustic imaging	IITG, Underwater water exploration mission (DST Sponsored)	Oct. 2023–June. 2025	29.90
D.P. Jena	B. Panda (Co-PI, IITG)	Department of Industrial Design, NIT Rourkela	Design and experimental characterization of scaled version of Bragg resonant reflection of water waves by Bragg breakwater	IITG, Underwater water exploration mission (DST Sponsored)	Oct. 2023–June. 2025	23.41
D.P. Jena	NA	Department of Industrial Design, NIT Rourkela	Acoustic characterization of smart googles	TITAN Pvt. Ltd.	Oct. 2023–June. 2025	11.70
BBVL Deepak	NA	Department of Industrial Design, NIT Rourkela	Development of laser sensor based robotic welding for producing quality welded joints	BRNS	NA	39.43
BBVL Deepak	NA	Department of Industrial Design, NIT Rourkela	Intelligent Traffic control system	Dept. of Planning & Convergence, Govt. of Odisha	NA	10.00
BBVL Deepak	NA	Department of Industrial Design, NIT Rourkela	Automation of engine and stage integration activities in assembly and test facilities area	ISRO (RESPOND)	NA	10.00
BBVL Deepak	NA	Department of Industrial Design, NIT Rourkela	Design and Characterization of lightweight auxetic soles with tuneable stiffness for foot gait abnormalities and diabetic ulcer foot	DBT	NA	22.60
						Amount received (Rs.):488.89

(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
D.P. Jena	M. Lal	Department of Industrial Design, NIT Rourkela	Modelling simulation of 3D wake geometry and bubble distribution and estimation of back scattering strength due to wake of marine vessels at sea	Naval Science Technological Laboratory (NSTL), Visakhapatnam	Jan 2023–Dec. 2023	10.00
D.P. Jena	NA	Department of Industrial Design, NIT Rourkela	Acoustic insulation design for silent room	RVR Group	Jan. 2023–Dec. 2024	14.00
D.P. Jena	NA	Department of Industrial Design, NIT Rourkela	Design of acoustic insulation for marine vessels followed by acoustic material modelling and characterization	NMRL a DRDO Laboratory	Oct. 2023–Sep. 2024	10.00
						Amount received (Rs.):34.00

(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
Mohit Lal & D P Jena	NA	Department of Industrial Design, NIT Rourkela	Modelling & simulation of 3D wake geometry and bubble distribution and estimation of back scattering strength due to wake of marine vessels at sea.	NSTL DRDO	1	10.00
Mohammed Rajik Khan	NA	Department of Industrial Design, NIT Rourkela	Development of customized Sit-to-Stand (S2) trajectory-based mobility assistive device	CRG, SERB	03	28.64
P.S. Balaji	D.P. Jena, D. Choudhri	Department of Mechaical Engineering, NIT Rourkela	Design and Development of Vibration Isolators Using Negative Stiffness Mechanism	ISRO	1.5	16.50
						Amount received (Rs.):55.14

Total Amount (Lacs) Received for the Past 3 Years: 578.03

Note*:

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

C8. Consultancy Work

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

(CAYm1)

(CAYm2)

(CAYm3)

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
D.P. Jena	P.S. Balaji	Department of Industrial Design, NIT Rourkela	Design review, modelling and experimental analysis of VTOL UAV for defense applications	Inditron India Electronics Bangalore	12 months	7.67
D.P. Jena	NA	Department of Industrial Design, NIT Rourkela	Consultant for fan noise reduction	V-Guard	7 months	17.00
D.P. Jena	NA	Department of Industrial Design, NIT Rourkela	Consulting on acoustic materials design, measurement and measurement software development	ECOTONE Systems Delhi	21 months	26.85
D.P. Jena	NA	Department of Industrial Design, NIT Rourkela	Vibration and acoustic measurement, analysis, prognosis, and recommendations	MAPLE Consultants Delhi	18 months	24.54
D.P. Jena	NA	Department of Industrial Design, NIT Rourkela	Consultant for Setting-up Audio Lab at Logitech R&D research center Chennai: Phase-II", Logitech Chennai (Industrial Consultancy & Research)	Logitech R&D research center Chennai	12 Months	10.05
D.P. Jena	NA	Department of Industrial Design, NIT Rourkela	Consultant for Setting-up Audio Lab at Logitech R&D research center Chennai: Phase-I", Logitech Chennai (Industrial Consultancy & Research)	Logitech R&D research center Chennai	12 Months	11.35
						Amount received (Rs.):97.46

Total amount (Lacs) received for the past 3 years: 97.46

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)

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

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	Product Design and Development Laboratory	36	CNC Milling, CNC Lathe	06 hours	Nagmani	Senior Technical Assista	Diploma

2	Reverse Engineering and Rapid Manufacturing Laboratory	44	Faro Arm, Dimension 1200es RP FDM system, Mozo 3D printer	06 hours	Nagmani	Senior Technical Assista	Diploma
3	Advanced Ergonomics Laboratory (Spring)	3	Anthropometry setup, Skinfold caliper, hand pressure sensor, hand dynamometer, pinch gauge,	03 hours	Ranjan	Senior Technical Assista	Diploma
4	Ergonomics Laboratory (Autumn)	4	Anthropometry setup, Skinfold caliper, hand pressure sensor, hand dynamometer, pinch gauge,	03 hours	Ranjan	Senior Technical Assista	Diploma
5	Creative Automation Laboratory	4	Yaskawa welding robot, Kawasaki six axis Robot, MAPS, Quest Robot	03 hours	Nagmani	Senior Technical Assista	Diploma
6	Product Design& development Laboratory	4	Compact mill, flex turn	10 Hours	Nagmani	Senior Technical Assista	Diploma

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Applied Ergonomics (Spring)	• Fire extinguishers and smoke detectors are placed visibly for safety. • Laboratory is well-ventilated and illuminated to provide a comfortable and safe working environment.
2	Ergonomics (Autumn)	• Fire extinguishers and smoke detectors are placed visibly for safety. • Laboratory is well-ventilated and illuminated to provide a comfortable and safe working environment.
3	Creative Automation Laboratory	• Smoke detector, fire extinguisher, safety glass, and safety gloves are available.
4	Product Design and Development Laboratory	Smoke detector, fire extinguisher, • Safety glasses, and safety gloves are available.

D3. Project Laboratory/Research Laboratory

S.N.	Name of the Laboratory
1.	Human Simulation Laboratory
2.	Underwater Acoustics Facility
3.	Industrial Acoustics Lab

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)	911	46	51	31	102
2023-24(CAYm1)	908	45	52	54	116
2024-25(CAY)	916	46	62	75	140

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
Infrastructure Built-Up	2682.00	0.00	1523.95	1523.95	2424.33	2424.33	1997.22	806.72
Library	450.00	0.00	375.42	375.42	181.40	181.40	422.30	422.30
Laboratory equipment	361.60	0.00	261.63	261.63	514.77	514.77	455.48	455.48
Teaching and non-teaching staff salary	17925.00	289.86	16293.00	16293.00	14520.00	14316.92	11845.96	11806.60
Outreach Programs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
R&D	679.00	12.49	662.56	662.56	330.71	330.71	311.49	311.49
Training, Placement and Industry linkage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SDGs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Entrepreneurship	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Others, specify	11208.00	125.23	11442.06	10336.21	10542.45	10369.44	8601.5	8522.86
Total	**33305.60**	**427.58**	**30558.62**	**29452.77**	**28513.66**	**28137.57**	**23633.95**	**22325.45**

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	500000	450000	300000	270000	300000	250000	300000	250000
Software	0	0	0	0	0	0	0	0
SDGs	0	0	0	0	0	0	0	0
Support for faculty development	200000	150000	100000	80000	100000	80000	100000	80000
R & D	0	0	0	0	0	0	0	0
Industrial Training, Industry expert, Internship	0	0	0	0	0	0	0	0
Miscellaneous Expenses*	200000	129157	100000	28618	100000	56539	100000	45324
Total	**900000**	**729157**	**500000**	**378618**	**500000**	**386539**	**500000**	**375324**