

NATIONAL BOARD OF ACCREDITATION

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

Program Name : Automobile Engineering	Discipline : Engineering & Technology
Level : Under Graduate	Tier : 2
Application No : 12022	Date of Submission : 17-07-2026

PART A- Profile of the Institute

A1.Name of the Institute : DR. SUDHIR CHANDRA SUR INSTITUTE OF TECHNOLOGY AND SPORTS COMPLEX	
Year of Establishment : 2009	Location of the Institute: Kolkata
A2. Institute Address :540, DUM DUM ROAD, SURERMATH, NEAR DUM DUM JN. STATION, KOLKATA-700074	
City:North 24 Parganas	State:West Bengal
Pin Code:700074	Website:www.surtech.edu.in
Email:info@dsec.ac.in	Phone No(with STD Code):033-25603898
A3. Name and Address of the Affiliating University (if any):	
Name of the University : MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY W	City: Nadia
State : West Bengal	Pin Code: 741249
A4. Type of the Institution : Autonomous CAY(2029-30)	
A5. Ownership Status : Self financing	

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

- No. of UG programs: **10**
- No. of PG programs: **3**

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

Sr.No.	Discipline	Level of program	Name of the program	Year of Start	Year of Closed	Name of The Department
1	Engineering & Technology	UG	Automobile Engineering	2009	--	Automobile Engineering
2	Engineering & Technology	UG	Civil Engineering	2012	--	Civil Engineering
3	Engineering & Technology	UG	Computer Science and Engineering	2009	--	Computer Science and Engineering
4	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence & Machine Learning)	2022	--	Computer Science and Engineering (Artificial Intelligence and Machine Learning)
5	Engineering & Technology	UG	Computer Science and Engineering (Cyber Security)	2024	--	Computer Science and Engineering (Cyber Security)
6	Engineering & Technology	UG	Computer Science and Engineering (Data Science)	2024	--	Computer Science and Engineering (Data Science)
7	Engineering & Technology	UG	Electrical Engineering	2011	--	Electrical Engineering
8	Engineering & Technology	UG	Electronics & Communication Engineering	2009	--	Electronics and Communication Engineering

9	Engineering & Technology	PG	Electronics & Communication Engineering	2013	--	Electronics and Communication Engineering
10	Engineering & Technology	UG	Electronics and Computer Science	2024	--	Electronics and Computer Science
11	Engineering & Technology	PG	Mechanical Engineering	2012	--	Mechanical Engineering
12	Engineering & Technology	UG	Mechanical Engineering	2009	--	Mechanical Engineering
13	Engineering & Technology	PG	Structural Engineering	2024	--	Civil Engineering

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

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

Name of the Department	Having Allied Departments	Name of the Program	Program Level
Computer Science and Engineering	Yes	Computer Science and Engineering	UG
Electronics and Communication Engineering	No	Electronics & Communication Engineering	UG
Automobile Engineering	Yes	Automobile Engineering	UG
Civil Engineering	No	Civil 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)

Allied Department/Cluster Name	Program Name	Program Level
Mechanical Engineering	Mechanical Engineering	UG
Mechanical Engineering	Mechanical Engineering	PG

PART-B: Program information

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

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

SR.NO.	PROGRAM NAME	PROGRAM APPLIED LEVEL	YEAR OF START / YEAR OF CLOSED	SANCTIONED INTAKE	INCREASE/DECREASE INTAKE (if any)	YEAR OF INCREASE/DECREASE	CURRENT INTAKE	YEAR OF AICTE APPROVAL	AICTE/COMPETENT AUTHORITY ARROVAL DETAILS	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED	PROGR DURAT
1	Automobile Engineering	UG	2009 / --	60	No	NA	60	2009	F.No. 06/07/Assam/Engg./2009/03	Granted accreditation for 3 years for the period (specify period)	2023	2026	1	4

List of the Allied Departments/Cluster and Programs:

SR.NO.	ALLIED DEPARTMENT NAME	PROGRAM NAME	PROGRAM APPLIED LEVEL	YEAR OF START / YEAR OF CLOSED	SANCTIONED INTAKE	INCREASE/DECREASE INTAKE (if any)	YEAR OF INCREASE/DECREASE	CURRENT INTAKE	YEAR OF AICTE APPROVAL	AICTE/COMPETENT AUTHORITY ARROVAL DETAILS	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED
1	Mechanical Engineering	Mechanical Engineering	UG	2009 / --	60	Yes	2020	30	2020	F.No. Eastern/1-7013831861/2020/EOA	Eligible but not applied	--	--	0
2	Mechanical Engineering	Mechanical Engineering	PG	2012 / --	18	No	NA	18	2012	F.No. Eastern/1-707685612/2012/EOA	Eligible but not applied	--	--	0

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

A. Name of the HoD :	Dr. Hrishiraj Ranjan
B. Nature of appointment:	Regular
C. Qualification:	Ph.D

B3. Program Details

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

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)	2021-22 (CAYm4)	2020-21 (CAYm5)	2019-20 (CAYm6)
N=Sanctioned intake of the program (as per AICTE /Competent authority)	60	60	60	60	60	60	60
N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	52	50	50	48	48	45	45
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	6	4	5	5	5	3
N3=Separate division if any	0	0	0	0	0	0	0
N4=Total no. of students admitted in the 1st year via all supernumerary quotas	0	0	0	0	0	0	0
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	52	56	54	53	53	50	48

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

B4. Enrolment Ratio in the First Year

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

Year of entry	N (From Table 4.1)	N1 (From Table 4.1)	N4 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2025-26 (CAY)	60	52	0	86.67
2024-25 (CAYm1)	60	50	0	83.33

2023-24 (CAYm2)	60	50	0	83.33
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Average [(ER1 + ER2 + ER3) / 3] = 84.44≡ 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).	65.00	65.00	63.00
B=No. of students who graduated from the program in the stipulated course duration	53.00	50.00	48.00
Success Rate (SR)= (B/A) * 100	81.54	76.92	76.19

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 78.22

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)
X=(Mean of 1st 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 1st year/10)	7.82	7.67	7.62
Y=Total no. of successful students	50.00	50.00	48.00
Z=Total no. of students appeared in the examination	50.00	50.00	48.00
API [X*(Y/Z)]	7.82	7.67	7.62

Average API[(AP1+AP2+AP3)/3] : 7.70

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)	8.00	7.82	7.80
Y=Total no. of successful students	54.00	53.00	53.00
Z=Total no. of students appeared in the examination	54.00	53.00	53.00
API [X * (Y/Z)]	8.00	7.82	7.80

Average API [(AP1 + AP2 + AP3)/3] : 7.87

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)	8.54	8.40	8.37
Y=Total no. of successful students	53.00	53.00	50.00
Z=Total no. of students appeared in the examination	53.00	53.00	50.00
API [X*(Y/Z)]:	8.54	8.40	8.37

Average API [(AP1 + AP2 + AP3)/3] : 8.44

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	65.00	65.00	63.00
X=No. of students placed	45.00	42.00	41.00
Y=No. of students admitted to higher studies	2.00	2.00	2.00
Z= No. of students taking up entrepreneurship	1.00	1.00	0.00
Placement Index(P) = $((X + Y + Z)/FS) * 100$:	73.85	69.23	68.25

Average Placement Index = $(P_1 + P_2 + P_3)/3$: 70.44 Placement Index Points:**PART C: Faculty Details in Department and Allied Departments****(Data to be filled in for the Department and Allied Departments)****C1. Faculty details of Department and Allied Departments**

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

Sr.No	Name of the Faculty	PAN No.	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor if any	Nature of Association (Regular/ Contract/ Ad hoc)	Currently Associated (Y/N)	In case of NO, Date of Leaving	IS HOD?
1	Dr. Arpita Chatterjee	XXXXXXXX69N	Ph.D	National Institute of Technology, Manipur	Mechanical Engineering	13/01/2014	12.5	Assistant Professor	Associate Professor	01/07/2024	Regular	Yes		No
2	Dr. Debjit Misra	XXXXXXXX84H	Ph.D	Indian Institute of Technology Bombay	Manufacturing Engineering	17/06/2023	3	Associate Professor	Associate Professor	17/06/2023	Regular	Yes		No
3	Dr. Hrishiraj Ranjan	XXXXXXXX91P	Ph.D	IEST, Shibpur	Thermal Engineering	04/07/2024	2	Assistant Professor	Associate Professor	23/10/2024	Regular	Yes		Yes
4	Arindam Mukherjee	XXXXXXXX28G	M.Tech	Maulana Abul Kalam Azad University of Technology, West Bengal	Production Engineering	04/07/2016	10	Assistant Professor	Assistant Professor		Regular	Yes		No
5	Dr. Sk Tanbir Islam	XXXXXXXX14N	Ph.D	Jadavpur University	Material Science	08/06/2021	5.1	Assistant Professor	Associate Professor	04/01/2022	Regular	Yes		No
6	Kalyan Mukherjee	XXXXXXXX16G	M.Tech	Maulana Abul Kalam Azad University of Technology, West Bengal	Industrial Engineering	18/06/2018	8	Assistant Professor	Assistant Professor		Regular	Yes		No

7	Shankha Ghosh	XXXXXXX66J	M.Tech	Amity University, Noida	Automobile Engineering	05/02/2020	6.5	Assistant Professor	Assistant Professor		Regular	Yes		No
8	Pritam Bhattacharjee	XXXXXXX09R	M.Tech	Maulana Abul Kalam Azad University of Technology, West Bengal	Industrial Engineering	26/04/2021	5.2	Assistant Professor	Assistant Professor		Regular	Yes		No
9	Soumyabrata Chakraborty	XXXXXXX31J	M.E.	Jadavpur University	Laser Science and Technology (Mechanical)	07/05/2024	2.2	Assistant Professor	Assistant Professor		Regular	Yes		No
10	Goutam Chakraborty	XXXXXXX92K	M.Tech	Maulana Abul Kalam Azad University of Technology, West Bengal	Production Engineering	05/03/2025	1.4	Assistant Professor	Assistant Professor		Regular	Yes		No
11	Dr. Debabrata Das	XXXXXXX84R	Ph.D	National Institute of Technology, Durgapur	Supply Chain Management	03/07/2023	3	Professor	Professor	03/07/2023	Regular	Yes		No
12	Subarno Bhattacharyya	XXXXXXX42K	M.Tech	Veer Madho Singh Bhandari Uttarakhand Technical University	Renewable Energy	05/07/2022	2.11	Assistant Professor	Assistant Professor		Regular	No	28/06/2025	No
13	Dr. Ranendra Roy	XXXXXXX03E	Ph.D	IEST, Shibpur	Thermal Engineering	03/08/2020	3.10	Assistant Professor	Associate Professor	01/08/2022	Regular	No	07/06/2024	No
14	Subhajit Banerjee	XXXXXXX43M	M.Tech	Maulana Abul Kalam Azad University of Technology, West Bengal	Production Engineering	03/07/2019	4.11	Assistant Professor	Assistant Professor		Regular	No	17/06/2024	No

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

Sr.No	Name of the Faculty	PAN No.	APAAR faculty ID*(if any)	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor if any	Nature of Association (Regular/ Contract/ Ad hoc)	Currently Associated (Y/N)	In case of NO, Date of Leaving	IS HOD?
1	Dr. Mohammad Zubair	XXXXXXX59P	NA	Ph.D	Indian Institute of Technology, Delhi	Machine Design	17/11/2022	3.7	Professor	Professor	17/11/2022	Regular	Yes		No
2	Dr. Sujoy Saha	XXXXXXX29K	NA	Ph.D	IEST, Shibpur	Mechanical Engineering	09/01/2023	3.6	Professor	Professor	09/01/2023	Regular	Yes		No

3	Dr. Sudipta Ray	XXXXXX12E	NA	Ph.D	Indian Institute of Technology, Kharagpur	Mechanical Engineering	11/11/2022	3.8	Assistant Professor	Associate Professor	10/03/2023	Regular	Yes		No
4	Subhasish Halder	XXXXXX30M	NA	M.Tech	National Institute of Technology, Warangal	Computer Integrated Manufacturing	02/01/2020	6.6	Assistant Professor	Assistant Professor		Regular	Yes		No
5	Geetika Kumari Salwan	XXXXXX48G	NA	M.Tech	Biju Patnaik University of Technology Rourkela Odisha	Production Engineering	21/11/2011	14.7	Assistant Professor	Assistant Professor		Regular	Yes		Yes
6	Subhojit Paul	XXXXXX88H	NA	M.E.	Jadavpur University	Automobile Engineering	03/04/2023	3.3	Assistant Professor	Assistant Professor		Regular	Yes		No
7	Ajoy Kumar Bhowmick	XXXXXX31D	NA	M.E.	Jadavpur University	Mechanical Engineering	21/08/2023	2.10	Assistant Professor	Assistant Professor		Regular	Yes		No
8	Dr. Aniket Chakrabarty	XXXXXX15Q	NA	Ph.D	IIST, Shibpur	Material Science	03/07/2024	2	Associate Professor	Associate Professor	03/07/2024	Regular	Yes		No
9	Dr. Sarbendu Roy	XXXXXX12M	NA	Ph.D	IIST, Shibpur	Heat Transfer Enhancement	09/01/2023	1.5	Associate Professor	Associate Professor	09/01/2023	Regular	No	20/06/2024	No

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	60	60	60
UG1.C	60	60	60
UG1.D	60	60	60

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
UG1: Automobile Engineering	180	180	180
UG2.B	30	30	30
UG2.C	30	30	30
UG2.D	30	30	30
UG2: Mechanical Engineering	90	90	90
DS=Total no. of students in all UG and PG programs in the Department	180	180	180
AS=Total no. of students of all UG and PG programs in allied departments	126	126	126
S=Total no. of students in the Department (DS) and allied departments (AS)	S1= 306	S2= 306	S3= 306
DF=Total no. of faculty members in the Department	11	11	11
AF= Total no. of faculty members in the allied Departments	8	8	8
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	F1= 19	F2= 19	F3= 19
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= 16.11	SFR2= 16.11	SFR3= 16.11
Average SFR for 3 years	SFR= 16.11		

C3. Faculty Qualification

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

Table No.C3.1: Faculty qualification.

Year	X	Y	RF	FQ = 2.5 x [(10X + 4Y) / RF]]
2025-26(CAY)	9	10	15.00	21.67
2024-25(CAYm1)	8	11	15.00	20.67
2023-24(CAYm2)	8	11	15.00	20.67

C4. Faculty Cadre Proportion

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

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

Year	Professors		Associate Professors		Assistant Professors	
	Required RF1	Available AF1	Required RF2	Available AF1	Required RF3	Available AF3

2025-26	2.00	3.00	3.00	6.00	10.00	10.00
2024-25	2.00	3.00	3.00	5.00	10.00	11.00
2023-24	2.00	3.00	3.00	5.00	10.00	11.00
Average	RF1=2.00	AF1=3.00	RF2=3.00	AF2=5.33	RF2=10.00	AF2=10.67

C5. Visiting/Adjunct Faculty/Professor of Practice

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

(CAYm1)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. Biswadeep Mukherjee	Senior Manager	Saint Gobain Chemical India Pvt. Ltd.	Manufacturing Methods (PC-AUE302)	14.00
2	Mr. Biswadeep Mukherjee	Senior Manager	Saint Gobain Chemical India Pvt. Ltd.	Materials Engineering (ES-AUE401)	26.00
3	Mr. Arunangshu Pal	Auto Claim Manager	TATA AIG General Insurance CO. Ltd.	Transport Management & Motor Vehicles Act (PE-AUE 611B)	16.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. Biswadeep Mukherjee	Senior Manager	Saint Gobain Chemical India Pvt. Ltd.	Manufacturing Methods (PC-AUE302)	16.00
2	Mr. Biswadeep Mukherjee	Senior Manager	Saint Gobain Chemical India Pvt. Ltd.	Materials Engineering (ES-AUE401)	26.00
3	Mr. Arunangshu Pal	Auto Claim Manager	TATA AIG General Insurance CO. Ltd.	Transport Management & Motor Vehicles Act (PE-AUE 611B)	16.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. Biswadeep Mukherjee	Senior Manager	Saint Gobain Chemical India Pvt. Ltd.	Manufacturing Methods (PC-AUE302)	14.00
2	Mr. Biswadeep Mukherjee	Senior Manager	Saint Gobain Chemical India Pvt. Ltd.	Materials Engineering (ES-AUE401)	24.00
3	Mr. Arunangshu Pal	Auto Claim Manager	TATA AIG General Insurance CO. Ltd.	Transport Management & Motor Vehicles Act (PE-AUE 611B)	14.00

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	2	1	2
2	No. of peer reviewed conference papers published	0	1	0
3	No. of books/book chapters published	16	8	10

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. SK Tanbir Islam	Mr. Pritam Bhattacharjee	Automobile Engineering Department	Battery management system for E-Autos	Terra Motors	1.5 Years	1.65
						Amount received (Rs.):1.65

(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
Mr. Kalyan Mukherjee	Mr. Shankha Ghosh	Automobile Engineering Department	Emission testing and low-cost upgradation of BS4 vehicles to BS 6 vehicles	R D Automotives, Kolkata and Motomechs, Kolkata	1 year	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
Dr. Arpita Chatterjee	Mr. Kalyan Mukherjee	Automobile Engineering Department	Enhancement in thermal performance of Heat exchanger used in Bike	Associated Engineers, Kolkata	0.9 Years	1.15
						Amount received (Rs.):1.15

Total Amount (Lacs) Received for the Past 3 Years: 4.10**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. Debjit Misra	Mr. Kalyan Mukherjee	Department of Automobile Engineering	Alternative Fuel Characterization Using Waste Plastic Pyrolysis Oil	Magellanium Technologies Pvt Ltd	9 Months	0.81
Dr. Debabrata Das	Mr. Subarno Bhattacharyya	Department of Automobile Engineering	Thermal Performance Assessment and Cooling System Optimization of Older Vehicles	A. M. Automobiles	5 Months	0.78
Mr. Shankha Ghosh	Mr. Soumyabrata Chakravarty	Department of Automobile Engineering	Kinematic Analysis, and Plant Layout Optimization for an Automated Computerized Wheel Alignment and Balancing Unit	Indo Radial Club	6 Months	0.75
						Amount received (Rs.):2.34

(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. Arpita Chatterjee	Mr. Shankha Ghosh	Department of Automobile Engineering	Stability analysis, and Improvement on E-Autos	Terra Motors India Pvt. Ltd.	7 Months	0.65
Mr. Shankha Ghosh	Mr. Pritam Bhattacharjee	Department of Automobile Engineering	Analysis and Optimization of Steering Geometry for Improved Vehicle Dynamics in Passenger Vehicles	Shree Automobiles Pvt. Ltd.	6 Months	0.65
Dr. Ranendra Roy	Mr. Arindam Mukherjee	Department of Automobile Engineering	AI-Driven Predictive Micro-Climate Control and Smart Cabins	Unico Motors	8 Months	0.73
						Amount received (Rs.):2.03

(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. Debjit Misra	Mr. Subarno Bhattacharyya	Department of Automobile Engineering	Comprehensive Vehicle Maintenance, Inspection and Diagnostic Services	Dewar's Garage Limited	3 Months	0.55
Dr. SK Tanbir Islam	Mr. Arindam Mukherjee	Department of Automobile Engineering	Mitigation of Post-Accident Misalignment of Chassis	Unico Motors	8 Months	0.80
Dr. Arpita Chatterjee	Mr. Subhajit Banerjee	Department of Automobile Engineering	Next-Gen Integrated Thermal Management Systems (ITMS) for EV Range Extension	Terra Motors India Pvt. Ltd	6 Months	0.67
						Amount received (Rs.):2.02

Total amount (Lacs) received for the past 3 years: 6.39

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
Mr. Shankha Ghosh, and Mr. Pritam Bhattacharjee	Adaptive motor speed control under rain influenced conditions – Design of rain sensing rpm limiter	1 year	1.05	1.00	Published conference paper in AIP conference proceedings
			Amount received (Rs.): 1.05		

(CAYm2)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Dr. Ranendra Roy, and Mr. Arindam Mukherjee	Development of a Reverse Trike for Enhanced Stability and Performance	1 year	1.55	1.45	Developed working model of reverse trike
Mr. Shankha Ghosh, and Mr. Arindam Mukherjee	Integrated Solar Energy Conversion and Storage Systems for Sustainable Development	1 year	2.00	1.90	Developed working model of solar trike
			Amount received (Rs.): 3.55		

(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
Dr. Sk Tanbir Islam, and Mr. Kalyan Mukherjee	Design and Development of an Electric All-Terrain Vehicle (E-ATV)	1 year	1.60	1.45	Developed working model of Electric All-Terrain Vehicle
Dr. Atanu Bhattacharya, and Mr. Subarno Bhattacharyya	Fabrication of a Low-Cost Electric Scooty for Urban Mobility	1 year	1.00	0.90	Developed working model of electric Scooty and tested in urban region
			Amount received (Rs.): 2.60		

Total amount (Lacs) received for the past 3 years : 7.20

PART D: Laboratory Infrastructure in the Department

(Data to be filled in for the Department)

D1. Adequate and Well-Equipped Laboratories, and Technical Manpower

Table No.D1.1: List of laboratories and technical manpower.

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical staff	Designation	Qualification
1	Engine & Chassis Component Laboratory	30	1. Model of 4- Stroke 4-cylinder Diesel Engine 2. Model of 4- Stroke 4-cylinder Petrol Engine 3. Model of 2-Stroke 4-cylinder Diesel Engine 4. Model of 2-Stroke 4-cylinder Petrol Engine	06 hrs./week	Mr. Sandip Bhadra	Technical Assistant	Diploma in AUE
2	Engine Testing & Pollution Measurement Laboratory	30	1. Multi Cylinder Petrol Engine Test rig with Eddy current dynamometer 2. Multi Cylinder Diesel Engine Test rig with Eddy current dynamometer 3. NOx Analyzer	06 hrs./ week	Mr. Supriya Dhara	Technical Assistant	Diploma in AUE
3	Vehicle Maintenance Laboratory	30	1. Model of a Hydraulic Brake unit of Maruti Suzuki Esteem Car 2. Multi Cylinder Fuel Injection System (Diesel) 3. Fuel Injection Mechanism System	06 hrs./ week	Mr. Sandip Bhadra	Technical Assistant	Diploma in AUE
4	Automotive Design Laboratory	30	30 nos. of PC with AUTOCAD and CATIA Software	06 hrs./week	Mr. Jayanta Si	Technical Assistant	Diploma in AUE

5	Machine Drawing Laboratory	30	30 nos. of drawing board, Drawing desk with some physical models	06 hrs./week	Mr. Jayanta Si	Technical Assistant	Diploma in AUE
6	Manufacturing & Testing Laboratory	30	1. Impact Testing Machine 2. Fatigue Testing Machine 3. Torsion Testing Machine 4. Universal Testing Machine 5. Rockwell and Brinell Hardness Tester	06 hrs./ week	Mr. Jit Mazumder	Technical Assistant	Diploma in ME
7	Fluid Mechanics and Heat Transfer Laboratory	30	1. Venturimeter Test Rig 2. V-Notch Tank Apparatus 3. Closed Circuit Pitot Tube Apparatus 4. Apparatus for Relative Humidity Study in Pipe Lines	06 hrs./ week	Ms. Anupama Kumar	Technical Assistant	Diploma in ME
8	Automotive Electrical & Electronics Lab	30	1. Tong Tester 2. Hydrometer 3. Generator set 4. Starter tester 5. Tachometer 6. Multi-meter 7. 2000 A/mm ² Ammeter 8. Storage battery 9. Storage battery 10. Storage battery	06 hrs./ week	Mr. Supriya Dhara	Technical Assistant	Diploma in AUE

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Engine & Chassis Component Laboratory	□ Wear safety shoes, safety goggles, and appropriate laboratory attire while handling engine and chassis components. □ Ensure that the engine is switched off and adequately cooled before dismantling or handling components. □ Use proper lifting equipment such as engine hoists, stands, and jacks for heavy components; never attempt to lift heavy assemblies manually. □ Ensure that vehicles and assemblies are securely supported on stands before working underneath them. □ Use the correct tools and specified procedures for dismantling and assembling components. □ Do not operate rotating, moving, or power-driven components without proper guards. □ Keep hands, clothing, hair, and loose articles away from belts, pulleys, gears, fans, and rotating shafts. □ Clean oil, grease, coolant, and other spills immediately to prevent slips and falls. □ Handle sharp-edged components, springs, bearings, and press-fitted parts carefully. □ Maintain proper housekeeping and return all tools to their designated locations after use. □ Do not smoke or use open flames near fuel, lubricants, or other combustible materials. □ Report damaged tools, equipment malfunction, or unsafe conditions immediately to the laboratory instructor.
2	Engine Testing & Pollution Measurement Laboratory	□ Wear safety goggles, safety shoes, gloves, and suitable protective clothing during testing. □ Ensure adequate ventilation and exhaust extraction when operating engines. □ Engine exhaust must be properly connected to an exhaust gas extraction system to prevent accumulation of harmful gases. □ Never operate an engine in an enclosed laboratory without adequate ventilation and emission-control arrangements. □ Check fuel lines, fuel tanks, electrical connections, coolant levels, and lubrication systems before starting the engine. □ Keep flammable materials and ignition sources away from fuel and testing equipment. □ Do not touch the engine, exhaust manifold, muffler, or other hot surfaces immediately after testing. □ Keep clear of rotating shafts, pulleys, fans, and other moving components during engine operation. □ Ensure that dynamometers and other rotating equipment have appropriate guards and safety arrangements. □ Use emission analysers and other measuring instruments only according to the manufacturer's operating instructions. □ In the event of abnormal noise, excessive vibration, fuel leakage, smoke, or equipment malfunction, stop the engine immediately. □ Keep a suitable fire extinguisher readily accessible and ensure that laboratory personnel know its location and basic operating procedure. □ Dispose of used oil, fuel, filters, and other contaminated materials through the designated disposal system. □ Never bypass safety interlocks or protective devices during an experiment.
3	Vehicle Maintenance Laboratory	□ Mandatory use of safety shoes, safety goggles, gloves, and appropriate work clothing. □ Park vehicles on a level and stable surface and apply the parking brake before commencing work. □ Disconnect the battery supply when carrying out electrical maintenance, unless electrical power is specifically required for the task. □ Use approved vehicle lifts, hydraulic jacks, axle stands, and wheel chocks. □ Never work beneath a vehicle supported only by a hydraulic jack. □ Allow hot engine, exhaust, radiator, and transmission components to cool before servicing. □ Release pressure carefully from cooling, hydraulic, pneumatic, and fuel systems before dismantling components. □ Use proper tools for removing springs, bearings, wheels, tyres, and other components. □ Keep fuel, solvents, cleaning agents, and other flammable substances away from sparks, hot surfaces, and open flames. □ Ensure adequate ventilation while performing engine servicing or using chemical cleaning agents. □ Clean oil, grease, coolant, and fuel spills immediately. □ Do not wear loose clothing, jewellery, or other items that may become entangled in moving machinery. □ Store tools, spare parts, and removed components safely to prevent falling or tripping hazards. □ Maintain appropriate fire protection and first-aid facilities in the laboratory. □ Only trained and authorised personnel should operate vehicle lifts, specialised diagnostic equipment, and other powered equipment.

4	Automotive Design Laboratory	□ Maintain a clean, organised, and well-lit workspace. □ Use computers, workstations, and design software only for their intended purpose. □ Ensure that all electrical connections, power supplies, and cables are properly insulated and maintained. □ Do not overload electrical sockets or use damaged electrical cords. □ Maintain proper ergonomics while using computers for prolonged periods. □ Adjust the monitor, chair, keyboard, and workstation to maintain a comfortable posture. □ Take periodic breaks during extended computer-aided design (CAD) sessions to reduce eye strain and musculoskeletal fatigue. □ Keep liquids away from computers, electronic instruments, and electrical equipment. □ Use 3D printers, scanners, plotters, and other equipment only after receiving appropriate instruction. □ Follow prescribed safety procedures while handling 3D-printing materials, resins, adhesives, and solvents, where applicable. □ Ensure adequate ventilation when using equipment or materials that may generate fumes or vapours. □ Do not modify electrical or mechanical components of laboratory equipment without authorisation. □ Save and back up design files regularly to prevent loss of academic work. □ Report electrical faults, equipment overheating, unusual sounds, or software/hardware malfunction to the laboratory supervisor.
5	Machine Drawing Laboratory	□ Maintain a clean, dry, and well-organised drawing workspace. □ Handle drawing instruments such as compasses, dividers, cutters, and blades carefully. □ Keep sharp instruments properly stored when not in use. □ Do not leave compass points, blades, or other sharp tools exposed on the drawing table. □ Use cutting tools only on suitable cutting surfaces and away from other persons. □ Maintain proper posture and adequate lighting to prevent eye strain and musculoskeletal discomfort. □ Keep electrical drawing machines, computers, printers, and other equipment away from water and liquids. □ Ensure that electrical cables do not create trip hazards. □ Follow proper operating procedures when using CAD workstations, printers, scanners, or plotting equipment. □ Avoid unnecessary movement around occupied drawing tables to prevent accidental damage or injury. □ Keep floors and work surfaces free from paper, stationery, and other obstacles. □ Dispose of paper waste and damaged drawing materials in designated bins. □ Store drawing sheets, models, instruments, and equipment safely after completion of work. □ Report damaged electrical equipment, sharp tools, or unsafe working conditions immediately.
6	Manufacturing & Testing Laboratory	□ Personal Protective Equipment (PPE) such as safety shoes, safety goggles, gloves, and appropriate protective clothing shall be used as required. □ Students must receive proper instruction before operating lathe, drilling, milling, grinding, welding, cutting, and testing machines. □ Never operate machinery without appropriate guards and safety devices. □ Ensure that workpieces are securely clamped before starting any machining operation. □ Keep hands, clothing, hair, jewellery, and loose articles away from rotating machinery. □ Do not wear gloves near rotating machinery where they may become entangled; follow the specific machine's safety requirements. □ Remove chuck keys, spanners, and other tools from machines before starting them. □ Never attempt to measure, adjust, or clean a workpiece while the machine is running. □ Remove metal chips using a brush, chip hook, or appropriate tool—never with bare hands. □ Use appropriate eye and face protection during grinding, cutting, machining, and welding operations. □ Ensure proper ventilation and fume extraction during welding and other processes producing fumes or gases. □ Keep combustible materials away from welding, cutting, grinding, and other heat-producing operations. □ Operate testing machines within their specified load, speed, pressure, temperature, and voltage limits. □ Ensure electrical equipment is properly grounded and inspect cables before use. □ Keep floors free from oil, coolant, metal chips, and other materials that may cause slips or falls. □ Stop the machine and isolate the power supply before carrying out maintenance, cleaning, adjustment, or tool changes. □ Know the location of the emergency stop, fire extinguisher, first-aid box, and emergency exits. □ Do not leave operating machinery unattended. □ Dispose of metal scrap, used coolant, lubricants, and other waste in designated containers. □ Only authorised and trained personnel should operate specialised machinery.
7	Fluid Mechanics and Heat Transfer Laboratory	□ Wear safety goggles, safety shoes, and appropriate laboratory attire during experiments. □ Inspect all experimental rigs, pipelines, valves, hoses, electrical connections, and measuring instruments before operation. □ Ensure that all pipes, hoses, and connections are properly secured before introducing fluid or pressure. □ Never exceed the specified pressure and temperature limits of the experimental apparatus. □ Open and close valves gradually to avoid water hammer and sudden pressure surges. □ Take care while handling hot water, steam, heated oil, heating coils, and other high-temperature equipment. □ Use appropriate heat-resistant gloves or other PPE when handling hot components, wherever required. □ Do not touch heated surfaces directly; use designated handles or suitable tools. □ Allow heated equipment and fluids to cool before dismantling or maintenance. □ Check for leakage before starting experiments and immediately report damaged hoses, pipes, gauges, or fittings. □ Keep electrical equipment and connections away from water and other conductive fluids. □ Ensure proper electrical grounding of pumps, heaters, motors, and instrumentation. □ Clean water, oil, or other fluid spills immediately to prevent slipping hazards. □ Do not operate pumps, compressors, heaters, or other equipment without proper instruction. □ Release system pressure completely before opening any pressurised section of the apparatus. □ Maintain adequate laboratory ventilation, particularly during experiments involving steam, hot fluids, or chemical fluids. □ Switch off electrical and heating equipment after completion of the experiment. □ Maintain proper housekeeping and return measuring instruments and accessories to their designated locations.

D3. Project Laboratory/Research Laboratory

PART E: First Year faculty and financial Resources

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

E1. First Year Student-Faculty Ratio (FYSFR)

Table No. E1.1: FYSFR details.

Year	Sanctioned intake of all UG programs (S4)	No. of required faculty (RF4= S4/20)	No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1)	No. of faculty members in Engineering Science Courses (NS2)	Percentage= No. of faculty members ((NS1*0.8) + (NS2*0.2))/(No. of required faculty (RF4)); Percentage= ((NS1*0.8) +(NS2*0.2))/RF
2023-24(CAYm2)	480	24	19	9	71
2024-25(CAYm1)	720	36	28	14	70
2025-26(CAY)	720	36	28	14	70

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	28030000	27869573	13988000	13903379	13305000	13484908	5018000	4966489
Library	2997000	2955134	2723000	2632751	2410000	2385498	2183000	2127202
Laboratory equipment	19426000	19152856	11295000	10971270	11364000	11342795	8576000	8443361
Teaching and non-teaching staff salary	157156000	155519229	143248000	139348804	122340000	119170198	109192000	105195655
Outreach Programs	2165000	2125076	1976000	1952625	1824000	1812253	1737000	1719498
R&D	17729000	17455796	11903000	11475703	9847000	9602279	7836000	7617830
Training, Placement and Industry linkage	10677000	10430580	9230000	8923486	7528000	7315764	6298000	6096470
SDGs	28959000	28552041	27084000	26427741	22929000	22620402	20329000	20141010
Entrepreneurship	2487000	2453878	2013000	1953334	1563000	1524956	1227000	1204560
Others, specify	33018000	32461270	31490000	30315096	28688000	28138689	26304000	25795006
Total	302644000	298975433	254950000	247904189	221798000	217397742	188700000	183307081

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	1853000	1775154	1436000	1420354	1077000	1075252	838000	825321
Software	0	0	0	0	502000	496805	0	0
SDGs	4219000	4159684	4042000	3958648	3848000	3796417	3501000	3500514
Support for faculty development	387000	378624	346000	335954	276000	269471	224000	217488
R & D	928000	913554	892000	859944	776000	764224	650000	636389
Industrial Training, Industry expert, Internship	426000	421659	410000	396749	365000	354645	306000	295538
Miscellaneous Expenses*	601000	600706	566000	544441	500000	489942	452000	442840
Total	8414000	8249381	7692000	7516090	7344000	7246756	5971000	5918090