NATIONAL BOARD OF ACCREDITATION

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

Program Name : Mechanical Engineering	**Discipline**: Engineering & Technology
Level : Under Graduate	**Tier**: 1
Application No: 11590	**Date of Submission**: 13-02-2026

PART A- Profile of the Institute

A1.Name of the Institute: Punjab Engineering College (Deemed to be University)	
Year of Establishment : 1921	Location of the Institute: Chandigarh
A2. Institute Address:PEC UNIVERSITY OF TECHNOLOGY	
City:Chandigarh	State:Chandigarh
Pin Code:160012	Website:www.pec.ac.in
Email:REGISTRAR@PEC.AC.IN	Phone No(with STD Code):0172-2753055
A3. Name and Address of the Affiliating University (if any):	
Name of the University :	City: Chandigarh
State : Chandigarh	Pin Code: 160012
A4. Type of the Institution: Deemed University	
A5. Ownership Status: Government Aided	

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

- No. of UG programs: **12**
- No. of PG programs: **13**

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	Aerospace Engineering	1962	--	Aerospace Engineering
2	Engineering & Technology	PG	Aerospace Engineering	2022	--	Aerospace Engineering
3	Engineering & Technology	UG	Civil Engineering	1921	--	Civil Engineering
4	Engineering & Technology	PG	Computer Science & Information Security	2010	--	Cyber Security
5	Engineering & Technology	PG	Computer Science and Engineering	2001	--	Computer Science and Engineering
6	Engineering & Technology	UG	Computer Science and Engineering	1988	--	Computer Science and Engineering
7	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence)	2023	--	Computer Science and Engineering
8	Engineering & Technology	UG	Computer Science and Engineering (Data Science)	2022	--	Computer Science and Engineering

9	Engineering & Technology	PG	Electrical Energy Systems	2022	2025	Electrical Engineering
10	Engineering & Technology	PG	Electrical Engineering	1957	--	Electrical Engineering
11	Engineering & Technology	UG	Electrical Engineering	1947	--	Electrical Engineering
12	Engineering & Technology	UG	Electronics & Communication Engineering	1963	--	Electronics and Communication Engineering
13	Engineering & Technology	UG	Electronics Engineering (VLSI Design and Technology)	2023	--	Electronics and Communication Engineering
14	Engineering & Technology	PG	Environmental Engineering	1989	--	Civil Engineering
15	Engineering & Technology	PG	Industrial Engineering and Management	1995	--	Production and Industrial Engineering
16	Engineering & Technology	PG	Material Science and Engineering	1963	--	Metallurgical and Materials Engineering
17	Engineering & Technology	UG	Mathematics & Computing	2024	--	Mathematics
18	Engineering & Technology	PG	Mechanical Engineering	1957	--	Mechanical Engineering
19	Engineering & Technology	UG	Mechanical Engineering	1921	--	Mechanical Engineering
20	Engineering & Technology	UG	Metallurgical & Materials Engineering	1963	--	Metallurgical and Materials Engineering
21	Engineering & Technology	UG	Production & Industrial Engineering	1967	--	Production and Industrial Engineering
22	Engineering & Technology	PG	Structural Engineering	1964	--	Civil Engineering
23	Engineering & Technology	PG	Transportation Engineering	1957	--	Civil Engineering
24	Engineering & Technology	PG	VLSI Design	2012	--	Electronics and Communication Engineering
25	Engineering & Technology	PG	Water Resource Engineering	1964	2023	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**
Civil Engineering	No	Civil Engineering	UG
Mechanical Engineering	No	Mechanical Engineering	UG
Electrical Engineering	No	Electrical Engineering	UG
Production and Industrial Engineering	No	Production & Industrial Engineering	UG
Computer Science and Engineering	No	Computer Science and 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	PROGRAM DURATION
1	Mechanical Engineering	UG	1921 / --	120	No	NA	120	1921	1-2519066781	Granted accreditation for 3 years for the period (specify period)	2022	2025	3	4

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 :	Parminderjit Singh
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	115	97	98	97	103	93	92
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	1	2	2	2	1	0	4
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	116	99	100	99	104	93	96

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	115	1	96.67
2024-25 (CAYm1)	120	97	2	82.50
2023-24 (CAYm2)	120	98	2	83.33

Average [(ER1 + ER2 + ER3) / 3] = 87.50≡ 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).	120.00	120.00	120.00
B=No. of students who graduated from the program in the stipulated course duration	99.00	84.00	92.00
Success Rate (SR)= (B/A) * 100	82.50	70.00	76.67

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 76.39

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)	6.99	6.77	6.83
Y=Total no. of successful students	99.00	98.00	99.00
Z=Total no. of students appeared in the examination	99.00	100.00	99.00
API [X*(Y/Z)]	6.99	6.63	6.83

Average API[(AP1+AP2+AP3)/3] : 7.00

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

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

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 2nd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2rd year/10)	6.93	6.83	7.04
Y=Total no. of successful students	98.00	98.00	102.00
Z=Total no. of students appeared in the examination	100.00	99.00	104.00
API [X * (Y/Z)]	6.79	6.76	6.90

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

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

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

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)

X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10)	7.12	7.33	7.11
Y=Total no. of successful students	98.00	100.00	85.00
Z=Total no. of students appeared in the examination	98.00	102.00	86.00
API [X*(Y/Z)]:	7.12	7.19	7.03

Average API [(AP1 + AP2 + AP3)/3] : 7.11

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	120.00	120.00	120.00
X=No. of students placed	71.00	40.00	68.00
Y=No. of students admitted to higher studies	2.00	0.00	0.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	60.83	33.33	56.67

Average Placement Index = (P_1 + P_2 + P_3)/3: 50.28 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	Sushant Samir	XXXXXXX53K	Ph.D	Punjab University Chandigarh	Thermal,I.C Engine and Automobile Engineering	24/04/1992	33.9	Lecturer	Professor	16/09/2016	Regular	Yes		No
2	Deoraj Prajapati	XXXXXXX68F	Ph.D	Punjab University	Qyality Management Production & Operation Management industrial Engg.	16/09/1999	26.5	Lecturer	Professor	16/07/2016	Regular	Yes		No
3	Sandeep M Salodkar	XXXXXXX46A	Ph.D	Punjab University	CAD/CAM Manufacturing	23/03/2005	20.10	Lecturer	Associate Professor	23/03/2018	Regular	Yes		No
4	Rakesh Dang	XXXXXXX12J	Ph.D	PEC,Chandigarh	Thermal Engineering	23/03/1990	35.10	Lecturer	Associate Professor	27/03/2006	Regular	Yes		No

5	Sanjeev Kumar	XXXXXXX17A	Ph.D	Thapar University	Advance Manufacturing, Material Science	13/11/2003	22.3	Assistant Professor	Professor	01/07/2013	Regular	Yes		No
6	Parminderjit Singh	XXXXXXX30P	Ph.D	Punjab University	Environmentaly conscious Manufacturing, Thermal Engineering	16/03/1989	36.11	Lecturer	Professor	20/05/2015	Regular	Yes		Yes
7	ALAKESH MANNA	XXXXXXX46L	Ph.D	Jadavpur University	Micro Manufacturing, Nano finishing, Traditional, Non-traditional, Hybrid and Micro Machining Fabric	13/11/2003	22.2	Assistant Professor	Professor	13/11/2009	Regular	No	31/01/2026	No
8	S K Soni	XXXXXXX70P	Ph.D	PEC,Chandigarh	Solar Energy, Thermal Engineering	21/06/2001	24.7	Assistant Professor	Associate Professor	02/01/2006	Regular	Yes		No
9	S.K Mangal	XXXXXXX82K	Ph.D	IIT Kanpur	Semi-active Vibration Control, F.E.M. in Engineering	29/07/2002	23.6	Assistant Professor	Professor	01/01/2015	Regular	Yes		No
10	Rajesh Kumar Kanda	XXXXXXX98D	Ph.D	PEC,Chandigarh	Economies, Mechanical Design	29/08/2001	24.5	Lecturer	Associate Professor	01/03/2007	Regular	Yes		No
11	SARABJIT SINGH	XXXXXXX22F	Ph.D	IIT Roorkee	Conventionai and Unconventional Processing of Composites metal matrix Composites, Welding Technology	01/09/2006	19.5	Assistant Professor	Professor	24/05/2023	Regular	Yes		No
12	Tejbir Kaur	XXXXXXX31C	Ph.D	PEC,Chandigarh	Vibration and Control, Automation & Robotics	04/03/2013	12.11	Assistant Professor	Assistant Professor		Regular	Yes		No
13	Achitanand Dubey	XXXXXXX70J	M.Tech	IIT Roorkee	Product Design and Development, Manufacturing & Quality Engineering	15/03/2013	12.11	Assistant Professor	Assistant Professor		Regular	Yes		No
14	Ankit Yadav	XXXXXXX37B	Ph.D	PEC,Chandigarh	Thermal Engineering, CFD analysis	21/03/2013	12.10	Assistant Professor	Assistant Professor		Regular	Yes		No
15	Gurjeet Singh	XXXXXXX11E	Ph.D	PEC,Chandigarh	Heat Transfer & Fluid Dynamics, Computational Fluid Dynamics, Energy, Exergy and Exergoeconomics	09/04/2013	12.10	Assistant Professor	Assistant Professor		Regular	Yes		No

16	Kamal Kumar	XXXXXXX51F	Ph.D	MDU, Rohtak	Advance Manufacturing Processes, EDM, WEDM, Bio-compatible and Biodegradable Metallic Materials	03/05/2013	12.9	Assistant Professor	Associate Professor	15/05/2023	Regular	Yes		No
17	Chander Kant Susheel	XXXXXXX26R	Ph.D	IIT Mandi	Design	07/05/2018	7.9	Assistant Professor	Assistant Professor		Regular	Yes		No
18	Harshit Kumar Khandelwal	XXXXXXX32C	Ph.D	HBNI (CI-BARC, Mumbai)	Structure-property correlations, Mechanical behaviour of materials, Fracture mechanics	10/04/2023	2.10	Assistant Professor	Assistant Professor		Regular	Yes		No
19	Lokesh	XXXXXXX17E	Ph.D	IIT Roorkee	Two-Phase Flow, Heat Transfer, Micro-Fluidics, Mass Transfer, CFD	01/06/2023	2.8	Assistant Professor	Assistant Professor		Regular	Yes		No
20	Mohinder Pal Garg	XXXXXXX72A	Ph.D	NIT Kurushetra	Machining, fabrication of composites, wire electric discharge machining	15/05/2023	2.8	Associate Professor	Associate Professor	15/05/2023	Regular	Yes		No
21	Nitin Dixit	XXXXXXX78J	Ph.D	IIT Roorkee	Non-conventional machining and finishing, Additive manufacturing, Sustainability	10/08/2022	3.3	Assistant Professor	Assistant Professor		Contractual Fulltime	No	05/12/2025	No
22	Niharika Gupta	XXXXXXX47F	Ph.D	IIT Delhi	Tribology, Machine Design, Surface Texturing, Elastohydrodynamic lubrication, Numerical Modelling, C	11/08/2022	1.4	Assistant Professor	Assistant Professor		Contractual Fulltime	No	21/12/2023	No
23	Viveksheel Rajput	XXXXXXX18N	Ph.D	PEC,Chandigarh	Advanced Machining Processes, Composites, FEA, Non-conventional Machining	04/08/2023	2.6	Assistant Professor	Assistant Professor		Contractual Fulltime	Yes		No
24	Moolchand Sharma	XXXXXXX17E	Ph.D	IIT Mandi	Materials Engineering	31/07/2023	1	Assistant Professor	Assistant Professor		Contractual Fulltime	No	31/07/2024	No
25	Vishvendra Pratap Singh	XXXXXXX06M	Ph.D	IIT Mandi	Materials Science and Engineering	04/08/2023	0.11	Assistant Professor	Assistant Professor		Contractual Fulltime	No	31/07/2024	No
26	Mahesh Kumar Yadav	XXXXXXX08H	Ph.D	IIT Kanpur	Fluid and Thermal Sciences (Renewable Energy)	02/07/2025	0.7	Assistant Professor	Assistant Professor		Regular	Yes		No

27	Dr. Pankaj	XXXXXXX93E	Ph.D	IIT Roorkee	Sustainable Manufacturing, Recycling og manufacturing waste material, welding metallurgy	27/08/2024	0.5	Assistant Professor	Assistant Professor		Contractual Fulltime	No	07/02/2025	No
28	Dr. Abhishek Kansal	XXXXXXX44N	Ph.D	IIT Roorkee	Addictive manufacturing, microwave sintering, Bone scaffolds, Biomaterials in vitro degradation	30/08/2024	1.5	Assistant Professor	Assistant Professor		Contractual Fulltime	Yes		No
29	Ram Niwas	XXXXXXX40R	Ph.D	NIT Kurushetra	Experimental Design,Optimization Technic,Material Characterization	27/01/2026	0	Assistant Professor	Assistant Professor		Contractual Fulltime	Yes		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(2025-26)**	**CAYm1 (2024-25)**	**CAYm2 (2023-24)**
UG1.B	120	120	120
UG1.C	120	120	120
UG1.D	120	120	120
UG1: Mechanical Engineering	**360**	**360**	**360**
PG1.A	12	12	12
PG1.B	12	12	25
PG1: Mechanical Engineering	**24**	**24**	**37**

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
DS=Total no. of students in all UG and PG programs in the Department	384	384	397
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=** 384	**S2=** 384	**S3=** 397
DF=Total no. of faculty members in the Department	22	23	24
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=** 22	**F2=** 23	**F3=** 24
FF=The faculty members in F who have a 100% teaching load in the first-year courses	2	2	2
Student Faculty Ratio (SFR)=S/(F-FF)	**SFR1= 19.20**	**SFR2= 18.29**	**SFR3= 18.05**
Average SFR for 3 years	**SFR= 18.51**		

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)	20	2	19.00	27.37
2024-25(CAYm1)	21	2	19.00	28.68
2023-24(CAYm2)	22	2	19.00	30.00

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
2025-26	2.00	6.00	4.00	5.00	12.00	9.00
2024-25	2.00	7.00	4.00	5.00	12.00	8.00
2023-24	2.00	7.00	4.00	5.00	13.00	8.00
Average	RF1=2.00	AF1=6.67	RF2=4.00	AF2=5.00	RF2=12.33	AF2=8.33

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	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)
1	No. of peer reviewed journal papers published	53	50	46
2	No. of peer reviewed conference papers published	11	19	14
3	No. of books/book chapters published	6	4	9

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. Sarbjit Singh	Dr. Mohinder Pal Garg, Dr. Nitin Dixit, Dr. Viveksheel Rajput, Dr. Abhishek kansal	Mechanical Engineering	Development of Green Composites Laboratory for Sustainable	Central U.P. Gas Limited	06 Months	3300000.00
Dr. Vasundra Singh, Dr. R S Walia	Dr. Mohinder Pal garg	Institute Level (All Departments)	Sustainable Technologies for Biomaterials and Diagnostic Devices for Healthcare PURSE PROJECT	The Department of Science and Technology (DST), Govt. of India	5 years	71400000.00
						Amount received (Rs.):74700000.00

(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. Chander Kant Susheel	-	Mechanical Engineering Department	Investigation into the combined effect of temperature and high strain rate on Magnetorheological elastomers Characteristics with application to vibration Control.	Science and Engineering Research Board (SERB) Department of science and technology (DST), New Delhi	3 years	3804152.00
						Amount received (Rs.):3804152.00

(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. Ankit Yadav	Dr. Sushant Samir	Mechanical Engineering	Fabrication and Performance Analysis of Passive Cooling System for Battery Thermal Management	Department of Science & Technology & Renewable Energy Chandigarh Administration	1 year	120000.00
						Amount received (Rs.):120000.00

Total Amount (Lacs) Received for the Past 3 Years: 78624152.00

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)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
						Amount received (Rs.):0

(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. Ankit Yadav	-	Mechanical Engineering	Vetting of Design & Drawing of Drive Sheev shaft	Asia Resorts Limited	3 Months	283000.00
						Amount received (Rs.):283000.00

Total amount (Lacs) received for the past 3 years: 283000.00

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
			Amount received (Rs.): 0		

(CAYm2)

(CAYm3)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Dr. Lokesh	Experimental and Numerical Investigation of Gas-Liquid Mass Transfer at the Capillary Length Scale	2024-2026	9.00	7.80	Project ongoing
			Amount received (Rs.): 9.00		

Total amount (Lacs) received for the past 3 years : 9.00

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	CAD LAB (Computer Aided Design Lab)	20	Hardware Facilities (30 Desktop Computers) LCD Projector	Engineering Dr	Sh. Krishan Gopal	Lab In charge (Draughtsm	ITI Certificate (2-year Dra
2	Advance Manufacturing Laboratory	20	MIKROTOOLS (Micro-EDM, Micro-EDG, Micro WEDM) CNC Turning Centre (ART – 550) Fast Drill EDM (Hole	Elements of Ma	Sh. Kripal Singh	Senior Lecture Assistant (	ITI Certificate (2-year Elec
3	Manufacturing Laboratory	20	ORISUN Machine Tool) Bench Drilling Machine (Standard Machine (SMC) Tools) Bench grinder Drilling	Elements of Ma	Sh. Vinod Kumar Verma	Senior Lab Technician (Sl	ITI Certificate (2-year Mac
4	SOM LAB (Strength of Materials	20	Fatigue testing machine (Fine manufacturing industries (Model: FTG-8D)) Fatigue testing machine (AVERY;	Strength of Ma	Sh. Pawan Kumar	Category IV Technician	2-year ITI In Automobile
5	TOM LAB (Theory of Machine Lab)	20	Motorized Gyroscope apparatus Whirling Shaft Apparatus Spring Balance Apparatus Universal	Dynamics of M	Sh. Pawan Kumar	Category IV Technician	2-year ITI In Automobile
6	RAC LAB (Refrigeration Air Conditioning Lab	20	Refrigeration Test Rig Window A/C test rig Ammonia Ice Plant (complete unit with all accessories) Sikka Brass	Refrigeration a	Sh. Jaswinder Singh	Category IV Technician	ITI in Boiler Diploma in M
7	HEAT TRANSFER LAB	20	Guarded Hot Plate Apparatus Pin Fin Apparatus Vortex Tube Apparatus Heat Pipe Demonstration Apparatus	Heat and Mass	Sh. Krishan Gopal	Lab In charge (Draughtsr	ITI Certificate (2-year Dra
8	HEAT ENGINE LAB	20	Frazer Boiler Steam Turbine Ruby Steam Engine Cochran Boiler Automatic Exhaust Gas Analyser Model	Applied Therm	Sh. Jaswinder Singh	Category IV Technician	ITI in Boiler Diploma in M

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	CAD LAB (Computer Aided Design Lab)	• Operate systems in the presence of the lab in-charge. • Students should restrict to their specific experiment and systems. • Switch off systems properly after completing the experiment.
2	Advance Manufacturing Laboratory	• Wear shoes in the laboratories. • Girl students should tie their hair to avoid accidents. • Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. • Operate machinery in the presence of the lab in-charge. Students should restrict themselves to their specific experiment and equipment. • Switch off machinery properly after completing the experiment. • Contact faculty or staff immediately if equipment is missing or damaged
3	Manufacturing Laboratory	• Wear shoes in the laboratories. • Girl students should tie their hair to avoid accidents. • Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. • Operate machinery in the presence of the lab in-charge. Students should restrict themselves to their specific experiment and equipment. • Switch off machinery properly after completing the experiment. • Contact faculty or staff immediately if equipment is missing or damaged.
4	SOM LAB	• Wear shoes in the laboratories. • Girl students should tie their hair to avoid accidents. • Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. • Operate machinery in the presence of the lab in-charge. Students should restrict themselves to their specific experiment and equipment. • Switch off machinery properly after completing the experiment. • Contact faculty or staff immediately if equipment is missing or damaged.
5	TOM LAB	• Wear shoes in the laboratories. • Girl students should tie their hair to avoid accidents. • Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. • Operate machinery in the presence of the lab in-charge. Students should restrict themselves to their specific experiment and equipment. • Switch off machinery properly after completing the experiment. • Contact faculty or staff immediately if equipment is missing or damaged.
6	RAC LAB	• Wear shoes in the laboratories. • Girl students should tie their hair to avoid accidents. • Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. • Operate machinery in the presence of the lab in-charge. Students should restrict themselves to their specific experiment and equipment. • Switch off machinery properly after completing the experiment. • Contact faculty or staff immediately if equipment is missing or damaged.
7	HEAT TRANSFER LAB	• Wear shoes in the laboratories. • Girl students should tie their hair to avoid accidents. • Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. • Operate machinery in the presence of the lab in-charge. Students should restrict themselves to their specific experiment and equipment. • Switch off machinery properly after completing the experiment. • Contact faculty or staff immediately if equipment is missing or damaged.
8	Advance Vibration Laboratory	• Wear shoes in the laboratories. • Girl students should tie their hair to avoid accidents. • Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. • Operate machinery in the presence of the lab in-charge. Students should restrict themselves to their specific experiment and equipment. • Switch off machinery properly after completing the experiment. • Contact faculty or staff immediately if equipment is missing or damaged.
9	iMAV LAB	• Wear shoes in the laboratories. • Girl students should tie their hair to avoid accidents. • Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. • Operate machinery in the presence of the lab in-charge. Students should restrict themselves to their specific experiment and equipment. • Switch off machinery properly after completing the experiment. • Contact faculty or staff immediately if equipment is missing or damaged.
10	Advance Composites Lab	• Wear shoes in the laboratories. • Girl students should tie their hair to avoid accidents. • Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. • Operate machinery in the presence of the lab in-charge. Students should restrict themselves to their specific experiment and equipment. • Switch off machinery properly after completing the experiment. • Contact faculty or staff immediately if equipment is missing or damaged.

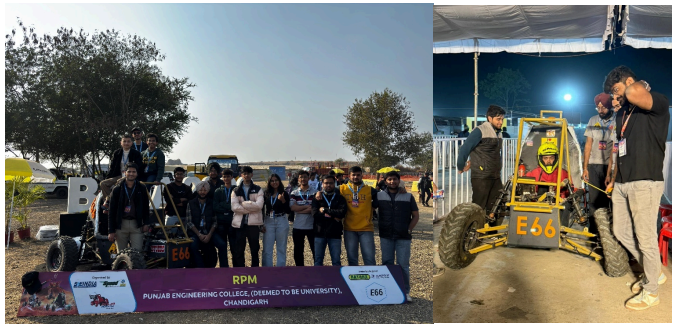
D3. Project Laboratory/Research Laboratory

For supporting the project developed by the students, the Mechanical Department has sufficient laboratories, which are used by the students as or when required throughout the semester. The laboratories are well equipped with equipment and computers with required hardware and licensed software to provide the students sufficient support to complete their projects in stipulated time frame. Internet connectivity is provided throughout the campus to the students. Laboratories are left open till late in the evening to allow students to work and complete their projects whenever required. Research laboratories have been provided for the students who are focused on research in their interested areas. For this purpose, Siemens Centre of Excellence is created the details of which is provided below.

Table No. 7.5.1: List of project laboratory/research laboratory /Centre of Excellence.

S.N.	Name of the Laboratory
1.	**Automation Lab** (SIMATIC STEP 7 (TIA Portal) V13, SIMATIC Controllers: Programmable Logic Controller with HMI, Programmable Logic Controller with HMI SIMATICS7-1500)
2	**Product Design and Validation Lab** (Machines: Accessories, Consumables, PCs 31 Nos. (i7/32GB/500GB) Software: NX Academic Perpetual License Core+CAD, NX Academic Perpetual License CAE+CAM, Teamcenter Unified Academic Bundle, Solid Edge, Femap with NX Nastran: Basic Educational License, Fibersim Legacy NX Academic Bundle)
3	**Test and Optimization Lab** (Machines and Sensors: LMS Scada Hardware-8 channel Data Acquisition System, Prepolarized free-field condenser microphone, Modal Analysis Impact Hammer, Miniature Shaker Kit Multi-purpose, ICP®force sensor, Laser Kit, Rotor Kit for Rotating machinery Analysis and Aircraft scaled model for Modal Testing, Accessories Consumables, PCs 17 Nos. (i7/32GB/500GB), Software: Simcenter Amesim LMS Test Lab Academic Bundle, Imagine.Lab, Virtual Lab)
4	**Metrology Lab** (*Machines:* Coordinate Measuring Machine (CMM)Vernier Caliper Digital, Digital Caliper, Micrometer, Digital Micrometer, Digital Height Gauge, Bevel Protractor, Dial Gauges, Surface Plate, Profile Projector, Tool Makers Microscope. Accessories: CMM Basic probe Kit, Dongle Base License, VAST XXT TL3 – Passive scanning probe w/accessories and tools. Consumables: Optical Profile Projector Lens Cleaning Kit PCs 1 Nos. (i5/16GB/500GB) Laptop 1 Nos. (i7/32GB/500GB), Software: Calypso/MS Office Professional/Antivirus)
5	**Advanced Manufacturing Lab** (Machines, Accessories, Consumables, PCs 31 Nos. (i7/32GB/500GB), (i5/16GB/500GB), Software:Teamcenter Unified Academic Bundle Tecnomatix Manufacturing Academic Bundle, TecnomatixRobCAD Academic Bundle)
6	**Robotics Lab** (Machines: Spot Welding Robot, Arc Welding Robot, Material Handling Robot Accessories: Safety Fence, Air compressor, Voltage Stabilizer with Isolation Transformer, Tip Dresser Station, Stationery Workbench, Consumables: Spot welding machine – tips, MS Sheet, Welding Gas, Welding Wire spool, PCs 3 Nos. (i5/16GB/500GB) Software: RobCAD)

7	**CNC Machine Lab** (Horizontal Turning Machine: MTAB's MAXTURN PLUS Vertical Milling Machine: MTAB MAXMILL PLUS+)
8	**CNC Controller & NC Programming Lab** (Machines: 808D Turning Kit, 808D Milling Kit, 840DSL Complete Kit with Motor & Drive Accessories: Stabilizer & Isolation Transformer–10KVA Consumables PCs 19 Nos. (i5/16GB/500GB) Software: Sinutrain, MS Office, WIN 10, Antivirus))
9	**Rapid Prototyping Lab** (Machines: Stratasys F270 3D Printer, Accessories: Accessories Kit for F270 3D Printer, Support Removal Tank (for cleaning), Dehumidifier, Consumables: ABS (Acrylonitrile Butadiene Styrene), PLA (Poly Lactic Acid), ASA (acetylsalicylic acid), Polyamide (nylon) Glass filled polyamide, Stereolithography materials (epoxy resins) PCs 1 Nos. (i5/16GB/500GB) Software: GrabCAD)
10	**Process Instrumentation Lab** (Machines: SIMATIC PCS 7 Training Kits, Process Transmitters Racks, Accessories: HART Cable, Profibus Cable, Profinet, Cable Consumables, PCs 7 Nos. (i5/16GB/500GB), Software: PCS7, WinCC, WIN 10, MS Office, Antivirus)
11	**Renewable Energy Lab** (Machines: Solar Energy Training System (Customised 8010-5), Wind Energy Training System (Customised 8010-5), Wind Energy Training System (Customised 46120-0A) Home Energy (Solar and Wind) Training System (Customised 8010-5), Accessories: Lead-Acid Batteries, Digital Multimeter, Pyranometer, Connection Lead Set, Heavy-Duty Tripod, Ammeter, Smart Charger, Wind Blade, Anemometer, Data Acquisition System. Consumables: DC lamp 150V, PCs 24 Nos. (i5/16GB/500GB) Software: LV DAC, MS Office Professional, Antivirus)
12	**Mechatronics Lab** (Machines: Modular Automation Production System (MAPs), SIMATIC S7-1200 PLC Accessories: Silent Compressor, Toolkit, Consumables, PCs 8 Nos. (i5/16GB/500GB) Software: TIA Portal, MS Office, WIN 10, Antivirus)
13	**IoT Lab** **(**Machines: NanoBox, Accessories: Consumable PCs 24 Nos. (i5/16GB/500GB), Software: Mindsphere Portal, Window 10, Python, Node-Red, MS Office, Antivirus**)**



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)	850	42	27	10	56
2024-25(CAYm1)	880	44	36	9	70
2025-26(CAY)	880	44	31	9	60

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	350	301.67	439	388.73	660.00	535.18	386.64	360.33
Library	80	38.81	206.00	183.37	250.00	133.09	280	278.52
Laboratory equipment	2132.16	341.91	656.90	136.54	930.00	108.54	519	327.94
Teaching and non-teaching staff salary	6520	5436.32	6290.00	6243.95	6860.00	5836.31	5798.31	5695.81
Outreach Programs	0	0	0	00	0	0	0	0

R&D	100	41.41	80.00	56.37	300	0	1.00	0.48
Training, Placement and Industry linkage	35	29.56	30	13.22	25	26.82	32	20.85
SDGs	0	0	0	0	0	0	0	0
Entrepreneurship	8	6.71	5	3.59	6	3.95	25	4.71
Others, specify	6098	4337.49	6043.96	5260.24	5211.08	4558.45	5413.62	5001.57
Total	**15323.16**	**10533.88**	**13750.86**	**12286.01**	**14242.08**	**11202.34**	**12455.57**	**11690.21**

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	142.00	123.98	70.00	34.11	65.00	0.63	54.00	34.29
Software	0	0	0	0	0	0	0	0
SDGs	6.00	5.50	18.80	14.94	0	0	0.54	0.54
Support for faculty development	21.00	5.22	20.00	16.37	20.00	3.80	18.00	0.74
R & D	16.36	8.58	15.98	2.36	0	0	0	0
Industrial Training, Industry expert, Internship	3.68	3.68	6.61	6.61	4.76	4.76	3.56	3.56
Miscellaneous Expenses*	3.00	0.91	6.00	3.72	2.43	2.43	10.00	5.17
Total	**192.04**	**147.87**	**137.39**	**78.11**	**92.19**	**11.62**	**86.10**	**44.30**