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**: 2
Application No: 11720	**Date of Submission**: 23-03-2026

PART A- Profile of the Institute

A1.Name of the Institute: Pillai HOC College of Engineering and Technology	
Year of Establishment : 2009	Location of the Institute:
A2. Institute Address:Piilai HOC College of Engineering and Technology, Pillai HOCL Educational Campus, Rasayani, 410207, Tal. Khalapur, Dist. Raigad, Maharashtra	
City:Raigad	State:Maharashtra
Pin Code:410207	Website:www.phcet.ac.in
Email:principal.phcet@mes.ac.in	Phone No(with STD Code):02192-669000
A3. Name and Address of the Affiliating University (if any):	
Name of the University : University of Mumbai	City:
State :	Pin Code:
A4. Type of the Institution: Self-Supported Institute	
A5. Ownership Status:	

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

- No. of UG programs: **7**
- No. of PG programs: **5**

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	Artificial Intelligence and Data Science	2025	--	Artificial Intelligence and Data Science
2	Engineering & Technology	UG	Civil Engineering	2010	--	Civil Engineering
3	Engineering & Technology	UG	Computer Engineering	2009	--	Computer Engineering
4	Engineering & Technology	PG	Computer Engineering	2012	--	Computer Engineering
5	Engineering & Technology	PG	Construction Engineering & Management	2014	--	Civil Engineering
6	Engineering & Technology	UG	Electrical and Computer Engineering	2023	--	Electrical and Computer Engineering
7	Engineering & Technology	UG	Electronics and Computer Science	2021	--	Electronics and Computer Science
8	Engineering & Technology	PG	Electronics and Telecommunication Engineering	2012	--	Electronics and Telecommunication Engineering
9	Engineering & Technology	UG	Information Technology	2009	--	Information Technology

10	Engineering & Technology	PG	Machine Design	2012	--	Mechanical Engineering
11	Engineering & Technology	UG	Mechanical Engineering	2009	--	Mechanical Engineering
12	Engineering & Technology	PG	Structural Engineering	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
Computer Engineering	Yes	Computer Engineering	UG
Information Technology	Yes	Information Technology	UG
Mechanical Engineering	No	Mechanical 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	2009 / --	60	Yes	2022	60	2022	F.No. Western/1-10969270887/2022/EOA	Granted accreditation for 3 years for the period (specify period)	2023	2026	3	4

Sanctioned Intake for Last Five Years for the Machine Design	
Academic Year	**Sanctioned Intake**
2025-26	60
2024-25	60
2023-24	60
2022-23	90
2021-22	90
2020-21	180

List of the Allied Departments/Cluster and Programs:

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

A. Name of the HoD :	Dr.Gajendra V. Patil
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	90	90	180	180
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	54	46	24	17	8	16	26
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	22	27	23	36	56	73
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.	54	68	51	40	44	72	99

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	54	0	90.00
2024-25 (CAYm1)	60	46	0	76.67
2023-24 (CAYm2)	60	24	0	40.00

Average [(ER1 + ER2 + ER3) / 3] = 68.89≡ 11.00

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).	126.00	236.00	253.00
B=No. of students who graduated from the program in the stipulated course duration	35.00	61.00	96.00
Success Rate (SR)= (B/A) * 100	27.78	25.85	37.94

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 30.52

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)	5.65	6.63	7.96
Y=Total no. of successful students	52.00	35.00	35.00
Z=Total no. of students appeared in the examination	46.00	24.00	17.00
API [X*(Y/Z)]	6.39	9.67	16.39

Average API[(AP1+AP2+AP3)/3] : 10.82

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)	6.02	6.20	6.81
Y=Total no. of successful students	29.00	28.00	40.00
Z=Total no. of students appeared in the examination	62.00	58.00	80.00
API [X * (Y/Z)]	2.82	2.99	3.40

Average API [(AP1 + AP2 + AP3)/3] : 3.07

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

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

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10)	6.65	6.70	6.41
Y=Total no. of successful students	19.00	35.00	61.00
Z=Total no. of students appeared in the examination	28.00	40.00	66.00
API [X*(Y/Z)]:	4.51	5.86	5.92

Average API [(AP1 + AP2 + AP3)/3] : 5.43

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	126.00	236.00	253.00
X=No. of students placed	31.00	56.00	93.00
Y=No. of students admitted to higher studies	2.00	2.00	1.00
Z= No. of students taking up entrepreneurship	0.00	1.00	2.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	26.19	25.00	37.94

Average Placement Index = (P_1 + P_2 + P_3)/3: 29.71 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.Gajendra V. Patil	XXXXXXX88J	Ph.D	Mumbai University	Machine Design	01/03/2019	7	Professor	Professor	01/03/2019	Regular	Yes		Yes
2	Dr. Marriapan D. Nadar	XXXXXXX95A	Ph.D	Mumbai University	Thermal Engineering	29/07/2015	10.7	Professor	Professor	29/07/2015	Regular	Yes		No
3	Dr. Suhas A. Uthale	XXXXXXX75G	Ph.D	Mumbai University	Machine Design	14/07/2012	13.8	Assistant Professor	Associate Professor	22/08/2022	Regular	Yes		No
4	Dr.Rahul R. Warghane	XXXXXXX83H	Ph.D	VIT, Tamilnadu	Machine Design	25/07/2016	9.7	Assistant Professor	Associate Professor	29/09/2023	Regular	Yes		No
5	Dr. Amar A. Jadhav	XXXXXXX40F	Ph.D	Mumbai University	Thermal Engineering	14/07/2014	11.8	Assistant Professor	Associate Professor	20/03/2025	Regular	Yes		No
6	Mr. Shishirkumar N. Kadam	XXXXXXX53M	M.Tech	Indian Institute of Technology Bombay	Machine Design	01/08/2011	14.7	Assistant Professor	Assistant Professor		Regular	Yes		No
7	Mr. Atul V. Jade	XXXXXXX58L	M.E.	Mumbai University	Machine Design	04/01/2014	12.2	Assistant Professor	Assistant Professor		Regular	Yes		No
8	Mr.Manoj K. Jadhav	XXXXXXX28L	M.E.	Mumbai University	Thermal Engineering	04/01/2016	10.2	Assistant Professor	Assistant Professor		Regular	Yes		No
9	Mr.Swapnil B. Nawale	XXXXXXX92K	M.E.	Pune University	Industrial Engineering	02/09/2015	10.6	Assistant Professor	Assistant Professor		Regular	Yes		No
10	Mr.Ashwini S. Kadam	XXXXXXX71C	M.E.	Mumbai University	Machine Design	15/07/2013	12.8	Assistant Professor	Assistant Professor		Regular	Yes		No
11	Mr.Shashi Bhushan S. Sankhyan	XXXXXXX18G	M.E.	Mumbai University	Machine Design	04/03/2013	13	Assistant Professor	Assistant Professor		Regular	Yes		No
12	Mr.Hemant M. Patil	XXXXXXX14D	M.E.	SP Pune University	Thermal Engineering	08/08/2016	9.7	Assistant Professor	Assistant Professor		Regular	Yes		No
13	Mr.Sayali V. Kulkarni	XXXXXXX56R	M.E.	SP Pune University	Machine Design	13/07/2017	8.8	Assistant Professor	Assistant Professor		Regular	Yes		No
14	Mr.Aditya A.Shinde	XXXXXXX40D	M.E.	Mumbai University	Machine Design	17/06/2017	8.9	Assistant Professor	Assistant Professor		Regular	Yes		No

15	Mr.Abhijit R. Aurangabadkar	XXXXXXX56H	M.E.	JNTU University	Machine Design	01/10/2011	14.5	Assistant Professor	Assistant Professor		Regular	Yes		No
16	Mr.Vivek S. Meshram	XXXXXXX54G	M.Tech	Mumbai University	Automobile Engg	04/01/2014	12.2	Assistant Professor	Assistant Professor		Regular	Yes		No
17	Mr.Vaibhav K. Bhagat	XXXXXXX58E	M.Tech	Mumbai University	Automobile Engg	15/07/2013	12.8	Assistant Professor	Assistant Professor		Regular	Yes		No
18	Mr. Saurabh S.Sirsikar	XXXXXXX70D	M.Tech	Mumbai University	Automobile Engg	15/07/2016	9.8	Assistant Professor	Assistant Professor		Regular	Yes		No
19	Mr. Datta Wakshe	XXXXXXX83C	M.E.	Mumbai University	Thermal Engineering	28/08/2013	12.6	Assistant Professor	Assistant Professor		Regular	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	66	66	99
UG1.C	60	90	90
UG1.D	90	90	180
UG1: Mechanical Engineering	**216**	**246**	**369**
PG1.A	12	12	12
PG1.B	12	12	12
PG1: Machine Design	**24**	**24**	**24**
DS=Total no. of students in all UG and PG programs in the Department	240	270	393
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=** 240	**S2=** 270	**S3=** 393

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
DF=Total no. of faculty members in the Department	19	19	19
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=** 19	**F2=** 19	**F3=** 19
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= 14.12**	**SFR2= 15.88**	**SFR3= 23.12**
Average SFR for 3 years	**SFR= 17.71**		

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)	5	14	11.00	24.09
2024-25(CAYm1)	4	15	13.00	19.23
2023-24(CAYm2)	3	16	19.00	12.37

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	1.00	2.00	2.00	3.00	8.00	14.00
2024-25	1.00	2.00	3.00	2.00	9.00	15.00
2023-24	2.00	2.00	4.00	1.00	13.00	16.00
Average	RF1=1.33	AF1=2.00	RF2=3.00	AF2=2.00	RF2=10.00	AF2=15.00

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)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Dr. R. C. Prasad	Emeritus Professor	PHCET, RASAYANI	Material Science, Composite Materials	60.00
2	Dr. A. S. Rao	Visiting Faculty	Retired Professor from VJTI, Mumbai	Product Design and Development, Optimization Techniques	55.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Dr. R. C. Prasad	Emeritus Professor	PHCET, RASAYANI	Material Science, Composite Materials	60.00
2	Dr. A. S. Rao	Visiting Faculty	Retired Professor from VJTI, Mumbai	Product Design and Development, Optimization Techniques	55.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Dr. R. C. Prasad	Emeritus Professor	PHCET, RASAYANI	Material Science, Composite Materials	60.00
2	Dr. A. S. Rao	Visiting Faculty	Retired Professor from VJTI, Mumbai	Product Design and Development, Optimization Techniques	55.00

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	10	18	20
2	No. of peer reviewed conference papers published	5	3	3
3	No. of books/book chapters published	0	0	0

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.Gajendra V. Patil		Mechanical Engineering	Recent Trends and Digital Techniques in Manufacturing Systems. AICTE–VAANI	ATAL	1 year	2.00
Dr. Marriapan D. Nadar		Mechanical Engineering	Two Weeks AICTE-ATAL Advanced Faculty Development Program (FDP) on “Recent Trends and Digital Techniques in Manufacturing Systems”	ATAL	1 year	6.00
						Amount received (Rs.):8.00

(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
Mr. Vaibhav Bhagat		Mechanical Engineering	Grant for Presentation Competition on Standards	Bureau of Indian Standards (Government of India)	1 year	0.20
Mr. Vaibhav Bhagat		Mechanical Engineering	Grant for World consumer rights day celebration and Youth Campaign	Bureau of Indian Standards (Government of India)	1 year	0.63
Mr. Vaibhav Bhagat		Mechanical Engineering	Travel grant to attend Two day Residential Training Programme for "Key Resource Persons for Transacting lesson Plans under learning via Standards" at Noida on 08-04-2024 to 09-04-2024	Bureau of Indian Standards (Government of India)	1 year	0.19
Dr. Gajendra V. Patil	Dr. Suhas Uthale	Mechanical ENgineering	Failure analysis of process equipment	REU Engineering and Consulting LLP	1 Year	4.00
						Amount received (Rs.):5.02

(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.Gajendra V. Patil		Mechanical Engineering	Funding for project - Automatic Air Fill System in LMV and bike Tyres	GEH Research	1 year	1.50
Mr. Vaibhav Bhagat		Mechanical Engineering	Travel Grant for Visit to DAS Offshore, Dighi, Shriwardhan, Raigad	Bureau of Indian Standards (Government of India)	6 months	0.08
Mr. Vaibhav Bhagat		Mechanical Engineering	Worlds Standard Day Celebration	Bureau of Indian Standards (Government of India)	1 year	0.74
Dr.Gajendra V. Patil		Mechanical Engineering	Funding for STTP on “Challenges and Opportunities In Sustainable Energy Conservation, Utilization and Its Business Strategy” from September 19 to September 24, 2022	GEH Research	1 year	0.41
Mr. Shashi Bhushan		Mechanical Engineering	Development of All- Terrain Vehicle Quad Torc 2022	Oil and Natural Gas Limited ONGC, (Govt. of India)	1 year	1.48
Dr.Gajendra V. Patil		Mechanical Engineering	Sponsorship for Mek-TeK 2023, Project Competition	GEH Research	1 year	0.25
						Amount received (Rs.):4.46

Total Amount (Lacs) Received for the Past 3 Years: 17.48

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
Mr. Vaibhav Bhagat		Department of Mechanical Engineering	Quality connect campaign on occasion of World Standards day 2024	Bureau of Indian Standards (BIS)	1 year	2.30
Mr. Vaibhav Bhagat		Department of Mechanical Engineering	BIS Carnival	Bureau of Indian Standards (BIS)	3 months	15.00
						Amount received (Rs.):17.30

(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
Dr. R C Prasad		Department of Mechanical Engineering	A Project on "Developmenet of Advanced Quality Fasteners Through Structure Propoerty Coorelation	M/S OHT Fasstcom Pvt Ltd	1 year	1.93
						Amount received (Rs.):1.93

Total amount (Lacs) received for the past 3 years: 19.23

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. Shashi Bhushan and Mr. Aditya Shinde	ISNEE Motorsports	1 year	1.50	1.50	Go kart,ATV
Dr.Gajendra V. Patil	ME Project	1 year	1.00	1.00	Project
Dr. Marriapan D. Nadar	ME Project	1 year	1.00	1.00	Project
Dr. Suhas A. Uthale	ME Project	1 year	1.00	1.00	Project
			Amount received (Rs.): 4.50		

(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
Mr. Shashi Bhushan and Mr. Aditya Shinde	ISNEE Motorsports	1 year	1.50	1.50	Go kart,ATV
Dr.Gajendra V. Patil	ME Project	1 year	1.00	1.00	Project
Dr. Marriapan D. Nadar	ME Project	1 year	1.00	1.00	Project
Dr. Suhas A. Uthale	ME Project	1 year	1.00	1.00	Project
			Amount received (Rs.): 4.50		

(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
Mr. Shashi Bhushan and Mr. Aditya Shinde	ISNEE Motorsports	1 year	1.50	1.50	Go kart,ATV
Dr.Gajendra V. Patil	ME Project	1 year	1.00	1.00	Project
Dr. Marriapan D. Nadar	ME Project	1 year	1.00	1.00	Project
Dr. Suhas A. Uthale	ME Project	1 year	1.00	1.00	Project
			Amount received (Rs.): 4.50		

Total amount (Lacs) received for the past 3 years : 13.50

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 CAM & FEA	20	• Computer Set-up - 8 GB, 500- SSD, • Lab View, Ansys, Auto CAD, Matlab • National Instruments LAB	75 %	Ms. Tanvi Patil	Lab Attendant	B.Sc. IT
2	Measurements & Automation	20	• Basic Electro Pneumatic Equipment set with PLC • Add on easy port kit • Jun Air Compressor with	50 %	Mr. Sunil Kamble	Lab Attendant	ITI Machinist
3	Thermal Engineering	20	• Experimental set-up on mass flow rate of air through orifice plate • Trial on two stage	50 %	Ms. Rutuja Nemane	Lab Attendant	Diploma Mechanical Engg
4	Dynamic of Machinery	20	• Whirling of shaft Demonstrator apparatus. • Static and Dynamic balancing apparatus. • Transmissibility	50 %	Mr. Nitin Patil	Lab Attendant	ITI Machinist

5	Material Testing	20	• Universal Testing Machine • Impact Testing Machine • Hardness Testing Machine • Binocular material microscope Triangular microscope	50 %	Mr. Avinash Lokhande	Lab Attendant	H.S.C. , Skill development
6	Machine Shop Practice & CNC	20	• Hand Drill Machine (Electric) • Apex wood working Vice • Lathe Machine • Bench Drilling M/c Bench Grinder M/c CNC Turning Lathe	75 %	Mr. Palekar Kalpesh Vasu	Lab Attendant	ITI Machinist
7	Turbo- Machinery	20	• Gear Oil Pump Test Rig • Self-Priming Test Rig • Pumps in series & parallel	50 %	Mr. Avinash Lokhande	Lab Attendant	H.S.C. , Skill development
8	Automobile & Automotive Systems Lab	20	• Maruti Car 800 • Fiat Chassis • Real axle assembly with leaf spring, Drum & Differential • Automatic Transmission)	50 %	Mr. Dinesh Sharma	Lab Attendant	Diploma Automobile
9	Heating Ventilation & Air Conditioning	20	• Duct type Air Conditioning Test Rig • Mechanical Heat Pump Trainer • Vapor Absorption Refrigeration with solar panel	50 %	Mr. Rakesh Thakur	Lab Attendant	ITI Machinist
10	Basic Work-Shop	20	• Mallets • Chisels & File • Hammer • Bench Vice	75 %	Kamble Prashant	Lab Attendant	ITI Machinist
11	Engineering Mechanics	20	• Moment of Inertia of flywheel. • Support reaction of beam. • Bell crank lever.	50 %	Mr. Rakesh Thakur	Lab Attendant	ITI Machinist

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Materials Testing	Safety Gear: Wear lab coats, safety goggles with side shields, and gloves (appropriate to the material) at all times. Footwear: Wear sturdy, closed-toe shoes (non-slip recommended). Authorized Access: Only trained and authorized personnel should operate machinery like Universal Testing Machines (UTM), hardness testers, or impact testers. Machine Inspection: Perform pre-checks for damage, proper calibration, and security of grips or dies. Machine Guarding: Keep all safety guards in place during operation. Electrical Safety: Do not alter high-voltage equipment, and turn off power supplies when attaching specimens. Specimen Preparation: Ensure samples meet, size, and shape standards, and remove sharp edges/burrs before testing. Proper Procedures: Always follow standardized testing procedures (SOP'S). Clear Workspaces: Keep benches and aisles uncluttered, clean, and free of debris. Reporting: Immediately report all accidents, hazardous situations, or equipment damage to a supervisor.
2	Turbo Machinery	Safety Gear: Wear lab coats, safety goggles with side shields, and gloves (appropriate to the material) at all times. Footwear: Wear sturdy, closed-toe shoes (non-slip recommended). Authorized Access: Only trained and authorized personnel should operate machinery like Pelton turbine, Francis turbine, centrifugal pump test rig. Machine Inspection: Perform pre-checks for damage, proper calibration, and security of grips or hoses. Machine Guarding: Keep all safety guards in place during operation specially stop nob and reset. Electrical Safety: Do not alter high-voltage equipment, and turn off power supplies when attaching specimens. Proper Procedures: Always follow standardized testing procedures (SOP'S) for each experiment as stated. Clear Workspaces: Keep benches and aisles uncluttered, clean, and free of spill-over and leakages. Reporting: Immediately report all accidents, hazardous situations, or equipment damage to a supervisor.
3	Machine shop Practice & CNC	Safety Gear: Wear lab coats, safety goggles with side shields, and gloves (appropriate to the material) at all times. Footwear: Wear sturdy, closed-toe shoes (non-slip recommended). Authorized Access: Only trained and authorized personnel should operate machinery specially CNC machine. Do not operate without safety guard closed. Machine Inspection: Perform pre-checks for damage, proper calibration, and security of grips or dies. Machine Guarding: Keep all safety guards in place during operation, make sure the simulation trial is successful before program run. Electrical Safety: Do not alter high-voltage equipment, and turn off power supplies when attaching specimens. Work-piece sampling: Ensure samples meet, size, and shape as per drawing, and remove sharp edges/burrs before operating. Proper Procedures: Always follow standardized testing procedures (SOP'S) and operate under supervisor. Clear Workspaces: Keep benches and aisles uncluttered, clean, and free of debris. Reporting: Immediately report all accidents, hazardous situations, or equipment damage to a supervisor. Reset : Reset the machine tool to initial zero position and remove tool.

4	Basic Workshop	Personal Protective Equipment (PPE): Wear safety glasses, appropriate footwear, and avoid loose clothing or jewelry that can get caught in machinery. Workshop Environment: Keep aisles and exits clear of obstructions. Immediately clean up oil spills, grease, or scrap materials to prevent slips and falls. Machine & Tool Safety: Inspect tools before use and never use defective equipment. Keep guards in place on power tools. Ensure machines are turned off before making adjustments. Operational Safety: Never leave machines running unattended. Use the correct tool for the job to avoid injury. Keep hair tied back and remove jewelry. Electrical Safety: Check power tools for damaged cords and use Safe Electrical Practices such as RCDs (Residual Current Devices) to prevent shocks. Emergency Preparedness: Know the location of first aid kits and emergency exits.
5	CAD CAM & FEA	Ergonomics: Use proper posture, screen height, and chair support to prevent long-term musculoskeletal injuries. PPE: Wear safety glasses, masks, and appropriate clothing in the machine lab. Safety Protocols: Never leave running machinery unattended. Cybersecurity: Scan external storage devices (USB drives) for viruses. Maintenance: Regularly update software and firmware to avoid system crashes and data loss. Environment: Maintain a cool, clean environment to prevent electronics from overheating
6	Thermal Engineering	Personal Protective Equipment (PPE): Always wear lab coats, non-slippery closed-toe shoes (preferably steel-toed), and safety goggles to protect against spills, splashes, and debris. Thermal/Pressure Hazards: Never touch hot exhaust lines or moving engine parts. Keep hands/tools away from rotating couplings. Use shielding for high-pressure systems. Fuel & Chemical Handling: Handle fuels (gasoline/diesel) with extreme caution, using designated, well-ventilated areas. Do not use fuel for cleaning tools. Equipment Operation: Read instruction manuals and consult instructors before operating any machine. Inspect equipment for leaks or worn parts before starting. Electrical Safety: Check power tools for damaged cords and use Safe Electrical Practices such as RCDs (Residual Current Devices) to prevent shocks. Cleanup: Clean up spills immediately using appropriate materials. Keep work areas neat and clean, and return tools to designated areas. Emergency Response: Locate emergency stop (EPO) buttons, fire extinguishers, and first-aid kits immediately upon entering. In case of danger alerts, stop the engine instantly.
7	Automobile & Automotive Systems Lab	Safety Glasses/Goggles: Must be worn at all times to protect against flying particles, debris, or chemical splashes. Gloves: Nitrile gloves are required for handling chemicals, while cut-resistant gloves should be used for sharp objects. Footwear: Sturdy, closed-toe shoes (preferably steel-toed boots) are necessary to protect feet from dropped tools or heavy car parts. Protective Clothing: Wear durable, fitted clothing (overalls) to avoid entanglement in moving machinery. Do not wear loose clothing, jewelry, or long, hanging items. Hearing Protection: Use earplugs or earmuffs when working with loud machinery. Spill Control: Clean oil, grease, or fuel spills immediately using appropriate absorbent materials (avoid using oil-dry on gasoline, as it makes it more flammable). No Working Alone: Avoid working alone in the lab, particularly on high-risk tasks. Safe Lifting: Use jack stands to support a vehicle; never rely solely on a hydraulic jack. Vehicle Positioning: Position the vehicle's center of gravity properly on the lift to prevent tilting or sliding. Safety Locks: Engage the mechanical safety catch/lock on the lift before working under a vehicle. Exhaust Safety: If a vehicle is running, connect the tailpipe to the exhaust ventilation system to avoid asphyxiation. Hot Surface Warning: Be aware of hot engines, exhaust manifolds, and radiators. Fuel Handling: Store gasoline and flammable liquids in authorized, sealed, labeled containers. Never use gasoline for cleaning. No Compressed Air on Clothing: Do not use compressed air to clean dirt off clothes, and do not point it at another person. Battery Disconnection: Disconnect the battery before working on electrical systems. Battery Hazard: Be aware that charging batteries emit highly explosive hydrogen gas. Fire Extinguishers: Know the location of fire extinguishers (rated for Class B/C for oil and electrical fires) and ensure they are easily accessible. Oily Rags: Store oily rags in an approved fireproof safety container. First Aid/Safety Training: Attend all safety briefings and read risk assessment sheets before starting experiments. Reporting: Immediately report any injuries, spills, or faulty equipment to the supervisor. Evacuation: Familiarize yourself with emergency evacuation routes.
8	Dynamics of Machinery	Attire: Always wear closed-toe shoes and a lab coat. Long hair must be tied back and secured, and loose clothing or jewelry should be avoided to prevent entanglement in rotating parts. Supervision: Never touch or operate any machinery without the explicit permission of an instructor or lab assistant. Preparation: Read the lab manual and understand the experiment procedure and emergency procedures before starting. Rotation Safety: Never lean over or get close to rotating components, such as shafts, gears, or discs. Balancing Apparatus: Ensure balancing masses are securely tightened to discs before starting the motor to avoid detached parts becoming projectiles. Speed Control: Start speed controllers gradually and never exceed the designated maximum RPM (e.g., 350 rpm in some cases). Vibration Control: Do not allow the system to vibrate excessively; shut down immediately if dangerous vibrations occur. Electrical Safety: Ensure equipment is properly grounded before connecting to the power supply. Turn off the power before inspecting or adjusting the apparatus. No Unattended Operation: Never leave a running experiment unattended. Emergency Stop: Be aware of the location of the main power supply and the emergency "Stop" button. Fire/Injury: In case of fire or injury, turn off the power, report to staff, and follow established emergency protocols. Equipment-Specific Precautions Whirling of Shafts/Cams: Use extreme care as these rotate at high speeds. Governors: Measure angles and heights carefully only when the apparatus is at rest. Brakes/Clutches: Do not touch friction surfaces while in operation.

9	Engineering Mechanics	Eye Protection: Always wear safety glasses or face shields, particularly when using machines that produce flying chips, as recommended by KU's Safety Procedures. Clothing/Attire: Do not wear loose-fitting clothing, neckties, or scarves. Ensure sleeves are rolled up or short, note MLRIT's safety advice. Footwear: Wear sturdy, closed-toe shoes; steel-toed boots are recommended for handling heavy equipment. Hair & Jewelry: Long hair must be tied back and secured. Remove rings, bracelets, and necklaces, Proper Training: Never operate any equipment unless you have been formally trained and authorized by an instructor. Entanglement Risks: Keep hair, clothing, and hands away from rotating parts and pinch points. Machine Operation: Do not leave equipment running unattended. Shut down machines before attempting to adjust or clean them Emergencies: Locate all emergency exits, fire extinguishers, and emergency power-off buttons. Housekeeping: Keep work areas clean and aisles clear of bags or cables to prevent tripping hazards. Reporting: Immediately report all injuries, spills, or faulty equipment to the TA or instructor,
10	Heating Ventilation and RAC Lab	Eye Protection: Always wear safety glasses or face shields to block chemical splashes (like refrigerants or coil cleaners) and flying debris from drilling or soldering. Footwear: Use steel-toed, slip-resistant boots to protect against heavy dropped equipment and maintain footing on potentially oily or wet floors. Hand Protection: Use insulated gloves for electrical work, cut-resistant gloves for handling sheet metal or glass, and chemical-resistant gloves when handling liquid refrigerants to prevent frostbite. Hearing & Respiratory Protection: Wear earplugs in high-noise environments (near large compressors or blowers) Power Off First: Always de-energize equipment before any inspection or repair. Turn off the main switch or circuit breaker and unplug the unit if possible. Never Work Alone: At least two people should be present when working on live circuits or in confined spaces. Proper Training: Never operate any equipment unless you have been formally trained and authorized by an instructor. Identify Safety Stations: Know the exact location and operation of the fire extinguisher, eye wash station, safety shower, and first aid kit. Fire Safety: Be aware of fire exit routes. Use Class C extinguisher
11	Measurements & Automation	• SOPs and safety instructions displayed in all labs and followed strictly. • Personal Protective Equipment's usage is enforced. • Equipment with safety guards and periodic maintenance are monitored regularly as per maintenance and audit. • Electrical and fire safety systems in place are audited. • First-aid kits and emergency procedures available. • Regular safety training and awareness programs conducted for the students and instructors. • Proper ventilation, housekeeping, and hazard control maintained.

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)	540	27	17	5	53
2024-25(CAYm1)	540	27	17	5	54
2025-26(CAY)	600	30	17	5	49

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	57300000	57300000	12500000	11922521.00	6000000.00	3863091.00	5000000	4834500

Library	1200000	802946	985000	1223314	900000	861249	300000	283957
Laboratory equipment	7500000	6800000	2000000	1723543	4000000	1081100	100000	72737
Teaching and non-teaching staff salary	132000000	130278664	128000000	127569927	121300000.00	119984610	112500000	92006560
Outreach Programs	1000000	869054	1300000	1268500.00	475000	418402	0	0
R&D	1300000	599948	1200000	959930.00	1000000	747024	200000	147668
Training, Placement and Industry linkage	680000	12459	675000	365464.00	650000.00	600750.00	200000	170266
SDGs	0	0	0	0	0	0	0	0
Entrepreneurship	0	0	0	0	0	0	0	0
Others, specify	21006000	1757278	43914000	15319520	24592000	13853935	2350000	1781204
Total	**221986000**	**198420349**	**190574000**	**160352719.00**	**158917000.00**	**141410161.00**	**120650000**	**99296892**

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	200000	208101	450000	239811	944000	190287	220000	203000
Software	10000	0	10000	525100	10000	0	0	0
SDGs	10000	0	0	0	0	0	0	0
Support for faculty development	50000	0	0	0	0	0	0	0
R & D	50000	0	50000	0	60000	0	60000	50000
Industrial Training, Industry expert, Internship	5000	0	5000	0	5000	0	0	0
Miscellaneous Expenses*	5000	0	5000	0	5000	0	0	0
Total	**330000**	**208101**	**520000**	**764911**	**1024000**	**190287**	**280000**	**253000**