

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 : 11580	Date of Submission : 02-02-2026

PART A- Profile of the Institute

A1.Name of the Institute : Government Engineering College Valsad	
Year of Establishment : 2004	Location of the Institute: Valsad
A2. Institute Address :Near Sanskar Kendra College Road Besides BKM Science College	
City:Valsad	State:Gujarat
Pin Code:396001	Website:www.gecv.ac.in
Email:gecv-valsad-dte@gujarat.gov.in	Phone No(with STD Code):02632-241960
A3. Name and Address of the Affiliating University (if any):	
Name of the University : Gujarat Technological University	City: Ahmedabad
State : Gujarat	Pin Code: 382424
A4. Type of the Institution : Government Institute	
A5. Ownership Status : State Government	

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

- No. of UG programs: 5
- No. of PG programs: 1

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	Chemical Engineering	2004	--	Chemical Engineering
2	Engineering & Technology	UG	Civil Engineering	2009	--	Civil Engineering
3	Engineering & Technology	UG	Electrical Engineering	2009	--	Electrical Engineering
4	Engineering & Technology	PG	Energy Engineering	2011	--	Mechanical Engineering
5	Engineering & Technology	UG	Environmental Engineering	2009	--	Environmental Engineering
6	Engineering & Technology	UG	Mechanical Engineering	2004	--	Mechanical 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
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	2004 / --	120	No	NA	120	2004	AICTE EoA	Applying first time	--	--	0	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 :	Dr. SANATKUMAR VANISHANKAR DAMANIA
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	120	120	69	45	120	120	120
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	28	20	56	23	19	26
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	16	23	0	0	28	24	25
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	136	171	89	101	171	163	171

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	120	16	113.33
2024-25 (CAYm1)	120	120	23	119.17
2023-24 (CAYm2)	120	69	0	57.50

$$\text{Average } [(ER1 + ER2 + ER3) / 3] = 96.67 \approx 20.00$$

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

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

Item	(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).	169.00	159.00	168.00
B=No. of students who graduated from the program in the stipulated course duration	113.00	129.00	133.00
Success Rate (SR)= (B/A) * 100	66.86	81.13	79.17

$$\text{Average SR of three batches } ((SR_1 + SR_2 + SR_3)/3): 75.72$$

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)	3.78	4.78	4.59
Y=Total no. of successful students	135.00	64.00	44.00
Z=Total no. of students appeared in the examination	135.00	65.00	44.00
API [X*(Y/Z)]	3.78	4.71	4.59

$$\text{Average API} [(AP1+AP2+AP3)/3] : 4.36$$

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)	5.16	4.64	5.24
Y=Total no. of successful students	61.00	84.00	126.00
Z=Total no. of students appeared in the examination	84.00	100.00	154.00
API [X * (Y/Z)]	3.75	3.90	4.29

$$\text{Average API } [(AP1 + AP2 + AP3)/3] : 3.98$$

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)
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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)	5.85	6.46	6.54
Y=Total no. of successful students	70.00	119.00	137.00
Z=Total no. of students appeared in the examination	84.00	126.00	147.00
API [X*(Y/Z)]:	4.87	6.10	6.10

Average API [(AP1 + AP2 + AP3)/3] : 5.69

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	143.00	139.00	147.00
X=No. of students placed	61.00	57.00	47.00
Y=No. of students admitted to higher studies	5.00	11.00	9.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = $((X + Y + Z)/FS) * 100$:	46.15	48.92	38.10

Average Placement Index = $(P_1 + P_2 + P_3)/3$: 44.39 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. SANATKUMAR VANISHANKAR DAMANIA	XXXXXXXX92J	Ph.D	Sardar Vallabhbhai National Institute of Technology, Surat	CAD/CAM	14/12/2004	21.1	Assistant Professor	Associate Professor	18/09/2012	Regular	Yes		Yes
2	Dr. VIJAY DHARMARAJ DHIMAN	XXXXXXXX59R	Ph.D	Bhavnagar University	Mechanical Engineering	18/05/2022	3.8	Professor	Professor	18/05/2022	Regular	Yes		No
3	ROHITKUMAR NAROTTAMDAS MEHTA	XXXXXXXX45L	M.E.	Gujarat University	Cryogenic engineering	24/04/2025	0.9	Associate Professor	Associate Professor	24/04/2025	Regular	Yes		No

4	Dr. HEMISH ARUNCHANDRA VAIDYA	XXXXXXXX86D	Ph.D	Sardar Vallabhbhai National Institute of Technology, Surat	Mechanical Engineering	05/12/2019	6.1	Assistant Professor	Associate Professor	23/04/2025	Regular	Yes	No
5	Dr. VIMALKUMAR DAHAYABHAI SONARA	XXXXXXXX28G	Ph.D	Gujarat Technological University	I C Engine and Alternate fuels	24/04/2025	0.9	Associate Professor	Associate Professor	24/04/2025	Regular	Yes	No
6	Dr. HITESH KISHORBHAI SOLANKI	XXXXXXXX11N	Ph.D	Charotar University of Science and Technology, Changa	Gas Turbine Combustion Chamber	24/04/2025	0.9	Associate Professor	Associate Professor	24/04/2025	Regular	Yes	No
7	Dr. SAURABHKUMAR BHARATKUMAR DIKSHIT	XXXXXXXX80B	Ph.D	Charotar University of Science and Technology, Changa	Atomization and Spray	24/04/2025	0.9	Associate Professor	Associate Professor	24/04/2025	Regular	Yes	No
8	ALPESH RAMESHCHANDRA PATEL	XXXXXXXX93N	M.E.	Gujarat Technological University	Energy Engineering	10/12/2013	12.1	Assistant Professor	Assistant Professor		Regular	Yes	No
9	BHAVESHKUMAR KANAIYALAL PATEL	XXXXXXXX11J	M.E.	Maharaja Sayajirao University of Baroda	JET Propulsion and Gas Turbine Plants	08/03/2019	6.10	Assistant Professor	Assistant Professor		Regular	Yes	No
10	NAINESHKUMAR SUBHASHBHAI PATEL	XXXXXXXX02M	M.E.	Gujarat University	Internal Combustion Engine	01/07/2015	10.7	Assistant Professor	Assistant Professor		Regular	Yes	No
11	SANDIP THAKORBHAI PATEL	XXXXXXXX22R	M.Tech	Sardar Vallabhbhai National Institute of Technology, Surat	CAD/CAM	23/03/2012	13.10	Assistant Professor	Assistant Professor		Regular	Yes	No
12	Dr. SHIRISHBHAI KANUBHAI PATEL	XXXXXXXX97N	Ph.D	Gujarat Technological University	Machine Design, Solar	30/06/2015	10.7	Assistant Professor	Assistant Professor		Regular	Yes	No
13	RACHANA JAGDISHKUMAR VAROTARIA	XXXXXXXX89J	M.E.	Gujarat University	Cryogenics	26/11/2020	5.2	Assistant Professor	Assistant Professor		Regular	Yes	No
14	KUNALKUMAR ARJUNBHAI CHAUDHARI	XXXXXXXX92M	M.E.	Gujarat Technological University	CAD/CAM, Energy Engineering	06/05/2016	9.8	Assistant Professor	Assistant Professor		Regular	Yes	No

15	HEMANTCHANDRA NARESHBHAI PATEL	XXXXXXXX76K	M.Tech	Charotar University of Science and Technology, Changa	CAD/CAM	02/05/2016	9.9	Assistant Professor	Assistant Professor		Regular	Yes		No
16	Dr. JUGALKUMAR MUKESHBHAI PANCHAL	XXXXXXXX75M	Ph.D	Gujarat Technological University	Mechanical Engineering	23/06/2016	9.7	Assistant Professor	Assistant Professor		Regular	Yes		No
17	KRUNAL RAVJIBHAI PATEL	XXXXXXXX46K	M.E.	The Maharaja Sayajirao University, Baroda	JET Propulsion and Gas Turbine Plants	10/06/2016	9.7	Assistant Professor	Assistant Professor		Regular	Yes		No
18	Dr. MANISHKUMAR KANTILAL MISTRY	XXXXXXXX73N	Ph.D	Rai University Ahmedabad	Internal Combustion Engines, Automobile Engineering, Alternate Fuels, Hydrogen Energy	22/06/2016	9.7	Assistant Professor	Assistant Professor		Regular	Yes		No
19	SNEHAL PREMNATH MAISURIA	XXXXXXXX52Q	M.E.	The Maharaja Sayajirao University, Baroda	Thermal Science	10/06/2016	9.7	Assistant Professor	Assistant Professor		Regular	Yes		No
20	PRATIK JAYANTILAL PATEL	XXXXXXXX78K	M.Tech	Gujarat Technological University	Machine Design	13/11/2020	5.2	Assistant Professor	Assistant Professor		Regular	Yes		No
21	NITINKUMAR ZAVARBHAI PATEL	XXXXXXXX96R	M.Tech	Sardar Vallabhbhai National Institute of Technology, Surat	Industrial Process Equipment Design	15/06/2016	9.7	Assistant Professor	Assistant Professor		Regular	Yes		No
22	VIMALCHANDRA SURESHBHAI PATEL	XXXXXXXX14E	M.E.	The Maharaja Sayajirao University, Baroda	Thermal	07/06/2016	9.7	Assistant Professor	Assistant Professor		Regular	Yes		No
23	KIRTESH AMRATBHAI PATEL	XXXXXXXX17R	M.Tech	Sardar Vallabhbhai National Institute of Technology, Surat	CAD/CAM	01/11/2022	3.2	Assistant Professor	Assistant Professor		Regular	Yes		No
24	BALVANTBHAI CHHOTUBHAI PATEL	XXXXXXXX24M	M.Tech	Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal	Machine Design	01/11/2022	3.2	Assistant Professor	Assistant Professor		Regular	Yes		No

25	BHARATBHAI GOVINDBHAI PATEL	XXXXXXXX79G	B.E.	North Maharashtra University, Jalgaon	Production	12/12/2014	11.1	Assistant Professor	Assistant Professor		Contractual Fulltime	Yes		No
26	MEETA PURUSHOTTAM CHAUHAN	XXXXXXXX36H	M.E.	Gujarat Technological University	CAD/CAM	06/10/2012	13.3	Assistant Professor	Assistant Professor		Contractual Fulltime	Yes		No
27	RAVIKUMAR SUMANBHAI ENGINEER	XXXXXXXX04K	M.Tech	Sardar Vallabhbhai National Institute of Technology, Surat	Thermal System Design	06/02/2014	11.11	Assistant Professor	Assistant Professor		Contractual Fulltime	Yes		No
28	JENIPKUMAR PRAVINBHAI TANDEL	XXXXXXXX36M	M.Tech	Sardar Vallabhbhai National Institute of Technology, Surat	Mechanical Engineering	21/10/2014	11.3	Assistant Professor	Assistant Professor		Contractual Fulltime	Yes		No
29	DHAVAL NARANBHAI PATEL	XXXXXXXX50E	M.Tech	Sardar Vallabhbhai National Institute of Technology, Surat	Thermal	01/01/2016	10.1	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	132	132	132
UG1.C	132	132	132

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
UG1.D	132	132	132
UG1: Mechanical Engineering	396	396	396
PG1.A	18	18	18
PG1.B	18	18	18
PG1: Energy Engineering	36	36	36
DS=Total no. of students in all UG and PG programs in the Department	432	432	432
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= 432	S2= 432	S3= 432
DF=Total no. of faculty members in the Department	28	24	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= 28	F2= 24	F3= 24
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= 15.43	SFR2= 18.00	SFR3= 18.00
Average SFR for 3 years	SFR= 17.14		

C3. Faculty Qualification

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

Table No.C3.1: Faculty qualification.

Year	X	Y	RF	FQ = $2.5 \times [(10X + 4Y) / RF]$
2025-26(CAY)	8	20	21.00	19.05
2024-25(CAYm1)	3	21	21.00	13.57
2023-24(CAYm2)	3	21	21.00	13.57

C4. Faculty Cadre Proportion

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

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

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

2025-26	2.00	1.00	4.00	5.00	14.00	19.00
2024-25	2.00	1.00	4.00	0.00	14.00	20.00
2023-24	2.00	1.00	4.00	0.00	14.00	20.00
Average	RF1=2.00	AF1=1.00	RF2=4.00	AF2=1.67	RF2=14.00	AF2=19.67

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)

(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	11	9	5
2	No. of peer reviewed conference papers published	0	0	0
3	No. of books/book chapters published	0	0	2

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.Manish K. Mistry		Mechanical	Experimental optimization of Hydrogen production via electrolysis with modified geometry of electrode plate	Directorate of Technical Education, Gandhinagar	01/02/2025 to 31/01/2027	4.90
						Amount received (Rs.):4.90

(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
Prof S T Patel		Mechanical	Development of 4-axis Extrusion-based 3D Printer to Fabricate Cylindrical Topology Structures	Directorate of Technical Education, Gandhinagar	01/04/2023 to 31/03/2026	1.97
						Amount received (Rs.):1.97

(CAYm3)

Total Amount (Lacs) Received for the Past 3 Years: 6.87**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
Prof. S. V. Damania	Prof. S. T. Patel	Mechanical	Design Compliance Certificate for various items	KISHAN FORCE,KILLA-PARDI, VALSAD	2 month	1.65
Prof. S. V. Damania	Prof. S. T. Patel	Mechanical	Design Compliance Certificate for various items	KISHAN TACTOR,KILLA-PARDI, VALSAD	2 month	1.65
						Amount received (Rs.):3.30

(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
Prof. S. V. Damania	Prof. S. T. Patel	Mechanical	Third-Party Quality Inspection of "TRAILER MOUNTED WATER PUMP (Model : 8 inches)"	KISHAN FORCE,KILLA-PARDI, VALSAD	1 month	0.12
						Amount received (Rs.):0.12

(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
Prof. S. V. Damania		Mechanical	Third-Party Inspection Report For SWARAJ 733 FE Tractor	KISHAN FORCE,KILLA-PARDI, VALSAD	1 month	0.24
Prof. S. V. Damania		Mechanical	Third-Party Inspection Report For Hydraulic Tractor Trailer Model: 12 x 6 x 2 feet	KISHAN FORCE,KILLA-PARDI, VALSAD	1 week	0.12
Prof. S. V. Damania	Prof. S. T. Patel	Mechanical	Third-Party Inspection Report For 1. Hydraulic Tractor Trailer (Swaraj 733 FE) 2. Hydraulic Tractor Trailer Model: 11 x 6 x 2.6 feet	KISHAN FORCE,KILLA-PARDI, VALSAD	1 week	0.30
Prof. S. V. Damania	Prof. P. J. Patel	Mechanical	Third-Party Inspection Report For 1. Hydraulic Tractor Trailer (Swaraj 733 FE) 2. Hydraulic Tractor Trailer Model: 11 x 6 x 2.6 feet	KISHAN FORCE,KILLA-PARDI, VALSAD	1 week	0.24
Prof. S. V. Damania	Prof. S. T. Patel	Mechanical	Third-Party Inspection Report For 1. Hydraulic Tractor Trailer (Swaraj 733 FE) 2. Hydraulic Tractor Trailer Model: 11 x 6 x 2.6 feet	KISHAN FORCE,KILLA-PARDI, VALSAD	1 week	0.24
Prof. K. A. Chaudhari	Prof. P. J. Patel	Mechanical	Vetting & Certifying the Racking Components & Connections FEA Test Results	INDOBUILT STORAGE SYSTEMS PVT. LTD., Daman	1 month	0.25
						Amount received (Rs.):1.39

Total amount (Lacs) received for the past 3 years: 4.81

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
Dr.S.K.Patel	PLANTING POT	1 YEAR	0.06	0.06	Created a durable and functional planting pots suitable for growing small plants. The project improved our skills in crafting and design.
			Amount received (Rs.): 0.06		

(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.S.K.Patel	Geometrical Enhancement in Absorber Plate of Square Pyramid Solar Still – An Experimental Study	1 YEAR	0.49	0.25	Improving the productivity of Square pyramid solar still
Prof.H.N.Patel	Flexible and portable solar panel carriage tracking system	1 YEAR	0.51	0.05	Improving the efficiency of solar panel
			Amount received (Rs.): 1.00		

(CAYm3)

Total amount (Lacs) received for the past 3 years : 1.06

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	Workshop and Manufacturing Practice	20	1. Hacksaw machine, 6. Fitting shop, 7. Carpentry and Plumbing vice 8. various types of files for fitting shop 9. Test bed for workshop	▲ ▼ □	16	Mr. R. S. PATEL	Instructor	DME
2	Material Science And Metallurgy	20	1. Liquid Penetration Test kit 2. Microscopic Specimen 3. Monocular Metallurgical Microscope 4. Double Disc Polishing Machine 5. Oil Tester of	▲ ▼ □	12	Mr. R. S. PATEL	Instructor	DME
3	Engineering Thermodynamics	20	1. Internal combustion engine 2. Vapor compression test rig, 3. Bomb calorimeter 4. Junker gas calorimeter	▲ ▼ □	12	Mr. R. S. PATEL	Instructor	DME
4	Mechanical Measurement And Metrology	20	1. Hand Tachometer 2. Digital Anemometer 3. Pressure Measurement By Dead Weight Pressure Gauge 4. Strain Measurement 5. Digital Testometer	▲ ▼ □	16	Mr. H. K. PATEL	Instructor	DME
5	Manufacturing Processes	20	1. Lathe Machine 2. shaper machine 3. Milling machine 4. Drilling machine 5. Grinding machine 6. shaper machine 7. slotting machine	▲ ▼ □	16	Mr. H. K. PATEL	Instructor	DME
6	Fluid Mechanics and Hydraulics Machines	20	1. Pitot Tube 2. Steam Turbine 3. Francis Turbine Test Rig 4. Axial Flow Pump Test Rig 5. Centrifugal Pump Test Rig 6. Kaplan Turbine Test Rig	▲ ▼ □	16	Mr. R. S. PATEL	Instructor	DME
7	Dynamics Of Machinery	15	1. Universal Governor Apparatus 2. Motorised Gyroscope 3. Universal Vibration Apparatus 4. Whirling of Shaft Apparatus 5. Critical Speed	▲ ▼ □	16	Mr. H. K. PATEL	Instructor	DME

8	Heat Transfer	15	1. Bomb Calorimeter 2. Emissivity Measurement Apparatus 3. Apparatus for Heat Transfer 4. By Farad Calorimeter 5. Apparatus for Heat Transfer	16	Mr. R. S. PATEL	Instructor	DME
9	Manufacturing Technology	15	1. Pattern Making Setup 2. Casting Lab 3. GMAW 4. SMAW 5. GTAW 6. SAW 7. Resistance Spot Welding 8. Non-Consumable Welding	16	Mr. H. K. PATEL	Instructor	DME
10	Advanced Manufacturing Processes	15	1. Lathe Machine 2.3D Printer	8	Mr. H. K. PATEL	Instructor	DME
11	Computer Aided Manufacturing	15	1. CNC Mill Trainer	6	Mr. H. K. PATEL	Instructor	DME
12	Internal Combustion Engine	15	1. Experimental Setup For Single 2. Cylinder 4 Stroke Petrol engine 3. Battery Ignition System 4. Auto Cut Off Electrical Equipment 5. Diesel Engine	10	Mr. H. K. PATEL	Instructor	DME
13	Refrigeration and Air-conditioning	15	1. Refrigeration Tutor &Heat Pump 2. Cooling Tower Trainer 3. Sling Psychrometer 4. Hair Hygrometer 5. Heat Pump Trainer 6. Tube bandages 7. Flanges	10	Mr. R. S. PATEL	Instructor	DME
14	Rapid Prototyping	14	1. 3D Printer	6	Mr. R. S. PATEL	Instructor	DME
15	Automobile Engineering	15	1. Cut section of four-wheel drive with differential and real axle. 2. Model of Car-gear box (5 Speed) in dissection 3. Cut section of Automobile chassis	10	Mr. R. S. PATEL	Instructor	DME
16	Renewable Energy Engineering	15	1. Pyranometer 2. Sunshine recorder 3. Solar power meter 4. Solar flat plate collector (Dimension 4000 X 6000) 5. Solar still	10	Mr. H. K. PATEL	Instructor	DME
17	Computer Aided Design	15	1. Computers / Workstations 2. CAD Software 3. FEA Software-Ansys	6	NA	NA	NA
18	Engineering Graphics & Design	20	1. Model of Tetrahedron 2. Model of Cube 3. Model of section of Hexagonal prism 4. Model of section of cylinder 5. Model of section of Automobile	16	NA	NA	NA
19	Programming for Problem Solving	20	Computers and C++ software	16	NA	NA	NA
20	Kinematics And Theory Of Machines	20	1. Models of different mechanisms like four bar mechanism, quick return mechanisms 2. mechanisms with lever, slider and motion elements	12	NA	NA	NA
21	Fundamental Of Machine Design	20	Model Of Different Types Of Joints:(5 nos) 1.cotter joint 2.knuckle joint 3.Hooks joint 4.flange joint 5. flexible joint	16	NA	NA	NA
22	Design of Machine Elements	15	1. Model of Different Types of Coupling: 2. Hook's Coupling 3. Universal Coupling 4. Flanged Coupling 5. Flexible Coupling 6. Box Coupling	16	NA	NA	NA
23	Basic Mechanical Engineering	20	1. Model Of Different Types Of Coupling 2. Disc Brake, Band And Block Brake 3. Types of drivers , chain drive, belt drive 4. Model of Gearbox 5.	16	NA	NA	NA

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Workshop Lab	<ul style="list-style-type: none"> •Wear proper clothing for the type of work being done •Do not wear loose cloths or jewellery. •Do not roll up long sleeves. •Do wear cotton cloth. •Wear shoes if possible wear safety toed shoes it is preferred.
2	Manufacturing Process / Welding Laboratory	<ul style="list-style-type: none"> •Do not start the machine if under breakdown/maintenance. •Wear workshop uniform (BOILER SUIT/ APRON) over a half sleeve shirt during the experimentation. •Don't crowd near the equipment during the operation of machines, instead make a wider circle (within yellow line) . •Seek permission of Instructor before starting the Machine. •Wear Safety glasses while operating any machine. Add a face shield or wear impact resistant goggles if flying particles are expected during the machining process. •For welding wear eye and face protection appropriate for the kind of work being conducted. •Do not operate power tools if under medication or indisposed. •Do not leave the chuck key on the chuck. Clean any oil or fuel spill immediately to prevent slipping accidents. •Remember the location of fire extinguishers, first-aid kit, and emergency exits.
3	Fluid Mechanics Laboratory	<ul style="list-style-type: none"> •Students are expected to carefully wear shoes for safety. •Maintain laboratory clean and organized. •Switch off the main power supply to the experimental set up on completion of experiment. •Loose clothing and jewellery are prohibited. •Do not leave any running experimental set up unattended.
4	Heat Transfer Laboratory	<ul style="list-style-type: none"> •Students shall wear a safety shoes, and protective goggles where required. •Heat-resistant gloves shall be used while handling hot surfaces or components. •Maintain clean and orderly laboratory and work area. •All electrical connections shall be checked before starting the experiment. •Power supply shall be switched off after completion of the experiment. •Students shall avoid direct contact with heated surfaces. •Flammable materials shall be kept away from heating devices. •Do not leave any running experimental set up unattended.
5	Internal Combustion Engine and Automobile Laboratory	<ul style="list-style-type: none"> •Always wear safety shoes and, and avoid loose clothes and long hair, rings, watches, or chains while working. •Do not touch hot engine parts such as exhaust, radiator, or engine block during or after operation. •Keep hands and tools away from moving parts like belts, pulleys, and shafts. Handle fuel, oil, and batteries carefully; report any leakage immediately. •Never start the engine without permission and supervision of the instructor. •Do not use open flames, sparks, or mobile phones near fuel or engine systems. •Clean any oil or fuel spill immediately to prevent slipping accidents. •Know the location of fire extinguishers, first-aid kit, and emergency exits. •Switch off the engine and allow it to cool down before handling any components. In case of any accident or abnormal sound, inform the instructor immediately.
6	Metrology & Measurements Laboratory	<ul style="list-style-type: none"> •Handling: Faculty permission required; use calibrated tools only; clamp work pieces securely. •Housekeeping: Clear benches; clean tools post-use; no food/drinks; segregate waste. •Chemicals: Gloves under fume hood for etchants; eyewash/shower stations nearby. •GFCI outlets; inspect cords; ESD straps; power off after use. Emergency: First-aid kit, •CO2 extinguisher, clear exits; report incidents immediately. Behavioral: No horseplay; read procedures first; max 2 students per setup.
7	CAD /Programming for Problem Solving/ Computer Laboratory	<ul style="list-style-type: none"> •Mandatory closed footwear and no sandals to prevent slips; lab coats for all to protect against spills. No food, drinks, or chewing gum; grounded PCs with surge protectors and UPS to avoid electrical shocks. •Anti-static mats and wrist straps for ESD protection on electronics; eyewear mandatory near laser scanners. Emergency exits clearly marked; first-aid kit and fire extinguisher (CO2 type) near entrance. •No running or horseplay; read experiment procedures beforehand; report faults immediately to instructor. •Power off all systems post-use; clean desks; access restricted to scheduled batches with attendance check. •Annual electrical audits; software licenses logged to prevent unauthorized access-related issues. Do not touch loose-open ended cables.
8	Refrigeration & Air Conditioning Laboratory	<ul style="list-style-type: none"> •Students are expected to carefully wear shoes, goggles and hand gloves while charging refrigerants to the system •Maintain laboratory clean and organized. Switch off the main power supply to the experimental set up on completion of experiment. •Loose clothing and jewellery are prohibited. Properly shut down the experimental set up after duly performing experiment
9	Basic Mechanical Engineering	<ul style="list-style-type: none"> •Mainly Models are used. Therefore there is no specific measure required

10	Engineering Graphics & Design	•Mainly Models are used. Therefore there is no specific measure required
11	MATERIAL SCIENCE AND METALLURGY	•Wearing apron, Shoes ,safety goggles and hand gloves
12	Engineering Thermodynamics	•Mainly Models are used. Therefore there is no specific measure required
13	FUNDAMENTAL OF MACHINE Design	•Mainly Models are used. Therefore there is no specific measure required
14	DYNAMICS OF MACHINERY	•Wearing apron, Shoes ,safety goggles and hand gloves
15	Computer Aided Manufacturing	•Wear safety shoes and safety goggles at all times. Avoid loose clothing, jewellery; tie long hair properly. •Operate CNC/CAM machines only after proper training and permission. •Check work piece clamping and tool setting before starting the machine. •Perform dry run/simulation before actual machining. •Do not touch moving or rotating parts of machines. •Keep hands away from electrical panels and wires.
16	RENEWABLE ENERGY ENGINEERING	•Safety goggles, Helmets and Shoes
17	DESIGN OF MACHINE ELEMENTS	•Mainly Models are used. Therefore there is no specific measure required

D3. Project Laboratory/Research Laboratory

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PART E: First Year faculty and financial Resources**(Data to be filled in for the first year course faculty and budget allocation and utilization)****E1. First Year Student-Faculty Ratio (FYSFR)**

Table No. E1.1: FYSFR details.

Year	Sanctioned intake of all UG programs (S4)	No. of required faculty (RF4= S4/20)	No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1)	No. of faculty members in Engineering Science Courses (NS2)	Percentage= No. of faculty members ((NS1*0.8) + (NS2*0.2))/(No. of required faculty (RF4)); Percentage= ((NS1*0.8) +(NS2*0.2))/RF
2023-24(CAYm2)	420	21	9	31	64
2024-25(CAYm1)	420	21	9	30	63
2025-26(CAY)	420	21	9	33	66

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	0	0	49.92	49.92	126.19	126.19	0	0
Library	6.74	0.18	7.44	0.37	1.39	0.87	1.28	0.32
Laboratory equipment	216	43.84	413.47	152.87	47.31	34.17	210.76	59.19
Teaching and non-teaching staff salary	1575	1430	1140	1138	1060	1054	947	946
Outreach Programs	22.91	22.91	17.10	17.10	20.4	20.4	11.69	11.69
R&D	0	0	3.44	3.44	0	0	0.99	0.99
Training, Placement and Industry linkage	0.27	0.27	0.8	0.71	4	1	0.65	0.21
SDGs	0.98	0.98	0.66	0.66	1.84	1.84	1.07	1.07
Entrepreneurship	0	0	1.48	1.48	0.17	0.17	0.02	0.02
Others, specify	247.70	191.37	216.29	196.39	198.71	192.84	174.17	133.08
Total	2069.60	1689.55	1850.60	1560.94	1460.01	1431.48	1347.63	1152.57

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	63	13.16	108.60	21.85	11.25	6.73	12	6.71

Software	0	0	5.19	5.19	5.19	5.19	5.19	5.19
SDGs	6.82	6.82	5.07	5.07	6.36	6.36	3.65	3.65
Support for faculty development	25.56	16.89	17.75	12.60	14.05	13.48	12.94	10.00
R & D	0	0	3.44	3.44	0	0	0.99	0.99
Industrial Training, Industry expert, Internship	1.14	1.14	2.51	1.78	4.55	2.35	2.33	0.28
Miscellaneous Expenses*	40.57	36.86	42.57	42.57	40.29	40.29	28.00	28.00
Total	137.09	74.87	185.13	92.50	81.69	74.40	65.10	54.82