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: 11297	**Date of Submission**: 27-11-2025

PART A- Profile of the Institute

A1.Name of the Institute: BNM Institute of Technology	
Year of Establishment : 2001	Location of the Institute: Bangalore
A2. Institute Address:BNM Institute of Technology 12th Main, 27th Cross, Banashankari 2nd Stage, Bangalore - 560070	
City:Bangalore Urban	State:Karnataka
Pin Code:560070	Website:www.bnmit.org
Email:principal@bnmit.in	Phone No(with STD Code):080-26711781
A3. Name and Address of the Affiliating University (if any):	
Name of the University : Visvesvaraya Technological University	City: Belgaum
State : Karnataka	Pin Code: 590018
A4. Type of the Institution: Self-Supported Institute	
A5. Ownership Status: Self financing	

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

- No. of UG programs: **6**
- No. of PG programs: **3**

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

Sr.No.	Discipline	Level of program	Name of the program	Year of Start	Year of Closed	Name of The Department
1	Engineering & Technology	UG	Artificial Intelligence and Machine Learning	2020	--	Artificial Intelligence and Machine Learning
2	Engineering & Technology	UG	Computer Science and Engineering	2001	--	Computer Science and Engineering
3	Engineering & Technology	PG	Computer Science and Engineering	2010	--	Computer Science and Engineering
4	Engineering & Technology	UG	Electrical & Electronics Engineering	2002	--	Electrical and Electronics Engineering
5	Engineering & Technology	UG	Electronics & Communication Engineering	2001	--	Electronics and Communication Engineering
6	Engineering & Technology	UG	Information Science & Engineering	2001	--	Information Science and Engineering
7	Engineering & Technology	UG	Mechanical Engineering	2011	--	Mechanical Engineering

8	Engineering & Technology	PG	VLSI Design & Embedded Systems	2010	--	Electronics and Communication Engineering
9	Management	PG	Master of Business Administration	2006	--	Management

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

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

Name of the Department	Having Allied Departments	Name of the Program	Program Level
Artificial Intelligence and Machine Learning	Yes	Artificial Intelligence and Machine Learning	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	2011 / --	60	No	NA	60	2011	F.No. South-West/1-429800191/2011/EOA	Granted accreditation for 3 years for the period (specify period)	2018	2025	2	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. B. S. Anil Kumar
B. Nature of appointment:	Regular
C. Qualification:	Ph.D

B3. Program Details

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

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)	2021-22 (CAYm4)	2020-21 (CAYm5)	2019-20 (CAYm6)

N=Sanctioned intake of the program (as per AICTE /Competent authority)	60	60	60	60	60	60	60
N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	54	26	20	13	18	23	44
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	11	25	4	8	27	6
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	3	3	3	3	3	3	3
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	57	40	48	20	29	53	53

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	3	95.00
2024-25 (CAYm1)	60	26	3	48.33
2023-24 (CAYm2)	60	20	3	38.33

Average [(ER1 + ER2 + ER3) / 3] = 60.55≡ 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).	68.00	87.00	66.00
B=No. of students who graduated from the program in the stipulated course duration	23.00	34.00	45.00
Success Rate (SR)= (B/A) * 100	33.82	39.08	68.18

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 47.03

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)	6.91	6.68	7.35
Y=Total no. of successful students	25.00	22.00	15.00
Z=Total no. of students appeared in the examination	26.00	20.00	13.00
API [X*(Y/Z)]	6.64	7.35	8.48

Average API[(AP1+AP2+AP3)/3] : 7.49

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)	6.69	7.63	7.26
Y=Total no. of successful students	45.00	19.00	28.00
Z=Total no. of students appeared in the examination	47.00	19.00	27.00
API [X * (Y/Z)]	6.41	7.63	7.53

Average API [(AP1 + AP2 + AP3)/3] : 7.19

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)	7.74	7.57	6.20
Y=Total no. of successful students	18.00	28.00	49.00
Z=Total no. of students appeared in the examination	19.00	28.00	49.00
API [X*(Y/Z)]:	7.33	7.57	6.20

Average API [(AP1 + AP2 + AP3)/3] : 7.03

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	68.00	87.00	66.00
X=No. of students placed	14.00	29.00	35.00
Y=No. of students admitted to higher studies	2.00	2.00	5.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	23.53	35.63	60.61

Average Placement Index = (P_1 + P_2 + P_3)/3: 39.92 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. B. S. Anil Kumar	XXXXXXX88B	Ph.D	Visvesvaraya Technological University	Thermal Engineering	11/03/2002	23.8	Lecturer	Professor	03/07/2017	Regular	Yes		Yes
2	Dr. D. Shivalingappa	XXXXXXX42N	Ph.D	IIT Roorkee	Machine Design	05/06/2017	8.5	Professor	Professor	05/06/2017	Regular	Yes		No
3	Dr. N Raghavendra	XXXXXXX11F	Ph.D	Visvesvaraya Technological University	Machine Design	22/07/2013	12.4	Assistant Professor	Professor	05/2/2021	Regular	Yes		No
4	Dr. P L Srinivas Murthy	XXXXXXX14K	Ph.D	JNTU Ananthapur	Machine Design	17/10/2023	2.1	Professor	Professor	17/10/2023	Regular	Yes		No
5	Dr. Ranga Vittal H K	XXXXXXX19F	Ph.D	Visvesvaraya Technological University	Machine Design	26/08/2024	1.3	Professor	Professor	26/08/2024	Regular	Yes		No
6	Dr. K C Anantha Padmanabhamam	XXXXXXX87Q	Ph.D	Visvesvaraya Technological University	Industrial Engineering and Management	07/07/2025	0.4	Associate Professor	Associate Professor	07/07/2025	Regular	Yes		No
7	Dr. Harish A.	XXXXXXX21C	Ph.D	Visvesvaraya Technological University	Machine Design	22/07/2013	12.4	Assistant Professor	Associate Professor	21/8/2023	Regular	Yes		No
8	Dr. Mahendra Kumar C.	XXXXXXX13H	Ph.D	Visvesvaraya Technological University	Industrial Automation and Robotics	06/09/2012	13.2	Assistant Professor	Associate Professor	17/1/2024	Regular	Yes		No
9	Balakrishna S S	XXXXXXX91Q	M.Tech	IIT Kharagpur	Design Engineering	17/10/2023	2.1	Professor	Professor	17/10/2023	Regular	Yes		No
10	Vishnu P	XXXXXXX71J	M.Tech	Visvesvaraya Technological University	Machine Design	23/07/2015	10.4	Assistant Professor	Assistant Professor		Regular	Yes		No
11	Shwethashree B.	XXXXXXX96A	M.Tech	Visvesvaraya Technological University	Product Design and Manufacturing	05/07/2019	6.4	Assistant Professor	Assistant Professor		Regular	Yes		No
12	Bapugowda C M	XXXXXXX87G	M.Tech	Visvesvaraya Technological University	Product Design and Manufacturing	05/07/2019	6.4	Assistant Professor	Assistant Professor		Regular	Yes		No
13	Vishwanath B R	XXXXXXX19L	M.Tech	Visvesvaraya Technological University	Machine Design	11/09/2023	2.2	Assistant Professor	Assistant Professor		Regular	Yes		No

14	S Sudindra	XXXXXXX38B	M.Tech	Visvesvaraya Technological University	Machine Design	04/08/2025	0.3	Assistant Professor	Assistant Professor		Regular	Yes		No
15	Madhushree K J	XXXXXXX69J	M.Tech	Visvesvaraya Technological University	CAED Structures	21/07/2014	11.4	Assistant Professor	Assistant Professor		Regular	Yes		No
16	Manu A S	XXXXXXX48M	M.Tech	Visvesvaraya Technological University	Industrial Structures	23/07/2015	10.4	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 Department0

Table No.C2.1: Student-faculty ratio.

Description	**CAY(2025-26)**	**CAYm1 (2024-25)**	**CAYm2 (2023-24)**
UG1.B	66	66	64
UG1.C	66	64	66
UG1.D	64	66	66
UG1: Mechanical Engineering	**196**	**196**	**196**
DS=Total no. of students in all UG and PG programs in the Department	196	196	196
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=** 196	**S2=** 196	**S3=** 196
DF=Total no. of faculty members in the Department	16	14	10
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=** 16	**F2=** 14	**F3=** 10
FF=The faculty members in F who have a 100% teaching load in the first-year courses	3	3	3

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
Student Faculty Ratio (SFR)=S/(F-FF)	**SFR1= 15.08**	**SFR2= 17.82**	**SFR3= 28.00**
Average SFR for 3 years	**SFR= 20.30**		

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)	8	8	9.00	31.11
2024-25(CAYm1)	7	7	9.00	27.22
2023-24(CAYm2)	4	6	9.00	17.78

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	5.00	2.00	3.00	6.00	8.00
2024-25	1.00	5.00	2.00	2.00	6.00	7.00
2023-24	1.00	3.00	2.00	1.00	6.00	6.00
Average	RF1=1.00	AF1=4.33	RF2=2.00	AF2=2.00	RF2=6.00	AF2=7.00

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	Vishwanatha G M	Senior Executive in Product Engineering	Larsen and Toubro	Product design, Engineering Graphics and Design	50.00
2	Srinidhi Madugere	Consultant	DB Schenker	Block chain and supply chain management, Engineering Project management and finance	50.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Dr. P L Srinivas Murthy	Professor	MSRIT	Design of machine elements, Machine Drawing and GD&T, Thermal Engineering, EGD	160.00
2	Balakrishna S S	Professor	Sahyadri College of Engineering and Management	Kinematics and dynamics of machines, Mechanics of Materials, EGD, BES	144.00
3	Kotha Kalyani	Lead Technical Trainer	ICT Academy	Autodesk Fusion 360	40.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Karthik Badti	Product Lead-Design and Development	Extracteco Private Ltd, Bengaluru	Ansys Workbench	50.00

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	3	6
2	No. of peer reviewed conference papers published	4	12	1
3	No. of books/book chapters published	5	3	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
NA	NA	NA	NA	NA	NA	0.00
						Amount received (Rs.):0.00

(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 Anil Kumar B S Dr Shivalingappa S	Tejas V Venika V Sechana B Kinnara	Mechanical Engineering	AR VR Model- Kinetics and dynamics of Machines	M Ray vector technologies Pvt Ltd	1 Year	2.50
						Amount received (Rs.):2.50

(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. B S AnilKumar Dr.Kumaraswamy H S	Bhuvan J Samarth S Surya RS Vaibhav K Rao	Mechanical Engineering	Design and Development of Solar powered refrigerated cart using compressor	DST NewGen IEDC	1 year	1.36
Dr. D Shivalingappa	Aditya Rai Akash B M Dharmendar L Yuga Chandrashekhar	Mechanical Engineering	Development of a robot to collect oil from ocean surface	DST NewGen IEDC	1 year	0.32
Dr. Raghavendra N	Ashish Raj D Ganesh Rathod Likith N Swamy Venkatesh CV	Mechanical Engineering	Design and Fabrication of Regenerative foldable E-Bike	DST NewGen IEDC	1 year	0.39
Dr.Prathibha B S Ms.Shwethashree	Mohammed Faizan Monish V Zabiulla Khan Nandan Kumar P	Mechanical Engineering	Automobile Exhaust Purification Device	DST NewGen IEDC	1 year	0.80
Dr. Vijayashree Dr. Anil Kumar	Pradyumna B N Bharath Kumar J	Mechanical Engineering	Reception Kiosk	DST NewGen IEDC	1 year	1.00
Dr.Shivalingappa Dr.AnilKumar, Dr.Vijayashree L	Tejas V Venika V Sechana B Kinnara	Mechanical Engineering	Kinematics and Dynamics of Machines	DST NewGen IEDC	1 year	2.00
						Amount received (Rs.):5.87

Total Amount (Lacs) Received for the Past 3 Years: 8.37

Note*:

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

C8. Consultancy Work

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

(CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. B S Anil Kumar	Mr. Avinash M N	Mechanical Engineering	Data capture and Repulsion test	Lyk Athlesiurewver PVT Ltd	1 Year	0.10
						Amount received (Rs.):0.10

(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
NA	NA	NA	NA	NA	NA	0.00
						Amount received (Rs.):0.00

(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
NA	NA	NA	NA	NA	NA	0.00
						Amount received (Rs.):0.00

Total amount (Lacs) received for the past 3 years: 0.10

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
NA	NA	NA	0.00	0.00	NA
			Amount received (Rs.): 0.00		

(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
NA	NA	NA	0.00	0.00	NA
			Amount received (Rs.): 0.00		

(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
NA	NA	NA	0.00	0.00	NA
			Amount received (Rs.): 0.00		

Total amount (Lacs) received for the past 3 years : 0.00

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	Engineering Graphics and Design (Room No. A-206)	63	1. 50 Nos. of Desktops of New Gen Intel(R) Core (TM) i7-12700 2.10 GHZ/32.0 GB (15.7 GB usable) DDR4/ 64 bit operating system, X64 based processor/ 512GB	1) Engineering	Kiran Kumar Palled	Mechanic	Diploma
2	Machine Drawing and GD & T (Room No. A-318)	32	1.Computers -(64 numbers) 2.Solid Edge-ST8 Software – 30 Licenses) 3.Laser Jet Printer-(01 Number) 4.LCD Projector (01 Number) 5.Ansys 15	1) Machine Dra	Raghu B N	Mechanic/ Fire officer	Diploma
3	Fluid Mechanics and Pneumatics Lab (Room No AB-002)	32	1. Pelton wheel turbine 2. Franci's turbine 3.Reciprocating and Centrifugal Pump 4.Compressor and blower test rig 5. Flow measuring devices 6	Fluid Mechanic	Srinivasa V.	Instructor	ITI
4	Mechatronics System Design (Room No. A-308)	32	1.Journal bearing 2.Vibration test rig 3.Strain rosettes 4.Universal polariscope 5.Universal governor 6. Static and Dynamic Balancing 6.Calibration of LVDT	1) Mechatronic	Srinivasa V.	Instructor	ITI
5	Fabrication of Advanced Materials (Room No. AB-004)	32	1.Lathe 2. Milling machine 3.Gas fired furnace 4.Sand testing equipment 5.Hand tools for moulding and forging 6. Radial Bench Drilling machine 7.Shaping	Fabrication of A	Srinivas M	Welder	VII
6	Thermal Engineering (Room No. AB-003)	32	1.Heat exchangers 2.Refrigeration and air conditioning test rig. 3. Pin-fin and emissivity apparatus 4. Four stroke petrol and diesel engines 5.Flash and power	Thermal Engin	Veeresh H	Mechanic	ITI
7	Mechanics of Materials (Room No. N -003)	32	1.Universal testing machine 2.Pin on disc wear tester 3.Torsion testing machine 4.Hardness testers 5. Optical Microscopes 6.Izod and Charpy test	Mechanics of M	Mallappa Alli	Mechanic	ITI

D2. Safety Measures in Laboratories

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

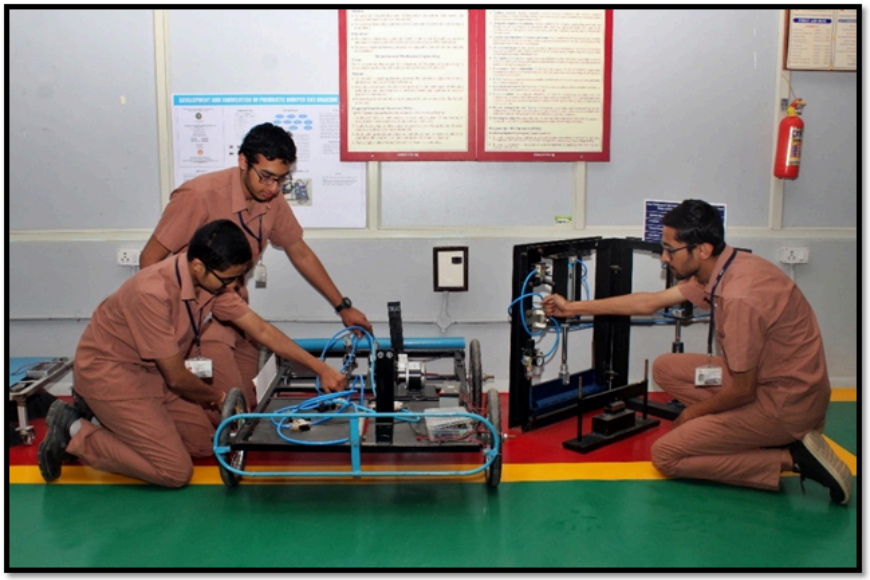
Sr. No	Laboratory Name	Safety Measures
1	Engineering Graphics and Design (Room Number A-206)	Fire Extinguisher, Display of Lab Safety Rules, Miniature Circuit Breaker, First Aid Box, Display of Emergency Contact Numbers
2	Machine Drawing and GD & T (Room Number A-318)	Fire Extinguisher, Display of Lab Safety Rules, Miniature Circuit Breaker, First Aid Box, Display of Emergency Contact Numbers
3	Fluid Mechanics and Pneumatics Lab (Room number AB-002)	Fire Extinguisher, Display of Lab Safety Rules, Miniature Circuit Breaker, First Aid Box, Display of Emergency Contact Numbers

4	Mechatronics System Design (Room number A-308)	Fire Extinguisher, Display of Lab Safety Rules, Miniature Circuit Breaker, First Aid Box, Display of Emergency Contact Numbers
5	Fabrication of Advanced Materials (Room number AB-004)	Fire Extinguisher, Display of Lab Safety Rules, Miniature Circuit Breaker, First Aid Box, Display of Emergency Contact Numbers
6	Thermal Engineering (Room Number AB-003)	Fire Extinguisher, Display of Lab Safety Rules, Miniature Circuit Breaker, First Aid Box, Display of Emergency Contact Numbers
7	Mechanics of Materials (Room Number N -003)	Fire Extinguisher, Display of Lab Safety Rules, Miniature Circuit Breaker, First Aid Box, Display of Emergency Contact Numbers

D3. Project Laboratory/Research Laboratory

A. Project Laboratory(AB007) Facilities

Facility	Purpose	Utilization	PO/PSO
SolidWorks Software	To impart skills in Computer-Aided Machine Drawing using SolidWorks 2019 for developing 2D drawings, 3D models, assemblies, and detailed manufacturing drawings as per industry standards. This helps students bridge the gap between theoretical concepts and industrial design practices.	Hands on training for students	PO1,PO2, PO3,PO5, PO9,PSO1, PSO2
		For Final year students to develop projects	
		Internship	
		R&D works	
MATLAB Software Package	To provide students with computational tools for numerical analysis, data visualization, and simulation, enabling the solution of engineering problems and research-based projects in mechanical engineering and allied domains	Hands on training for students	PO1,PO2, PO4,PO5, PSO1, PSO2
		For Final year students to develop projects	
		Internship	
		R&D works	
Ansys Fluent Software	To provide students with advanced computational tools for simulation, analysis, and optimization of fluid flow, heat transfer, and related engineering problems using Ansys Fluent.	Hands on training for students	PO1,PO2, PO3,PO4, PO5,PSO1, PSO2
		For Final year students to develop projects	
		Internship	
		R&D works	



B. Centers of Excellence:

Center of Excellence	Purpose	Facility	Utilization	PO/PSO
3D Printing Technology Centre of Excellence (A302)	To provide advanced knowledge and practical skills in 3D printing technology, enabling students to design, prototype, and manufacture components using additive manufacturing techniques. It aims to foster innovation, research, and product development in alignment with modern engineering trends.	The center is equipped with state-of-the-art 3D printers (FDM, SLA, and SLS), CAD/CAM software, post-processing tools, and testing equipment.	Project work Interdisciplinary research Hands on training for students Faculty Development Programs	PO1, PO2, PO3, PO4, PO5, PO7, PSO1, PSO2

BNMIT- Toyota Centre of Excellence **(AB005)**	To provide hands-on training and skill development for students in advanced automotive technologies, particularly related to Toyota's manufacturing systems, quality practices, and industry standards. The center aims to bridge the gap between academic learning and industry requirements, preparing students for careers in the automotive sector.	Toyota engine cut-section models - Transmission system models, Workbenches, and toolkits for practical sessions	Internship Hands on training for students Project Work	PO1, PO3, PO5, PO6, PSO1, PSO2

C. Research Facilities

Name of the Laboratory	Purpose	Facility	Utilization	PO/PSO

R & D (A302)	To foster innovation, product development, and applied research in mechanical engineering. The R&D Lab provides students and faculty with advanced facilities for experimental studies, prototyping, testing, and validation, thereby nurturing a research-oriented and entrepreneurial mindset.	The lab is equipped with: • Pin-on-Disc Wear Testing Machine – for tribology and material wear analysis. • Burnishing Tool – for improving surface finish and mechanical properties. • Dual Nozzle 3D Printer – for additive manufacturing and rapid prototyping. • CNC Milling & CNC Turning Machines – for precision machining and product development.	R & D Work Hands on training for students Project Work	PO1, PO2, PO3, PO4, PO5, PO7, PSO1, PSO2

D. Utilization of project laboratories/research laboratory /Centre of excellence

Sl.no	Project Title	Tools / Technologies Used	Application
1	Design and Fabrication of a Robotic Exoskeleton for Upper Limb Rehabilitation	Microcontrollers, Sensors, Actuators, CAD & FEA tools, Embedded systems	Upper limb rehabilitation, Assistive healthcare devices, Physiotherapy support
2	Design and Development of Solar Energy Integrated Vertical Axis Wind Turbine	Solar panels, Wind turbine blades, Power electronics, CAD & CFD tools	Hybrid renewable energy generation, Sustainable power solutions
3	Study of Microstructure and Mechanical Behaviour of Aluminium Composite Reinforced with Boron Nitride	Material synthesis tools, SEM, Mechanical testing machines, Metallurgical analysis	Advanced lightweight materials for aerospace and automotive applications
4	Design and Fabrication of Reconfigurable Rolling-Crawling Robot	Robotics controllers, Sensors, Actuators, CAD software, Embedded programming	Search and rescue operations, Hazardous environment exploration
5	Design and Fabrication of Automated Seed Sowing Machine	Electric motors, Mechanical transmission, Fabrication tools, Control systems	Agricultural automation, Precision seed sowing, Reduced manual labor
6	Design and Development of Grass Cutting and Collection Robot	Motors, Sensors, Microcontroller, Mechanical design tools	Automated lawn maintenance, Agricultural field management
7	Design and Development of Atmospheric Water Generator	Cooling systems, Heat exchangers, Sensors, Control systems	Drinking water generation from air, Water-scarce region solutions

Innovative Student Projects

Sl.no	Project Title	Tools / Technologies Used	Application
1	Development of Autonomous CNC Plotter for Precision Drawing	Arduino/CNC controller, Stepper motors, CAD software, G-code programming, Linear guides	Precision drawing, PCB plotting, educational automation, Small-scale engraving

2	Design and Fabrication of Mini Groundnut Shelling Machine	Electric motor, Transmission system, Sheet metal fabrication, Bearings and shafts	Agricultural processing, Reduction of manual labor, Rural entrepreneurship
3	Solar Powered Seed Sprayer	Solar panel, DC motor, Pump, Battery system, Spraying mechanism	Sustainable agriculture, Precision farming, small farmer support
4	Smart Bin Prototype for Efficient Waste Management	Microcontroller, Ultrasonic sensor, GSM/IoT module, Embedded programming	Smart city waste management, Overflow prevention, Municipal monitoring
5	Magnetic Levitating Frictionless Wind Mill	Neodymium magnets, Generator, Structural frame, Renewable energy tools	Low-speed wind energy, Urban renewable systems, educational models
6	Compact Wind Turbine for Automobile Application	Aerodynamic blades, Mini generators, CAD & CFD tools	Vehicle energy harvesting, Auxiliary power generation, EV applications
7	Solar Powered Mini Car	Solar panels, Battery, Motor, Power electronics, Lightweight chassis	Renewable transportation, Educational EV models, Emission-free mobility
8	Springless Suspension System Using Bevel Gear	Bevel gears, Mechanical fabrication tools, Load testing setup, CAD software	Heavy load lifting systems, Industrial machinery, Reduced maintenance
9	Non-Pneumatic Tyre with Honeycomb Structure for Handicapped Vehicles	Honeycomb design, Composite materials, CAD & FEA tools, Additive manufacturing	Assistive mobility, Maintenance-free wheels, Healthcare transport
10	Smart Helmet with Integrated Safety Features	Sensors, Microcontroller, IoT/GSM modules, Embedded programming	Road safety, Accident prevention, Rider monitoring

Facility Utilized	Average No. of hours utilized per week	Effectiveness/ Outcome of utilization (papers presented/published/project executed/product developed etc.)
SolidWorks Software	20 hours/ Week for 8th Semester Students for Final Year Project	Project executed by VIII Semester and published the paper on their work in a Journal/conference/ Patent/ Copyright/ Project Awards
MATLAB Software Package	12 hours/ Week for 8th Semester Students for Final Year Project	Project executed by VIII Semester and published the paper on their work in a Journal/conference/ Patent/ Copyright/ Project Awards
Ansys Fluent Software	20 hours/ Week for 8th Semester Students for Final Year Project	Project executed by VIII Semester and published the paper on their work in a Journal/conference/ Patent/ Copyright/ Project Awards

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)	600	30	26	13	78
2024-25(CAYm1)	600	30	27	12	80
2025-26(CAY)	600	30	27	16	83

E2. Budget Allocation, Utilization, and Public Accounting at Institute Level

Table No. E2.1: Budget and actual expenditure incurred at Institute level.

Items	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
Infrastructure Built-Up	28500000	27606000	25000000	3809000	55000000	24400000	115000000	53809000
Library	4000000	554000	5000000	232000	5000000	1355000	6000000	472000
Laboratory equipment	25324000	16795440	14630000	23049000	32500000	42900000	15000000	18144000
Teaching and non-teaching staff salary	350000000	193677000	335271000	292571000	288000000	279400000	250000000	237993000
Outreach Programs	2500000	45000	5000000	3034000	2500000	1154000	2500000	1237000
R&D	15000000	1292000	15000000	4663000	12500000	960000	20000000	285000
Training, Placement and Industry linkage	22500000	1594000	20000000	2984000	1228000	1809000	3000000	1785000
SDGs	2045000	545000	1800000	2127000	1900000	1439000	1632000	2009000
Entrepreneurship	5000000	0	0	0	0	0	0	0
Others, specify	153831000	107603000	147561000	185877000	142372000	168808000	132868000	129622000
Total	**608700000**	**349711440**	**569262000**	**518346000**	**541000000**	**522225000**	**546000000**	**445356000**

E3. Budget Allocation, Utilization, and Public Accounting at Program Specific Level

Table No. E3.1: Budget and actual expenditure incurred at program level.

Items	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till

Laboratory equipment	5680000	5817400	50000	0	250000	114322	50000	20000
Software	100000	232217	50000	229176	250000	114322	50000	343791
SDGs	0	0	0	0	0	0	0	0
Support for faculty development	25000	43000	75000	28000	100000	50740	75000	0
R & D	250000	307900	250000	0	600000	0	250000	67500
Industrial Training, Industry expert, Internship	25000	8000	75000	129800	100000	50740	75000	195880
Miscellaneous Expenses*	120000	32725	150000	9582	200000	39783	200000	0
Total	**6200000**	**6441242**	**650000**	**396558**	**1500000**	**369907**	**700000**	**627171**