

## NATIONAL BOARD OF ACCREDITATION

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

<b>Program Name</b> : Mechanical Engineering	<b>Discipline</b> : Engineering & Technology
<b>Level</b> : Under Graduate	<b>Tier</b> : 1
<b>Application No</b> : 11692	<b>Date of Submission</b> : 17-03-2026

### PART A- Profile of the Institute

<b>A1. Name of the Institute:</b> THE NATIONAL INSTITUTE OF ENGG.	
Year of Establishment : 1946,1994	Location of the Institute: MYSURU
<b>A2. Institute Address:</b> MANANDAVADI ROAD	
City:Mysore	State:Karnataka
Pin Code:570008	Website:www.nie.ac.in
Email:PRINCIPAL@NIE.AC.IN	Phone No(with STD Code):0821-2481220
<b>A3. Name and Address of the Affiliating University (if any):</b>	
Name of the University : NIL	City: Belgaum
State : Karnataka	Pin Code: 590018
<b>A4. Type of the Institution:</b> Autonomous CAY(2009-10)	
<b>A5. Ownership Status:</b> Government Aided	

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

- No. of UG programs: 8
- No. of PG programs: 11

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	Computer Application	PG	Master of Computer Application	1997	--	Computer Application
2	Engineering & Technology	UG	Civil Engineering	1950	--	Civil Engineering
3	Engineering & Technology	PG	Computer Networking & Engineering	2012	--	Computer Science and Engineering
4	Engineering & Technology	UG	Computer Science and Engineering	1983	--	Computer Science and Engineering
5	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence & Machine Learning)	2022	--	Computer Science and Engineering
6	Engineering & Technology	UG	Electrical and Electronics Engineering	1958	--	Electrical and Electronics Engineering
7	Engineering & Technology	UG	Electronics & Communication Engineering	1971	--	Electronics and Communication Engineering
8	Engineering & Technology	PG	Embedded System and Computing	2025	--	Electronics and Communication Engineering
9	Engineering & Technology	PG	Hydraulics Engineering	1971	--	Civil Engineering
10	Engineering & Technology	UG	Industrial & Production Engineering	1981	2022	Mechanical Engineering
11	Engineering & Technology	PG	Industrial Automation & Robotics	2011	--	Mechanical Engineering
12	Engineering & Technology	UG	Information Science & Engineering	1999	2025	Computer Science and Engineering
13	Engineering & Technology	PG	Information Technology	2002	--	Computer Science and Engineering
14	Engineering & Technology	PG	Machine Design	2014	2025	Mechanical Engineering

15	Engineering & Technology	UG	Mechanical Engineering	1958	--	Mechanical Engineering
16	Engineering & Technology	PG	Networking & Internet Engineering	2018	2025	Electronics and Communication Engineering
17	Engineering & Technology	PG	Power Systems & Power Electronics	2025	--	Electrical and Electronics Engineering
18	Engineering & Technology	PG	Production Engineering & Systems Technology	1987	2023	Mechanical Engineering
19	Engineering & Technology	PG	Structural Engineering	2012	--	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
Electronics and Communication Engineering	No	Electronics & Communication Engineering	UG
Mechanical Engineering	Yes	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)

Allied Department/Cluster Name	Program Name	Program Level
Mechanical Engineering	Industrial & Production Engineering	UG
Mechanical Engineering	Production Engineering & Systems Technology	PG

## PART-B: Program information

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

Table No. B1: Program details.

A. List of the Programs Offered by the Department:

SR.NO.	PROGRAM NAME	PROGRAM APPLIED LEVEL	YEAR OF START / YEAR OF CLOSED	SANCTIONED INTAKE	INCREASE/DECREASE INTAKE (if any)	YEAR OF INCREASE/DECREASE	CURRENT INTAKE	YEAR OF AICTE APPROVAL	AICTE/COMPE AUTHORITY A DETAILS
1	Mechanical Engineering	UG	1958 / --	180	Yes	NA	120	1958	South-West/1-43658685062/2

Sanctioned Intake for Last Five Years for the Industrial Automation & Robotics	
Academic Year	Sanctioned Intake
2025-26	120
2024-25	120
2023-24	120
2022-23	120
2021-22	180
2020-21	180

List of the Allied Departments/Cluster and Programs:

SR.NO.	ALLIED DEPARTMENT NAME	PROGRAM NAME	PROGRAM APPLIED LEVEL	YEAR OF START / YEAR OF CLOSED	SANCTIONED INTAKE	INCREASE/DECREASE INTAKE (if any)	YEAR OF INCREASE/DECREASE	CURRENT INTAKE	YEAR OF AICTE APPROVAL
1	Mechanical Engineering	Industrial & Production Engineering	UG	1981 / 2022	60	Yes	2022	0	2022

SR.NO.	ALLIED DEPARTMENT NAME	PROGRAM NAME	PROGRAM APPLIED LEVEL	YEAR OF START / YEAR OF CLOSED	SANCTIONED INTAKE	INCREASE/DECREASE INTAKE (if any)	YEAR OF INCREASE/DECREASE	CURRENT INTAKE	YEAR OF AICTE APPROVAL
<b>Sanctioned Intake for Last Five Years for the Industrial &amp; Production Engineering</b>									
<b>Academic Year</b>			<b>Sanctioned Intake</b>						
2025-26			0						
2024-25			0						
2023-24			0						
2022-23			0						
2021-22			60						
2020-21			60						
2	Mechanical Engineering	Production Engineering & Systems Technology	PG	1987 / 2023	18	Yes	NA	0	1987
<b>Sanctioned Intake for Last Five Years for the Production Engineering &amp; Systems Technology</b>									
<b>Academic Year</b>			<b>Sanctioned Intake</b>						
2025-26			0						
2024-25			0						
2023-24			18						
2022-23			18						
2021-22			18						
2020-21			18						

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

A. Name of the HoD :	H N Divakar
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	180	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	119	119	113	92	144	161	170
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	13	19	39	57	17	18
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	10	10	8	9	11	12	17
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	129	142	140	140	212	190	205

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	119	10	107.50
2024-25 (CAYm1)	120	119	10	107.50
2023-24 (CAYm2)	120	113	8	100.83

$$\text{Average } [(ER1 + ER2 + ER3) / 3] = 105.28 \approx 100$$

**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).	237.00	197.00	205.00
B=No. of students who graduated from the program in the stipulated course duration	197.00	178.00	186.00
Success Rate (SR)= (B/A) * 100	83.12	90.36	90.73

$$\text{Average SR of three batches } ((SR_1 + SR_2 + SR_3)/3): 88.07$$

**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)	6.68	6.11	6.60
Y=Total no. of successful students	113.00	106.00	82.00
Z=Total no. of students appeared in the examination	129.00	121.00	101.00
API [X*(Y/Z)]	5.85	5.35	5.36

$$\text{Average API} [(AP1 + AP2 + AP3)/3] : 5.52$$

**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)	6.15	6.30	5.54
Y=Total no. of successful students	125.00	120.00	198.00
Z=Total no. of students appeared in the examination	125.00	121.00	202.00
API [ X * (Y/Z) ]	6.15	6.25	5.43

$$\text{Average API} [(AP1 + AP2 + AP3)/3] : 5.94$$

**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)	6.75	5.71	6.28
Y=Total no. of successful students	119.00	197.00	178.00
Z=Total no. of students appeared in the examination	120.00	198.00	180.00
API [ X*(Y/Z) ]:	6.69	5.68	6.21

$$\text{Average API} [(AP1 + AP2 + AP3)/3] : 6.19$$

**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	237.00	197.00	198.00
X=No. of students placed	130.00	114.00	149.00
Y=No. of students admitted to higher studies	2.00	3.00	2.00
Z= No. of students taking up entrepreneurship	0.00	1.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	55.70	59.90	76.26

$$\text{Average Placement Index} = (P_1 + P_2 + P_3)/3: 63.95 \text{ Placement Index Points:}$$

## 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 Appointment (Regu Contr Ad ho)
1	H N Divakar	XXXXXXXX92H	Ph.D	Jadavpur University, Kolkata	Production Engineering	08/12/2004	21.3	Assistant Professor	Professor	08/12/2010	Regul:
2	Arvindrao M.Yadwad	XXXXXXXX84A	Ph.D	VTU, Belagavi	Production, Management /Multidisciplinary	17/12/2004	21.3	Assistant Professor	Professor	17/06/2013	Regul:
3	B. Hulugappa	XXXXXXXX92B	Ph.D	VTU, Belagavi	Production Engineering	13/12/2004	21.3	Lecturer	Professor	01/03/2021	Regul:
4	Yogesh K K	XXXXXXXX66K	Ph.D	IIT Roorkee	Materials and Manufacturing Engineering	12/09/2005	20.6	Lecturer	Professor	13/09/2021	Regul:
5	S. Shamsundar	XXXXXXXX58C	M.Sc. (Engineering)	University of Oldenburg, Germany	Renewable Energy	06/11/1989	36.4	Lecturer	Assistant Professor		Regul:
6	Ravikumar Beeranur	XXXXXXXX93A	M.Tech	IIT Bombay	Manufacturing Engineering	01/09/2004	21.6	Lecturer	Assistant Professor		Regul:
7	Dharanish J	XXXXXXXX35D	M.Tech	VTU, Belagavi	Maintenance Engineering	02/01/2015	11.2	Assistant Professor	Assistant Professor		Regul:
8	Bheemaraj	XXXXXXXX32C	M.Tech	VTU, Belagavi	Thermal Engineering	11/03/2016	10	Assistant Professor	Assistant Professor		Regul:
9	Madaiah D C	XXXXXXXX32F	M.Tech	VTU, Belagavi	Machine Design	06/06/2017	8.9	Assistant Professor	Assistant Professor		Regul:
10	Anand A	XXXXXXXX28H	Ph.D	VTU, Belagavi	Computational Analysis in Mechanical Sciences	20/06/2017	8.8	Assistant Professor	Assistant Professor		Regul:
11	K.R. Prakash	XXXXXXXX00P	Ph.D	VTU, Belagavi	Mechanical Engineering Science	01/08/2012	13.7	Professor	Professor		Regul:
12	Imran M Jamadar	XXXXXXXX77A	Ph.D	SVNIT Surat	Machine Design	15/05/2020	5.10	Associate Professor	Professor	10/07/2025	Regul:
13	Hemanth R	XXXXXXXX30B	Ph.D	Karunya University	Composite Materials, Tool Engineering	01/07/2025	0.8	Associate Professor	Associate Professor		Regul:
14	Sharath Chandra N	XXXXXXXX38G	Ph.D	VTU, Belagavi	Product Design & Manufacturing	16/08/2011	14.7	Assistant Professor	Assistant Professor		Regul:
15	Srikanth N S	XXXXXXXX66A	M.Tech	NITK(Surathkal)	Thermal Engineering	28/07/2014	11.7	Assistant Professor	Assistant Professor		Regul:
16	Vikram Athreya V	XXXXXXXX49J	Ph.D	VTU, Belagavi	Thermal Engineering	28/07/2014	11.7	Assistant Professor	Assistant Professor		Regul:
17	Prithvi C	XXXXXXXX41P	Ph.D	JSS STU	Machine Design	01/08/2014	11.7	Assistant Professor	Assistant Professor		Regul:
18	Prasanta Kumar Samal	XXXXXXXX04C	Ph.D	JSS STU	Machine Design	01/08/2014	11.7	Assistant Professor	Assistant Professor		Regul:
19	Aruna Mokhamatam	XXXXXXXX00C	M.Tech	IIT Kharagpur	Manufacturing Engineering	03/08/2015	10.7	Assistant Professor	Assistant Professor		Regul:
20	Sathisha H M	XXXXXXXX69H	Ph.D	IIT Guwahati	Thermal Engineering	19/09/2018	7.5	Assistant Professor	Assistant Professor		Regul:

21	Harshavardhan B	XXXXXXXX27G	Ph.D	VTU, Belagavi	Maintenance Engineering, Tribology of composites	31/07/2017	8.7	Assistant Professor	Assistant Professor		Regul:
22	Ravikiran	XXXXXXXX46M	M.Tech	VTU, Belagavi	Maintenance Engineering	27/07/2015	10.7	Assistant Professor	Assistant Professor		Regul:
23	Vaibhav Deshpande	XXXXXXXX15L	M.Tech	VTU, Belagavi	Machine Design, Vibration analysis	15/04/2020	5.11	Assistant Professor	Assistant Professor		Regul:
24	Tejappanavara Raghavendra	XXXXXXXX95K	Ph.D	NIT, Trichy	Production Engineering	18/12/2020	5.2	Assistant Professor	Assistant Professor		Regul:
25	Latha B M	XXXXXXXX28F	Ph.D	VTU, Belagavi	Lean Manufacturing Systems	12/02/2005	21.1	Assistant Professor	Assistant Professor		Regul:
26	T S Nandini	XXXXXXXX62E	M.Sc. (Engineering)	VTU, Belagavi	Operations Management	12/08/2010	15.7	Assistant Professor	Assistant Professor		Regul:
27	Suresh Kumar S	XXXXXXXX80C	Ph.D	VTU, Belagavi	Machine Design	26/08/2022	3.6	Assistant Professor	Assistant Professor		Contra Fulltir
28	Mahesh M	XXXXXXXX89B	Ph.D	VTU, Belagavi	Product Design & Manufacturing	01/09/2022	3.6	Assistant Professor	Assistant Professor		Contra Fulltir
29	Deepak P	XXXXXXXX84G	M.Tech	VTU, Belagavi	Production Technology	11/08/2025	0.7	Assistant Professor	Assistant Professor		Contra Fulltir
30	Sanjaya Kumar V	XXXXXXXX90M	M.Tech	VTU, Belagavi	Industrial Automation & Robotics	03/07/2025	0.8	Assistant Professor	Assistant Professor		Contra Fulltir
31	Punithkumar Y K	XXXXXXXX47J	M.Tech	VTU, Belagavi	Thermal Engineering	24/11/2025	0.3	Assistant Professor	Assistant Professor		Contra Fulltir
32	Sathyamidhi Acharya H R	XXXXXXXX26R	M.Tech	VTU, Belagavi	Industrial Automation & Robotics	01/12/2025	0.3	Assistant Professor	Assistant Professor		Contra Fulltir
33	Sunil S R Gaekwad	XXXXXXXX49H	Ph.D	JSS STU	Tool Engineering	19/01/2015	9.10	Assistant Professor	Assistant Professor		Regul:
34	Vinod Kumar H P	XXXXXXXX48J	M.Tech	VTU, Belagavi	Industrial Automation & Robotics	11/01/2017	8.3	Assistant Professor	Assistant Professor		Regul:
35	Sachin B	XXXXXXXX92E	Ph.D	NIT	Manufacturing Engineering	28/12/2020	4.2	Assistant Professor	Assistant Professor		Regul:
36	Srinatha R Katti	XXXXXXXX92D	Ph.D	VTU, Belagavi	CIM, Polymer Composites	27/09/2022	2.6	Assistant Professor	Assistant Professor		Contra Fulltir
37	Madhu R	XXXXXXXX62G	M.Tech	VTU, Belagavi	Product Design	1/08/2023	1.7	Assistant Professor	Assistant Professor		Contra Fulltir
38	Ravishankar M D	XXXXXXXX19P	M.Tech	VTU, Belagavi	Industrial Engineering	01/08/2023	1.7	Assistant Professor	Assistant Professor		Contra Fulltir
39	Madhusudan B M	XXXXXXXX06Q	Ph.D	VTU, Belagavi	Nano Materials and Surface Engineering	01/08/2023	1.6	Assistant Professor	Assistant Professor		Contra Fulltir
40	Sudarshan N	XXXXXXXX56D	M.Tech	VTU, Belagavi	Thermal Engineering	27/04/2024	0.11	Assistant Professor	Assistant Professor		Contra Fulltir
41	B Suresha	XXXXXXXX60J	Ph.D	Anna University	Machine Design	16/01/1990	34.2	Assistant Professor	Professor		Regul:
42	Srinag P	XXXXXXXX56F	Ph.D	IIT Kharagpur	Aerospace Engineering	19/06/2014	9.4	Assistant Professor	Assistant Professor		Regul:
43	Aravind S L	XXXXXXXX77A	Ph.D	NIT, Trichy	Machine Design	21/12/2020	3.1	Assistant Professor	Assistant Professor		Regul:
44	Bharath Raj L	XXXXXXXX78G	M.Tech	VTU, Belagavi	Manufacturing Engineering	25/07/2016	8	Assistant Professor	Assistant Professor		Contra Fulltir
45	Ajay Anand	XXXXXXXX77Q	M.Tech	VTU, Belagavi	Production Engineering	31/07/2017	7	Assistant Professor	Assistant Professor		Contra Fulltir
46	Sriraksha	XXXXXXXX57D	M.Tech	VTU, Belagavi	Machine Design	31/07/2019	5	Assistant Professor	Assistant Professor		Contra Fulltir
47	Chandan C	XXXXXXXX77J	M.Tech	VTU, Belagavi	Machine Design	01/09/2022	1.10	Assistant Professor	Assistant Professor		Contra Fulltir

48	Rashmi S N	XXXXXXXX00R	M.Tech	Visvesvaraya Technological University	Production Engineering	01/08/2024	1.7	Assistant Professor	Assistant Professor		Regul:
49	Santosh Kumar	XXXXXXXX44P	M.Tech	Kuvempu	Production Engineering	01/08/2025	0.7	Assistant Professor	Assistant Professor		Regul:
50	Nagendra Parashar	XXXXXXXX87H	Ph.D	Mysore University	Production Engineering	19/02/2026	0	Professor	Professor	19/02/2026	Regul:

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

Sr.No	Name of the Faculty	PAN No.	APAAR faculty ID*(if any)	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor if any	Nature of Association (Regular/ Contract/ Ad hoc)
1	Rashmi S N	XXXXXXXX00R	NA	M.Tech	Visvesvaraya Technological University	Production Engineering	10/08/2017	6.11	Assistant Professor	Assistant Professor		Regular
2	Santosh Kumar	XXXXXXXX44P	NA	M.Tech	Kuvempu University	Production Engineering	30/10/2015	9.9	Assistant Professor	Assistant Professor		Regular

## 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 Department3 No. of PG Programs in the Department3

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	198
UG1.D	132	198	198
<b>UG1: Mechanical Engineering</b>	<b>396</b>	<b>462</b>	<b>528</b>
UG2.B	0	0	0
UG2.C	0	0	66
UG2.D	0	66	66
<b>UG2: Industrial &amp; Production Engineering</b>	<b>0</b>	<b>66</b>	<b>132</b>
PG1.A	12	18	18
PG1.B	18	18	18
<b>PG1: Industrial Automation &amp; Robotics</b>	<b>30</b>	<b>36</b>	<b>36</b>
PG2.A	0	18	18
PG2.B	18	18	24
<b>PG2: Machine Design</b>	<b>18</b>	<b>36</b>	<b>42</b>
DS=Total no. of students in all UG and PG programs in the Department	444	534	606
AS=Total no. of students of all UG and PG programs in allied departments	0	84	168
S=Total no. of students in the Department (DS) and allied departments (AS)	<b>S1= 444</b>	<b>S2= 618</b>	<b>S3= 774</b>
DF=Total no. of faculty members in the Department	32	28	38

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
AF= Total no. of faculty members in the allied Departments	0	1	2
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	F1= 32	F2= 29	F3= 40
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= 13.88	SFR2= 21.31	SFR3= 19.35
Average SFR for 3 years	SFR= 18.18		

### 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)	17	15	22.00	26.14
2024-25(CAYm1)	16	13	30.00	17.67
2023-24(CAYm2)	18	22	38.00	17.63

### 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	6.00	4.00	1.00	14.00	21.00
2024-25	3.00	5.00	6.00	1.00	20.00	21.00
2023-24	4.00	5.00	8.00	1.00	25.00	24.00
Average	RF1=3.00	AF1=5.33	RF2=6.00	AF2=1.00	RF2=19.67	AF2=22.00

### 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	Nil	Nil	Nil	Nil	0.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. Vinay Simha	Product Marketing Manager	Applied Materials, Begaluru	Product Deveploment & Manufacturing (ME7103)	72.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Dr. Puneeth M L	Manager	Infosys Pvt. Ltd., Mysuru	Meshing & Simulation (ME7104)	80.00

### 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	18	27	24
2	No. of peer reviewed conference papers published	9	18	40
3	No. of books/book chapters published	1	8	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
Prof. S. Shamsundar	NIL	ICICI Foundation, CSR Initiative	Establishing solar energy Research and training Lab equipment	ICICI Foundation	Ongoing	2500000.00
						Amount received (Rs.):2500000.00

(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. Imran Jamadar	NIL	SERB, New Delhi	Numerical and Experimental Studies for the Vibration Control of 3D Printed Complex Shaped Light Weight Robotic Manipulators	SERB New Delhi	3 years	1786400.00
Dr. Imran Jamadar	NIL	TiH IoT IIT Bombay DST	Wind Turbine Predictive Maintenance using Machine Learning Approach	TiH IoT IIT Bombay DST	Mar-2023	480000.00
						Amount received (Rs.):2266400.00

(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
Prof. Prasanta Kumar Samal	NIL	TIH-IoT, IIT Bombay, CHANAKYA Fellowship	Digital Twin and Predictive Maintenance of Pneumatic System	DST	2 years	480000.00
Prof. Prasanta Kumar Samal	NIL	TIH-IoT, IIT Bombay, CHANAKYA Fellowship	Design and Fabrication of Onion Harvester	DST	2 years	480000.00
Dr. Imran Jamadar	NIL	TiH IoT IIT Bombay	Condition monitoring and predictive maintenance of Gear Box	DST	2 years	480000.00
						Amount received (Rs.):1440000.00

**Total Amount (Lacs) Received for the Past 3 Years: 6206400.00**

**Note\*:**

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

### C8. Consultancy Work

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

## (CAYm1)

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.Shamsundar	NIL	Mechanical CREST	Towards 3rd party inspection	The commissioner, mcc, Mysore	2 days	33066.10
Prof.S.Shamsundar	NIL	Mechanical CREST	Towards rain water harvesting consultancy charges	Intant procurement services pvt ltd	12 days	149500.00
Prof.S.Shamsundar	NIL	Mechanical CREST	Towards 3rd party inspection	The commissioner, mcc, Mysore	10 days	103663.56
Prof.S.Shamsundar	NIL	Mechanical CREST	Towards 3rd party inspection	MCC, municipal council, Hunsur	2 days	20542.38
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy charges for design and estimation	For pond creation at Metikuppe forest range	1 days	12711.86
Prof.S.Shamsundar	NIL	Mechanical CREST	Development of a comprehensive plan/layout for the sustainable agriculture learning campus	German development cooperation, giz office new Delhi	15 days	259500.00
Prof.S.Shamsundar	NIL	Mechanical CREST	Towards 3rd party inspection	The commissioner, mcc, Mysore	9 days	139511.86
Prof.S.Shamsundar	NIL	Mechanical CREST	Development of a comprehensive plan/layout for the sustainable agriculture learning campus	German development cooperation,	10 days	259500.00
Prof.S.Shamsundar	NIL	Mechanical CREST	Towards 3rd party inspection	Town panchayath rammanahalli, mysuru	2 days	38207.62
Prof.S.Shamsundar	NIL	Mechanical CREST	Towards 3rd party inspection	Town panchayath rammanahalli, mysuru	1 day	12711.86
						Amount received (Rs.):1028915.24

## (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.Shamsundar	NIL	Mechanical CREST	Consultancy income	COE	5 days	128376.28
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	COE	6 days	53571.42
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	COE	10 days	100604.24
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	COE	12 days	280987.28
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	COE	1	10000.00
Prof.S.Shamsundar	NIL	Mechanical CREST	Towards 3rd party inspection	The chief officer, tmc, k.r nagara	3	29255.94
						Amount received (Rs.):602795.16

(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.K R Prakash	NIL	Mechanical	Training on Hydraulics & Pneumatics	Ministry of Education & Skills Development, Bhutan	21 days	294000.00
Dr.K R Prakash	NIL	Mechanical	Training in Robotics	Ministry of Education & Skills Development, Bhutan	12 days	192000.00
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	City municipal council, Nanjangudu	4 days	22605.08
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	Rachana Enercare	2 days	10000.00
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	COE	6 days	45916.12
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	COE	2 days	26410.72
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	COE	2 days	27627.10
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	COE	3 days	34472.04
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	Sadhana enviro engineering services	2 days	17523.72
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	SDMIMB , mysuru	2 days	10169.50
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	Likhitha enterprises	5 days	58000.00
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	Cubic capacity tipper	2 days	10705.08
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	Cubic capacity tipper	2 days	10705.08
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	COMMISSIONER MCC MYSORE	20 days	367411.80
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	Town municipal council Bannur	2 days	25241.52
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	UPL limited against	1 day	18000.00
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	City municipal council Chamarajnaragar	3 days	42100.00
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	The chief officer, city municipal council, Hootgalli	2 days	15889.84
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	Director, SDMIMD , Mysore	2 days	21186.44
Prof.S.Shamsundar	NIL	Mechanical CREST	Consultancy income	The Commissioner, MCC ,Mysuru	2 days	11586.44
						Amount received (Rs.):1261550.48

Total amount (Lacs) received for the past 3 years: 2893260.88

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
Prof. Rashmi S N	Tribological behavior of SLM printed Aluminium alloy	1 year	0.75	0.75	Peer reviewed Journal Paper Published
			Amount received (Rs.): 0.75		

(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
Prasanta Kumar Samal	Mathematical Modelling Simulation and Experimental Investigation on Fault	1 Year	0.75	0.75	Peer reviewed Journal Paper Published
			Amount received (Rs.): 0.75		

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

Total amount (Lacs) received for the past 3 years : 1.50

## 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	Computer Aided Engineering Drawing	15	Dell desktop computers	46	Byresh H	Mechanic	Diploma
2	IC Engine Laboratory	20	Ruston Engine, Single cylinder four stroke diesel engine, Multi cylinder Diesel Engine	15	Suresha M	Assistant inst	I.T.I
3	Heat Transfer Laboratory	20	Thermal conductivity of a Metal rod, insulating powder and kerosene, Composite wall, Forced Convection	15	1.Ravikiran 2	1.Instructor 2	1.BE 2.I.T.I
4	Dynamics Laboratory	20	Whirling of shaft, Gyroscope, Balancing of rotating masses, Porter Governor, Governor Inertia	15	Shashidhar N	Asst. Instruct	I.T.I
5	Fuels Laboratory	20	Pensky Martens's apparatus, Cleveland's apparatus, Bomb Calorimeter, Redwood calorimeter	15	Thejaswi M	Helper	SSLC
6	CAD/CAM Laboratory	30	Dell desktop computers (72) OPTIPLEX 3070 tower XCTO, 20" monitor 4GB RAM 4TB HDD with Windows 10	15	Pruthviraj T P	Asst. Instruct	BE
7	Renewable Energy Laboratory	20	Flat plate collector, Solar PV cells, Wind energy analysis system, Solar Still, Solar Drying	15	Jagadeesh L	Helper	VII std
8	Machine shop	20	Lathe Machine, Drilling Machine, Shaper Machine, Power Hacksaw, Bench Grinding Machine, Universal	15	Mahadevaiah	Instructor	I.T.I
9	Foundry, Forging and Welding Lab	20	Sand Miller, Sand siver, Moisture tester, Sieve Shaker, Furnace, Power Hack Saw, Cast Iron	15	Shreyas Soni	Mechanic	I.T.I
10	Fluid Mechanics Laboratory	20	Major and Minor losses in pipes, impact of jet on vanes, Venturimeter, Orificemeter, Mouth	15	Shankarappa	Instructor	I.T.I
11	Basic Material Testing Lab	20	Impact testing Machine, Universal testing machine, Vickers, Rockwell & Brinell Hardness testing machine	15	Ravikiran V	Instructor	BE
12	Metrology and Measurement Lab	20	Coordinate measuring machine(CMM), Lathe tool microscope, Test Indicator	15	Krishnamurth	Mechanic	I.T.I
13	Additive Manufacturing Laboratory	20	Crealitiy Ender 3 V2 with Enclosure, Creality 3D CR-X Pro Dual Color with Enclosure	15	Basavaraju	Assistant Inst	SSLC

### D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Computer Aided Engineering Drawing (CAED) Laboratory	Safety in the CAED laboratory mainly focuses on electrical and ergonomic aspects. Computers, monitors, and peripherals should be properly grounded and handled with dry hands. Students should maintain correct posture while working to avoid strain on the eyes, neck, and back. Food and liquids should not be allowed near computer systems to prevent electrical damage, and all systems must be properly shut down after use.

2	<div data-bbox="220 134 762 246" style="border: 1px solid black; padding: 5px;"> <p>IC Engine Laboratory</p> </div>	<p>In the IC engine laboratory, safety measures are essential due to the presence of fuel, hot surfaces, and moving parts. Proper ventilation must be ensured to remove exhaust gases and prevent carbon monoxide accumulation. Fuel should be handled carefully, and spills must be cleaned immediately. Students should avoid touching hot engine components and keep hands away from rotating parts such as flywheels and belts. Fire extinguishers should be readily available, and engines must be operated only under supervision.</p>
3	<div data-bbox="220 342 762 454" style="border: 1px solid black; padding: 5px;"> <p>Heat Transfer Laboratory</p> </div>	<p>The Heat Transfer laboratory involves high temperatures, steam, and heated surfaces. Students should be cautious while handling heaters, boilers, and hot pipes. Insulated gloves should be used where necessary, and hot surfaces should be clearly marked. Water levels and pressure gauges must be checked before starting experiments, and equipment should be allowed to cool before handling to avoid burns.</p>
4	<div data-bbox="220 517 762 629" style="border: 1px solid black; padding: 5px;"> <p>Dynamics Laboratory</p> </div>	<p>Safety in the Dynamics laboratory is mainly related to moving and rotating mechanisms such as flywheels, governors, cams, and gyroscopes. All apparatus must be firmly mounted before operation. Students should not touch moving parts while experiments are running and must wait until the system comes to rest before making adjustments. Loads and weights should be handled carefully to prevent falling or imbalance.</p>
5	<div data-bbox="220 692 762 804" style="border: 1px solid black; padding: 5px;"> <p>Fuels Laboratory</p> </div>	<p>The Fuels laboratory requires strict safety due to flammable and volatile substances. Proper ventilation should be maintained to avoid inhalation of harmful vapors. Fuels must be stored in approved containers, and open flames or sparks should be strictly prohibited. Protective gloves and goggles should be worn while handling chemicals, and any fuel spillage should be cleaned immediately.</p>
6	<div data-bbox="220 1113 762 1225" style="border: 1px solid black; padding: 5px;"> <p>CAD/CAM Laboratory</p> </div>	<p>In CAD/CAM lab mainly focus on electrical safety, ergonomic safety, and proper handling of computer systems. The key measures are explained below in paragraph form. In a CAD/CAM laboratory, all computer systems, servers, and peripherals should be properly grounded to prevent electrical hazards. Students must ensure their hands are dry before operating computers, and damaged power cables or loose connections should be reported immediately. Food and liquids are strictly prohibited near computer systems to avoid short circuits and equipment damage. Ergonomic safety is very important in CAD/CAM labs since students work for long hours on computers. Chairs, tables, monitors, and keyboards should be adjusted to maintain correct posture and reduce strain on the eyes, neck, and back. Students should sit upright, keep the monitor at eye level, and take short breaks to prevent eye fatigue and repetitive strain injuries. Proper handling and care of computer equipment must be followed at all times. Keyboards, mouse devices, and monitors should be used gently and not mishandled. Software should be used only for academic purposes, and unauthorized installation or modification of programs is not allowed. Systems must be properly shut down after use to prevent data loss and hardware damage. General laboratory discipline should be maintained in the CAD/CAM lab. Students should follow the instructor's instructions and lab rules strictly, avoid overcrowding near workstations, and keep the lab clean and organized. Bags and personal belongings should be placed in designated areas to prevent obstruction. Following these CAD lab-specific safety measures ensures safe operation, protects costly equipment, and creates a comfortable working environment for learning.</p>
7	<div data-bbox="220 1545 762 1657" style="border: 1px solid black; padding: 5px;"> <p>Renewable Energy Laboratory</p> </div>	<p>The Renewable Energy laboratory includes systems such as solar panels, wind turbines, and bioenergy units. Electrical safety is critical when dealing with power generation and storage systems. Moving parts in wind energy setups should be properly guarded, and experiments should not be conducted during unsafe conditions. Proper handling of batteries and energy storage devices is necessary to prevent leakage or electrical hazards.</p>
8	<div data-bbox="220 1720 762 1832" style="border: 1px solid black; padding: 5px;"> <p>Machine Shop</p> </div>	<p>The machine shop involves tools such as lathes, milling machines, drilling machines, and grinders, which require strict safety measures. Students must wear safety goggles and shoes, avoid loose clothing, and never touch rotating parts. Machines should be operated only after proper training, and chips should be removed using brushes. Workpieces must be securely clamped before machining.</p>
9	<div data-bbox="220 1895 762 2007" style="border: 1px solid black; padding: 5px;"> <p>Foundry, Forging, and Welding Laboratory</p> </div>	<p>These laboratories involve high temperatures, molten metal, and sparks, making safety extremely critical. Protective clothing such as heat-resistant gloves, face shields, and aprons must be worn. Adequate ventilation should be provided to remove fumes and gases. Students should maintain a safe distance from molten metal and welding arcs, and fire-fighting equipment should always be available.</p>

10	Fluid Mechanics Laboratory	In the Fluid Mechanics laboratory, safety measures focus on pressure systems, rotating pumps, and slippery surfaces. Pipes, valves, and joints should be checked for leakage before operation. Students should avoid standing near high-pressure outlets and clean any water spills immediately to prevent slipping. Electrical components of pumps and motors should be properly insulated and grounded.
11	Metrology and Measurement Laboratory	Safety in the Metrology laboratory involves careful handling of precision instruments. Measuring devices such as micrometers, vernier calipers, and gauges should be handled gently to avoid damage. Instruments should be cleaned after use and stored properly. Electrical measuring equipment should be operated carefully, following the manufacturer's instructions
12	Additive Manufacturing Laboratory	The Additive Manufacturing laboratory involves 3D printers, lasers, heated nozzles, and powdered materials. Students should avoid touching hot extruders and build platforms. Proper ventilation is required to remove fumes from melted polymers or resins. Powdered materials should be handled carefully to avoid inhalation, and machines should be operated only as per specified procedures.

**D3. Project Laboratory/Research Laboratory**

## 1. Mechanical Project Room

The Project Room is a dedicated facility established to support undergraduate and postgraduate student projects. The project room provides an enabling environment for experiential learning, design, fabrication, testing, and validation of engineering solutions. Students are encouraged to carry out prototype development, experimental investigations, and interdisciplinary projects under faculty supervision.

The project room supports **mini projects, major projects, capstone design projects, internships-linked projects, and industry-sponsored problem statements**. It facilitates teamwork, innovation, problem-solving, and application of engineering knowledge to real-world problems. The Mechanical Project Room is extensively used throughout the academic year by final-year UG students and PG students. It also supports project-based learning activities, design competitions, and research-oriented student projects. Safety guidelines, standard operating procedures, and continuous faculty mentoring ensure effective utilization of the facility. Overall, the Mechanical Engineering Project Room significantly contributes to achieving **Program Outcomes** related to design, investigation, teamwork, modern tool usage and lifelong learning.

More Details: <https://drive.google.com/drive/folders/170adkgbjLiBkRxcx8ksoo-iBb0SVt2yE>

## 2. Centre for Material Research

The Centre for Materials Research (CMR) at the National Institute of Engineering (NIE), Mysuru, was established to promote advanced research leading to Ph.D. degrees and to provide high-quality education to undergraduate and postgraduate students in interdisciplinary areas such as Tribology, Machine Design, Advanced Manufacturing, and Materials Science. CMR functions as a research and innovation hub supporting faculty-led research projects, doctoral and postgraduate dissertations, industry-oriented product development, and collaborative research. The Centre also serves as a shared research facility for scholars from other institutions, thereby contributing to regional and national research capacity building.

The Centre is equipped with advanced experimental facilities including Universal Testing Machine (UTM), Pin-on-Disc Wear Tester, Two-Body and Three-Body Abrasive Wear Testers, Four-Ball Tribology Tester, Impact Testing Machines, Fatigue Testing Setup for Polymer Composites, and Additive Manufacturing and Composite Processing facilities. These enable comprehensive evaluation of mechanical, tribological, and material performance characteristics.

CMR actively supports external users from reputed institutions, encouraging collaborative research and optimal utilization of laboratory resources. The Centre has played a significant role in doctoral research, with several Ph.D. scholars successfully completing their research in areas such as polymer composites, nanocomposites, tribology, wear mechanisms, and machining. Research outcomes have resulted in high-impact publications in reputed SCI and Scopus-indexed journals, international conferences, and book chapters published by leading publishers. Overall, the Centre for Materials Research has established itself as a strong research ecosystem, significantly strengthening NIE's position as a recognized hub for materials and tribology research.

More Details: <https://drive.google.com/drive/folders/170adkgbjLiBkRxcx8ksoo-iBb0SVt2yE>

## 3. Centre for Research, Excellence, Science, and Technology

CREST (Centre for Research, Excellence, Science, and Technology) at The National Institute of Engineering (NIE), Mysuru, serves as a dedicated platform to promote advanced research, innovation, and interdisciplinary collaboration. The centre is aimed at strengthening the research ecosystem by supporting faculty, research scholars, and students in pursuing cutting-edge research and technology development. CREST facilitates industry-academia interaction, encourages externally funded research projects, and supports activities such as product development, consultancy, testing, and incubation. It provides access to specialized laboratories, modern equipment, and shared research facilities, enabling high-quality experimental and applied research. Through CREST, NIE Mysore actively nurtures a culture of innovation, entrepreneurship, and research excellence, contributing to societal needs and national technological advancement while enhancing the institute's academic and research profile.

More Details: <https://drive.google.com/drive/folders/170adkgbjLiBkRxcx8ksoo-iBb0SVt2yE>

## 4. NIE-EICHER Centre for Automobile Technology

The NIE-EICHER Centre for Automobile Technology (NECAT), established in 2009 through an industry-institute collaboration between NIE Mysuru and Volvo-Eicher Commercial Vehicles (VECV), functions as a Centre of Excellence providing hands-on training, advanced laboratories, and state-of-the-art automotive components in conventional, BS-VI, electronics, and emerging EV technologies. NECAT supports UG, PG, research scholars, and industry personnel through structured courses, modular trainings, student-trainer programs, projects, and outreach activities, training over 4,000 participants and generating sustained revenue while remaining financially self-sufficient. Closely aligned with the academic curriculum and accreditation requirements, NECAT significantly enhances employability, research exposure, and industry readiness, and is strategically positioned to expand into EVs, virtual classrooms, IoT, and advanced safety systems, strengthening NIE's interdisciplinary and industry-relevant education ecosystem.

More Information: <https://drive.google.com/drive/folders/1iu8RjrQPaVg9LYZlPvM7ES9WtLQT3sK?usp=sharing>  
(<https://drive.google.com/drive/folders/1iu8RjrQPaVg9LYZlPvM7ES9WtLQT3sK?usp=sharing>)

## 5. NIE Siemens Centre

The NIE-Siemens Technical Centre is an interdisciplinary, industry-supported Centre of Excellence at NIE Mysuru, established to promote skill excellence, industry-relevant training, and innovation through collaboration with Siemens. The centre provides state-of-the-art infrastructure, licensed Siemens NX CAD/CAE/CAM software, and modern computing facilities to support undergraduate, postgraduate, faculty, and industry-oriented learning. It enhances student employability through hands-on training, innovative projects, and exposure to real-world industrial practices, while also strengthening faculty competency, consultancy, and research output. By aligning technical education with evolving industry needs, the centre plays a vital role in developing a future-ready workforce and strengthening NIE's ecosystem for advanced skill development and innovation.

Facilities of NIE-Siemens Technical Center can be utilized to find the solutions for complex problems encountered in Mobility and Manufacturing industries such as to optimize the battery arrangement in EVs and to optimize the machining parameters in manufacturing industries to reduce the process time and operation cost.

More Details: <https://drive.google.com/drive/folders/170adkgbjLiBkRxcx8ksoo-iBb0SVt2yE>

## 6. Centre for Nano Technology

The Nano Laboratory is a specialized facility designed to support research and undergraduate project work in the field of nano materials. The laboratory focuses on the preparation, processing, and characterization of advanced nano-materials using modern and precise equipment. The lab is equipped with instruments such as magnetic stirrers, pH meters, ultrasonic cleaners, hot and vacuum ovens, spin coating machines, and probe sonicators. These instruments enable accurate mixing, dispersion, drying, coating, and quality control of nano-scale materials. Such facilities are essential for conducting experiments that require high precision and consistency.

Major activities carried out in the Nano Laboratory include the development of polymer-based nano composites and nano-lubricants. Polymer nano composites are prepared to enhance mechanical, thermal, and electrical properties for applications in electronics, coatings, and biomedical fields. Nano-lubricants are formulated by dispersing nano particles in base fluids to reduce friction, improve lubrication efficiency, and increase the lifespan of mechanical systems. Overall, the Nano Laboratory plays an important role in promoting innovation, hands-on learning, and research in nanotechnology, contributing significantly to both academic growth and industrial applications.

More Details: <https://drive.google.com/drive/folders/170adkqbjLiBkRxcx8ks00-iBb0SVt2yE>

### 7. Centre for Robotics and Controls

The Centre for Research in Robotics and Controls was established in 2014 with funding support from the Karnataka Council for Technological Upgradation (KCTU). With a total budget of ₹1.5 crore, the centre was developed as a state-of-the-art research facility aimed at promoting innovation and applied research in automation and generic robotic platforms, and to function as a Technology Centre of Excellence. A key objective of the centre is to ensure that the developed technologies are affordable, reliable, and easily adoptable across various industrial sectors. The centre actively supports postgraduate and doctoral research in the field of robotics and controls.

Total five Ph.D scholars have successfully completed their research work in robotics at the centre, in addition to supporting PhD scholars from regional institutions. The centre has also made significant intellectual contributions, holding two patents and one copyright, reflecting its strong focus on innovation and research excellence.

More Details: <https://drive.google.com/drive/folders/170adkqbjLiBkRxcx8ks00-iBb0SVt2yE>

## 8. Centre for Automation Technology

The Centre for Automation Technology was established in alignment with the *Make in India* vision, with a total investment of ₹3 crore, to promote a strong research culture among youth. The centre plays a significant role in addressing the diverse and evolving needs of the manufacturing industry. CAT is supported by a consortium of leading industrial partners who continuously contribute through technology upgradation, student internships, training, and placement opportunities. The laboratory has evolved as a first-of-its-kind facility in Karnataka, supported by member companies such as Bosch Rexroth, FANUC India, Siemens, Festo Controls, Felsomat India and Schunk. These companies have collaborated to develop various manufacturing related laboratories under the CAT umbrella.

The Centre is planned in four stages, comprising four Technology Centres as its core pillars, covering multidisciplinary areas with state-of-the-art facilities. As a priority, the Flexible Manufacturing Systems (FMS) Technology Centre was established with support from the Technical Education Quality Improvement Programme-II (TEQIP-II), forming the foundation of CAT. The laboratory houses advanced facilities in Hydraulics, Pneumatics, Mechatronics, Flexible Manufacturing Systems, and Additive Manufacturing, with an initial investment of ₹85 lakh and additional funding support of ₹1 crore from DST-FIST. Presently, the centre supports research projects, internships, skill development programs, and student projects. It has successfully supported research work for 3 PhD scholars and over 100 postgraduate students in completing their thesis work.

More Details: <https://drive.google.com/drive/folders/170adkqbjLiBkRxcx8ks00-iBb0SVt2yE>

### 9. NIE-AICTE Idea Lab

The NIE AICTE IDEA Lab at The National Institute of Engineering (NIE), Mysuru, has been established to promote innovation, hands-on learning, and product development among students and faculty. The lab provides a multidisciplinary environment that supports ideation, design, prototyping, and testing of engineering solutions aligned with industry and societal needs. The IDEA Lab is equipped with advanced Bosch Power Tools such as table saws, mitre saws, grinders, drilling machines, routers, sanders, planers, jigsaws, and circular saws, enabling precision fabrication and woodworking activities. In addition, the lab houses a Laser Cutting and Engraving Machine supporting rapid prototyping using materials such as acrylic sheets.

To support additive manufacturing, the lab is equipped with **3D printers** including Creality CR-X Pro and Creality Ender models, enabling fabrication of complex components using FDM technology. These facilities help students translate design concepts into functional prototypes efficiently. The IDEA Lab also includes an **Embedded System Development Lab** and a **PCB Design and Signal Processing Lab**, equipped with Arduino UNO R4 WiFi boards, Raspberry Pi boards, soldering stations, digital multimeters, digital storage oscilloscopes, and PCB drilling machines. These facilities support learning and development in electronics, embedded systems, IoT, and signal processing. Overall, the NIE AICTE IDEA Lab serves as a comprehensive innovation ecosystem, fostering creativity, interdisciplinary collaboration, skill development, and entrepreneurship, while strengthening practical engineering education and industry readiness.

More Details: [https://drive.google.com/drive/folders/1JDh5-X821827ukwi-dvbqgJHGDDrFJ\\_z](https://drive.google.com/drive/folders/1JDh5-X821827ukwi-dvbqgJHGDDrFJ_z)

## 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)	1020	51	28	110	87
2024-25(CAYm1)	1140	57	29	110	79
2025-26(CAY)	1140	57	31	124	87

### 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	453200000	6615544	9030000	0	0	0
Library	2460000	293733	1560000	0	200000	1176285	1000000	387382
Laboratory equipment	60009000	13377431	78758000	39758895	27324400	17304804	24300000	16439458
Teaching and non-teaching staff	414191403	297560387	403311356	322583365	385726891	320435182	355301441	351069180
Outreach Programs	0	0	0	0	0	0	0	0
R&D	3500000	590484	4000000	2455565	2475000	2264469	2000148	1162132
Training, Placement and	5175000	1619728	2200000	3191492	2200000	2010720	2000000	2135704
SDGs	0	0	0	0	0	0	0	0
Entrepreneurship	0	0	0	0	0	0	0	0
Others, specify	205219130	117927900	230695928	141977818	227916544	133380848	70450443	80653419
<b>Total</b>	<b>690554533</b>	<b>431369663</b>	<b>1173725284</b>	<b>516582679</b>	<b>654872835</b>	<b>476572308</b>	<b>455052032</b>	<b>451847275</b>

**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	2110000	182370	3900000	2224121	2920000	3030480	2000000	21697
Software	0	0	0	840160	0	0	0	1321600
SDGs	0	0	0	0	0	0	0	0
Support for faculty development	50000	75238	120000	153860	100000	62797	0	25400
R & D	0	36043	0	253540	0	142500	0	0
Industrial Training, Industry expert,	40000	16626	100000	13472	100000	0	0	0
Miscellaneous Expenses*	3955000	1297518	4563174	2157631	2307000	5337854	824176	679130
<b>Total</b>	<b>6155000</b>	<b>1607795</b>	<b>8683174</b>	<b>5642784</b>	<b>5427000</b>	<b>8573631</b>	<b>2824176</b>	<b>2047827</b>