NATIONAL BOARD OF ACCREDITATION

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

PART-A: Profile of the Institute

Name of the Program Applied for: B.E. Mechanical Engineering

A1: Name of the Institute: - Hindusthan Institute of Technology

Year of Establishment : 2007 Location of the Institute: Coimbatore - 641 032

A2: Institute Address: -

City: Coimbatore State : Tamil Nadu

Pin Code: 641032 Website : http://hit.edu.in/

E-mail : hitprincipal@hindusthan.net Phone No (with STD Code): 0422 4242477

A3: Name and Address of the Affiliating University (If any): -

Name of the University: Anna University City : Chennai

State : Tamil Nadu Pin Code: 600025

A4: Type of the Institution: - (Tick the applicable choice)

Institute of National Importance	☐	Deemed University	☐
University	☐	Autonomous	☑
Non-Autonomous (Affiliated)	☐	Any other (Please specify) *	☐

***Provide Details:** _____

A5: Ownership Status: - (Tick the applicable choice)

Central Government	☐	State Government	☐
Government Aided	☐	Self-financing	☑
Any Other (Please specify) *	☐	*Provide Details:_____	

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

S.N.	Level of program (UG/PG)	Name of the program	Year of Start	Year of close*	Name of the Department
1.	UG	B.E (Aeronautical Engineering)	2007	-	Aeronautical Engineering
2.	UG	B.E (Computer Science and Engineering)	2007	-	Computer Science and Engineering
3.	UG	B.E (Electronics and Communication Engineering)	2007	-	Electronics and Communication Engineering
4.	UG	B.Tech(Information Technology)	2007	-	Information Technology
5.	UG	B.E (Mechanical Engineering)	2009	-	Mechanical Engineering
6.	UG	B.Tech(Artificial Intelligence and Data Science)	2021	-	Artificial Intelligence and Data Science
7.	PG	Master of Business Administration	2008	-	Master of Business Administration
8.	PG	M.E (Computer Science and Engineering)	2010	-	Computer Science and Engineering
9.	PG	M.E (VLSI)	2012	-	Electronics and Communication Engineering

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

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

Cluster ID.	Name of the Department	Name of the Program
1	Aeronautical Engineering	B.E. Aeronautical Engineering
2	Computer Science and Engineering	B.E. Computer Science and Engineering
3	Electronics and Communication Engineering	B.E. Electronics and Communication Engineering
4	Mechanical Engineering	B.E. Mechanical Engineering

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)
2.	Computer Science and Engineering	Information Technology
		Artificial Intelligence and Data Science

PART-B: Program information

B1: Provide the Required Information for the Program Applied for: B.E. Mechanical Engineering

Table No. B1: Program details

S. N.	Program Name	Year of start	Sanctioned Intake	Increase/ decrease in intake, if any	Year of increase/ decrease	AICTE Approval Details	Accreditation Status*	No. of times program accredited
1.	Mechanical Engineering	2009	60	120 (Increase)	2012-2013	Southern/1-4464182705 2/2025/EOA	**Accredited-TIER-II** Granted accreditation for 3 years for the period 2018 - 2021, (**Covid 19 Extension** 2021 – 2022) (**Compliance** 2022 – 2025)	1
				60 (Decrease)	2021-2022			

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

A. Name of the HoD: Dr.S.R.Rajabalayanan

B. Nature of appointment: (Tick the applicable choice)

- **Regular** [√]
- **Contract** [ ]
- **Ad hoc** [ ]

C. Qualification: (Tick the applicable choice)

- **Ph.D.** [√]
- **ME/M.Tech** [ ]
- **Any other*** [ ]
- ***Please provide details:** _____

B3: Program Details

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

Item (Information is to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	CAY 2024-2025	CAYm1 2023-2024	CAYm2 2022-2023	CAYm3 2021-2022	CAYm4 (LYG) 2020-2021	CAYm5 (LYGm1) 2019-2020	CAYm6 (LYGm2) 2018-2019
N= Sanctioned intake of the program (as per AICTE /Competent authority)	60	60	60	60	120	120	120
N1= Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	60	57	59	57	44	56	68
N2= Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	00	07	07	12	47	15	08
N3= Separate division if any	00	00	00	00	00	00	04
N4= Total no. of students admitted in the 1st year via all supernumerary Quotas	03	00	00	00	00	00	00
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	63	64	66	69	91	71	80

B4: Enrolment Ratio in the First Year

Table No. B4.1: Student enrolment ratio in the 1st year

Item (Students enrolled in the First Year on average over 3 academic years (CAY, CAYm1, and CAYm2))	CAY 2024-25	CAYm1 2023-24	CAYm2 2022-23
N= Sanctioned intake of the program in the 1st year (as per AICTE/Competent authority)	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	60	57	59
N4= Total no. of students admitted in the 1st year via all supernumerary quotas	03	0	0
Enrolment Ratio (ER)= (N1+N4)/N	100	95	98.3
Average ER= (ER_1+ ER_2+ ER_3)/3	97.76		

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	LYG 2020-21	LYGm1 2019-20	LYGm2 2018-19
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).	91	71	80
B=No. of students who graduated from the program in the stipulated course duration	67	61	68
Success Rate (SR)= (B/A)*100	73.62	85.91	85
Average SR of three batches ((SR_1+SR_2+ SR_3)/3)	81.51		

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 2023-24	CAYm2 2022-23	CAYm3 2021-22
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)	6.81	6.20	7.45
Y= Total no. of successful students	53	59	51
Z = Total no. of students appeared in the examination	53	59	51
API = X* (Y/Z)	6.81	6.20	7.45
Average API = (API_1 + API_2 + API_3)/3	6.82		

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

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

Academic Performance	CAYm1 2023-24	CAYm2 2022-23	CAYm3 2021-22
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)	7.28	7.54	8.12
Y= Total no. of successful students	64	63	87
Z =Total no. of students appeared in the examination	64	63	87
API = X* (Y/Z)	7.28	7.54	8.12
Average API = (API_1 + API_2 + API_3)/3	7.64		

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 2023-24	CAYm2 2022-23	CAYm3 2021-22
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)	7.60	7.93	8.08
Y= Total no. of successful students	60	85	67
Z= Total no. of students appeared in the examination	60	85	67
API = X* (Y/Z)	7.60	7.93	8.08
Average API = (API_1 + API_2 + API_3)/3	7.87		

B9: Placement, Higher Studies, and Entrepreneurship

Table No. B9.1: Placement, higher studies, and entrepreneurship details

Item	LYG 2020-21	LYGm1 2019-20	LYGm2 2018-19
FS*=Total no. of final year students	82	67	68
X= No. of students placed	61	50	52
Y= No. of students admitted to higher studies	5	6	5
Z= No. of students taking up entrepreneurship	6	8	6
X + Y + Z =	82	67	68
Placement Index (P) = (((X + Y + Z)/FS) * 100)	87.8	95.5	92.6
Average placement index = (P_1 + P_2 + P_3)/3	91.96		

PART C: Faculty Details in 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

S.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 thisInstitution	Present Designation	The date on which Designated as Professor/ Associate Professor if any	Nature of Association (Regular/Contract/ Ad hoc)	If contractual mention Full time or(Part time or hourly based)	Currently Associated (Y/N)	Date of Leaving if any (In case Currently Associated is " No")
DEPARTMENT OF MECHANICAL ENGINEERING															
1.	Dr.C.Natarajan	ABTPN6603N	NA	Ph.D	AU	Production Engineering	2/5/ 2017	8	Professor and Principal	Professor and Principal	2/5/ 2017	Regular		Y	
2.	Dr.S.R.Rajabalayanan	AIPPB2334M	NA	Ph.D	AU	Energy Conservation and Management	2/1/ 2014	11	Professor and Head	Professor and Head	2/1/ 2014	Regular		Y	
3.	Dr.T.S.Praveen	AZKPP9266C	NA	Ph.D	AU	Engineering design	11/6/ 2018	6	Associate Professor	Associate Professor	11/6/ 2018	Regular		Y	
4.	Mr.R.Selvendran	BLPPS5026K	NA	M.E	AU	Manufacturing Engineering	11/12/ 2010	14	Lecturer	Associate Professor	2/1/ 2014	Regular		Y	
5.	Mr.M.Viswanath	AFKPV6080L	NA	M.E.	AU	Product Design and Development	11/12/ 2010	14	Lecturer	Associate Professor	2/1/ 2014	Regular		Y	
6.	Mr.S.Mathivanan	BMPPM6863D	NA	M.E.	AU	Engineering Design	13/06/ 2011	13	Assistant Professor	Assistant Professor		Regular		Y	
7.	Mr.N.Dinesh	BGPPD5859Q	NA	M.E.	AU	Manufacturing Engineering	14/06/ 2012	12	Assistant Professor	Assistant Professor		Regular		Y	
8.	Mr.J.Dixon Jim Joseph	AEJPJ8239B	NA	M.E.	AU	Production Engineering	14/06/ 2012	12	Assistant Professor	Associate Professor	1/12/ 2014	Regular		Y	

9.	Mr.S.Suresh	BMKPS4111F	NA	M.E.	AU	CAD/CAM	4/7/2012	12	Assistant Professor	Assistant Professor		Regular		Y	
10.	Mr.S.Udhayakumar	ACRPU8270H	NA	M.E.	AU	Engineering Design	1/7/2013	11	Assistant Professor	Assistant Professor		Regular		Y	
11.	Mr.S.Sivasubramanian	CKXPS1580C	NA	M.E.	AU	Engineering Design	1/7/2015	9	Assistant Professor	Assistant Professor		Regular		Y	
12.	Mr.Ganesh Kumar.K.V	BGEPG7124E	NA	M.E.	AU	CAD/CAM	11/6/2018	6	Assistant Professor	Assistant Professor		Regular		Y	
13.	Mr.A.Jeevarathinam	AZTPJ9647A	NA	M.E.	AU	CAD/CAM	11/6/2018	6	Assistant Professor	Assistant Professor		Regular		Y	
14.	Mr.D.Ganesh Babu	AZSPG6268P	NA	M.E.	AU	Engineering Design	24/2/2020	5	Assistant Professor	Assistant Professor		Regular		Y	
15.	Mr.K.Vigneshwaran	AWSPV1647G	NA	M.E.	AU	Engineering Design	19/06/2024	0.5	Assistant Professor	Assistant Professor		Regular		Y	
16.	Dr.S.Sekar	ECRPS5383F	NA	Ph.D	AU	Manufacturing Engineering	1/7/2013	12	Assistant Professor	Associate Professor	1/12/2018	Regular		N	31/05/2024
17.	Mr.P.Arun Kumar	AMLPA1198E	NA	M.E.	AU	Engineering Design	24/2/2020	2	Assistant Professor	Assistant Professor		Regular		N	31/05/2024
18.	Mr.P.Dhachinamoorthi	ARIPD2697M	NA	M.E.	AU	Engineering Design	1/7/2014	9	Assistant Professor	Assistant Professor		Regular		N	31/05/2024
19.	Dr.P.T.Saravana kumar	AYLPS5255N	NA	Ph.D	AU	Energy Engineering	5/8/2019	4	Professor	Professor		Regular		N	30/05/2023
20.	Dr.K.M.Arunraja	BDFPA7595B	NA	Ph.D	AU	Engineering design	14/06/2012	11	Assistant Professor	Assistant Professor		Regular		N	30/05/2023
21.	Mr.Manojkumar Shanmugam	CJSPM7617L	NA	M.E.	AU	CAD/CAM	1/7/2013	10	Assistant Professo r	Assistant Professo r		Regular		N	30/05/2023
22.	Mr.P.Naveenkumar	AQPPN1764R	NA	M.E.	AU	Manufacturing Engineering	1/7/2013	10	Assistant Professor	Assistant Professor		Regular		N	30/05/2023
23.	Mr.R.V.Rangarajan	AOWPR9960G	NA	M.E.	AU	Product Design and Development	1/9/2017	6	Assistant Professor	Assistant Professor		Regular		N	30/05/2023
24.	Mr.S.Periyasamy	BQUPP0352B	NA	M.E.	AU	CAD/CAM	1/7/2014	9	Assistant Professor	Assistant Professor		Regular		N	30/05/2023
25.	Mr.S.Rajasekar	ASZPR3823K	NA	M.E.	AU	Product Design and Development	1/7/2014	9	Assistant Professor	Assistant Professor		Regular		N	30/05/2023
26.	Mr.R.Senthil	DTSPS2787E	NA	M.E.	AU	CAD CAM	1/7/2014	9	Assistant Professor	Assistant Professor		Regular		N	30/05/2023

C2: Student-Faculty Ratio (SFR)

Table No.C2.1: Student-faculty ratio

Year	CAY(2024-25)	CAYm1(2023-24)	CAYm2(2022-23)
UG1. B No. of Students in UG 2nd year	66	66	66
UG1. C No. of Students in UG 3rd year	66	66	132
UG1. D No. of Students in UG 4th year (ST)	66	132	132
UG1	UG1.B+ UG1.C+ UG1.D = 198	UG1.B+ UG1.C+ UG1.D = 264	UG1.B+ UG1.C+ UG1.D = 330
DS=Total no. of students in all UG and PG programs in the Department	198	264	330
AS=Total no. of students of all UG and PG programs in allied departments	198	264	330
S=Total no. of students in the Department (DS) and allied departments (AS)	198	264	330
DF=Total no. of faculty members in the Department	15	17	25
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 = 15	F2 = 17	F3 = 25
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= S1/(F1-FF1) = 13.2	SFR2=S2/(F2-FF2) =15.53	SFR3=S3/(F3-FF3) = 13.2
Average SFR for 3 years	Average SFR=(SFR1+SFR2+SFR3)/3 = 13.97		

C3: Faculty Qualification

Table No.C3.1: Faculty qualification

Year	X	Y	RF	FQI= 2.5 * [(10X +4Y)/RF]
CAY 2024-25	3	12	9	12.22
CAYm1 2023-24	4	13	12	19.16
CAYm2 2022-23	6	19	15	22.66

C4: Faculty Cadre Proportion

Table No.C4.1: Faculty cadre proportion details

Year	Professors		Associate Professors		Assistant Professors	
	Required Faculty(RF1)	Available Faculty(AF1)	Required Faculty(RF2)	Available Faculty(AF2)	Required Faculty(RF3)	Available Faculty(AF3)
CAY 2024-25	1	2	2	4	6	9
CAYm1 2023-24	1	2	2	5	8	10
CAYm2 2022-23	2	3	4	4	10	18
Average Numbers	RF1= 1.33	AF1= 2.33	RF2= 2.66	AF2= 4.33	RF3= 8	AF3= 12.33

C5: Visiting/Adjunct Faculty/Professor of Practice

Table No. C5.1: List of visiting/adjunct faculty/professor of practice and their teaching and practical loads

S.N.	Name of the Person	Designation & Organization	Name of the Course	No. of hours handled
CAYm1(2023-24)				
1.	Er.S.Rajasekar	Deputy Manager, Isuzu Motors India,Coimbatore	Computer Aided Design and Analysis-2 Dimensional Elements	30
2.	Er.R.Senthil	Manager R&D,Pricol Ltd,Coimbatore	Mechatronics-Actuators & Mechatronic System Design	30
			Total no. of hours:	60

CAYm2(2022-23)				
1	Er.S.Rajasekar	Deputy Manager, Isuzu Motors India, Coimbatore	Computer Aided Design and Analysis-2 Dimensional Elements	30
2.	Er.R.Senthil	Manager R&D, Pricol Ltd, Coimbatore	Mechatronics-Actuators & Mechatronic System Design	30
			Total no. of hours:	60
CAYm3(2021-22)				
1.	Dr.J.Jeyaprakash	Manager R&D, M/s. Lakshmi Machine works Ltd –	Heat Transfer Equipments Design	30
2.	Er.R.Sridhar,	MD, NMVST Alloys-	Foundry Operations	30
			Total no. of hours:	60

C6: Academic Research

Table No. C6.1: Faculty publication details

S.N.	Item	CAYm1 2023-24	CAYm2 2022-23	CAYm3 2021-22
1	No. of peer reviewed journal papers published	5	5	9
2	No. of peer reviewed conference papers published	24	20	19
3	No. of books/book chapters published	5	3	2

C7: Sponsored Research Project

Table No. C7.1: List of sponsored research projects received from external agencies

S.N.	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)
CAYm1(2023-24)							
1	Dr.S.R.Raja balayanan	Dr.A.Jameer Bhasha	Mechanical Engineering	AICTE-IDEA	AICTE	2 Years	30.0
						Amount received (Rs.)	30.0
CAYm3 (2021-22)							
1	Mr.P.Naveen Kumar	Anbuselvam .A.C	Mechanical Engineering	Design and Fabrication of Floor Cleaning machine	TNSCST	1 Year	0.00750
						Amount received (Rs.)	0.00750
						Total Amount (Lacs) Received for the Past 3 Years	30.00750

C8: Consultancy Work

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

S. N.	PI name	Co-PI names if any	Name of the Dept., where project sanctioned	Project title*	Name of the Funding agency	Duratio n of the project	Amount (Lacs)
CAYm1 (2023- 24)							
1	Dr.S.R.Rajabalayanan	M.Viswanath	Mechanical Engineering	Design and Analysis of a Pump	M/s Visual Solutions	6 months	2.10
2	A.Jeevarathinam	K.V Ganesh Kumaar	Mechanical Engineering	Design of Indexing Machine	M/s Duratec Engineering	6 Months	2.25
3	Dr.S.R.Rajabalayanan	J.Dixon Jim Joseph	Mechanical Engineering	Design And Analysis Of Wedge Gate Butterfly Valve	M/s Flow link Systems (P) Ltd	8 Months	3.50
						Amount received (Rs.)	7.85
CAYm2 (2022- 23)							
1	Dr.S.R.Rajabalayan an	M.Viswanat h	Mechanical Engineering	Reverse Engineering Pump	M/s Visual Solutions	6 months	2.10
2	A.Jeevarathinam	K.V Ganesh Kumar	Mechanical Engineering	Re-Engineering and Generation of Component Drawings	M/s Duratec Engineering	6 Months	2.00

3	Dr.S.R.Rajabalayanan	S.Mathivanan	Mechanical Engineering	Design and Development of impellers	M/s. I Fore Green Power pvt Ltd(Spain based Industry	8 Months	3.72
Amount received (Rs.)							7.82

CAYm3 (2021-22)							
1	J.Dixon Jim Joseph	N.Dinesh	Mechanical Engineering	Plant Layout for newly developed plant	M/s Ifore Green Power pvt Ltd.	9 months	2.60
2	Dr.K.M. Arunraja	S.Mathivanan	Mechanical Engineering	Design and Analysis of New Butterfly Valve	M/s Visual Solutions	6 Months	2.15
Amount received (Rs.)							4.75
Total amount (Lakhs) received for the past 3 years							20.42

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

S.N.	Faculty Name	Project title/ Support for Activity	Duration	Amount (Lacs)	Amount Utilized (Lacs)	Outcomes of the project
CAYm1(2023-24)						
1	J.Dixon Jim Joseph M.Viswanath	Experimental Analysis And Training On Various Materials in 3d Printer	1 Year	1.5	1.5	• To fabricate and assemble a 3D Printing machine Fused Deposition Modeling (FDM). • Providing hands-on training to students to handle the 3D printer with different polymer materials.
2	Selvendran.R Ganeshkumar.KV	Design, Development and Analysis of Emission Control Chamber towards CO2 Recovery	1 Year	1.5	1.5	• To reduce the air pollution due to automobile and Industrial Exhaust gas • To maintain the atmosphere air composition. • CO2 Recovery for refrigeration.
Amount received (Rs.)					**3.0**	
CAYm2(2022-23)						
1	M.Viswanath S.Suresh	Design And Development Of Electric Power Generator Using Producer Gas	1 Year	1.5	1.5	Power generation using waste gas from Gasifier
Amount received (Rs.)					**1.5**	
CAYm3 (2021-22)						
1	Jeevarathinam A, Ganeshkumar KV	Wind power Generator Setup to Improvise Range in electric vehicles	1 Year	2	2	Power generation and charging of E- Vehicle while running
Amount received (Rs.)					**2.0**	
Total amount (Lacs) received for the past 3 years					**6.5**	

PART-D: Laboratory Infrastructure in the Department

D1: Adequate and Well-Equipped Laboratories, and Technical Manpower

Table No. D1.1: List of laboratories and technical manpower

S. N	Name of the Laboratory	No. of students per setup (Batch Size)	Name of the major equipment	Weekly utilization status (all the courses for which the lab is utilized)	Technical Manpower support		
					Name of the technical staff	Designation	Qualification
1.	Manufacturing Technology – I Lab	30	Lathe Tool Dynamometer Hacksaw Machine Bench Grinding Machine	6 Hours	Mr.M.Sundarraj	LAB Technician	I.T.I
2	Computer Aided and Manufacturing Lab	60	CNC Lathe Trainer- Power Turn: SS-PT-100 CNC Milling Trainer Power Mill:SS:PM:200	4 Hours	Mr.K.T.Perumal Swami	LAB Technician	D.M.E
3	Fluid Mechanics & Machinery Lab	30	Orifice meter setup Venturi meter setup Rotameter setup Pipe Flow analysis setup Centrifugal pump/submergible pump setup Reciprocating pump setup Gear pump setup Pelton wheel setup Francis turbine setup Kaplan turbine setup Bernoulli's	6 Hours	Mr.K.T.Perumal Swami	LAB Technician	D.M.E

			Theorem apparatus Pitot Tube apparatus Hele – Shaw Apparatus Jet Pump Test Turbine Flow Meter Test Rig Digital Hand-held Tachometer Stop Watch - Digital				
4	Metrology Laboratory	30	Vernier Caliper, Vernier Height Gauge, Vernier depth Gauge Slip Gauge Set Gear Tooth Vernier Sine Bar Floating Carriage Micrometer Profile Projector / Tool Makers Microscope Bevel Protractor Mechanical / Electrical Comparator Autocollimator Temperature Measuring Setup Force Measuring Setup Torque Measuring Setup Bore gauge Telescope gauge	6 Hours	Mr.M.Sundarraj Mr.C.Saravanakumar	LAB Technicians LAB Technicians	I.T.I Diploma in MMCP
5	MECHATRONICS LABORATORY	30	Electro Pneumatic Trainer Kit Plc Controlled Pneumatic Trainer Kit Hydraulic Trainer Kit Servo Controller Open Loop	6 Hours	Mr.C.Saravana kumar	LAB Technician	Diploma in MMCP

			Servo Controller Closed Loop Pid Trainer Kit Speed Control Of Ac/Dc Drive 8051 Micro Controller Kit with Stepper Motor				
6	Strength of Materials Lab	30	Universal Tensile Testing Machine, Torsion Testing Machine, Impact Testing Machine, Brinell Hardness Testing Machine, Rockwell Hardness Testing Machine, Vickers Hardness Testing Machine, Spring Testing Machine for tensile and compressive loads (2500 N), Metallurgical Microscopes, Muffle Furnace, Fatigue Testing Machine		Mr.M.Sundarraj	LAB Technician	I.T.I
7	Thermal Engineering-1 Laboratory	30	Single Cylinder Single Stage Air Compressor, Multi Cylinder Four Stroke Petrol Engine, Single Cylinder Four Stroke Diesel Engine, Centrifugal Air Blower, Single Cylinder Two Stroke Petrol Engine Cut Section, Red Wood Viscometer Apparatus, Open cup	6 Hours	Mr.M.Sundarraj	LAB Technician	I.T.I

			Apparatus, Closed Cup Apparatus, Single Cylinder Four Stroke Petrol Engine Cut Section, Single Cylinder Four Stroke Diesel Engine Cut Section, Single Cylinder Four Stroke Petrol Engine				
8	Thermal Engineering-2 Laboratory	30	Heat Transfer Forced Convection, Air Conditioning Test Rig, Heat Transfer Through Lagged Pipe, Thermal Conductivity Of Guarded Hot Plate, Refrigeration Rig Emissivity Measurement Apparatus, Parallel Counter Flow Exchanger, Stefan Boitzmen Apparatus, Heat Transfer from Pin Fin, Heat Transfer in Natural Convection	6 Hours	Mr.C.Saravana kumar	LAB Technician	Diploma in MMCP

D2: Safety Measures in Laboratories

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

S.N.	Name of the Laboratory	Safety Measures
1.	Dynamics Laboratory	• General Rules of Conduct in Laboratories are displayed. • First aid box, Fire extinguishers are kept in the laboratory. • CCTV camera attached in all labs. • Periodical servicing of the lab equipment. • Maintain a clean and organized laboratory. • Avoiding the use of cell phones. • Sign the log-out register before leaving the lab. • Wear shoes, and follow personal hygiene rules like washing hands and arms with soap and water • Read the lab manual, and don't touch anything without permission from the instructor or lab assistant. Don't tamper with measuring instruments or open equipment casings. • Don't leave experiments unattended, and turn off the power supply when you're done • Any injuries should be reported immediately for proper care. • Never eat or drink in the lab. • Do not tamper measuring instruments. • Do not open the casing of the equipment • Be aware of the various experiment controls (start button, stop button, speed control) for each experiment.
2	CAD, CAM & CAE LAB	• General Rules of Conduct in Laboratories are displayed. • First aid box, Fire extinguishers are kept in the laboratory. • CCTV camera attached in all labs. • Periodical servicing of the lab equipment. • Maintain a clean and organized laboratory. • Avoiding the use of cell phones. • Appropriate storage areas • Permission denied for pen drives. • Sign the log-out register before leaving the lab. • Computers should be turned off properly before leaving the lab. • Students must remove their foot wears before entering into the lab. • The student must check the computer unit and its peripherals attached before using it. The student must immediately inform the instructor if there's any defect, error or damage observed at the computer (hardware/software)
3	Metrology & Measurement Laboratory	• General Rules of Conduct in Laboratories are displayed. • First aid box, Fire extinguishers are kept in the laboratory. • CCTV camera attached in all labs. • Periodical servicing of the lab equipment. • Maintain a clean and organized laboratory.

		• Avoiding the use of cell phones. • Wear shoes, and follow personal hygiene rules like washing hands and arms with soap and water • Read the lab manual, and don't touch anything without permission from the instructor or lab assistant. Don't tamper with measuring instruments or open equipment casings. • Don't leave experiments unattended, and turn off the power supply when you're done • Any injuries should be reported immediately for proper care. • Never eat or drink in the lab. • Do not tamper measuring instruments. • The apparatus used for the experiments must be cleaned and safely returned to technicians, without any damage. • power supply to the experimental setup/equipment/Machine must be switched on after the faculty check and gives approval for doing the experiments.
4	Fluid Mechanics and Machinery Laboratory	General Rules of Conduct in Laboratories are displayed. • First aid box, Fire extinguishers are kept in the laboratory. Avoid loose clothing, jewelry, and open-toed shoes to prevent entanglement or injury. • CCTV camera attached in all labs. • Periodical servicing of the lab equipment. • Maintain a clean and organized laboratory. • Avoiding the use of cell phones. • Sign the log-out register before leaving the lab. • Wear shoes, and follow personal hygiene rules like washing hands and arms with soap and water • Read the lab manual, and don't touch anything without permission from the instructor or lab assistant. Don't tamper with measuring instruments or open equipment casings. • Follow Operating Procedures: Use equipment strictly according to the manufacturer's or lab instructor's guidelines. • Don't leave experiments unattended, and turn off the power supply when you're done • Any injuries should be reported immediately for proper care. • Do not tamper measuring instruments. • Do not open the casing of the equipment • Be aware of the various experiment controls (start button, stop button, speed control) for each experiment.
5	Manufacturing Technology Laboratory - I	• Always wear uniform, shoes and gloves for safety. • Leather shoes or boots with steel toes are recommended. • No open toed shoes or sandals are allowed in the shop. • Do not wear loose clothing. • Remove all jewelry and tie back long hair. • Always wear goggles to protect your eyes from flying chips.

		• Always be patient, never rush in the workshop. • Never hold the job when the machine runs. • Never give heavy cut on longer job. • Never change the gear and belt when the machine is running. • Always use the correct size spanner and tool for fitting and removing of tool. • To prevent accident, clean the spilled oil and grease immediately. • Never try to clear the chips when the machine is running. • Do not leave any machinery or power tools running and unattended. • Know where the emergency stop buttons are positioned in the workshop. If you see an accident at the other side of the workshop you can use the emergency stop button to turn off all electrical power to machines. • Report any damage to machines/equipment as this could cause an accident.
6	Manufacturing Technology Laboratory - II	• Always wear uniform, shoes and gloves for safety. • Leather shoes or boots with steel toes are recommended. • No open toed shoes or sandals are allowed in the shop. • Do not wear loose clothing. • Remove all jewelry and tie back long hair. • Always wear goggles to protect your eyes from flying chips. • Always be patient, never rush in the workshop. • Never hold the job when the machine runs. • Never give heavy cut on longer job. • Never change the gear and belt when the machine is running. • Always use the correct size spanner and tool for fitting and removing of tool. • To prevent accident, clean the spilled oil and grease immediately. • Never try to clear the chips when the machine is running. • Do not leave any machinery or power tools running and unattended. • Know where the emergency stop buttons are positioned in the workshop. If you see an accident at the other side of the workshop you can use the emergency stop button to turn off all electrical power to machines. • Report any damage to machines/equipment as this could cause an accident.
7	Engineering Practices Laboratory	• The shop floor should be kept clean always free from dirt of any kind. • Always wear tight fit clothing • Never operate a machine about which you are not fully aware of control/operation. • Try to keep oil, grease away from the shop floor. Sometimes unknowingly one may slip and meet with accident. • Ensure that all the safety guards and fenders (anything to defend or to protect from injuries) are available before starting the machine. • Tool which are not used always be kept at their respective places.

		• Working tools should not be kept at the edge of the table. • Chisels and other sharp tools should be kept on table with sharp edges pointing towards the edge of the table. • Never adjust or shift a belt while machine is functioning. • Never carry any sharp tool in the pocket. • Use only a very sharp tool. A dull one requires excessive pressure which may causes slipping of knife. • Put the sharp tool always at its proper place after finishing the work with it. • Never work on electric wires when the power is on. • While cutting, work piece should not be kept in hand. • While cutting, always keep sufficient distance between the working table and yourself. • Wear helmet if necessary. • Whenever a crane is in operation, never stand under it. • Leather or asbestos apron, shield and gloves should be used while doing welding operation.

D3: Project Laboratory/Research Laboratory

Table No. D3.1: List of project laboratory/research laboratory /Centre of Excellence

S.N.	Name of the Laboratory
1.	Project laboratory 66 m2 area laboratory with welding, sheet metal cutting facility
2.	Research laboratories • 3.5 kW Portable Type Biomass Gasification Power Generation System • 65kW SPV Grid Connected Power Plant • 3-D Printer • Stir Casting Furnace Setup for Composite Materials Production • Air -to-Air Heat pump assisted Solar Still • Forced convection Solar Air Heater • Heat Pump assisted Regenerative Solar Dryer
3.	Centres of Excellence • Additive Manufacturing Laboratory • Hindusthan Centre for Applied Rural Technology • Hindusthan Centre for Engineering Design and Analysis • Automotive Fabrication Laboratory • Regional Competency Development Centre -M/s. Volvo Eicher • Royal Enfield Centre of Excellence -M/s. Royal Enfield

PART E: First Year faculty and financial Resources

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))/RF4
CAY 2024-2025	660	33	32	11	((32*0.8) +(11*0.2))/33 =84
CAY*m*1 2023-2024	600	30	34	11	((34*0.8) +(11*0.2))/30=98
CAYm2 2022-2023	600	30	37	10	((37*0.8) +(10*0.2))/30=100

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 CFY till (Feb 2025) (Lacs)	Actual expenses in CFY till (Feb 2025) (Lacs)	Budgeted in CFYm1 (23-24) (Lacs)	Actual Expenses in CFYm1 (23-24) (Lacs)	Budgeted in CFYm2 (22-23) (Lacs)	Actual Expenses in CFYm2 (22-23) (Lacs)	Budgeted in CFYm3 (21-22) (Lacs)	Actual Expenses in CFYm3 (21-22) (Lacs)
Infrastructure Built-Up	169.23	161.17	156.70	149.23	37.20	35.38	27.10	25.84
Library	7.75	7.6776	7.39	7.10	16.41	15.77	7.73	7.43
Laboratory equipment	12.77	11.94	11.61	11.05	10.84	10.31	10.76	10.25
Teaching and non-teaching staff salary	797.64	683.20	693.6	642.17	660.50	611.54	483.20	447.40
Outreach Programs	7.99	7.26	7.40	6.72	30.56	27.77	66.50	60.45
R&D	53.46	48.63	48.60	45.03	71.70	66.378	46.70	43.22
Training, Placement and Industry linkage	0.47	0.45	0.43	0.41	4.81	4.58	7.90	7.56
SDGs	130.26	124.06	120.62	114.87	89.28	85.03	43.14	41.08
Entrepreneurship	23.24	22.07	21.13	20.12	5.22	4.97	4.64	4.41
Others*	190.39	189.25	181.33	176.04	53.49	51.92	43.58	42.30
Total amount (Lacs)	1393.23	1255.75	1248.81	1172.79	980.01	913.70	741.25	689.98

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 CFY till (Feb 2025) (Lacs)	Actual expenses in CFY till (Feb 2025) (Lacs)	Budgeted in CFYm1 (23-24) (Lacs)	Actual Expenses in CFYm1 (23-24) (Lacs)	Budgeted in CFYm2 (22-23) (Lacs)	Actual Expenses in CFYm2 (22-23) (Lacs)	Budgeted in CFYm3 (21-22) (Lacs)	Actual Expenses in CFYm3 (21-22) (Lacs)
Laboratory equipment	1.1	9.975	8.205	8.14998	1.04055	1.04	1.0558	7.81
Software	0	0	0	0	0	0	0	2.50
SDGs	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.12
Support for faculty development	0.6	0.6	0.6	0.6	0.4	0.4	0.5	2.25
R & D	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.23
Industrial Training, Industry expert, Internship	10.4	10.4	11.15	11.15	10.82	10.82	13.01	0.19
Miscellaneous expenses *	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.10
Total amount (Lacs)	12.8	12.675	20.655	20.59998	12.96055	12.96	15.4658	13.20