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: Mechanical Engineering

A1: Name of the Institute: -ACE Engineering College

Year of Establishment: 2007 Location of the Institute: Hyderabad

A2: Institute Address: -

ACE Engineering College, Survey No.:175& 181, Ankushapur Village, Ghatkesar Mandal, Medchal-Malkajgiri District, Telangana - 501301.

City: Ghatkesar State: Telangana

Pin Code: 501301 Website: www.aceec.ac.in

E-mail: aceenggcollege@gmail.com

Phone No (with STD Code):+91-9490491200

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

Name of the University: JNTU Hyderabad City: Hyderabad Urban

State : Telangana Pin Code: 500085

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: Self-Supported Institute

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

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

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

- No. of UG programs: 11
- No. of PG programs: 0

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

S. No.	Level of program (UG/PG)	Name of the program	Year of Start	Year of close*	Name of the Department
1	UG	Artificial Intelligence and Data Science	2023	2024	Artificial Intelligence and Data Science
2	UG	Artificial Intelligence and Machine Learning	2023	2024	Artificial Intelligence and Machine Learning
3	UG	Civil Engineering	2009		Civil Engineering
4	UG	Computer Science and Engineering	2007		Computer Science and Engineering
5	UG	Computer Science and Engineering (Artificial Intelligence & Machine Learning)	2020		Computer Science and Engineering (Artificial Intelligence & Machine Learning)
6	UG	Computer Science and Engineering (Data Science)	2020		Computer Science and Engineering (Data Science)
7	UG	Computer Science and Engineering (Internet of Things)	2020		Computer Science and Engineering (Internet of Things)
8	UG	Electrical & Electronics Engineering	2007		Electrical & Electronics Engineering
9	UG	Electronics & Communication Engineering	2007		Electronics & Communication Engineering
10	UG	Information Technology	2019		Information Technology
11	UG	Mechanical Engineering	2011		Mechanical 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
	Civil Engineering	B.Tech (Civil Engineering)
	Mechanical Engineering	B.Tech (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)
NA		

PART-B: Program information

(Data to be filled in for the program applied for Accreditation)

B1: Provide the Required Information for the Program Applied For:-

TableNo.B1: Program details.

S. No.	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	2011	60	30	2022-2023	F.No. South-Central/1-10975834646/2022/EOA, Date: 03-Jul-2022	Granted Accreditation for 3 years for the period a. 2019-2022 b. 2022-2025	02

*Write applicable one:

- Applying first time
- **Granted accreditation for2/3 years for the period (2019-2022 and 2022-2025)**
- Granted accreditation for 5/6 years for the period (specify period)
- Not accredited (specify is it dates, year).
- With drawn (specify visit dates, year)
- Not eligible for accreditation.

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

A. **Name of the HoD: Dr. K. Mahesh**

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

- **Regular** √
- **Contract**
- **Adhoc**

C. **Qualification:(Tick the applicable choice)**

- **Ph.D.** √
- **ME/M.Tech**
- **Any other***

****Please provide details:*** **hodmech@aceec.ac.in**

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 2024-25**	**CAYm1 2023-24**	**CAYm2 2022-23**	**CAYm3 2021-22**	**CAYm4 (LYG) 2020-21**	**CAYm5 (LYGm1) 2019-20**	**CAYm6 (LYGm2) 2018-19**
N=Sanctioned intake of the program (as per AICTE /Competent authority)	30	30	30	60	60	60	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	21	2	3	6	32	18	50
N2= Number of students admitted in 2nd year in the same batch via lateral entry including left over seats.	7	27	18	40	34	48	48
N3=Separate division if any	-	-	-	-	-	-	-
N4= Total no. of students admitted in the 1st year via all super numerary quotas	-	-	-	-	-	-	-
Total number of students admitted in the program (N1+N2+N3+N4) -excluding those admitted through Multiple entry and exit points.	28	29	21	46	66	66	98

CAY = Current Academic Year.

CAYm1= Current Academic Year Minus1.

CAYm2= Current Academic Year Minus2.

LYG = Last Year Graduate

LYGm1 = Last Year Graduate Minus1.

LYGm2 = Last Year Graduate Minus2

B4: Enrolment Ratio in the First Year

TableNo.B4.1: Student enrolment ratio in the1st 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)	30	30	30
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	21	2	3
N4=Total no. of students admitted in the 1st year via all supernumerary quotas	-	-	-
Enrolment Ratio (ER) = (N1+N4)/N	0.7	0.06	0.1
Average ER = (ER_1 + ER_2 + ER_3) / 3	0.28		

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

Table No. B 5.1: The success rate in the stipulated period of a program.

Item	**LYG (2020-24)**	**LYGm1 (2019-23)**	**LYGm2 (2018-22)**
A*= (No. of students admitted in the 1stYear 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).	66	66	98
B=No. of students who graduated from the program in the stipulated course duration	52	60	81
Success Rate (SR) = (B/ A) * 100	78.78	90.90	82.65
Average SR of three batches((SR_1+SR_2+SR_3)/3)	84.11		

Note *: If the value of A in Table No. B5.1 is less than the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2), then the value of A in Table No. B5.1 should be the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2) of Table No.B3.1.

B6: Academic Performance of the First-Year Students of the Program

Table No. B 6.1: 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)	6.15	6.95	5
Y=Total no. of successful students	2	3	5
Z=Total no. of students appeared in the examination	2	3	5
API=X*(Y/Z)	6.15	6.95	5
Average API = (API_1+API_2+API_3)/3	6.03		

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

Table No. B 7.1: 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 2nd year/10)	6.73	6.76	5.98
Y=Total no. of successful students	21	44	66
Z=Total no. of students appeared in the examination	21	44	66
API = X * (Y/Z)	6.73	6.76	5.98
Average API = (API_1 + API_2 + API_3) / 3	6.49		

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

TableNo.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)	6.83	7.02	5.10
Y=Total no. of successful students	44	66	66
Z=Total no. of students appeared in the examination	44	66	66
API=X*(Y/Z)	6.83	7.02	5.10
Average API = (API_1 + API_2 + API_3) / 3	6.28		

B9: Placement, Higher Studies, and Entrepreneurship

TableNo.B9.1: Placement, higher studies, and entrepreneurship details.

Item	LYG (2020-24)	LYGm1 (2019-23)	LYGm2 (2018-22)
FS* = Total no. of final year students	66	66	103
X = No. of students placed	51	48	70
Y = No. of student submitted to higher studies	02	03	01
Z = No. of students taking up entrepreneurship	0	0	0
X+ Y+ Z =	53	51	71
Placement Index(P) = (((X+Y+Z) / FS) * 100)	80.30	77.27	68.93
Average placement index = (P_1+P_2+ P_3)/3	75.5		

Note *: If the value of FS in Table No. B9.1 is less than the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2), then the value of FS in Table No. B9.1 should be the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2) of Table No.B3.1.

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

Academic Year: CAY (2024- 25)

S. No.	Name of the Faculty	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor if any	Nature of Association (Regular/ Contract/ Ad hoc)	Currently Associated (Y/N)
1	Mr. Uma Venkata Maheswara Rao Karna	M.Tech	JNTUH	Design for Manufacturing	01-06-2012	13	Assistant Professor	Assistant Professor		Regular	Yes
2	Mr. Venkatesh Civarla	M.E	Osmania university	Advanced Design and manufacturing	01-06-2012	13	Assistant Professor	Associate Professor	01-06-2016	Regular	Yes
3	Mr. Veera Bandaru Kumar	M.E	Osmania university	Thermal Engineering	05-05-2014	11	Professor	Professor	05-05-2014	Regular	Yes
4	Mr. Raju Chitupaka	M.Tech	JNTUH	Thermal Engineering	09-10-2014	11	Assistant Professor	Assistant Professor		Regular	Yes
5	Dr. Balaraju Gaddameedi	Ph. D	Osmania university	Industrial Engineering	15-10-2014	11	Professor	Professor	15-10-2014	Regular	Yes
6	Mr. Gosula Suresh	M.Tech	JNTUH	Thermal Engineering	15-06-2016	9	Assistant Professor	Assistant Professor		Regular	Yes
7	Mr. Bhargav Alapati	M.Tech	JNTUK	Machine Design	19-10-2016	9	Assistant Professor	Assistant Professor		Regular	Yes
8	Ms. Shalini Vemula	M.Tech	JNTUH	Advanced	19-11-2016	9	Assistant Professor	Assistant Professor		Regular	Yes

				manufacturing system							
9	Mr. Abinay Allam	M.Tech	JNTUH	Thermal Engineering	14-12-2016	9	Assistant Professor	Assistant Professor		Regular	Yes
10	Mr. Manikyam Sandeep	M.Tech	Osmania University	Production	06-01-2017	9	Associate Professor	Associate Professor	06-03-2017	Regular	Yes
11	Mr. Malakondaiah Gandham	M.Tech	JNTUH	Thermal Engineering	01-09-2020	5	Associate Professor	Associate Professor		Regular	Yes
12	Mr. Madhu sekhar Vagula	M.Tech	IIT Roorkee	Material sciences	01-09-2020	5	Assistant Professor	Assistant Professor		Regular	Yes
13	Mr. Hajarath Vali Shaik	M.Tech	IIT BOMBAY	Design Engineering	01-09-2020	5	Assistant Professor	Assistant Professor		Regular	Yes
14	Mr. Sasi Kiran Kaye	M.Tech	NIT Warangal	Manufacturing Engineering	01-03-2021	4	Assistant Professor	Assistant Professor		Regular	Yes
15	Ms. Reeti Mukherjee	M.Tech	JNTUH	Engineering Design	19-12-2022	3	Assistant Professor	Assistant Professor		Regular	Yes
16	Mohd Waheed Ul Haq Abrar	M.E	Osmania university	Automation and Robotics	23-05-2023	2	Assistant Professor	Assistant Professor		Regular	Yes
17	Jagan Dhammai	M.Tech	NIT Calicut	Industrial Engineering and management	26-09-2023	2	Assistant Professor	Assistant Professor		Regular	Yes
18	Mr. Habeeb UR Rahman Mohammed	M.Tech	NIT Warangal	Manufacturing Engineering	06-05-2024	1	Assistant Professor	Assistant Professor		Regular	Yes
19	Mr. S Manikanta	M.Tech	JNTUH	Mechatronics	18-06-2024	1	Assistant Professor	Assistant Professor		Regular	Yes
20	Dr. M Nitin Kumar	Ph. D	NIT Warangal	Thermal Engineering	19-08-2024	1	Associate Professor	Associate Professor		Regular	Yes
21	Dr. Kore Mahesh	Ph. D	NIT Mizoram	Production Engineering	20-08-2024	1	Associate Professor	Associate Professor		Regular	Yes

Academic Year: CAYm1 (2023- 24)

S.No.	Name of the Faculty	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)	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")
1	Mr. Uma Venkata Maheswara Rao Karna	M. Tech	JNTUH	Design For Manufacturing	01-06-2012	12	Assistant Professor	Assistant Professor		Regular		Yes	
2	Mr. Venkatesh Civarla	M. E	Osmania University	Advanced Design and Manufacturing	01-06-2012	12	Assistant Professor	Associate Professor	01-06-2016	Regular		Yes	
3	Mr. Veera Bandaru Kumar	M. E	Osmania University	Thermal Engineering	05-05-2014	10	Professor	Professor	05-05-2014	Regular		Yes	
4	Mr. Raju Chitupaka	M. Tech	JNTUH	Thermal Engineering	09-10-2014	10	Assistant Professor	Assistant Professor		Regular		Yes	
5	Dr. Balaraju Gaddameedi	Ph. D	Osmania University	Industrial Engineering	15-10-2014	10	Professor	Professor	15-10-2014	Regular		Yes	
6	Mr. Gosula Suresh	M. Tech	Jntuh	Thermal Engineering	15-06-2016	8	Assistant Professor	Assistant Professor		Regular		Yes	
7	Mr. Bhargav Alapati	M. Tech	Jntuk	Machine Design	19-10-2016	8	Assistant Professor	Assistant Professor		Regular		Yes	
8	Ms. Shalini Vemula	M. Tech	Jntuh	Advanced Manufacturing System	19-11-2016	8	Assistant Professor	Assistant Professor		Regular		Yes	
9	Mr. Abinay Allam	M. Tech	Jntuh	Thermal Engineering	14-12-2016	8	Assistant Professor	Assistant Profess		Regular		Yes	

								or					
10	Mr. Manikyam Sandeep	M. Tech	Osmania University	Production	06-01-2017	8	Associate Professor	Associate Professor	06-03-2017	Regular		Yes	
11	Dr. P. Venkateshwara Reddy	Ph. D.	Jntuh	Mechanical Engineering	09-09-2017	7	Professor	Professor		Regular		Yes	
12	Mr. Malakondaiah Gandham	M. Tech	JNTUH	Thermal Engineering	01-09-2020	4	Associate Professor	Associate Professor	01-09-2020	Regular		Yes	
13	Mr.MadhusekharVagulA	M. Tech	IIT Roorkee	Material sciences	01-09-2020	4	Assistant Professor	Assistant Professor		Regular		Yes	
14	Mr. Hajarath Vali Shaik	M. Tech	IIT BOMBAY	Design Engineering	01-09-2020	4	Assistant Professor	Assistant Professor		Regular		Yes	
15	Mr.Sasi Kiran Kaye	M. Tech	NIT Warangal	Manufacturing Engineering	01-03-2021	3	Assistant Professor	Assistant Professor		Regular		Yes	
16	Ms. Reeti Mukherjee	M. Tech	JNTUH	Engineering Design	19-12-2022	2	Assistant Professor	Assistant Professor		Regular		Yes	
17	Mohd Waheed Ul Haq Abrar	M. E	Osmania university	Automation and Robotics	23-05-2023	1	Assistant Professor	Assistant Professor		Regular		Yes	
18	Jagan Dhammai	M. Tech	NIT Calicut	Industrial Engineering and management	26-08-2023	1	Assistant Professor	Assistant Professor		Regular		Yes	

Academic Year: CAY m2(2022-23)

S.No.	Name of the Faculty	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)	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")
1	Mr. Venkatesh Civarla	M.Tech		Advanced Design and manufacturing	01-06-2012	11	Associate Professor	Associate Professor		Regular		yes	
2	Mr. Uma Venkata Maheswara Rao Karna	M.Tech		Design for Manufacturing	01-06-2012	11	Assistant Professor	Assistant Professor		Regular		yes	
3	Mr. Veera Bnadaru Kumar	M.Tech		Thermal Engineering	05-05-2014	9	Professor	Professor	05-05-2014	Regular		yes	
4	Mr. Raju Chitupaka	M.Tech	JNTUH	Thermal Engineering	09-10-2014	9	Assistant Professor	Assistant Professor		Regular		yes	
5	Dr. Balaraju Gaddameedi	Ph.D		Industrial Engineering	15-10-2014	9	Professor	Professor	15-10-2014	Regular		yes	
6	Mr. Gosula Suresh	M.Tech	JNTUH	Thermal Engineering	15-06-2016	7	Associate Professor	Associate Professor		Regular		yes	
7	Mr. Bhargav Alapati	M.Tech		Machine Design	19-10-2016	7	Assistant Professor	Assistant Professor		Regular		yes	
8	Nagabhushan Gubbi Deepak	M.Tech	Visvesvaraya technological University	Thermal Power Engineering	12-11-2016	7	Assistant Professor	Assistant Professor		Regular		yes	

9	Mr. Bontha Chaitanya	M.Tech		Thermal Engineering	16-11-2016	7	Assistant Professor	Assistant Professor		Regular		yes	
10	Ms. Shalini Vemula	M.Tech	JNTUH	Advanced manufacturing system	19-11-2016	7	Assistant Professor	Assistant Professor		Regular		yes	
11	Mr. Abinay Allam	M.Tech	JNTUH	Thermal Engineering	14-12-2016	7	Assistant Professor	Assistant Professor		Regular		yes	
12	Mr. Manikyam Sandeep	M.Tech	OU	Production	06-01-2017	7	Associate Professor	Associate Professor		Regular		yes	
13	Mr.Achyut Bhure	M.Tech		Machine Design	30-01-2017	7	Assistant Professor	Assistant Professor		Regular		yes	
14	Shashank Argumeeda	M.Tech	JNTUH	Thermal Engineering	01-02-2017	7	Assistant Professor	Assistant Professor		Regular		yes	
15	Mounika Ragamshetty	M.Tech	Kakatiya University	CAD/CAM	01-09-2017	6	Assistant Professor	Assistant Professor		Regular		yes	
16	Dr. P. Venkateshwara Reddy	Ph.D		Mechanical engineering	09-09-2017	6	Professor	Professor		Regular		yes	
17	Mr. Malakondaiah Gandham	M.Tech		Thermal Engineering	01-09-2020	3	Associate Professor	Associate Professor		Regular		yes	
18	Mr.Madhu Sekhar Vagula	M.Tech		Material sciences	01-09-2020	3	Assistant Professor	Assistant Professor		Regular		yes	
19	Mr. Devanand Gautre	M.Tech		Thermal Engineering	01-09-2020	3	Assistant Professor	Assistant Professor		Regular		yes	
20	Mr. Hajarath Vali Shaik	M.Tech		Design Engineering	01-09-2020	3	Assistant Professor	Assistant Professor		Regular		yes	
21	Mr.Sasi Kiran Kaye	M.Tech	NIT Warangal	Manufacturing Engineering	01-03-2021	2	Assistant Professor	Assistant Professor		Regular		yes	

C2: Student-Faculty Ratio (SFR)

Table No. C2.1: Student-Faculty Ratio.

Year	CAY (2024-25)	CAYm1 (2023-24)	CAYm2 (2022-23)
UG1. B	29	21	45
UG1. C	21	44	66
UG1. D	44	66	66
UG1	94	131	177
S = Total no. of students in the Department (DS) and allied departments (AS)	94	131	177
DF = Total no. of faculty members in the Department	21	18	21
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)	21	18	21
FF = The faculty members in F who have a 100% teaching load in the first-year courses	7	6	4
Student Faculty Ratio (SFR) = S / (F - FF)	6.7	10.9	10.4
Average SFR for 3 years	9.33		

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 SAR; (RF=S/20).

Table No.C3.1: Faculty qualification.

Year	X	Y	RF	FQI = 2.5 * [(10X+4Y) / RF]
CAY (2024-25)	3	18	9	28.32
CAYm1 (2023-24)	2	16	9	23.33
CAYm2 (2022-23)	2	19	9	26.6

C4: Faculty Cadre Proportion

❖ Faculty Cadre Proportion is 1(RF1): 2(RF2): 6(RF3)

➢ RF1= No. of Professors required = 1/9 * No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per C2 of this document.

➢ RF2= No. of Associate Professors required = 2/9 * No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per C2 of this document.
➢ RF3= No. of Assistant Professors required = 6/9 * No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per C2 of this document.
❖ 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 Faculty (RF1)	Available Faculty (AF1)	Required Faculty (RF2)	Available Faculty (AF2)	Required Faculty (RF3)	Available Faculty (AF3)
CAY (2024-25)	1	1	2	2	6	18
CAYm1(2023-24)	1	2	2	0	6	16
CAYm2(2022-23)	1	2	2	0	6	19
Average Numbers	RF1=1	AF1=1.6	RF2=2	AF2=0.6	RF3=6	AF3=17.66

C5: Visiting/Adjunct Faculty/Professor of Practice

TableNo.C5.1: List of visiting/adjunct faculty/professor of practice and their teaching and practical loads.

S.No.	Name of the Person	Designation & Organization	Name of the Course	No. of hours handled
CAYm1 (2023-24)				
1	Dr. P Anil Kumar	Scientist G & Director Management Services, Research Center Imarat, DRDO, Hyderabad	Mechanics Of Solids	25
2	Dr. N Shyam Kumar	Principal, WITS engineering college	Machine Design	20
3	Dr. V Buchaiah	Former HOD, Dept. Of ME, ACE engineering college	Kinematics of Machinery	25
			Total no. of hours:	70
CAYm2 (2022-23)				
1	Dr. P Anil Kumar	Scientist G & Director Management Services, Research Center Imarat, DRDO, Hyderabad	Mechanics Of Solids	25
2	Dr. N Shyam Kumar	Principal, WITS engineering college	Machine Design	20
3	Dr. V Buchaiah	Former HOD, Dept. Of ME, ACE	Kinematics of Machinery	25

		engineering college		
			Total no. of hours:	70
CAYm3 (2021-22)				
1	Dr. P Anil Kumar	Scientist G & Director Management Services, Research Center Imarat, DRDO, Hyderabad	Mechanics Of Solids	25
2	Dr. N Shyam Kumar	Principal, WITS engineering college	Machine Design	20
3	Dr. V Buchaiah	Former HOD, Dept. Of ME, ACE engineering college	Kinematics of Machinery	25
			Total no. of hours:	70

C6: Academic Research

Table No. C 6.1: Faculty publication details.

S.No.	Item	CAYm1 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-29)
1	No. of peer reviewed journal papers published	12	12	16
2	No. of peer reviewed conference papers published	2	2	3
3	No. of books/book chapters published	1	-	1

C7: Sponsored Research Project

TableNo.C7.1: List of sponsored research projects received from external agencies.

S.No.	PI name	Co-PI names if any	Name of the Dept., where projectis sanctioned	Project title*	Name of the Funding agency	Duration of the project	Amount (Lacs)
CAYm1 (2023-24)							
1	ACE Engineering College Faculty	Mechanical Faculty	ACE Engineering College	AICTE-IDEA lab	AICTE	2024-Present	90 Lakhs
						Amount to be received (Rs.)	90 Lakhs
Total Amount (Lacs) to be received for the Past 3 Years							90 Lakhs

C8: Consultancy Work

TableNo.C8.1: List of consultancy projects received from external agencies.

S.No.	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. G. Balaraju		Mechanical Engineering	Preparation of MECH Engineering subject GATE & IES Material Mock GATE Question paper preparation Answer scripts evaluation.	ACE Engineering Academy	2023-2024	2.5 Lakhs
						Amount received (Rs.)	2.5 Lakhs
CAYm2 (2023 – 22)							
1.	Dr. G. Balaraju		Mechanical Engineering	Preparation of MECH Engineering subject GATE & IES Material Mock GATE Question paper preparation Answer scripts evaluation.	ACE Engineering Academy	2023-2024	2.5 Lakhs
						Amount received (Rs.)	2.5 Lakhs
CAYm3(2022 – 21)							
1.	Dr. G. Balaraju		Mechanical Engineering	Preparation of MECH Engineering subject GATE & IES Material Mock GATE Question paper preparation Answer scripts evaluation.	ACE Engineering Academy	2023-2024	2.5 Lakhs
						Amount received (Rs.)	2.5 Lakhs
Total amount (Lacs) received for the past 3 years							**7.5 Lakhs**

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.No.	Faculty Name	Project title / Support for Activity	Duration	Amount (Lacs)	Amount Utilized (Lacs)	Outcomes of the project
CAYm1						
1	ACE Mech Engineering Faculty	3D Printer	2023-24	8 Lakhs	7.04 Lakhs	Enable Precision in Small-Scale 3D Printing Utilize 3D printing technology for creating detailed prototypes, customized components, and small structural models. Enhance Material Efficiency & Design Accuracy Apply advanced techniques to optimize material usage, improve print resolution, and ensure structural integrity in small-scale
..						
Total amount (Lacs) received for the past 3 years					8 Lakhs	

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 details for ODD SEMESTER (2024-25).

Sl. No.	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	Engineering WorkShop	60	Wood Turning Lathe Arc Welding Machine Drilling Machine Anvil 50Kgs	All Programs (10 Batches per week, 30 hours per week)	A.Ramesh D Prabhakar K Yugendar G Anjaneyulu S.Satyanarayana M. Shankar	Lab Assistant	ITI
2	Fules & Lubricants	30	Cleave land's flash & fire Point open cup apparatus Carbon Residue test apparatus Red Wood Viscometer-1 Saybolt Viscometer apparatus Bomb Calorie Meter apparatus Junkers Calorimeters Greese Penetration Test Red Wood Viscometer-2	3 Hrs 1 slot (1*3)	G. Anjaneyulu	Lab Assistant	ITI
3	Material Science	15	Metallurgical Microscope Double disc polishing machines Jominy End Quench Tester Belt Grinder Muffle furnace	3 Hrs 1 slot (1*3)	D. Prabhakar	Lab Assistant	ITI
4	Mechanics Of Solids	15	Universal Testing Machine Torsion Testing Machine Hardness Testing Machine Spring Testing Machine Compression Tests On Cube Impact Testing Machine Punch Shear Test	3 Hrs 1 slot (1*3)	A. Ramesh	Lab Assistant	ITI
5	Production Technology lab	30	Casting-Cope and drag box with necessary tools Injection moulding machine with die Spot welding machine	3 Hrs 1 slot (1*3)	D. Prabhakar	Lab Assistant	ITI

			Arc welding setup				
			Brazing equipment				
			Permeability test apparatus				
			Hydraulic press and fly press				
			Induction furnace				
6	FMHM	30	Impact Of Jets On Vanes apparatus,	3 Hrs 1 slot (1*3)	A. Ramesh	Lab Assistant	ITI
			Pelton Wheel Turbine				
			Francis Turbine,				
			Kaplan Turbine,				
			Single Stage Centrifugal Pump,				
			Multi Stage Centrifugal Pump,				
			Reciprocating Pump,				
			Venturimeter, Orifice Meter				
			Flow Through Pipes To Study Minor Losses and Major Losses				
			Bernoulli's Apparatus				
7	Instrumentation and Control System	30	Pressure Gauge Setup	3 Hrs 1 slot (1*3)	M. Shankar	Lab Assistant	ITI
			Thermister Setup				
			LVDT Trainer Setup				
			Strain Gauge Trainer Setup				
			Thermo couple Setup				
			Capacitive Transducer Setup				
			Photo And Magnetic Pickup Setup				
			Resistance Temperature Detector Setup				
			Rotameter Setup				
			Seismic Pickup Setup				
8	Kinematics & Dynamics Lab	30	Motorized gyroscopic couple apparatus	3 Hrs 1 slot (1*3)	K. Yugendhar	Lab Assistant	ITI
			Universal governor apparatus				
			Static and dynamic balancing analysis				
			Cam and follower apparatus				
			Whirling shaft apparatus				
			Journal bearing apparatus				
			Simple pendulum apparatus				
			Compound pendulum apparatus				
9	Metrology	30	Lathe Machine	3 Hrs 1 slot	A. Ramesh	Lab	ITI

	& Machine Tools		Milling machine	(1*3)		Assistant	
			Radial drilling machine				
			Surface grinding machine				
			Lathe tool dynamometre				
			Power hacksaw				
			Bevel Protractor				
			Sine bar set				
			Thread measurement setup				
			Gear tooth vernier calipers				
			Vernier calipers				
			Micrometre				
			Magnetic V block				
			Slip gauges				
10	Thermal Engineering	30	Two stroke engine cut section	3 Hrs 1 slot (1*3)	G. Anjaneyulu	Lab Assistant	ITI
			Four stroke diesel engine cut section				
			Four stroke 1 cylinder diesel engine with Mechanical loading				
			Multi Cylinder 4 stroke water cooled petrol engine test rig.				
			Multi stage reciprocating air compressor.				
			Four stroke 1 cylinder VCR petrol engine with monitoring test				
11	CAE/CAM	15	No. of Systems: 20	3 Hrs 2 slots (2*3)	S.Satyanarayana	Lab Assistant	ITI
			OS: Windows 10				
			AutoCAD				
			PTC CREO				
			Mtab Xl Turning Machine, Mtab Xl Milling Machine				
12	HEAT TRANSFER	15	Composite Wall Aparatus	3 Hrs 2 slots (2*3)	G. Anjaneyulu	Lab Assistant	ITI
			Heat Transfer Through Lagged Pipe Apparatus				
			Heat Transferred Through A Concentric Sphere Apparatus				
			Thermal Conductivity Of Metal Rod				
			Heat Transfer in Pin Fin Apparatus				
			Transient Heat Conduction				
			Forced Convection Apparatus				
			Heat Transfer In Natural				

			Convection Apparatus				
			Parallel And Counter Flow Heat Exchanger				
			Emissivity Measurement Apparatus				
			Stephen Boltzmann Apparatus				
			Critical Heat Flux Apparatus				
			Heat Pipe Demonstrator				
			Film & Drop Wise Condensation Apparatus				

D2:`Safety Measures in Laboratories

TableNo.D2.1: List of various safety measures in laboratories.

S.No.	Name of the Laboratory	Safety measures
1	Computer Aided Drafting	• Operate systems in the presence of the lab in charge. • Students should restrict to their specific experiment and systems. Switch off systems properly after completing the experiment.
2	Computer Aided Manufacturing	• Operate systems in the presence of the lab in-charge. • Students should restrict to their specific experiment and systems. • Girl students should tie their hair to avoid accidents. • Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. • Operate machinery in presence of the lab in-charge. • Switch off machinery properly after completing the experiment
3	Mechanics of Fluids &Hydraulic Machines	• Wear shoes and aprons in the Laboratories. • Girl students should tie their hair to avoid accidents. • Leaning over rotating machinery should be avoided. • Operate machinery in the presence of the lab in-charge. • Students should restrict to their specific experiment and equipments. • Switch off machinery properly after completing the experiment.
4	Heat Transfer	• Wear shoes and aprons in the Laboratories. • Girl students should tie their hair to avoid accidents. Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. Operate machinery in the presence of the lab in-charge. Students should restrict to their specific experiment and equipments. • Switch off machinery properly after completing the

		experiment.
5	Instrumentation and Control System	• Wear shoes and aprons in the Laboratories. • Girl students should tie their hair to avoid accidents. Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. Operate machinery in the presence of the lab in-charge. Students should restrict to their specific experiment and equipments. • Switch off machinery properly after completing the experiment. Students should restrict to their specific experiment and equipments.
6	Machine Tools	• Maintain the first aid box fire extinguisher in reach. Don't touch the machine/equipment without proper knowledge. • Take the help of lab instructor and follow the instructions strictly. • Use apron, loose garment scan entangles with moving parts of machine. • Use the industrial shoes to protect from sharp & hot chips use machine lamp for clear vision and observation of the operation. Use the machine spanners &tools set the machine. • Check & provide adequate machine lubrication and coolant. • Use the correct tools & tool holders for the given operation. • Use hand gloves to handle the hot & sharp machined component. • Keep the spanners at the right place. Don't leave it on the machine. Don't use blunt tools, may break and cause injuries.
7	Metrology	• Wear shoes and aprons in the laboratories. • Girl students should tie their hair to avoid accidents. • Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. • Operate machinery in the presence of the lab in-charge. Students should restrict themselves to their specific experiment and equipment. • Switch off machinery properly after completing the experiment
8	Material Science	• Wear shoes and aprons in the laboratories. • Girl students should tie their hair to avoid accidents. • Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. • Operate machinery in the presence of the lab in-charge. Students should restrict themselves to their specific experiment and equipment. • Switch off machinery properly after completing the experiment
9	Mechanics of Solids	• Wear shoes and aprons in the laboratories. • Girl students should tie their hair to avoid accidents.

		• Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. • Operate machinery in the presence of the lab in-charge. Students should restrict themselves to their specific experiment and equipment. • Switch off machinery properly after completing the experiment. • Contact faculty or staff immediately if equipment is missing or damaged.
10	Production Technology	• Wear shoes and aprons in the laboratories. • Girl students should tie their hair to avoid accidents. • Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. • Operate machinery in the presence of the lab in-charge. Students should restrict themselves to their specific experiment and equipment. • Switch off machinery properly after completing the experiment. • Contact faculty or staff immediately if equipment is missing or damaged.
11	Thermal Engineering	• Wear shoes and aprons in the laboratories. • Girl students should tie their hair to avoid accidents. • Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. • Operate machinery in the presence of the lab in-charge. Students should restrict themselves to their specific experiment and equipment. • Switch off machinery properly after completing the experiment.
12	Engineering Workshop	• Wear shoes and aprons in the laboratories. • Girl students should tie their hair to avoid accidents. • Loose ornaments like chains shall not be worn. • Leaning over rotating machinery should be avoided. • Operate machinery in the presence of the lab in-charge. Students should restrict themselves to their specific experiment and equipment. • Switch off machinery properly after completing the experiment. • Contact faculty or staff immediately if equipment is missing or damaged.

Note*: All the labs are equipped with first aid kits & Fire Extinguishers as a part of the prescribed safety measures.

D3: Project Laboratory/Research Laboratory

TableNo.D3.1: List of project laboratory / research laboratory / Centre of Excellence.

S. No.	Name of the Laboratory
1.	CAD
2.	CAM
3.	PRODUCTION TECHNOLOGY
4.	MACHINE TOOLS
5.	MECHANICS OF SOLIDS
6.	KINEMATICS OF MACHINERY
7.	3D PRINTING FOR PROTOTYPING AND DESIGN VALIDATON
8.	IDEA LAB
9.	MICROSOFT INNOVATION CENTER

PARTE: Fist 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)) / RF4
CAY (2024-25)	1200	60	45	20	66.67
CAYm1 (2023-24)	1020	51	43	18	74.5
CAYm2 (2022-23)	1020	51	39	16	67.45

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

TableNo.E2.1: Budget and actual expenditure incurred at Institute level.

Items	Budgeted in CFY	Actual expenses in CFY (till …)	Budgeted in CFYm1	Actual Expenses in CFYm1	Budgeted in CFYm2	Actual Expenses in CFYm2	Budgeted in CFYm3	Actual Expenses in CFYm3
Infrastructure Built-Up	30000000	21575495	75000000	74840393	30000000	28349235	17500000	16264027
Library	1200000	1058586	125000	123565	1200000	1055129	1000000	884214
Laboratory equipment	600000	499975	400000	389071	900000	878039	750000	731253
Teaching and non-teaching staff salary	240000000	181449135	200000000	213785622	170000000	171433534	150000000	152408210
Outreach Programs								
R&D	500000	390808	200000	190500	1200000	1393200	200000	170173
Training, Placement and Industry linkage	4500000	3754133	3000000	2803606	3500000	3508507	2200000	2122530
SDGs								
Entrepreneur ship								
Others*, pl. specify	220000000	114150776	200000000	202602147	170000000	169700151	130000000	128186893
Total amount	496800000	322878908	478725000	494734904	376800000	376317795	301650000	300767300

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	Actual expenses in CFY (till…)	Budgeted in CFY*m*1	Actual Expenses in CFY*m*1	Budgeted in CFY*m*2	Actual Expenses in CFY*m*2	Budgeted in CFY*m*3	Actual Expenses in CFY*m*3
Laboratory equipment	50000	35234	100000	80020	60000	198458	150000	61954
Software	0	0	0	0	20000		25000	0
SDGs	0	0	0	0	0	0	0	0
Support for faculty development								
R&D	10000	7200	50000		30000	17000	25000	10000
Industrial Training, Industry expert, Internship	200000	150000			75000		25000	9000
Miscellaneous expenses *	100000	75000	50000	40000	25000		25000	10000
Total amount	360000	267434	200000	120020	210000	215458	250000	90954