

## 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> : 9625	<b>Date of Submission</b> : 29-01-2025

### PART A- Profile of the Institute

<b>A1.Name of the Institute</b> : THIAGARAJAR COLLEGE OF ENGINEERING	
Year of Establishment : 1957/2008	Location of the Institute: Madurai
<b>A2. Institute Address</b> :THIAGARAJAR COLLEGE OF ENGINEERING MADURAI-625015	
City:MADURAI	State:Tamil Nadu
Pin Code:625015	Website:www.tce.edu
Email:PRINCIPAL@TCE.EDU	Phone No(with STD Code):0452-2482240
<b>A3. Name and Address of the Affiliating University (if any):</b>	
Name of the University : Anna University, Chennai 600 025 Tamil Nadu	City: Chennai
State : Tamil Nadu	Pin Code: 600025
<b>A4. Type of the Institution</b> : Government Aided Institute	
<b>A5. Ownership Status</b> : Government Aided	

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

- No. of UG programs: **11**
- No. of PG programs: **10**

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	Architecture	UG	Architecture	1995	--	Architecture
2	Architecture	UG	Interior Design	2024	--	Architecture
3	Computer Application	PG	Master of Computer Application	1985	--	Computer Application
4	Engineering & Technology	UG	Civil Engineering	1957	--	Civil Engineering
5	Engineering & Technology	PG	Communication Systems	1995	--	Electronics and Communication Engineering
6	Engineering & Technology	UG	Computer Science and Business System	2020	--	Computer Science and Business System
7	Engineering & Technology	UG	Computer Science and Engineering	1984	--	Computer Science and Engineering
8	Engineering & Technology	PG	Computer Science and Engineering	2001	--	Computer Science and Engineering

9	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence & Machine Learning)	2024	--	Computer Science and Engineering
10	Engineering & Technology	PG	Construction Engineering & Management	2022	--	Civil Engineering
11	Engineering & Technology	UG	Electrical & Electronics Engineering	1957	--	Electrical and Electronics Engineering
12	Engineering & Technology	UG	Electronics & Communication Engineering	1978	--	Electronics and Communication Engineering
13	Engineering & Technology	PG	Engineering Design	2022	2023	Mechanical Engineering
14	Engineering & Technology	PG	Environmental Engineering	2007	2023	Civil Engineering
15	Engineering & Technology	PG	Industrial Engineering	1986	2022	Mechanical Engineering
16	Engineering & Technology	UG	Information Technology	1999	--	Information Technology
17	Engineering & Technology	PG	Infrastructure Engineering & Management	2011	2022	Civil Engineering
18	Engineering & Technology	UG	Mechanical Engineering	1957	--	Mechanical Engineering
19	Engineering & Technology	UG	Mechatronics Engineering	2014	--	Mechatronics Engineering
20	Engineering & Technology	PG	Power Systems	1972	2024	Electrical and Electronics Engineering
21	Engineering & Technology	PG	Structural Engineering	1972	--	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
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	Mechatronics Engineering	UG

## PART-B: Program information

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

Table No. B1: Program details.

A. List of the Programs Offered by the Department:

SR.NO.	PROGRAM NAME	PROGRAM APPLIED LEVEL	YEAR OF START / YEAR OF CLOSED	SANCTIONED INTAKE	INCREASE/DECREASE INTAKE (if any)	YEAR OF INCREASE/DECREASE	CURRENT INTAKE	YEAR OF AICTE APPROVAL	AICTE/COMPETENT AUTHORITY ARROVAL DETAILS	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED	PROGRAM DURATION
1	Mechanical Engineering	UG	1957 / --	30	Yes	2007	120	2007	F.No-730-52-256(E)/ET/97	Granted accreditation for 3 years for the period (specify period)	2022	2025	4	4

Sanctioned Intake for Last Five Years for the Industrial Engineering														
Academic Year				Sanctioned Intake										
2024-25				120										
2023-24				120										
2022-23				120										
2021-22				120										
2020-21				120										
2019-20				120										

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	AICTE/COMPETENT AUTHORITY ARROVAL DETAILS	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED
1	Mechanical Engineering	Mechatronics Engineering	UG	2014 / --	60	No	NA	60	2014	F.No. Southern/1-9320553702/2021/EOA	Granted accreditation for 3 years for the period (specify period)	2024	2027	2

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

A. Name of the HoD :	Dr.K. Srithar
B. Nature of appointment:	Regular
C. Qualification:	ME/M. Tech and PhD

**B3. Program Details**

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

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.

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

#### 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.

$$\text{Average SR of three batches ((SR\_1+ SR\_2+ SR\_3)/3):}$$

#### 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.

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

#### 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.

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

#### 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

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

#### B9. Placement, Higher Studies, and Entrepreneurship

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

$$\text{Average Placement Index} = (P\_1 + P\_2 + P\_3)/3: \text{ Placement Index Points:}$$

## 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 Association (Regular/ Contract/ Ad hoc)	Currently Associated (Y/N)	In case of NO, Date of Leaving	IS HOD?
1	Dr.S. Muralidharan	XXXXXXX52J	XXXXXXXXXXXXXXXXPhD	Madurai Kamaraj University	Mechanical Engineering	15/07/1987	37.3	Assistant Professor	Professor	01/01/2009	Regular	No	31/10/2024	No
2	Dr.K. Chockalingam	XXXXXXX08B	XXXXXXXXXXXXXXXXPhD	Madurai Kamaraj University	Mechanical Engineering	01/12/1994	30.1	Assistant Professor	Professor	01/12/2010	Regular	Yes		No
3	Dr.PL.K. Palaniappan	XXXXXXX32H	XXXXXXXXXXXXXXXXPhD	Madurai Kamaraj University	Mechanical Engineering	02/06/1997	27.7	Assistant Professor	Professor	06/09/2013	Regular	Yes		No
4	Dr.A. Valan Arasu	XXXXXXX11H	XXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	30/11/1998	26.1	Assistant Professor	Professor	04/03/2014	Regular	Yes		No

5	Dr.C. Paramasivam	XXXXXXX36E	XXXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	06/12/1999	25.1	Assistant Professor	Professor	08/12/2015	Regular	Yes		No
6	Dr.K. Srithar	XXXXXXX09F	XXXXXXXXXXXXXXXXXPhD	Indian Institute of Technology Madras	Mechanical Engineering	19/01/2000	25	Assistant Professor	Professor	06/07/2015	Regular	Yes		Yes
7	Dr.P. Maran	XXXXXXX18D	XXXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	13/03/2002	22.10	Assistant Professor	Professor	23/12/2017	Regular	Yes		No
8	Dr.S. Karthikeyan	XXXXXXX05J	XXXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	29/11/2002	22.1	Assistant Professor	Professor	25/12/2017	Regular	Yes		No
9	Dr.ML. Mahadevan	XXXXXXX65R	XXXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	10/09/2004	20.4	Assistant Professor	Associate Professor	10/09/2016	Regular	Yes		No
10	Dr.V. Balasubramani	XXXXXXX60N	XXXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	07/11/2001	23.2	Assistant Professor	Associate Professor	01/03/2022	Regular	Yes		No
11	Dr.M. Balamurali	XXXXXXX04K	XXXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	06/07/2006	18.6	Assistant Professor	Associate Professor	01/09/2023	Regular	Yes		No
12	Dr.B. Karthikeyan	XXXXXXX35H	XXXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	01/11/2004	20.2	Assistant Professor	Assistant Professor		Regular	Yes		No
13	Dr.M.S. Govardhanan	XXXXXXX71D	XXXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	05/03/2012	12.10	Assistant Professor	Assistant Professor		Regular	Yes		No
14	Dr.R. Sivasankaran	XXXXXXX91D	XXXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	04/04/2014	10.9	Assistant Professor	Assistant Professor		Regular	Yes		No
15	Mr.T. Prakash	XXXXXXX25L	M.E/M.Tech	Anna University	Mechanical Engineering	21/07/2014	10.6	Assistant Professor	Assistant Professor		Regular	Yes		No
16	Dr.C.Vignesh	XXXXXXX18L	XXXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	22/01/2015	9.11	Assistant Professor	Assistant Professor		Regular	Yes		No
17	Mr.C. Selva Kumar	XXXXXXX88N	M.E/M.Tech	Anna University	Mechanical Engineering	19/06/2015	9.7	Assistant Professor	Assistant Professor		Regular	Yes		No
18	Mr.M. Karthic	XXXXXXX52D	M.E/M.Tech	Anna University	Mechanical Engineering	02/01/2017	8	Assistant Professor	Assistant Professor		Regular	Yes		No
19	Dr.M. Sermaraj	XXXXXXX54E	XXXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	27/04/2018	6.8	Assistant Professor	Assistant Professor		Regular	Yes		No
20	Dr.S. Umar Sherif	XXXXXXX24R	XXXXXXXXXXXXXXXXXPhD	National Institute of Technology Trichy	Mechanical Engineering	10/07/2023	1.6	Assistant Professor	Assistant Professor		Regular	Yes		No
21	Dr.S. Arunkumar	XXXXXXX24B	XXXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	27/07/2023	1.5	Assistant Professor	Assistant Professor		Regular	Yes		No
22	Dr. R. Maniarasu	XXXXXXX75E	XXXXXXXXXXXXXXXXXPhD	National Institute of Technology Rourkela	Mechanical Engineering	03/01/2024	1	Assistant Professor	Assistant Professor		Regular	Yes		No

23	Dr.R. Kamalakannan	XXXXXXX11P	XXXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	03/07/2024	0.6	Assistant Professor	Assistant Professor		Regular	Yes		No
24	Dr.S. Saravanaperumaal	XXXXXXX31C	XXXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	02/07/2003	20	Assistant Professor	Assistant Professor		Regular	No	27/06/2023	No
25	Dr.M. Kannan	XXXXXXX26P	XXXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	15/07/2011	12.8	Assistant Professor	Assistant Professor		Regular	No	30/03/2024	No
26	Dr.M. Elango	XXXXXXX93Q	XXXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	28/06/2006	16.8	Assistant Professor	Associate Professor		Regular	No	15/03/2023	No
27	Dr.A. Samuelraja	XXXXXXX10M	XXXXXXXXXXXXXXXXXPhD	Anna University	Mechanical Engineering	13/09/2007	15.5	Assistant Professor	Assistant Professor		Regular	No	18/02/2023	No

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)	Currently Associated (Y/N)	In case of NO, Date of Leaving	IS HOD?
1	Dr.M.Palaninatharaja	XXXXXXX57A	NA	ME/M. Tech and PhD	Indian Institute of Technology Delhi	Mechanical Engineering	01/08/1997	27.6	Assistant Professor	Professor	02/09/2011	Regular	Yes		Yes
2	Dr.G.Kumaraguruparan	XXXXXXX55B	NA	ME/M. Tech and PhD	Anna University	Mechanical Engineering	15/11/2000	24.2	Assistant Professor	Professor	01/03/2022	Regular	Yes		No
3	Dr.G.Kanagaraj	XXXXXXX16L	NA	ME/M. Tech and PhD	Anna University	Mechanical Engineering	14/12/2000	24.1	Assistant Professor	Professor	01/03/2022	Regular	Yes		No
4	Dr.S.Julius Fusic	XXXXXXX88G	NA	ME/M. Tech and PhD	Anna University	Power Electronics	14/07/2014	10.6	Assistant Professor	Assistant Professor		Regular	Yes		No
5	Mr.S.Parthasarathi	XXXXXXX69N	NA	M.E/M.Tech	Anna University	Embedded systems	23/12/2014	10.1	Assistant Professor	Assistant Professor		Regular	Yes		No
6	Dr.H.Ramesh	XXXXXXX79L	NA	ME/M. Tech and PhD	Anna University	Industrial drives	06/04/2015	9.9	Assistant Professor	Assistant Professor		Regular	Yes		No
7	Mr.A.Ganesh	XXXXXXX96R	NA	M.E/M.Tech	Vellor Institute of Technology	Mechatronics Engineering	19/06/2015	9.7	Assistant Professor	Assistant Professor		Regular	Yes		No
8	Mr.S.A.R.Shiek Masthan	XXXXXXX58D	NA	M.E/M.Tech	Sathyabama University	Embedded systems	06/06/2016	8.7	Assistant Professor	Assistant Professor		Regular	Yes		No
9	Mr.M.M.Devarajan	XXXXXXX47A	NA	M.E/M.Tech	Anna University	Industrial Engineering	09/09/2015	9.4	Assistant Professor	Assistant Professor		Regular	Yes		No
10	Dr.M.Rajalakshmi	XXXXXXX88E	NA	ME/M. Tech and PhD	Anna University	Mechatronics Engineering	07/07/2023	1.6	Assistant Professor	Assistant Professor		Regular	Yes		No

11	Mr.S.Rajkumar	XXXXXX49H	NA	M.E/M.Tech	Anna University	Mechanical Engineering	05/07/2017	7.6	Assistant Professor	Assistant Professor		Regular	Yes		No
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## C2. Student-Faculty Ratio (SFR)

No. of UG(Engineering) programs in Department including allied departments/ clusters (UGn):

UG1=1st UG program

UGn=nth UG program

**B**= No. of Students in UG 2nd year (ST)

**C**= No. of Students in UG 3rd year (ST)

**D**= No. of Students in UG 4th year (ST)

No. of PG (Engineering) programs in Department including allied departments/ clusters (PGm):

PG1=1st PG program.

PGm=mth PG program

**A**= No. of Students in PG 1st year

**B**= No. of Students in PG 2nd year

Student Faculty Ratio (**SFR**) = S/F

S= No. of students of all programs in the Department including all students of allied departments/clusters.

**No. of students (ST)**=Sanctioned Intake (SA)+ Actual admitted students via lateral entry including leftover seats (L) if any (limited to 10 % of SA)

Students who admitted under supernumerary quotas (SNQ, EWS, etc) will not be considered in calculating SFR value. Those students are exempted.

**F**=Total no. of regular or contractual faculty members (Full Time) in the Department, including allied departments/clusters (excluding first year faculty (The faculty members who have a 100% teaching load in the first-year courses)).

No. of UG Programs in the Department1 No. of PG Programs in the Department2

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

Description	CAY(2024-25)	CAYm1 (2023-24)	CAYm2 (2022-23)
UG1.B	132	132	132
UG1.C	132	132	132
UG1.D	132	132	132
<b>UG1: Mechanical Engineering</b>	<b>396</b>	<b>396</b>	<b>396</b>
UG2.B	66	66	66
UG2.C	66	66	66
UG2.D	66	66	66
<b>UG2: Mechatronics Engineering</b>	<b>198</b>	<b>198</b>	<b>198</b>
DS=Total no. of students in all UG and PG programs in the Department	396	396	396
AS=Total no. of students of all UG and PG programs in allied departments	198	198	198
S=Total no. of students in the Department (DS) and allied departments (AS)	<b>S1= 594</b>	<b>S2= 594</b>	<b>S3= 594</b>
DF=Total no. of faculty members in the Department	22	21	21
AF= Total no. of faculty members in the allied Departments	11	11	10
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	<b>F1= 33</b>	<b>F2= 32</b>	<b>F3= 31</b>
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)	<b>SFR1= 18.00</b>	<b>SFR2= 18.56</b>	<b>SFR3= 19.16</b>
Average SFR for 3 years	<b>SFR= 18.57</b>		

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.

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.

C5. Visiting/Adjunct Faculty/Professor of Practice

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

(CAYm1)

(CAYm2)

(CAYm3)

C6. Academic Research

Table No. C6.1: Faculty publication details.

C7. Sponsored Research Project

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

(CAYm1)

(CAYm2)

(CAYm3)

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

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)

(CAYm2)

(CAYm3)

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

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)

(CAYm2)

(CAYm3)

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

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.

D2. Safety Measures in Laboratories

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

D3. Project Laboratory/Research Laboratory

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PART E: First Year faculty and financial Resources  
(Data to be filled in for the first year course faculty and budget allocation and utilization)

E1. First Year Student-Faculty Ratio (FYSFR)

Table No. E1.1: FYSFR details.

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

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

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

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