NATIONAL BOARD OF ACCREDITATION

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

Program Name : Electrical Engineering	**Discipline**: Engineering & Technology
Level : Under Graduate	**Tier**: 2
Application No: 11494	**Date of Submission**: 17-01-2026

PART A- Profile of the Institute

A1.Name of the Institute: GOVERNMENT ENGINEERING COLLEGE, MODASA	
Year of Establishment : 1984-1990	Location of the Institute: Opp to Collector Office
A2. Institute Address:SHAMLAJI ROAD	
City:MODASA	State:Gujarat
Pin Code:383315	Website:www.gecmodasa.ac.in/index.php
Email:gec-modasa-dte@gujarat.gov.in	Phone No(with STD Code):02774-242634
A3. Name and Address of the Affiliating University (if any):	
Name of the University :	City: Gandhinagar
State : Gujarat	Pin Code: 0
A4. Type of the Institution: Government Institute	
A5. Ownership Status: State Government	

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

- No. of UG programs: **7**
- No. of PG programs: **2**

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

Sr.No.	Discipline	Level of program	Name of the program	Year of Start	Year of Closed	Name of The Department
1	Engineering & Technology	UG	Automobile Engineering	2008	--	Automobile Engineering
2	Engineering & Technology	UG	Civil Engineering	1984	--	Civil Engineering
3	Engineering & Technology	UG	Computer Engineering	2001	--	Computer Engineering
4	Engineering & Technology	PG	Computer Engineering	2010	--	Computer Engineering
5	Engineering & Technology	UG	Electrical Engineering	1984	--	Electrical Engineering
6	Engineering & Technology	UG	Electronics & Communication Engineering	1990	--	Electronics and Communication Engineering
7	Engineering & Technology	UG	Information Technology	1999	--	Information Technology
8	Engineering & Technology	UG	Mechanical Engineering	1989	--	Mechanical Engineering
9	Engineering & Technology	PG	Transportation Engineering	2010	--	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
Electrical Engineering	No	Electrical Engineering	UG

Table No. A7.2: Allied Department(s) to the Department of the program considered for accreditation as above.

Cluster ID. Name of the Department (in table no. A7.1) Name of allied Departments/Cluster (for table no. A7.1)

No Record

PART-B: Program information

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

Table No. B1: Program details.

A. List of the Programs Offered by the Department:

SR.NO.	PROGRAM NAME	PROGRAM APPLIED LEVEL	YEAR OF START / YEAR OF CLOSED	SANCTIONED INTAKE	INCREASE/DECREASE INTAKE (if any)	YEAR OF INCREASE/DECREASE	CURRENT INTAKE	YEAR OF AICTE APPROVAL	AICTE/COMPETENT AUTHORITY ARRO DETAILS
1	Electrical Engineering	UG	1984 / --	60	No	NA	60	1984	F.No. Central/1-44641952602/2025/E Dated 20 March 202

List of the Allied Departments/Cluster and Programs:

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

A. Name of the HoD :	VIPULKUMAR JESHANKER UPADHYAY
B. Nature of appointment:	Regular
C. Qualification:	Ph.D

B3. Program Details

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

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)	2021-22 (CAYm4)	2020-21 (CAYm5)	2019-20 (CAYm6)
N=Sanctioned intake of the program (as per AICTE /Competent authority)	60	60	60	60	60	60	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	57	60	34	48	60	60	120
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	15	6	6	15	8	30
N3=Separate division if any	0	0	0	0	0	0	0
N4=Total no. of students admitted in the 1st year via all supernumerary quotas	0	0	0	0	0	0	0
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	57	75	40	54	75	68	150

CAY= Current Academic Year. CAYm1= Current Academic Year Minus 1 CAYm2= Current Academic Year Minus 2. LYG= Last Year Graduate. LYGm1= Last Year Graduate Minus 1. LYGm2= Last Year Graduate Minus 2.

B4. Enrolment Ratio in the First Year

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

Year of entry	N (From Table 4.1)	N1 (From Table 4.1)	N4 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2025-26 (CAY)	60	57	0	95.00

2024-25 (CAYm1)	60	60	0	100.00
2023-24 (CAYm2)	60	34	0	56.67

Average [(ER1 + ER2 + ER3) / 3] = 83.89≡ 17.00

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

Table No.B5.1: The success rate in the stipulated period of a program.

Item	(2021-22) LYG	(2020-21) LYGm1	(2019-20) LYGm2
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	75.00	68.00	150.00
Y Number of students who have graduated in the stipulated period	21.00	36.00	70.00
Success Rate (SR)= (B/A) * 100	28.00	52.94	46.67

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 42.54

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

Table No.B6.1: Academic Performance of the First-Year Students of the Program.

Academic Performance	CAYm1(2024-25)	CAYm2(2023-24)	CAYm3 (2022-23)
Mean of CGPA or mean percentage of all successful students(X)	3.19	2.10	2.97
Y=Total no. of successful students	33.00	10.00	4.00
Z=Total no. of students appeared in the examination	35.00	11.00	6.00
API [X*(Y/Z)]	3.01	1.91	1.98

Average API[(AP1+AP2+AP3)/3] : 2.30

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

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

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 2nd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2rd year/10)	3.48	3.12	4.41
Y=Total no. of successful students	28.00	36.00	44.00
Z=Total no. of students appeared in the examination	16.00	10.00	69.00
API [X * (Y/Z)]	6.09	11.23	2.81

Average API [(AP1 + AP2 + AP3)/3] : 6.71

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

Table No.B8.1: Academic Performance of the Third Year Students of the Program

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10)	4.43	5.54	6.50
Y=Total no. of successful students	29.00	40.00	49.00
Z=Total no. of students appeared in the examination	36.00	44.00	54.00
API [X*(Y/Z)]:	3.57	5.04	5.90

Average API [(AP1 + AP2 + AP3)/3] : 4.84

B9. Placement, Higher Studies, and Entrepreneurship

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

Item	LYG (2021-22)	LYGm1(2020-21)	LYGm2(2019-20)
FS*=Total no. of final year students	75.00	68.00	150.00
X=No. of students placed	21.00	27.00	26.00
Y=No. of students admitted to higher studies	4.00	2.00	3.00
Z= No. of students taking up entrepreneurship	0.00	1.00	4.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	33.33	44.12	22.00

Average Placement Index = (P_1 + P_2 + P_3)/3: 33.15 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)	Cu As (Y
1	VIPULKUMAR JESHANKER UPADHYAY	XXXXXXX35P	Ph.D	Kadi Sarva vishvavidhyalaya	Power system Protection	01/01/2021	5	Professor	Professor	01/01/2021	Regular	Ye
2	MAHESH J PATEL	XXXXXXX26E	M.E.	GUJARAT UNIVERSITY	POWER SYSTEM	18/01/2016	9.3	Associate Professor	Associate Professor	18/01/2016	Regular	No
3	SURESH RAMLAL SHARDA	XXXXXXX11A	Ph.D	GTU	ELECTRICAL MACHINE	08/05/2025	0.8	Associate Professor	Associate Professor	08/05/2025	Regular	Ye
4	UMESH L MAKWANA	XXXXXXX43M	Ph.D	M S UNIVERSITY	POWER SYSTEM	20/10/2022	1.4	Associate Professor	Associate Professor	20/10/2022	Regular	No
5	NIRALI VIPULKUMAR UPADHYAY	XXXXXXX21K	Ph.D	INDUS UNIVERSITY	POWER SYSTEM	02/06/2016	9.7	Assistant Professor	Assistant Professor		Regular	Ye
6	JIGNESH B PUJARA	XXXXXXX88J	M.E.	GUJARAT UNIVERSITY	POWER SYSTEM	01/02/2020	5.11	Assistant Professor	Assistant Professor		Regular	Ye
7	KAUSHAL K BHATT	XXXXXXX18E	Ph.D	INDUS UNIVERSITY	POWER ELECTRONICS	01/06/2016	9.7	Assistant Professor	Assistant Professor		Regular	Ye
8	TRUSHNA P SHAH	XXXXXXX37J	M.E.	M S UNIVERSITY	INSUSTRIAL ELECTRONICS	01/02/2022	3.11	Assistant Professor	Assistant Professor		Regular	Ye
9	TEJAL A CHAUDHARI	XXXXXXX19P	M.E.	GTU	AUTOMATION CONTROL AND POWER SYSTEM	01/03/2016	9.10	Assistant Professor	Assistant Professor		Regular	Ye
10	CHETAN K BARIYA	XXXXXXX79C	M.E.	GTU	AUTOMATION CONTROL AND POWER SYSTEM	20/08/2016	9.4	Assistant Professor	Assistant Professor		Regular	Ye
11	SUMIT V BANKER	XXXXXXX02Q	M.E.	GTU	AUTOMATION CONTROL AND POWER SYSTEM	01/09/2016	9.4	Assistant Professor	Assistant Professor		Regular	Ye
12	DARSHAN U THAKAR	XXXXXXX82D	M.Tech	NIRMA UNIVERSITY	POWER ELECTRONICS MACHINE AND DESIGN	04/05/2018	7.8	Assistant Professor	Assistant Professor		Regular	Ye
13	HEMANG S PANDYA	XXXXXXX89D	Ph.D	SARDAR VALLABHAI PATEL INSTITUTE OF TECHNOLOGY	DEMANDSIDE MANAGEMENT IN SMART GRID	04/05/2018	7.8	Assistant Professor	Assistant Professor		Regular	Ye

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

C2. Student-Faculty Ratio (SFR)

No. of UG(Engineering) programs in Department including allied departments/ clusters (UGn):
UG1=1st UG program
UGn=nth UG program
B= No. of Students in UG 2nd year (ST)
C= No. of Students in UG 3rd year (ST)

D= No. of Students in UG 4th year (ST)
No. of PG (Engineering) programs in Department including allied departments/ clusters (PGm):
PG1=1st PG program.
PGm=mth PG program
A= No. of Students in PG 1st year
B= No. of Students in PG 2nd year
Student Faculty Ratio **(SFR)** = S/F
S= No. of students of all programs in the Department including all students of allied departments/clusters.
No. of students (ST)=Sanctioned Intake (SA)+ Actual admitted students via lateral entry including leftover seats (L) if any (limited to 10 % of SA)
Students who admitted under supernumerary quotas (SNQ, EWS, etc) will not be considered in calculating SFR value. Those students are exempted.
F=Total no. of regular or contractual faculty members (Full Time) in the Department, including allied departments/clusters (excluding first year faculty (The faculty members who have a 100% teaching load in the first-year courses)).

No. of UG Programs in the Department1 No. of PG Programs in the Department0

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

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
UG1.B	66	66	66
UG1.C	66	66	66
UG1.D	66	66	66
UG1: Electrical Engineering	**198**	**198**	**198**
DS=Total no. of students in all UG and PG programs in the Department	198	198	198
AS=Total no. of students of all UG and PG programs in allied departments	0	0	0
S=Total no. of students in the Department (DS) and allied departments (AS)	**S1=** 198	**S2=** 198	**S3=** 198
DF=Total no. of faculty members in the Department	11	10	11
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=** 11	**F2=** 10	**F3=** 11
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= 18.00**	**SFR2= 19.80**	**SFR3= 18.00**
Average SFR for 3 years	**SFR= 18.60**		

C3. Faculty Qualification

- Faculty qualification index (FQI) = 2.5 * [(10X +4Y)/RF] where
- X=No. of faculty members with Ph.D. degree or equivalent as per AICTE/UGC norms.
- Y=No. of faculty members with M. Tech. or ME degree or equivalent as per AICTE/ UGC norms.
- RF=No. of required faculty in the Department including allied Departments to adhere to the 20:1 Student-Faculty ratio, with calculations based on both student numbers and faculty requirements as per section C2 of this documents: (RF=S/20).

Table No.C3.1: Faculty qualification.

Year	X	Y	RF	FQ = 2.5 x [(10X + 4Y) / RF)]
2025-26(CAY)	5	6	9.00	20.56
2024-25(CAYm1)	4	6	9.00	17.78
2023-24(CAYm2)	2	9	9.00	15.56

C4. Faculty Cadre Proportion

- Faculty Cadre Proportion is 1(RF1): 2(RF2): 6(RF3)
- RF1= No. of Professors required = 1/9 * No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per C2 of this documents:.
- RF2= No. of Associate Professors required = 2/9 * No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section C2 of this documents:.
- RF3= No. of Assistant Professors required = 6/9 * No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section C2 of this documents:.
- Faculty cadre and qualification and experience should be as per AICTE/UGC norms.

Table No.C4.1: Faculty cadre proportion details.

Year	Professors		Associate Professors		Assistant Professors	
	Required RF1	Available AF1	Required RF2	Available AF1	Required RF3	Available AF3
2025-26	1.00	1.00	2.00	1.00	6.00	9.00
2024-25	1.00	1.00	2.00	0.00	6.00	9.00
2023-24	1.00	1.00	2.00	0.00	6.00	10.00

Average	RF1=1.00	AF1=1.00	RF2=2.00	AF2=0.33	RF2=6.00	AF2=9.33

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.

(CAYm1)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. Lokesh Oza and Mr. Mahendra Motiwala	Technical Experts	Indo German Tool Room, Ahmedabad	Electric Cad	96.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. Priyak Vohra	Deputy Manager	iACE, Gandhinagar	Autotonics	40.00
2	Mr. Rajendersingh	Senior Manager	iACE, Gandhinagar	EV & HV Technology	40.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. Rajendersingh	Senior Manager	iACE, Gandhinagar	EV & HV Technology	40.00
2	Mrs. Sudha Shah	Trainer	Finishing School,Knowledge Consortium of Gujarat-Ahmedabad	Finishing School	40.00

C6. Academic Research

Table No. C6.1: Faculty publication details.

S.No.	Item	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)
1	No. of peer reviewed journal papers published	6	12	0
2	No. of peer reviewed conference papers published	1	0	0
3	No. of books/book chapters published	0	0	0

C7. Sponsored Research Project

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

(CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
0	0	0	0	0	0	0.00
						Amount received (Rs.):0.00

(CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
0	00	0	0	0	0	0.00
						Amount received (Rs.):0.00

(CAYm3)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
0	0	0	0	0	0	0.00
						Amount received (Rs.):0.00

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)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
0	0	0	0	0	0	0.00
						Amount received (Rs.):0.00

(CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
0	0	0	0	0	0	0.00
						Amount received (Rs.):0.00

(CAYm3)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
0	0	0	0	0	0	0.00
						Amount received (Rs.):0.00

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

Note*:

- Only consultancy projects will be considered. Infrastructure-based projects will not be considered here.

C9. Institution Seed Money or Internal Research Grant to its Faculty for Research Work

Table No. C9.1: List of faculty members received seed money or internal research grant from the Institution.

(CAYm1)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Prof. H.S.Pandya	IOT Enabled indoor lighting harnessing Sunlight through Optical fibre PoC/Prototype	4 YEARS	0.29	0.00	innovative solutions, prototype development, startup creation, patent filing, and enhanced technical and entrepreneurial skills among students
Prof.C.K.Bariya	Mineguard Smart Health & Location Tracking System PoC/Prototype	4 YEARS	0.21	0.20	innovative solutions, prototype development, startup creation, patent filing, and enhanced technical and entrepreneurial skills among students.
			Amount received (Rs.): 0.50		

(CAYm2)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Prof.D.U.Thakar	The Arduino-Powered Automated Laser Woodcraft Engraver PoC/Prototype	4 YEARS	0.40	0.24	innovative solutions, prototype development, startup creation, patent filing, and enhanced technical and entrepreneurial skills among students.
			Amount received (Rs.): 0.40		

(CAYm3)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Prof.K.K.Bhatt	Mechanism to prevent road accident between two vehicles PoC/Prototype	4 YEARS	0.30	0.02	innovative solutions, prototype development, startup creation, patent filing, and enhanced technical and entrepreneurial skills among students.
Prof.V.J.Upadhyay	Robotic solar panel cleaning system PoC/Prototype	4 YEARS	0.20	0.03	innovative solutions, prototype development, startup creation, patent filing, and enhanced technical and entrepreneurial skills among students.
			Amount received (Rs.): 0.50		

Total amount (Lacs) received for the past 3 years : 1.40

PART D: Laboratory Infrastructure in the Department

(Data to be filled in for the Department)

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

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

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical staff	Designation	Qualification
1	Basic Electrical Engineering	20	Kirchhoff's Laws Trainer Kit. Superposition Theorem Trainer Kit. Thevenin's Theorem Trainer Kit	22(odd)/24(eve	Shri. S. J. Pate	Electrician	NCVT ITI
2	High Voltage	15	100kv, 100ma hv ac/dc test set with control panel, Accessories. Corona cage along with installation of (dark	4	Shri. S. J. Pate	Electrician	NCVT ITI
3	Switchgear and Protection Lab	15	1.Bucholtz relay test kit 2.Fuse-MCB testing Trainer 3.Over Voltage,Under Voltage Protection Relay testing kit	6	Shri. S. J. Pate	Electrician	NCVT ITI
4	Advanced Electrical Machines lab	20	1.D.C.Shunt Motor With Brake Test Setup 2.Synchronous motor couple with DC shunt generator set	6	Shri. S. J. Pate	Electrician	NCVT ITI
5	Basic Electrical Machines lab	20	1.D.C. Power supply 2.AC Motor cut section 3.DC Motor cut section 4.2.2 KW, 230V DC series motor couple	6	Shri. S. J. Pate	Electrician	NCVT ITI
6	Electric drive	15	1. Constant Control of frequency of DC Motor Part I 2.Constant control of frequency of DC Motor Part II	6	Shri. S. J. Pate	Electrician	NCVT ITI
7	Signals and Systems	20	1. Digital Signal Oscilloscope 2. Function Generator 3. Computer System with MATLAB Software	6	Shri. S. J. Pate	Electrician	NCVT ITI
8	Inter Connected Power System	15	1.High end Computer System with MATLAB Software	2	Shri. S. J. Pate	Electrician	NCVT ITI
9	POWER ELECTRONICS LAB	20	1.Experiment Kit on Output characteristics and transfer characteristics of Power MOSFET	6	Shri. S. J. Pate	Electrician	NCVT ITI
10	ADVANCED POWER ELECTRONICS LAB	15	1.Experiment Kit on Output characteristics and transfer characteristics of Power MOSFET	2	Shri. S. J. Pate	Electrician	NCVT ITI
11	Analog and Digital Electronics	20	1.Op AMP Application Trainer Kit 2.Flip-Flop Trainer 3.Digital Full Adders And Subtractors Using Nand	6	Shri. S. J. Pate	Electrician	NCVT ITI
12	Design Engineering-1A,1B,2A,2B	20	1.Canvas Sheets 2.Bread Board 3.Circuit Components 4.Power supply (DC, AC), 5.Measuring	6	Shri. S. J. Pate	Electrician	NCVT ITI
13	Network Laboratory	20	1.Kirchhoff's Laws Trainer Kit 2.Superposition Theorem Trainer Kit 3.Thevenin's Theorem Trainer Kit	6	Shri. S. J. Pate	Electrician	NCVT ITI

14	Electrical Measurement and Measuring Instrumet	15	1.LVDT Transducer Trainer Kit 2.Load Cell Transducer Trainer Kit	6	Shri. S. J. Pate	Electrician	NCVT ITI
15	Power System-1	20	1.Computer System with MATLAB Software	6	Shri. S. J. Pate	Electrician	NCVT ITI
16	Power Systems-II	15	1.Computer System with MATLAB Software	6	Shri. S. J. Pate	Electrician	NCVT ITI
17	Microprocessor Microcontroller Lab	15	1.Computer System with Keil/MP Assembler/compiler Software	6	Shri. S. J. Pate	Electrician	NCVT ITI

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Basic Electrical Engineering	1. Ensure the power supply is switched OFF before making or modifying any circuit connections. 2. Verify all connections as per the circuit diagram before switching ON the supply. 3. Use only rated components (resistors, capacitors, inductors) as specified to avoid overheating or damage. 4. Do not exceed the maximum voltage and current ratings of the network kit and measuring instruments. 5.Check that connecting wires and probes are properly insulated and free from damage. 6. Avoid short circuits, especially across the power supply terminals. 7. Do not touch live terminals. 8. Switch OFF the supply immediately if abnormal heating, smell or sparks are observed. 9. Handle measuring instruments such as multimeters, ammeters & voltmeters carefully and select correct ranges before measurement. 10. After completing the experiment switch OFF the power supply and dismantle the circuit carefully.
2	High Voltage	1. All equipment, test objects, and metal enclosures are properly grounded. 2. Grounding ensures that leakage current safely flows to earth and reduces shock hazards. 3. We use grounding rods and grounding sticks before touching equipment. 4. Doors of HV test rooms have interlock systems. 5. When the door opens, the high voltage supply automatically turns off.6. Prevents accidental exposure to live circuits. 7. Danger boards are installed like “HIGH VOLTAGE – KEEP AWAY”. 8. warning lights or sirens are activated when HV supply is ON. 9. students are informed to maintain adequate distance from high-voltage equipment. 10. There are insulated barriers or fences around test setups. 11. it is instructed to avoid touching conductors or test objects during operation. 12. As after switching off high voltage, stored charge may remain in capacitors or test objects. 13. It is instructed to compulsory use a discharge rod connected to earth to safely discharge stored energy.
3	Switchgear and Protection Lab	1. Ensure the power supply is switched OFF before making or modifying any circuit connections. 2. Verify all connections as per the circuit diagram before switching ON the supply. 3. Use only rated components (resistors, capacitors, inductors) as specified to avoid overheating or damage. 4. Do not exceed the maximum voltage and current ratings of the network kit and measuring instruments. 5. Check that connecting wires and probes are properly insulated and free from damage. 6. Avoid short circuits, especially across the power supply terminals. 7. Do not touch live terminals. 8. Switch OFF the supply immediately if abnormal heating, smell or sparks are observed. 9. Handle measuring instruments such as multimeters, ammeters & voltmeters carefully and select correct ranges before measurement. 10. After completing the experiment switch OFF the power supply and dismantle the circuit carefully.
4	Advanced Electrical Machines I lab	1. Ensure the power supply is switched OFF before making or modifying any circuit connections. 2. Verify all connections as per the circuit diagram before switching ON the supply. 3. Use only rated components (resistors, capacitors, inductors) as specified to avoid overheating or damage. 4. Do not exceed the maximum voltage and current ratings of the network kit and measuring instruments. 5. Check that connecting wires and probes are properly insulated and free from damage. 6. Avoid short circuits, especially across the power supply terminals. 7. Do not touch live terminals. 8. Switch OFF the supply immediately if abnormal heating, smell or sparks are observed. 9. Handle measuring instruments such as multimeters, ammeters & voltmeters carefully and select correct ranges before measurement. 10. After completing the experiment switch OFF the power supply and dismantle the circuit carefully.

5	Basic Electrical Machines lab	1. Ensure the power supply is switched OFF before making or modifying any circuit connections. 2. Verify all connections as per the circuit diagram before switching ON the supply. 3. Use only rated components (resistors, capacitors, inductors) as specified to avoid overheating or damage. 4. Do not exceed the maximum voltage and current ratings of the network kit and measuring instruments. 5. Check that connecting wires and probes are properly insulated and free from damage. 6. Avoid short circuits, especially across the power supply terminals. 7. Do not touch live terminals. 8. Switch OFF the supply immediately if abnormal heating, smell or sparks are observed. 9. Handle measuring instruments such as multimeters, ammeters & voltmeters carefully and select correct ranges before measurement. 10. After completing the experiment switch OFF the power supply and dismantle the circuit carefully.
6	Electric drive	1. Ensure the power supply is switched OFF before making or modifying any circuit connections. 2. Always use insulated tools/probes for connections 3. Verify all connections as per the circuit diagram before switching ON the supply. 4. Do not exceed the maximum voltage and current ratings of the network kit and measuring instruments. 5. Check that connecting wires and probes are properly insulated and free from damage. 6. Switch-on the power only in presence of mentor/faculty/ technical staff 7. Avoid short circuits, especially across the power supply terminals. 8. Do not touch live terminals. 9. Switch OFF the supply immediately if abnormal heating, smell or sparks are observed. 10. Handle measuring instruments such as multimeters, ammeters & voltmeters carefully and select correct ranges before measurement. 11. After completing the experiment switch OFF the power supply and dismantle the circuit carefully.
7	Signals and Systems	1. Power Off First: Ensure the power supply is switched OFF before making or modifying any circuit connections. 2. Diagram Verification: Verify all connections against the circuit diagram before switching ON the supply. 3. Component Selection: Use only rated components (resistors, capacitors, inductors) as specified to avoid overheating or damage. 4. Insulation Check: Inspect all connecting wires and probes to ensure they are properly insulated and free from physical damage. 5. Rating Limits: Do not exceed the maximum voltage and current ratings of the network kit or the measuring instruments. 6. Instrument Care: Handle multimeters, ammeters, and voltmeters carefully; always select the correct ranges before taking a measurement. 7. Terminal Safety: Never touch live terminals or exposed conductors while the circuit is energized. 8. Short Circuit Prevention: Take extreme care to avoid short circuits, especially across the power supply terminals. 9. Immediate Shutdown: Switch OFF the supply immediately if you observe abnormal heating, a burning smell, or sparks. 10. Observation: Keep a constant eye on the circuit during initial power-up for any signs of component stress. 11. Proper Shutdown: After completing the experiment, switch OFF the power supply immediately. 12. Careful Dismantling: Dismantle the circuit only after power is removed, handling components carefully as some may still be hot. 13. Workspace Reset: Return all probes and instruments to their default settings and storage positions.
8	Inter Connected Power System	1. Maintain correct posture while using the computer to avoid back and neck pain. 2. Do not eat or drink near the computer to prevent damage. 3. Use the keyboard, mouse, and other devices gently. 4. Do Not Install Unknown Software 5. Always log out or shut down the computer after finishing work. 6. Keep Hands Clean and Dry before using the computer. 7. Do Not Touch Electrical Cables unnecessarily. 8. Maintain Safe Distance from the Screen to protect eyes. 9. Switch Off the Computer Properly after use. 10. Keep the Computer Area Clean and Organized.
9	POWER ELECTRONICS LAB	1. Ensure the power supply is switched OFF before making or modifying any circuit connections. 2. Verify all connections as per the circuit diagram before switching ON the supply. 3. Use only rated components (resistors, capacitors, inductors) as specified to avoid overheating or damage. 4. Do not exceed the maximum voltage and current ratings of the network kit and measuring instruments. 5. Check that connecting wires and probes are properly insulated and free from damage. 6. Avoid short circuits, especially across the power supply terminals. 7. Do not touch live terminals. 8. Switch OFF the supply immediately if abnormal heating, smell or sparks are observed. 9. Handle measuring instruments such as multimeters, ammeters & voltmeters carefully and select correct ranges before measurement. 10. After completing the experiment switch OFF the power supply and dismantle the circuit carefully.

10	ADVANCED POWER ELECTRONICS LAB	1. Ensure the power supply is switched OFF before making or modifying any circuit connections. 2. Verify all connections as per the circuit diagram before switching ON the supply. 3. Use only rated components (resistors, capacitors, inductors) as specified to avoid overheating or damage. 4. Do not exceed the maximum voltage and current ratings of the network kit and measuring instruments. 5. Check that connecting wires and probes are properly insulated and free from damage. 6. Avoid short circuits, especially across the power supply terminals. 7. Do not touch live terminals. 8. Switch OFF the supply immediately if abnormal heating, smell or sparks are observed. 9. Handle measuring instruments such as multimeters, ammeters & voltmeters carefully and select correct ranges before measurement. 10. After completing the experiment switch OFF the power supply and dismantle the circuit carefully.
11	Analog and Digital Electronics	1. Specific safety rules like do’s and don’ts are displayed and instructed for all students 2. Ensure the power supply is switched OFF before making or modifying any circuit connections. 3. Verify all connections as per the circuit diagram before switching ON the supply. 4. Use only rated components (resistors, capacitors, inductors) as specified to avoid overheating or damage. 5. Do not exceed the maximum voltage and current ratings of the network kit and measuring instruments. 6. The use of cell phones is prohibited. 7. Avoid short circuits, especially across the power supply terminals. 8. Do not touch live terminals. 9. Switch OFF the supply immediately if abnormal heating, smell or sparks are observed.
12	Design Engineering-1A,1B, 2A, 2B	1. Ensure the power supply is switched OFF before making or modifying any circuit connections. 2. Verify all connections as per the circuit diagram before switching ON the supply. 3. Use only rated components (resistors, capacitors, inductors) as specified to avoid overheating or damage. 4. Do not exceed the maximum voltage and current ratings of the network kit and measuring instruments. 5. Check that connecting wires and probes are properly insulated and free from damage. 6. Avoid short circuits, especially across the power supply terminals. 7. Do not touch live terminals. 8. Switch OFF the supply immediately if abnormal heating, smell or sparks are observed. 9. Handle measuring instruments such as multimeters, ammeters & voltmeters carefully and select correct ranges before measurement. 10. After completing the experiment switch OFF the power supply and dismantle the circuit carefully.
13	Electrical Measurement and Measuring Instrumet	1. Ensure the power supply is switched OFF before making or modifying any circuit connections. 2. Never turn on the power supply until your circuit connections have been checked and approved by the lab instructor. 3. Always switch off the main power and unplug the kit before changing any wires or components in your circuit. 4. Use only rated components (resistors, capacitors, inductors) as specified to avoid overheating or damage. 5. Do not exceed the maximum voltage and current ratings of the Trainer kit and measuring instruments. 6. Check that connecting wires and probes are properly insulated and free from damage. 7. Ensure that bare wires or terminals do not touch each other. This is especially important to avoid short circuits 8. When probing a live circuit, try to use only one hand. Keep the other hand away from the equipment to prevent a current path through your chest. 9. Do not touch live terminals. 10. Never leave a powered experiment unattended.Switch OFF the supply immediately if abnormal heating, smell or sparks are observed. 11. Handle measuring instruments such as multimeters, ammeters & voltmeters carefully and select correct ranges before measurement. 12. Always ensure that knobs are set to zero before switching the device on. 13. Ensure your hands, the floor, and the workbench are completely dry. Keep water bottles away from the trainer kits 14. Always wear insulated, rubber-soled shoes in the laboratory. 15. After completing the experiment switch OFF the power supply and dismantle the circuit carefully. 16. In the laboratory, always remember that lab, "Precision is Safety.

14	Power system - I	1. Power Off First: Ensure the power supply is switched OFF before making or modifying any circuit connections. 2. Diagram Verification: Verify all connections against the circuit diagram before switching ON the supply. 3. Component Selection: Use only rated components (resistors, capacitors, inductors) as specified to avoid overheating or damage. 4. Insulation Check: Inspect all connecting wires and probes to ensure they are properly insulated and free from physical damage. 5. Rating Limits: Do not exceed the maximum voltage and current ratings of the network kit or the measuring instruments. 6. Instrument Care: Handle multimeters, ammeters, and voltmeters carefully; always select the correct ranges before taking a measurement. 7. Terminal Safety: Never touch live terminals or exposed conductors while the circuit is energized. 8. Short Circuit Prevention: Take extreme care to avoid short circuits, especially across the power supply terminals. 9. Immediate Shutdown: Switch OFF the supply immediately if you observe abnormal heating, a burning smell, or sparks. 10. Observation: Keep a constant eye on the circuit during initial power-up for any signs of component stress. 11. Proper Shutdown: After completing the experiment, switch OFF the power supply immediately. 12. Careful Dismantling: Dismantle the circuit only after power is removed, handling components carefully as some may still be hot. 13. Workspace Reset: Return all probes and instruments to their default settings and storage positions.
15	Power system - II	1. Maintain correct posture while using the computer to avoid back and neck pain. 2. Do not eat or drink near the computer to prevent damage. 3. Use the keyboard, mouse, and other devices gently. 4. Do Not Install Unknown Software 5. Always log out or shut down the computer after finishing work. 6. Keep Hands Clean and Dry before using the computer. 7. Do Not Touch Electrical Cables unnecessarily. 8. Maintain Safe Distance from the Screen to protect eyes. 9. Switch Off the Computer Properly after use. 10. Keep the Computer Area Clean and Organized.
16	Microprocessor Microcontroller Lab	1. Maintain correct posture while using the computer to avoid back and neck pain. 2. Do not eat or drink near the computer to prevent damage. 3. Use the keyboard, mouse, and other devices gently. 4. Do Not Install Unknown Software 5. Always log out or shut down the computer after finishing work. 6. Keep Hands Clean and Dry before using the computer. 7. Do Not Touch Electrical Cables unnecessarily. 8. Maintain Safe Distance from the Screen to protect eyes.- 9. Switch Off the Computer Properly after use. 10. Keep the Computer Area Clean and Organized.
17	Network Laboratory	1. Ensure the power supply is switched OFF before making or modifying any circuit connections. 2. Verify all connections as per the circuit diagram before switching ON the supply. 3. Use only rated components (resistors, capacitors, inductors) as specified to avoid overheating or damage. 4. Do not exceed the maximum voltage and current ratings of the network kit and measuring instruments. 5. Check that connecting wires and probes are properly insulated and free from damage. 6. Avoid short circuits, especially across the power supply terminals. 7. Do not touch live terminals. 8. Switch OFF the supply immediately if abnormal heating, smell or sparks are observed. 9. Handle measuring instruments such as multimeters, ammeters & voltmeters carefully and select correct ranges before measurement. 10. After completing the experiment switch OFF the power supply and dismantle the circuit carefully.

D3. Project Laboratory/Research Laboratory

PART E: First Year faculty and financial Resources

(Data to be filled in for the first year course faculty and budget allocation and utilization)

E1. First Year Student-Faculty Ratio (FYSFR)

Table No. E1.1: FYSFR details.

Year	Sanctioned intake of all UG programs (S4)	No. of required faculty (RF4= S4/20)	No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1)	No. of faculty members in Engineering Science Courses (NS2)	Percentage= No. of faculty members ((NS1*0.8) + (NS2*0.2))/(No. of required faculty (RF4)); Percentage= ((NS1*0.8) + (NS2*0.2))/RF
2023-24(CAYm2)	540	27	6	0	18
2024-25(CAYm1)	540	27	6	0	18
2025-26(CAY)	540	27	6	0	18

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

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

Items	Budgeted in 2025-26	Actual Expenses in 2025-26 till	Budgeted in 2024-25	Actual Expenses in 2024-25 till	Budgeted in 2023-24	Actual Expenses in 2023-24 till	Budgeted in 2022-23	Actual Expenses in 2022-23 till
Infrastructure Built-Up	124.91	81.91	95	11.79	60	56.49	100	97.95
Library	0.27	0.25	0	0	3.35	3.27	1.83	1.82
Laboratory equipment	70.71	46.37	199.39	196.80	21.34	20.92	33.86	33.86
Teaching and non-teaching staff salary	2260	2216.74	1814	1812.66	1724	1723.85	1616	1615.75
Outreach Programs	1.08	0.92	7.45	1.72	7.43	3.60	5.30	2.74
R&D	0	0	0	0	0	0	0	0
Training, Placement and Industry linkage	2.15	0	3.30	0.76	6.11	3.05	2.12	0.53
SDGs	13.10	13.10	1.79	1.79	3.23	3.23	4.7	4.7
Entrepreneurship	2.70	1.23	1.85	1.85	1.12	1.12	1.3	1.3
Others(Gymkhana, Student welfare,	340.7	307.49	670.84	246.96	360.83	320.21	287.47	253.52
Total	**2815.62**	**2668.01**	**2793.62**	**2274.33**	**2187.41**	**2135.74**	**2052.58**	**2012.17**

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

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

Items	Budgeted in 2025-26	Actual Expenses in 2025-26 till	Budgeted in 2024-25	Actual Expenses in 2024-25 till	Budgeted in 2023-24	Actual Expenses in 2023-24 till	Budgeted in 2022-23	Actual Expenses in 2022-23 till
Laboratory equipment	27	24.33	26.09	26.09	0.73	0.73	6.17	6.17
Software	2.10	2.10	0	0	0	0	0	0
SDGs	0.12	0.12	1.77	1.77	0.68	0.68	1.8	1.8
Support for faculty development	0.01	0	0.12	0.11	0.10	0.09	0.08	0.01
R & D	0	0	0	0	0	0	0	0
Industrial Training, Industry expert,	0.11	0.11	0.06	0.06	0.10	0.10	0.01	0.01
Miscellaneous Expenses*	0	0	0	0	0	0	0	0
Total	**29.34**	**26.66**	**28.04**	**28.03**	**1.61**	**1.60**	**8.06**	**7.99**