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**: 1
Application No: 11507	**Date of Submission**: 06-02-2026

PART A- Profile of the Institute

A1.Name of the Institute: R C Patel Institute of Technology	
Year of Establishment : 2001	Location of the Institute: Shirpur
A2. Institute Address:Near Nimzari Naka, Shahada Road, Shirpur - 425405, Dist: Dhule (MS)	
City:Dhule	State:Maharashtra
Pin Code:425405	Website:www.rcpit.ac.in
Email:principal@rcpit.ac.in	Phone No(with STD Code):2563-259600
A3. Name and Address of the Affiliating University (if any):	
Name of the University : Dr. Babasaheb Ambedkar Technological University, L	City: Raigad
State : Maharashtra	Pin Code: 402103
A4. Type of the Institution: Autonomous CAY(2020-21)	
A5. Ownership Status: Self financing	

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

- No. of UG programs: **9**
- No. of PG programs: **1**

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

Sr.No.	Discipline	Level of program	Name of the program	Year of Start	Year of Closed	Name of The Department
1	Computer Application	PG	Master of Computer Application	2023	2024	Computer Application
2	Engineering & Technology	UG	Artificial Intelligence and Data Science	2024	--	Artificial Intelligence and Data Science
3	Engineering & Technology	UG	Artificial Intelligence and Machine Learning	2021	--	Artificial Intelligence and Machine Learning
4	Engineering & Technology	UG	Civil Engineering	2010	--	Civil Engineering
5	Engineering & Technology	UG	Computer Engineering	2001	--	Computer Engineering
6	Engineering & Technology	UG	Computer Science and Engineering (Data Science)	2020	--	Computer Science and Engineering (Data Science)
7	Engineering & Technology	UG	Electrical Engineering	2012	--	Electrical Engineering
8	Engineering & Technology	UG	Electronics Telecommunication Engineering	2001	--	Electronics and Telecommunication Engineering
9	Engineering & Technology	UG	Information Technology	2024	--	Information Technology
10	Engineering & Technology	UG	Mechanical Engineering	2004	--	Mechanical 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
Computer Science and Engineering (Data Science)	Yes	Computer Science and Engineering (Data Science)	UG
Electrical Engineering	No	Electrical Engineering	UG
Civil Engineering	No	Civil 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 ARROVAL DETAILS	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED
1	Electrical Engineering	UG	2012 / --	60	No	NA	60	2012	F.NO.740-89-043 (NDEG)/ET/2001, (28/06/2001), F. No. Western/1-710392052/2012/EOA (10-05-2012)	Applying first time	--	--	0

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 :	Dr. Shailaja Arjun Patil
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	60

N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	59	52	52	60	57	39	36
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	18	19	7	12	27	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	3	3	3	3	3	3	3
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	62	73	74	70	72	69	69

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	59	3	103.33
2024-25 (CAYm1)	60	52	3	91.67
2023-24 (CAYm2)	60	52	3	91.67

Average [(ER1 + ER2 + ER3) / 3] = 95.56≡ 20.00

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
A*= (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any).	72.00	87.00	90.00
B=No. of students who graduated from the program in the stipulated course duration	32.00	37.00	58.00
Success Rate (SR)= (B/A) * 100	44.44	42.53	64.44

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 50.47

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)	6.88	7.25	6.44
Y=Total no. of successful students	41.00	40.00	57.00
Z=Total no. of students appeared in the examination	52.00	52.00	60.00
API [X*(Y/Z)]	5.42	5.58	6.12

Average API[(AP1+AP2+AP3)/3] : 5.71

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)	7.00	6.74	5.86
Y=Total no. of successful students	56.00	52.00	51.00
Z=Total no. of students appeared in the examination	59.00	64.00	55.00
API [X * (Y/Z)]	6.64	5.48	5.43

Average API [(AP1 + AP2 + AP3)/3] : 5.85

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)	7.07	6.42	6.76
Y=Total no. of successful students	52.00	51.00	37.00
Z=Total no. of students appeared in the examination	52.00	51.00	62.00
API [X*(Y/Z)]:	7.07	6.42	4.03

Average API [(AP1 + AP2 + AP3)/3] : 5.84

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	72.00	87.00	90.00
X=No. of students placed	34.00	20.00	17.00
Y=No. of students admitted to higher studies	0.00	0.00	1.00
Z= No. of students taking up entrepreneurship	0.00	0.00	3.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	47.22	22.99	23.33

Average Placement Index = (P_1 + P_2 + P_3)/3: 31.18 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. Shailaja Arjun Patil	XXXXXXX99M	Ph.D	Kavayitri Bahinabai Chaudhari North Maharashtra University Jalgaon	Image Processing	16/08/2004	21.5	Lecturer	Professor	01/07/2019	Regular	Yes		Yes
2	Dr. Bhushan Prataprao Patil	XXXXXXX15E	Ph.D	Kavayitri Bahinabai Chaudhari North Maharashtra University Jalgaon	Signal Processing and Machine Learning Techniques	13/12/2005	20.1	Lecturer	Associate Professor	01/07/2025	Regular	Yes		No
3	Mr. Amit Rajendra Mahire	XXXXXXX17R	M.Tech	Rajiv Gandhi Proudyogiki Vishwavidyalaya , Bhopal (MP)	Digital Communication	12/07/2010	15.6	Assistant Professor	Assistant Professor		Regular	Yes		No
4	Dr. Nadeem Akhtar Riyaz Ahmad	XXXXXXX12A	Ph.D	Shri Vile Parle Kelavani Mandal's Narsee Monjee Institute of Management Studies University , Mumbai	Deep Learning, Remote Sensing	01/08/2011	14.6	Assistant Professor	Associate Professor	15/07/2024	Regular	Yes		No
5	Dr. Yogesh Kalidas Kirange	XXXXXXX58L	Ph.D	Oriental University Indore (MP)	Electrical Power System	08/08/2013	12.6	Assistant Professor	Associate Professor	01/07/2025	Regular	Yes		No
6	Mr. Rupesh Shantaram Patil	XXXXXXX90H	M.Tech	Rajiv Gandhi Proudyogiki Vishwavidyalaya , Bhopal (MP)	Power Systems	15/07/2014	11.6	Assistant Professor	Assistant Professor		Regular	Yes		No
7	Mr. Sachin Yashawant Sayais	XXXXXXX18A	M.Tech	Rajasthan Technical University , Kota (Rajsthan)	Power Systems	07/07/2016	9.6	Assistant Professor	Assistant Professor		Regular	Yes		No
8	Mr. Krunalkumar Jitendrakumar Gandhi	XXXXXXX45J	M.Tech	Rajasthan Technical University , Kota (Rajsthan)	Power Systems	25/08/2022	3.4	Assistant Professor	Assistant Professor		Regular	Yes		No
9	Mr. Nilesh Suresh Mahajan	XXXXXXX27M	M.E.	Dr. Babasaheb Ambedkar Marathwada University, Aurangabad	Electrical Power Systems	25/08/2022	3.4	Assistant Professor	Assistant Professor		Regular	Yes		No

10	Mr. Karan Ashok Jalwani	XXXXXXX09K	M.Tech	Sri Ramaswamy Memorial Institute of Science and Technology, Chennai	Robotics	29/08/2025	0.4	Assistant Professor	Assistant Professor		Regular	Yes		No
11	Mr. Krunal Prakash Rane	XXXXXXX10E	M.E.	Kavayitri Bahinabai Chaudhari North Maharashtra University Jalgaon	Electronics and Communication	04/01/2023	3	Assistant Professor	Assistant Professor		Regular	Yes		No
12	Mrs. Jayashri Sachin Patil	XXXXXXX50Q	M.E.	Kavayitri Bahinabai Chaudhari North Maharashtra University Jalgaon	Electronics and Tele-Communication	27/01/2020	5.3	Assistant Professor	Assistant Professor		Regular	No	14/05/2025	No
13	Mr. Pankaj Anna Bhoite	XXXXXXX23E	M.Tech	Rajiv Gandhi Proudyogiki Vishwavidyalaya , Bhopal (MP)	Electronics and Communication Engineering	07/07/2022	2.10	Assistant Professor	Assistant Professor		Regular	No	08/05/2025	No
14	Mr. Dhanesh Subhash Patil	XXXXXXX59R	M.E.	Kavayitri Bahinabai Chaudhari North Maharashtra University Jalgaon	Electrical Power System	25/08/2022	1.8	Assistant Professor	Assistant Professor		Regular	No	03/05/2024	No
15	Mr. Sattyendrasing Akashsing Seragi	XXXXXXX39M	M.E.	Kavayitri Bahinabai Chaudhari North Maharashtra University Jalgaon	Digital Electronics	22/09/2010	13.7	Assistant Professor	Assistant Professor		Regular	No	06/05/2024	No

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	12	14
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=** 12	**F3=** 14
FF=The faculty members in F who have a 100% teaching load in the first-year courses	2	2	2
Student Faculty Ratio (SFR)=S/(F-FF)	**SFR1= 22.00**	**SFR2= 19.80**	**SFR3= 16.50**
Average SFR for 3 years	**SFR= 19.43**		

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)	4	7	9.00	18.89
2024-25(CAYm1)	2	10	9.00	16.67
2023-24(CAYm2)	1	13	9.00	17.22

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	3.00	6.00	7.00
2024-25	1.00	1.00	2.00	1.00	6.00	10.00
2023-24	1.00	1.00	2.00	0.00	6.00	13.00
Average	RF1=1.00	AF1=1.00	RF2=2.00	AF2=1.33	RF2=6.00	AF2=10.00

C5. Visiting/Adjunct Faculty/Professor of Practice

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

(CAYm1)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. Shubham Sugandhi (Professor of Practice)	Founder	Marketing Mantra	Electric Vehicle and Marketing Management	51.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. Siddhesh Bhavsar (Adjunct Faculty)	Software Engineer	HCL Tech, Pune	Introduction of Java & Spring Framework	52.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. Shivkumar Chaudhari (Adjunct Faculty)	Team Lead	KPIT, Pune	Linux Operating System	50.00

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	3	4	0
2	No. of peer reviewed conference papers published	4	5	8
3	No. of books/book chapters published	0	0	1

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
Mr. Rupesh Shantaram Patil	Mr. Nilesh Suresh Mahajan	Electrical Engineering Department	Portable Electric Scooter	M W Solutions Pvt Ltd	One Year	0.54
Mr. Sachin Yashwant Sayais	Mr. Krunalkumar Gandhi	Electrical Engineering Department	A Solar Powered Mobile Wireless Charging Station.	M W Solutions Pvt Ltd	One Year	0.46
						Amount received (Rs.):1.00

(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
Mr. Yogesh Kalidas Kirange		Electrical Engineering Department	Power Quality Improvement using VFD in Textile Industry	Priyadarshani Sahakari Sootgirani Ltd.	Six Month	0.62
						Amount received (Rs.):0.62

(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
Mr. Nadeem Akthar	Mr. Bhushan Prataprao Patil	Electrical Engineering Department	Wind Vibrating Generator	Astitva Social Welfare Foundation	Six Month	0.50
						Amount received (Rs.):0.50

Total Amount (Lacs) Received for the Past 3 Years: 2.12

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)

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
Mr Sachin Yashawant Sayais	Suitcase Electric Vehicle for Physical Disabled	One Year	0.36	0.32	A portable suitcase-type electric vehicle prototype improved mobility for physically disabled individuals and enhanced students' skills in EV design
Mr. Yogesh Kalidas Kirange	New Generation Hydro Power Plant	One Year	0.36	0.35	A model of an advanced hydro power system was designed to study efficient renewable energy generation and modern turbine concepts
			Amount received (Rs.): 0.72		

(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
Mr. Nadeem Akhtar	Water Pumping system using Solar and Wind Power	One Year	0.36	0.36	A hybrid solar–wind powered water pumping system was developed, demonstrating a sustainable solution for rural and agricultural applications.
Mr. Dhanesh Subhash Patil	Accident Collison System with Smart Helmet	One Year	0.36	0.34	A smart helmet with accident detection and automatic alerts was developed to improve road safety and emergency response
			Amount received (Rs.): 0.72		

(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
Mr. Amit Rajendra Mahire	Fire Fighter Robotic Vehicle with Night Vision Camera	One Year	0.36	0.34	A robotic vehicle with fire detection and night vision was developed to assist firefighters in hazardous environments and rescue operations
Mr. Rupesh Shantaram Patil	Prototype Electric Vehicle Charging Station	One Year	0.36	0.36	A prototype EV charging station was designed to study charging infrastructure, energy management, and renewable energy integration.
			Amount received (Rs.): 0.72		

Total amount (Lacs) received for the past 3 years : 2.16

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	EEL1 Electrical Machine and Drives Lab	20	DC Shunt motor DC shunt generator DC compound generator DC Series motor Single	18 Hrs	Mr. Nilesh Murlidhar Ma	Lab Assistant	Diploma Electrical
2	EEL2 High Voltage Engineering Lab	20	Corona Cage Without Transformer 30 KV. 30MA HV Tester with Jig 0-60 KV Oil Tester Kit (Manual)	6 Hrs	Mr. Nilesh Murlidhar Ma	Lab Assistant	Diploma Electrical
3	EEL3 Power Electronics, Microprocessor & Microcontroller Lab	20	Trainer Kit: 8085, 8051 ADC Interface Module, Stepper Motor Interface Module, Experimental Kit -	12 Hrs	Miss. Archana Dilip Bha	Lab Assistant	Diploma Electrical
4	EEL4 Control System Lab	20	Potentiometric Error Detector AC Servometer PID Controller DC Position Control System Synchro	6 Hrs	Mr. Rahul Gopal Jadhav	Lab Assistant	Diploma Electrical
5	EEL5 Electrical Computer Lab	20	HP Pro One 400 All in One-PC, Emerson Make 10 KVA Online UPS	30 Hrs	Mr. Rahul Gopal Jadhav	Lab Assistant	Diploma Electrical
6	EEL6 Electrical Measurement, Network Analysis Lab	20	Single and three phase energy meter (Analog, Digital) Analog Multimeters Digital Multimeters	36 Hrs	Mr. Rahul Gopal Jadhav	Lab Assistant	Diploma Electrical
7	EEL7 Power System & Switchgear Protection Lab	20	600A ACB test kit with 1000A source & switch gear testing kit. Fuse & MCB Test Kit Over Current &	18 Hrs	Mr. Nilesh Murlidhar Ma	Lab Assistant	Diploma Electrical

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	EEL1 Electrical Machine & Drives Lab	A. Basic safety measures: Do's and Don'ts, SOP. B. Lab-specific safety measures: First-aid box, CCTV Surveillance, Fire safety and Electrical Safety.
2	EEL2 High Voltage Engineering Lab	A. Basic safety measures: Do;s and Don'ts, SOP. B. Lab-specific safety measures: First-aid box, CCTV Surveillance, Fire safety and Electrical Safety.
3	EEL3 Power Electronics Lab, Microprocessor & Microcontroller Lab, Analog & Digital Electronics Lab	A. Basic safety measures: Do's and Don'ts, SOP. B. Lab-specific safety measures: First-aid box, CCTV Surveillance, Fire safety and Electrical Safety.
4	EEL4 Control System Lab	A. Basic safety measures: Do's and Don'ts, SOP. B. Lab-specific safety measures: First-aid box, CCTV Surveillance, Fire safety and Electrical Safety
5	EEL5 Electrical Computer Lab	A. Basic safety measures: Do's and Don'ts, SOP. B. Lab-specific safety measures: First-aid box, CCTV Surveillance, Fire safety and Electrical Safety.

6	EEL6 Electrical Measurement & Network Analysis Lab	A. Basic safety measures: Do's and Don’ts, SOP. B. Lab-specific safety measures: First-aid box, CCTV Surveillance, Fire safety and Electrical Safety.
7	EEL7 Power System & Switchgear Protection Lab	A. Basic safety measures: Do's and Don’ts, SOP. B. Lab-specific safety measures: First-aid box, CCTV Surveillance, Fire safety and Electrical Safety.
8	EEL8 Project Lab	A. Basic safety measures: Do's and Don’ts, SOP. B. Lab-specific safety measures: First-aid box, CCTV Surveillance, Fire safety and Electrical Safety.
9	Centre of Excellence (Computer Center and Language Lab)	A. Basic safety measures: Do's and Don’ts, SOP. B. Lab-specific safety measures: First-aid box, CCTV Surveillance, Fire safety and Electrical Safety.

D3. Project Laboratory/Research Laboratory

The Department has a dedicated Project Laboratory equipped with desktop systems of latest configurations to support project related simulation, modeling, and project implementation activities in Electrical Engineering. The laboratory facilitates hands-on learning in areas such as power system analysis, control systems, power electronics, electrical machines, embedded systems, and renewable energy applications. Students utilize the facility for software-based simulation tools, controller design, hardware interfacing, and data analysis related to electrical engineering problems. A high-speed internet connection is available to support software updates, technical resources, and online simulation platforms. The laboratory is supported by a 10 kVA UPS system to ensure uninterrupted power supply, enabling continuous execution of simulations, programming tasks, and project development work without disruption. All types of project development, simulation, analysis, and other relevant activities are effectively carried out in this laboratory. The details of these facilities are presented in Table 7.5.1.

Table No. 7.5.1: List of project laboratory and Centre of Excellence

S.N.	Name of the Laboratory
1.	**Project Lab**: The Department has well-established Project Laboratory that are readily accessible to students for carrying out academic activities such as Semester Projects, and Major Projects. These laboratories are equipped with electrical test benches, measuring instruments, power electronic kits, control hardware, electrical machines, and necessary simulation tools to support project development in core areas of Electrical Engineering. The facilities enable students to design, analyze, implement, and test systems related to power systems, control engineering, electrical machines, renewable energy. Reliable internet connectivity and essential infrastructure are available to facilitate smooth execution of project work and technical activities. The lab provides integrated hardware and relevant software facilities aligned with Outcome-Based Education (OBE). **Utilization of Project Lab**: The Project Laboratory, EV Laboratory are effectively utilized by students and faculty to support outcome-based education and experiential learning. These facilities are actively used for semester projects, major projects, internships, and innovative activities in core areas of Electrical Engineering, with special emphasis on Electric Vehicle (EV) technology. The EV Laboratory enables hands-on exposure to BLDC motors, motor controllers, battery management systems (BMS), power converters, charging systems, and performance analysis of EV subsystems. The laboratories facilitate systematic activities such as problem identification, system design, hardware implementation, experimental testing, performance evaluation, modeling, simulation, and result validation. Faculty and students utilize these resources to enhance technical competency, interdisciplinary learning, industry readiness, and research-oriented skills in emerging areas such as EV technology, renewable energy integration. Details of completed projects are documented in Section 2.2(D) of the Self-Assessment Report (SAR) Relevance to POS/PSOs: PO4, PO5, PSO1, PSO2

2.	**Centre of Excellence**: The Institute has established a Centre of Excellence as a dedicated facility to strengthen advanced technical learning, innovation, and industry–academia collaboration in core and emerging areas of Electrical Engineering. The Centre serves as a common platform for students and faculty to undertake project development, prototype design, product development, skill enhancement programs. It supports hands-on training, interdisciplinary activities. The facility encourages outcome-based learning, entrepreneurship development, and innovation in areas such as Electric Vehicles (EV), renewable energy systems, smart grids, power electronics, automation, thereby enhancing employability and research attitude among students. The Centre is equipped with modern infrastructure, specialized software and hardware facilities, and tools relevant to emerging technologies and interdisciplinary domains. The Centre of Excellence is equipped with the infrastructure including Open source Software (Keil µVision 2,Flash magic, Proteus VSM, Scilab) and Licensed software (MATLAB),Also through Procurement of Electric Vehicle components (BLDC motor, Controller, Battery Pack, Display & other Spare pack) the students will able to develop skilled manpower in EV design, manufacturing, maintenance, Encourage research and innovation in EV technologies, Support industry–academia collaboration, Enable startups and incubation in EV and clean energy sector. The Centre of Excellence for Foreign Languages to improve students' communication and professional skills. The Language Lab is equipped with audio-visual systems and language learning software to enhance listening, speaking, reading, and writing skills. In addition to English communication training, the lab also provides training in German and Japanese languages to improve global employability and international opportunities for students. The Centre of Excellence integrates the Code Chef Learning Platform to systematically enhance students' programming, problem-solving, and analytical capabilities. It provides a structured and progressive learning environment focused on building strong foundations in coding, logical reasoning, and algorithm design. The curriculum is aligned with industry standards to strengthen computational thinking and core technical competencies required in today's technology-driven landscape. Beyond problem-solving, the platform emphasizes hands-on project development using modern technologies such as MERN (MongoDB, Express.js, React, Node.js), SQL, Spring Boot, Data Analysis, and Machine Learning. Students gain practical exposure by building real-world applications, working with databases, and developing intelligent systems, thereby bridging the gap between theoretical learning and industry application. **Utilization** The Centre of Excellence is actively utilized for student projects, workshops, certification programs, internships, and technical training activities. It provides opportunities for students to work on real-time problems, develop prototypes, and enhance practical skills. Industry experts and alumni are invited for expert talks, mentoring sessions, and technical guidance. The Centre also supports innovation activities, product development initiatives, and entrepreneurship-related efforts. Through these activities, students gain hands-on exposure to modern technologies and professional practices. The Centre of Excellence is utilized for Practical training on EV powertrain assembly and integration, Testing and performance evaluation of BLDC motor drives, Battery Management System (BMS) design and analysis, Controller programming and tuning, EV diagnostics and troubleshooting, EV wiring harness design and safety practices. The Language Lab is utilized for communication skill development, presentation practice, group discussions, interview preparation, and foreign language learning (German and Japanese). It helps students build confidence and prepare for placements and global career opportunities. The Code Chef platform is utilized to enhance students' coding proficiency and analytical thinking through structured practice in a time-bound environment, improving both accuracy and execution speed. It supports systematic preparation for technical interviews and placement processes by reinforcing core programming concepts and data structures. Additionally, students engage in technology-driven project work across domains such as full-stack development (MERN stack), database management (SQL), and Machine Learning, enabling them to build portfolios that demonstrate practical skills alongside problem-solving expertise. Relevance to POS/PSOs: PO1, PO2, PO3, PO4, PO5, PO10, PO11,PO12,PSO1, PSO2,PSO3

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)	600	30	19	15	61
2024-25(CAYm1)	900	45	24	16	50
2025-26(CAY)	900	45	24	17	50

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	56185000	40031473.43	15500000	14184657.16	19500000	17957708.42	26600000	25803609
Library	3010000	2144543.22	390000	365810	475000	428611	600000	562977
Laboratory equipment	19313000	13760818.99	18000000	16334781.67	4000000	3740419.44	2030000	1942207.57
Teaching and non-teaching staff salary	200133000	148598973.9	260500000	258021615	244000000	239915225	20830000	20627479
Outreach Programs	1505000	1072271.61	100000	93515	250000	236479	44000	41828
R&D	2634000	1876475.32	260000	220720	200000	190765	44000	41417.47
Training, Placement and Industry linkage	9030000	6433629.66	7500000	7142410	7200000	6839043.2	3230000	3035586
SDGs	65336000	45571543.42	62000000	58921028.7	70000000	63735562.11	76400000	70692693.32
Entrepreneurship	1693000	1206305.57	150000	139055	175000	168410	142000	133549
Others, specify	16584000	4691188	15000000	720000	7000000	2705775.52	4000000	4092368
Total	**375423000**	**265387223.12**	**379400000**	**356143592.53**	**352800000**	**335917998.69**	**133920000**	**126973714.36**

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	1519833.01	1082905.141	1647392.69	1494988.89	369204.59	345245.01	208012.35	199016.33
Software	196737.044	183737.604	32032.64	31654.10	461505.74	429194.28	512345.68	419341.41
SDGs	5141604.607	3586244.3	5674352.61	5392559.56	6461080.39	5882865.58	7828641.98	7243819.19
Support for faculty development	39347.408	37773.512	73217.45	65895.71	73840.92	66456.83	51234.57	49185.19
R & D	207282.149	147668.883	23795.67	20200.70	18460.23	17607.83	4508.64	4244.01
Industrial Training, Industry expert, Internship	710614.203	506293.313	686413.62	653686.34	664568.27	631251.54	330975.31	311053.87
others	0	0	0	0	0	0	0	0
Total	**7815418.421**	**5544622.753**	**8137204.68**	**7658985.30**	**8048660.14**	**7372621.07**	**8935718.53**	**8226660.00**