

NATIONAL BOARD OF ACCREDITATION

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

PART-A: Profile of the Institute

Name of the Program Applied for : Electrical and Electronics Engineering (EEE)

A1: Name of the Institute :- Federal Institute of Science and Technology (FISAT)

Year of Establishment : 2002

Location of the Institute : Mookkannoor P.O., Angamaly.

A2: Institute Address :

City : Ernakulam

State : Kerala

Pincode : 683577

Website : www.fisat.ac.in

Email : mail@fisat.ac.in

Phone number : 0484 2725272
(with STD code)

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

Name of the University : APJ Abdul Kalam Technological University (APJKTU)

City : Thiruvananthapuram

State : Kerala Pin Code: 695016

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

Institute of National Importance ☐

Deemed University ☐

University ☐

Autonomous ☐

Non-Autonomous (Affiliated) ☒

Any other (Please specify) * ☐

***Provide Details:** _____

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

Central Government ☐

State Government ☐

Government Aided ☐

Self-financing ☒

Any Other (Please specify) * ***Provide Details:** _____

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

❖ No. of UG programs: 7

❖ No. of PG programs: 12

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

S.N.	Level of program (UG/PG)	Name of the program	Year of Start	Year of close*	Name of the Department
1	UG	Civil Engineering	2011	–	Civil Engineering
2	UG	Computer Science and Engineering	2002	–	Computer Science and Engineering
3	UG	Computer Science and Design	2021	–	Computer Science and Engineering
4	UG	Electronics & Communication Engineering	2002	–	Electronics & Communication Engineering
5	UG	Electrical & Instrumentation Engineering	2002	–	Electronics & Instrumentation Engineering
6	UG	Electrical & Electronics Engineering	2002	–	Electrical & Electronics engineering
7	UG	Mechanical Engineering	2009	–	Mechanical Engineering
8	PG	Structural Engineering & Construction Management	2014	–	Civil Engineering
9	PG	Artificial Intelligence and Data Science	2021	–	Computer Science and Engineering
10	PG	Computer Science and Information System	2010	2022	Computer Science and Engineering
11	PG	Communication Engineering	2010	2021	Electronics & Communication Engineering
12	PG	Automotive Engineering	2021	2022	Electronics & Communication Engineering
13	PG	VLSI & Embedded Systems	2014	–	Electronics & Communication Engineering
14	PG	Power Electronics & Power System	2011	–	Electrical & Electronics engineering
15	PG	Computer & Integrated Manufacturing	2013	2022	Mechanical Engineering

16	PG	Renewable Energy	2021	–	Mechanical Engineering
17	PG	Master of Computer Application	2006	–	Computer Application
18	PG	Master of Computer Applications (Integrated)	2025	–	Computer Application
19	PG	Master of Business Administration	2006	–	Management

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

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

Cluster ID.	Name of the Department	Name of the Program
1	Computer Science and Engineering	B.Tech (Computer Science and Engineering)
2	Electronics and Communication Engineering	B.Tech (Electronics and Communication Engineering)
3	Electrical and Electronics Engineering	B.Tech (Electrical and Electronics Engineering)
4	Electronics and Instrumentation Engineering	B.Tech (Electronics and Instrumentation Engineering)
5	Mechanical Engineering	B.Tech (Mechanical Engineering)

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

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

NATIONAL BOARD OF ACCREDITATION

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

PART-B: Program information

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

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

Table No. B1: Program details.

S. N.	Program Name	Year of start	Sanctioned Intake	Increase/decrease in intake, if any	Year of increase/decrease	AICTE Approval Details	Accreditation Status*	No. of times program accredited
1	B.Tech in Electrical and Electronics Engineering	2002	60	-	NA	F.No. South-West/1-4464 0188039/2025/EOA	Granted accreditation for 3 years, 2020-2023 & 2023 -2026	2

* Write applicable one:

- Applying first time
- Granted accreditation for 2/3 years for the period (specify period)
- Granted accreditation for 5/6 years for the period (specify period)
- Not accredited (specify visit dates, year).
- Withdrawn (specify visit dates, year)
- Not eligible for accreditation.

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

A. Name of the HoD : Dr. Surya Susan Alex

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

❖ Regular ☒

❖ Contract

❖ Ad hoc

C. Qualification: (Tick the applicable choice)

❖ Ph.D. ☒

❖ ME/M.Tech

❖ Any other*

**Please provide details: _____*

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

Item (Information is to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	CAY	CAYm1	CAYm2	CAYm3	CAYm 4 (LYG)	CAYm 5 (LYGm1)	CAYm 6 (LYGm2)
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 1 st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	60	54	60	58	57	32	54
N2= Number of students admitted in 2 nd year in the same batch via lateral entry including leftover seats	-	3	3	5	2	0	0
N3= Separate division if any	0	0	0	0	0	0	0
N4= Total no. of students admitted in the 1 st year via all supernumerary quotas	13	11	2	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.	73	68	65	66	62	35	57

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.

Item (Students enrolled in the First Year on average over 3 academic years (CAY, CAYm1, and CAYm2))	CAY	CAYm1	CAYm2
N= Sanctioned intake of the program in the 1 st year (as per AICTE/Competent authority)	60	60	60
N1= Total no. of students admitted in the 1 st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	60	60	60
N4= Total no. of students admitted in the 1 st year via all supernumerary quotas	13	5	2
Enrolment Ratio (ER)= (N1+N4)/N	121.67	108.83	103.33
Average ER= (ER_1+ ER_2+ ER_3)/3	111.28		

B5: Success Rate of the Students in the Stipulated Period of the Program**Table No.B5.1:** The success rate in the stipulated period of a program.

Item	LYG	LYGm1	LYGm2
A*= (No. of students admitted in the 1 st year of that batch and those actually admitted in the 2 nd 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).	62	60	60
B=No. of students who graduated from the program in the stipulated course duration	40	19	17
Success Rate (SR)= (B/A)*100	64.516	31.667	28.33
Average SR of three batches ((SR_1+SR_2+ SR_3)/3)	41.504		

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

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

Academic Performance	CAYm1	CAYm2	CAYm3
X= (Mean of 1 st 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 1 st year/10)	7.699	7.205	7.511
Y= Total no. of successful students	35	40	39
Z = Total no. of students appeared in the examination	65	62	61
API = X* (Y/Z)	4.146	4.648	4.802
Average API = (API_1 + API_2 + API_3)/3	4.532		

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	CAYm2	CAYm3
X= (Mean of 2 nd 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 2 rd year/10)	7.367	7.660	7.647
Y= Total no. of successful students	28	26	41
Z =Total no. of students appeared in the examination	40	39	47
API = X* (Y/Z)	5.157	5.107	6.671
Average API = (API ₁ + API ₂ + API ₃)/3	5.645		

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	CAYm2	CAYm3
X= (Mean of 3 rd 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 3 rd year/10)	7.773	7.583	7.649
Y= Total no. of successful students	21	40	18
Z= Total no. of students appeared in the examination	26	41	20
API = X* (Y/Z)	6.278	7.398	6.884
Average API = (API ₁ + API ₂ + API ₃)/3	6.853		

B9: Placement, Higher Studies, and Entrepreneurship**Table No.B9.1:** Placement, higher studies, and entrepreneurship details.

Item	LYG	LYGm1	LYGm ₂
FS*=Total no. of final year students	62	60	60
X= No. of students placed	38	17	23
Y= No. of students admitted to higher studies	3	1	3
Z= No. of students taking up entrepreneurship	0	1	1
X + Y + Z =	41	19	27
Placement Index (P) = (((X + Y + Z)/FS) * 100)	66.129	31.67	45
Average placement index = (P ₁ + P ₂ + P ₃)/3	47.599		

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

PART C: Faculty Details in Department and Allied Departments
(Data to be filled in for the **Department and Allied Departments**)

C1: Faculty details of Department and Allied Departments

Table No.C1: Faculty details in the Department for the past 3 years including CAY

S . N	Name of the Faculty	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in years in current institute	Designation at the Time Joining this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor, if any	Nature of Association (Regular/Contract/Ad hoc)	If contractual mention (Full time/Part time or hourly based)	Currently Associated (Y/N)	Date of Leaving if any (In case Currently Associated is "No")
1	Dr.Surya Susan Alex	Ph.D	CUSAT	Power System	08-07-2010	15.3	Assistant Professor	Associate Professor	02-10-2023	Regular		y	
2	Dr. Archana R.	Ph.D	CUSAT	Non Linear Dynamics	12-12-2002	23.1	Lecturer	Professor	01-11-2019	Regular		y	
3	Dr.Parvathy R	Ph.D	CUSAT	Control Systems	23-06-2004	21.3	Lecturer	Professor	01-11-2019	Regular		y	
4	Dr.Rabiya Rasheed	Ph.D	CUSAT	Industrial Drive and Control	06-07-2010	15.3	Lecturer	Associate Professor	02-06-2025	Regular		y	
5	Dr.Surya Natarajan	Ph.D	CUSAT	Industrial Drives and Control	01-07-2005	20.3	Lecturer	Assistant Professor		Regular		y	
6	Ms.Deepa K.	M.Tech	IGNOU	Embedded	28-08-2006	19.1		Assistant		Regular		y	

				System Design			Lecturer	Professor					
7	Ms.Sreeja E.A.	M.Tech	CUSAT	Power Electronics	01-09-2006	19.1	Lecturer	Assistant Professor		Regular		y	
8	Ms.Soumya Simon	M.Tech	MG	Industrial Drives and Control	30-06-2008	17.3	Lecturer	Assistant Professor		Regular		y	
9	Ms.Rakhee R.	M.Tech	CUSAT	Power Electronics	30-06-2008	17.3	Lecturer	Assistant Professor		Regular		y	
10	Ms.Jyothi G.K.	M.Tech	MG	Industrial Drives and Control	01-07-2010	15.3	Lecturer	Assistant Professor		Regular		y	
11	Ms.Surumi Hassainar	M.Tech	Calicut University	Power Systems	04-02-2011	14.8	Assistant Professor	Assistant Professor		Regular		y	
12	Dr.Rinku Scaria	Ph.D	Annamalai University	Power Systems	18-06-2012	13.4	Assistant Professor	Assistant Professor		Regular		y	
13	Mr.Stany E. George	M E	Anna University	Power System	03-09-2012	13.1	Assistant Professor	Assistant Professor		Regular		y	
14	Ms.Veena Wilson	M.Tech	Kerala University	Electrical Machines	01-08-2014	11.2	Assistant Professor	Assistant Professor		Regular		y	

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

- 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)).

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

Year	CAY	CAYm1	CAYm2
UG1. B // 2 nd year students of UG1 program	63	63	65
UG1. C // 3 rd year students of UG1 program	63	65	62
UG1. D // 4 th year students of UG1 program	65	62	60
UG1 // Total no.of students(2 nd , 3 rd , 4 th) in UG1 program	191	190	187
PG1. A // 1 st year students of PG1 program	12	12	12
PG1. B // 2 nd year students of PG1 program	12	12	12
PG1 // Total no.of students(1 st , 2 nd) in PG1 program	24	24	24
DS=Total no. of students in all UG and PG programs in the Department	215	214	211
AS=Total no. of students of all UG and PG programs in allied departments	-	-	-
S=Total no. of students in the Department (DS) and allied departments (AS)	215	214	211
DF=Total no. of faculty members in the Department	14	14	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)	14	14	14
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)	15.36	15.29	15.07
Average SFR for 3 years	15.24		

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	FQI= 2.5 * [(10X +4Y)/RF]
CAY	6	8	10	23
CAYm1	5	9	10	21.5
CAYm2	4	10	10	20

C4: Faculty Cadre Proportion

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

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

Year	Professors		Associate Professors		Assistant Professors	
	Required Faculty(RF1)	Available Faculty(AF1)	Required Faculty(RF2)	Available Faculty(AF2)	Required Faculty(RF3)	Available Faculty(AF3)
CAY	1	2	2	2	7	10
CAYm1	1	2	2	1	7	11
CAYm2	1	2	2	0	7	12
Average Numbers	RF1= 1	AF1=2	RF2=2	AF2=1	RF3=7	AF3=11

C5: Visiting/Adjunct Faculty/Professor of Practice

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

S.N.	Name of the Person	Designation & Organization	Name of the Course	No. of hours handled
CAYm1				
1	Nil			
Total no. of hours:				
CAYm2				
1	Nil			
Total no. of hours:				

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

S.N.	PI name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project title*	Name of the Funding agency	Duration of the project	Amount (Lacs)
CAYm1							
1	Dr. Parvathy R	Mr. Stany E George	EEE	Scientific Study on Light Pollution levels suffered by Street Vendors	Sasthravedhi	2 months	Nil

Amount received (Rs.)							Nil
CAYm2							
1	Nil						
Amount received (Rs.)							
CAYm3							
1	Nil						
Amount received (Rs.)							
Total amount (Lacs) received for the past 3 years							

C9: Institution Seed Money or Internal Research Grant to its Faculty for Research Work**Table No. C9.1:** List of faculty members received seed money or internal research grant from the Institution.

S.N.	Faculty name	Project title/ Support for Activity	Duration	Amount (Lacs)	Amount Utilized (Lacs)	Outcomes of the project
CAYm1						
1	Nil					
Amount received (Rs.)						
CAYm2						
1	Nil					
Amount received (Rs.)						
CAYm3						
1	Nil					
Amount received (Rs.)						
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.

S.N.	Name of the Laboratory	No. of students per setup (Batch Size)	Name of the major equipment	Weekly utilization status (all the courses for which the lab is utilized)	Technical Manpower support		
					Name of the technical staff	Designation	Qualification
1	Electrical Workshop	4	Earth Tester, Insulation Tester, Switches and Cables, Fuses and Circuit breakers, Heater (hot plate), LCR meter, Multimeter Wattmeter, Energy Meter, Analog Voltmeter, Analog Ammeter, Rheostat (1000 ohm), Autotransformer, Inverter, Battery, Lamp, Electric iron box, Mixer Grinder, Exhaust fan, Monoblock pump set	4 hrs./week for 2019 Scheme - ME, CE, EIE, EEE (Odd Semester) & CSE, CSD, ECE (Even Semester). 2 hrs./week for 2024 Scheme - CSE, CSD, EIE, EEE, ECE (Odd Semester) & ME (Even Semester)	Mr. Shijo Joseph/ Ms. Neema V P/ Mr. Pradeep Kumar P	Trade Instructor (Grade - 2) Lab Instructor Trade Instructor, Grade 3	ITI Electrician (NCVT) Diploma in EEE ITI Electrician (NCVT)
2	Circuits and Measurements Lab	3	Capacitance Box, Digital Multimeter, Analog Ammeter, Analog Voltmeter, Decade Inductance Box, Cathode Ray Oscilloscope, Variable Rheostat, DC Power Supply (0-5V, 2A), Single Phase Autotransformer, Analog Ammeter, Analog Voltmeter, Ballistic Galvanometer, 3 Phase Loading Capacitor 415V/10A, 3 kVA, Capacitor (Fixed), 5μF, Current Transformer 100/5A, DC Power Supply (0-30V, 5A), DC Power Supply (Unregulated, 5V, 110	6 hrs./ week for 2019 Scheme - S3 EEE CM Lab & S4 EEE DE Lab 6 hrs./ week for 2024 Scheme-S3 EEE CM Lab	Mr. Denny Vadakkumcherry/ Mr. Eldho A I	Electrical Supervisor / Store keeper Lab Instructor Cum supervisor	Diploma in Electrical Engineering. Diploma in Electronics Engineering, ITI - Electrician

			A), Energy meter (Single Phase 5-20A), Energy meter (Three Phase), Gauss Meter(0 - 25k Gauss), Galvanometer, Hibertiz Magnetic Standard, Hall Effect Experiment Setup, 3 Phase Loading Inductor (415 V, 10 A), KELVIN's Bridge, LCR Meter, LCR Bridge, LVDT, Oil Testing Unit, Potential Transformer, Power Factor Meter, Phase Shift Transformer (Induction Regulator), Phase Shifting Transformer, 3 Phase Loading Rheostat, Single Phase Loading Rheostat, Precision Slide Wire Potentiometer, Simple Slide Wire potentiometer, Standard Cell - 1.018V, Vernier Potentiometer, Wattmeter(Single Phase, LPF),Wheatstone Bridge, LUX meter, Clamp Tester, Single Phase Transformer (230/110V, 3kVA), Single Phase Loading Inductor, Water Load (3 phase, 0-30A, 415V), Digital AC Ammeter (0-500mA), Electronic 3 Phase Energy Meter (415V, 10 - 40 A), Digital Single Phase Wattmeter.				
3	Electrical Machines Lab	3	DC Shunt Motor-Generator Set, DC Shunt Motor, DC Compound Motor, Single phase Induction Motor, Three phase Squirrel cage Induction Motor, Three phase Slip ring Induction Motor, DC Series Motor, Alternator coupled with DC shunt motor, Alternator coupled with DC Compound Motor, Induction	6 hrs./ week for 2019 Scheme S5 EEE EM Lab - 2 & S4 EEE EM Lab-1 6 hrs./ week for 2024 Scheme S4 EEE DCMT Lab	Mr. Pradeep Kumar P/ Mr. Denny Vadakkum cherry/	Trade Instructor, Grade 3 Electrical Supervisor / Store keeper	ITI Electrician (NCVT) Diploma in Electrical Engineering.

			generator coupled to DC Shunt Motor, Synchronous Induction Motor, Synchronous Motor, Double Cage Induction Motor, Winding study Motor, Cascaded set (Squirrel cage Induction Motor, Slip ring Induction Motor, DC Machine), DC Compound Motor-Generator Set, DC Series Motor-Generator Set, DC Shunt Motor with flywheel, Three phase Auto transformer, Single phase transformer, Three phase transformer, Single Phase transformer with tapping, Electronic Rectifier unit, DC Motor Starter, Three Phase loading rheostat, Proximity Sensor, Analog Tachometer, Digital Tachometer, Tachogenerator, Analog Ammeter, Analog Voltmeter, Single Phase Wattmeter, Three Phase Wattmeter, Center Zero Ammeters, Movable Water Load, Rheostat Variable, Three Phase Loading inductor, Three Phase Energy meter, Single Phase Loading Rheostat, Center Zero Wattmeter , Single Phase Autotransformer, Spring balance, Digital, DC Power Supply, Loading Rheostat, Digital Multimeter.				
4	Advanced Electrical Simulation Lab	1	Desktop Computer -36 Nos [30 Nos (Intel Core i5-7400,8 GB RAM, 1 TB HDD, 2 GB Nvidia graphics card), 6 Nos (acer, Intel Core i5-12400, 8 GB RAM, 512 GB SSD)], AC Servomotor, DC	6 hrs./ week for 2019 Scheme - S7 EEE CS Lab & S6 EEE PS Lab 4 hrs./ week for	Mr. Saju Kuriakose/	Electrical Supervisor / Lab Instructor (Grade - 1)	Diploma in EE, B. Tech in EEE

			Servomotor, Synchro Transmitter- Receiver, Function Generator, DC Motor/Generator Transfer function kit, DC Motor/Generator set, RPM counter and AC adapter. Software-MATLAB, PSCAD, ETAP.	2024 Scheme- S1 EEE Python Lab & S2 EEE C programming Lab	Ms. Neema V P	Lab Instructor	Diploma in EEE
5	Power Electronics Lab	3	Static Characteristics study module of Power Electronics devices (IGBT, MOSFET, SCR, TRIAC), Dynamic Characteristics study module of Power Electronics devices (BJT, MOSFET, IGBT), DC Chopper control circuit, Single Phase SCR Bridge Converter, IGBT Based PWM Inverter , Single phase AC voltage controller, Single phase inverter controller, Lag-Lead network, AC Phase Control using SCR, Firing circuit kit (R, RC, UJT), Microprocessor based SCR firing kit, AC/DC circuit training kit, SCR Series Inverter, Single Phase Transformer, Automatic lighting control, Three phase AC DC bridge converter, Amplidyne set, DOL Starter, Three Phase Loading Rheostat , 1 kVA Isolation Transformer, Rheostat (50 Ohm, 4A), Digital Multimeter, DC Shunt motor, Solar module (12V, 80W), Analog milli Ammeter (0-100mA), DC multiple output power supply (0-32V, +15V, -15V, +5V, 2A), DC dual power supply (0-30V, 5A), Analog	6 hrs./ week for 2019 Scheme - S3 EEE AE Lab, S5 EEE MPMC Lab, S6 EEE PE Lab & S6 EIE PE Lab 3 hrs./ week for 2024 Scheme - S1M.Tech APE Lab & S2 MTech PED Lab 6 hrs./ week for 2024 Scheme - S3 EEE AE Lab	Mr. Eldho A I/ Mr. Saju Kuriakose	Lab Instructor Cum supervisor Electrical Supervisor / Lab Instructor (Grade - 1)	Diploma in Electronics Engineering, ITI – Electrician Diploma in Electrical Engineering, B. TECH (Electrical and Electronics Engineering)

			Ammeter (0-1A, MC), Rheostat (1500Ohm, 1A), Analog Voltmeter (0-250/500V), Analog milli-Ammeter (0-50mA, MC), DSO (2 -channel), DSO (4 -channel), Decade Inductance box, DSP experimental kit, Three Phase half and fully controlled bridge converter, Three Phase Inductive load, Commutation Chopper circuit module, Single phase current source inverter, Resonant converter trainer, Chopper control circuit with power circuit, 1 HP PMDC motor, 1 HP 3Phase Induction Motor, PC based controller card for PWM pulse generation, Digital Tachometer (Noncontact type), DC Power supply (0-30V, 2A), Inverted pendulum, Differential probe 2-channel, Digital LCR meter, Digital DC milli-ammeter (0-50mA), Digital DC milli-ammeter (0-100mA), Three phase Auto-transformer (4A), Power Quality Analyzer, Function Generator, DC Dual Power Supply, Digital Storage Oscilloscope Desktop Computer-18 (10 Numbers (acer, Intel Core i5-12400, 8 GB RAM, 512 GB SSD), 8 Numbers (Intel Core i3- 540 , 4 GB RAM, 250 HDD)				
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D2: `Safety Measures in Laboratories

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

S.N.	Name of the Laboratory	Safety measures
1	Power Electronics Lab	• First Aid Box • 5 kg ABC dry powder type fire extinguisher
2	Advanced Electrical Simulation Lab	• 2kg CO₂ type Fire extinguisher
3	Electrical Workshop	• First Aid Box • 5 kg ABC dry powder type fire extinguisher
4	Circuits and Measurements Lab	• First Aid Box • 5 kg ABC dry powder type fire extinguisher
5	Electrical Machines Lab	• First Aid Box • 2 units of 5 kg ABC dry powder type fire extinguisher • Rubber mats are laid at every test bed of the electrical machines lab. • One pair High Voltage Hand Gloves
6	Centre for Advanced Research in Power Converters	• First Aid Box • 2kg CO₂ type Fire extinguisher • One pair High Voltage Hand Gloves

D3: Project Laboratory/Research Laboratory

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

S.N.	Name of the Laboratory
1.	The Centre for Advanced Research in Power Converters (CARPC)

NATIONAL BOARD OF ACCREDITATION

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

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))/RF4
CAY	720	36	17	92	88.88
CAYm ₁	720	36	17	98	92.22
CAYm ₂	720	36	18	93	91.66

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 2025-2026	Actual expenses in CFY (till Nov 2025)	Budgeted in 2024-2025	Actual Expenses in 2024-2025	Budgeted in 2023-2024	Actual Expenses in 2023-2024	Budgeted in 2022-2023	Actual Expenses in 2022-2023
Infrastructure Built-Up	16,24,07,000	3,43,84,331	7,34,74,000	7,74,05,469	5,61,00,000	3,81,42,590	3,35,33,000	5,25,07,211
Library	3,50,000	2,24,699	2,15,000	3,41,628	5,00,000	3,66,158	8,00,000	4,51,700
Laboratory equipment	36,00,600	3,65,780	25,98,445	12,41,980	36,90,920	9,80,521	29,93,500	15,31,317
Laboratory Consumables	39,16,192	5,25,776	14,53,280	5,20,668	10,79,200	5,27,618	14,52,440	5,45,049
Teaching and non-teaching staff salary	21,85,83,257	13,72,06,717	20,57,50,000	19,60,07,927	20,65,00,000	20,28,44,248	19,98,50,000	19,64,04,400
Outreach Programs	4,15,000	98,362	4,15,000	2,59,050	2,10,000	2,41,792	1,00,000	1,58,061

Items	Budgeted in 2025-2026	Actual expenses in CFY (till Nov 2025)	Budgeted in 2024-2025	Actual Expenses in 2024-2025	Budgeted in 2023-2024	Actual Expenses in 2023-2024	Budgeted in 2022-2023	Actual Expenses in 2022-2023
R&D	35,50,000	35,050	24,75,000	3,25,026	38,50,000	3,83,762	1,60,000	87,713
Training, Placement and Industry linkage	1,23,50,500	2,48,63,536	96,21,700	1,29,31,626	89,91,000	1,14,00,981	27,11,500	1,71,49,841
SDGs	46,46,000	9,35,135	33,84,275	12,55,598	4,18,300	14,79,963	26,53,400	17,30,906
Entrepreneurship	6,00,000	1,00,000	4,00,000	7670	0	12,000	2,50,000	30,000
Others*, pl. specify								
Software	47,12,000	7,32,941	19,99,000	7,32,941	10,15,580	3,13,644	22,39,500	12,09,860
Maintenance and spares	1,56,33,250	2,02,50,548	83,80,500	1,50,42,883	68,70,000	66,37,234	49,84,450	97,15,244
College Affiliation and other fees	17,25,000	16,54,585	16,00,000	9,59,595	40,00,000	81,90,702	62,00,000	67,78,459
Miscellaneous expenses	4,85,94,000	3,57,01,494	7,41,13,500	8,79,03,248	7,51,58,000	6,69,45,806	7,01,62,610	5,87,84,680
Total amount	48,10,82,799	25,70,78,954	38,58,79,700	39,49,35,309	37,13,83,000	33,84,67,019	32,80,90,400	34,70,84,441

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

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

Items	Budgeted in CFY	Actual expenses in CFY (till Nov 2025)	Budgeted in CFYm1	Actual Expenses in CFYm1	Budgeted in CFYm2	Actual Expenses in CFYm2	Budgeted in CFYm3	Actual Expenses in CFYm3
Laboratory equipment	5 40100	65,900	71,520	22055	1,95,000	1,96,561	91,000	1,01,152
Laboratory Consumables	78242	20,117	1,06,480	1,25,414	15,000	77,729	50,000	26,849
Software	0	0	3,20,000	0	0	0	0	0
Support for faculty Development	50,000	42,741	1,50,000	17,266	21,000	14,891	163000	0
Industrial Training, Industry expert, Internship	497000	17020	522000	2,10,000	9,00,000	450000	0	0

Miscellaneous expenses	50000	7,316	75000	73789	0	34575	80000	112553
Total amount	9,27,402	2,19,537	10,01,020	4,41,715	12,20,481	6,27,195	5,58,916	1,43,602