TMAES POLYTECHNIC, HOSAPETE

Institution Code: 316

SELF ASSESSMENT REPORT
Application No: 6947-06/06/2022

PART-A

Electrical & Electronics Engineering

Part A :

1 Name and Address of the Institution: **TMAES POLYTECHNIC BELLARY ROAD HOSAPETE**

2. Name and Address of the Directorate of Technical Education: **Department of Collegiate and Technical Education Palace Road Bengaluru**

3. Year of Establishment: **1983**

4. Type of the Institution: **Government Aided**

5. Ownership Status: **State Government Aided - Society**

6. Ownership Status: **State Government Aided**

7. Other Academic Institutions of the Trust/Society/Company etc., if any:

Name of Institutions	Year of Establishment	Programs of Study	Location
TMAES TCH	1969	TEACHERS TRAINING	HARAPANAHALLI
TMAES SANSKRIT PATASHALA	1970	SCHOOL EDUCATION	HARAPANAHALLI
TMAES COLLEGE OFEDUCATION	1973	TEACHERS TRAINING	HARAPANAHALLI
TMAES HIGH SCHOOL	1979	HIGH SCHOOL EDUCATION	HARAPANAHALLI
TMAES COLLEGE OFEDUCATION	1980	TEACHERS TRAINING	GANGAVATHI
TMAES ANGANAVADITRAININGCENTER	1982	TEACHERS TRAINING	HARAPANAHALLI
TMAES HIGH SCHOOL	1982	HIGH SCHOOL EDUCATION	NEELAGUNDA,HARAPANAHALLI
TMAES SRI BAPUJI ITI	1982	TECHNICAL TRAINING	LAXMESHWARA

TMAES SRI MAHARISHIVALMIKIITI	1982	TECHNICAL TRAINING	RANEBENNUR
TMAES ITI	1983	TECHNICAL TRAINING	SHIVAMOGGA
TMAES ITI	1983	TECHNICAL TRAINING	BHADRAVATHI
TMAES ITI	1983	TECHNICAL TRAINING	HOSAPETE
TMAES ITI	1984	TECHNICAL TRAINING	CHITHRADURGA
TMAES SRI MAHARUDRASWAMYITI	1984	TECHNICAL TRAINING	CHANNAGIRI
TMAES GMCJ HIGH SCHOOL	1985	HIGH SCHOOL EDUCATION	DHULEHOLE
TMAES HIGH SCHOOL	1986	HIGH SCHOOL EDUCATION	HIREMUGADUR
TMAES SRI THIMMAIAHSHETTYITI	1986	TECHNICAL TRAINING	HAGARIBOMMANAHALLI
TMAES ITI	1989	TECHNICAL TRAINING	HIRIYUR
TMAES SRI TONKADAVEERAPPAITI	1983	TECHNICAL TRAINING	HAVERI
TMAES SCS COLLEGEOFPHARMACY	1980	PHARMACY	HARAPANAHALLI
TMAES MMJ COLLEGEOFPHARMACY	1983	PHARMACY	HAVERI
TMAES CP Ed COLLEGE	1984	PHYSICAL TEACHERS TRAINING	HAVERI
TMAES POLYTECHNIC	1984	DIPLOMA	BHADRAVATHI
TMAES AYURVEDICMEDICALCOLLEGE	1991	AYURVEDIC MEDICINE	HOSAPETE
TMAES AYURVEDICMEDICALCOLLEGE	1991	AYURVEDIC MEDICINE	BHADRAVATHI
TMAES ROSE BUDPRIMARYSCHOOL	1995	SCHOOL EDUCATION	HOSAPETE

TMAES SCHOOL OF NURSING	2004	NURSING	HOSAPETE
TMAES DAV PUBLIC SCHOOL	2004	SCHOOL EDUCATION	HOSAPETE
TMAES COLLEGE OFEDUCATION	2005	TEACHERS TRAINING	HAVERI
TMAES CP Ed COLLEGE	2005	PHYSICAL TEACHERS TRIANING	HAVERI
TMAES SIR M V POLYTECHNIC	2008	DIPLOMA	HOSAPETE
TMAES ITI	2008	TECHNICAL TRAINING	HULIGI, MUNIRABAD
TMAES EAST FORT PRIMARYSCHOOL	2010	SCHOOL EDUCATION	CHITHRADURGA
TMAES WISDOM PUBLICSCHOOL	2010	SCHOOL EDUCATION	HAVERI
TMAES SRI BANGI BASAPPPU SCIENCE COLLEGE	2011	PRE UNIVERSITY EDUCATION	HARAPANAHALLI
TMAES DAV PUBLIC SCHOOL	2013	SCHOOL EDUCATION	HARAPANAHALLI
TMAES DAV PUBLIC SCHOOL	2013	SCHOOL EDUCATION	GANGAVATHI
TMAES PRE PRIMARY SCHOOL	2017	SCHOOL EDUCATION	KAMPASAGARA
TMAES SRI CHANDRAMOULSESWAR B.Sc.	2021	NURSING	HARAPANAHALLI

8. Details of all the programs being offered by the institution under consideration:

Name of the Program	Program Applied Level	Start of Year	Year of AICTE Approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program duration
Electrical & Electronics Engineering	**Diploma**	**1985**	**1985**	**40**	**Yes**	**50**	**Applying first time**	**-**	**-**	**Yes**	**0**

Sanctioned Intake for Last Five Years for the ELECTRONICS & COMMUNICATION ENGINEERING	
Academic Year	**Sanctioned Intake**
2023-24	50
2022-23	50
2021-22	50
2020-21	50
2019-20	50

7a Accreditation History

Sr. No	**Name of the Department**	**Name ofthe Program**	**Year of 1st Accreditation (ifApplicable)**	**Year of 2nd Accreditation(if Applicable)**	**Year of 3rd Accreditation (if Applicable)**
1					

7b Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Diploma	Engineering & Technology	Civil Engg.
2	Diploma	Engineering & Technology	Electronics & Communication Engg.
3	Diploma	Engineering & Technology	Mechanical Engg.
4	Diploma	Engineering & Technology	Electrical and Electronics Engineering

9. Total number of Employees:

A. Regular* Employees (Faculty and Staff):

Engineering and Technology- Diploma Shift-1

Items	2023-24		2022-23		2020-21	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering & Technology(Male)	43	43	43	43	43	43
Faculty in Engineering & Technology(Female)	10	10	10	10	9	10
Faculty in Science & Humanities (Male)	4	4	4	4	4	4
Faculty in Science & Humanities (Female)	3	3	3	3	3	4
Non-teaching staff (Male)	60	64	64	64	63	64
Non-teaching staff (Female)	5	5	5	5	5	5

B. Contractual Staff (Not Covered in 9.A):

Engineering and Technology- Diploma	☐ Shift1	☐ Shift2

10. Total number of Students:

Engineering and Technology- Diploma Shift-1

	2023-24	**2022-23**	**2021-22**
Total no. of Boys	988	962	926
Total no. of Girls	167	158	165
Total	**1155**	**1120**	**1091**

11. Contact Information of the Head of the Institution and NBA Coordinator:

Head of the Institution	
Name	Dr. H K Shankarananda
Designation	Principal
Mobile No.	9945909990
Email ID	tmaespoly316@gmail.com

NBA Coordinator, If Designated

Name	Sri. T Naziruddeen
Designation	Vice Principal/HOD, Mech. Dept
Mobile No.	9886572502
Email ID	naziruddeent@gmail.com

PART B: Criteria Summary

Electrical and Electronics Engineering.

Criteria No.	Criteria	Total Marks	Institute Marks
1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	50	47.00
2	PROGRAM CURRICULUM AND TEACHING – LEARNING PROCESSES	200	194.00
3	COURSRE OUTCOMES AND PROGRAM OUTCOMES	100	94.00
4	STUDENTS' PERFORMANCE	200	112.67
5	FACULTY INFORMATION AND CONTRIBUTIONS	150	133.00
6	FACILITIES AND TECHNICAL SUPPORT	100	88.00
7	CONTINOUS IMPROVEMENT	75	60.00
8	STUDENT SUPPORT SYSTEMS	50	46.00
9	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCEDS	75	72.00
	Total	**1000**	**847**

CRITERIA -1

VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES

PART B

1. VISON, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (50) Total marks 47.00

1.1 State the Vision and Mission of the Department and Institution Total marks 5.00
institute marks 5.00

Vision of the institute Empowering youth by imparting quality technical education and strive to prepare students with excellent Technical skills

Mission of the institute :
1. To offer value added quality technical education & excellent Academic training to our student.
2. To provide state of art infrastructure with latest facilities.
3. To strengthen industry institute interaction.

Vision of the Department : To Create highly competent electrical and electronics engineers to excel their skills in the field of design, drawing, estimation.

	Mission No.	**Mission Statements**
Mission of the Department	M1	To impart quality technical education in diploma Electrical Engineering.
	M2	To develop practical experience in learning and involve in continuous industry interaction and participation.
	M3	To impact social, ethical values and leadership qualities in students through value based system of education.

1.2 State the program Educational Objectives (PEOs) (5)

total marks 5.00
institute marks 5.00

PEO No.	Program Educational Objectives Statements
PEO1	To excel in Electrical and Electronics Engineering field and apply the knowledge in the diverse fields of professional career.
PEO2	To work with professional skills required for the development of the society.
PEO3	To promote professional development, entrepreneurship and continuing education for their career growth and create enthusiasm for life-long learning.

1.3 Indicate where and how the Vision, Mission and PEOs are published and disseminated among stakeholders (10)

total marks 9.00
Institute marks 9.00

The mission and vision of the institute are published in the Institutional website http:/tmaespolytechnichpt.com/. The mission and vision is displayed at prominent locations in the campus which can be viewed by students. Parents, faculty members and other stakeholders.

SL. No.	Methodology	Internal stake Holders					External Stake Holders		
		Students	Faculty	Management	DTED Board	NBA Committee	Parent	Employer	Alumni
1	College Website	√	√	√	√	√	√	√	√
2	Display Boards Department Class Room Laboratories Common places	√	√	√		√	√		
3	Included in The agenda of department and NBA Committee Meeting		√	√		√			
4	Direct communication				√	√	√	√	√

Table: 1.1.1 : Dissemination of Vision, Mission and PEOs among Stake Holders

1.4 State the process for defining the Vision and Mission of the Department, and PEOs of the Program (15) total marks 14.00

Institute marks 14.00

The process for defining the Vision and Mission of the Program

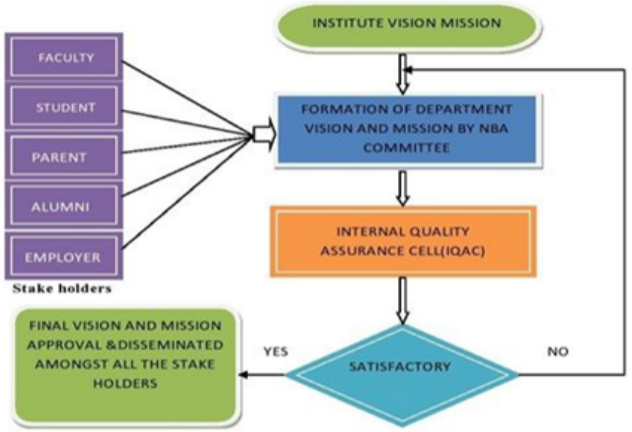


Figure 1.4.1 Process for Defining Vision and Mission of the program

Step 1: Response of the Stake holders (students, faculty members, parents, employers and alumni) regarding the vision and mission statements of the department are collected through survey.
Step 2: The views and opinions are consolidated from the survey process, and the institute vision, mission are considered in drafting the vision and mission of the department by the NBA committee.
Step 3: The draft vision and mission are reviewed by the NBA committee and further submitted to the IQAC. After confirming the consistency of the department vision and mission with the vision and mission of the institute, the same will be approved by IQAC.
Step 4: On Approval by IQAC, the vision mission of the department are published and disseminated to all the stakeholders.

The process for defining the PEOs of the program

The Programme Educational Objectives are established through a consultation process involving the core constituents such as: Student, Alumni, Faculty, Employers and Parents.
The PEOs are Established through the following process steps are followed and same as shown in the fig.1.4.2

Step 1 : The PEOs are done in live with Institute and Department's Vision and Mission state

Step 2: The collaborative views are collected from various stakeholders by the programme coordinator and formulation of PEOs with reference to PEOs of other Institution and journal papers.

Step 3: The PEO's are developed by the team of faculty members and reviewed in the departmental meeting.

Step 4: The PEO's are presented in the Department Academic Committee (DAC) for additional inputs requirements for any change in the statements.

Step 5: Finalized programme Educational objectives (PEO's) are published.

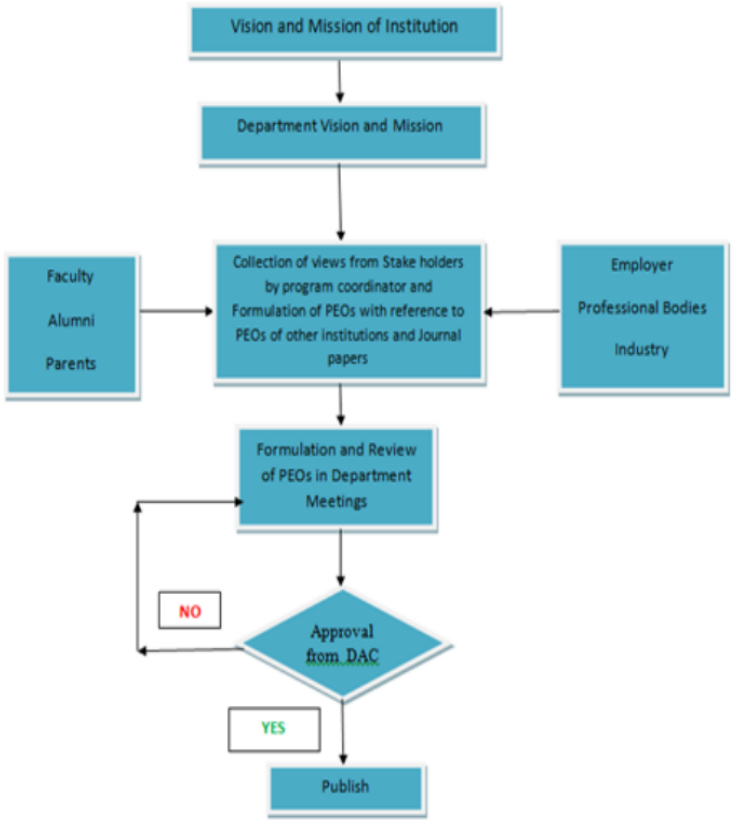


Figure 1.4.2 Process for Defining PEO's the department

1.5 Establish Consistency of PEOs with Mission of the Department (15)

total marks 14.00
Institute marks 14.00

PEO Statements	M1	M2	M3
To excel in Electrical and Electronics Engineering field and apply the knowledge in the drivers fields of professional career.	3	3	3
To work with professional skills required for the development of the society.	3	3	3
To promote professional development, entrepreneurship and continuing education for their career growth and create enthusiasm for life-long learning.	3	3	3

CRITERIA – 2

PROGRAM CURRICULUM AND TEACHING – LEARNING PROCESSES

2. PROGRAM CURRICULUM AND TEACHING – LEARNING PROCESSES (200)

Total marks 194.00

2.1 Program Curriculum

All POs and PSOs are being demonstrably met through Curriculum? : YES

2.1.1 State the process used to identity extent of compliance of the Board curriculum for attaining the program Outcomes (PO's) and program Specific Outcomes (PSO's) as mentioned in Annexure. Also mention the identified curricular gaps, if any (40)

Institute marks 38.00

A. Process used to identify extent of compliance of curriculum for attaining PO's & PSO's

The TMAES Polytechnic is affiliated under Dept of Technical & Collegiate Education, Bengaluru. So our Programme curriculum is framed by the board. Generally Curriculum maintains the balance in the composition of basic science, humanities professional courses and their distribution in core and elective and breadth offerings. The 2015 curriculum had 10 program outcomes. The syllabus was revised in the year 2020 & the new curriculum had 7 program outcomes. If some components, to attain CO's/PO,s, are not included in the curriculum provided by the affiliated university, then the institute makes additional efforts to impart such knowledge by covering aspects through "CONTENTS BEYOND SYLLABUS". We add content beyond syllabus by proper "GAP analysis" process.

PROGRAM OUTCOMES (2020 CURRICULUM)

1. Basic and Discipline specific knowledge: Apply knowledge of basic mathematics. Science and engineering fundamentals and engineering specialization to solve the engineering problems.
2. Problem analysis: Identify and analyze well-defined engineering problems using codified methods.

3. Design/development of solutions: Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs.
4. Engineering Tools, Experimentation and Testing : Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.
5. Engineering practices for society, sustainability and environment: Apply appropriate technology in context of society, sustainability, environment and ethical practices.
6. Project Management: Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.
7. Life-long learning :Ability to analyze individual needs and engage in updating in the context of technological changes.

PROGRAM SPECIFIC OUTCOMES (PSO's)

PSO1: Apply principles of engineering and laboratory skills for building, testing, operation and maintenance of electrical and electronic systems such as electrical machines, power and energysystems.

PSO2: Model and analyze, design and realize physical systems, components or processes related to electrical and electronics engineering systems.

PSO3: Opt for higher studies or work professionally in power systems engineering, electrical machinery and electrical and electronic circuits.

TABLE 2.1 : STRUCTURE OF PROGRAM AS PER BTE CURRICULUM (2020 CURRICULUM)

GENERAL STUDIES:

Code	Course Title	Hours per week				Sem	Credits
		L	T	P	Total Hrs		
20EG01P	Communication Skills	2	0	4	6	II	4
						Total Credits	4

APPLIED SCIENCE COURSES:

Code	Course Title	Hours per week				Sem	Credits
		L	T	P	Total Hrs		
20SC01T	Engg Mathematics	4	0	0	4	I	4
20SC02P	Statistics and Analytics	2	0	4	6	II	4
						Total Credits	8

BASIC COURSES IN ENGG & TECHNOLOGY:

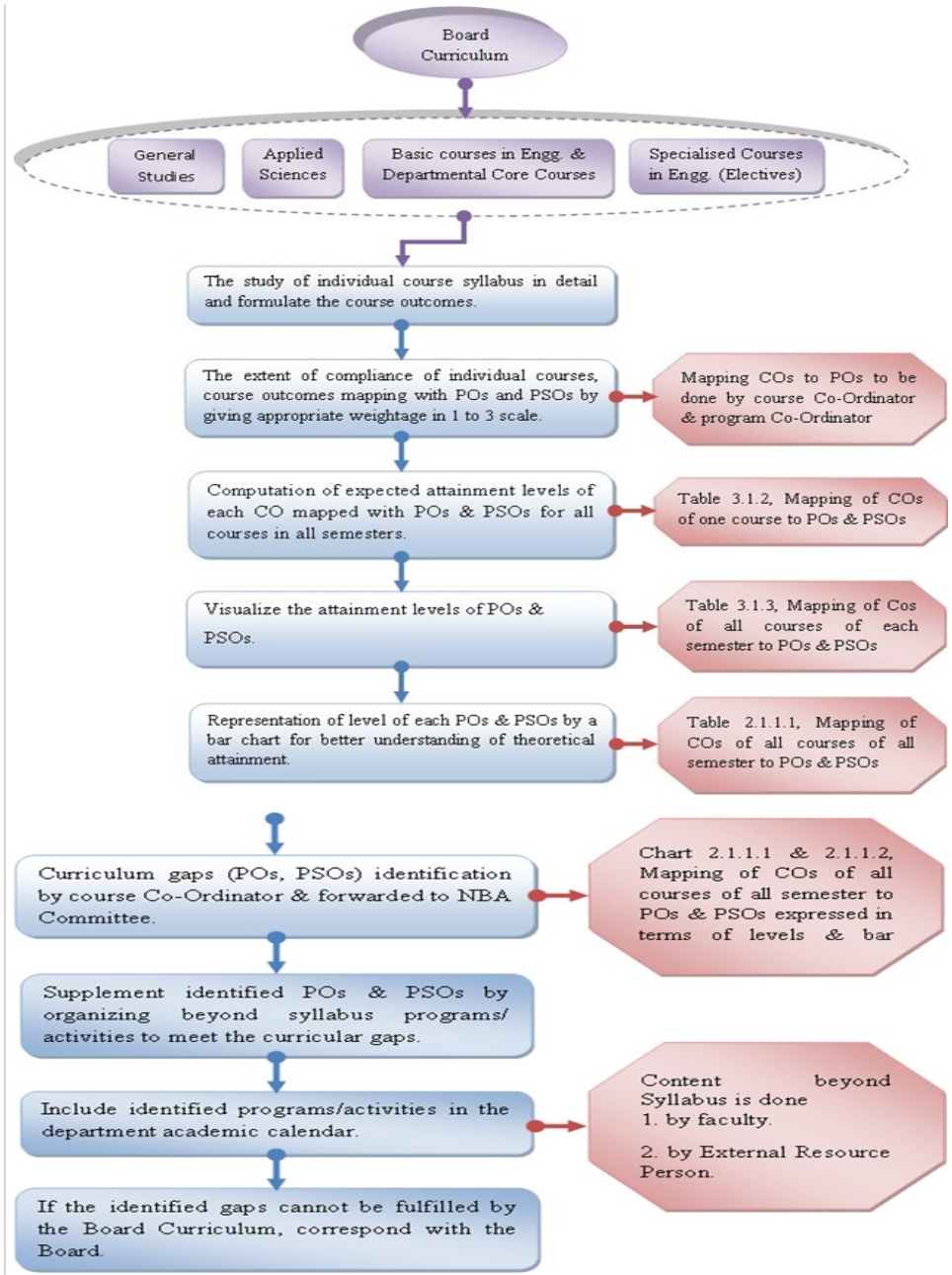
Code	Course Title	Hours per week				Sem	Credits
		L	T	P	Total Hrs		
20ME02P	Computer Aided Engineering Graphics	2	0	4	6	I	4
20CS01P	IT Skills	2	0	4	6	II	4
	Total Credits						08

AUDIT COURSES:

Code	Course Title	Hours per week				Sem	Credits
		L	T	P	Total Hrs		
20AU01T	Environmental sustainability	2	0	0	2	I	2
20KA21T	Kannada-I	2	0	0	2	II	2
20KA31T	Kannada-II	2	0	0	2	III	2
20EE45T	Indian Constitution	2	0	0	2	IV	2
	Total Credits						8

DEPARTMENTAL CORE COURSES:

Code	Course Title	Hours per week				Sem	Credits
		L	T	P	Total Hrs		
20EE11T	Basics of Electrical Power system	4	0	0	4	I	4
20EE01P	Fundamentals of Electrical and Electronics Engg.	2	0	4	6	I	4
20PM01T	Project management skills	2	0	4	6	II	4
20EE21P	Residential Electrical Wiring Practice	2	0	4	6	II	4
20EE31P	Transformer and Alternator	3	1	4	8	III	6
20EE32P	Transmission and Distribution	3	1	4	8	III	6
20EE33P	Switch Gear and Protection	3	1	4	8	III	6
20EE34P	Analog and Digital Electronics	3	1	4	8	III	6
20EE41P	Electric Motors	3	1	4	8	IV	6
20EE42P	Power Electronics	3	1	4	8	IV	6
20EE43P	Fundamentals of Automation Technology	3	1	4	8	IV	6
20EE44P	Computer Aided Electrical Drafting	3	1	4	8	IV	6
20EE54I	Electrical Utility Engineering	8	4	24	36	V	24
		Total Credits					88

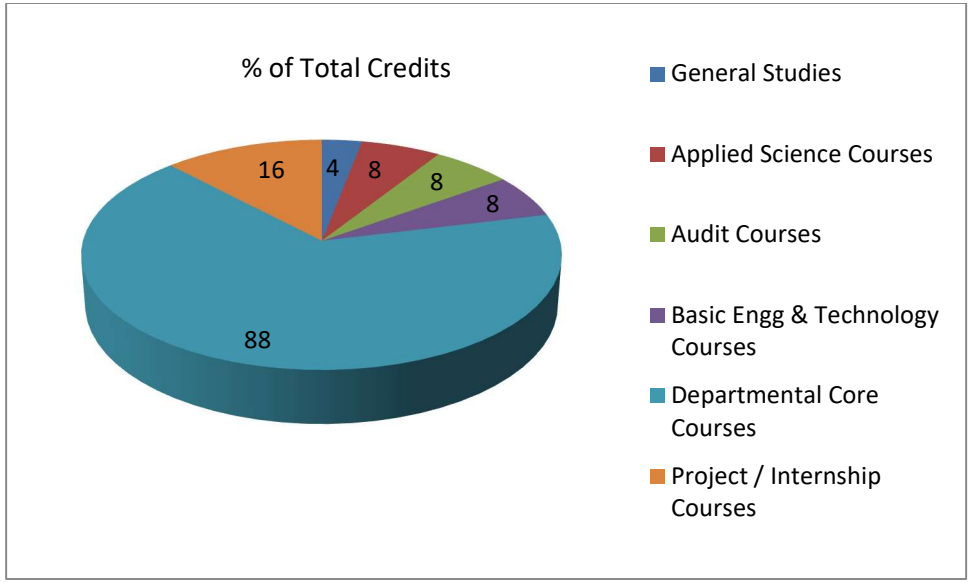

Board Curriculum
General Studies
Applied Sciences
Basic courses in Engg. & Departmental Core Courses
Specialised Courses in Engg. (Electives)
The study of individual course syllabus in detail and formulate the course outcomes.
The extent of compliance of individual courses, course outcomes mapping with POs and PSOs by giving appropriate weightage in 1 to 3 scale.
Mapping COs to POs to be done by course Co-Ordinator & program Co-Ordinator
Computation of expected attainment levels of each CO mapped with POs & PSOs for all courses in all semesters.
Table 3.1.2, Mapping of COs of one course to POs & PSOs
Visualize the attainment levels of POs & PSOs.
Table 3.1.3, Mapping of Cos of all courses of each semester to POs & PSOs
Representation of level of each POs & PSOs by a bar chart for better understanding of theoretical attainment.
Table 2.1.1.1, Mapping of COs of all courses of all semester to POs & PSOs
Curriculum gaps (POs, PSOs) identification by course Co-Ordinator & forwarded to NBA Committee.
Chart 2.1.1.1 & 2.1.1.2, Mapping of COs of all courses of all semester to POs & PSOs expressed in terms of levels & bar
Supplement identified POs & PSOs by organizing beyond syllabus programs/ activities to meet the curricular gaps.
Include identified programs/activities in the department academic calendar.
Content beyond Syllabus is done
1. by faculty.
2. by External Resource Person.
If the identified gaps cannot be fulfilled by the Board Curriculum, correspond with the Board.

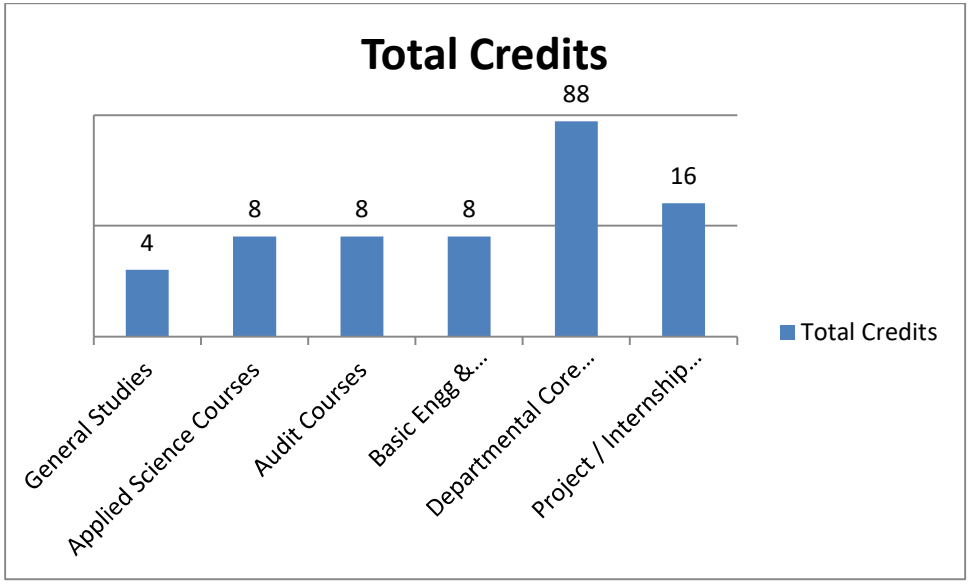
PROJECT / INTERNSHIP COURSES:

Code	Course Title	Hours per week			Sem	Credits
		L	T	P		
20EE61I	Internship/ project	-	-	-	VI	16
					Total Credits	16

COMPONENTS OF THE CURRICULUM

Component	Total Credits	Total Contact Hrs	% of Total Credits
General Studies	4	6	3.1
Applied Science Courses	8	10	6.1
Audit Courses	8	8	6.1
Basic Engg & Technology Courses	8	12	6.1
Departmental Core Courses	88	122	66.7
Project / Internship Courses	16	40	12.2
Total	132	198	100


% of Total Credits
4
8
8
8
88
16
General Studies
Applied Science Courses
Audit Courses
Basic Engg & Technology Courses
Departmental Core Courses
Project / Internship Courses


Total Credits
4
8
8
8
88
16
General Studies
Applied Science Courses
Audit Courses
Basic Engg &...
Departmental Core...
Project / Internship...
Total Credits

As per the curricular mapping PO5, PSO1 and PSO2 are comparatively low. Hence, the following activities are identified to supplement mapping of

POs and PSOs as shown in table 2.1.1.2.

Fig 2.1 :CURRICULUM CONTRIBUTION (2020 CURRICULUM)

Sl.No.	Activities	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
1	Industrial Visit	√				√		√	√	√	√
2	Interaction with Industry Experts	√	√			√		√	√	√	√
3	Workshops	√	√		√	√		√	√	√	√
4	Mini Project	√		√	√	√	√	√		√	√
5	Participation in Community Services					√		√			
6	Yoga					√		√			
7	Programs on Soft Skill	√				√	√	√			
8	Participation in NCC and NSS					√		√			
9	Cultural Activities					√		√			
10	Participation in Sports					√		√			
11	Experiments Conducted Beyond Syllabus	√	√		√			√		√	

Table 2.1.1.2: Identified activities to supplement mapping of POs and PSOs

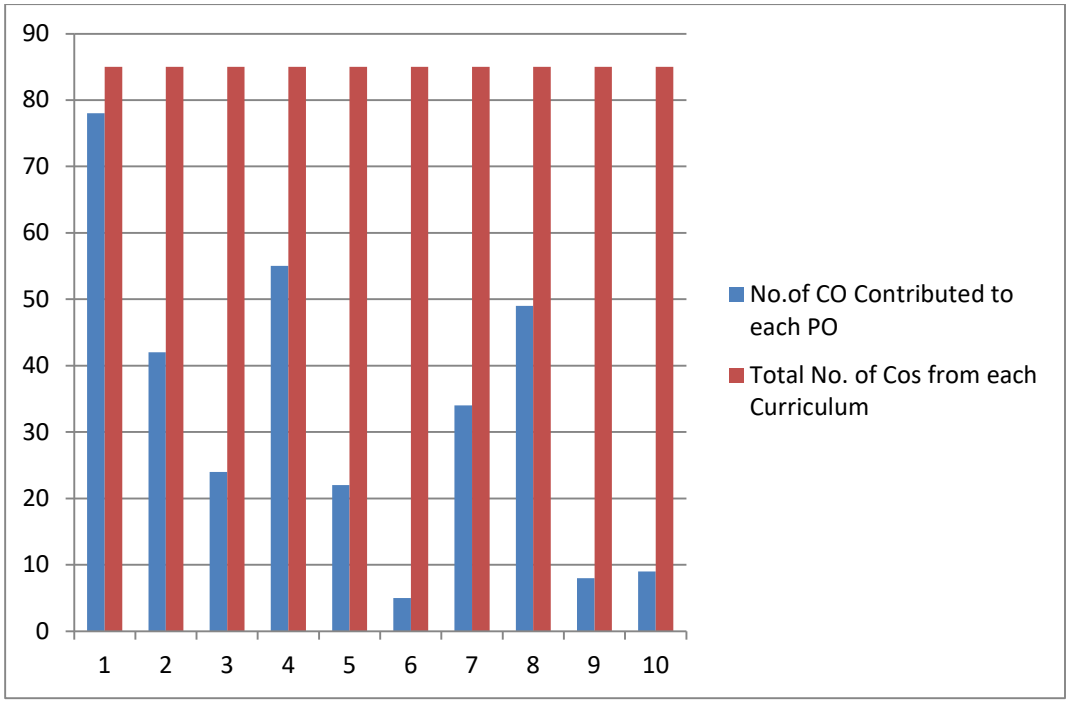
A. Process used to identify extent of compliance of curriculum for attaining Pos & PSOs

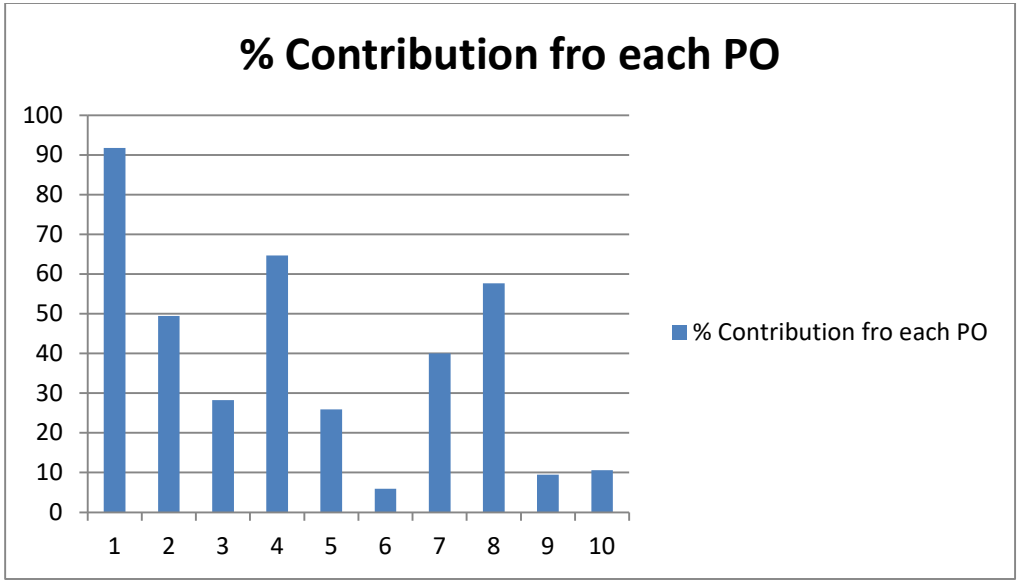
Sl. No.	SEM	Course	Course Index	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
1			CO101.1	3						3			
2			CO101.2	3						3			
3		Engg Maths	CO101.3	3						3			
4			CO101.4	3		3				3			
5	1		CO101.5	3		3				3			
6			CO102.1	3							3		
7		BEPS	CO102.2	3							3		
8			CO102.3	3							3		
9	1		CO102.4	3							3		
10			CO103.1	3			3					3	
11		CAEG	CO103.2	3			3					3	
12			CO103.3	3			3					3	
13	1		CO103.4	3			3					3	
14			CO104.1	3			3				3		
15		FEEE	CO104.2	3			3				3		
16			CO104.3	3			3				3		
17	1		CO104.4	3			3				3		
18			CO105.1	3				3		3			
19			CO105.2	3				3		3			
20		EVS	CO105.3	3				3		3			
21			CO105.4	3				3		3			
22			CO105.5	3				3		3			
23	1		CO105.6	3				3		3			
24			CO106.1	3	3			2		3	3		
25		PMS	CO106.2	3	3					3	3		
26	2		CO106.3	3	3	1				3	3		

27			CO106.4	3	3		1		1	3	3		
28			CO106.5	3	3			2		3	3		
29			CO106.6	3				2		3	3		
30		SA LAB	CO107.1	3	3		3	3		3			
31			CO107.2	3	3		3	3		3			
32			CO107.3	3	3		3	3		3			
33	2		CO107.4	3	3		3	3		3			
34		Communication Skills	CO108.1	3	3					3			
35			CO108.2	3	3					3			
36			CO108.3	3	3					3			
37	2		CO108.4	3	3					3			
38		IT Skills	CO109.1	3			3			3			
39			CO109.2	3			3			3			
40			CO109.3	3			3			3			
41			CO109.4	3			3			3			
42	2		CO109.5	3			3			3			
43		REWP	CO110.1	3			3				3		
44			CO110.2	3			3				3		
45			CO110.3	3			3				3		
46	2		CO110.4	3			3				3		
47		T & A	CO201.1	3	3	3					3		
48			CO201.2	3	3	3					3		
49			CO201.3	3	3	3					3		
50	3		CO201.4	3	3	3					3		
51		T & D	CO202.1	3	3		3				3		
52			CO202.2		3		3				3		
53	3		CO202.3		3	1					3		
54		SG & P	CO203.1	3	3		3				3		
55			CO203.2	3	3		3				3		
56	3		CO203.3	3			3				3		

57			CO203.4		3	2	3				3		
58			CO204.1	3			3				3		
59			CO204.2	3			3				3		
60			CO204.3	3	3		3				3		
61	3	A & D	CO204.4	3			3				3		
62			CO205.1	3	3		3				3		
63			CO205.2	3	3		3				3		
64			CO205.3		3		3				3		
65	4	Electric Motors	CO205.4		3	1	3				3		
66			CO206.1	3		3	3				3		
67			CO206.2	3	3	3	3				3		
68	4	PE	CO206.3		3	3	3				3		
69			CO207.1	3	3	3	3						
70			CO207.2	3			3						
71			CO207.3	3	3	3	3						
72	4	FAT	CO207.4		3	3	3						
73			CO208.1	3			3					3	
74			CO208.2	3			3					3	
75			CO208.3	3			3					3	
76	4	CAED	CO208.4	3			3					3	
77			CO301.1	3	3	3	3	3			3		3
78			CO301.2	3	3	3	3	3			3		3
79			CO301.3	3	3	3	3	3			3		3
80			CO301.4	3	3	3	3	3			3		3
81	5	EUE	CO301.5	3	3	3	3	3			3		3
82		Internship/	CO302.1	3	3	3	3	3	3	3	3		3
83		Project	CO302.2	3	3	3	3	3	3	3	3		3
84			CO302.3	3	3	3	3	3	3	3	3		3
85	6		CO302.4	3	3	3	3	3	3	3	3		3
Average				**2.75**	**1.48**	**0.80**	**1.95**	**0.74**	**0.15**	**1.20**	**1.73**	**0.28**	**0.32**

No. of CO Contributed to each PO	**78**	**42**	**24**	**55**	**22**	**5**	**34**	**49**	**8**	**9**
Total No. of Cos from each Curriculum	**85**	**85**	**85**	**85**	**85**	**85**	**85**	**85**	**85**	**85**
% Contribution fro each PO	**92**	**49**	**28**	**65**	**26**	**6**	**40**	**58**	**9**	**11**





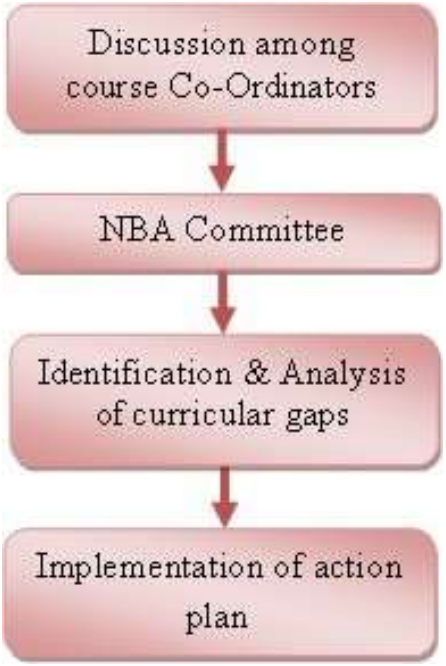
B. List the curricular gaps for the attainment of PO's & PSO's (10)

A course Co-Ordinator does a thorough study of the curriculum. After discussion with other course Co-Ordinator a common platform is created

where in the link between various subjects is discussed and these findings are sent to the NBA committee for further discussion.

Curricular gaps are discussed and finalized by NBA committee.

Finalized action plan is implemented to fulfil the gaps for the attainment of Pos and PSOs



Flow chart 2.1.1.2 Process used to identify curricular gaps for attainment of POs and PSOs

Curricular Gaps

The shortcoming of the syllabus addressed by course Co-Ordinator expert lecturers and academicians as follows.

CAY 2022 -23

Sl. No.	Course Code	Course Name	Gap	Gap Description
1	20EE11T	Basics of Electrical Power System	PO1, PO7	Functions of power generation & distribution companies [GESCOM]
2	20EE32P	Transmission and Distribution	PO1, PO4,PO6,PO7	Operation of 11kv/440v Distribution system & under ground cables.
3	20EE33P	Switch Gear & Protection	PO4, PO7	Bus bar protection, metering section and various auxiliary relays
4	20EE54I	Electric Utility Engineering	PO1, PO5, PO7	Solar Hybrid Power Plant, Fire fighting system

CAY m1 2021 -22

Sl. No.	Course Code	Course Name	Gap	Gap Description
	15EE32T	Electronic power generation	Po3	Understand the grid-interface of solar power system
	15EE53T	Switchgear and protection	Pso1	In-depth understanding of CT and PT
	15EE52T	Transmission ,Distribution and utilization	Po3 Pso1	In-depth understanding cooling system

CAYm2 2020 -21

Sl. No.	Course Code	Course Name	Gap	Gap Description
1	15EE32T	Electronic power generation	Po3	Understand the grid-interface of solar power system
2	15EE53T	Switchgear and protection	Pso1	In-depth understanding of CT and PT
3	15EE52T	Transmission ,Distribution and utilization	Po3 Pso1	In-depth understanding cooling system

Content beyond the syllabus (15)

B. Delivery details of content beyond syllabus (10)

The curricular gaps are identified by the Course Co-Ordinator which is further forwarded to the NBA committee through program Co-Ordinator.

Necessary modifications in the curriculum are intimated to the Board of Technical Education by the Head of the Institution. Further the gaps are

Strengthened by conducting following activities mentioned in the below tables . The following are the means and methods used to fulfil the

curriculum gaps are:

i. Class Room Teaching
ii. Seminar/Workshops/Guest Lectures
iii. Presentation (Still and Video)
iv. NPTEL Video
v. Pre-placement Training

Training on Soft Skills/Entrepreneur skills (vii)Projects Exhibition

C .Mapping of content beyond syllabus with the Pos and PSOs (3)

CAY(2020-2021)

Sl. No	GAP	Action Taken	Date-Month-year	Resource person with Designation	Mode	No .of Students Present(%)	Relevance to POs & PSOs
01	PO3	Seminar on Recent Trends in Renewable Energy Sources	08-10-2020	Mr. subhash katti.HOD Dept of EEE TMAES polytechnic Hospet	PPT	48	PO1,PO3,PO5,PO7 and PSO1
02	PO5, PO7	Seminar on Extending the Knowledge about the Electric vehicle	24-12-2020	Mr. G Dhananjay, HOD Dept.of Automobile engineering TMAES Polytechnic, Hospet	Chalk Talk PPT`s	48	PO1,PO4,PO5 and PSO1
03	PO5	Placement Orientation &career Guidance	05-03-2021	Mr. Madhvaraj Asst. Prof E&E Engg Dept PDIT, Hospet	Talk	50	PO5, PO7

Table 2.1.2.1:Lectures details to fulfill mapping of content beyond syllabus with Pos &PSOs(2020-2021)

CAY m1(2019-2020)

Sl. No	Gap	Action Taken	Date- Month -year	Resource person With Designation	Mode	No .of Students Present (%)	Relevance To Pos& PSOs
01	PO5, PO7	Seminar on modern Applications of Electrical Energy	13-Aug-2019	Mr.veeresh. H Lecturer Dept of EEE SES polytechnic College sirguppa.ballari	Chalk And Talk	84	PO5,PO702
02	PO3	Seminar on Power system protection	29-Aug-2019	Mr. Madhvaraj Asst. Prof E&E Engg Dept PDIT, Hospet	PPT	75	PO1,PO5, PO7 and PSO1

Table 2.1.2.3:lectures details to fulfill mapping of content beyond syllabus with Pos &PSOs(2018-2019)

,

CAYm2(2018-2019)

Sl, No	Gap	Action Taken	Date-month -year	Resource person with Designation	Mode	No .of students Present(%)	Relevance to Pos& PSOs
01	PO5 PSo1	Operation of electrical substation	13-Feb -2019	Mr .shivappa sobarad, E&E Dept SMV polytechnic,hospet	Chalk Talk PPT`s	48	PO1,PO2.PO5, PO7 and PSO1
02	PO3, PS01	Seminar on Maintenance of Substation and protection	10-10-2018	Mr .Ganeshwaraih,HOD E&E Dept SMV polytechnic,Hospet	Chalk Talk PPT`s	40	PO1,PO2,PO5 PO7 and PSO1
03	PO5	Seminar on Electrical Wiring systems	14-08-2018	Mr .venkatesh JTO,TMAES ITI Hospet	Talk &PPT	48	PO5,PO7

Table 2.1.2.3:lectures details to fulfill mapping of content beyond syllabus with Pos &PSOs(2018-2019)

2.2 **Teaching – Learning Process (160)**

2.3 2.2.1. Describe processes followed to ensure /improve quality of Teaching & Learning based on following points (25)

Institute marks 24.00

2.4

A Adherence to Academic Calendar (3) Institute marks 3.00

- Academic calendar provided by the Board is used as reference & the detailed calendar of events is prepared by the institute

and then the department calendar of events is prepared at the beginning of the semester which includes guest lecturers, workshops, industrial visit in plant training, sports day, internal assessment test, laboratory and semester end examination.

- The faculty and students adhere to the Department calendar of events.
- Program Co-ordinator monitors the academic calendar of the Department throughout the semester.

Maintenance of Course files :

For each course, file is prepared by the concerned faculty, The course file consists of following items.

1. **Course plan:** Course plans for each and every course are prepared by the course co-ordinator, before the commencement of the semester and it is duly approved after careful examination by the board. The course outcomes are defined for each course which are linked with PO's.
2. **Question Bank:** Question banks are prepared for each unit in the course based on the course objectives and considering the nature of the board question papers. The previous question papers of board are also maintained in the course files.
3. **Assignment :** Questions and test question papers along with model answers are included in the course files.
4. **T**he CIE reports and rubrics of each course is also included in the course file.

B. Use of various instructional planning and delivery methods (3) Institute marks 3.00

Subject allotment is done well in advance for the staff members to prepare course plan, soft and/or hard copies of the lecture notes.

- The course Co-ordinator prepares the course plan of theory and practical prior to the commencement of classes in specific formats suggested by Board of Technical Education in which thecourse Co-ordinator specifies the planned content delivery, planned date for content
- Delivery, hours allotted for planned content delivery, teaching aids and resources used for planned content delivery like chalk and talk, power point presentations, videos, models etc., learningoutcomes achieved along with the methodology adopted to validate the learning.
- Department follows Outcome Based Education (OBE) approach.
- The faculty adopts various innovative teaching & learning pedagogical methodologies to create the best learning experience for the student.

Lecture method and Interactive learning:

The faculty use chalk and board and LCD projector & screen in teaching the Students are also encouraged to actually interact during the lecture hour by getting the doubts clarified on the spot. The faculty using models, charts for interactive teaching.

Project-based learning :

During the period of study in the 5^{th} & 6^{th} semester, many real time projects are given to the students and they are guided by faculty.

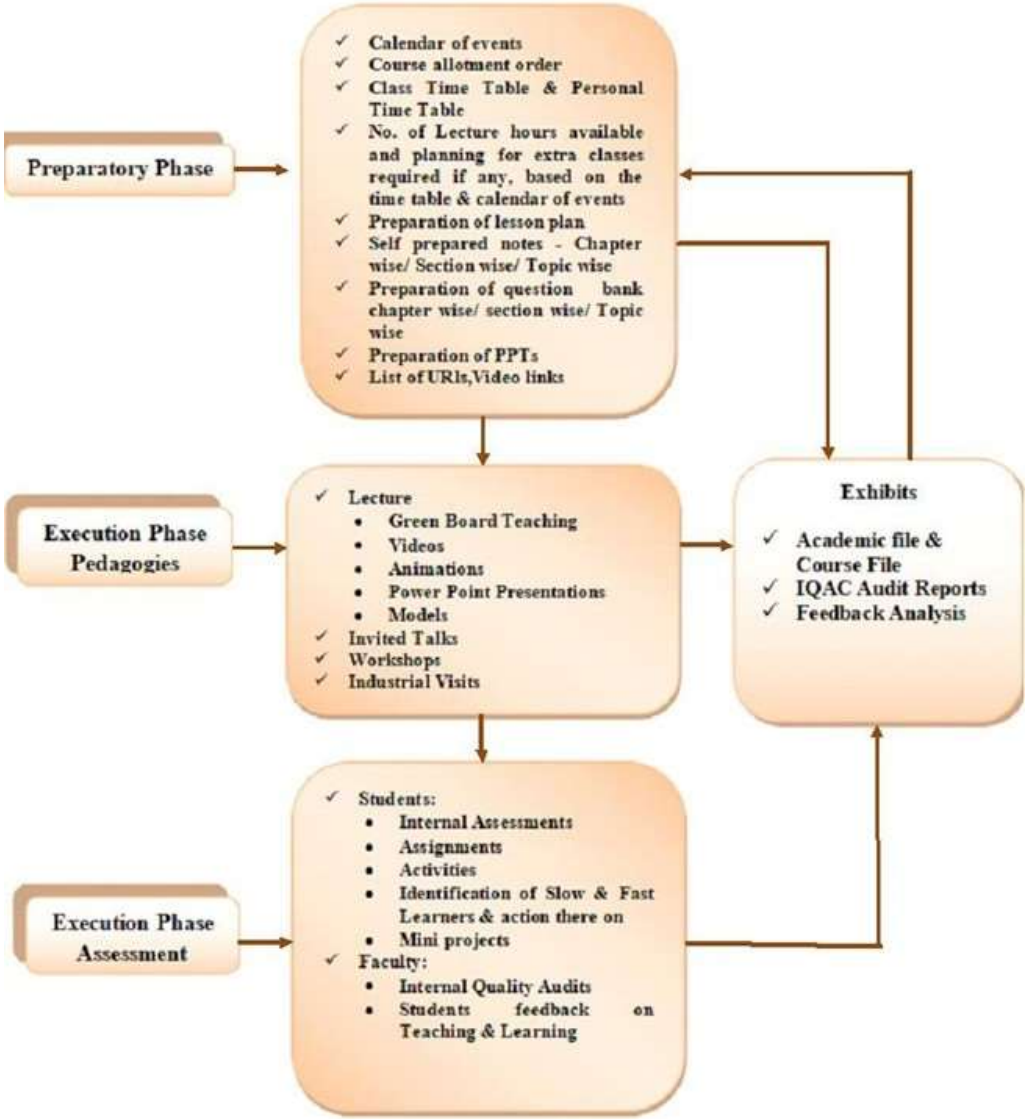
Computer-assisted learning:

The College has required number of computers, printers, projectors. These are effectively used for teaching. The students are also encouraged to prepare PPTs as the assignments and tutorials.

SMART class Room

Faculty are using SMART class room to interactive session, projector is used for demonstration, video (NPTEL), audio of classes

Flow Chart: - 2.2.1.1 – Various Instructional Planning & Delivery Methods



C . Methodologies to support weak students and encourage bright students (4) Institute Marks 4.00

A.**Methodologies to support weak students and encourage bright students (4)**

Guide lines to identify weak students & encourage bright students

- The course coordinator identifies weak and bright students.
- The weak students are identified from their participation in classroom discussion and performance in all CO's based on target set for that course.
- The mentors regularly conduct meetings regarding progress of their mentees and are responsible to identify students who scored less than 60% marks in their internals. Under the HOD direction,
- The Students mentors evaluates the progress card of those students who score below 60% marks in three or more subject and below 75% attendance are considered as academically weak students and
- Same is also intimated to their parents.

1. **Methodology to support weak students**

Personal counseling is done for weak students and remedial classes are conducted and extra assignments are given to the students based on CO performance. Teacher reinforces and simplifies the content as per the understanding capability of weak students.
Students are encouraged to answer previous board question papers.
Exam oriented revision classes are taken for the students who have failed in basic subjects.

2. **Methodology to encourage bright students**

Bright students are encouraged to give seminars and presentations. Highlighting top achievers in classroom.
Issuing certificate for toppers & presenting small gifts.

Bright students are encouraged to participate in various events like technical workshop, Project comp etitions at institute level/state level/national level.

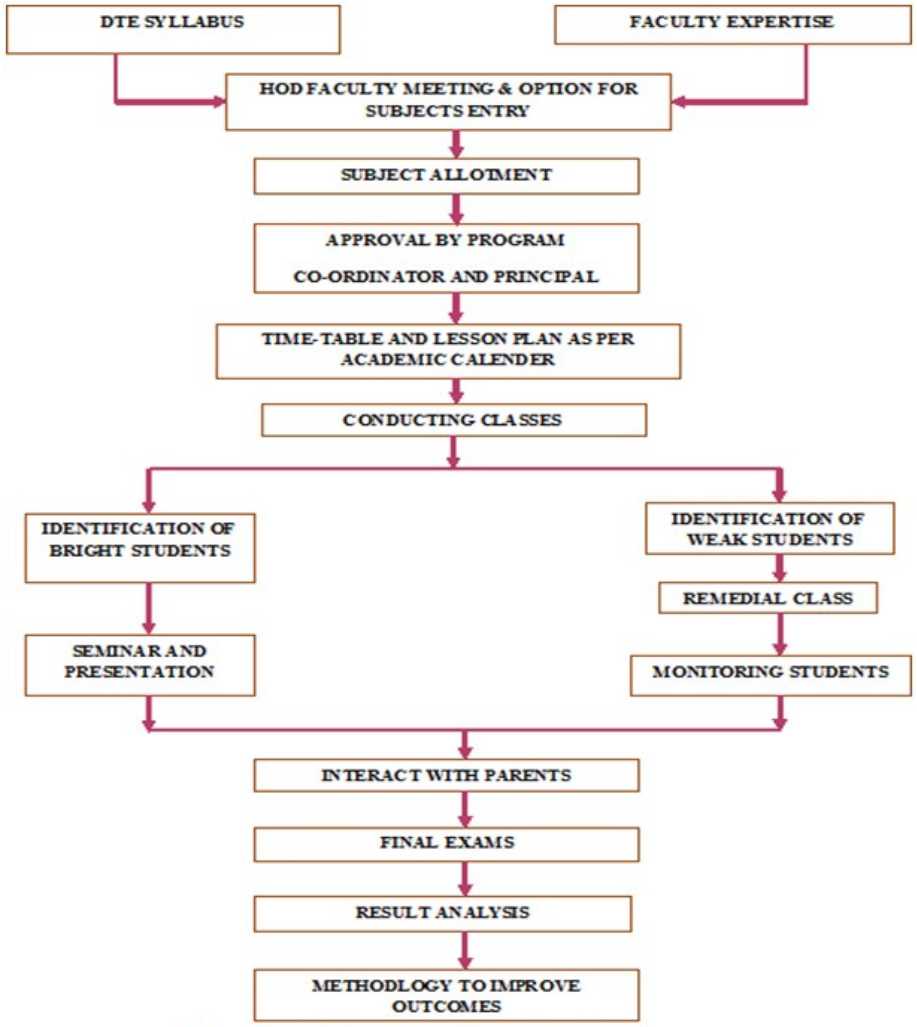
Bright students are involved in peer learning.

D. Quality of classroom teaching (3) Institute Marks 3.00

- Each classroom is spacious and quipped with green board and projectors.
- Each lecture is scheduled for one or two hours every day.
- The course plan forms an important tool for delivering the contents during teaching learning process.
- Course Co-ordinator prepares notes by referring to multiple sources as recommended by the board and these notes are provided to students during regular classes.
- During the lecture, faculties engage students by reviewing and asking questions on previous lecture and interactively deliver the content planned for the day.
- Quality of class room teaching is also enhanced by the use of Information Communication Technology tools such as PPT, videos etc.
- At the end of lecture, students are encouraged to summarize, ask doubts from the content taught.
- Feedback on teaching learning process helps in analyzing and improving the quality of classroom teaching.

The following innovative teaching methods are adopted by the faculty:

- Computers are used for teaching purposes and internet facility is available to students and faculty.
- Faculty members are taking advantage of sources like National Programme on Technology Enhanced Learning (NPTEL), internet sources for effective teaching.
- Smart Board, LCDs etc. are used for teaching purposes.
- Well structured course plans are prepared/revised for all theory and practical courses on a period to period basis, scrutinized by HODs.



Flow Chart 2.2.1.2 – Flow chart for Teaching Process

E. Conduct of experiments (3) Institute marks 3.00

- The department of electrical Engineering is equipped with necessary and sufficient equipment to carry out the experiments as per curriculum given by Board of Technical Education.
- Each graded exercise for the respective laboratories is allotted with required time schedule as per board guidelines. This timetable is priory informed to students.
- Laboratory manuals are prepared by the course coordinator prior to the start of semester which includes vision, mission of the institute and department, PO's, PSO's, list of experiments, introduction, aim, apparatus and procedure on how the experiments are to be done etc.
- The prepared laboratory manuals are issued to students through book bank scheme as ready reference. For the labo sessions, students are asked to bring lab manual & record.
- Students are advised to study the theory & procedure related to the experiment before conduction.
- Students conduct the experiments and record the observations.
- Students carry out experiments as specified in the course by the board, All laboratories have excellent facilities, For all manuals are provided. The observations are checked and verified by faculty and record books are maintained systematica

F. Continuous Assessment in the laboratory (3) Institute marks 3.00

For C-15 Curriculum - Continuous assessment system is also implemented for assessment of laboratory work. The assessment is done on the basis of two IA tests conducted, one after 50% of covering of syllabus and the other after completion of all experiments in the lab. The tests are valued for 50 marks are reduced to 10 marks. 10 Marks are also awarded for the graded exercises conducted by the student. 5 marks are awarded to the activity submitted by the student.

. **For C-20 curriculum** - CIE written test is conducted for 20 marks (Two sections). Each section shall have two full questions of same CL, CO. Student shall answer one full question (10 marks) from each section. 2. CIE Skill test is conducted for 100 marks (3 Hours duration) as per scheme of evaluation and the obtained marks are scaled down to

C -15 Curriculum

Sl.No	Particulars	Marks
1	Identifying the parts and selection of meters/equipment	05
2	Circuit diagram with Procedure for one experiment.	10
3	Connections, Conduction and Tabulation of Readings	20
4	Calculation and Results	05
5	Viva-voce	10
	Total	50

C – 20 Curriculum

Sl.No	Particulars	Marks
1	Identification of meters / equipment / wires / Tools etc.,	10
2	Writing circuit diagram / Writing diagram and procedure	25
3	Conduction	35
4	Results	10
5	Viva-voce	20
	Total	100

Table 2.2.1.1 A sample scheme of evaluation for T & A Lab of 3rd Sem and FEEE of 1st Sem E&E

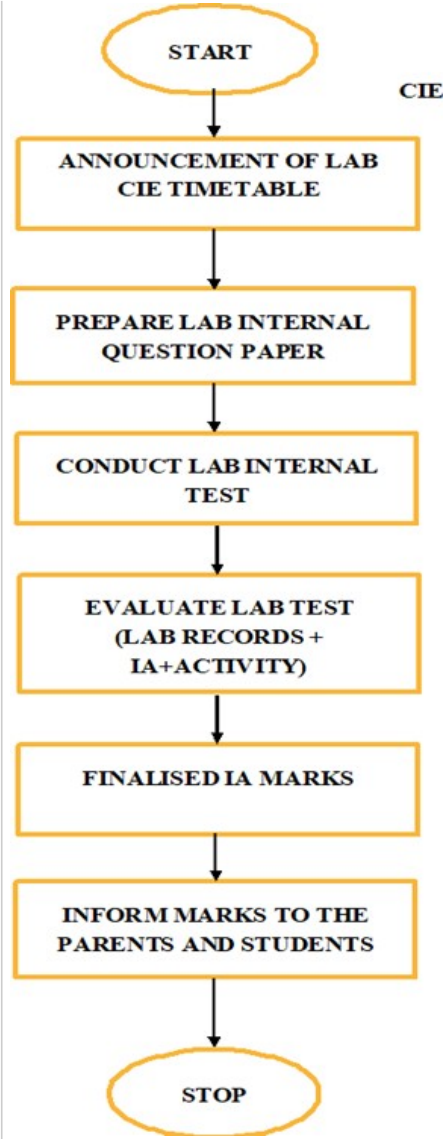
Activity is evaluated for 20 marks as per the rubrics

Dimension	Beginning	Developing	Satisfactory	Good	Exemplary	Student score
	1	2	3	4	5	
Collection of data	Does not collect any information relating to the topic	Collects very limited information; some relate to the topic	Collect much information; but very limited relate to the topic	Collects some basic information; most refer to the topic	Collects a great deal of information; all refer to the topic	
Fulfil team's roles & duties	Does not perform any duties assigned to the team role	Performs very little duties but unreliable	Performs very little duties	Performs nearly all duties	Performs all duties of assigned team role	
Shares work equally	Always relies on others to do the work	Rarely does the assigned work; often needs reminding	Usually does the assigned work; rarely needs reminding	Normally does the assigned work	Always does the assigned work without having to be reminded	
Listen to other Team mates	Is always talking; never allows anyone else to speak	Usually does most of the talking; rarely allows others to speak	Talks good; but never show interest in listening others	Listens, but sometimes talk too much	Listens and speaks a fair amount	
Average/Total Marks						

RUBRICS FOR ACTIVITY (5 Marks)

Dimension	Unsatisfactory	Developing	Satisfactory	Good	Exemplary	Students Score
	1M	**2M**	**3M**	**4M**	**5M**	
Gathering information	Not able tocollect anyinformation related to the topic	Collects very limited information some relateto the topic	collects much information but very limited relateto the topic	Collects some basic information most refer to the topic	Collects maximum information all refer to the topic	
Subject knowledge	No Subject knowledge relating to the topic	Very limited Subject knowledge some relate to the topic	Much Subject knowledge but very limited relate to the topic	Much Subject knowledge most referto the topic	Much Subject knowledge all refer to the topic	
Understand the sketch	Does not understandthe sketch	Limited number of elements are indentified from the sketch	Partially understand the elements of sketch	Much number of elements are identified from the sketch	Fully understand all elements of the sketch	
Writing the program	Does not able towrite the program for the givensketch	Wrote the only few lines of program for the given sketch	Partially wrote the program for given sketch	Wrote the program lastmost to the endlines	Completely wrote the programfor given sketch	
Execution	Not able toexecute the program	Limited steps are executed	Partially executed	Moderately analyzed the execution	Completely executed the program	
Average / Total marks=						

Table:- 2.2.1.2 sample rubrics for activity assessment (CIE)



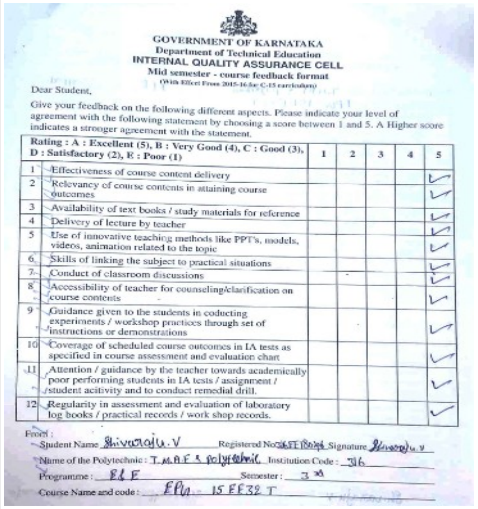
G. Student feedback of teaching learning process and action taken (6) Institute marks 5.00

Feedback is taken from students to assess the level of satisfaction of teaching and learning process applied by each course Co-Ordinator. This helps us evaluate the effectiveness of syllabuscoverage, course delivery and assessments

Process

- This feedback is taken online from all students once every semester for every course
- The assessment is done based on course, delivery of Instructions and Assessment.
- The consolidated report with the average percentage of ratings given by every student is generated for every course and analyzed.

Sample of feed back



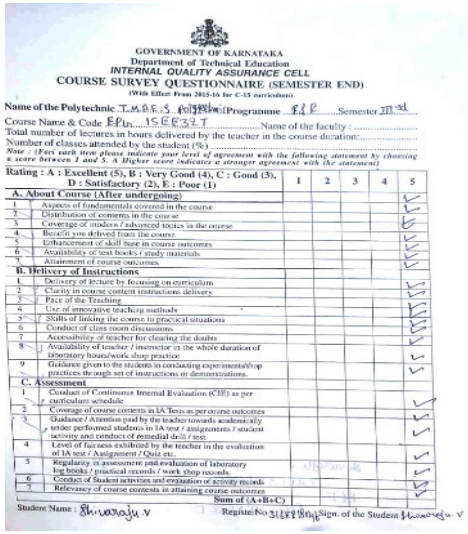
GOVERNMENT OF KARNATAKA
Department of Technical Education
INTERNAL QUALITY ASSURANCE CELL
Mid semester - course feedback format
(With Effect From 2015-16 for C-15 curriculum)

Dear Student,

Give your feedback on the following different aspects. Please indicate your level of agreement with the following statement by choosing a score between 1 and 5. A Higher score indicates a stronger agreement with the statement.

Rating : A : Excellent (5), B : Very Good (4), C : Good (3), D : Satisfactory (2), E : Poor (1)		1	2	3	4	5
1	Effectiveness of course content delivery					✓
2	Relevancy of course contents in attaining course outcomes					✓
3	Availability of text books / study materials for reference					✓
4	Delivery of lecture by teacher					✓
5	Use of innovative teaching methods like PPT's, models, videos, animation related to the topic					✓
6	Skills of linking the subject to practical situations					✓
7	Conduct of classroom discussions					✓
8	Accessibility of teacher for counseling/clarification on course contents					✓
9	Guidance given to the students in conducting experiments / workshop practices through set of instructions or demonstrations					✓
10	Coverage of scheduled course outcomes in IA tests as specified in course assessment and evaluation chart					✓
11	Attention / guidance by the teacher towards academically poor performing students in IA tests / assignment / student acitivity and to conduct remedial drill.					✓
12	Regularity in assessment and evaluation of laboratory log books / practical records / work shop records.					✓

Name : Shivaraju V Register No: 16ET [illegible] Signature: Shivaraju V
Name of the Polytechnic : T.M.A.E.S. polytechnic Institution Code : 216
Programme : E & E Semester : 3rd
Course Name and code : EPn - 15EE32T



GOVERNMENT OF KARNATAKA
Department of Technical Education
INTERNAL QUALITY ASSURANCE CELL
COURSE SURVEY QUESTIONNAIRE (SEMESTER END)
(With Effect From 2015-16 for C-15 curriculum)

Name of the Polytechnic T.M.A.E.S. polytechnic Programme E & E Semester 3rd
Course Name & Code EPn - 15EE32T Name of the faculty :
Total number of lectures in hours delivered by the teacher in the course duration:
Number of classes attended by the student (%)
Note : (For) each item please indicate your level of agreement with the following statement by choosing a score between 1 and 5. A Higher score indicates a stronger agreement with the statement)

Rating : A : Excellent (5), B : Very Good (4), C : Good (3), D : Satisfactory (2), E : Poor (1)		1	2	3	4	5
A. About Course (After undergoing)						
1	Aspects of fundamentals covered in the course					✓
2	Distribution of contents in the course					✓
3	Coverage of modern / advanced topics in the course					✓
4	Benefit you derived from the course					✓
5	Enhancement of skill here in course outcomes					✓
6	Availability of text books / study materials					✓
7	Attainment of course outcomes					✓
B. Delivery of Instructions						
1	Delivery of lecture by focussing on curriculum					✓
2	Clarity in course content instructions delivery					✓
3	Pace of the Teaching					✓
4	Use of innovative teaching methods					✓
5	Skills of linking the course to practical situations					✓
6	Conduct of class room discussions					✓
7	Accessibility of teacher for clearing the doubts					✓
8	Availability of teacher / instructor in the whole duration of laboratory hours/work shop practice					✓
9	Guidance given to the students in conducting experiments/shop practices through set of instructions or demonstrations.					✓
C. Assessment						
1	Conduct of Continuous Internal Evaluation (CIE) as per curriculum schedule					✓
2	Coverage of course contents in IA Tests as per course outcomes					✓
3	Guidance / Attention paid by the teacher towards academically under performed students in IA test / assignments / student activity and conduct of remedial drill / test					✓
4	Level of fairness exhibited by the teacher in the evaluation of IA test / Assignment / Quiz etc.					✓
5	Regularity in assessment and evaluation of laboratory log books / practical records / work shop records.					✓
6	Conduct of Student activities and evaluation of activity records					✓
7	Relevancy of course contents in attaining course outcomes					✓
	Sum of (A+B+C)					

Student Name : Shivaraju V Register No: 16ET [illegible] Sign. of the Student Shivaraju V

2.2.2 initiatives to improve the quality of semester tests and assignment (15) Institute marks 12.00

A. **Process for Internal semester question paper setting and evaluation and effective process implementation (5)**

Institute marks 4.00

- Course Co-Ordinator will set the internal question paper referring to previously held Board examinations question papers and from the question bank given by the board for each unit
- While setting question paper ,the course co-ordinator ensures proper cognitive learning levels are followed and CO-PO mapping is mentioned.
- Multiple question papers are collected from the course Co-ordinators and one among them is selected by program co-ordinator in order to maintain transparency.
- The scheme of evaluation and model answer script are prepared by course co-ordinator and maintained in course file.

Evaluation

- The students will write the internal assessment test in bluebooks.
- Course Co-Ordinator evaluates the bluebooks as per the prepared scheme of evaluation and model answer script.
- Bluebooks are shown to students for feedback so as to make improvement .
- Marks obtained by student in each test and attendance are displayed on notice board and SMS is sent to parents.
- Finalized IA marks (25M) are obtained by taking average of 3 CIE tests (20M) and activity (5M).
- Evaluated bluebooks are verified by the IA verifier assigned by Board of Technical Education and will be maintained by the department for at least three years.
- The internal assessment marks will be sent to the board after the verification done by IA Verifier assigned from Board and same is displayed on the notice board.

Effective process implementation:

- After the commencement of semester, the examination section will conduct three CIE (theory) based on completion of syllabus (33%, 66% & 100%) as per the calendar of events.
- Similarly two CIE for laboratories are conducted by Course Co-Ordinator on completion of syllabus (50% and 100%).
- The program Co-Ordinator will inform to the Course Co-Ordinator to set the internal question paper as per board norms

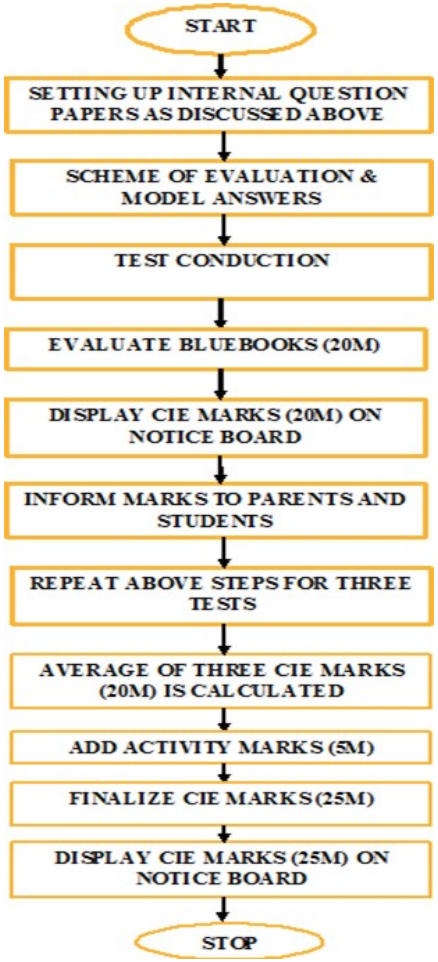


Figure 2.2.2.1- process followed for conduction of CIE(Theory)

B. **Questions paper setting taking into account outcomes /learning levels (5)** Institute marks 4.00

- To evaluate the students performance, CIE are conducted based on the syllabus covered as prescribed by the Board.
- The question paper is prepared by the Course Co-Ordinator in order to assess the understanding of student knowledge and s
- The CIE question paper includes the CO-PO mapping and also it covers cognitive levels(Remember /Understanding/Analy: Application……).
- Three CIE question papers are prepared by Course Co-Ordinator in such a way that all course outcomes are covered.

C. **COs coverage in class test / mid-term tests and assignments (5)** Institute marks 4.00

- Each course will have 3 to 6 well defined course outcomes.
- The Course Co-Ordinator will cover syllabus as planned and conduct the CIE to evaluate course outcomes.
- The Course Co-Ordinator decides coverage of COs in each test based on the hours allotted for each unit by the Board.
- Course Co-Ordinator will give activity/assignments for each course and pertaining to COs mentioned in the syllabus.

2.2.3 Quality of Experiments (15) Institute marks 12.00

A. Experimental methodologies (5) Institute marks 4.00

- Every laboratory in the department strives to excel in conduction of experiment s .The main methodology of experiment consists of:

1. Total strength is divided into two batches.
2. Both batches are allotted for different laboratories which run parallel for conduction of experiments.
3. For computer labs 1:1 ratio is maintained. For other labs 3 to 4 students are allotted for conduction.
4. The apparatus or instruments are provided for students to conduct experiment with DOs, Don't 's and safety measures.
5. The laboratory equipment is maintained properly in order to get correct readings, regular service and maintenance is carried out.

Laboratory manuals are prepared by Course Co-Ordinator prior to the start of semester and these are issued to students through book bank scheme as ready reference.

B .Innovative experiments including industry attached practices, virtual labs (5) Institute marks 4.00

- Knowledge enhancing classes are conducted for students during lab sessions by accessing videos from https://www.vlab.co.in/broad-area-electrical-engineering
- Students gain realistic knowledge about electrical techniques applied in various engineering fields.

(https://www.vlab.co.in/broadareamechanical-engineering)

We share various other links with students and inform them to study them during their free time to gain more knowledge and clarify from respective staff if any queries arise.

C. Relevance to outcomes (5) Institute marks 4.00

In order to provide practical knowledge for student with respect to programs ,syllabus contains both theoretical & practical courses.

- The graded experiment as per the laboratory is mapped with Cos, Pos & PSOs.

Sl. No.	List of experiments	Relevance to Co`s	Relevance to POS and PSOS
1	Extend the range of D.C. ammeter by using shunt	CO1	PO1,PO4,PSO1
	resistances (low range to high range)		
2	Extend the range of D.C. voltmeter by using series multiplier(low range to high range)	CO1	PO1,PO4,PSO1
3	Extend the range of A.C. ammeter by using C.T.(high range to low range)	CO1	PO1,PO4,PSO1
4	Extend the range of A.C. voltmeter by using P.T.(high range to low range)	CO1	PO1,PO4,PSO1
5	Calibrate a D.C. voltmeter by standard method	CO2	PO1,PO4,PO7,
6	Calibrate a A.C. voltmeter by standard method	CO2	PO1,PO4,PO7,
7	Measure power and power factor of single phase circuit using Wattmeter by indirect method	CO2	PO1,PO4,PO7,

8	Measure p .f . of single phase circuit by direct methodusing digital power factor meter and compare the same with indirect method	CO2	PO1,PO4,PO7,
9	Measure power and power factor of three phase circuit using 2-wattmeter by indirect method	CO2	PO1,PO4,PO7,
10	Measure p .f . of three phase circuit using digital power factor meter and compare the same with indirect method	CO2	PO1,PO4,PO7,
11	Calibrate a wattmeter by standard method	CO2	PO1,PO4,PO7,
12	Measure energy consumed by single phase circuit using analog single phase energy meter	Co2	PO1,PO4,PO7,
13	Measure energy consumed by single phase circuit using digital single phase energy meter and compare the same with analog single phase energy meter readings	CO2	PO1,PO4,PO7,
14	Measure energy consumed by three phase circuit using analog three phase energy meter	CO2	PO1,PO4,PO7,
15	Measure energy consumed by three phase circuit using digital three phase energy meter and compare the same with analog three phase energy meter readings	CO2	PO1,PO4,PO7,
16	Calibrate single phase energy meter by standard method	CO2	PO1,PO4,PO7,
17	Conduct an experiment to determine unknown inductance ,resistance and capacitance	CO3	PO1,PO4,PO7,PSO1
18	Conduct an experiment to determine physical and electrical parameters by using LVDT ,Strain gauges ,RVDT, Pyrometer, Thermo-couples, Bolometers Opto-sensors ,Piezo-Electric Sensors	CO4	PO1,PO4,PO7,PSO2
19	Measure R-L-C by using LCR Meter and current flowing in any phase AC Circuits using Digital Tong-Testers	CO3	PO1,PO4,PO7,PSO1

Table 2.2.3.1:Mapping of graded exercises of Electrical Measurements and Measuring Instruments lab

CAY 2022-2023

Sl. No	Course Name	Experiment	Relevance to Pos and PSOs
1	Transformers and alternators	Parallel operation of 3 phase alternator by synchronoscope method	PO4
2	Fundamentals of automation technology	Applications of SCADA/HMI/BCS	PO2,PO3,PO4,PSO1,PSO2
3	POWER ELECTRONICS	DC – DC Converter for different voltages Monolithic Synchronous buck regulator	PO2,PO4,PSO1,PS O2
4	Electrical Utility Engineering	Solar hybrid power plant, control panel	PO2, PO3, PO4, PSO1, PSO2

CAY m1 2021-2022

Sl. No	Course Name	Experiments	Relevance to POs and PSOs
1	MACHINES LAB	Characteristics of D.C. series generator	PO1,PO2,PO4,PSO1,PS O2
2	Mat lab	Design 1-bit adder	PO1,PO3,PO4,PO7
3	EM&MI lab	To measure frequency of AC supply using Weston frequency meter	PO1,PO4,PO7,PSO1,PS O2

CAY m2 2020-2021

Sl. No	Course Name	Experiment	Relevance to Pos and PSOs
1	MACHINES LAB	Characteristics of D.C.Cumulative and differential compound generator	PO1,PO3,PO4,PSO1,PS O2
2	Mat lab	Design BCD up counter	PO1,PO3,PO4,PO7
3	EM&MI lab	To measure power factor of fluorescent tube and improve pf by using shunt capacitor	PO1,PO4,PO7,PSO1,PS O2

2.2.4 Quality of Students projects and Report Writing (35) Institute marks 24.00

A. Identification of projects and allocation methodology (3) Institute marks 2.00

- Project work is initiated when the students are in beginning of 3 year.
- Students are divided into batches and project co-ordinator and program co-ordinator allot the project guide to each batch. Students have option to choose the areas in which they are interested to carry out the projects as per guidelines given by the project guide.
- Project guide finalizes the topic and students are asked to submit a synopsis of selected topic.
- Project work begins after the synopsis is approved by the project guide.

B. Types and relevance of the projects and their contribution towards attainment of POs and PSOs (5) Institute marks 4.00

- The Project work is selected by the students based on the available resources and the outcomes expected
- The Electrical Engineering field Industry supported project, ,non-conventional energy(like as Solar street lights basis),applications based project ,student based projects ,improvement over any existing system and any equipments / accessories required for the department of the board categories of project

- Project work is one of the direct measurement tools to access the attainment level of PO's and PSO's
- The projects undertaken by the students of Electrical Engineering in the years 2017-18, 2018-19 and 2019-20 are given in the following table which shows the relevance of projects towards the attainment of Pos and PSO.

CAY (2022-2023)

Sl. No	Project title	Nature of project	Attainment of outcomes Pos and PSOs
1	Internship	Industry	

CAY m1(2021-2022)

Sl .no	**Name of the project**	**Nature of project**	**Attainment of Out comes**	
			Pos	**PSOs**
1	2KW Roof top grid solar generator for 5KVA static UPS using hybrid solar charge controller	Eco-friendly and Distribution sector	PO1,PO5,PO6, PO7	PSO2

Table 2.2.4.2:Mapping of projects with Pos & PSOs for the academic year 2021-2022

CAY m2(2020-2021)

Sl .no	**Name of the project**	**Nature of project**	**Attainment of outcomes**	
			Pos	**PSOs**
1	STAND ALONE SOLAR HYBRID ROOF TOP POWER PLANT	Design and Eco-friendly and Distribution sector	PO3,PO5,PO6, PO7	PSO1

Table 2.2.4.3:Mapping of projects with Pos for the academic year **2020-2021**

C. Process for monitoring and evaluation (5) Institute marks 4.00

- Project work is carried out in two phases i.e. phase-I and phase-II.
- Phase-I is carried out in 5 th SEM.
- Phase-II is carried out in 6 th SEM.
- Students have to submit the synopsis of the project to the allotted project guide in the 5 th SEM.
- The project guide will suggest towards the improvement of the synopsis if needed
- Students incorporate the suggestions given by the project guide and start their project work at 6 semester.
- Project guide monitors and reviews progress of the project once a month and ensures that the students accomplish their tasks by giving timely suggestions & guidance.
- The Project guide will give suggestions to students which they need to incorporate before the submission of final report.
- Project work-I has only CIE.
- Project work-II has both CIE and SEE.
- Internal evaluation is done by a team comprising of project guide, project Co-Ordinator and Program Co-ordinator based on rubrics.
- The external evaluation is done by internal and external examiner allotted by the Board.

The examiners evaluate the project based on the scheme of evaluation given by the board mentioned in the table below.

Phase –l (project work-1)

Sl .no	Performance Indicator	Marks
1	Project Identification	05
2	Project Synopsis	10
3	Industrial Visit & Report	10
	TOTAL	25 Marks

Table 2.2.4.4:CIE assessment for first review (V semester)

Phase – l l (project work l l)SEE

Sl .no	Performance Indicator	Marks
1	Log sheets	05M
2	Assessment (as per Rubrics)	20M
Total		**25 Marks**

Table 2.2.4.5:CIE assessment for final review (VI semester**)**

Phase-II (project work II)SEE

Sl. no	Performance Indicator	Marks
1	Relevance of the subject in the present context	05
2	Literature Review	05
3	Model of the project /Data collection/repair and overhauling Work/creation	25
4	Result & Discussion	05
5	Presentation	10
Total		**50 Marks**

Table 2.2.4.6: schedule for evaluation of project work II

D. process to assess individual and team performance (5) Institute marks 4.00

- Individual performance is assessed by project guide based on viva-voice /explanation and presentation during monthly review.
- Rubrics is used to evaluate the individual performance in project work.
- Batch performance is judged by arranging departmental project competitions & exhibition.
- Students are encouraged to participate in state /district /inter college level project competitions.

RUBRICS FOR PROJECT WORK - ll (25 MARKS)						
DIMENSION	Unsatisfactory	Need improvement	Satisfactory	Good	Exemplary	Student Score
	1M	2M	3M	4M	5M	
Understand	Not able to understand	Very Little ableto understand	Less able to understand	Partially able to understand	Completely ableto understand	
Execution	Not able to execute properly	Execution is not up to the marks	Less ableto xecute	Partially able to Execute	Completely ableto execute	
Conducting Performance Test	Performance	Unclear performancewith some details and with inaccurate output	Limited performancewith less accurate output or result	Satisfactorily performance withpartially accurate or results	Exceptional performance with accurate outputor results	
Presentation	Performance No flow insufficient information	Presentation is Unorganized information is not identified	Presentation is Organized with less information	Presentation has Flow and information is organized with Some creativity	Presentation Is neat well Organized and Presented in colorful with Creativity. Information is interesting	

Report	Report has no flow ,Insufficient information	Report is unorganized information is not identified	Report is organized with less information	Report has flow and information is organized with some creativity	Report is neat Well organized and presented in Colorful with Creativity. Information Is interesting	
Designing Data Collection	No Designing & Data collection	Limited Designing but inaccurate data collection	More Designing & little accurate data collection	Good Designing & accurate data collection	Complete Designing & accurate data collection	

E. Quality of deliverable , working prototypes (12) Institute marks 10.00

- Quality of deliverables are analyzed based on the performance indicators in the scheme of evaluation which access the level of innovation, product development, research orientation,presentation, social relevance, problem-solving approach, etc.
- Students are encouraged to prepare working prototypes of all projects if not demo models are prepared

F. papers published /Awards/Recognition received by projects at state/National level (5) Institute marks

2.2.5 Industry Interaction and Industry Internship/Training (30)

Institute marks 21.00

A. Industry supported Labs (2)

Institute marks 1.00

Industry supported labs are planned to be established during the present academic year 2023-24

B. Delivery of appropriate Course work by Industry experts (5)

Institute marks 4.00

CAY (2022-2023)

SL .NO	Date	Topic Name	Guest Details	No ,of Students present
01	07.12.2022	Fire & Safety	Fire & Safety officer, Hospet	93
02	28.06.2022	Currier opportunities in Electrical Engineering professionals	Sri. Madwaraj.K Asst Professor PDIT, Hospet	120
03	18.01.2022	Sub station maintenance	B.Ramesh Kumar AEE KPTCL, Munirabad	54

Table 2.2.5.1:Details of course work by industry experts(22-23)

CAY (2021-2022)

SL .NO	Date	Topic Name	Guest Details	No ,of Students present
01	30.12.2022	Transformer manufacturing and maintenance	Manager Blaze Electric Co. Hospet	43
02	14.11.2022	Installation and Performance of Solar Power Plant	Managing Director, Kumars Energy Pvt Ltd., H.B.Halli	43

CAY (2020-2021)

SL .NO	Date	Topic Name	Guest Details	No ,of Students present
01	22-04-2021	Practical oriented testing of CT's and PT's in power plants	Mr. Shaik shahbaz ahmed Ass .Engg Energy management JSW SteelsLtd Ballari	142
02	10-10-2020	Power quality improvement of Grid connected wind energy system by STATCOM control scheme	Ms .Basavarajeshwari AAssociate engineer. L&T technology servicesMysore	124

C. Industrial visits/tours for students (3) Institute marks 3.00

Industrial visit gives greater clarity about the importance of Electrical Engineering concepts, as students practically experience how these concepts are put into action. Department of EE encourages industrial visits as a value-added learning method for diploma students. Learning from textbooks, lectures and other study material is not sufficient for holistic learning. Practical and hands-on learning is essential for better understanding of work processes.

Sl , No.	Academic Year	Date of visit	Place of visit	Type of Industry	No. Of students
1	2022-2023	17.04.2023	SCADA Station, Halvarthi	SUB STATION	55
2	2022-2023	26.07.2022	Bhoruka Power Corporation Ltd., Shivapura, Koppal	Hydro Power Generation	54
3	2021-2022	14.03.2022	220 KV Receving Station KPTCL, Itigi	Receiving Station	54
4	2021-2022	07.03.2022	KPCL Munirabad Power House	POWER GENERATION	46
5	2021-2022	09.03.2022	220 KV Receving Station Lingapur	SUB STATION	45
6	2019-2020	31-01-2020	NCL LIMITED T B DAM HOSPET	POWER GENERATION	48

7	2019-2020	20-08-2019	BTPS, KUDATINI DT, BALLARI	POWER GENERATING COMPANY	49
8	2019-2020	18-10-2019	220kv SUBSTATION KPTCL, HALVARTI KOPPAL DT	SUB STATION	48
9	2019-2020	29-01-2020	SUPA DAM & POWER HOUSE GANESH GUDI UK DIST	POWER GENERATION	48
10	2019-2020	31-01-2020	MANI DAM POWER HOUSE & VARAHI UNDERGROUND POWER STATION UDAPI	POWER GENERATION	48
11	2019-2020	30-01-2020 & 31-01-2020	110kv MUSS SANKLAPURA Tq . HOSPET	SUB STATION	48
12	2018-2019	12-10-2018	220kv RECEIVING STATION, KPTCL, SINDHANOOR	RECEIVING STATION	54

D .Industrial training/ internship (5) Institute marks 4.00

Internship

The students are encouraged to take industrial training during their semester holidays. Faculty members give their guidelines, suggestions and scope and contact details of an internship. Theyalso help the students by interacting with the industrial experts, provide the students recommendation letters and other necessary supports.

The alumni who are working in the industries are requested to provide necessary guidelines and supports for their juniors internship.

In plant Training:

Students are motivated to undergo Industrial Trainings during summer /winter holidays for gaining better industrial exposure

E. Post training/ internship Assessment (10) Institute marks 9.00

Students are asked to submit the in plant training report to the concerned course faculty.

- The students are required to present the knowledge gained through the training in the form of PPTs.
- The concerned course teacher then award marks on the basis of attendance, presentation, skill acquired, and knowledge gained.

F. Contribution to Community related projects/activities (5) Institute marks

2.2.6 Information Access Facilities and Student Centric Learning Initiatives (15) Institute marks 12.00

A. Availability of facilities & Effective Utilization: specify the facilities, materials and scope for self-learning, Webinars, NPTEL Podcast, MOOCs etc (10) Institute marks 8.00

- Information & Communication Technology enabled delivery methods; smart classrooms-projector, laptop for departments, seminar hall, video lecture, etc. are encouraged for teaching-learning process.
- Full fledged college library with relevant text book accessible to students with borrowing facilities.
- Full fledged well ventilated reference section with sufficient reference books & seating arrangements.
- Wi-Fi facility (116MBPS).
- Computer centre (20PCs) with internet facility is made available for students to access during free time.
- In digital library students can access online courses like NPTEL, MOOCs etc..
- Exclusive drawing hall facilities are available.

- Department library with relevant reference books accessible to students and facilities.

B. Students Centric Learning Initiatives & Effective Implementation (5) Institute marks 4.00

A. Following mechanism is incorporated in order to ensure the establishment of student centric system**.**

- Student being soul of the system and objective being Outcome Based Education, Individual attention is given to every student.
- Each student is given a topic for seminar & later questions are posed by faculty & students.
- A well-defined mentoring system is implemented in the department to identify and understand the student's problem.
- The attendance is monitored every day.
- The academic progress is monitored after CIE in order to provide the students with necessary support system.
- Parent-teacher meetings are arranged every semester. Appreciation/awards are given to the students having excellent academic or extracurricular/co-curricular achievements.
- Proctors are suggested students to go through the department library, language labs, digital library, NPTEL, MOOCs etc on regular basis.

College app is developed for the benefit of the students. This app contains course wise and topic wise videos , pdf notes and ppt presentation prepared by the Course Co-Ordinators this app can be accessed by the students 24/7 which will helps the students to understand the concepts better and clear the doubts A recording studio has been set-up in the institute for professional recording of these videos

2.2.7 New Initiatives for embedding Professional Skills (15) Institute marks 12.00

A. Employability skill enhancement Initiatives and effective implementation (8) Institute marks 6.00

Sl.No	Topic	Resource person
1	Entrepreneurship Development Programme	B Somashekhar , Joint director DIC Industries and commerce dept. Vijayanagar.

B. Personality development related Initiatives & effective Implementation (7) Institute marks 6.00

Student cantered activities are conducted every semester through the subject professional practice.

Students are taken out for industrial visits and they are asked to interact with the industry people.

Participation in sports, extra-curricular and co-curricular activities is encouraged to impart a different dimension to the personality development of student.

Personality development programs are conducted for students in order to focus the important attributes for the soft skill development

.

2.2.8 Co-curricular & Extra Curricular Activities (10) Institute marks 9.00

Sl .No.	Activity
1	PARTICIPATION IN COMMUNITY SERVICES (CYCLE RALLY)
2	YOGA
3	ENVIRONMENTAL DAY (Planting trees)

CRITERIA 3

COURSE OUTCOMES AND PROGRAM

3 COURSE OUTCOMES AND PROGRAM (100) total marks 94.00

Define the program specific outcomes

PSO1	Apply principles of engineering and laboratory skills for building, testing, operation and maintenance of electrical and electronic systems such as electrical machines, power and energysystems.
PSO2	Model and analyze, design and realize physical systems, components or processes related to electrical and electronics engineering systems
PSO3	Opt for higher studies or work professionally in power systems engineering, electrical machinery and electrical and electronic circuits

3.1 Establish the correlation between the courses and the POs and PSOs (20) total marks 20.00

3.1.1 Course Outcomes (SAR should include course outcomes of one course from each semester of study, however, should be prepared for all courses) (5) institute marks 5.00

Note : Number of Outcomes for a Course is expected to be 3 to 5.

Course Name : Basics of Electrical Power System C:102 Course Year : 2020-21

Course	Statement
C102.1	Describe the Non-renewable energy methods of Generation.
C102.2	Describe the Renewable energy methods of Generation.
C102.3	Analyze the economic operation of power generation.
C102.4	Describe basic elements of the electric transmission and distribution systems.

Course Name : Project Management Skills C:106 Course Year : 2020-21

Course	Statement
C106.1	Apply the concepts of Project Management to real projects which are expressed in the form of the Project reports or Engineering drawings
C106.2	Estimate Project resources needed – Time, Material and Effort, and Plan for execution
C106.3	Understand, analyse and assess the risks involved in a project and plan for managing them
C106.4	Use Project Management Software and processes to track and control Projects

C106.5	Conduct inspection of Projects and audit progress and bills
C106.6	Understand the Digital Technology trends in Project management and concepts like Smart cities

Course Name : Transformers and Alternators C:201 Course Year : 2021-22

Course	Statement
C201.1	Explain all the workplace safety regulations to be followed when handling electrical machines.
C201.2	Conduct the performance analysis of transformers and alternators, draw their characteristics and determine the suitability of the given transformer and alternator for the specific application
C201.3	List all the test parameters, testing procedure and demonstrate the testing and troubleshooting of a given transformer and alternator.
C201.4	Install a given transformer and alternator and define the various preventive maintenance processes to ensure smooth running of the transformer and alternator.

Course Name :Electric Motors C:205 Course Year : 2021-22

Course	Statement
C205.1	Conduct performance analysis of a given electrical motor, draw its characteristics and determine the right motor for a specific application.
C205.2	Select, Install and test the motor to be used for a specific application.
C205.3	Describe test parameters, testing procedures and demonstrate the troubleshooting of a given electric motor to ensure it performs optimally.
C205.4	Construct power circuit and control circuits using appropriate components /devices to control the given electric motor.

Course Name : Electrical Utility Engineering C:301 Course Year : 2021-22

Course	Statement
C301.1	Perform routine checks on most commonly used electrical utility equipment and carry out maintenance work as per schedule.
C301.2	Design electrical wiring system for commercial and industrial installations, Co-ordinate with consultants and contractors during implementation stages, Identify electrical faults in electrical wiring system and initiate repair work.
C301.3	Design LT distribution panels as per IS and IEC standards, Generate BOM (Bill Of Materials), wire up, test and commission it. Read electrical control wiring drawings of AMF, MCC, APFC control panels, wire up and test the control panels.
C301.4	Identify firefighting system equipment, select and operate the appropriate class of fire extinguishers, test for the normal working condition of electrical equipment related to the firefighting system. Identify STP, ETP and rainwater harvesting equipment, operate and maintain them.
C301.5	Install and test UPS system, computer LAN and CCTV surveillance. Select and interface smart meters to computer network. Operate EMS (Energy Management System) and Solar power generation monitoring software. Interpret the data from EMS.

Course Name : Internship/Projct C:302 Course Year : 2021-22

Course	Statement
C302.1	Apply the theoretical knowledge and skill during performance of the task assigned in internship
C302.2	Demonstrate soft skill such as time management, positive attitude and communications skill during performance of the task assigned in internship
C302.3	Document the use case on the assigned task

3.1.2 CO-PO matrices of courses selected in 3.1.1(Six matrices to be mentioned; one per semester from 1st to 6th semester) (5)

Course name : Basics of Electrical Power System C102

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C102.1	3						
C102.2	3						
C102.3	3						
C102.4	3						
Average	**3**						

Course name : Project Management Skills C106

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C106.1	3	3			2		3
C106.2	3	3					3
C106.3	3	3	1				3
C106.4	3			1		1	3
C106.5	3	3			2		3
Average	3				2		3

Course name : Transformers and Alternators C:201

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C201.1	3	3	3				
C201.2	3	3	3				
C201.3	3	3	3				
C201.4	3	3	3				
Average	3	3	3				

Course name : Electric Motors C:205

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C205.1	3	3		3			
C205.2	3	3		3			
C205.3		3		3			
C205.4		3	1	3			
Average	3	3	1	3			

Course name : Electrical Utility Engineering C:301

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C301.1	3	3	3	3	3		
C301.2	3	3	3	3	3		
C301.3	3	3	3	3	3		
C301.4	3	3	3	3	3		
C301.5	3	3	3	3	3		
Average	3	3	3	3	3		

Course name : Internship / Project C302

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
302.1	3	3	3	3	3	3	3
302.2	3	3	3	3	3	3	3
302.3	3	3	3	3	3	3	3
Average	**3**	**3**	**3**	**3**	**3**	**3**	**3**

1. **Course name : Basics of Electrical Power System C102**

Course	PSO1	PSO2	PSO3
102.1	3		
102.2	3		
102.3	3		
102.4	3		
102.5	3		
Average	**3**		

2. **Course name : Project Management Skills C106**

Course	PSO1	PSO2	PSO3
102.1	3		
102.2	3		
102.3	3		
102.4	3		
102.5	3		
Average	**3**		

1. Course name : : Transformers and Alternators C:201

Course	PSO1	PSO2	PSO3
201.1	3		
201.2	3		
201.3	3		
201.4	3		
Average	**3**		

1. Course name : : Electric Motors C:205

Course	PSO1	PSO2	PSO3
205.1	3		
205.2	3		
205.3	3		
205.4	3		
205.5	3		
Average	**3**		

1. Course name : : Electrical Utility Engineering **C:301**

Course	PSO1	PSO2	PSO3
301.1	3		3
301.2	3		3
301.3	3		3
301.4	3		3
301.5	3		3
Average	**3**		**3**

Course name : : Course name : Internship / Project **C302**

1.

Course	PSO1	PSO2	PSO3
301.1	3		3
301.2	3		3
301.3	3		3
Average	**3**		**3**

3.1.3 - A Program level Course-PO matrix of all courses INCLUDING first year courses (10) institute marks 10

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C101	3	0	3	0	0	0	3
C102	3	0	0	0	0	0	0
C103	3	0	0	3	0	0	0
C104	3	0	0	3	0	0	0
C105	3	0	0	0	3	0	3
C106	3	3	1	1	2	1	3
C107	3	3	0	3	3	0	3
C108	3	3	0	0	0	0	3
C109	3	0	0	3	0	0	3
C110	3	0	0	3	0	0	0
C201	3	3	3	0	0	0	0
C203	3	3	2	3	0	0	0
C204	3	3	0	3	0	0	0
C205	3	3	1	3	0	0	0
C206	3	3	3	3	0	0	0
C207	3	3	3	3	0	0	0
C208	3	0	0	3	0	0	0
C301	3	3	3	3	3	0	0
C302	3	3	3	3	3	3	3

3.1.3 - B Program level Course-PSO matrix of all courses INCLUDING first year courses

Course Index	PSO1	PSO2	PSO3
C101	0	0	0
C102	3	0	0
C103	0	3	0
C104	3	0	0
C105	0	0	0
C106	3	0	0
C107	0	0	0
C108	0	0	0
C109	0	0	0
C110	3	0	0
C201	3	0	0
C202	3	0	0
C203	3	0	0
C204	3	0	0
C205	3	0	0
C206	3	0	0
C207	0	0	0
C208	0	3	0
C301	3	0	3
C302	3	0	3

3.2 Attainment of Course Outcome (40) total marks 37.00

3.2.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based (10)

Institute Marks 9.00

Direct Assessment Tools

A. Internal Assessment (CIE)
B Activity/assignment/Mini project
C Graded exercise
D Laboratory records
E Reports (In-plant Training/Project/Professional Practice)
F SEE

A. I NTERNAL ASSESSMENT (CIE) OBJECTIVE:

- To assess the CO level of attainment.
- To evaluate students ability in understanding the course.
- To analyze teaching methodology and to improve further.

METHODOLOGY:

I A test is a closed book test.

- Three I A tests are conducted in a semester as scheduled in the calendar of events.
- Two CO's are considered for each I A test and pattern of I A question paper is informed to students.
- The I A test time table is displayed on the notice board.
- Question papers include all the details like general instructions, duration, maximum marks, CO mapping, cognitive levels.
- IA booklets are evaluated by the respective faculties as per the scheme of valuation and answer script prepared earlier.
- Valuated IA Booklets are given back to students to access their quality of answers.
- Marks scored for every CO are recorded in the answer booklet after every valuation and same is entered in the CIE report.

- All IA booklets are subjected to inspection by DTE officials.
- The entire Internal Assessment process is carried out in comparison with examinations question paper pattern.

B. ACTIVITY/ASSIGNMENT/MINI PROJECT OBJECTIVES:

- To assess the attainment level of CO's.
- To measure the ability of the student in the learning level perspective.

METHODOLOGY

- Activity and assignment's are given to students.
- The assignment questions are framed and given to students after completion of 1 or 2 CO's.
- Answers are to be written on A4 sheet and filed for each course.
- Evaluation is carried out by the respective faculties as per Rubrics.
- The marks are recorded for further analysis.

B. GRADED EXERCISES OBJECTIVES:

- To assess the attainment level of CO's.
- To assess the practical skills the student has acquired in Laboratory.
-

METHODOLOGY:

- It is a closed book test and two such tests are conducted during the semester.
- Prior intimation is given to the students about the test.
- The questions are framed such that all COs of the course are covered.
- Students are allowed for conduction only after writing proper procedure, sequence of operations, selection of tools, circuits, formulae etc in a booklet.
- During conduction of experiment, each student is being monitored to assess safety norms, systematic approach, practical

skill, etc and to avoid any mishaps.

- After completion of experiment, the performance of the student is assessed as per scheme of valuation.
- Marks are awarded based on the performance and the same is informed to the students.
- The marks obtained by individual students are recorded for further analysis.
- All Internal assessment booklets are subjected to internal audit and inspection by DTE officials

D. LABORATORY RECORDS OBJECTIVES:

- To assess the attainment level of CO's.

CONTENT:

- Records contain certificate.
- Manuals contain Department vision, mission statement, Department POs & PSOs.
- Manuals contain Safety precautions pertaining to that laboratory/ workshop (DOs & DONTs).
- Manuals contain COs of that course.

METHODOLOGY:

- Students are asked to write the aim, apparatus used, procedure, calculations etc systematically in records
- Records are evaluated by the faculty in every lab session experiment wise.
- Average marks of all graded exercise will be considered for awarding final record marks
- Marks obtained by individual students are compiled for future analysis.
- Sample lab/workshop records are preserved in the department as proof at the time of IA verification by DTE officials to check the quality and fairness of assessment.

E. Reports (Project work/In-plant Training)

PROJECT WORK

Objectives

- To stimulate innovative thinking of a student.
- To cultivate habit of planning & organizing different activities to meet the target.
- To improve communication both in written and oral.
- To update & adopt technological advancement.
- To have an experience to work as a member or leader of a team.
- To study the effect of project on environment.
- To apply knowledge gained during the course at different stages of the project.

PROCESS

- Project work is initiated when the students are in the beginning of final year.
- Students have option to choose the areas in which they are interested to carry out the projects as per guidelines given by the project Co-Ordinator.
- Students approach project Co-Ordinator to continue the project which they have selected.
- Students are asked to submit a synopsis of selected topic.
- Project Co-Ordinator & Program Co-Ordinator will decide to form a project batch.
- Based on the areas and domains of the project the guide allocation is done by Program Co-Ordinator & project Co-Ordinator.
- The project batch will work under the guidance of project guide.
- After completion of project students exhibit the same in project exhibition.
- Projects are evaluated and marks are recorded for further analysis.

F. IN-PLANT TRAINING OBJECTIVES:

- To witness an industrial atmosphere.

- To have a general idea of machines, products, process, material inspection/ quality control, tools, material handling, packing, end use, etc.
- To know the general work culture in an industry.

- To have an exposure to industrial safety & work shop rules, general discipline, punctuality, health, hygienic & environmental awareness.
- To know the importance of time management & target fulfillment.

PROCESS:

- Permission from industry.
- Permission from principal to take the students for a visit with all the necessary details.
- Prior information to students and instruction about the arrangements, safety precautions, use of protective gadgets and general discipline to be followed inside shop floor, awarenessabout restricted and prohibited areas and any other instructions related to that industry.

DURING THE VISIT:

- List of students along with accompanying faculty member.Undertaking from the students.
- Students ID card, Phone Number and other details if required by the industry.
- Note pad to note down important points during the visit.
- Photographs along with faculty accompanying in front of the company if permitted.

AFTER THE VISIT:

- Oral feedback from the students.
- Report writing.
- Submission of report to the guide.

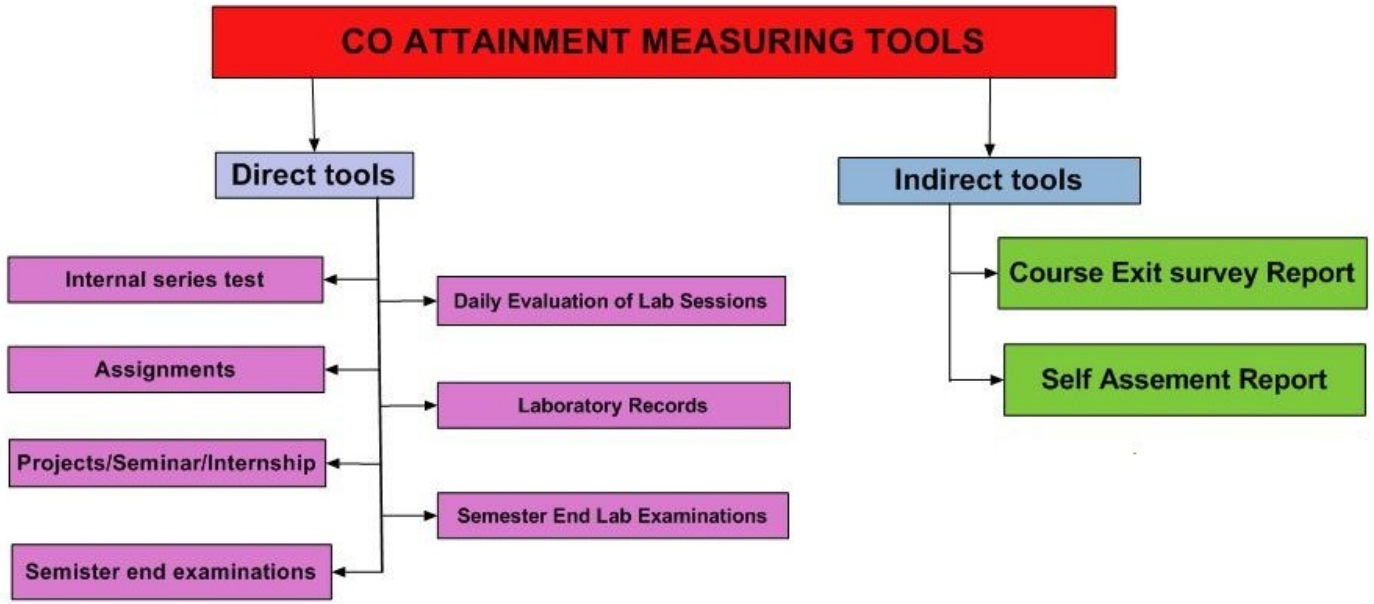
G. END EXAMINATIONS:

OBJECTIVES:

To assess the level of attainment of COs, POs & PSOs.
To introspect about teaching and learning process followed for further improvement.
To analyze the overall performance of the program.

METHODOLOGY:

Collection of end exam result course wise.
Computation and compilation of marks scored student wise.
Since the end examination is a direct measurement tool, weightage to be given as decided by the NBA committee. Attainment of Courses is tabulated to calculate semester wise & program level attainment of POs & PSOs


CO ATTAINMENT MEASURING TOOLS
Direct tools
Indirect tools
Internal series test
Daily Evaluation of Lab Sessions
Assignments
Laboratory Records
Projects/Seminar/Internship
Semester End Lab Examinations
Semister end examinations
Course Exit survey Report
Self Assement Report

Sl. No.	Assessment Method	Assessment frequency	Assessment Tool	In charge	Reviewer
1	Internal Assessment Test (CIE-Theory)	After 3rd, 7th, 11th Week	Performance in tests (IA Books)	Course coordinator	HOD
2	Internal Assessment Test (CIE-Practical)	After 5th, 9th, 13th Week	Performance in tests (IA Books)	Course coordinator	HOD
3	Semester End Exam (SEE) (Practical)	At the end of the semester	Performance in SEE (Answer Sheets)	External & Internal Examiners appointed by BTE, Bengaluru	
4	Semester End Exam (SEE) (Theory)	At the end of the semester	Performance in SEE (Answer Sheets)	Valuer & Reviewer appointed by BTE, Bengaluru	
5	Project/Internship (CIE)	During 6th Semester	Rubrics	Guide/ Cohort Owner	HOD
6	SEE on Project/Internship and Viva	At the end of 6th Semester	Students performance in SEE	External & Internal Examiners appointed by BTE, Bengaluru	
7	Assignments	After each CIE Test	Assignment Books/Sheets	Course coordinator	HOD
8	Course Exit Survey	End of semester	Student Survey	Course coordinator	HOD
9	Self Assessment Report	End of semester	Student Survey	Course coordinator	HOD

3.2.2 Record the attainment of Course Outcome of all courses with respect to set attainment levels (30) Institute Marks 28.00

Measuring Course Outcomes attained through board examinations

Target may be stated in terms of percentage of students getting more than the board average marks or more as selected by the program in the final examination. For cases where the Board does not provide useful indicators like average or median marks etc., the program may choose an attainment level on its own with justification;

Level 1:55% students scoring more than board average percentage marks in the final examination is considered to be attainment of Level "1"

Level 2: **65% students** scoring more than board average percentage marks in the final examination is considered to be attainment of Level "2"

Level 3: **75% students** scoring more than board average percentage marks in the final examination is considered to be attainment of Level "3"

Program shall have set Course Outcome attainment levels for all courses.

(The attainment levels shall be set considering average performance levels in the board examination for the assessment years. Attainment level is to be measured in terms of student performance in internal assessments with respect the COs of a course plus the performance in the Board examination)

Measuring CO attainment through Internal Assessments: (The examples indicated are for reference only. Program may appropriately define level)

Mid-term test 1 addresses C202.1 and C202.2. Out of the maximum 20 marks for this test 12 marks are associated with C202.1 and 8 marks are associated with C202.2.

Examples related to attainment levels vs targets

- Attainment Level 1: 60% students scoring more than 40% marks out of the relevant maximum marks.
- Attainment Level 2: 70% students scoring more than 40% marks out of the relevant maximum marks.
- Attainment Level 3: 80% students scoring more than 40% marks out of the relevant maximum marks.

CO Attainment has been calculated by assuming 60% weightage to SEE, and 40% weightage to Internal Assessment

Final CO Attainment is calculated by assuming 80% weightage to Direct Attainment and 20% weightage to Indirect Attainment

%CO Attainment Direct									
Sl. No.	**SEM**	**Course**	**Course Code**	**CO1**	**CO2**	**CO3**	**CO4**	**CO5**	**CO6**
1	1	MATHS	C101	66.82	76.55	76	80.96	83.43	
2		BEPS	C102	51.89	54.03	55.63	56.83		
3		CAEG	C103	36.87	38.48	38.12	36.87		
4		FEEE	C104	43.21	45.09	44.68	43.21		
5	2	PMS	C106	38.9	40.95	41.12	47.62	40.36	
6		S & A	C107	100	100	100	100		
7		CS	C108	100	100	100	100		
8		IT Skills	C109	49.2	44.62	47.71	49.2	42.96	
9		REWP	C110	66.31	66.31	68	68		
10	3	T & A	C201	96.1	95.12	95.61	96.59		
11		T & D	C202	82.77	77.1	84.9	76		
12		SGP	C203	88.77	80.18	93.7	84.81		
13		A & DE	C204	89.81	81.33	88.01	85.28		
14	4	EM	C205	44.3	45.57	55.79	57.08		
15		PE	C206	89.92	89.81	91.53			
16		FAT	C207	80.94	77.91	84.9	85.44		
17		CAED	C208	88.89	98.07	97.56	95.93		
18	5	EUE	C301	93.31	93.62	93.37	93.62	93.54	V
19	6	Int/Proj	C302	90.41	90.41	90.41			

%CO Attainment Indirect									
Sl. No.	**SEM**	**Course**	**Course Code**	**CO1**	**CO2**	**CO3**	**CO4**	**CO5**	**CO6**
1	1	MATHS	C101	84.63	95.29	97.65	97.06	97.14	
2		BEPS	C102	96.1	95.12	95.61	96.59		
3		CAEG	C103	96.8	96.43	92.34	90.75		
4		FEEE	C104	45.63	45.37	45.63	45.37		
5	2	PMS	C106	48.06	50.96	51.85	51.85	43.21	32.41
6		S & A	C107	96.1	95.12	95.61	96.59		
7		CS	C108	96.1	95.12	95.61	96.59		
8		IT Skills	C109	48.33	47.78	38.89	48.61	38.67	
9		REWP	C110	51.26	47.22	48.89	51.85	50.96	
10	3	T & A	C201	76.88	76.1	79.67	80.49		
11		T & D	C202	90.39	84.79	87.16	86.68		
12		SGP	C203	82.5	76.34	81.15			
13		A & DE	C204	67.27	69.76	70.11	67.61		
14	4	EM	C205	35.59	66.94	63.74	53.66		
15		PE	C206	55.64	55.64	55.98	49.39		
16		FAT	C207	45.54	44.4	55.29	55.29		
17		CAED	C208	43.37	52.53	60.29	61.05		
18	5	EUE	C301	93.31	93.62	93.37	93.62	93.51	V
19	6	Int/Proj	C302	97.71	95.43	97.14			V

3.3 Attainment of Program Outcomes and Program Specific Outcomes (40) Total Marks 37.00

3.3.1 Describe assessment tools and processes used for assessing the attainment of each POs and PSOs as mentioned in Annexure 1 (10) Institute Marks 9.00

Describe assessment tools and processes used for assessing the attainment of each POs & PSOs PO Assessment Tools. Assessment tools are categorized into Direct and Indirect methods to assess the programme educational objectives, program outcomes and course outcomes.

Direct methods display the students' knowledge and skills from their performance in the continuous assessment tests, semester end examinations, presentations, and classroom assignments etc.these methods provide evidence of student learning performance.

Indirect methods: A survey is conducted including alumni, students' performance in interviews, industrialist's opinions and other stakeholders to know graduation knowledge & skills.

PO Direct Assessment Methods		
S. No.	**Assessment Method**	**Description**
1	Internal AssessmentTest	It is a metric to continuously assess the attainment of course outcomes, student's learning domains and thus improve the teaching –learning process. The Internal Assessment marks in a theory paper shall be conducted at the end of 3rd , 7th and 11th weeks of each semester. An additional test may be conducted for the desirous students before the end of the semester to give an opportunity to such students to improve their Internal Assessment Marks. Average of the better marks obtained from the Internal Assessment Marks for the relevant subject.
2	Lab Assessment Test	Lab Assessment is a metric to mainly assess student's practical knowledge with their designing capabilities .In the case of a Practical, the IA marks shall be based on the laboratory journals/reports, conduction of experiments and one practical test.
3	Semester End Examination	Semester theory examinations are the metric to assess whether all the course outcomes are attained w .r. t course objectives framed by the instructor. Semester Examination is more focused on attainment of course outcomes and uses a descriptive exam. Practical semester examination focuses on conductionof experiments and vice- voice.

4.	Seminar/Project/ Internship	The IA marks in the case of mini projects, projects and seminars in the final year shall be based on the evaluation at the end of 6th semester by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the project / seminar guide.
5.	Project/Internship Work Viva-voce	Viva-voce examination in project work shall be conducted batch-wise.
6.	Assignment	Assignment is a metric to mainly assess student's knowledge/skills/attitude with their designing capabilities.

3.3.2 Provide results of evaluation of each PO & PSO (30) Institute Marks 28.00

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
C101	2.91	2.90	2.90	2.90			0.98
C102	1.09	1.09	0.36	1.09	0.73	1.09	0.73
C103	2.77			2.77			
C104	2.78			2.78			
C105	2.93	1.46	0.49	0.98	0.97	0.98	0.98
C106	2.22	0.74	0.86				2.22
C107	3	3					3
C108	2.84			2.84			2.84
C109	2.77	0.92	0.92	1.84	0.92		

C201	2.48	0.83	2.48	2.48	0.42	2.48	2.48
C202	2.45	2.45	2.45	2.45	0.2	2.45	2.45
C203	2.51	2.51	1.68	2.51	1.68	2.51	0.56
C204	2.34	0.78	0.39	2.34	2.34	1.56	2.34
C205	0.43	2.61	1.32	1.96	0.65		1.31
C206	2.64	0.65	0.65		2.64		1.76
C207	2.65	2.65	2.65		0.45		0.9
C208	2.76		2.76		2.08		0.91
C301	2.80	2.80	2.80	2.80	2.80		
C302	2.90	2.90	2.90	2.90	2.90	2.90	2.90

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7
Direct Attainment	2.365	1.622	1.477	2.042	1.269	1.804	1.784
Indirect Attainment	2.781	1.788	1.795	2.271	1.58	2.25	2.055
PO Attainment	2.89	2.20	2.36	2.79	1.93	2.57	2.47

PSO Attainment

Course	PSO1	PSO2	PSO3
C101	2.91	2.91	2.88
C102	0.73	0.73	1.09
C103	1.84	1.84	2
C104	2.78	2.78	2
C105	0.98	1.95	2.93
C106	2.22	2.22	2.33
C107	2.61	2.78	3
C108	1.9	0.95	1
C109	2.77	2.77	3
C201	2.48	2.48	3
C202	2.45	2.45	3
C203	2.51	2.51	3
C204	1.56	1.56	2
C205	2.61	2.61	3
C206	0.88	2.64	3
C207		1.77	2

C208	2.76	2.76	3
C301	2.80		2.80
C302	2.91		2.91

PSO Attainment Level

Course	PSO1	PSO2	PSO3
Direct Attainment	2.028	2.128	2.373
Indirect Attainment	2.337	2.479	2.561
PSO Attainment	2.47	2.61	2.67

CRITERIA 4

STUDENTS' PERFORMANCE

4 STUDENTS' PERFORMANCE (200) Total Marks 112.67

Intake Information :

Table 4.1

Item	2023-24 (CAY)	2022-23 (CAYm1)	2021-22 (CAYm2)	2020-21 (CAY3)	2019-20 (CAYm4)	2018-19 (CAYm5)
Sanctioned intake strength of the program (N)	50	50	50	50	50	50
Total number of students, admitted through state level counselling (N1)	50	48	50	50	49	50
Number of Students, admitted through Institute level quota (N2)	03	02	02	02	03	04
Number of students, admitted through Lateral Entry (N3)	05	05	05	06	05	09
Total number of students admitted in the programme (N1+N2+N3)	58	55	57	58	57	63

Table 4.2

Year of entry	Total No of students admitted in the program (N1+N2+N3)	Number of students who have successfully passed without backlogs in any year of study		
		I year	II year	III year
2023-24	58	0	0	0
2022-23	55	19	0	0
2021-22	57	20	24	0
2020-21 (LYG)	58	16	16	14
2019-20(LYGm1)	57	20	16	16
2018-19(LYGm2)	63	20	17	17

Table 4.3

Year of entry	Total No of students admitted in the program (N1+N2+N3)	Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog]		
		I year	II year	III year
2023-24	58	0	0	0
2022-23	55	45	0	0
2021-22	57	51	51	0
2020-21 (LYG)	58	38	38	38
2019-20(LYGm1)	57	35	35	35
2018-19(LYGm2)	63	28	28	28

4.1 Enrolment Ratio (20)

Total Marks 20.00

Institute Marks 20.00

	N (Form Table 4.1)	N1 + N2 (Form Table 4.1)	Enrolllment Ratio [(N1+N2 / N)*100]
2023-24	50	53	100.00
2022-23	50	50	100.00
2021-22	50	52	104.00

Average [(ER1 + ER2 +ER3 / 3] : = 103.33

Assessment : 20.00

4.2 Success Rate in the stipulated period of the program (60)

Total Marks 27.40

4.2.1 Success ratio without backlogs in any year of study (40)

Institute Marks 10.40

Item	Last Year Graduate (2020-21)	Last Year Graduate Minus 1 Batch (2019-20)	Last Year Graduate Minus 2 Batch (2018-19)
Total Number of students (X) (admitted through state Level counselling + admitted Through institute on level quota + Admitted through Lateral entry) (N1+N2+N3)	58	57	63
Number of students who have graduated without backlogs In the stipulated period (Y)	15	16	16
Success Index [Sl =Y / X]	0.25	0.28	0.25

Average SI [{SI1+SI2+SI3) / 3] : 0.25 + 0.28 + 0.25/3 = 0.26

Assessment [40* Average SI]: 40 x 0.26 = 10.4

4.2.2 Success rate in stipulated period (20) Institute Marks 11.40

Item	Last Year Graduate LYG (2020-21)	Last Year of Graduate Minus 1, LYGm1 (2019-20)	Last Year of Graduate Minus 2 LYGm2 (2018-19)
Total Number of students (X) (admitted through state Level counselling + admitted Through institute on level quota + Admitted through Lateral entry) (N1+N2+N3)	58	57	63
Number of students who have passed In the stipulated period (Y)	38	35	28
Success Index [Sl =Y / X]	0.655	0.614	0.444

Average SI [{SI1+SI2+SI3) / 3] : 0.655 + 0.614 + 0.444 / 3 = 0.571

Assessment [20 * Average SI[] : 20 x 0.571 = 11.4

4.3 Academic Performance in First Year (25) Total Marks 14.48

Institute Marks 12.10

Academic Performance	2022-23 (CAYm1)	2021-22 (CAYm2)	2020-21 (LYG)
Mean of CGPA or mean percentage of all successful students(X)	7.57	8.37	7.92
Total number of successful students(Y)	19	39	30
Total number of students appeared in the examination(Z)	48	51	41
API [X*(Y/Z)]:	2.99	6.04	5.5

Average API [{AP1+AP2+AP3) / 3] : 2.99 + 6.04 + 5.5/ 3 = 4.84

Assessment [2.5 * Average API [: 2.5 x 4.84 = 12.10

4.4 Academic Performance in Second Year (20)

Total Marks 8.76

Institute Marks 8.76

Academic Performance	2021-22 (CAYm2)	2020-21 (LYG)	2019-20 (LYGm1)
Mean of CGPA or mean percentage of all successful students(X)	7.92	7.74	6.33
Total number of successful students(Y)	26	36	17
Total number of students appeared in the examination(Z)	48	43	38
API [X*(Y/Z)]:	4.29	6.16	2.69

Average API [(AP1 + AP2 + AP3)/3] : 4.29 + 6.16 + 2.69 / 3 = 4.38

Assessment [2.0 * AverageAPI] : 2 x 4.38 = 8.76

4.5 Academic Performance in Final Year (15)

Total Marks 9.57

Institute Marks 9.57

Academic Performance	2020-21 ((LYG)	2019-20(LYGm1)	2018-19 (LYGm2)
Mean of CGPA or mean percentage of all successful students(X)	7.69	7.68	6.78
Total number of successful students(Y)	38	34	32
Total number of students appeared in the examination(Z)	43	37	39
API [X*(Y/Z)]:	6.79	7.05	5.3

Average API [(AP1 + AP2 + AP3)/3] : 6.79 +7.05 + 5.3 / 3 = 6.38
Assessment [1.5 * Average API] : 1.5 x 6.38 = 9.57

4.6 Placement and Higher Studies (40)

Total Marks 11.52

Institute Marks 11.52

Item	2020-21 Last Year Graduate, LYG)	2019-20Last Year Graduate Minus 1 Batch, LYGm1)	2018-19 Last Year Graduate Minus 2 Batch, LYGm2)
Total No of Final Year Students(N)	53	48	48
No of students placed in the companies or government sector(X)	00	01	07
No of students admitted to higher studies (Y)	11	11	11
No. of students turned entrepreneur in the respective field of engineering/technology (Z)	00	00	00
Placement Index [((1.25 * X) + Y + Z) / N] :	0.207	0.254	0.404

Average Placement [(P1 + P2 + P3)/3] : .(0.207 + 0.254 + 0.404) / 3 = 0.288

Assessment [40 * Average Placement] : 40 x 0.288 = 11.52

Provide the placement data in the below mentioned format with the name of the program and the assessment year (separately for CAYm1, CAYm2 and CAYm3):

Program Name : Electrical & Electronics Engg.

Assessment Year : 2022-23 (CAYm1)

SL. NO.	Name of Student	Enrollment NO	Employee Name	Appointment no
01	ANJALI J	316EE20001	JSW Toranagallu	
02	MOHAMMED KAIF	316EE20005	JSW Toranagallu	
03	D VEERABHADRA	316EE20013	JSW Toranagallu	
04	MADHU SHREE H M	316EE20024	JSW Toranagallu	
05	RAKESH GOUDA	316EE20037	JSW Toranagallu	
06	MANIKANTA A	316EE20026	JSW Toranagallu	
07	MAHESH NAIK T	316EE20046	JSW Toranagallu	
08	GIRISH R	316EE20019	JSW Toranagallu	
09	TALVAR NAVEEN	316EE20047	JSW Toranagallu	
10	SHABANA BANU S K	316EE20041	JSW Toranagallu	
11	PRAMUKTHA S M	316EE20033	BIRLA PAINTS	

Assessment Year : 2021-22 (CAYm2)

SL. NO.	Name of Student	Enrollment NO	Employee Name	Appointment no
01	K. MUSKAN TAJ	316EE19018	JSW Toranagallu	SKAD088220900079
02	LOKESH L	316EE19024	JSW Toranagallu	SKAD088220900081
03	NAGARAJ N H	316EE19033	JSW Toranagallu	SKAD088220900042
04	SHIVALI T	316EE19043	JSW Toranagallu	SKAD088220900056
05	SUMALATHA G	316EE19047	JSW Toranagallu	SKAD088220900053

Assessment Year : 2019-20 (CAYm3)

SL. NO.	Name of Student	Enrollment NO	Employee Name	Appointment No.
01	Bhomika O M	316 EE17005	JSW Toranagallu	1088897

Assessment Year : 2018-19 (CAYm4)

SL. NO.	Name of Student	Enrollment NO	Employee Name	Appointment no
01	GURURAJ A	316EE16013	JSW Toranagallu	1024230
02	Hemanth	316EE16015	JSW Toranagallu	1024234
03	Vinodh Kumar K	316EE15017	JSW Toranagallu	
04	Sangamesh	316EE16040	JSW Toranagallu	1024231
05	Shabena S	316EE16042	JSW Toranagallu	
06	Shyamu	316EE16044	JSW Toranagallu	
07	Sreelaya H R	316EE16046	JSW Toranagallu	1024368

4.7 Professional Activities (20) Total Marks 19.00

4.7.1 Professional societies / student chapters and organizing technical events (10) Institute Marks 9.00

A. Availability of Professional Societies / Chapters & Relevant activities (5) Institute Marks 5.00

(1) Institutional membership of Indian Society for Technical Education (ISTE).

Institutional Membership No.: IM2146

Following staff members are having Life Membership of ISTE

Sl. No	NAME OF THE STAFF	Designation	Depart ment	MISTE NUMBER
01	YALLAPPA S BALIKAI	Selection Grade Lecturer	E&EE	LM45583
02	SUBHASH P KATTI	Selection Grade Lecturer	E&EE	LM89300
03	RAJESH E H	Selection Grade Lecturer	E&EE	LM89302
04	MUKUDI UMAPATHI	Selection Grade Lecturer	E&EE	LM45569
05	LINGAPPA B	Selection Grade Lecturer	E&EE	LM89305
06	K MANJANA GOUD	Selection Grade Lecturer	E&EE	LM89304
07	CHANDRASHEKHAR	Selection Grade Lecturer	E&EE	LM89303
08	LAXMAPPA M KUNTHE	Selection Grade Lecturer	E&EE	LM89301

Established Faculty Chapter in the Year 2021
Faculty Chapter No: KA157


KA - 157

The Indian Society for Technical Education

FOUNDED 1968

Devoted to Promotion of Quality and Standards in Technical Education

This is to certify that
the Executive Council has approved the formation of an

ISTE CHAPTER

at

T. M. A. E. SOCIETY's POLYTECHNIC
HOSPET, DIST. BELLARY

With all privileges granted by the Consititution of the Society

2021

ISTE

Executive Secretary, ISTE

Student Chapter No.: KA165

Number of students Registered for membership: 218 for the academic year 2021-22

KA – 165

The Indian Society for Technical Education

FOUNDED 1968

Devoted to Promotion of Quality and Standards in Technical Education

This is to certify that
the Executive Council has approved the formation of an

ISTE STUDENT CHAPTER

at

TMAES POLYTECHNIC (GOVT. AIDED)
HOSAPETE, KARNATAKA

With all privileges granted by the Consititution of the Society

2022

Executive Secretary, ISTE

Indian Society for Technical Education
Shaheed Jeet Singh Marg, Near Katwaria Sarai, New Delhi – 110016

INSTITUTE DETAILS

Name of Institution: TMAES Polytechnic (Govt Aided)

Address: Ballari Road, Hosapete, Vijayanagar Dist.,Karnataka

Pincode: 583201
Membership No: 2146
Institute Email: tmaespoly316@gmail.com

CONVENER DETAILS

First Name : Shivaraj
Membership No: LM132823
Phone No: 8884174354
Last Name : B H
Email: bhshivaraj67@gmail.com

2) MoU with Bestow Edutrex International LLP

MEMORANDUMOFUNDERSTANDING(MoU)

BETWEEN

T.M.A.E .S POLYTECHNIC
BELLARY ROAD,HOSPET-583201

&

Bestow Edutrex International LLP

Mumbai : 400 064

FOR

SKILL DEVELOPMENT PROGRAM
OUTCOME BASED TRAININGS,PLACEMENT, R&D
SERVICESANDRELATEDSERVICES

Page 2 of 7

AGREED:

For T.M.A.E.S Polytechnic, Hospet

Name: Authorized Signatory

For Bestow Edutrex International LLP

Dr Kumardatt A Ganjre

T.M.A.E.S POLYTECHNIC	Bestow Edutrex International LLP
Bellary road ,Hospet,Vijaynagar Dist,Karnataka	S 2, 303, Malad W, Mumbai 400 064
Contact Details:9448126133	+91 9011424678
E-mail:tmeaspoly316@gmail.com	md@bestowedutrex.co.in
Web:https:\\tmaespolytechnichpt.com	www.bestowedutrex.co.in

AGREED:

For **T.M.A.E.S Polytechnic, Hospet**

Name: Authorized Signatory

For **Bestow Edutrex International LLP**

Dr Kumardatt A Ganjre

T.M.A.E.S POLYTECHNIC	**Bestow Edutrex International LLP**
Bellary road ,Hospet.Vijaynagar Dist.Karnataka	S 2, 303, Malad W, Mumbai 400 064
Contact Details:9448126133	+91 9011424678
E-mail:tmeaspoly316@gmail.com	md@bestowedutrex.co.in
Web:https:\\tmaespolytechnichpt.com	www.bestowedutrex.co.in

B. Number, quality of engineering events (5) Institute Marks 4.00

Engineers Day will be celebrated on September 15th of every year and Toppers of previous Semester End Examinations from all the departments will be listed and are felicitated with trophies. Also distinction holders are felicitated with medals.


‘ಪ್ರಾಯೋಗಿಕ ಕೌಶಲ ಬೆಳೆಸಿಕೊಳ್ಳಿ’

T.M.A.E'S POLYTECHNIC
ENGINEER's DAY CELEBRATION

T.M.A.E'S POLYTECHNIC
FELICITATION PROGRAM

MOHAMMADIA COLLEGE

4.7.2 Publication of technical magazines, newsletters, etc. (5) Institute Marks 5.00

Power News published in the year 2023

A. Quality & Relevance of the contents and Print Material (3) Institute Marks 3.00

Lab manuals have been prepared and printed for all the labs by the staff members handling the labs

B. Participation of Students from the program (2) Institute Marks 2.00

SL. NO.	DATE /MONTH	Activity	NO OF STUDENT
1	31-05-2022	PARTICIPATION IN COMMUNITY SERVICES (CYCLE RALLY)	30
2	14-03-2022	YOGA	32
3	05-06-2022	ENVIRONMENTAL DAY (Planting trees)	42

4.7.3 Participation in inter-institute / state/national events by students of the program of study (5) Institute Marks 5.00

Kum Chitrashree of our department participated at State level chess completion at Government Polytechnic Bagalkot and won the first prize. Kum Chitrashree participated at National level chess completion at Vishakapatanam.

CRITERIA 5

FACULTY INFORMATION AND CONTRIBUTIONS

5. FACULTY INDORMATION AND CONTRIBUTIONS (150) Total marks 133.00

SL.NO.	NAME	University / Degree	Area of Specialization	Contribution to the program(% load)			Research Paper Publications	Faculty receiving Ph.D/M. Tech during the Assessment year	Current Designation	Initial Date of Joining	Association Type	At present working with the Institution(Yes/No)	In case of NO, Date of Leaving	IS Principal ?
				CAY (2023-24)	CAY (2022-23)	CAYm1 (2021-22)								
1	Subhash p Katti	M.E/M.Tech	Energy System Engineering	100	100	100			HOD	16-07-1998	Regular	**YES**		**NO**
2	Yallappa Shivappa Balikai	B.E/B.Tech	E & E Engineering	100	100	100			SL. Gr Lecturer	20.03.1992	Regular	**YES**		**NO**
3	Rajesh E H	B.E/B.Tech	E & E Engineering	100	100	100			SL. Gr Lecturer	16-07-1998	Regular	**YES**		**NO**
4	Mukudi Umapathi	B.E/B.Tech	E & E Engineering	75	100	100			SL. Gr Lecturer	16-07-1998	Regular	**YES**		**NO**
5	Manjana Gouda K	B.E/B.Tech	E & E Engineering	75	75	75			SL. Gr Lecturer	18-07-1998	Regular	**YES**		**NO**
6	Chandrashekhar	B.E/B.Tech	E & E Engineering	-	100	100			SL. Gr Lecturer	18-07-1998	Regular	**NO**	Deputed on 19.09.2022	**NO**
7	Lingappa B	B.E/B.Tech	E & C Engineering	100	100	100			SL. Gr Lecturer	16-07-1998	Regular	**YES**		**NO**
8	Laxmappa M Kunthe	B.E/B.Tech	E & C Engineering	-	75	75			SL. Gr Lecturer	18-07-1998	Regular	**NO**	Deputed on	**NO**
9	Ananda T	M.Sc	Mathematics	25	25	25			SL. Gr Lecturer	17-07-1991	Regular	**YES**		**NO**
10	Gududappa T	B.E/B.Tech	Mechanical Engineering	25	25	25			SL. Gr Lecturer	19-03-1992	Regular	**YES**		**NO**
11	Jotsna	M. Sc	Physics	-	25	25			SL. Gr Lecturer	02-07-1991	Regular	**NO**	30.06.2022	**NO**
12	Shivaraj B H	M.A and Ph.D	English	25	25	25	1	2019	Lecturer	12-07-2011	Regular	**YES**		**NO**
13	Yamuna Kulkarni	M.A	Kannada	25	25	25			Lecturer	18-06-2016	Regular	**YES**		**NO**
14	Shriya Kulkarni	B.E/B.Tech	CSC Engineering	-	25	25			Lecturer	21-08-2018	Regular	**YES**		**NO**
15	Nanda K M	M.Sc	Staticstics	-	25	0			Lecturer	05-01-2021	Regular	**NO**	23.12.2023	**NO**
16	Anusha	B.E/B.Tech	CSC Engineering	25	0	0			Lecturer	23.01.2024	Regular	**YES**		**NO**
17	Spoorthi	B.E/B.Tech	E & C Engineering	25	25	0			Lecturer	05.01.2021	Regular	**yes**		**No**

5.1 Student –Faculty Ratio (SFR) (25)

Total marks 25.00
Institute marks 25.00

Year	N	F	SFR=N/F
2023-24 (CAY)	160	6	26.6
2022-23(CAYm1)	160	8	20
2021-22(CAYm2)	160	8	20

Average SFR: 22.2

Assessment SFR: 25

5.1.1. Provide the information about the regular and contractual faculty as per the format mentioned below:

	Total number of regular faculty in the department	Total number of contractual faculty in the department
CAY(2023-24)	12	0
CAYm1(2022-23)	12	0
CAYm2(2021-22)	12	0

5.2 Faculty Qualification (25) Total marks 20.00

5.2.1 Faculty Qualification Index (20) Institute marks 20.00

	X	Y	F	FQ = 2 x [(10X + 7Y) / F)]
2023-24	1	5	6	15.00
2022-23	1	7	8	14.74
2021-22	1	7	8	14.74
2020-21	1	7	8	14.74

Average Assessment : 14.80

5.2.2 Availability of Faculty/Principal of the discipline with PhD. Qualification (5)

5.3 Faculty Retention (20) Total marks 20.00

Institute marks 20.00

Description	2022-23 (CAYm1)	2023-24 (CAY)
No of Faculty Retained	12	12
Total No of Faculty	12	12
% of Faculty Retained	100	100

Average : 95.84

Assessment Marks : 20.00

5.4 Faculty as participants in Faculty development/training activities conducted by other organizations (30)

Total marks 30.00

Institute marks 30.00

Sl.No.	Name of the faculty	CAYm2 (2021-22)	CAYm1 (2022-23)	CAY (2023-24)
1	Subhash P Katti	5	5	5
2	Yallappa Shivappa Balikai	5	5	5
3	Rajesh E H	5	5	5
4	Mukudi Umapathi	5	5	5
5	Manjana Gouda K	5	5	5
6	Chandrashekhar	5	-	-
7	Lingappa B	5	5	5
8	Laxmappa M Kunthe	5	-	-
Sum:		40	30	30
RF = No. of Faculty required to comply with 25:1 SFR as		6	6	6
Assessment [6*(Sum/0.5RF)](marks limited to 30		30	30	30

5.4. a. Organized/ Conducted FDPs and STTP by this department at State / National Level (12)

Total marks 10.00
Institute marks 10.00

Sl. No.	Date	Name of the Event	Name of the Resource Person
2023-24			
1	07.08.2023 to 11.08.2023	Renewable Energy	G.K.Shivaprasad, Soft Academy, Hosapete
2	06.11.23 to 10.11.23	Online FDP on Automation Technology	G.K.Shivaprasad, Soft Academy, Hosapete
2022-23			
1	12/8/22 to 17/8/22	Online FDP on Accreditation Process for Diploma Engineering.	Prof Dr S.G.Anuradha, Prof Raghu Kumar.K.S, RYMEC, Ballari
2	14/10/22 to 18/10/22	Online FDP on Programmable Logic Controller	G.K.Shivaprasad, Soft Academy, Hosapete
2021-22			
3	09/8/21 to 13/8/21	Online FDP Accreditation process for Diploma Engineering	Dr. S G Anuradha, & Prof. Raghukumar KS RYMEC, Ballari
4	23/8/21 to 27/8/21	Online FDP on "DC Machines & Transformers"	Dr S.Kotresh RYMEC Bellary Proff Sharanabasappa A RYMEC Bellary
2020-21			
5	18/1/21 to 22/1/21	"Preparation of SAR for NBA"	Dr. Mohammed Rafiq, UBDT College of Engineering, Davanagere Dr. Veergangadhar Swamy RYMEC, Ballari
6	5/7/21 to 9/7/21	Online FDP on "IT SKILLS"	Mr. Srinath TNI Technologies, Mysore Mr. Krishna D K Indian Global Software Solutions, Bengaluru

Sl. No.	Academic Year	Total number of Programs conducted
1	2023-24	2
2	2022-23	2
3	2021-22	2
4	2020-21	2

5.5 Product development, Consultancy, Manufacturing contracts, testing contracts (8) Total marks 5.00

Institute marks 5.00

1. Developed load box for lab

2 Developed motor control lab kits.

3 Developed protective relay kits

4. Developed APFC kits

5.6 Faculty Performance Appraisal and Development System (FPADS) (30) Total marks 23.00

A well-defined FPADS instituted for all the assessment years (5) Institute marks 5.00

Faculty members of higher educational institutions today have variety of tasks pertaining to diverse roles. In addition to institution faculty members need to innovate and conduct research for their self-renewal, keep abreast with changes in technology and develop expertise for effective implementation of curricula. They are also expected to provide services to the industry and community for understanding and contributing to the solution of real-life problems in industry. Another role relates to the shouldering administrative responsibilities and co-operation with other faculty, heads of departments and the heads of institute. An effective performance appraisal system for faculty is vital for optimising the contribution of individual faculty to institutional performance. Faculty performance letter is collected from each faculty in which they need to show the innovations and research for their self-renewal to cope up with changes in technology and develop expertise for effective implementation of curricula. The format of faculty performance letter is provided.

Components Of Faculty Performance Appraisal Development System

Membership with professional bodies (ISTE)

1. **Faculty contribution towards curriculum**
2. Best practice that is introduced to improve teaching and learning process
3. Course taught by faculty which contributes to contents beyond syllabus
4. What is the role in publishing newsletter of the college/department
5. Contribution to E learning contents
6. Students under guidance acquiring certificates that can be used as proof of lifelong learning
7. Contribution to help direct and indirect analysis
8. What is the role played in finalization of vision, mission, PEO, PSO's or any other document
9. Analysis of CO-PO mapping in last three years and suggestion to improve attainment of PO's. Expected target level shall be more than 50%
10. Analysis of course exits survey and suggestions to improve attainment of CO and PO's
11. Analysis of CO-PO mapping of Project works through Rubric from in last three years.

Faculty contribution at Department/ Institute level

1. Contribution to the department in the previous academic year
2. Philosophy of teaching that includes staff member conception of teaching and learning, description of how staff members teach and justification for why you teach that way
3. Visiting status in other engineering institutions/ universities
4. Have faculty helped the department to have MOU with any industry, specify its industry name and its activities
5. Improvements in the department observed in faculty since last accreditation visit
6. Role of staff member at the institute level
7. Faculty publication in collaboration with peers of other institution
8. Contribution to improve campus placement/ higher education etc..
9. Any other information that can help assessment of staff member or help NBA process

Students feedback

Following are the components considered for the Students Feedback

1. Arising curiosity in the subject by linking to practical; or real time applications, preparation for the class
2. Attitude/ professionalism towards students regularly and punctually in conducting class
3. Availability of staff in campus to clarify the doubts
4. Communication skills and subject knowledge
5. Coverage of syllabus and regularity in conducting classes
6. Effective planning and organization of lecture contents
7. Fairness in evaluation of IA books and assignments
8. Guidelines for external theory examinations/ practice and revision of important topics
9. Presentation of subject matter or method of teaching
10. Response to slow learners / could your teacher inspire or make you work harder for better results

Each component is rated by giving 1to 10 points

- Below average: 1-4
- Average: 5-6
- Good: 7-8
- Excellent: 9-10

The performance analysis of faculty is carried out by calculating the average rating and the number of student responses for each component of the student feedback

Evaluation of faculty forms

1. **Head of the department evaluation of faculty form**

Head of the department completes the evaluation of faculty form using the information from observation of instruction, review of syllabi, evaluation of other duties, feedback from students and subject results. HOD evaluates each faculty based on the following parameters:

1. Character and conduct
2. Regularity and punctuality/availability during the working hours/ frequency of leaves availed
3. Attitude towards work
4. Papers published
5. Papers presented
6. Sponsored projects
7. Presentation in classrooms/ labs
8. Communication skills
9. Shouldering responsibility / Extracurricular activities
10. Memos

Each component on the evaluation is rated by giving 1 to10 points

- Poor (2)
- Fair (4)
- Good (8)
- Excellent (10)

Based on the observation, HOD recommends promotion/increment for the faculty to the principal office

2. **Principal Office**

1. Supports and monitor the execution of the system
2. Verifies and accredits the results submitted by the respective departments
3. Considers revaluation applications submitted by each faculty
4. Prepares final college faculty evaluation report
5. Sends final report/s to the Office of Evaluation

Based on the feedback given by HOD, the principal office recommends for further action

1. **The Office of Evaluation**

1. General supervision of the application of the faculty performance review and development system
2. Cooperation with the various departments of the colleges to implement the review and development system
3. Contribution in overcoming problems arising at the time of implementation of the review and development system
4. Preparation of the final faculty review and development report and submits to the management

Document Confidentiality :

Evaluation documents and materials prepared and gathered in this process are treated as confidential and limited to authorized persons.

After completion of the system, the concerned Head of the Department is required to meet with every faculty member in person to provide necessary feedback on strengths and weakness of the faculty performance, so as to launch a better future.

B. Its implementation and effectiveness (15) Institute marks 14.00

Faculty appraisal form will be issued to all the faculty members. The form need to be filled by concerned faculty and to be submitted to HOD. The HOD and principal will evaluate the report and grade will be given to improve his/her performance in future.

The similar process will be adopted for appraisal of HOD by the head of the institution.

C. Details of qualification up-gradation of faculty (10) Institute marks 4.00

Many of the faculty in the department of Electrical & Electronics engineering having Bachelor Degree in Electrical & Electronics Engineering and few members of Master degree in the particular or specific discipline and many of the Electrical & Electronics Engineering Department faculties are participated in the FDP and different types of workshops during the Three Academic Years.(CAY, CAY1, CAY2)

CRITERIA - 6

FACILITIES AND TECHNICAL SUPPORT

6.FACILITIES AND TECHNICAL SUPPORT (100)

Total Marks : 88.00

6.1 Availability of adequate, well equipped classrooms to meet the curriculum requirements (10)

Total Marks : 10.00

Table 6.1 : Class Room Details

Institute Marks : 10.00

Room Description	Usage	Carpet Area in Sq-mtrs	Seating Capacity	Rooms Equipped with	Weekly Utilisation	Adequate
1st year						
LH-02	I Sem & II Sem	67	60	Green board, adequate Lighting, podium, fans, Quality Desk, good ventilation & overhead projector	6 Days/week [Exclusively for 1st year]	Adequate
2nd year						
LH-10	III Sem & IV Sem	67	60	Green board, adequate Lighting, podium, fans, Quality Desk, good ventilation & overhead projector	6 Days/week [Exclusively for 2nd year]	Adequate
3rd year						
LH-19	V Sem & VI Sem	45	55	Green board, adequate Lighting, podium, fans, Quality Desk, good ventilation & overhead projector	6 Days/week [Exclusively for 3rd year]	Adequate

Table 6.1.2 : class Room and Staff Room Details

Room Description	Usage	Carpet Area in Sq-mtrs	Seating Capacity	Rooms Equipped with	Weekly Utilisation	Adequate
Drawing Hall	I Sem & II Sem	70	75	Green board, adequate Lighting, podium, fans, Quality Drawing Tables with drawing Boards, good ventilation.	2 Days/week Sharing	Adequate
HOD Chamber	Allotted for HOD	9.69	01	well furnished with table and chair tube lights fan Internet access points, Laptop & CC Tv	6 Days/week [Exclusively for HOD]	Adequate
Faculty Room	Allotted for Faculty	10.65	07	Individual space for staff members with good ventilation, lighting, furniture's with racks	6 Days/week [Exclusively for Staff	Adequate

6.2 Availability of adequate and well-equipped workshops, Laboratories and Technical manpower to meet the curriculum requirements(40) Total Marks 34.00

A. Adequacy (10) Total Marks 8.00

1. Department has provided sufficient workshops and labs to learn academic courses.
2. All the practical labs are provided with sufficient technical supporting staff to complete the syllabus within the prescribed time.
3. Technical facility and support available at the department is helpful to provide quality education; this will facilitates the Students to acquire sufficient knowledge.
4. Students able to perform the innovative and performed activity throughout the program.
5. The Specification of the apparatus meets with the IEEE standards

B. Quality of Labs/workshop (20) Institute Marks 18.00

1. Labs are spacious for conducting the experiments timely.
2. Laboratory experimental Equipments, Machines and test kits are reliable and accurate with periodic maintenance.
3. Proper lighting and ventilation is provided in every lab.
4. Informative notice board containing safety measures and Specification charts of the equipments of the respective labs are displayed.
5. LCD Projectors, UPS are provided for Computer Laboratory.
6. Each lab equipped with fire extinguisher equipments and first aid boxes.
7. Stock Verification is done for every year to confirm the availability and working condition of the equipment.

C. Technical Manpower support – Eligible and Adequate (10) Institute Marks 8.00

- The E&E department has adequate well experienced technical staff for each workshops and laboratories support for any electrical works in the campus is provided by the well veteran labtechnicians
- The technical staffs are well Qualified and trained ,they can monitor the equipments regularly to avoid deficiency. Well technical staffs are available for maintenance of electrical equipments andsoftware

Sl. No.	Name of the Laboratory	Number of Students per set up (Batch Size)	Name of the Important Equipment (Costing more than Rs.30.000)	Weekly Utilization status (all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical Staff	Designation	Qualification
1.	BCS Lab	25	Desktop comp	18hrs/week	N.B.Kotresh	Mechanic	ITI
2.	Electrical Wiring	25	Hand drill machine	12hrs/week	Veeresh Mamani	Instructor	DEE
3.	CAEG	25	Desktop computer	18hrs/week	N.B.kotresh	Mechanic	ITI
4.	FEEE	25	RPS, Energy meter	12hrs/week	Heera Singh	Mechanic	S.S.L.C
5.	Electrical Circuit Lab	25	RPS, Energy meter	18hrs/week	Veeresh Mamani	Instructor	DEE
6.	C Programming	25	Desktop computer	18hrs/week	U.M.Shivarudresh	Asst Instructor	DEE
7.	IT Skills	25	Desktop computer	18hrs/week	U.M.Shivarudresh	Asst Instructor	DEE
8.	Circuit Simulation Lab	25	Desktop computer with software	18hrs/week	Veeresh Mamani	Instructor	DEE
9.	D.C. Machine Lab	25	MG Set .DC Machines	18hrs/week	U.M.Shivarudresh	Asst Instructor	DEE
10.	Analog & Digital Lab	25	Trainer Kits, Electronics components	18hrs/week	U.M.Shivarudresh	Asst Instructor	DEE

11.	Transformer & Alternator	25	Transformers 1	18hrs/week	U.M.Shivarudresh	Asst Instructor	DEE
12.	EM & MI	25	Megger, Earth tester	18hrs/week	Veeresh Mamani	Instructor	DEE
13.	CAD	25	20PCS with Auto CAD	18hrs/week	Suresh Babu	Mechanic	S.S.L.C
14.	Estimation Simulation	25	20 PCS with Ecodial	18hrs/week	N.B.Kotresh	Mechanic	ITI
15.	Protective relay	25	Domestic appliances	18hrs/week	Veeresh Mamani	Instructor	DEE
16.	Motor Control Lab	25	PLC Trainer kit	18hrs/week	Veeresh Mamani	Instructor	DEE
17.	Power electronics	25	Electronics Components CRO	16hrs/week	U.M.Shivarudresh	Asst Instructor	DEE
18.	T & D Lab	25	Trivector Energy meter, DDFR, FMRI & MAT Lab Software	16hrs/week	U.M.Shivarudresh	Asst Instructor	DEE
19.	SGP Lab	25	Relays & Protective Device	16hrs/week	Veeresh Mama	Instructor	DEE
20.	Electric Motors	25	Starters, Induction Motors, Transformers	16hrs/week	U.M.Shivarudresh	Asst Instructor	DEE
21.	FAT Lab	25	Sensors, Actuators, Different Relays	16hrs/week	U.M.Shivarudresh	Asst Instructor	DEE

6.3 Additional facilities created for improving the quality of learning experience in laboratories (20) Total Marks 18.00

A. **Facilities (10)** Institute Marks 10.00

The f Electrical and Electronics Engineering department has well equipped latest tools that enables students to explore practical experience, so as to fulfill the Academic to Industrial gap.

1. **SOLAR PANEL :** From this facility the student can gain the knowledge of panel installation and can demonstrate based on nonconventional energy sources in domestic and electrical applications

2. **WINDING MACHINE:** From this facility student can acquired knowledge of types of winding, connection of winding and evaluating the numbers of slots required for the given specification ofrespective machine

3. **MACHINE TRAINER:** Knowing the different types of motors ,types of rotation and types of connection given to the motor can apply this knowledge in industrial application

4. **CUT SECTION MODELS:** The cut section models are most effective training tools which make it very easy for the students to understand the working of each parts of an Electrical machine

5. **MODELS AND CHARTS:** To provide better understanding of the equipment and machineries for both practical & theoretical aspects.

6. **OLD PROJECTS :** Innovation &development of existing Project and learning experience for Project work Subject during 5^{th} & 6^{th} Sem

7. **MOTOR GENERATOR SET :** Student can understand the basic operation of Shunt, Series & compound generator in different application

B. **Effective Utilization (5)** Institute Marks 4.00

It is very necessary for the technical students to explore advanced technology rather than prescribed information by creating state of art centers for the advanced learning.

- The entire facilities are made available to the students in regular academics, weekly 2 to 3 Hrs. for each batch to make sure to learn practically so as to ensure full fledged experience.

  These facilities has been extended academically to facilitate the students to build advanced learning capabilities.

- **Relevance to POs/PSOs (5)** Institute Marks 4.00

  The facilities makes the students to gain basic discipline knowledge to empower the controlling the quality of engineering materials and also enables the students to solve real life problems inengineering applications.

- All the additional facilities are relevance to Program out comes and Program specific outcomes

Sl. No	Facility Name	Details	Reason(s) for creating facility	Utilization	Areas in which students are expected to have enhanced learning	Relevance to POs/PSOs
1	Solar Panel	Solar Panel Installation	Students will be able to understand installation of solar panel in production of non conventional energy and its application	3hrs/week	in the area of energy & power system	PO1,PO3,PO4,
2	Winding Machine	Ceiling Fan, Motor winding	Students will be able to understand the winding type of winding and No. of slots and gauge of the conductor	3hrs/week	Rewinding Practice for all types of fans, armature winding.	PO1,PO3,PO4
3	Machine trainer	Electrical machines trainer	Students will be able to understand the types of motors types of connections types of rotation of the given motors and apply it knowledge in electrical drives used in industries	3hrs/week	power system	PO1,PO4,PO5
4	Cut section Models	DC Generator	To help the students understand the equipment and machine for both practical and theoretical aspects	3hrs/week	power system	PO1,PO5,PO7
5	Models & Charts	1.Models of DC machines	To provide better understanding of the equipment and machinery for both practical and theoretical aspects	3hrs/week	In the subjects of 1.DC & A	PO1,PO5,PSO
6	Old Projects	Better old Project of electrical Engg. Is kept for future study	Innovation &development of existing project and learning experience for project work subject during 5^{th} & 6^{th} Sem	3hrs/week	In the area of Energy and Power system	PO1,PO5,PO7
7	Motor Generator	3Ph I M Coupling with DC Generator	Students will be able to understand the types of motors types of connections types of rotation of the given motors and apply it knowledge in electrical drives used in industries	3hrs/week	Power System	PO1,PO2,PSO

6.4 Laboratories: Maintenance and overall ambiance (10) Total Marks 10.00

Maintenance of Laboratory Equipments (10) Institute Marks 10.00

- Each lab is neatly maintained by regular housekeeping.
- Regular checkup of equipment is carried out at the end of every semester and before the start of every semester.
- Calibration is carried out for the Lab equipments.
- Informative notice board containing safety, Do's & Don'ts is displayed in every lab.
- Well qualified Technical Staff are available for maintenance of mechanical equipments and software.
- Maintenance of Printers are being done as and when required.
- All necessary PC system regular software like Microsoft office, lab software; antivirus software etc, is installed and maintained.
- LCD Projectors are provided for Computer Laboratory.
- Each department equipped with fire extinguisher equipments and first aid boxes.
- Stock Verification is done for every year to confirm the availability and working condition of the equipment.

Overall Ambiance:

1. Department has fully furnished &well equipped labs withall necessary equipment for all courses as per curriculum requirements.

2. Conditions of chairs/benches are in good condition.

3. All the labs are conducted and evaluated every week.

4. All laboratories have sufficient natural light, good ventilation with tube lights and fan arrangement.

5.Sufficient number of windows is available for ventilation and natural light.

6. Each department is equipped with white/black board, Computers, Projectors, Printers, Internet, and such other amenities.

laboratory Description	Maintenance of equipment	Quality of Instruments	No of students/ experimentl setup	Carpet area (in sq. m)	Lab manual	Colmpletion of Walls and painting	Ambience
Electrical machine lab [Lab-1]	Half yearly	Excellent	6/Setup	62	Available	Ready	Excellent
Electronics Lab [Lab -2]	Half yearly	Excellent	6/Setup	52	Available	Ready	Excellent
Wiring & Servicing Lab [Lab-3]	Half yearly	Excellent	6/Setup	125	Available	Ready	Excellent
Computer Lab [Lab- 4]	Half yearly	Excellent	1/Setup	48	Available	Ready	Excellent
FEEE lab [Lab -4]	Half yearly	Excellent	6/Setup	67	Available	Ready	Excellent

6.5 Availability of computing facility in the department (10)

Total Marks 8.00

Institute Marks 8.00

Sr. No	No Of Computer terminals	Students Computer Ratio	Details of Legal Software	Details of Networking	Details of Printers, Scanners etc.
1	22	2:1	Xp,Windows 1	LAN	LASER Printer

6.6 Language lab (10)

Total Marks 8.00

Institute Marks 8.00

A full – fledged Digital Language Lab with 40 students consoles is available is available for developing communication skills of our students. The four essential skills of Listening, Speaking, Reading and writing are imparted systematically with activities that require their use and are designed to support learners in process of acquiring communication skills sets quickly.

Details of Language Lab

Description	No. of Computers available	No of teacher console	No of students console
Cute ECO CPU VIEW sonic Inte Atom 330 processor,2GB RAM, 320 GB Hard disc drive, wifi, nvidia graphics/HDMI & DUI/USB 3.0 Windows-7 installed. Zebster LED monitor 15.6 " HP keyboard & mouse	20	1	20

Features of Language lab

- Elementary, intermediate and advanced school level
- Profession communication skill development
- Phonetics- General English
- Conversation- General English, Intelligible English, Global communicative
- Grammar-English
- Professional communication lab- Skills, presentation skills group discussion, Interviews, Public speaking, email soft skills etc.
- Aptitude & GK

Utilization of language lab

- Language lab slots have been allotted in the time table for 1st and 2nd Sem students
- A syllabus for "Communication Skills" is followed as set by BTE & labs will be conducted accordingly

CRITERIA _ 7

CONTINUOUSIMPROVEMENT

7. CONTINUOUSIMPROVEMENT(75)

TotalMarks60.00

Actions takenbasedon theresultsevaluationofeachofthePOsandPSOs(25)

TotalMarks21.00

InstituteMarks21.00

POsAttainmentLevelsandActionforImprovement–(2020-21)

PO1: BasicandDisciplinespecific knowledge

POs	TargetLevel	Attainment Level	Observations
PO 1	3	2.89	Electrical and electronics engineering curriculum requires A strong foundationoftheoreticalandpracticalknowledgeofscienceand mathematics

Action1:MoreTutorial/ assignmentsweregiventoimprovethebasicknowledge Action 2 :
seminars were conducted
Action 3:Practicallyexplainingbasicengineeringmaterialsusedinvariousfields

PO2 : Problem Analysis

POs	TargetLevel	Attainment Level	Observations
PO 2	3	2.20	The problem solving and analyzing skills gained through first and secondyearcourseshelps the studentstoapply in realtime application

Action1:Studentsareencouragedinsolvingmoreproblems
Action2:Students weremadetosolve previousexaminationquestionpapers
Action3:Make the students understand and remember the theory behind problem statements to analyze and solve technical problems

PO3 :Design/ developmentof solution

POs	TargetLevel	AttainmentLevel	Observations
PO 3	2.87	2.36	Someoftheprojectsdevelopedbythestudentsashobbyprojects (finalyear)arenotfullyconsideringthesocialandenvironmental issues.

Action1:.Studentsareallowedtodiscussandlearnthetechnicalconceptsbettertodesignaccordingtothespecifiedneeds.
Action2:Studentsaremadetolearnthefunctionanduseofsystemcomponentstounderstandtheirdesignanddevelopsolutions.

PO4:EngineeringTools,ExperimentationandTesting

POs	TargetLevel	AttainmentLevel	Observations
PO 4	2.37	2.79	StepsaretakentoimprovetheCapabilitytoconducttestswith perfectionaftertrialanderrorstoobtainstandardresultsare enhanced

Action 1 : Experimentation results of the students are improved by instructing them to make more trials so as to obtain perfect results with less error.

PO5 :Engineeringpractice forsociety, sustainabilityandenvironment

POs	TargetLevel	AttainmentLevel	Observations
PO 5	2.46	1.93	StudentsaremadetoRealizetheirroleanddevelopskillsof applyingengineeringpracticesethicallybyparticipatinginrealtime programs linking to main stream of life.

Action1:Encouragingthestudentstoinvolvethemselvestoparticipateinsocialactivitiestoimproveethical

Action2:OrganizingeventslikeSwatchBharatAbhiyan,Blooddonationcampsandmotivatingthestudentsforparticipationto understand their responsibility towards the society

PO6:ProjectManagement

POs	TargetLevel	AttainmentLevel	Observations
PO 6	2.96	2.57	The Skills of the students improvise along with their academics in context of projectmanagement.

Action:Throughguestlectures,thestudentsarehelpedtodevelopconfidence,learnbehavioralandcommunicationskillsrequired for leadership qualities.

PO 7 :Life – long learning

POs	TargetLevel	AttainmentLevel	Observations
PO 7	2.94	2.47	Students encouraged to observed and update to the technical changes in electricalengineering

Action1:Studentsaremotivatedtofrequentlygothroughtechnicalmagazinespresentinthelibrarytobeawareoflatest technology

PSOs AttainmentLevelsandActionforImprovement–(2020–21)

PSO 1 : Apply principles of engineering and laboratory skills for building, testing, operation and maintenance ofelectrical and electronic systems such as electrical machines, power and energy systems.

PSOs	TargetLevel	AttainmentLevel	Observations
PSO1	3	2.47	StudentsaremotivatedtoapplytheknowledgeofElectrical& Electronicsengineering in practical world is desirable

Action1:Expert talk on SCADA by Mr. Ramesh Kumar, AE, GESCOM was organized. Action 2: Visit to various substations and KPTCL power plant (Munirabad).

PSO 2 : Model and analyze, design and realize physical systems, components or processes related to electrical andelectronics engineering systems.

PSOs	**TargetLevel**	**AttainmentLevel**	**Observations**
PSO2	3	2.61	Students are motivated for applying the knowledge of the programme in the field of maintenance, protection and control of electrical systems is desirable.

Action 1 : Visit to Motor rewinding centre, transformer repair centre was organized to understand maintenance and protectionschemesofelectricalsystems.Visittometertestingcentre,GESCOMunit,Hosapete.

PSO 3: Opt for higher studies or work professionally in power systems engineering, electrical machinery and electrical and electronic circuits.

PSOs	**Target Level**	**AttainmentLevel**	**Observations**
PSO3	3	2.67	Studentsaremotivatedforjoiningfurtherforhigherstudiesby explaining them theopportunities in power systems, design and simulation fields

Action1:Visit to Motor rewinding centre, transformer repair centre was organized to understand maintenance and protection schemes of electrical systems

ImprovementinSuccess indexof Studentswithoutthebacklog(10)

TotalMarks10.00
InstituteMarks 10.00

Items	LatestPassedout Batch (2020-21)	LatestPassedoutBatch minus 1 (2019-20)	LatestPassedoutBatch minus 2 (2018-19)
SuccessIndex(from 4.2.1)	0.25	0.28	0.33

Improvementin Placement and HigherStudies(10)

TotalMarks8.00
InstituteMarks8.00

Items	LatestPassedout Batch (2020-21)	LatestPassedoutBatch minus 1 (2019-20)	LatestPassedoutBatch minus 2 (2018-19)
PlacementIndex (from 4.6)	0.16	0.25	0.40

ImprovementinAcademicPerformanceinFinalyear (10)

TotalMarks8.00
InstituteMarks8.00

Items	LatestPassedout Batch (2020-21)	LatestPassedoutBatch minus 1 (2019-20)	LatestPassedoutBatch minus 2 (2018-19)
Academic PerformanceIndex (from 4.6)	6.79	7.05	5.3

Internal Academic Audits to Review Complete Academics & to implement Corrective Action on Continuous Basis(10)

TotalMarks8.00
InstituteMarks8.00

Items	2022-23 (CAYm1)	2021-22(CAYm2)	2020-21 (CAYm3)
Internal Academic Audits	2	2	2

During every semester Internal Academic Audit will be carried out by respective HODs and Principal. The process involves verification of academic documents such as Attendance Registers, Course Plans, CIE Reports, Activity Reports, and Mentor's Diary. This is done during first week of every month from the beginning and till end of semester.

An External Audit is also conducted by the official appointed by BTE, Bengaluru. The External audit will be conducted every semester during board theory exams.

New Facility created in the Program(10)

TotalMarks5.00
InstituteMarks5.00

Items	2022-23 (CAYm1)	2021-22(CAYm2)	2020-21 (CAYm3)
NewFacilities created	1	2	2

CRITERIA – 8

STUDENT SUPPORT SYSTEMS

1. STUDENT SUPPORT SYSTEMS

Mentoring system is to help at an individual level. For students, a mentor is someone who serves as a guide throughout their institutional training. Mentors apply their guidance, experience and expertise in promoting their mentees professionally and personally, through interpersonal engagement.
In short, Mentoring aspires to transformational positive changes. It enhances self confidence, improves peer bonding and prepares mentees for career advancement.

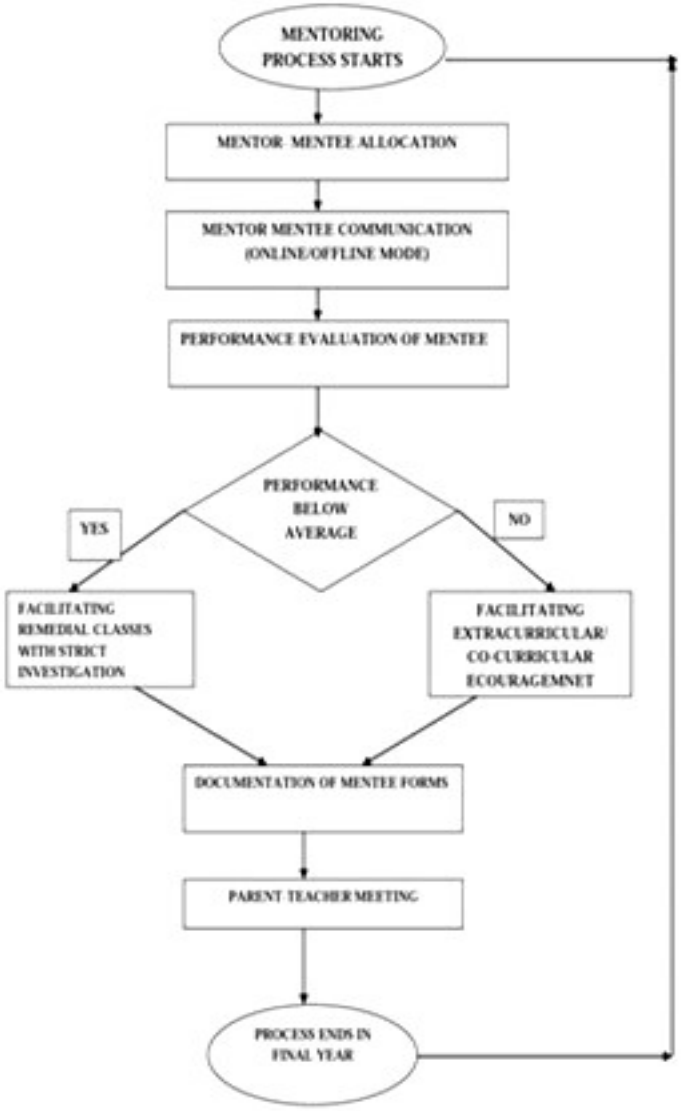
Each faculty is assigned 15 to 20 students. The faculty monitors their progress and reports to department in-charge of counselingcell. This mentoring is for over-all development of the student. A counseling sheet is maintained by faculty, where attendance, examination marks and family details are recorded. The same is continued till the student completes his/her graduation. The periodic status will be submitted to the parents/Guardians.

Objectives of Mentoring
Refining teacher-student communication outside classroom
Helping students understand the challenges and opportunities present in the Institute and develop smooth transition to campus life.Maintaining data base of student performance, attendance details & drop outs
Ensuring regularity and punctuality of students through counseling sessions.
Supporting personal & professional growth & monitoring psychological growth & progress

Expected Outcomes
A healthy Learning Environment
Creation of positive communication channels among Principal, Parents, Staff & Students Enhancing a feeling of belonging amongstudents
Self confident, bold & an active, enthused student community
Better attendance, lesser dropouts and good psychological health of students Confident
ParentsImproved Performance

Note: Mentors Diary is maintained from the academic year 2019-20.

Flow chart below shows the Mentor System:



Feedback analysis and reward/ corrective measures taken, if any

Methodology being followed for feedback collection, analysis and its effectiveness

The feedback collection process is very important for quality improvement of the Institution. The faculty feedback is collectedfrom the students every semester. This process contributes to evaluate the faculty performance for reward / corrective measures

The online feedback will be taken from the students in regular class hours and monitored by the inter department faculty

Average Percentage of Students who participates: Students having attendance more than 75% are participated.

The feedback analysis process:
The inter department faculty collect the feedback from students through online and consolidated report generated online is forwarded to the Principals Office for further Corrective Measures. The same will be sent to respective HOD's.

Table: Feedback analysis grading

Grading	Points
Excellent	9 - 10
Good	7 - 9
Average	3 - 7
Poor	1 – 3

The teaching performance indices are analyzed by the Principals Office and the same is conveyed to the

concerned.Record of corrective measures taken

Basis of Reward / Corrective Measures:

The indices used for measuring the quality of teaching, learning and summary of the index values are mentioned in below.

1. Creating interest in the Subject.
2. Regularity in handling the Classes/E-Classes.
3. Presentation of the Subject.

4. Audibility or Clarity of Speech.
5. Interaction with Students.
6. Clarifying Students Doubts.
7. Fairness in evaluation of I A test and assignment books.
8. Ability to design Quizzes/Tests/Assignments/Examinations and projects to evaluate students understanding of the course.
9. Interact and encourages students to ask question/participation.
10. Fulfillment of course objectives and outcomes.

System of Reward:

Best performing faculty is rewarded by issuing a Letter of Appreciation. Performance rating of faculty through student feedbacksystem is one of the factors in evaluating the annual performance and torelease the annual increment.

Corrective Actions taken:

The faculties performing below average are trained continuously through Faculty Development Program to improve the quality ofthe staff.

Feedback on facilities
Student feedback on facilities, analysis and corrective action taken
Assessment is based on student feedback collection, analysis and corrective action taken.

Feedback on facilities

A standard procedure for feedback on facilities is taken up in the college. Feedback is collected from the students on facilitiesavailable in the college such as Water facility, Internet facility, Canteen facility, Sports and Gymnastic facility, etc.

The feedback is analyzed and the necessary corrective measures are implemented after discussions with the Management.

Following is the process of feedback on facilities.

i. Feedback collection process

ii. Feedback analysis

iii. Corrective measures

i) Feedback collection process:

Different feedback forms are made available on our college websites:
http://tmaespolytechnichpt.com/stakeholders-feedback-forms/Table: Details of feedback collection process:

Item	Description
Feedback collected on all facilities provided by the college.	YES
Feedback collection process	From institute website
Feedback receiver	HODs through website admin

FORMAT of Student Feedback on Facility:
Sample Questionnaires:

- Interaction with the Principal.
- Interaction with HODs.
- Response at the Reception
- Good support/interaction from Office
- Availability of Staff in working Hours.
- Extra Curricular Activities.
- Discipline in Campus.
- Internet facility at Internet Centre
- House Keeping at College Campus
- Drinking Water Facility
- Washroom facilities and maintenance
- Sports Activities
- Mentor-Mentee System
- Are you happy with the food served in the present canteen?
- Are you aware of the NSS Activities in our Technical Board?

Rating of Scale
Poor --- 1 to 3
Average --- 3.01 to 7
Good --- 7.01 to 9
Excellent ---
9.0
1 to 10

Feedback analysis:

The feedback given by the students is consolidated and analyzed. Principal will discuss about the consolidated report with the management and come out with necessary actions.

Corrective measures:

Corrective measures will be implemented at the college level with respect to the decision made by the management.

Career Guidance, Training, Placement

Career guidance for the students is a must so that graduates can discover their strengths and weaknesses before venturing out into the highly competitive world, some Precautionary as well as career-boosting measures need to be taken by graduates.

Career counseling or career guidance process involves individuals (school or college students or professionals) exploring various career options, understanding more about the opportunities, analyzing the career prospects and earning potential. The process also includes an all-inclusive career assessment test which evaluates individuals' interests, strengths and weaknesses, ability/aptitude, personality traits and capabilities. The students are guided by mentors and also career guidance program is conducted regularly.

Soft skills programs will be organized for enhancing the ability the students and to explore them in the competitive world. The career planning workshop organised online during pandemic and also offline. Group Discussion acitivity is organized in the workshop.

Few organizations to name are Art of Living, Bestow education, Entrepreneurship Cell/Technology Business Incubator

CRITERIA – 9

GOVERNANCE, INSTITUTIONAL SUPPORT ANDFINANCIAL RESOURCES

1. GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES

Organization, Governance and TransparencyState the Vision and Mission of the Institute

Vision :
Empowering youth by imparting quality technical education and strive to prepare students with excellent technical skills.
Mission :
1. To offer value added quality technical education & excellent academic training to our students. 2. To provide state of art infrastructure with latest facilities. 3. To strengthen industry institute interaction.

Governing body, administrative setup, functions of various bodies, define rules procedures, recruitment and promotional policies

Sl. No	Name	Designation
1	Sha. Bra. VARASADYOJATHA SHIVACHARYA MAHASWAMIJI	PRESIDENT
2	SRI N.G. NAGANA GOUDA	VICE PRESIDENT
3	SRI T M CHANDRASHEKARIAH	SECRETARY
4	Dr MAHESH	MEMBER
5	Dr RAMESH KUMAR	MEMBER
6	SRI T M SHIVADEVAIAH	MEMBER
7	SRI K M GURUSIDDAIAH	MEMBER
8	SRI BALARAMA SHETTY	MEMBER
9	SRI T M SHIVASHANKAR	MEMBER

Functions of Governing Body:

Roles and Responsibilities of Governing Council of TMAES Polytechnic, Hosapete as per Byelaw of TMAE Society,Harapanahalli

- Governing council responsible to monitor day to day overall affairs of the Institution.
- Governing council responsible to implement guidelines given by Management Committee of TMAE Society, Harapanahalli. It is Responsible to take cooperation, favour and Sympathy from all stake holders.
- To gather Funds required for Management of the Institution and maintenance of audit reports of financial resources of the institution.
- To prepare and submit Annual and supplementary Budget proposals to the TMAE Society Management for approval.Prepare Annual reports and submit it to Management committee of TMAE Society for approval.
- Budget requirement of equipment's, construction and maintenance of \ Building and Academic activities shall be submitted to themanagement committee for approval
- Extension of service after retirement of staff members shall be submitted to the secretary with recommendation if necessary. Verify audit statements from time to time to check its authenticity and correct the audit statements if any deficiencies.
- All expenditure of the institution shall be within the budget approved by TMAES Society, Harapanahalli. Submit Annual report to Management committee of TMAES Society, Harapanahalli.
- Day to day activities of Teaching, Non-Teaching and office staff members shall be monitored by Governing body of the institution initiate appropriate action if any violation of service of the institution.
- Advising and directing the institutes by the Management Committee of TMAES Society, Harapanahalli for overall growth of theinstitution.
- Governing Body shall take advice from senior academic leaders and experts, Industry, Senior legal luminaries, Senior Medicalexperts, achievers and other Known persons of the society for overall growth of the institution.
- Governing Council responsibility to follow diligently rules and regulations prescribed by statutory bodies namely Government,DCTE, AICTE, and other regulatory agencies.
- It is responsibility of governing council to follow guidelines as amended by TMAES Society, time to time to accommodatedynamic changes in technical education, general society and other important segments of the society
- Minutes of the meeting and action taken reportsC Service and Recruitment Rules
- Service rules are constituted by TMAES Society, and is made available to all the departments for the sake of the information to theemployees.

	There shall be three categories of faculty/staff members:
1	Academic: HOD, Selection Grade Lecturer, Lecturer. Technical Support: Instructor, Asst Instructor, Mechanic, Helper.
	Office Staff : Office Superintendents, FDA, SDA, Attender, Group-D.
2	Appointments are made as per AICTE for teaching & Govt. C & R Rules for non teaching posts and the respective posts are approved by the Govt. of Karnataka accordingly. The pay scales have been fixed as per AICTE & State Government norms.
	The Appointing Authority for other non government posts shall be a Governing Council at the institution level includingPrincipal as the Governing Council Member.
	The appointment of staff members at an Institution shall be made by the Governing council by adopting an open and transparent selection procedure namely:
3	Issue of attractive advertisement for the posts at State-level English and KannadaDaily News Papers; Issue of rolling announcement of vacancies in an appropriate site; Adherence of Policy matters given by the Management/Government; Short listing of candidates will be done as per AICTE/DCTE/GOK Norms to meet the requirements. Intimating eligible candidates for the recruitment process after short listing as per norms Setting up Screening Committees to identify candidates to be interviewed; Setting up Selection Committees to interview the identified candidates including the subject expert in the concerned domain; Placing the Selection Committee Reports before the GC for approval;Placing selected candidates in MC Meeting at Management Level Issue of Appointment Letters by the Secretary/Chairman of the Management. List of selected candidates will be sent to Government for final approval (for aided posts)
4	Each appointment shall be normally made against a sanctioned post at the Institute. However, the GC shall have the powers tomake any other appointment/s, after determining and fixing a source of fund for the expenditure.
5	The GC may also consider and appoint well qualified/experienced candidates to theInstitution in various departments/sections.
6	The payscales admissible to the faculty/staff members at the institution shall follow theAICTE/GOK/Management norms and standards.
7	The Service Conditions for all academic, administrative and technical staff members of the institution shall be as prescribed inthe Service Register / Manual of the Management.
8	There shall be a Code of Ethics to be strictly followed by all academic, administrative and technical staff as prescribed by the Management.

Decentralization in working and grievance redressal mechanism

List the names of the faculty members who have been delegated powers for taking administrative decisions

Sl.No	Name	Designation	Department	Role
1	Dr H K Shankarananda	Principal	Administrative	Chairman
2	Sri T M Shivashankar	Tech. Direct.	Administrative	Member
3	Sri T Naziruddeen	HOD	Mechanical	Member
4	Sri N Mahesh Kumar	HOD.	E&CE	Member
5	Sri G Chandrashekar	HOD	CS&E	Member
6	Sri Dhanjujaya G H	HOD	Automobile	Member
7	Sri Shivaraj B H	HOD	Science	Member
8	Sri K Manjana Gouda	Sl.Gr.Lect	E&EE	Member
9	Sri K Laxmi Reddy	Sl.Gr.Lect	Civil	Member
10	Sri Yogananda T L	In charge HOD	Metallurgy & Mining	Conveyor

Grievance Redressal Mechanism:

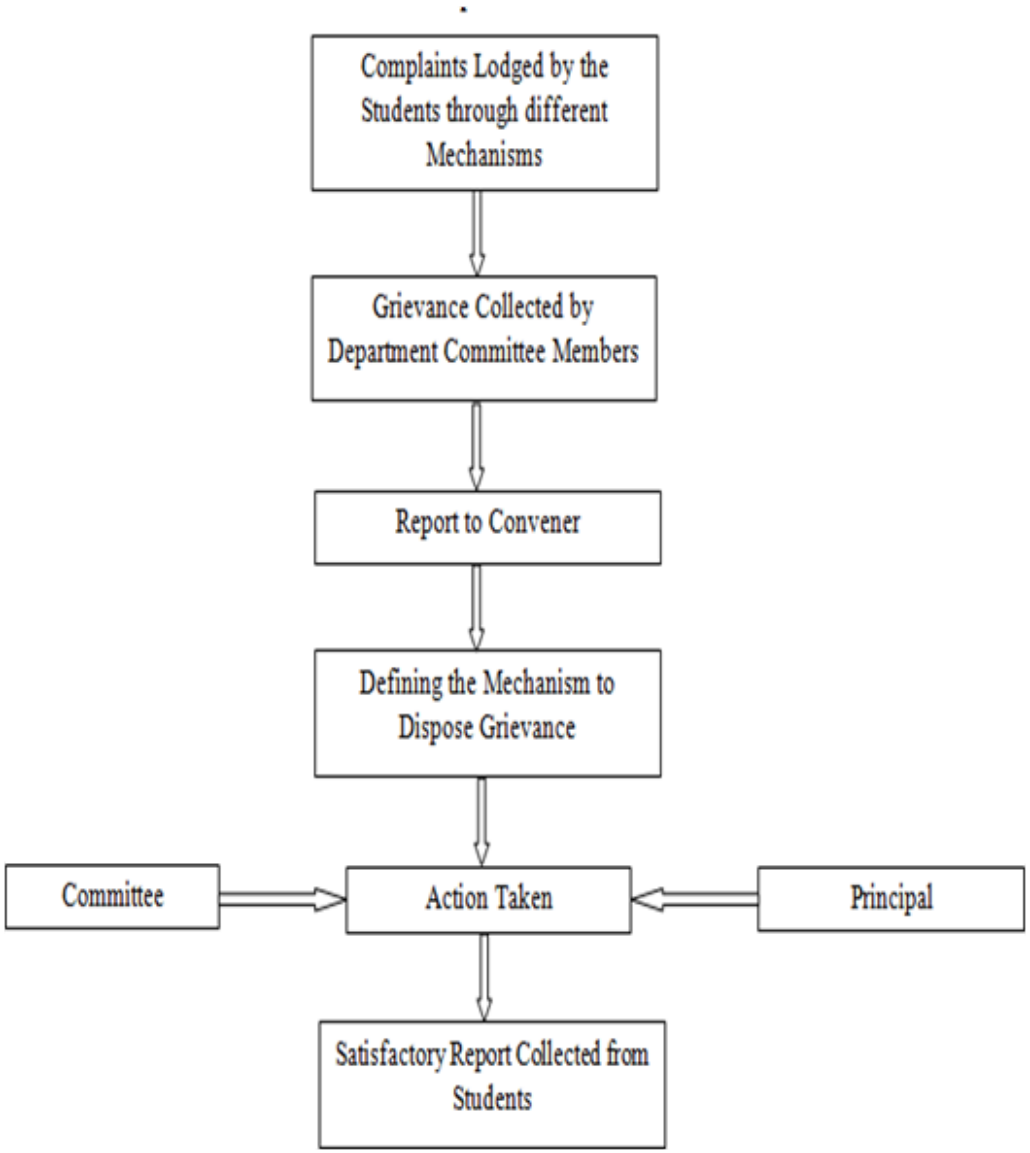
The function of the cell is look into the complaints lodged by any student if any and then judge its merit. The grievance cell is also empowered to look into matters of harassment. Anyone with a genuine grievance may approach the department members in person or in consultation with officer in-charge student's grievance cell. In case person is unwilling to appear in self, grievance may be dropped in writing at the letter box/suggestion box of the grievance cell at administrative block.

Mechanism adopted to collect the Grievances at the institute

- Suggestion / complaint Box is installed in which the students, who want to remain anonymous, put in writing their
  Grievances and their suggestions for improvement of the Academics / Administration in the College.

- Providing Online submission of Grievances in the institute website for both staff & students

- Written Complaint to Principal and Committee member of the department orally to the respective Department committee member, HODs & Principal


Complaints Lodged by the Students through different Mechanisms
Grievance Collected by Department Committee Members
Report to Convener
Defining the Mechanism to Dispose Grievance
Committee
Action Taken
Principal
Satisfactory Report Collected from Students

Sl. No	Name	Designation	Role in the committee
1	Dr. H. K. Shankarananda	Principal	Chairman
2	Sri Srinivas Meti	CPI	Member
3	Sri Shivashankar Banagere	Press Reporter	Member
4	Sri H Raghavendra Rao	NGO	Member
6	Sri G Chandrashekar	HOD, CS	Member
7	Sri T Sathyanarayana Rao	HOD, Sci	Member
8	Sri T Naziruddeen	HOD, Mech	Member
9	Sri D M Shivakumar	FDA	Member
10	Sri T Arun Kumar	Asst Instructor	Member
11	Sri Rishab Palrecha	Student	Member
12	Sri Kirna Kumar	Student	Member
13	Sri Sathyasai Srinivas	Student	Member
14	Sri Manoj Subramaniyam	Student	Member
15	Ms Anusha	Student	Member

Delegation of financial powers:
Financial powers are delegated/authorized to Principal by the management to spend up to Rs. 25,00,000(Rupees Twenty five thousand) and theHOD's of all the departments of this Institute are also authorized to spend up to Rs.5,000(Rupees Ten Thousand) for academic purposes.

Transparency and availability of correct/unambiguous information in public domain

Dissemination and Availability of institute/program specific information through the web:

The institute has hosted its own website which is updated regularly. The institute and Program specific information is madeavailable to all aspirants through the web- site.The web-site URL is:
https://www.tmaespolytechnichpt.com

Table: URL Links

1	Institution Mission & Vision	https://tmaespolytechnichpt.com/vision-mission/
2	Audited Statements	https://tmaespolytechnichpt.com/mandatory- disclosures/
3	NSS	https://tmaespolytechnichpt.com/student- support/nss/
4	Placement	https://tmaespolytechnichpt.com/placements/
5	AICTE Mandatory	https://tmaespolytechnichpt.com/mandatory- disclosures/
6	Important Links: AICTE/DCTE/MHRD/SWAYAM/NPTEL/NDL	https://tmaespolytechnichpt.com/important-links/

Budget Allocation, Utilization, and Public Accounting at Institute level (10)

Summary of current financial year's budget and actual expenditure incurred (for the institution exclusively) in the three previousfinancial years

TABLE-Consolidated budget received -Expenditure in CFY,CFYm1,CFYm2,CFYm3

Item	Budget in CFY 2022-23	Actual Expense in CFY 2022-23	Budget in CFY 2021-22	Actual Expense in CFY 2021-22	Budget in CFY 2020-21	Actual Expense in CFY 2020-21
Infrastructure Built-Up	70,000	65,086	75,000	50,000	1,40,000.00	1,36,198.00
Library	70,000	64,000	75,000	53,400		Nil
Laboratory Equipment	7,50,000	7,24,689	2,50,000	2,49,739	3,70,000.00	3,64,531.00
Laboratory Consumables	4,00,000	3,81,072	3,40,000	3,39,470	60,000.00	56,373.00
Teaching and Non Teaching Staff Salary	143000000	142825062	13,66,00,000	13,65,48,371	11,46,50,000.00	11,46,33,212.00
Maintenance and Spares	10,50,000	10,35,354	9,17,000	9,16,932	6,80,000.00	6,77,803.00
R & D				Nil		Nil
Training and travel	2,00,000	1,75,701	30,000	26,960	35,000.00	30,470.00
Miscellaneous expenditure	110000	1,00,534	75000	73,713	65,000.00	62,295.00
others/Specify			39,00,000	38,38,083	46,20,000.00	46,13,766.00
Total	**14,56,50,000**	**14,53,71,498**	**14,22,62,000**	**14,20,96,668**	**12,06,20,000.00**	**12,05,74,648.00**

Table 1 – CFYm1 2022-23

Total Income in CFY			***Actual expenses in CFY***			***Total no. of Students in CFY(1120)***
Fee	*Govt. Grants*	*Any other Sources*	*Recurring including Salaries*	*Non-Recurring*	*Special Projects/Any other specify*	*Expenses per student*
1,15,09,959.00	**13,76,58,118.00**	**2,75,692.00**	**15,04,05,841.00**	**8,67,899.00**	**Nil**	**12,157.00**

Table 2 – CFYm2 2021-22

Total Income in CFY			***Actual expenses in CFY***			***Total no. of Students in CFY(1091)***
Fee	*Govt. Grants*	*Any other Sources*	*Recurring including Salaries*	*Non-Recurring*	*Special Projects/Any other specify*	*Expenses per student*
1,03,29,409.00	**13,11,13,647.00**	**2,51,460.00**	**14,16,40,282.00**	**2,64,425.00**	**Nil**	**9,891.00**

Table 3 – CFYm3 2020-21

Total Income in CFY			***Actual expenses in CFY***			***Total no. of Students in CFY(999)***
Fee	*Govt. Grants*	*Any other Sources*	*Recurring including Salaries*	*Non-Recurring*	*Special Projects/Any other specify*	*Expenses per student*
88,18,408.00	**11,05,82,250.00**	**2,58,680.00**	**12,00,73,919.00**	**5,00,729.00**	**Nil**	**10002.00**

Adequacy of Budget Allocation

The Budget proposal for the academic year is prepared by the individual departments as per the guidelines by TMAE Society and Principal office. The collective budget proposals are scrutinized by the budget committee at the college level and further taken to governing council and management council for approval and sanction. Once it is sanctioned, the Principal will issue the budget orderaccordingly. The budget allocation and utilization for the last three years are adequate.

Utilization of allocated funds

Utilization of allocated fund during 2020-23

YEAR	2022-23	2021-22	2020-21
Utilization of the Budget (%)	83.5	94.9	98.5

Availability of the audited statements on the institute's website

Audited statements for the financial years 2018-19, 2019-20, 2020-21, 2021-22 are available in our institute website

URL: http://tmaespolytechnichpt.com/mandatory-disclosures/

Department Specific Budget Allocation, Utilization

Budget will be allocated to every department at the beginning of the academic year based on the estimation submitted by the concerned HOD. Itwill be sanctioned after the approval from the management.

Table 1: CFY 2022-23

Total Budget: 85000		Actual expenditure (till…): 70935	
Non Recurring	Recurring	Non Recurring	Recurring
10000	75000	--	70935

Table 2: CFYm1 2021-22

Total Budget 160000		Actual expenditure (till…): 151829	
Non Recurring	Recurring	Non Recurring	Recurring
110000	50000	101996	49833

Table 3: CFYm2 2020-21

Total Budget 132000		Actual expenditure (till…): 129966	
Non Recurring	Recurring	Non Recurring	Recurring
120000	12000	119432	10534

Table 4: CFYm3 2019-20

Total Budget 40000		Actual expenditure (till…): 27339	
Non Recurring	Recurring	Non Recurring	Recurring
10000	30000	--	27339

Adequacy of Budget Allocation (2)

The adequate budget will be sanctioned by the management for the purchase of equipments and consumables at the beginning of every financial year. The principal calls for indent from each department. The HODs meeting will be called by the principal to discuss about budget availability and the requirements for the academic year. A consolidated report will be prepared by the principal after the meeting and the same will be forwarded to the management. The management will scrutinize the budget requirement and a sanction letter will be sent to the principal

Utilization of allocated funds (3)

Year	Non-Recurring Budget		Recurring Budget		Utilization	
	Sanctioned	Expenditure	Sanctioned	Expenditure	Non-Recurring	Recurring
2020-21	120000	119432	12000	10534	99.5%	87.8%
2021-22	110000	101996	50000	49833	92.7%	99.7%
2022-23	10000	--	75000	70935	0	94.6%

Library and Internet (20)

(It is assumed that zero deficiency report was received by the institution, Effective availability and utilization to be demonstrated)

Quality of learning resources (hard/soft) (10)

Our institute library has sufficient number of books, Journals, Technical Magazines; E-Books are available in Digital Library(Language Lab). Our faculty members are registered with NDL. Students are insisted to get registered to NDL.

The details of Books & Journals availability is given below:

Department	Titles	Volumes
Automobile	188	950
Comp Science	1002	4156
Civil	637	3583
E & C	886	4826
E & E	393	2160
Mechanical	856	6207
Metallurgy	48	291
Mining	83	492
Science	287	2223
General	84	125
Total	**4469**	**25113**

List of Journals available in the Library:

Sl. No.	Title of Journal
1	Indian Journal of Information Sciences and Computer Application
2	Indian Journal of Mechanics and Thermodynamics
3	Indian Journal of Physics and Applications
4	Indian Journal of Materials in Civil Engineering
5	Advances in Wireless and Mobile Communications
6	Indian Journal of Advances in Electrical Engineering
7	Indian Journal of Modern Automobile Engineering
8	Indian Journal of Civil Mechanical Engineering
9	Indian Journal of Production and Quality Testing
10	Indian Journal of Automobile Engineering
11	Indian Journal of Construction Engineering and Technology
12	Indian Journal of Mechatronics
13	Indian Journal of Simulation and Wireless Communication
14	Indian Journal of Modern Software Engg.
15	Indian Journal of Networks and Applications
16	Indian Journal of Materials Physics

Internet (10)

Name of the Internet provider	BSNL FTTH
Available band width	up to 100Mbps
Wi-Fi availability	YES
Internet access in labs and office	YES
Security arrangements	YES

Institutional Contribution to the Community Development (5)

We have NSS wing the institute and our NSS Coordinators will identify few villages and along with volunteers organize various community development and awareness programs at identified villages regularly. These programs will be organized in every semester with the active participation of students and NSS volunteers. There will be one special camp every year. The major objective of the program is to create awareness among public regarding cleanliness, plantation, health care etc.,

Photographs below through some lights on various activities organized under NSS camp.

Various other community development programs will be organized in every semester shown below:

1) Plantation Program:

2) National Voters Day Oath taking program

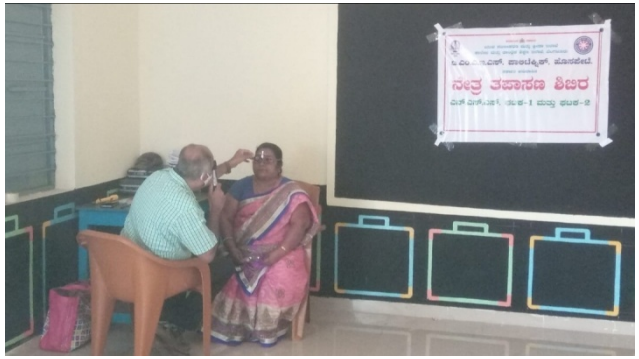
3) General Health Checkup Camp for staff & Students

4) Covid Vaccination Program at the institute with the support of Local Health Dept:

5) Covid Test (Rapid Test) Program to follow the SOP Guidelines given by Health Dept

6) Participation in Road Safety week organized by Department of Traffic Police, Hosapete

7) Free Eye Checkup Camp for the public.



8) National Youth day celebration

INDUCTION PROGRAM FOR FIRST SEMESTER STUDENTS OF THE ACADEMIC YEAR 2023-24

YOGA & MEDITATION

SEMINAR ON PERSONAL HEALTH CARE FOR GIRLS

STUDENTS ATTENDING LECTURE ON "SANKALPANA -2047"

SECOND SEMESTER STUDENTS AND STAFF ATTENDED THE PROGRAM ON ACCOUNT OF 161ST BIRTHDAY OF SWAMY VIVEKANANDA
OUR STUDENT GOT SECOND PRIZE IN SPEECH COMPETITION ON PERSONALITY DEVELOPMENT

Alumni Performance and Connect

Alumni Committee has been constituted having following staff members

Sl. No.	Name	Designation	Role in Alumni Committee
1	Dr. H K Shankarananda	Principal	Secretary
2	Sri. T L Yogananda	I/c HOD, MN/MT	Joint Secretary
3	Sri. N Mahesh Kumar	HOD/EC Dept	Coordinator/Treasurer
5	Sri. Shankar Babu	Lecturer/CE Dept	Member
6	Sri. Gavisiddappa	Sl. Gr. Lecturer/ME Dept	Member
7	Sri. S S Siriyannavar	Sl. Gr. Lecturer/AT Dept	Member
8	Smt. Rekha M	Sl. Gr. Lecturer/EC Dept	Member

Several activities organized in coordination with alma mater both offline & online

Alumni connect activity is done through social media platform. Meetings will be organized to discuss about academic progress.

Declaration

The head of the institution needs to make a declaration as per the format given -

I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines in force as on date and the institutes hall fully abide by them.

It is submitted that information provided in this Self-Assessment Report is factually correct.
I understand and agree that an appropriate disciplinary action against the Institute will be initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, post visit and subsequent to grant of accreditation.

Head of the Institute
Name: Dr. H K SHANKARANANDA
Designation: PRINCIPAL

Signature:

Seal of the Institution:

Place : Hosapete
Date: 01.02.2024